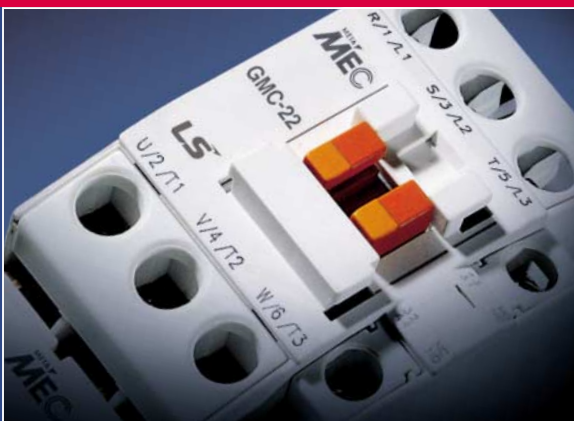


Meta-MEC  
**Contactors  
And Overload Relays**



Electric Equipment

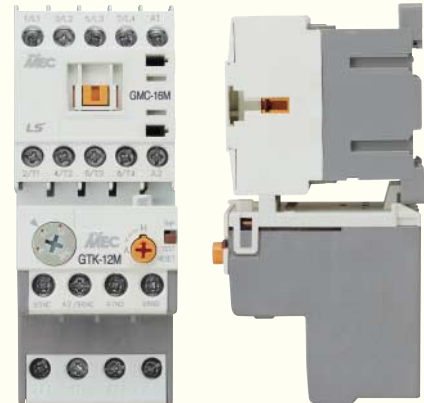


Environmental policy and RoHS compliance	4 ~ 5
General descriptions	6 ~ 13
Catalog numbering system	16 ~ 17
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## Mini contactors & Mini overload relays

6A 9A 12A 16A

Contactors, AC control	24
Contactors, DC control	26
Starters	50
Reversing contactors, AC control	61
Reversing contactors, DC control	63
Contactor relays	74
Overload relays	87
Accessories	113



### Accessories for Mini contactors & Overload relays

Auxiliary contact blocks	110
Timer unit	112
Surge absorber unit	112
Separate mounting unit	113
Interlock unit	113
Solder pin terminals	113
<b>Electrical lifespan</b>	150
<b>Dimensions</b>	160

## Contactors & Overload relays

9A ~ 800A



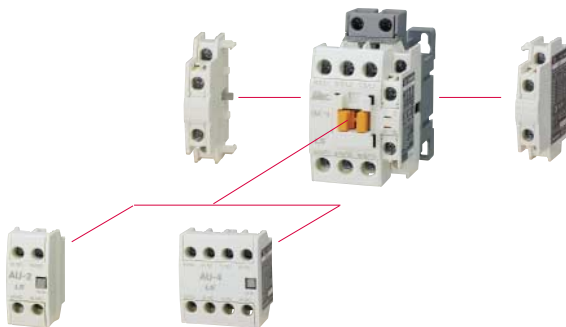
3-pole contactors	28
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Motor starters, open	50
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Reversing contactors	66
Latching contactors	70
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Capacitor contactors	76
2-pole DC contactors	77
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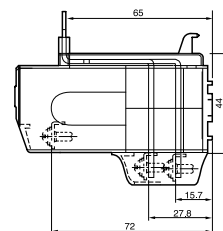
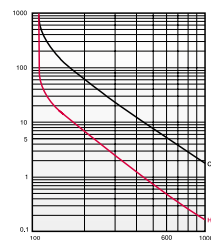


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<b>Accessories</b>	
Auxiliary contact blocks	114
Interlock units	116
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# Environmental policy and

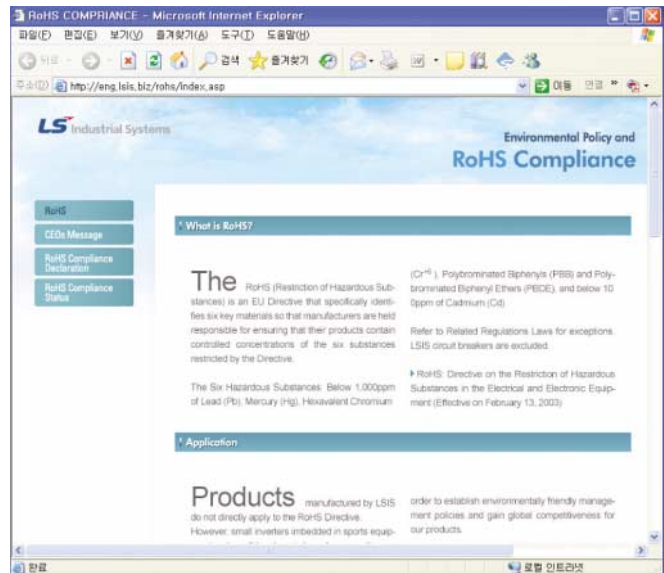
## RoHS compliance

### What is RoHS?

The RoHS (Restriction of Hazardous Substances) is an EU Directive that specifically identifies six key materials so that manufacturers are held responsible for ensuring that their products contain controlled concentrations of the six substances restricted by the Directive.

The Six Hazardous Substances: Below 1,000ppm of Lead (Pb), Mercury (Hg), Hexavalent Chromium (Cr+6), Polybrominated Biphenyls (PBB) and Polybrominated Biphenyl Ethers (PBDE), and below 100ppm of Cadmium (Cd).

▶ **RoHS : Directive on the Restriction of Hazardous Substances in the Electronic Equipment (Effective on February 13, 2003)**



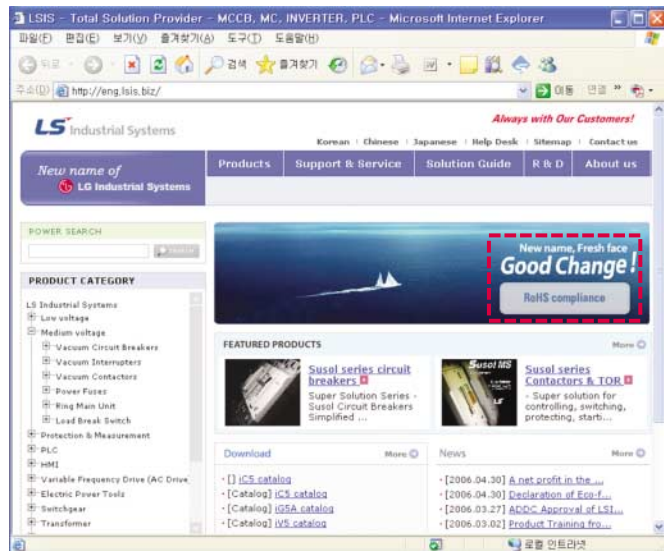
### Application

Products manufactured by LSIS do not directly apply to the RoHS Directive.

However, small inverters imbedded in sport equipment and small breakers in large home appliances can be indirectly applied to the Directive.

LSIS continues to comply with the RoHS directive in order to establish environmentally Friendly management policies and global competitiveness for our products.

According to the Law, eight of the 10 WEEE products excluding 'medical equipment' and 'control systems' must be RoHS compliant.





# Declaration of RoHS Compliance

LS Industrial System Co.,Ltd  
 Yonsei Jaedan Severance Bldg.,84-11, Namdaemunno 5-ga,  
 Jung-gu, Seoul. 100-733, Korea (Manufacturer)

Do hereby confirm that

With relevance of the EU Directive 2002/95/EC of 27 January 2003 on the Restriction of the use of certain Hazardous Substances in electrical and electronic equipment –RoHS , our listed products do not contain any of the following banned substances listed below :

Lead  
 Mercury  
 Cadmium  
 Hexavalent Chromium  
 Polybrominated Biphenyls (PBB)  
 Polybrominated Diphenyl Ethers (PBDE)

The following products sold as of July 1, 2006 will be RoHS compliant.

## Products Note)

Molded Case Circuit Breaker (MCCB)  
 Earth Leakage Circuit Breaker (ELCB)  
 Magnetic Switch (MC,TOR)  
 Manual Motor Starter (MMS)  
 Protection & Measurement device  
 Programmable Logic Controller (PLC)  
 Variable Frequency Drive ( AC Driver)

**Note)** Please visit [www.lsis.biz](http://www.lsis.biz) and see "RoHS Compliance" menu to verify the specification of each product's "RoHS Compliance"

Place/Date : Korea/ April 4, 2006

**LS Industrial Systems**

President & CEO **Chung-Man KIM**



# Contactors

**META MEC** provide complete ranges not only for 3-pole but also for 4-pole up to 800A

## 3-pole contactors

20 rating classes in 8 sizes  
AC/DC controls are available



Frame size (A)	6	9	12	16	18	22	32	40	50	65	75
Power(kW, 400V)	2.2	4	5.5	7.5	7.5	11	15	18.5	22	30	37
NEMA size		00			0		1		2		



## 4-pole contactors

19 rating classes in 7 sizes  
AC/DC controls are available  
Overloads are directly mountable.  
Main accessories are common use with 3-pole

3 and 4 pole Contactors up to 800A

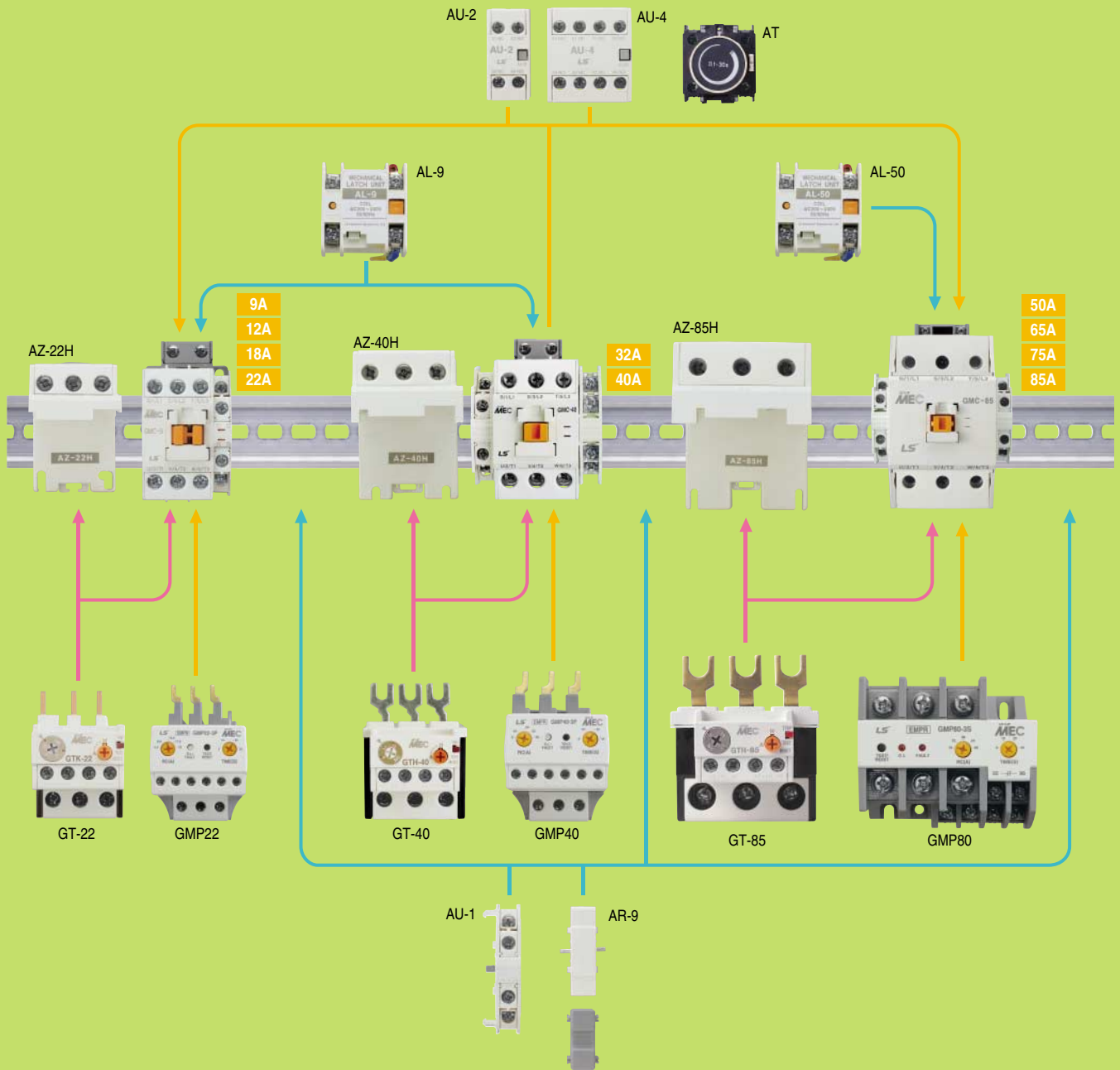


85	100	125	150	180	220	300	400	600	800
45	55	60	75	90	132	160	220	330	440
3			4			5		6	



# Contactors & Accessories

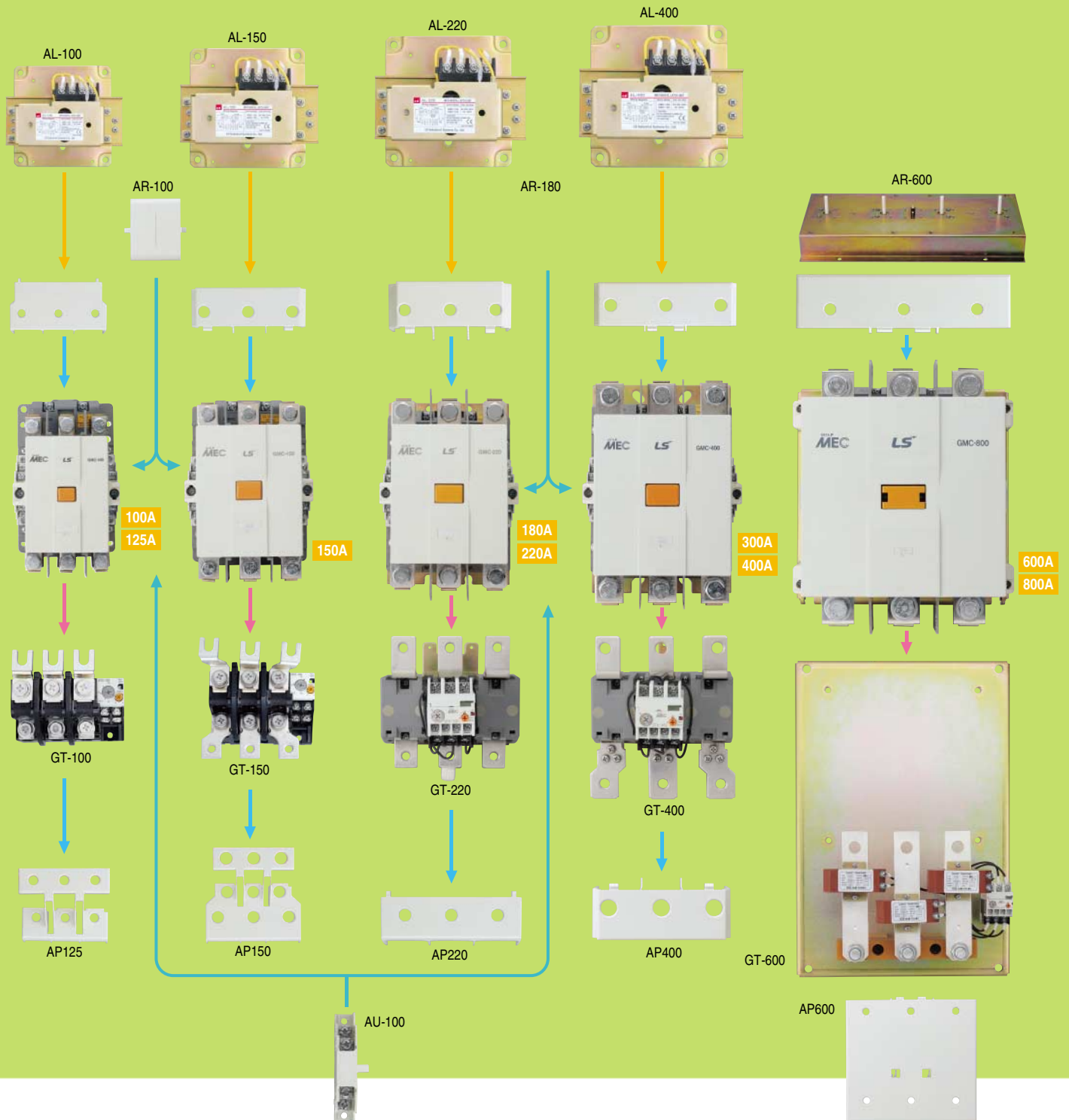
## Layout up to 85A frame size



GM	GT	GMP	AU	AL	AZ	AR	AT	AP
Contactors	Overload(Bimetallic) relay	Overload(Solid-state) relay	Aux. contact	Latch unit	Separate mount unit	Interlock	Pneumatic timer	Terminal cover



## Layout above 100A to 800A frame size



# Mini contactors

## Mini contactors providing various connections and Accessories

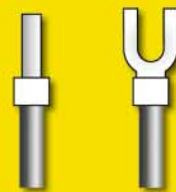
### Ratings

Frame size	AC3 ratings (IEC60947-4)				AC1 rating Ith
	220 ~ 240V	280 ~ 440V	500 ~ 550V	690V	
6A	1.5kW	2.2kW	3kW	3kW	20A
	7A	6A	5A	4A	
9A	2.2kW	4kW	3.7kW	4kW	20A
	9A	9A	6A	5A	
12A	3kW	5.5kW	4kW	4kW	20A
	12A	12A	7A	5A	
16A	4kW	7.5kW	5.5kW	4kW	20A
	15A	16A	9A	5A	

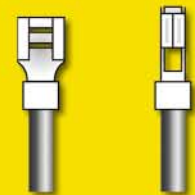
### Screw clamps



### Fast-on



For conventional  
screw connections



For fast-on  
connections



Mini-overload relay



Overload relay  
separately mounted

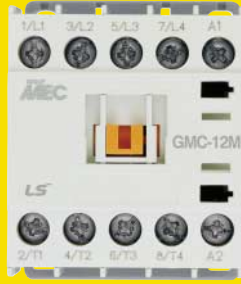


Reversing contactor

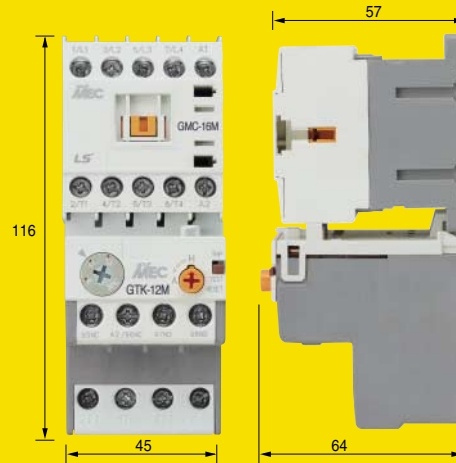
### Cage clamps



### Solder pins



### Dimensions, mm



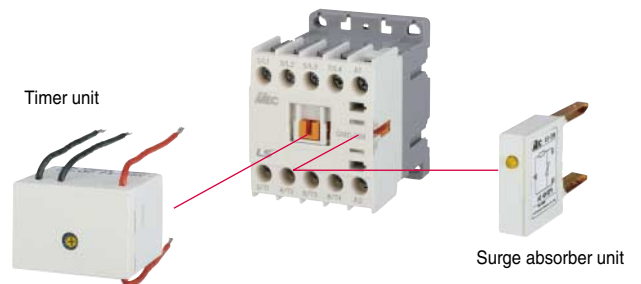
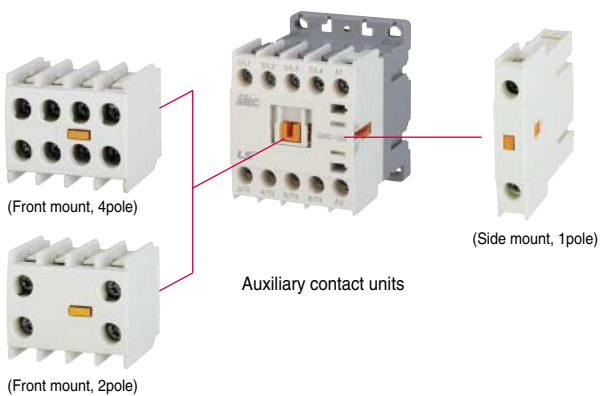
(Screw clamp type)



For screwless connections



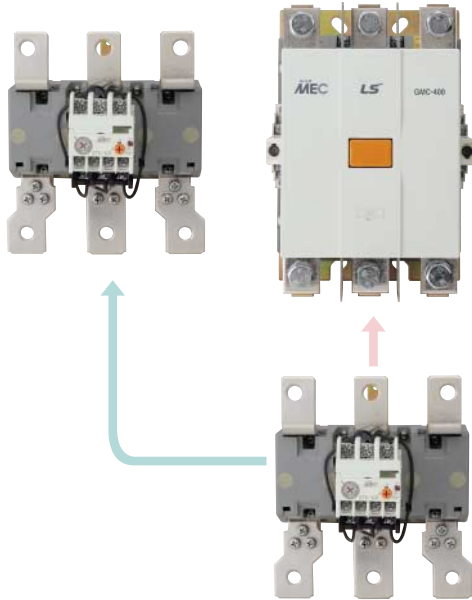
To mount on printed circuit boards



# Overload relays

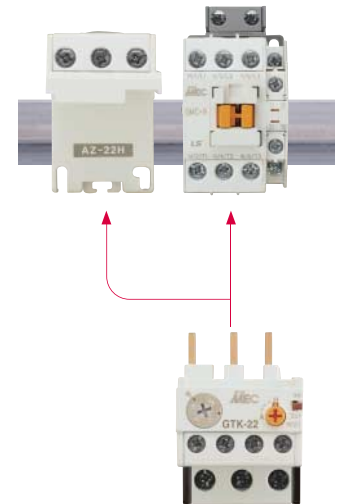
## Thermal (Bimetallic) style up to 800A

GT type overload relays are designed for the easy mounting directly to contactors or separately by using additional bases or brackets.

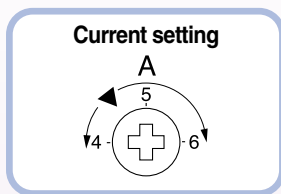


**Relays frame current over 80A**  
Separate mount on panel with screws.  
Bracket is required by type.

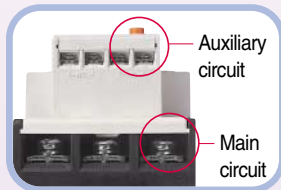
**Relays frame current up to 80A**  
Optional bases are used to mount the relays separately either on 35mm DIN rail or on panel with screws.



## Overload relay structure



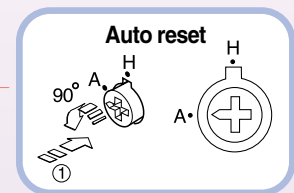
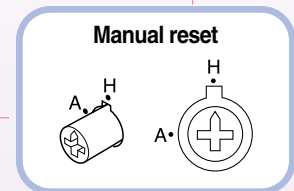
Finger proof design



Main and auxiliary terminals are arranged to keep people from wrong wiring for the low current frame relays.



The bar indicator to be protruded by 2-3mm to indicate trip status visibly. Push it to reset the relay in the case of using manual reset mode.



To set "Auto reset" mode push the orange bar and rotate it 90 degrees count clockwise.

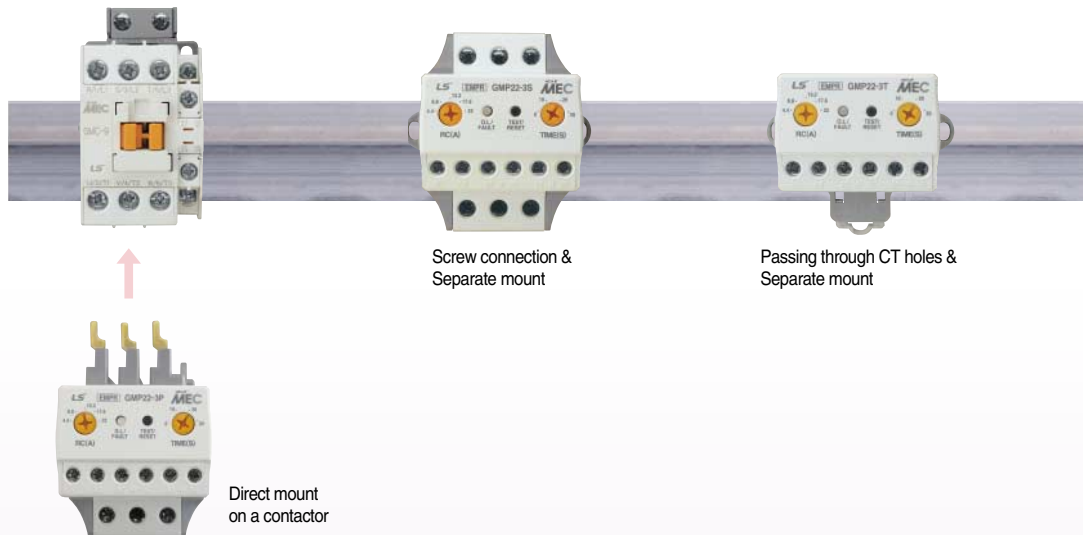


## Electronic style up to 80A

### Multi-protection

Number of sensors Types ( GMP- □ )	2CT (-2P, -2T, -2S)	3CT (-3P, -3T, -3S)	3CT (-3PR, -3TR, -3SR)
Overcurrent	○	○	○
Phase loss	○	○	○
Locked rotor	○	○	○
Phase unbalance		○	○
Phase reversed			○

### Various connection



### Broad range of current/time setting

**Current setting**

Type GMP22  
0.3-1.5A  
1-5A  
4.4-22A

Type GMP40  
4-20A  
8-40A

Type GMP80  
16-80A

**LED indicator**

Operation status indication

- Normal operating
- Overload
- Phase unbalance

Trip cause indication

- Overcurrent
- Phase loss
- Reverse phase

**Trip time setting**

- Trip class 5 to 30  
(5 to 30 sec at 6 x set current)

**Test / Reset button**

Hot

Cold

600% of set current

### Electronic protection type up to 60A with Micro controller unit & Digital display part

#### General digital type motor protection relays using MCU(Micro Controller Unit)

- Real time processing and high precision



DMP□-S & DMP□-Sa



DMP□-T & DMP□-Ta



#### Both screw type and tunnel type wrings are available in a DMP-E Type D-EMPR

- Simply detach the screw terminal, you can use it by the tunnel type relay

#### General digital type motor protection relays using MCU(Micro Controller Unit)

- Real time processing and high precision

#### Multiple protection

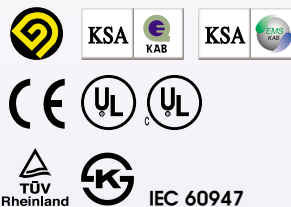
Protection	DMP□-S/Sa	DMP□-SZ/SZa	DMP□-SI	DMP□-T/Ta	DMP□-TZ/TZa	DMP□-TI
Wiring	Screw type			Tunnel type		
Over current	■	■	■	■	■	■
Under current	■	■	■	■	■	■
Stall	■	■	■	■	■	■
Lock	■	■	■	■	■	■
Phase failure	■	■	■	■	■	■
Revers phase	■	■	■	■	■	■
Asymmetry	■	■	■	■	■	■
Ground fault		■			■	
Short circuit			■			■

#### Install the Unit/ Extension type in one body

The display part may be separated from the body  
You can check the values and the causes of the fault without opening the distribution panel door



\*Fig. (D-EMPR in the MCC unit)



#### Standard:

IEC60947-1, IEC60947-4-1, IEC60947-5-1, UL508, KSC4504

#### Certification & approval:

CE, UL, cUL, Lloyd register, Korea register, KS, ISO 14001, ISO 9001 (Including proceedings)

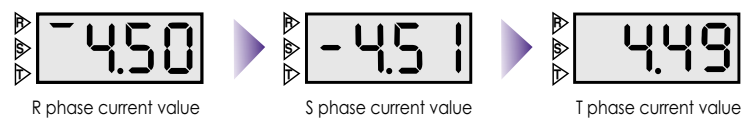
### Display the causes of the fault and the values

Prompt A/S by looking the LED panel which displays the causes of the fault and the values



### 3phase digital ampere-meter function (Digital ampere-meter)

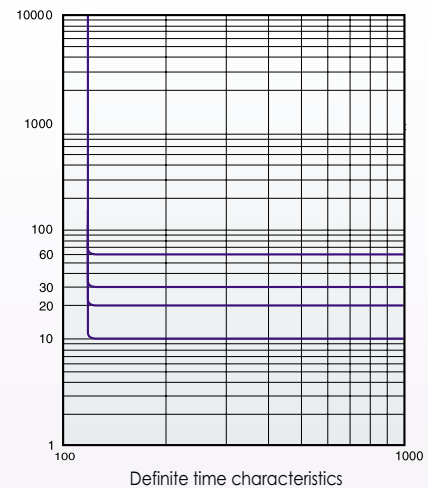
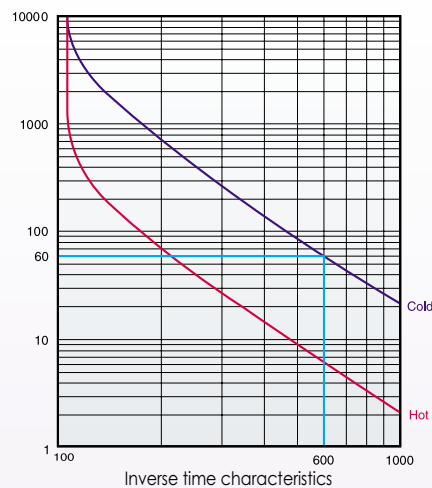
Additional ampere-meter is not needed



### Motor load rate(%)

Easy to check the motor load condition

### Selectable either the inverse time or definite time characteristics



### Applicable to inverter control circuit

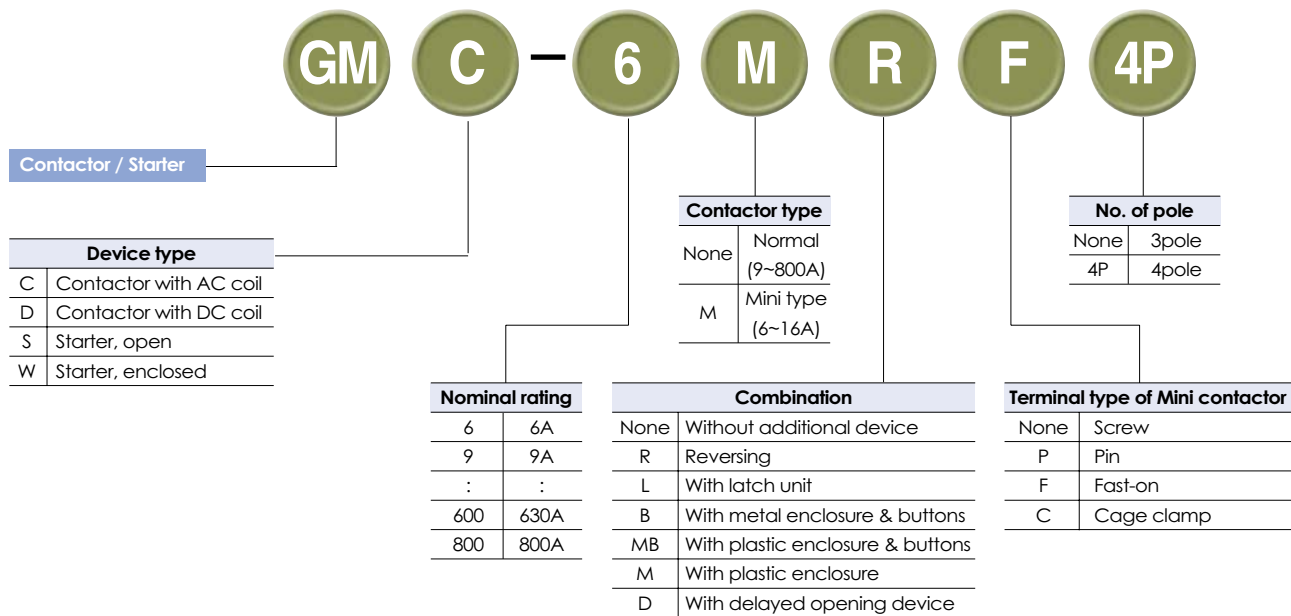
LS DMPR has high performance under the harmonic noise and can be used in the Inverter control circuit (20~200Hz)

### Elegant design

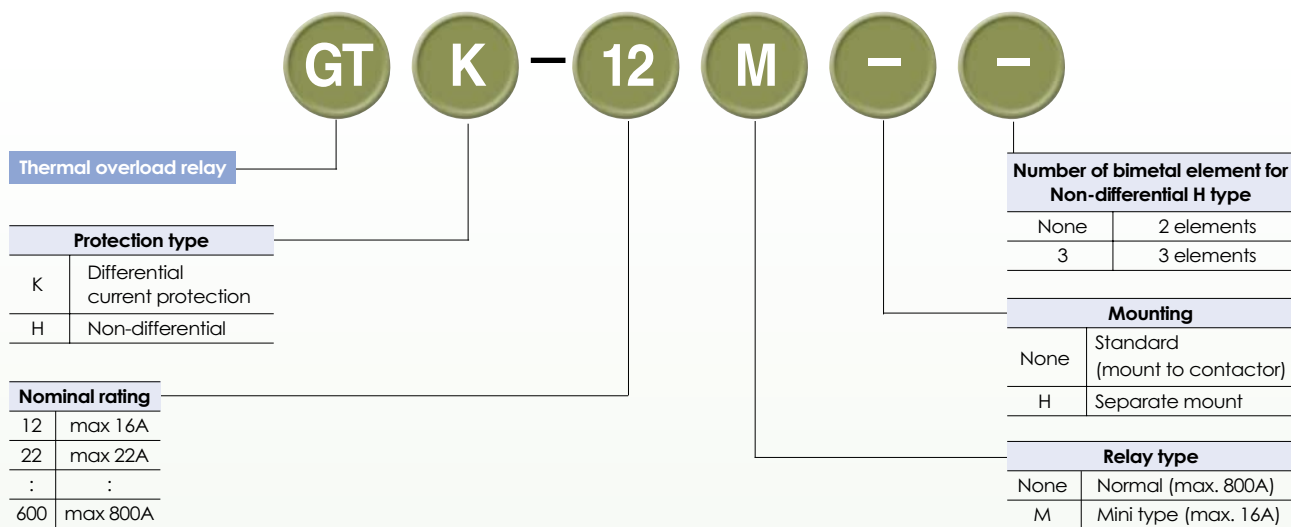
High class product image by the elegant design

# Catalog numbering system

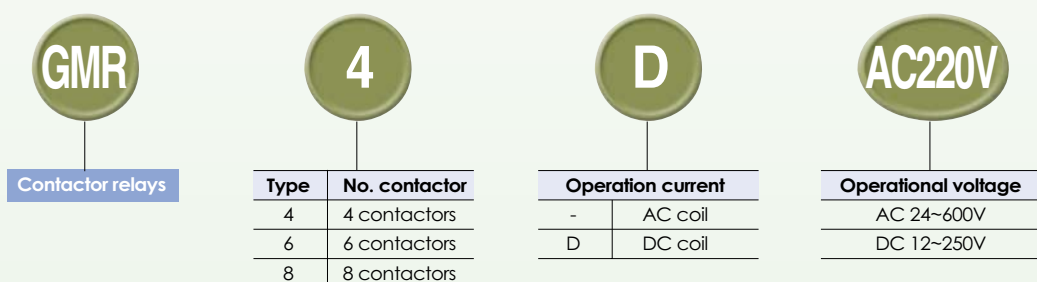
## Contactor & Starters



## Thermal overload relay



## Contactor relay





## Electronic motor protection relay

<b>GMP</b>	<b>22</b>	<b>2</b>	<b>P</b>	<b>R</b>	<b>220</b>	
<b>Frame</b>	<b>Current setting value</b>	<b>Type</b>	<b>CT No.</b>	<b>Wiring method</b>	<b>Reverse phase</b>	<b>Operating voltage</b>
22	0.3~1.5A	Direct/	2	P Pin type	- Without reverse phase protection	- AC100~260V
	1~5A		3	S Screw type	R With reverse phase protection	220 AC220V
	4.4~22A	Tunnel		T Tunnel type		110 AC110V
40	4~20A	Screw/				
	8~40A					
80	16~80A	Screw				

<b>Frame</b>	<b>Current setting value</b>	<b>Type</b>	<b>Operating voltage</b>
60	0.5~6A	Tunnel	24 AC 24V
	3~30A		110 AC85~120V
	5~60A		220 AC180~260V
			380 AC380(440V)

## Digital motor protection relay (DMP 06-SZ 220)

<b>DMP</b>	<b>06</b>	<b>S</b>	<b>Z</b>	<b>a</b>	<b>220</b>
<b>Current setting range</b>	<b>Wiring method</b>	<b>Option</b>	<b>Type</b>	<b>Operating voltage</b>	
06 0.5~6A	S Screw type	- Standard	- Standard	220 AC220V	
60 5~60A	T Tunnel type	Z Ground fault	a Memory function	110 AC110V	

\* RThe standard length of a extension cable is 1.5m, 2m, 4m cable is optional

\* RFor ground fault protection, ZCT (30Ø, 50Ø, 65Ø, 80Ø)made by LS is optionally required

\* Type "a": It has additional functions like as setting operation time by month or by hour, checking & storing operating time

## Auxiliary contactors

<b>AU</b>	<b>100</b>		
<b>Auxiliary contactors</b>			
<b>Type</b>	<b>No. of contactor</b>	<b>Mounting</b>	<b>Applied MC</b>
2	2 contactor	TOP	GMC-9~85
4	4 contactor		
1	2 contactor	Side	
100	2 contactor	Side	GMC-100~800

## Mechanical interlock unit


<b>AR</b>	<b>100</b>	<b>V</b>
<b>Interlock unit</b>		<b>Position</b>
		- Horizontal
		D Vertical
<b>Type</b>	<b>Applied MC</b>	
9	GMC-9~85	
100	GMC-100~150	
180	GMC-180~400	
600	GMC-600~800	

## Accessories

<b>Devices</b>	<b>Type</b>	<b>Example of suffix</b>
Auxiliary contact unit	<b>AU</b>	<b>2</b>
Interlock unit	<b>AR</b>	<b>100</b>
Delayed opening device	<b>AD</b>	<b>9</b>
Latching unit	<b>AL</b>	<b>9</b>

# Quick selection table

## Contactors ... 9 to 85A

Frame size		9A		12A		18A		22A	
<b>3-pole Contactors</b>									
		See page 26 for more details							
Types	AC coil	GMC-9		GMC-12		GMC-18		GMC-22	
	DC coil	GMD-9		GMD-12		GMD-18		GMD-22	
<b>Ratings / IEC60947-4</b>		kW	A	kW	A	kW	A	kW	A
AC1		<b>25</b>		<b>25</b>		<b>40</b>		<b>40</b>	
AC3	200/240V	2.5	11	3.5	13	4.5	18	5.5	22
	<b>380/440V</b>	<b>4</b>	<b>9</b>	<b>5.5</b>	<b>12</b>	<b>7.5</b>	<b>18</b>	<b>11</b>	<b>22</b>
	500/550V	4	7	7.5	12	7.5	13	15	22
	690V	4	5	7.5	9	7.5	9	15	18
<b>Ratings / UL508</b>		hp	A	hp	A	hp	A	hp	A
continuous current		20		25		30		32	
single phase	115V	0.5		0.5		1		2	
	230V	1		2		3		3	
three phase	200V	2		3		5		7	
	230V	2		3		5		7.5	
	<b>460V</b>	<b>5</b>		<b>7.5</b>		<b>10</b>		<b>10</b>	
	575V	7.5		10		15		15	
NEMA size		00		00		0		0	

### Additional auxiliary contacts

See page 112 for more details





2-pole Front mount







4-pole Front mount





2-pole Side mount

<b>4-pole Contactors</b>									
		See page 38 for more details							
									
		See page 38 for more details							
Types	AC coil	GMC-9/4		GMC-12/4		GMC-18/4		GMC-22/4	
	DC coil	GMD-9/4		GMD-12/4		GMD-18/4		GMD-22/4	
AC1(A)		<b>20</b>		<b>20</b>		<b>25</b>		<b>32</b>	

## Overload Relays

<b>Bimetallic style</b>					
<b>Type GT</b>		See page 77-88 for more details			
					
		Base for separate mount			
		<b>Setting ranges (A)</b>			
		0.1 - 0.16 0.16 - 0.25 0.25 - 0.4 0.4 - 0.63 0.63 - 1 1 - 1.6 1.6 - 2.5 2.5 - 4			
		4 - 6 5 - 8 6 - 9 7 - 10 9 - 13 12 - 16 16 - 22			
Class10A	Differential	GTK-22			
	Non-differential (3-heater)	GTH-22/3			
	Non-differential (2-heater)	GTH-22			
Class 20	Differential	GTK-22/L			
<b>Electronic style</b>					
<b>Type GMP</b>		See page 98-106 for more details			
<b>Class 1~30 adjustable</b>					
		Separate mount type			
		<b>Setting ranges (A)</b>			
		0.1 - 1.5 1 - 5 4.4 - 22			

32A		40A		50A		65A		75A		85A	
 <p>See page 28 for more details</p>				 <p>See page 30 for more details</p>							
GMC-32		GMC-40		GMC-50		GMC-65		GMC-75		GMC-85	
GMD-32		GMD-40		GMD-50		GMD-65		GMD-75		GMD-85	
kW	A	kW	A	kW	A	kW	A	kW	A	kW	A
	<b>50</b>		<b>60</b>		<b>80</b>		<b>100</b>		<b>110</b>		<b>135</b>
7.5	32	11	40	15	55	18.5	65	22	75	25	85
<b>15</b>	<b>32</b>	<b>18.5</b>	<b>40</b>	<b>22</b>	<b>50</b>	<b>30</b>	<b>65</b>	<b>37</b>	<b>75</b>	<b>45</b>	<b>85</b>
18.5	28	22	32	30	43	33	60	37	64	45	75
18.5	20	22	23	30	28	33	35	37	42	45	45
hp	A	hp	A	hp	A	hp	A	hp	A	hp	A
	45		50		70		80		90		100
2		3		3		5		5		7.5	
5		5		7.5		10		15		15	
7.5		10		10		15		20		25	
10		10		15		20		25		30	
<b>20</b>		<b>25</b>		<b>30</b>		<b>40</b>		<b>50</b>		<b>50</b>	
20		25		30		40		50		50	
1		1		2		2		2		3	





2-pole Front mount








4-pole Front mount







2-pole Side mount

 <p>See page 40 for more details</p>				 <p>See page 42 for more details</p>							
GMC-32/4		GMC-40/4		GMC-50/4		GMC-65/4		GMC-75/4		GMC-85/4	
GMD-32/4		GMD-40/4		GMD-50/4		GMD-65/4		GMD-75/4		GMD-85/4	
<b>50</b>		<b>60</b>		<b>80</b>		<b>100</b>		<b>110</b>		<b>135</b>	



 <p>Setting ranges (A)</p> <table border="1"> <tr><td>4 - 6</td><td>12 - 18</td></tr> <tr><td>5 - 8</td><td>16 - 22</td></tr> <tr><td>6 - 9</td><td>18 - 26</td></tr> <tr><td>7 - 10</td><td>24 - 36</td></tr> <tr><td>9 - 13</td><td>28 - 40</td></tr> </table> <p>Base for separate mount</p>	4 - 6	12 - 18	5 - 8	16 - 22	6 - 9	18 - 26	7 - 10	24 - 36	9 - 13	28 - 40	 <p>Setting ranges (A)</p> <table border="1"> <tr><td>7 - 10</td><td>28 - 40</td></tr> <tr><td>9 - 13</td><td>34 - 50</td></tr> <tr><td>12 - 18</td><td>45 - 65</td></tr> <tr><td>16 - 22</td><td>54 - 75</td></tr> <tr><td>18 - 26</td><td>63 - 85</td></tr> <tr><td>24 - 36</td><td></td></tr> </table> <p>Base for separate mount</p>	7 - 10	28 - 40	9 - 13	34 - 50	12 - 18	45 - 65	16 - 22	54 - 75	18 - 26	63 - 85	24 - 36	
4 - 6	12 - 18																						
5 - 8	16 - 22																						
6 - 9	18 - 26																						
7 - 10	24 - 36																						
9 - 13	28 - 40																						
7 - 10	28 - 40																						
9 - 13	34 - 50																						
12 - 18	45 - 65																						
16 - 22	54 - 75																						
18 - 26	63 - 85																						
24 - 36																							
<p>GTK-40</p> <p>GTH-40/3</p> <p>GTH-40</p> <p>GTK-40/L</p>	<p>GTK-85</p> <p>GTH-85/3</p> <p>GTH-85</p> <p>GTK-85/L</p>																						
 <p>Setting ranges (A)</p> <table border="1"> <tr><td>4 - 20</td></tr> <tr><td>8 - 40</td></tr> </table> <p>separate mount</p>	4 - 20	8 - 40	 <p>Setting ranges(A) : 16 ~ 80A</p> <p>Separate mount Wiring by screw</p>	 <p>Setting ranges(A) : 5 ~ 60A</p> <p>Separate mount Wiring by CT tunnel</p>																			
4 - 20																							
8 - 40																							


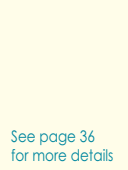



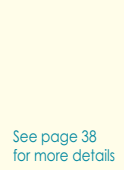
# Quick selection table

## Contactors ... 100 to 800A

Frame size		100A	125A	150A			
<b>3-pole Contactors</b>		 <p>See page 34 for more details</p>		 <p>See page 34 for more details</p>			
Types	AC/DC common coil	<b>GMC-100</b>		<b>GMC-125</b>	<b>GMC-150</b>		
<b>Ratings / IEC60947-4</b>		kW	A	kW	A	kW	A
AC1			<b>160</b>		<b>160</b>		<b>210</b>
AC3	200/240V	30	105	37	125	45	150
	<b>380/440V</b>	<b>55</b>	<b>105</b>	<b>60</b>	<b>120</b>	<b>75</b>	<b>150</b>
	500/550V	55	85	60	90	90	140
	690V	55	65	60	70	90	100
<b>Ratings / UL508</b>		hp	A	hp	A	hp	A
continuous current			160		160		210
single phase	115V	7.5		10		15	
	230V	15		20		25	
three phase	200V	30		40		40	
	230V	30		40		50	
	<b>460V</b>	<b>60</b>		<b>75</b>		<b>100</b>	
	575V	60		75		100	
NEMA size		3		3		4	
<b>Additional auxiliary contacts</b>		 <p><b>AU-100</b> 1NO+1NC, Side mount</p>					
See page 114 for more details							
<b>4-pole Contactors</b>		 <p>See page 46 for more details</p>					
Types	AC/DC common coil	<b>GMC-100/4</b>		<b>GMC-125/4</b>		<b>GMC-150/4</b>	
AC1(A)		<b>160</b>		<b>160</b>		<b>210</b>	


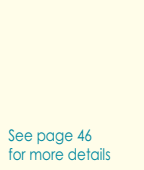



### Overload Relays




<b>Bimetallic style</b>		 <p>Setting ranges (A) 34 - 50 39 - 57 43 - 65 54 - 80 65 - 100 85 - 125</p> <p>GT-100</p>		 <p>Setting ranges (A) 34 - 50 39 - 57 43 - 65 54 - 80 65 - 100 85 - 125 100 - 150</p> <p>GT-150</p>	
Type GT					
See page 91-99 for more details					
Class 10A	Differential	<b>GTK-100</b>		<b>GTK-150</b>	
	Non-differential (3-heater)	<b>GTH-100/3</b>		<b>GTH-150/3</b>	
	Non-differential (2-heater)	<b>GTH-100</b>		<b>GTH-150</b>	
Class 20	Differential	<b>GTK-100/L</b>		<b>GTK-150/L</b>	

180A		220A		300A		400A		600A		800A	
											
See page 36 for more details		See page 36 for more details		See page 36 for more details		See page 36 for more details		See page 38 for more details		See page 38 for more details	
<b>GMC-180</b>		<b>GMC-220</b>		<b>GMC-300</b>		<b>GMC-400</b>		<b>GMC-600</b>		<b>GMC-800</b>	
kW	A	kW	A	kW	A	kW	A	kW	A	kW	A
	<b>230</b>		<b>275</b>		<b>350</b>		<b>450</b>		<b>660</b>		<b>900</b>
55	180	75	250	90	300	125	400	190	630	220	800
<b>90</b>	<b>180</b>	<b>132</b>	<b>250</b>	<b>160</b>	<b>300</b>	<b>220</b>	<b>400</b>	<b>330</b>	<b>630</b>	<b>440</b>	<b>800</b>
110	180	132	200	160	250	225	350	330	500	500	720
110	120	132	150	200	220	250	300	330	420	500	630
hp	A	hp	A	hp	A	hp	A	hp	A	hp	A
	230		275		350		450		660		900
15		15									
30		40									
60		60		100		125		150		250	
60		75		100		150		200		300	
<b>125</b>		<b>150</b>		<b>200</b>		<b>300</b>		<b>400</b>		<b>600</b>	
125		150		200		300		400		600	
4		4		5		5		6		7	



**AU-100**  
1NO+1NC, Side mount

											
See page 46 for more details		See page 46 for more details		See page 48 for more details		See page 48 for more details		See page 48 for more details			
<b>GMC-180/4</b>		<b>GMC-220/4</b>		<b>GMC-300/4</b>		<b>GMC-400/4</b>		<b>GMC-600/4</b>		<b>GMC-800/4</b>	
<b>230</b>		<b>275</b>		<b>350</b>		<b>450</b>		<b>660</b>		<b>900</b>	





 GT-220 <b>Setting ranges (A)</b> 65 - 100 85 - 125 100 - 150 120 - 180 160 - 240	 GT-400 <b>Setting ranges (A)</b> 85 - 125 100 - 150 120 - 180 160 - 240 220 - 300 260 - 400	 GT-600 <b>Setting ranges (A)</b> 220 - 300 260 - 400 400 - 600 520 - 800
GTK-220	GTK-400	GTK-600
GTH-220/3	GTH-400/3	GTH-600/3
GTH-220	GTH-400	GTH-600
GTK-220/L	GTK-400/L	GTK-600/L

# Quick selection table











## Mini contactors & overloads

**Mini contactors**

3NO main contacts  
1 auxiliary contacts



Screw clamp type      Fast-on type      Cage clamp type      Solder pin type

Frame size		6A		9A		12A		16A	
Screw clamp type	AC coil	GMC-6M		GMC-9M		GMC-12M		GMC-16M	
	DC coil	GMD-6M		GMD-9M		GMD-12M		GMD-16M	
Fast-on type	AC coil	GMC-6MF		GMC-9MF		GMC-12MF		GMC-16MF	
	DC coil	GMD-6MF		GMD-9MF		GMD-12MF		GMD-16MF	
Cage clamp type	AC coil	GMC-6MC		GMC-9MC		GMC-12MC		GMC-16MC	
	DC coil	GMD-6MC		GMD-9MC		GMD-12MC		GMD-16MC	
Solder pin type	AC coil	GMC-6MP		GMC-9MP		GMC-12MP		GMC-16MP	
	DC coil	GMD-6MP		GMD-9MP		GMD-12MP		GMD-16MP	
<b>Ratings / IEC60947-4</b>		kW	A	kW	A	kW	A	kW	A
AC1		<b>20</b>		<b>20</b>		<b>20</b>		<b>20</b>	
AC3	200/240V	1.5	7	2.2	9	3	12	4	15
	<b>380/440V</b>	<b>2.2</b>	<b>6</b>	<b>4</b>	<b>9</b>	<b>5.5</b>	<b>12</b>	<b>7.5</b>	<b>16</b>
	500/550V	3	5	3.7	6	4	7	5.5	9
	690V	3	4	4	5	4	5	4	5
<b>Ratings / UL508</b>		hp	A	hp	A	hp	A	hp	A
continuous current		lth = 20A (maximum for cage clamp type is 10A)							
single phase	120V	1/2		1/2		1 *		-	
	230V/240V	1		1.5		2 **		-	
three phase	240V	1.5		3		3		-	
	480V	3		5		7.5 ***		-	
	600V	3		5		7.5		-	
Wire Range : Copper, 75°C, Stranded, 18-12AWG									
NEMA size	00		00		00		0		
<b>Additional auxiliary contacts</b>	<b>Screw clamp type</b>		<b>Fast-on type</b>		<b>Cage clamp type</b>		<b>Solder pin type</b>		
2-pole, Front mount	AU-2M 		AU-2MF 		AU-2MC 		AU-IMP 		
4-pole, Front mount	AU-4M 		AU-4MF 		AU-4MC 				
2-pole, Side mount	AU-1M 		AU-1MF 		AU-1MC 				

[See page 110 for more details](#)

Note) \* = 1/2 for cage clamp type, \*\* = 1.5hp for cage clamp type, \*\*\* = 5hp for cage clamp type  
16AF : not approved from UL

## Overload Relays

<b>Bimetallic style</b> <b>Type GT</b> <b>Class 10A</b>		<b>Setting ranges (A)</b> 0.1 - 0.16 0.16 - 0.25 0.25 - 0.4 0.4 - 0.63 0.63 - 1 1 - 1.6 1.6 - 2.5 2.5 - 4	4 - 6 5 - 8 6 - 9 7 - 10 9 - 13 12 - 16		<a href="#">See page 87 for more details</a>
	Differential	GTK-12M			
	Non-differential (3-heater)	GTH-12M/3			
	Non-differential (2-heater)	GTH-12M			





## Mini contactors

6A    9A    12A    16A

Contactors, AC control	24
Contactors, DC control	26

## 3-pole Contactors

9A    ~    800A

3pole	9A	12A	18A	22A	28
3pole	32A	40A			30
3pole	50A	65A	75A	85A	32
3pole	100A	125A	150A		34
3pole	180A	220A	300A	400A	36
3pole	600A	800A			38



## 4-pole Contactors

9A    ~    800A

4pole	9A	12A	18A	22A	40	
4pole	32A	40A			42	
4pole	50A	65A	75A	85A	44	
4pole	100A	125A	150A	180A	220A	46
4pole	300A	400A	600A	800A	48	



## Motor starters

Open type	50
Enclosed type	53



## Power control



Reversing contactors	61
Latching contactors	70
Contactor relays	75
Capacitor contactors	76
2-pole DC contactors	77
2-pole AC contactors	78

# Mini contactors

## AC coil

### Contactors

- For motor control
- 3 main plus 1 auxiliary contacts
- Coil voltage : AC



#### Screw clamp connection types

Frame size	AC3 ratings (IEC60947-4)				AC1 rating lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMC-6M
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMC-9M
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMC-12M
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMC-16M



#### Fast-on connection types

Frame size	AC3 ratings (IEC60947-4)				AC1 rating lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMC-6MF
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMC-9MF
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMC-12MF
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMC-16MF

#### Coil voltage, AC 50/60Hz

24, 36, 42, 48, 110, 115, 120, 127, 200 / 208, 220, 220 / 230, 230 / 240, 256, 277, 380 / 400  
400, 440, 480, 500, 550V AC

#### Performance (at 440VAC)

Frame size	6A	9A	12A	16A
Operation current	6A	9A	12A	16A
Making current	72A	108A	144A	180A
Breaking current	60A	90A	120A	150A
Operation cycle	1800 operations/hour			
Endurance	• Electrical : 1 mil. operations • Mechanical : 12 mil. operations			

(Note) 16A frame is not UL listed item.

#### Coil characteristic

Coil voltage	AC
Coil consumption (W)	2
Inrush	32VA
Sealed	6VA
Closing voltage (%)	80~110
Opening voltage (%)	30~40
Closing time (ms)	10~20
Opening time (ms)	35~45

**Certificate**  
CE, ULcUL

## Contactors

- For motor control
- 3 main plus 1 auxiliary contacts
- Coil voltage : AC

### Cage clamp connection types



Frame size	AC3 ratings (IEC60947-4)				AC1 rating Ith	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMC-6MC
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMC-9MC
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMC-12MC
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMC-16MC

### Solder pin connection types



Frame size	AC3 ratings (IEC60947-4)				AC1 rating Ith	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMC-6MP
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMC-9MP
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMC-12MP
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMC-16MP

### Coil voltage, AC 50/60Hz

24, 36, 42, 48, 110, 115, 120, 127, 200 / 208, 220, 220 / 230, 230 / 240, 256, 277, 380 / 400, 400, 440, 480, 500, 550V AC

### Ordering information

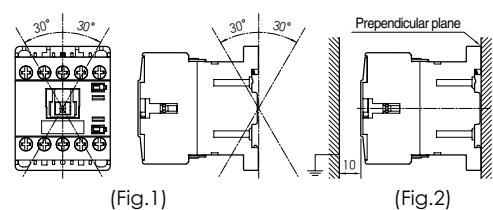
Type, Auxiliary contact and Coil voltage

### For more information

- Drawings → page 160
- Reversing contactors → page 61
- Overload relays → page 87
- Optional accessories → page 110~113

**Certificate**  
CE, ULcUL

**Caution**



\*Even installing direction takes the direction of Fig.1 to perpendicular, up to the direction of the 30°. Keep the distance more than 10mm with arc space shown Fig.2

# Mini contactors

## DC coil

### Contactors

- For motor control
- 3 main plus 1 auxiliary contacts
- Coil voltage : DC



#### Screw clamp connection types

Frame size	AC3 ratings (IEC60947-4)				AC1 rating lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMD-6M
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMD-9M
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMD-12M
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMD-16M



#### Fast-on connection types

Frame size	AC3 ratings (IEC60947-4)				AC1 rating lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMD-6MF
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMD-9MF
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMD-12MF
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMD-16MF

#### Coil voltage, DC

- ① Standard type : 12, 20, 24, 36, 42, 48, 60, 72, 110, 120, 125, 220, 240, 250V DC
- ② Low consumption type : 12, 20, 24, 48, 72, 110, 120V DC(Low)
- ③ Wide Voltage : 12, 20, 24, 48, 72, 110, 12V DC(Wide)

#### Ordering information

Type, Auxiliary contact and Coil voltage

#### Coil characteristic

Coil voltage	DC		
	Standard	Low consumption	Wide voltage
Coil consumption (W)	3	1.2	2
Inrush	3W	1.2W	2W
Sealed	3W	1.2W	2W
Closing voltage (%)	80~110	80~125	70~125
Opening voltage (%)	10~30	10~30	10~30
Closing time (ms)	40~50	40~50	40~50
Opening time (ms)	35~45	35~45	35~45

**Certificate**  
CE, ULcUL

## Contactors

- For motor control
- 3 main plus 1 auxiliary contacts
- Coil voltage : DC



### Cage clamp connection types

Frame size	AC3 ratings (IEC60947-4)				AC1 rating lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMD-6MC
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMD-9MC
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMD-12MC
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMD-16MC

### Solder pin connection types



Frame size	AC3 ratings (IEC60947-4)				AC1 rating lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMD-6MP
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMD-9MP
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMD-12MP
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMD-16MP

### Coil voltage, DC

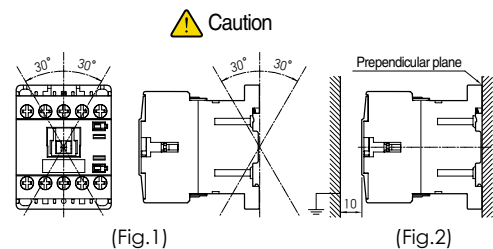
- ① Standard type : 12, 20, 24, 36, 42, 48, 60, 72, 110, 120, 125, 220, 240, 250V DC
- ② Low consumption type : 12, 20, 24, 48, 72, 110, 120V DC(Low)
- ③ Wide Voltage : 12, 20, 24, 48, 72, 110, 12V DC(Wide)

### Ordering information

Type, Auxiliary contact and Coil voltage

### For more information

- Drawings → page 160
- Reversing contactors → page 62
- Overload relays → page 87
- Optional accessories → page 110~113



\*Even installing direction takes the direction of Fig.1 to perpendicular, ip to the direction of the 30°. Keep the distance more than 10mm with arc space shown Fig.2

**Certificate**  
CE, ULcUL

# 3-pole Contactors

9A

12A

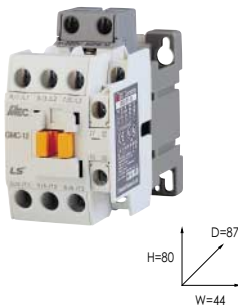
18A

22A

## Description

- Covering four rating classes in single size.
- 3-pole main contact
- Finger proof design
- DIN rail or screw mountable
- Small physical size : 44 mm wide
- 1NO+1NC Auxiliary contacts built-in as standard
- Front/side mountable accessories available
- Direct mountable overload relays available

## 3-pole Contactors with AC coil



Frame size	AC3 ratings / IEC60947-4				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
9A	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	25A	1NO+1NC	GMC-9
12A	3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	25A	1NO+1NC	GMC-12
18A	4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	40A	1NO+1NC	GMC-18
22A	5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	40A	1NO+1NC	GMC-22

### Coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V  
60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

## 3-pole Contactors with DC coil



Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
9A	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	25A	1NO+1NC	GMD-9
12A	3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	25A	1NO+1NC	GMD-12
18A	4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	40A	1NO+1NC	GMD-18
22A	5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	40A	1NO+1NC	GMD-22

### Coil voltage, DC

12, 20, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250V

## Mounting and Connection

<b>Mounting</b>	35mm DIN rail or holes for screw(M4) fixing	
<b>Connection</b>	<b>Main</b>	Screw(M4) clamp terminal Cable capacity : 1.25~5.5mm <sup>2</sup> / $\phi$ 1.6~2.6
	<b>Auxiliary / Coil</b>	Screw(M3.5) clamp terminal

### Certificate

CE, ULcUL, Lloyd,  
CCC(China)

### Ordering information

Specify type and coil voltage  
Example : GMC-12 50Hz 240V



## Options



**GT-22**  
Thermal (Bimetallic) style  
→ page 88



**GMP22**  
Solid state style  
→ page 100



**AU-1**  
Aux. contact unit  
2pole for side mount  
→ page 114



**AU-2**  
Aux. contact unit  
2pole for front mount  
→ page 114



**AU-4**  
Aux. contact unit  
2pole for front mount  
→ page 114



**AR-9**  
Mechanical interlock unit  
→ page 116



**AL-9**  
Mechanical latch unit  
→ page 117



**AS**  
Surge absorber unit  
→ page 118



**AD-9**  
Delayed opening device  
→ page 119

### For more information

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Reversing contactors	→ page 66
Latching contactors	→ page 70
Starters	→ page 51
Overload relays	→ page 88, 100
UL rating	→ page 18

# 3-pole Contactors

32A 40A

## Description

- Covering two rating classes in single size.
- 3-pole main contact
- Finger proof design
- DIN rail or screw mountable
- Small physical size : 68 mm wide
- 2NO+2NC Auxiliary contacts built-in as standard
- Front/side mountable accessories available
- Direct mountable overload relays available



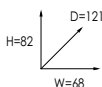
## 3-pole Contactors with AC coil

Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
32A	7.5kW	15kW	18.5kW	18.5kW	50A	2NO+2NC	GMC-32
	32A	32A	28A	20A			
40A	11kW	18.5kW	22kW	22kW	60A	2NO+2NC	GMC-40
	40A	40A	32A	23A			

### Coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V

60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V



## 3-pole Contactors with DC coil

Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
32A	7.5kW	15kW	18.5kW	18.5kW	50A	2NO+2NC	GMD-32
	32A	32A	28A	20A			
40A	11kW	18.5kW	22kW	22kW	60A	2NO+2NC	GMD-40
	40A	40A	32A	23A			

### Coil voltage, DC

12, 20, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250V

## Mounting and Connection

<b>Mounting</b>	35mm DIN rail or holes for screw(M4) fixing	
<b>Connection</b>	<b>Main</b>	Screw(M5) clamp terminal Cable capacity : 2~14mm <sup>2</sup> / ϕ 1.6~3.6
	<b>Auxiliary / Coil</b>	Screw(M3.5) clamp terminal

### Certificate

CE, ULcUL, Lloyd, CCC(China)

### Ordering information

Specify type and coil voltage

## Options



**GT-40**  
Thermal (Bimetallic) style  
→ page 89



**GMP40**  
Solid state style  
→ page 102

### For more information

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- Circuit diagrams → page 167
- Reversing contactors → page 66
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**AU-1**  
Aux. contact unit  
2pole for side mount  
→ page 114



**AU-2**  
Aux. contact unit  
2pole for front mount  
→ page 114



**AU-4**  
Aux. contact unit  
2pole for front mount  
→ page 114



**AR-9**  
Mechanical interlock unit  
→ page 116



**AL-9**  
Mechanical latch unit  
→ page 117



**AS**  
Surge absorber unit  
→ page 118



**AD-9**  
Delayed opening device  
→ page 119

# 3-pole Contactors

50A

65A

75A

85A

## Description

- Covering four rating classes in single size.
- 3-pole main contact
- Finger proof design
- DIN rail or screw mountable
- 2NO+2NC Auxiliary contacts built-in as standard
- Front/side mountable accessories available
- Direct mountable overload relays available

## 3-pole Contactors with AC coil



Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
50A	15kW 55A	22kW 50A	30kW 43A	30kW 28A	80A	2NO+2NC	GMC-50
65A	18.5kW 65A	30kW 65A	33kW 60A	33kW 35A	100A	2NO+2NC	GMC-65
75A	22kW 75A	37kW 75A	37kW 64A	37kW 42A	110A	2NO+2NC	GMC-75
85A	25kW 85A	45kW 85A	45kW 75A	45kW 45A	135A	2NO+2NC	GMC-85

### Coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V

60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

## 3-pole Contactors with DC coil



Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
50A	15kW 55A	22kW 50A	30kW 43A	30kW 28A	80A	2NO+2NC	GMD-50
65A	18.5kW 65A	30kW 65A	33kW 60A	33kW 35A	100A	2NO+2NC	GMD-65
75A	22kW 75A	37kW 75A	37kW 64A	37kW 42A	110A	2NO+2NC	GMD-75
85A	25kW 85A	45kW 85A	45kW 75A	45kW 45A	135A	2NO+2NC	GMD-85

### Coil voltage, DC

12, 20, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250V

## Mounting and Connection

<b>Mounting</b>	35mm DIN rail or holes for screw(M4) fixing		
<b>Connection</b>	<b>Main</b>	<b>50A frame</b>	Screw(M6) terminal Cable capacity : 2~22mm <sup>2</sup>
		<b>65/75/85A frame</b>	Screw(M8) terminal Cable capacity : 2~38mm <sup>2</sup>
	<b>Auxiliary / Coil</b>		Screw(M3.5) clamp terminal

### Certificate

CE, ULcUL, Lloyd, CCC(China)

### Ordering information

Specify type and coil voltage

## Options



**GT-85**  
Thermal (Bimetallic) style  
→ page 90



**GMP80**  
Electronic style  
separate mount only  
→ page 104



**AU-1**  
Aux. contact unit  
2pole for side mount  
→ page 114



**AU-2**  
Aux. contact unit  
2pole for front mount  
→ page 114



**AU-4**  
Aux. contact unit  
2pole for front mount  
→ page 114



**AR-9**  
Mechanical interlock unit  
→ page 116



**AL-50**  
Mechanical latch unit  
→ page 117



**AS**  
Surge absorber unit  
→ page 118



**AD-50**  
Delayed opening device  
→ page 119

### For more information

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Overload relays	→ page 90, 104
UL rating	→ page 19

# 3-pole Contactors

100A 125A 150A

## Description

- 3-pole main contact
- AC/DC common use coil built
- Wide coil operation voltage
- Screw mountable
- 2NO+2NC Auxiliary contacts built-in as standard
- Front/side mountable accessories available
- Direct mountable overload relays available



## 3-pole Contactors with AC/DC common coil

Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
100A	30kW	55kW	55kW	55kW	160A	2NO+2NC	GMC-100
	105A	105A	85A	65A			
125A	37kW	60kW	60kW	60kW	160A	2NO+2NC	GMC-125
	125A	120A	90A	70A			



Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
150A	45kW	75kW	90kW	90kW	210A	2NO+2NC	GMC-150
	150A	150A	140A	100A			

## Coil voltage, AC/DC common

Nominal(ordering) voltage	AC 50/60Hz	DC
24V	24 - 25V	24V
48V	48 - 50V	48V
100/200V	100 - 240V	100 - 220V
300V	265 - 347V	-
400V	380 - 450V	-
500V	440 - 575V	-

## Mounting and Connection

Mounting	100/125A frame	Holes for screw(M4) fixing
	150A frame	Holes for screw(M5) fixing
Connection	Main frame	100/125A frame
		150A frame
	Auxiliary / Coil	Screw(M8) terminal
		Cable capacity : 2~60mm <sup>2</sup>
Auxiliary / Coil	Screw(M8) terminal	
	Cable capacity : 2~100mm <sup>2</sup>	
Auxiliary / Coil	Screw(M4) clamp terminal	

### Certificate

CE, ULcUL, Lloyd, CCC(China)

### Ordering information

Specify type and coil voltage



## Options



**GT-100 for GMC-100, 125**  
Thermal (Bimetallic) style  
→ page 91



**GT-150 for GMC-150**  
Thermal (Bimetallic) style  
→ page 91

### For more information

- Technical specification → page 123~157
- Drawings → page 169
- Circuit diagrams → page 169
- Reversing contactors → page 68
- Latching contactors → page 72
- Starters → page 52
- Overload relays → page 91
- UL rating → page 20



**AU-100**  
Aux. contact unit  
2pole for side mount  
→ page 114



**AR-100**  
Mechanical interlock unit  
→ page 116



**AL-100, 150**  
Mechanical latch unit  
→ page 114



**AS**  
Surge absorber unit  
→ page 118



**AD-100**  
Delayed opening device  
→ page 119



**Terminal covers**  
→ page 117



**AI-100**  
Insulation barriers  
→ page 118

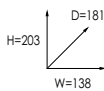
# 3-pole Contactors

180A 220A 300A 400A

## Description

- 3-pole main contact
- AC/DC common use coil built
- Wide coil operation voltage
- Screw mountable
- 2NO+2NC Auxiliary contacts built-in as standard
- Front/side mountable accessories available
- Direct mountable overload relays available

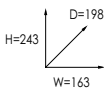
## 3-pole Contactors with AC/DC common coil



Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
180A	55kW	90kW	110kW	110kW	230A	2NO+2NC	GMC-180
	180A	180A	180A	120A			
220A	75kW	132kW	132kW	132kW	275A	2NO+2NC	GMC-220
	250A	250A	200A	150A			

## Coil voltage, AC/DC common

Nominal(ordering) voltage	AC 50/60Hz	DC
24V	24 - 25V	24V
48V	48 - 50V	48V
100/200V	100 - 240V	100 - 220V
300V	265 - 347V	-
400V	380 - 450V	-
500V	440 - 575V	-



Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
300A	90kW	160kW	160kW	200kW	350A	2NO+2NC	GMC-300
	300A	300A	250A	220A			
400A	125kW	220kW	225kW	250kW	450A	2NO+2NC	GMC-400
	400A	400A	350A	300A			

## Coil voltage, AC/DC common

Nominal(ordering) voltage	AC 50/60Hz	DC
100/200V	100 - 240V	100 - 220V
300V	265 - 347V	-
400V	380 - 450V	-
500V	440 - 575V	-

## Mounting and Connection

Mounting	180/220A frame		Holes for screw(M6) fixing
		300/400A frame	
Connection	Main	180/220A frame	Screw(M10) terminal Cable capacity : 2~150mm <sup>2</sup>
		300/400A frame	Screw(M12) terminal Cable capacity : 2~200mm <sup>2</sup>
	Auxiliary / Coil		Screw(M4) clamp terminal

### Certificate

CE, ULcUL, Lloyd, CCC(China)

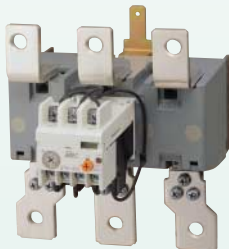
### Ordering information

Specify type and coil voltage

## Options



**GT-220 for GMC-180, 220**  
Thermal (Bimetallic) style  
→ page 92



**GT-400 for GMC-300, 400**  
Thermal (Bimetallic) style  
→ page 92



**AU-100**  
Aux. contact unit  
2pole for side mount  
→ page 114



**AR-180**  
Mechanical interlock unit  
→ page 116



**AL-220, 400**  
Mechanical latch unit  
→ page 114



**AS**  
Surge absorber unit  
→ page 118



**AD-100, 300**  
Delayed opening device  
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**Terminal covers**  
→ page 117



**AI-180**  
Insulation barriers  
→ page 118

### For more information

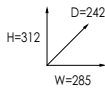
- Technical specification → page 123~157
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- Circuit diagrams → page 169, 170
- Reversing contactors → page 68
- Latching contactors → page 72
- Starters → page 52
- Overload relays → page 92
- UL rating → page 21

# 3-pole Contactors

600A 800A

## Description

- 3-pole main contact
- AC/DC common use coil built
- Wide coil operation voltage
- Screw mountable
- 2NO+2NC Auxiliary contacts built-in as standard
- Front/side mountable accessories available



## 3-pole Contactors with AC/DC common coil

Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
600A	190kW 630A	330kW 630A	330kW 500A	330kW 420A	660A	2NO+2NC	GMC-600
800A	220kW 800A	440kW 800A	550kW 720A	500kW 630A	900A	2NO+2NC	GMC-800

## Coil voltage, AC/DC common

Nominal(ordering) voltage	AC 50/60Hz	DC
100V	100 - 127V	100 - 110V
200V	200 - 240V	200 - 220V
300V	265 - 347V	-
400V	380 - 450V	-
500V	440 - 575V	-

## Mounting and Connection

Mounting	600/800A frame	Holes for screw(M10) fixing
Connection	Main	Screw(M16) terminal
	Auxiliary / Coil	Cable capacity : 80~325mm <sup>2</sup>
		Screw(M4) clamp terminal

### Certificate

CE, ULcUL, Lloyd, CCC(China)

### Ordering information

Specify type and coil voltage

## Options



**GT-600**  
Thermal (Bimetallic) style  
→ page 93



**AU-100**  
Aux. contact unit  
2pole for side mount  
→ page 114



**AD-600**  
Delayed opening device  
→ page 114



**Terminal covers**  
→ page 117



**AI-600**  
Insulation barriers  
→ page 118



**AS**  
Surge absorber unit  
→ page 118



**AR-600**  
Mechanical interlock unit  
→ page 116

### For more information

- Technical specification → page 123~158
- Drawings → page 170
- Circuit diagrams → page 170
- Reversing contactors → page 68
- Starters → page 52
- Overload relays → page 93
- UL rating → page 21

# 4-pole Contactors

9A

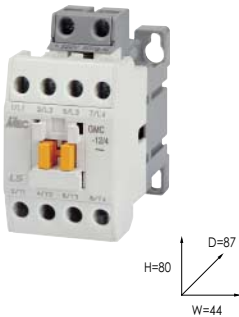
12A

18A

22A

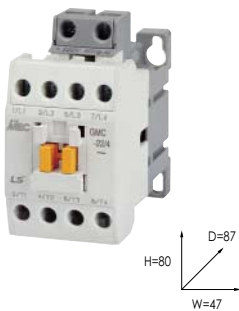
## Description

- 4-pole main contact
- Finger proof design
- DIN rail or screw mountable
- Small physical size : 44 mm wide
- Auxiliary contacts are optional
- Front/side mountable accessories
- Direct mountable overload relays available



## 4-pole Contactors with AC coil

Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
9A	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	20A	optional	GMC-9/4
12A	3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	20A	optional	GMC-12/4



18A	4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	25A	optional	GMC-18/4
22A	5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	32A	optional	GMC-22/4

### Coil voltage, AC 50/60Hz

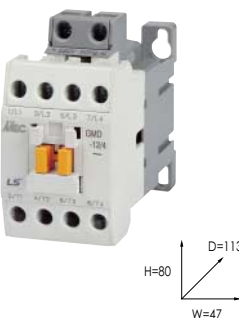
50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V  
60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

## 4-pole Contactors with DC coil

Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
9A	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	20A	optional	GMD-9/4
12A	3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	20A	optional	GMD-12/4
18A	4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	25A	optional	GMD-18/4
22A	5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	32A	optional	GMD-22/4

### Coil voltage, DC

12, 20, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250V



## Mounting and Connection

<b>Mounting</b>	35mm DIN rail or holes for screw(M4) fixing	
<b>Connection</b>	<b>Main</b>	Screw(M4) clamp terminal Cable capacity : 1.25~5.5mm <sup>2</sup> / $\phi$ 1.6~2.6
	<b>Auxiliary / Coil</b>	Screw(M3.5) clamp terminal

### Certificate

CE, ULcUL, Lloyd, CCC(China)

### Ordering information

Specify type and coil voltage



## Options



**GT-22**  
Thermal (Bimetallic) style  
➔ page 88



**GMP22**  
Solid state style  
➔ page 100



**AU-1**  
Aux. contact unit  
2pole for side mount  
➔ page 114



**AU-2**  
Aux. contact unit  
2pole for front mount  
➔ page 114



**AU-4**  
Aux. contact unit  
2pole for front mount  
➔ page 114



**AR-9**  
Mechanical interlock unit  
➔ page 116



**AL-9**  
Mechanical latch unit  
➔ page 117



**AS**  
Surge absorber unit  
➔ page 118



**AD-9**  
Delayed opening device  
➔ page 119

### For more information

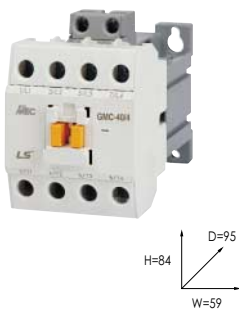
- Technical specification ➔ page 123~158
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- Overload relays ➔ page 88, 100

# 4-pole Contactors

32A 40A

## Description

- 4-pole main contact
- Finger proof design
- DIN rail or screw mountable
- Auxiliary contacts are optional
- Front/side mountable accessories
- Direct mountable overload relays available



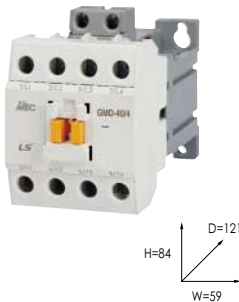
## 4-pole Contactors with AC coil

Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
32A	7.5kW 32A	15kW 32A	18.5kW 28A	18.5kW 20A	50A	optional	GMC-32/4
40A	11kW 40A	18.5kW 40A	22kW 32A	22kW 23A	60A	optional	GMC-40/4

### Coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V  
60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

## 4-pole Contactors with DC coil



Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
32A	7.5kW 32A	15kW 32A	18.5kW 28A	18.5kW 20A	50A	optional	GMD-32/4
40A	11kW 40A	18.5kW 40A	22kW 32A	22kW 23A	60A	optional	GMD-40/4

### Coil voltage, DC

12, 20, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250V

## Mounting and Connection

<b>Mounting</b>	35mm DIN rail or holes for screw(M4) fixing	
<b>Connection</b>	<b>Main</b>	Screw(M4) clamp terminal Cable capacity : 1.25~5.5mm <sup>2</sup> / $\phi$ 1.6~2.6
	<b>Auxiliary / Coil</b>	Screw(M3.5) clamp terminal

### Certificate

CE, ULcUL, Lloyd,  
CCC(China)

### Ordering information

Specify type and coil voltage

## Options



**GT-40**  
Thermal (Bimetallic) style  
➔ page 89



**GMP40**  
Solid state style  
➔ page 102



**AU-1**  
Aux. contact unit  
2pole for side mount  
➔ page 114



**AU-2**  
Aux. contact unit  
2pole for front mount  
➔ page 114



**AU-4**  
Aux. contact unit  
2pole for front mount  
➔ page 114



**AR-9**  
Mechanical interlock unit  
➔ page 116



**AL-9**  
Mechanical latch unit  
➔ page 117



**AS**  
Surge absorber unit  
➔ page 118



**AD-9**  
Delayed opening device  
➔ page 119

### For more information

- Technical specification ➔ page 123~158
- Drawings ➔ page 171
- Circuit diagrams ➔ page 172
- Overload relays ➔ page 89, 102

# 4-pole Contactors

**50A** **65A** **75A** **85A**

## Description

- 4-pole main contact
- Finger proof design
- DIN rail or screw mountable
- Auxiliary contacts are optional
- Front/side mountable accessories
- Direct mountable overload relays available



## 4-pole Contactors with AC coil

Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
50A	15kW 55A	22kW 50A	30kW 43A	30kW 28A	80A	optional	GMC-50/4
65A	18.5kW 65A	30kW 65A	33kW 60A	33kW 35A	100A	optional	GMC-65/4
75A	22kW 75A	37kW 75A	37kW 64A	37kW 42A	110A	optional	GMC-75/4
85A	25kW 85A	45kW 85A	45kW 75A	45kW 45A	135A	optional	GMC-85/4

### Coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V  
60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V



## 4-pole Contactors with DC coil

Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
50A	15kW 55A	22kW 50A	30kW 43A	30kW 28A	80A	optional	GMD-50/4
65A	18.5kW 65A	30kW 65A	33kW 60A	33kW 35A	100A	optional	GMD-65/4
75A	22kW 75A	37kW 75A	37kW 64A	37kW 42A	110A	optional	GMD-75/4
85A	25kW 85A	45kW 85A	45kW 75A	45kW 45A	135A	optional	GMD-85/4

### Coil voltage, DC

12, 20, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250V

## Mounting and Connection

<b>Mounting</b>	35mm DIN rail or holes for screw(M4) fixing		
<b>Connection</b>	<b>Main</b>	<b>50A frame</b>	Screw(M6) terminal Cable capacity : 2~22mm <sup>2</sup>
		<b>65/75/85A frame</b>	Screw(M8) terminal Cable capacity : 2~38mm <sup>2</sup>
	<b>Auxiliary / Coil</b>		Screw(M3.5) clamp terminal

### Certificate

CE, ULcUL, Lloyd,  
CCC(China)

### Ordering information

Specify type and coil voltage

## Options



**GT-85**  
Thermal (Bimetallic) style  
→ page 90



**GMP80**  
Electronic style  
separate mount only  
→ page 104



**AU-1**  
Aux. contact unit  
2pole for side mount  
→ page 114



**AU-2**  
Aux. contact unit  
2pole for front mount  
→ page 114



**AU-4**  
Aux. contact unit  
2pole for front mount  
→ page 114



**AR-9**  
Mechanical interlock unit  
→ page 116



**AL-50**  
Mechanical latch unit  
→ page 117



**AS**  
Surge absorber unit  
→ page 118



**AD-50**  
Delayed opening device  
→ page 119

### For more information

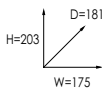
- Technical specification → page 123~158
- Drawings → page 171
- Circuit diagrams → page 172
- Overload relays → page 90, 104

# 4-pole Contactors

100A 125A 150A 180A 220A

## Description

- 4-pole main contact
- AC/DC common use coil built
- Wide coil operation voltage
- Screw mountable
- 2NO+2NC Auxiliary contacts built-in as standard
- Side mountable accessories
- Direct mountable overload relays available



## 4-pole Contactors with AC coil

Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
100A	30kW 105A	55kW 105A	55kW 85A	55kW 65A	160A	2NO+2NC	GMC-100/4
125A	37kW 125A	60kW 120A	60kW 90A	60kW 70A	160A	2NO+2NC	GMC-125/4
150A	45kW 150A	75kW 150A	90kW 140A	90kW 100A	210A	2NO+2NC	GMC-150/4
180A	55kW 180A	90kW 180A	110kW 180A	110kW 120A	230A	2NO+2NC	GMC-180/4
220A	75kW 250A	132kW 250A	132kW 200A	132kW 150A	275A	2NO+2NC	GMC-220/4

## Coil voltage, AC/DC common

Nominal(ordering) voltage	AC 50/60Hz	DC
24V	24 - 25V	24V
48V	48 - 50V	48V
100/200V	100 - 240V	100 - 220V
300V	265 - 347V	-
400V	380 - 450V	-
500V	440 - 575V	-

## Mounting and Connection

Mounting	Holes for screw(M6) fixing		
Connection	Main	100/125/150A frame	Screw(M8) terminal Cable capacity : 2~100mm <sup>2</sup>
		180/220A frame	Screw(M10) terminal Cable capacity : 2~150mm <sup>2</sup>
	Auxiliary / Coil	Screw(M4) clamp terminal	

### Certificate

CE, ULcUL, Lloyd, CCC(China)

### Ordering information

Specify type and coil voltage



## Options



**GT-220**  
Thermal (Bimetallic) style  
→ page 92



**AU-100**  
Aux. contact unit  
2pole for side mount  
→ page 114



**AR-180**  
Mechanical interlock unit  
→ page 116



**AL-220**  
Mechanical latch unit  
→ page 117



**AS**  
Surge absorber unit  
→ page 118



**AD-100**  
Delayed opening device  
→ page 119



**Terminal covers**  
→ page 117



**AI-180**  
Insulation barriers  
→ page 118

### For more information

- Technical specification → page 123~158
- Drawings → page 173
- Circuit diagrams → page 173
- Overload relays → page 92

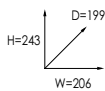
# 4-pole Contactors

**300A** **400A** **600A** **800A**

## Description

- 4-pole main contact
- AC/DC common use coil built
- Wide coil operation voltage
- Screw mountable
- 2NO+2NC Auxiliary contacts built-in as standard
- Side mountable accessories

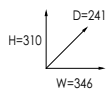
## 4-pole Contactors with AC/DC common coil



Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
300A	90kW	160kW	160kW	200kW	350A	2NO+2NC	GMC-300/4
	300A	300A	250A	220A			
400A	125kW	220kW	225kW	250kW	450A	2NO+2NC	GMC-400/4
	400A	400A	350A	300A			

## Coil voltage, AC/DC common

Nominal(ordering) voltage	AC 50/60Hz	DC
100/200V	100 - 240V	100 - 220V
300V	265 - 347V	-
400V	380 - 450V	-
500V	440 - 575V	-



Frame size	AC3 ratings (IEC60947-4)				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
600A	190kW	330kW	330kW	330kW	660A	2NO+2NC	GMC-600/4
	630A	630A	500A	420A			
800A	220kW	440kW	550kW	500kW	900A	2NO+2NC	GMC-800/4
	800A	800A	720A	630A			

## Coil voltage, AC/DC common

Nominal(ordering) voltage	AC 50/60Hz	DC
100V	100 - 127V	100 - 110V
200V	200 - 240V	200 - 220V
300V	265 - 347V	-
400V	380 - 450V	-
500V	440 - 575V	-

## Mounting and Connection

Mounting	300/400A frame		Holes for screw(M8) fixing
		600/800A frame	
Connection	Main	300/400A frame	Screw(M12) terminal
			Cable capacity : 2~200mm <sup>2</sup>
	Auxiliary / Coil	600/800A frame	Screw(M16) terminal
			Cable capacity : 80~325mm <sup>2</sup>
			Screw(M4) clamp terminal

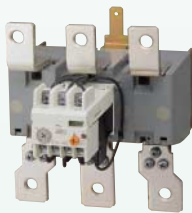
### Certificate

CE, ULcUL, Lloyd, CCC(China)

### Ordering information

Specify type and coil voltage

## Options



**GT-400 for GMC-300/4, 400/4**  
Thermal (Bimetallic) style  
→ page 92



**GT-600 for GMC-600/4, 800/4**  
Thermal (Bimetallic) style  
→ page 93



**AU-100**  
Aux. contact unit  
2pole for side mount  
→ page 114



**AR-180, 800**  
Mechanical interlock unit  
→ page 116



**AS**  
Surge absorber unit  
→ page 118



**AD-300, 600**  
Delayed opening device  
→ page 119



**Terminal covers**  
→ page 117



**AI-180**  
Insulation barriers  
→ page 118

### For more information

- Technical specification → page 123~158
- Drawings → page 173
- Circuit diagrams → page 173
- Overload relays → page 92, 93

# Motor starters, open

2.2kW ~ 7.5kW

## Starters

- Open types
- Direct (Full voltage) types
- Coil voltage : AC
- Contactors : screw clamp connection types
- Overload relays : differential or non-differential types



### AC coil contactor + Differential type overload relay

Devices combined		AC3 ratings (IEC60947-4)				Auxiliary contacts	Starter Type
Contactor (AC coil)	Overload (differential)	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V		
GMC-6M	GTK-12M	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	1NO or 1NC	GMS-6M/K
GMC-9M	GTK-12M	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	1NO or 1NC	GMS-9M/K
GMC-12M	GTK-12M	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	1NO or 1NC	GMS-12M/K
GMC-16M	GTK-12M	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	1NO or 1NC	GMS-16M/K

### AC coil contactor + Non-differential type overload relay

Devices combined		AC3 ratings (IEC60947-4)				Auxiliary contacts	Starter Type
Contactor (AC coil)	Overload (Non-differential)	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V		
GMC-6M	GTH-12M/3	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	1NO or 1NC	GMS-6M
GMC-9M	GTH-12M/3	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	1NO or 1NC	GMS-9M
GMC-12M	GTH-12M/3	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	1NO or 1NC	GMS-12M
GMC-16M	GTH-12M/3	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	1NO or 1NC	GMS-16M

#### Coil voltage, AC 50/60Hz

24, 36, 42, 48, 110, 115, 120, 127, 200 / 208, 220, 220 / 230, 230 / 240, 256, 277, 380 / 400  
400, 440, 480, 500, 550V AC

#### Ordering information

Type, Auxiliary contact and Coil voltage  
Overload relay setting range ( → page 87)

#### For more information

- Drawings → page 180
- Mini Contactors → page 24
- Mini Overload relays → page 87
- Optional accessories → page 110~113

**Certificate**  
CE, ULcUL

## Description

- Open & full voltage type
- With differential type thermal overload relay
- Contactors : 3 pole with AC coil
- DIN rail or screw mountable
- Top/side mountable accessories available

## Types and ratings



Devices combined		AC3 ratings (IEC60947-4)				Auxiliary contact (standard)	Type
Contactor	Overload (differential)	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V		
<b>GMC-9</b>	GTK-22 ①	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	1NO+1NC	GMS-9/K
<b>GMC-12</b>		3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	1NO+1NC	GMS-12/K
<b>GMC-18</b>		4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	1NO+1NC	GMS-18/K
<b>GMC-22</b>		5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	1NO+1NC	GMS-22/K
<b>GMC-32</b>	GTK-40 ②	7.5kW 32A	15kW 32A	18.5kW 28A	18.5kW 20A	2NO+2NC	GMS-32/K
<b>GMC-40</b>		11kW 40A	18.5kW 40A	22kW 32A	22kW 23A	2NO+2NC	GMS-40/K
<b>GMC-50</b>	GTK-85 ③	15kW 55A	22kW 50A	30kW 43A	30kW 28A	2NO+2NC	GMS-50/K
<b>GMC-65</b>		18.5kW 65A	30kW 65A	33kW 60A	33kW 35A	2NO+2NC	GMS-65/K
<b>GMC-75</b>		22kW 75A	37kW 75A	37kW 64A	37kW 42A	2NO+2NC	GMS-75/K
<b>GMC-85</b>		25kW 85A	45kW 85A	45kW 75A	45kW 45A	2NO+2NC	GMS-85/K

### Coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V

60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

### Overload relay setting range, Amp.

① GTK - 22		② GTK - 40		③ GTK - 85	
0.1 - 0.16	4 - 6	4 - 6	12 - 18	7 - 10	28 - 40
0.16 - 0.25	5 - 8	5 - 8	16 - 22	9 - 13	34 - 50
0.25 - 0.4	6 - 9	6 - 9	18 - 26	12 - 18	45 - 65
0.4 - 0.63	7 - 10	7 - 10	24 - 36	16 - 22	54 - 75
0.63 - 1	9 - 13	9 - 13	28 - 40A	18 - 26	63 - 85A
1 - 1.6	12 - 18			24 - 36	
1.6 - 2.5	16 - 22A				
2.5 - 4					

### For more information

- Technical specification → page 123~158
- Drawings → page 181
- Contactors → page 28~33
- Overload relays → page 88~96
- Accessories → page 114~119

### Ordering information

Type, Coil voltage and Overload relay setting range

Example : GMS-9/K 50Hz 220V 4-6A

# Motor starters, open

55kW ~ 440kW

## Description

- Open & full voltage type
- With differential type thermal overload relay
- Contactors : 3 pole with AC/DC common coil
- Screw mountable
- Side mountable accessories available

## Types and ratings



Devices combined		AC3 ratings (IEC60947-4)				Auxiliary contact (standard)	Type
Contactor	Overload (differential)	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V		
GMC-100	GTK-100	30kW	55kW	55kW	55kW	2NO+2NC	GMS-100/K
		105A	105A	85A	65A		
GMC-125	①	37kW	60kW	60kW	60kW	2NO+2NC	GMS-125/K
		125A	120A	90A	70A		
GMC-150	②	45kW	75kW	90kW	90kW	2NO+2NC	GMS-150/K
		150A	150A	140A	100A		
GMC-180	③	55kW	90kW	110kW	110kW	2NO+2NC	GMS-180/K
		180A	180A	180A	120A		
GMC-220	③	75kW	132kW	132kW	132kW	2NO+2NC	GMS-220/K
		250A	250A	200A	150A		
GMC-300	④	90kW	160kW	160kW	200kW	2NO+2NC	GMS-300/K
		300A	300A	250A	220A		
GMC-400	④	125kW	220kW	225kW	250kW	2NO+2NC	GMS-400/K
		400A	400A	350A	300A		
GMC-600	⑤	190kW	330kW	330kW	330kW	2NO+2NC	GMS-600/K
		630A	630A	500A	420A		
GMC-800	⑤	220kW	440kW	550kW	500kW	2NO+2NC	GMS-800/K
		800A	800A	720A	630A		

### Coil voltage, AC/DC common

24, 48, 100/200, 300, 400, 500V for types GM-100,125,150,180,220

100/200, 300, 400, 500V for types GM-300, 400

100, 200, 300, 400, 500V for types GM-600, 800

Nominal(ordering) voltage	AC 50/60Hz	DC
24V	24 - 25V	24V
48V	48 - 50V	48V
100V	100 - 127V	100 - 110V
200V	200 - 240V	200 - 220V
100/200V	100 - 240V	100 - 220V
300V	265 - 347V	-
400V	380 - 450V	-
500V	440 - 575V	-

### Overload relay setting range, Amp.

① GTK-100	② GTK-150	③ GTK-220	④ GTK-400	⑤ GTK-600
34 - 50	34 - 50	65 - 100	85 - 125	200 - 300
39 - 57	39 - 57	85 - 125	100 - 160	260 - 400
43 - 65	43 - 65	100 - 160	120 - 180	520 - 800A
54 - 80	54 - 80	120 - 180	160 - 240	
65 - 100	65 - 100	160 - 240A	220 - 300	
85 - 125A	85 - 125		260 - 400A	
	100 - 150A			

### For more information

- Technical specification → page 123~158
- Drawings → page 181~182
- Contactors → page 34~39
- Overload relays → page 91~93
- Accessories → page 114~119

### Ordering information

Type, Coil voltage and Overload relay setting range

Example : GMS-150/K 100/200V 100-150A

# Motor starters, enclosed

4kW ~ 45kW



## Description

- Enclosed & full voltage type  
Steel enclosure without buttons
- With differential type thermal overload relay
- Contactors : 3 pole with AC coil
- Screw mountable

With differential type overload relay

## Types and ratings



Devices combined		AC3 ratings (IEC60947-4)				Auxiliary contact (standard)	Type
Contactor	Overload (differential)	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V		
GMC-9	GTK-22 ①	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	1NO+1NC	GMW-9/K
GMC-12		3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	1NO+1NC	GMW-12/K
GMC-18		4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	1NO+1NC	GMW-18/K
GMC-22		5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	1NO+1NC	GMW-22/K
GMC-32	GTK-40 ②	7.5kW 32A	15kW 32A	18.5kW 28A	18.5kW 20A	2NO+2NC	GMW-32/K
GMC-40		11kW 40A	18.5kW 40A	22kW 32A	22kW 23A	2NO+2NC	GMW-40/K
GMC-50	GTK-85 ③	15kW 55A	22kW 50A	30kW 43A	30kW 28A	2NO+2NC	GMW-50/K
GMC-65		18.5kW 65A	30kW 65A	33kW 60A	33kW 35A	2NO+2NC	GMW-65/K
GMC-75		22kW 75A	37kW 75A	37kW 64A	37kW 42A	2NO+2NC	GMW-75/K
GMC-85		25kW 85A	45kW 85A	45kW 75A	45kW 45A	2NO+2NC	GMW-85/K

### Coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V

60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

### Overload relay setting range, Amp.

① GTK - 22		② GTK - 40		③ GTK - 85	
0.1 - 0.16	4 - 6	4 - 6	12 - 18	7 - 10	28 - 40
0.16 - 0.25	5 - 8	5 - 8	16 - 22	9 - 13	34 - 50
0.25 - 0.4	6 - 9	6 - 9	18 - 26	12 - 18	45 - 65
0.4 - 0.63	7 - 10	7 - 10	24 - 36	16 - 22	54 - 75
0.63 - 1	9 - 13	9 - 13	28 - 40A	18 - 26	63 - 85A
1 - 1.6	12 - 18			24 - 36	
1.6 - 2.5	16 - 22A				
2.5 - 4					

### For more information

- Technical specification → page 123-158
- Drawings → page 183
- Contactors → page 28-33
- Overload relays → page 88-90
- Accessories → page 114-119

### Ordering information

Type, Coil voltage and Overload relay setting range

Example : GMW-9/K 50Hz 220V 4-6A



# Motor starters, enclosed

4kW ~ 45kW

## Description

- Enclosed & full voltage type  
Steel enclosure without buttons
- With non-differential type 3-heater thermal overload relay
- Contactors : 3 pole with AC coil
- Screw mountable

With non-differential type  
overload relay



## Types and ratings

Devices combined		AC3 ratings (IEC60947-4)				Auxiliary contact (standard)	Type
Contactor	Overload (non-differential)	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V		
GMC-9	GTH-22/3 ①	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	1NO+1NC	GMW-9/3
GMC-12		3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	1NO+1NC	GMW-12/3
GMC-18		4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	1NO+1NC	GMW-18/3
GMC-22		5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	1NO+1NC	GMW-22/3
GMC-32	GTH-40/3 ②	7.5kW 32A	15kW 32A	18.5kW 28A	18.5kW 20A	2NO+2NC	GMW-32/3
GMC-40		11kW 40A	18.5kW 40A	22kW 32A	22kW 23A	2NO+2NC	GMW-40/3
GMC-50	GTH-85/3 ③	15kW 55A	22kW 50A	30kW 43A	30kW 28A	2NO+2NC	GMW-50/3
GMC-65		18.5kW 65A	30kW 65A	33kW 60A	33kW 35A	2NO+2NC	GMW-65/3
GMC-75		22kW 75A	37kW 75A	37kW 64A	37kW 42A	2NO+2NC	GMW-75/3
GMC-85		25kW 85A	45kW 85A	45kW 75A	45kW 45A	2NO+2NC	GMW-85/3

### Coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V

60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

### Overload relay setting range, Amp.

① GTH - 22/3		② GTH - 40/3		③ GTH - 85/3	
0.1 - 0.16	4 - 6	4 - 6	12 - 18	7 - 10	28 - 40
0.16 - 0.25	5 - 8	5 - 8	16 - 22	9 - 13	34 - 50
0.25 - 0.4	6 - 9	6 - 9	18 - 26	12 - 18	45 - 65
0.4 - 0.63	7 - 10	7 - 10	24 - 36	16 - 22	54 - 75
0.63 - 1	9 - 13	9 - 13	28 - 40A	18 - 26	63 - 85A
1 - 1.6	12 - 18			24 - 36	
1.6 - 2.5	16 - 22A				
2.5 - 4					

### For more information

- Technical specification → page 123~158
- Drawings → page 183
- Contactors → page 28~33
- Overload relays → page 88~90
- Accessories → page 114~119

### Ordering information

Type, Coil voltage and Overload relay setting range

Example : GMW-9/3 50Hz 220V 4-6A

## Description

## With 2-heater overload relay

- Enclosed & full voltage type  
Steel enclosure without buttons
- With non-differential type 2-heater thermal overload relay
- Contactors : 3 pole with AC coil
- Screw mountable



## Types and ratings

Devices combined		AC3 ratings (IEC60947-4)				Auxiliary contact (standard)	Type
Contactors	Overload (2-heater)	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V		
<b>GMC-9</b>	GTH-22 ①	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	1NO+1NC	<b>GMW-9</b>
<b>GMC-12</b>		3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	1NO+1NC	<b>GMW-12</b>
<b>GMC-18</b>		4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	1NO+1NC	<b>GMW-18</b>
<b>GMC-22</b>		5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	1NO+1NC	<b>GMW-22</b>
<b>GMC-32</b>	GTH-40 ②	7.5kW 32A	15kW 32A	18.5kW 28A	18.5kW 20A	2NO+2NC	<b>GMW-32</b>
<b>GMC-40</b>		11kW 40A	18.5kW 40A	22kW 32A	22kW 23A	2NO+2NC	<b>GMW-40</b>
<b>GMC-50</b>	GTH-85 ③	15kW 55A	22kW 50A	30kW 43A	30kW 28A	2NO+2NC	<b>GMW-50</b>
<b>GMC-65</b>		18.5kW 65A	30kW 65A	33kW 60A	33kW 35A	2NO+2NC	<b>GMW-65</b>
<b>GMC-75</b>		22kW 75A	37kW 75A	37kW 64A	37kW 42A	2NO+2NC	<b>GMW-75</b>
<b>GMC-85</b>		25kW 85A	45kW 85A	45kW 75A	45kW 45A	2NO+2NC	<b>GMW-85</b>

### Coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V

60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

### Overload relay setting range, Amp.

① GTH - 22		② GTH - 40		③ GTH - 85	
0.1 - 0.16	4 - 6	4 - 6	12 - 18	7 - 10	28 - 40
0.16 - 0.25	5 - 8	5 - 8	16 - 22	9 - 13	34 - 50
0.25 - 0.4	6 - 9	6 - 9	18 - 26	12 - 18	45 - 65
0.4 - 0.63	7 - 10	7 - 10	24 - 36	16 - 22	54 - 75
0.63 - 1	9 - 13	9 - 13	28 - 40A	18 - 26	63 - 85A
1 - 1.6	12 - 18			24 - 36	
1.6 - 2.5	16 - 22A				
2.5 - 4					

### For more information

- Technical specification → page 123~158
- Drawings → page 183
- Contactors → page 28~33
- Overload relays → page 88~90
- Accessories → page 114~119

### Ordering information

Type, Coil voltage and Overload relay setting range

Example : GMW-9 50Hz 220V 4-6A

# Enclosed motor starters with push buttons

4kW ~ 15kW

## Description

- Enclosed & full voltage type  
Plastic enclosure without buttons
- With differential or non-differential type thermal overload relay
- Contactors : 3 pole with AC coil
- Screw mountable

## Mould enclosure



## Types and ratings

Devices combined		AC3 ratings (IEC60947-4)				Auxiliary contact (standard)	Type
Contactor	Overload	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V		
GMC-9	GTK-22 differential type	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	1NO+1NC	GMW-9M/K
GMC-12		3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	1NO+1NC	GMW-12M/K
GMC-18		4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	1NO+1NC	GMW-18M/K
GMC-22		5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	1NO+1NC	GMW-22M/K
GMC-9	GTH-22/3 non-differential type with 3 heaters	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	1NO+1NC	GMW-9M/3
GMC-12		3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	1NO+1NC	GMW-12M/3
GMC-18		4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	1NO+1NC	GMW-18M/3
GMC-22		5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	1NO+1NC	GMW-22M/3
GMC-9	GTH-22 non-differential type with 2 heaters	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	1NO+1NC	GMW-9M
GMC-12		3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	1NO+1NC	GMW-12M
GMC-18		4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	1NO+1NC	GMW-18M
GMC-22		5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	1NO+1NC	GMW-22M

### Coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V

60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

### Overload relay setting range, Amp.3

0.1 - 0.16	0.63 - 1	4 - 6	9 - 13
0.16 - 0.25	1 - 1.6	5 - 8	12 - 18
0.25 - 0.4	1.6 - 2.5	6 - 9	16 - 22A
0.4 - 0.63	2.5 - 4	7 - 10	

### For more information

- Technical specification ➔ page 123~158
- Drawings ➔ page 185
- Contactors ➔ page 28~33
- Overload relays ➔ page 88
- Accessories ➔ page 114~119

### Ordering information

Type, Coil voltage and Overload relay setting range

Example : GMW-9M/K 50Hz 220V 4-6A

## Description

- Enclosed & full voltage type  
Plastic enclosure with ON/OFF buttons
- With differential or non-differential type thermal overload relay
- Contactors : 3 pole with AC coil
- Screw mountable

## Mould enclosure



## Types and ratings

Devices combined		AC3 ratings (IEC60947-4)				Auxiliary contact (standard)	Type
Contactor	Overload	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V		
GMC-9	GTK-22 differential type	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	1NO+1NC	GMW-9MB/K
GMC-12		3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	1NO+1NC	GMW-12MB/K
GMC-18		4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	1NO+1NC	GMW-18MB/K
GMC-22		5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	1NO+1NC	GMW-22MB/K
GMC-9	GTH-22/3 non-differential type with 3 heaters	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	1NO+1NC	GMW-9MB/3
GMC-12		3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	1NO+1NC	GMW-12MB/3
GMC-18		4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	1NO+1NC	GMW-18MB/3
GMC-22		5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	1NO+1NC	GMW-22MB/3
GMC-9	GTH-22 non-differential type with 2 heaters	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	1NO+1NC	GMW-9MB
GMC-12		3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	1NO+1NC	GMW-12MB
GMC-18		4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	1NO+1NC	GMW-18MB
GMC-22		5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	1NO+1NC	GMW-22MB

### Coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V

60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

### Overload relay setting range, Amp.

0.1 - 0.16	0.63 - 1	4 - 6	9 - 13
0.16 - 0.25	1 - 1.6	5 - 8	12 - 18
0.25 - 0.4	1.6 - 2.5	6 - 9	16 - 22A
0.4 - 0.63	2.5 - 4	7 - 10	

### For more information

- Technical specification ➔ page 123~158
- Drawings ➔ page 185
- Contactors ➔ page 28~33
- Overload relays ➔ page 88
- Accessories ➔ page 114~119

### Ordering information

Type, Coil voltage and Overload relay setting range

Example : GMW-9MB/K 50Hz 220V 4-6A

# Enclosed motor starters with push buttons

4kW ~ 45kW

## Description

- Enclosed & full voltage type  
Steel enclosure with ON/OFF buttons
- With differential type thermal overload relay
- Contactors : 3 pole with AC coil
- Screw mountable

With differential type overload relay  
Steel enclosure

## Types and ratings



Devices combined		AC3 ratings (IEC60947-4)				Auxiliary contact (standard)	Type
Contactor	Overload (differential)	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V		
GMC-9	GTK-22 ①	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	1NO+1NC	GMW-9B/K
GMC-12		3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	1NO+1NC	GMW-12B/K
GMC-18		4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	1NO+1NC	GMW-18B/K
GMC-22		5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	1NO+1NC	GMW-22B/K
GMC-32	GTK-40 ②	7.5kW 32A	15kW 32A	18.5kW 28A	18.5kW 20A	2NO+2NC	GMW-32B/K
GMC-40		11kW 40A	18.5kW 40A	22kW 32A	22kW 23A	2NO+2NC	GMW-40B/K
GMC-50	GTK-85 ③	15kW 55A	22kW 50A	30kW 43A	30kW 28A	2NO+2NC	GMW-50B/K
GMC-65		18.5kW 65A	30kW 65A	33kW 60A	33kW 35A	2NO+2NC	GMW-65B/K
GMC-75		22kW 75A	37kW 75A	37kW 64A	37kW 42A	2NO+2NC	GMW-75B/K
GMC-85		25kW 85A	45kW 85A	45kW 75A	45kW 45A	2NO+2NC	GMW-85B/K

### Coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V

60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

### Overload relay setting range, Amp.

① GTK - 22		② GTK - 40		③ GTK - 85	
0.1 - 0.16	4 - 6	4 - 6	12 - 18	7 - 10	28 - 40
0.16 - 0.25	5 - 8	5 - 8	16 - 22	9 - 13	34 - 50
0.25 - 0.4	6 - 9	6 - 9	18 - 26	12 - 18	45 - 65
0.4 - 0.63	7 - 10	7 - 10	24 - 36	16 - 22	54 - 75
0.63 - 1	9 - 13	9 - 13	28 - 40A	18 - 26	63 - 85A
1 - 1.6	12 - 18			24 - 36	
1.6 - 2.5	16 - 22A				
2.5 - 4					

### For more information

- Technical specification → page 123~158
- Drawings → page 184
- Contactors → page 28~33
- Overload relays → page 88~90
- Accessories → page 114~119

### Ordering information

Type, Coil voltage and Overload relay setting range

Example : GMW-9B/K 50Hz 220V 4-6A

## Description

- Enclosed & full voltage type  
Steel enclosure with ON/OFF buttons
- With non-differential type 3-heater thermal overload relay
- Contactors : 3 pole with AC coil
- Screw mountable

## With non-differential type overload relay Steel enclosure



## Types and ratings

Devices combined		AC3 ratings (IEC60947-4)				Auxiliary contact (standard)	Type
Contactor	Overload (non-differential)	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V		
<b>GMC-9</b>	GTH-22/3 ①	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	1NO+1NC	<b>GMW-9B/3</b>
<b>GMC-12</b>		3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	1NO+1NC	<b>GMW-12B/3</b>
<b>GMC-18</b>		4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	1NO+1NC	<b>GMW-18B/3</b>
<b>GMC-22</b>		5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	1NO+1NC	<b>GMW-22B/3</b>
<b>GMC-32</b>	GTH-40/3 ②	7.5kW 32A	15kW 32A	18.5kW 28A	18.5kW 20A	2NO+2NC	<b>GMW-32B/3</b>
<b>GMC-40</b>		11kW 40A	18.5kW 40A	22kW 32A	22kW 23A	2NO+2NC	<b>GMW-40B/3</b>
<b>GMC-50</b>	GTH-85/3 ③	15kW 55A	22kW 50A	30kW 43A	30kW 28A	2NO+2NC	<b>GMW-50B/3</b>
<b>GMC-65</b>		18.5kW 65A	30kW 65A	33kW 60A	33kW 35A	2NO+2NC	<b>GMW-65B/3</b>
<b>GMC-75</b>		22kW 75A	37kW 75A	37kW 64A	37kW 42A	2NO+2NC	<b>GMW-75B/3</b>
<b>GMC-85</b>		25kW 85A	45kW 85A	45kW 75A	45kW 45A	2NO+2NC	<b>GMW-85B/3</b>

### Coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V

60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

### Overload relay setting range, Amp.

① GTH - 22/3		② GTH - 40/3		③ GTH - 85/3	
0.1 - 0.16	4 - 6	4 - 6	12 - 18	7 - 10	28 - 40
0.16 - 0.25	5 - 8	5 - 8	16 - 22	9 - 13	34 - 50
0.25 - 0.4	6 - 9	6 - 9	18 - 26	12 - 18	45 - 65
0.4 - 0.63	7 - 10	7 - 10	24 - 36	16 - 22	54 - 75
0.63 - 1	9 - 13	9 - 13	28 - 40A	18 - 26	63 - 85A
1 - 1.6	12 - 18			24 - 36	
1.6 - 2.5	16 - 22A				
2.5 - 4					

### For more information

- Technical specification → page 123~158
- Drawings → page 184
- Contactors → page 28~33
- Overload relays → page 88~90
- Accessories → page 114~119

### Ordering information

Type, Coil voltage and Overload relay setting range

Example : GMW-9B/3 50Hz 220V 4-6A

# Enclosed motor starters with push buttons

4kW ~ 45kW

## Description

- Enclosed & full voltage type  
Steel enclosure with ON/OFF buttons
- With non-differential type 2-heater thermal overload relay
- Contactors : 3 pole with AC coil
- Screw mountable

With 2-heater overload relay  
Steel enclosure



## Types and ratings

Devices combined		AC3 ratings (IEC60947-4)				Auxiliary contact (standard)	Type
Contactor	Overload (non-differential)	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V		
GMC-9	GTH-22 ①	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	1NO+1NC	GMW-9B
GMC-12		3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	1NO+1NC	GMW-12B
GMC-18		4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	1NO+1NC	GMW-18B
GMC-22		5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	1NO+1NC	GMW-22B
GMC-32	GTH-40 ②	7.5kW 32A	15kW 32A	18.5kW 28A	18.5kW 20A	2NO+2NC	GMW-32B
GMC-40		11kW 40A	18.5kW 40A	22kW 32A	22kW 23A	2NO+2NC	GMW-40B
GMC-50	GTH-85 ③	15kW 55A	22kW 50A	30kW 43A	30kW 28A	2NO+2NC	GMW-50B
GMC-65		18.5kW 65A	30kW 65A	33kW 60A	33kW 35A	2NO+2NC	GMW-65B
GMC-75		22kW 75A	37kW 75A	37kW 64A	37kW 42A	2NO+2NC	GMW-75B
GMC-85		25kW 85A	45kW 85A	45kW 75A	45kW 45A	2NO+2NC	GMW-85B

### Coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V  
60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

### Overload relay setting range, Amp.

① GTH - 22		② GTH - 40		③ GTH - 85	
0.1 - 0.16	4 - 6	4 - 6	12 - 18	7 - 10	28 - 40
0.16 - 0.25	5 - 8	5 - 8	16 - 22	9 - 13	34 - 50
0.25 - 0.4	6 - 9	6 - 9	18 - 26	12 - 18	45 - 65
0.4 - 0.63	7 - 10	7 - 10	24 - 36	16 - 22	54 - 75
0.63 - 1	9 - 13	9 - 13	28 - 40A	18 - 26	63 - 85A
1 - 1.6	12 - 18			24 - 36	
1.6 - 2.5	16 - 22A				
2.5 - 4					

### For more information

- Technical specification ➔ page 123~158
- Drawings ➔ page 184
- Contactors ➔ page 28~33
- Overload relays ➔ page 88~90
- Accessories ➔ page 114~119

### Ordering information

Type, Coil voltage and Overload relay setting range  
Example : GMW-9B 50Hz 220V 4-6A



# Mini contactors, Reversing type

6A ~ 16A / AC coil



## Reversing contactors

- For motor control
- Mechanically interlocked
- Coil voltage : AC

### Screw clamp connection types



Frame size	AC3 ratings (IEC60947-4)				AC1 rating Ith	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMC-6MR
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMC-9MR
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMC-12MR
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMC-16MR

### Fast-on connection types



Frame size	AC3 ratings (IEC60947-4)				AC1 rating Ith	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMC-6MFR
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMC-9MFR
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMC-12MFR
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMC-16MFR

### Coil voltage, AC 50/60Hz

24, 36, 42, 48, 110, 115, 120, 127, 200 / 208, 220, 220 / 230, 230 / 240, 256, 277, 380 / 400  
400, 440, 480, 500, 550V AC

### Ordering information

Type, Auxiliary contact and Coil voltage

### For more information

- Drawings → page 186
- Overload relays → page 87
- Optional accessories → page 110~113

**Certificate**  
CE, ULcUL

# Mini contactors, Reversing type

6A ~ 16A / AC coil

## Reversing contactors

- For motor control
- Mechanically interlocked
- Coil voltage : AC



### Cage clamp connection types

Frame size	AC3 ratings (IEC60947-4)				AC1 rating Ith	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMC-6MCR
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMC-9MCR
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMC-12MCR
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMC-16MCR



### Solder pin connection types

Frame size	AC3 ratings (IEC60947-4)				AC1 rating Ith	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMC-6MPR
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMC-9MPR
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMC-12MPR
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMC-16MPR

### Coil voltage, AC 50/60Hz

24, 36, 42, 48, 110, 115, 120, 127, 200 / 208, 220, 220 / 230, 230 / 240, 256, 277, 380 / 400, 400, 440, 480, 500, 550V AC

### Ordering information

Type, Auxiliary contact and Coil voltage

### For more information

- Drawings → page 186
- Overload relays → page 87
- Optional accessories → page 110~113

**Certificate**  
CE, ULcUL

## Reversing contactors

- For motor control
- Mechanically interlocked
- Coil voltage : DC

### Screw clamp connection types



Frame size	AC3 ratings (IEC60947-4)				AC1 rating Ith	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMD-6MR
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMD-9MR
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMD-12MR
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMD-16MR

### Fast-on connection types



Frame size	AC3 ratings (IEC60947-4)				AC1 rating Ith	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMD-6MFR
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMD-9MFR
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMD-12MFR
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMD-16MFR

#### Coil voltage, DC

- ① Standard type : 12, 20, 24, 36, 42, 48, 60, 72, 110, 120, 125, 220, 240, 250V DC
- ② Low consumption type : 12, 20, 24, 48, 72, 110, 120V DC(Low)
- ③ Wide Voltage : 12, 20, 24, 48, 72, 110, 12V DC(Wide)

#### Ordering information

Type, Auxiliary contact and Coil voltage

#### For more information

- Drawings → page 86
- Overload relays → page 87
- Optional accessories → page 110~113

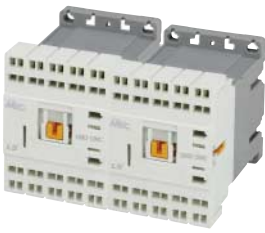
**Certificate**  
CE, ULcUL

# Mini contactors, Reversing type

6A ~ 16A / DC coil

## Reversing contactors

- For motor control
- Mechanically interlocked
- Coil voltage : DC



### Cage clamp connection types

Frame size	AC3 ratings (IEC60947-4)				AC1 rating Ith	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMD-6MCR
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMD-9MCR
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMD-12MCR
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMD-16MCR



### Solder pin connection types

Frame size	AC3 ratings (IEC60947-4)				AC1 rating Ith	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	GMD-6MSR
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	GMD-9MSR
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	GMD-12MSR
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 5A	20A	1NO or 1NC	GMD-16MSR

### Coil voltage, DC

- ① Standard type : 12, 20, 24, 36, 42, 48, 60, 72, 110, 120, 125, 220, 240, 250V DC
- ② Low consumption type : 12, 20, 24, 48, 72, 110, 120V DC(Low)
- ③ Wide Voltage : 12, 20, 24, 48, 72, 110, 12V DC(Wide)

### Ordering information

Type, Auxiliary contact and Coil voltage

### For more information

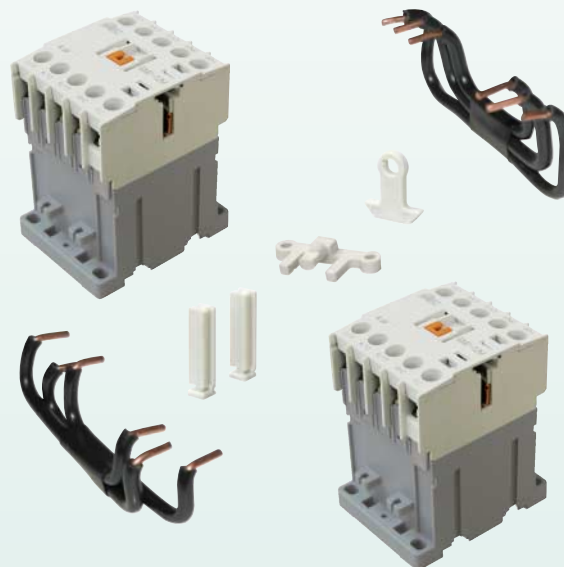
- Drawings → page 186
- Overload relays → page 87
- Optional accessories → page 110~113

**Certificate**  
CE, ULcUL

## Reversing contactors



## Interlock unit, AR-12M



### Consists of

- Mechanical interlock components
- Cable kits for line and load sides

# 3-pole Contactors, Reversing type

9A ~ 85A

## Description

- 3-pole main contact
- Mechanically interlocked
- Finger proof design
- DIN rail or screw mountable
- Top/side mountable accessories available
- Direct mountable overload relays available



## 3 pole reversing contactors with AC coil

Frame size	AC3 ratings / IEC60947-4				Auxiliary contact (per contactor)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V		
9A	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	1NO+1NC	GMC-9R
12A	3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	1NO+1NC	GMC-12R
18A	4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	1NO+1NC	GMC-18R
22A	5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	1NO+1NC	GMC-22R
32A	7.5kW 32A	15kW 32A	18.5kW 28A	18.5kW 20A	2NO+2NC	GMC-32R
40A	11kW 40A	18.5kW 40A	22kW 32A	22kW 23A	2NO+2NC	GMC-40R
50A	15kW 55A	22kW 50A	30kW 43A	30kW 28A	2NO+2NC	GMC-50R
65A	18.5kW 65A	30kW 65A	33kW 60A	33kW 35A	2NO+2NC	GMC-65R
75A	22kW 75A	37kW 75A	37kW 64A	37kW 42A	2NO+2NC	GMC-75R
85A	25kW 85A	45kW 85A	45kW 75A	45kW 45A	2NO+2NC	GMC-85R

### Coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V

60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

### Ordering information

Specify type and coil voltage

Example : GMC-12R 50Hz 240V

## Options



Thermal (Bimetallic) style  
➔ page 88~90



Solid state style  
➔ page 100~108



**AU-1**  
Aux. contact unit  
2pole for side mount  
➔ page 114



**AU-2**  
Aux. contact unit  
2pole for front mount  
➔ page 114



**AU-4**  
Aux. contact unit  
4pole for front mount  
➔ page 114



**AL**  
Mechanical latch unit  
➔ page 117



**AS**  
Surge absorber unit  
➔ page 118

### For more information

- Technical specification ➔ page 123~158
- Drawings ➔ page 190
- Connections ➔ page 190
- Contactors ➔ page 28~33
- Overload relays ➔ page 88~90, 100~108



# 3-pole Contactors, Reversing type

100A ~ 800A

## Description

- 3-pole main contact
- Mechanically interlocked
- AC/DC common use coil built
- Wide coil operation voltage
- Screw mountable
- 2NO+2NC Auxiliary contacts built-in as standard
- Top/side mountable accessories available



## 3 pole reversing contactors with AC coil

Frame size	AC3 ratings / IEC60947-4				Auxiliary contact (per contactor)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V		
100A	30kW 105A	55kW 105A	55kW 85A	55kW 65A	2NO+2NC	GMC-100R
125A	37kW 125A	60kW 120A	60kW 90A	60kW 70A	2NO+2NC	GMC-125R
150A	45kW 150A	75kW 150A	90kW 140A	90kW 100A	2NO+2NC	GMC-150R
180A	55kW 180A	90kW 180A	110kW 180A	110kW 120A	2NO+2NC	GMC-180R
220A	75kW 250A	132kW 250A	132kW 200A	132kW 150A	2NO+2NC	GMC-220R
300A	90kW 300A	160kW 300A	160kW 250A	200kW 220A	2NO+2NC	GMC-300R
400A	125kW 400A	220kW 400A	225kW 350A	250kW 300A	2NO+2NC	GMC-400R
600A	190kW 630A	330kW 630A	330kW 500A	330kW 420A	2NO+2NC	GMC-600R
800A	220kW 800A	440kW 800A	550kW 720A	500kW 630A	2NO+2NC	GMC-800R

### Coil voltage, AC/DC common

524, 48, 100/200, 300, 400, 500V for types GM-100,125,150,180,220

100/200, 300, 400, 500V for types GM-300, 400

100, 200, 300, 400, 500V for types GM-600, 800

Nominal(ordering) voltage	AC 50/60Hz	DC
24V	24 - 25V	24V
48V	48 - 50V	48V
100V	100 - 127V	100 - 110V
200V	200 - 240V	200 - 220V
100/200V	100 - 240V	100 - 220V
300V	265 - 347V	-
400V	380 - 450V	-
500V	440 - 575V	-

### Ordering information

Specify type and coil voltage

Example : GMC-100R 100/200V

## Options



Thermal (Bimetallic) style  
→ page 91~93



**AU-100,**  
Aux. contact unit  
2pole for side mount  
→ page 114



**AS**  
Surge absorber unit  
→ page 118



**Terminal covers**  
→ page 117



**AI**  
Insulation barriers  
→ page 118

### For more information

- Technical specification → page 123~158
- Drawings → page 191
- Connections → page 191
- Contactors → page 34~39
- Overload relays → page 91~93

# 3-pole Contactors, Latching type

9A ~ 85A

## Description

- 3-pole main contact
- Mechanically latched
- Finger proof design
- DIN rail or screw mountable
- Side mountable accessories available
- Direct mountable overload relays available



GMC-22L

## 3 pole reversing contactors with AC coil

Frame size	AC3 ratings / IEC60947-4				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
9A	2.5kW 11A	4kW 9A	4kW 7A	4kW 5A	25A	1NO+1NC	GMC-9L
12A	3.5kW 13A	5.5kW 12A	7.5kW 12A	7.5kW 9A	25A	1NO+1NC	GMC-12L
18A	4.5kW 18A	7.5kW 18A	7.5kW 13A	7.5kW 9A	40A	1NO+1NC	GMC-18L
22A	5.5kW 22A	11kW 22A	15kW 22A	15kW 18A	40A	1NO+1NC	GMC-22L
32A	7.5kW 32A	15kW 32A	18.5kW 28A	18.5kW 20A	50A	2NO+2NC	GMC-32L
40A	11kW 40A	18.5kW 40A	22kW 32A	22kW 23A	60A	2NO+2NC	GMC-40L
50A	15kW 55A	22kW 50A	30kW 43A	30kW 28A	80A	1NO+2NC	GMC-50L
65A	18.5kW 65A	30kW 65A	33kW 60A	33kW 35A	100A	1NO+2NC	GMC-65L
75A	22kW 75A	37kW 75A	37kW 64A	37kW 42A	110A	1NO+2NC	GMC-75L
85A	25kW 85A	45kW 85A	45kW 75A	45kW 45A	135A	1NO+2NC	GMC-85L

### Contactor coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V

60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

### Rebound coil voltage

AC 50/60Hz : 100(100~127V), 200(200~240V), 300(260~350V), 400(380~440V), 500(460~550V)

DC : 12, 24, 48, 100(100~110V), 125(120~125V), 200(200~220V)

### Ordering information

Specify type, contactor coil voltage and rebound coil voltage

Example : GMC-12L 50Hz 240V DC48V



Thermal (Bimetallic) style  
➔ page 88~90



Solid state style  
➔ page 100~108



**AU-1**  
Aux. contact unit  
2pole for side mount  
➔ page 114



**AS**  
Surge absorber unit  
➔ page 118

**For more information**

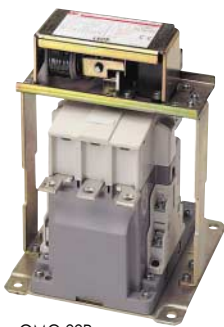
- Technical specification ➔ page 123~158
- Drawings ➔ page 194
- Connections ➔ page 194
- Contactors ➔ page 28~33
- Overload relays ➔ page 88~90, 100~108

# 3-pole Contactors, Latching type

100A ~ 400A

## Description

- 3-pole main contact
- Mechanically interlocked
- AC/DC common use coil built
- Wide coil operation voltage
- Screw mountable
- 1NO+2NC Auxiliary contacts built-in as standard
- Top/side mountable accessories available



GMC-22R

## 3 pole reversing contactors with AC coil

Frame size	AC3 ratings / IEC60947-4				AC1 lth	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
100A	30kW 105A	55kW 105A	55kW 85A	55kW 65A	160A	1NO+2NC	GMC-100L
125A	37kW 125A	60kW 120A	60kW 90A	60kW 70A	160A	1NO+2NC	GMC-125L
150A	45kW 150A	75kW 150A	90kW 140A	90kW 100A	210A	1NO+2NC	GMC-150L
180A	55kW 180A	90kW 180A	110kW 180A	110kW 120A	230A	1NO+2NC	GMC-180L
220A	75kW 250A	132kW 250A	132kW 200A	132kW 150A	275A	1NO+2NC	GMC-220L
300A	90kW 300A	160kW 300A	160kW 250A	200kW 220A	350A	1NO+2NC	GMC-300L
400A	125kW 400A	220kW 400A	225kW 350A	250kW 300A	450A	1NO+2NC	GMC-400L

### Contactor coil voltage, AC/DC common

24, 48, 100/200, 300, 400, 500V for types GM-100,125,150,180,220  
100/200, 300, 400, 500V for types GM-300, 400

Nominal(ordering) voltage	AC 50/60Hz	DC
24V	24 - 25V	24V
48V	48 - 50V	48V
100/200V	100 - 240V	100 - 220V
300V	265 - 347V	-
400V	380 - 450V	-
500V	440 - 575V	-

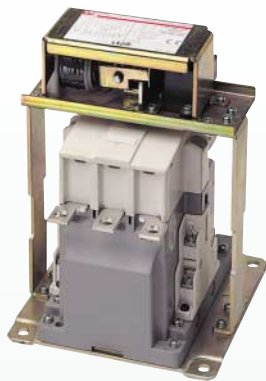
### Rebound coil voltage

AC 50/60Hz : 100(100~127V), 200( 200~ 240V)

### Ordering information

Specify type, contactor coil voltage and rebound coil voltage  
Example : GMC-100L 100/200V AC100V

## Options



Thermal (Bimetallic) style  
→ page 91~93



**AU-100,**  
Aux. contact unit  
2pole for side mount  
→ page 114



**AS**  
Surge absorber unit  
→ page 118



**Terminal covers**  
→ page 117



**AI**  
Insulation barriers  
→ page 118

### For more information

- Technical specification → page 123~158
- Drawings → page 195
- Connections → page 195
- Contactors → page 34~39
- Overload relays → page 91~93

# Mini contactors

## Contactors relays

### Description

- 4-, 6-, 8-pole units
- Finger proof design
- 16A continuous current, I<sub>th</sub>
- 44mm wide
- DIN rail or screw mountable
- AC/DC control voltage

### Selection



Poles	Composition	Types		Remarks
		AC control	DC control	
4 pole	4NO 3NO+1NC 2NO+2NC 1NO+3NC 4NC	GMR-4M	GMR-4MD	Additional 2NO or 4NO auxiliary contact block can be mounted on these relays.
6 pole	6NO 5NO+1NC 4NO+2NC 3NO+3NC 2NO+4NC	GMR-6M	GMR-6MD	GMR-4M + AU-2M
8 pole	8NO 7NO+1NC 6NO+2NC 5NO+3NC 4NO+4NC	GMR-8M	GMR-8MD	GMR-4M + AU-4M

### Contact ratings

		Rated currents		Making/Breaking currents	
		Inductive load	Resistive load	Inductive load	Resistive load
AC duty	120V	6A	10A	66A	66A
	240V	3A	8A	33A	33A
	480V	1.5A	5A	16.5A	16.5A
	600V	1.2A	5A	13.2A	13.2A
DC duty	125V	0.55A	5A	3.7A	
	250V	0.27A	3A	1.8A	
	440V	0.31A	2.5A	1.4A	
	600V	0.1A	1A	0.7A	
Continuous current, I <sub>th</sub>		10A			

Note) Minimum voltage/current is 24V DC 10mA

### Performance

Operation cycle			1800 operations/hour	
Endurance	Mechanical lifetime		20 mil. Operations	
	Electrical lifetime	AC15 duty	220V	0.5 mil. operations
			440V	0.5 mil. operations
		AC12 duty	220V	0.25 mil. operations
			440V	0.25 mil. operations
	DC13, 12 duty	24~220V	0.5 mil. operations	

#### Coil voltage, AC 50/60Hz

24, 36, 42, 48, 110, 115, 120, 127, 200 / 208, 220, 220 / 230, 230 / 240, 256, 277, 380 / 400, 400, 440, 480, 500, 550V AC

#### Coil voltage, DC

See 24 page

#### Ordering information

... Specify type, contact composition and coil voltage

#### For more information

Drawings → page 196  
Coil characteristics → page 24, 26

**Certificate**  
CE, ULcUL



## Description

- 4-, 6-, 8-pole units
- 44mm wide
- Finger proof design
- DIN rail or screw mountable
- 16A continuous current, I<sub>th</sub>
- AC/DC control voltage



GMR-4



GMR-6



GMR-8

## Selection

Poles	Composition	Types		Remarks
		AC control	DC control	
4 pole	4NO 3NO+1NC 2NO+2NC 1NO+3NC 4NC	GMR-4	GMR-4D	Additional 2NO or 4NO auxiliary contact block can be mounted on these relays
6 pole	6NO 5NO+1NC 4NO+2NC 3NO+3NC 2NO+4NC	GMR-6	GMR-6D	
8 pole	8NO 7NO+1NC 6NO+2NC 5NO+3NC 4NO+4NC	GMR-8	GMR-8D	

## Contact ratings

	Rated currents	Making/Breaking currents			
		Inductive load	Resistive load	Inductive load	Resistive load
<b>AC duty</b>	120V	6A	10A	66A	66A
	240V	3A	8A	33A	33A
	480V	1.5A	5A	16.5A	16.5A
	600V	1.2A	5A	13.2A	13.2A
<b>DC duty</b>	125V	1.1A	5A	3.7A	
	250V	0.55A	3A	1.8A	
	440V	0.31A	2.5A	1.4A	
	600V	0.2A	1A	0.7A	
<b>Continuous current, I<sub>th</sub></b>	16A				

Note) Minimum voltage and current : 17V DC 5mA for AU-1E, 7V DC 5mA for AU-100E, 24V DC 10mA for others

## Performance

Operation cycle			1800 operations/hour	
Endurance	Mechanical lifetime		20 mil. Operations	
	Electrical lifetime	AC15 duty	220V	0.5 mil. operations
			440V	0.5 mil. operations
		AC12 duty	220V	0.25 mil. operations
			440V	0.25 mil. operations
	DC13, 12 duty	24~220V	0.5 mil. operations	

### Contactors coil voltage, AC 50/60Hz

50Hz : 24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550V

60Hz : 24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600V

### Coil voltage, DC

12, 20, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250V

### Ordering information

Specify type, contact composition and coil voltage

Example : GMR-4D, 3NO+1NC, DC48V

### For more information

Drawings

➔ page 200

Diagrams

➔ page 188

# Capacitor contactors

## Description

- GMC(D)-□C, a contactor or special use, is adjusted for switching single-step or multiple-step condenser bank.
- It is standardized by IEC-60947-4941, UL and CSA.

## Operation Condition

<b>Operating Times</b>	GMC(D)-9C, 12C, 18C, 22C, 32C, 40C	240 times/h
	GMC-50C, 65C, 75C, 85C	100 times/h
<b>Electrical Endurance</b>	GMC(D)-9C, 12C, 18C, 22C, 32C, 40C	200,000 times/h
	GMC-50C, 65C, 75C, 85C	100,000 times/h

1. When the switch is closed condenser must be discharged before recharged.  
(Maximum residual voltage at terminals  $\leq 50V$ )
2. In working voltage 500V ( $U_e=500V$ ), 100,000 times for GMC(D)-9C~40C and 80,000 times for GMC(D)-50C~85C
3. To prevent short current, gG type Fuse must be 1.5~2 times than rated current.
4. It must be separated from resistant wire



## Rating

Type <span style="color: red;">Note1)</span>	Maximum Operating Power (kVar)			Rated current (A)	Applied unit
	220~240V	400~440V	600~550V		
GMC(D)-9C	5	9.7	14	14	AC-9 83631611001
GMC(D)-12C	6.7	12.5	18	18	AC-9 83631611001
GMC(D)-18C	8.5	16.7	24	24	AC-9 83631611001
GMC(D)-22C	10	18	26	26	AC-9 83631611001
GMC(D)-32C	15	25	36	36	AC-9 83631611001
GMC(D)-40C	20	33.3	48	48	AC-9 83631611001
GMC(D)-50C	22	40	58	58	AC-50 83631613001
GMC(D)-65C	25	45.7	66	66	AC-50 83631613001
GMC(D)-75C	29.7	54	78	78	AC-50 83631613001
GMC(D)-85C	35	60	92	92	AC-50 83631613001

Circumstance Temp.  $\theta \leq 55^\circ\text{C}$  Note2)

Note1) LS supply capacitor unit (AC-9 and AC-50) separately with Magnetic contactor. So, customer needs to issue an order for Magnetic Contactor (GMC or GMD series) and capacitor unit (AC-9 or AC-50) separately.

Note2) The average temperature over a 24-hour period, in accordance with standards IEC 70 and 831 is  $45^\circ\text{C}$

## For more information

Drawings

➔ page 208

# 2-pole DC Contactors



## Description

- Two normally open main contacts for DC circuit
- Positive and negative poles indicated on the front plate
- Eternal magnet installed for the effective arc extinguishing
- DIN rail or screw mountable
- 2NO+2NC Auxiliary contacts built-in as standard
- AC/DC control voltage

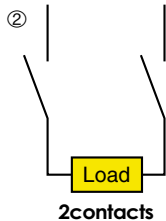
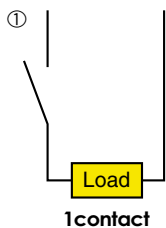
## Selection



Type		Number of contacts in series	DC2, 4 ratings			Continuous current, Ith	Auxiliary contacts
AC coil	DC coil		110V	220V	440V		
SMM-30P	SMM-30DP	1 ①	2.2kW 30A	3.7kW 20A	2.2kW 7.5A	50A	2NO+2NC
		2 ②	3.7kW 40A	5.5kW 30A	7.5kW 20A		
SMM-60P	SMM-60DP	1	5.5kW 60A	7.5kW 40A	5.5kW 15A	90A	2NO+2NC
		2	7.5kW 80A	11kW 60A	15kW 40A		
SMM-100P	SMM-100DP	1	7.5kW 100A	11kW 60A	15kW 20A	120A	2NO+2NC
		2	11kW 120A	18.5kW 100A	22kW 60A		

## Ratings of auxiliary contacts

		AC duty			DC duty		
		110V	220V	550V	48V	110V	220V
Rated currents	Inductive load	6A	5A	3A	3A	1.2A	0.2A
	Resistive load	10A	10A	5A	2.5A	1A	
Continuous current, Ith		16A					



## Performance

Contactor types	contacts in series	Breaking current			Making current	Endurance
		DC110V	DC220V	DC440V		
SMM-30P	1	120A	80A	30A	160A	Mechanical lifetime : 2.5 mil. operations
SMM-30DP	2	160A	120A	80A		
SMM-60P	1	240A	160A	60A	320A	Electrical lifetime : 0.5 mil. operations
SMM-60DP	2	320A	240A	160A		
SMM-100P	1	400A	240A	80A	480A	Operation cycle : 1200 operations/hour
SMM-100DP	2	480A	400A	240A		

### Contactor coil voltage, AC 50/60Hz

48, 100/100~110, 110~120/115~120, 200/200~220, 220~240/230~240, 380~415/400~440V

### Coil voltage, DC

24, 48, 100, 110, 200, 220V

### Ordering information

Specify type and coil voltage  
Example : SMM-30P, AC100V 50Hz

### For more information

Drawings

➔ page 203

# 2-pole AC Contactors, Definite purpose

## Description

- Two normally open main contacts
- Screw clamp or fast-on connections
- Small and light design suitable for use in air conditioners, heaters, refrigerators, etc.
- Screw mountable
- No auxiliary contact
- AC control voltage



## Selection

Type	AC3 ratings			AC4 ratings			AC1 lth	Making current	Breaking current
	220~ 240V	380~ 440V	500~ 550V	220~ 240V	380~ 440V	500~ 550V			
SMC-20P2	20A	17A	14A	18A	13A	10A	30A	120A	20A
SMC-25P2	25A	21A	17A	20A	14A	12A	35A	150A	25A
SMC-30P2	30A	23A	21A	22A	20A	14A	40A	180A	30A

## Connection style

Terminal code	Main terminal	Coil terminal	Remarks
TSBS	Screw clamp	Screw clamp	
TSBQ		Fast-on	
TQBS	Fast-on(Quick connect)	Screw clamp	not available for SMC-30P2
TQBQ		Fast-on(Quick connect)	

## Endurance

<b>Mechanical lifetime</b>		2 mil. Operations
<b>Electrical lifetime</b>	<b>at AC3</b>	0.2 mil. Operations (1200 operations/h)
	<b>at AC4</b>	0.015 mil. Operations (600 operations/h)

### Contactor coil voltage, AC 50/60Hz

24, 48~50, 110/110~120, 208~220/208~240V

### Ordering information

Specify type, terminal code and coil voltage

Example : SMC-25P2, TSBQ, AC110V 50Hz

**Certificate**

ULcUL

### For more information

Drawings

➔ page 202

**Thermal overload relays**

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# Thermal overload relays

## Characteristics

### Application

The TOR protect the motors Overload, Locking, Open phase(differential)

### Characteristics



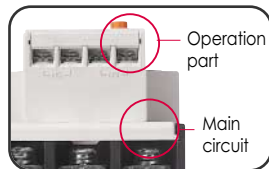
① Direct mounting structure

The TOR is mounted directly to the contactor without additional breakers.



② Safety cover

The finger proof safety cover prevent accidental contact with electric conductor



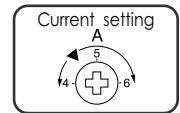
③ Separation of power part and operation part

The main circuit and the operation part are separately designed within the same unit for GTH-22, 40 and 85

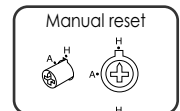


④ Easy operation

- 3steps current setting  
Rotating the reset button using a crosshead screw driver and set the rated current



- Manual / Auto reset setting

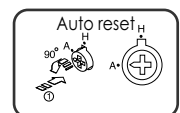


**Manual reset**

Rotate the reset button to the "H" position and this will protrude.

**Auto reset**

Press rotation the reset button to the "A" position.



- Trip / reset indicator

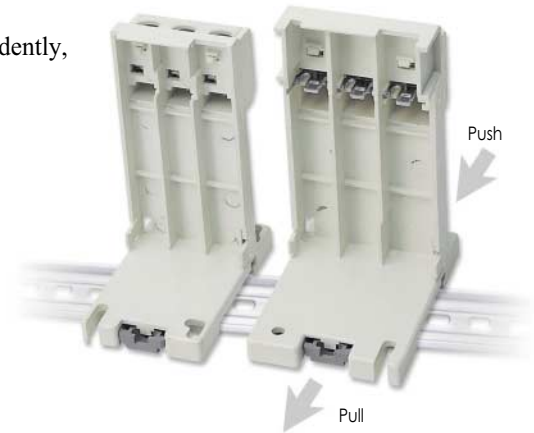
If the TOR is tripped, it protrudes 2~3mm and indicates the tripped condition.



### TOR-DIN rail adapter kit (AZ-□H)

In case of installing the overload relays independently, the separate mounting kits are available for screw or 35mm Din-rail mounting. (Applied model : GTH-22, 40, 85)

**Note)** Refer to Dimensions on page 207.



### Rating of the Aux.contacts

Type	Rated current (A)				
	AC15			DC13	
	110V	220V	550V	110V	110V
<b>GTH-22, 40, 85</b>	2.5(0.3)	2(0.3)	1(0.3)	0.28(0.28)	0.14(0.14)
<b>GTH-100, 150, 220, 400, 600</b>	2.5(0.3)	2(0.3)	1(0.3)	0.28(0.28)	0.14(0.14)

**Note)** Are the ratings of NO contact under auto reset mode.

### Combination of Contactor and TOR

Contactors	Thermal Overload Relays
<b>GMC - 9</b>	GTH(K) - 22
<b>GMC - 12</b>	
<b>GMC - 18</b>	
<b>GMC - 22</b>	
<b>GMC - 32</b>	GTH(K) - 40
<b>GMC - 40</b>	
<b>GMC - 50</b>	
<b>GMC - 65</b>	GTH(K) - 85
<b>GMC - 75</b>	
<b>GMC - 85</b>	
<b>GMC - 100</b>	GTH(K) - 100
<b>GMC - 125</b>	
<b>GMC - 150</b>	GTH(K) - 150
<b>GMC - 180</b>	
<b>GMC - 220</b>	GTH(K) - 220
<b>GMC - 300</b>	
<b>GMC - 400</b>	GTH(K) - 400
<b>GMC - 600</b>	
<b>GMC - 800</b>	GTH(K) - 600





# Thermal overload relays

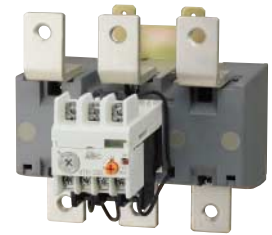
## Setting range selection guide



GTK-22



GTK-100



GTK-220

### Class 10A

Three phase (4 pole) motor max. power						GTH(K)-22	GTH(K)-40	GTH(K)-85	GTH(K)-100	GTH(K)-150	GTH(K)-220	GTH(K)-400	GTH(K)-600
220V kW	380V kW	415V kW	440V kW	550V kW	660V kW								
•	•	•	•	•	•	0.1~0.16							
•	•	•	•	•	•	0.16~0.2							
•	•	•	•	•	0.37	0.25~0.4							
•	•	•	•	0.37	0.5	0.4~0.63							
•	0.37	•	0.55	0.75	1.1	0.63~1							
0.37	0.75	1.1	1.1	1.1	1.5	1~1.6							
0.5	1	1.5	1.5	1.5	2								
0.75	1.5	1.5	1.5	2.2	3	1.6~2.5							
1	2	2	2	3	4								
1.1	2.2	2.2	2.2	3	4	2.5~4	4~6						
1.5	3	3	3	4	5.5								
1.5	3	3.7	3.7	4	5.5	4~6	5~8						
2	4	5	5	5.5	7.5								
•	•	4	4	•	•	5~8	6~9						
2.2	4	5.5	5.5	•	•								
3	5.5	5.5	5.5	5.5	7.5	6~9	7~10	7~10					
3	5.5	5.5	5.5	7.5	10								
4	7.5	7.5	7.5	10	13.5	7~10	9~13	9~13					
4	7.5	9	9	10	15								
5.5	10	12	12	13.5	20	9~13	12~18	12~18					
5.5	11	11	11	•	•	12~18	16~22	16~22					
7.5	15	15	15	•	•								
5.5	11	11	11	15	18.5	16~22	18~26	18~26					
7.5	15	15	15	20	25								
7.5	15	15	15	18.5	22		24~36	24~36					
10	20	20	20	25	30								
•	15	•	•	18.5	•		28~40	28~40					
•	20	•	•	25	•								
11	22	25	25	30	37			34~50	34~50	34~50			
15	30	35	35	40	50								
15	25	30	30	37	45			45~65	39~57	39~57			
20	35	40	40	50	60								
18.5	30	37	37	45	55								
25	40	50	50	60	75			54~75	43~65	43~65			
22	37	45	45	55	63								
30	50	60	60	75	85			63~85	54~80	54~80			
25	51	55	59	63	90								
35	70	75	80	85	125				65~100	65~100	70~100		
30	59	59	63	80	110								
40	80	80	85	110	150				85~125	85~125	85~125	85~125	
45	80	80	90	100	129								
60	110	110	125	135	175					100~150	100~160	100~160	
55	90	100	110	110	160								
75	125	135	150	150	220						120~180	120~180	
63	110	129	140	160	200							160~240	
85	150	175	190	220	270								
80	150	160	160	200	257								200~300
110	205	220	220	270	350								200~300
110	185	200	220	257	335								260~400
150	250	270	300	350	455								260~400
180	315	355	375	425	500								400~600
245	430	480	510	580	680								400~600
220	400	425	450	500	•								520~800
300	545	580	610	680	•								520~800
<b>Applied contactors for direct starters</b>						GMC(D)-9 GMC(D)-12 GMC(D)-18 GMC(D)-22	GMC(D)-32 GMC(D)-40	GMC(D)-50 GMC(D)-65 GMC(D)-75 GMC(D)-85	GMC-100 GMC-125	GMC-150	GMC-180 GMC-220	GMC-300 GMC-400	GMC-600 GMC-800





## Class 20

Three phase (4 pole) motor max. power						GTK-22/L	GTK-40/L	GTK-85/L	GTK-100/L	GTK-150/L	GTK-220/L	GTK-400/L	GTK-600/L
220V kW	380V kW	415V kW	440V kW	550V kW	660V kW								
0.37	0.75	1.1	1.1	1.1	1.5	1~1.6							
0.5	1	1.5	1.5	1.5	2								
0.75	1.5	1.5	1.5	2.2	3	1.6~2.5							
1	2	2	2	3	4								
1.1	2.2	2.2	2.2	3	4	2.5~4	4~6						
1.5	3	3	3	4	5.5								
1.5	3	3.7	3.7	4	5.5	4~6	5~8						
2	4	5	5	5.5	7.5								
•	•	4	4	•	•	5~8	6~9						
•	•	5.5	5.5	•	•								
2.2	4	4	4	5.5	7.5	6~9	7~10	7~10					
3	5.5	5.5	5.5	7.5	10								
3	5.5	5.5	5.5	7.5	10	7~10	9~13	9~13					
4	7.5	7.5	7.5	10	13.5								
4	7.5	9	9	10	15	9~13	12~18	12~18					
5.5	10	12	12	13.5	20								
5.5	11	11	11	•	•	12~18	16~22	16~22					
7.5	15	15	15	•	•								
5.5	11	11	11	15	18.5	16~22	18~26	18~26					
7.5	15	15	15	20	25								
7.5	15	15	15	18.5	22		24~36	24~36					
10	20	20	20	25	30								
•	15	•	•	18.5	•		28~40	28~40					
•	20	•	•	25	•								
11	22	25	25	30	37			34~50	34~50	34~50			
15	30	35	35	40	50								
15	25	30	30	37	45			45~65	39~57	39~57			
20	35	40	40	50	60								
18.5	30	37	37	45	55			54~75	43~65	43~65			
25	40	50	50	60	75								
22	37	45	45	55	63			63~85	54~80	54~80			
30	50	60	60	75	85								
25	51	55	59	63	90				65~100	65~100	65~100		
35	70	75	80	85	125								
30	59	59	63	80	110				85~125	85~125	85~125	85~125	
40	80	80	85	110	150								
45	80	80	90	100	129					100~150	100~160	100~160	
60	110	110	125	135	175								
55	90	100	110	110	160						120~180	120~180	
75	125	135	150	150	220								
63	110	129	140	160	200						160~240	160~240	
85	150	175	190	220	270								
80	150	160	160	200	257							200~300	200~300
110	205	220	220	270	350								
110	185	200	220	257	335							260~400	260~400
150	250	270	300	350	455								
180	315	355	375	425	500								400~600
245	430	480	510	580	680								
220	400	425	450	500	•								520~800
300	545	580	610	680	•								

Applied contactors for direct starters

GMC(D)-9	GMC(D)-32	GMC(D)-50	GMC-100	GMC-150	GMC-180	GMC-300	GMC-600
GMC(D)-12	GMC(D)-40	GMC(D)-65	GMC-125		GMC-220	GMC-400	GMC-800
GMC(D)-18		GMC(D)-75					
GMC(D)-22		GMC(D)-85					

## Ratings of auxiliary contacts

Type	Rated current(A)				
	AC15			DC13	
	110V	220V	550V	110V	220V
GTK(K)-22, 40, 85	2.5(0.3)	2(0.3)	1(0.3)	0.28(0.28)	0.14(0.14)
GTK(K)-100, 150, 220, 400, 600	2.5(0.3)	2(0.3)	1(0.3)	0.28(0.28)	0.14(0.14)

Note) Values of ( ) are the ratings of NO contact under auto reset mode.

# Electronic overload relays

## Specification

### Ratings



Model		GMP22-2P	GMP22-2P(1a1b) GMP22-3P/3PR		GMP22-2S	GMP22-3S/3SR	GMP22-2T	GMP22-3T/3TR
Type		Pin type			Screw type		Tunnel type	
No. of CT		2CT	2CT	3CT	2CT	3CT	2CT	3CT
Protection	Overcurrent	●	●	●	●	●	●	●
	Phase failure	● Note1)	●	●	●	●	●	●
	Stall	●	●	●	●	●	●	●
	Asymmetry	—	—	●	—	●	—	●
	Reverse phase	—	—	● (3PR)	—	● (3SR)	—	● (3TR)
Current setting range(A)		0.3~1.5 1~5 4.4~22						
Operating time characteristics		Inverse time characteristics(GMP22-2PD: Definite time characteristics)						
Time setting (sec)	Inverse time	0~30 sec						
	Definite D-time	0.2~60 sec for GMP22-2PD						
	O-time	5sec (Fixed) for GMP22-2PD						
Tolerance	Current	± 5%						
	Time	± 5%(or ± 0.5sec)						
Control power	Voltage	AC 110V/220V(± 10%)		AC 100~260V				
	Frequency	50/60Hz						
Aux. contact	Contact	1SPDT(1c) Note2)		2SPST(When power applied, 1a1b)				
	Ratings	5A/250VAC Resistive load		3A/250VAC Resistive load				
	Operate	(95 ⇄ 96 Close)		(95 ⇄ 96 Close)		(97 ⇄ 98 Open)		
Insulation resistance		Min 100MΩ at 500Vdc						
Surge endurance(IEC 1000-4-5)		1.2 × 50μs 6kV Apply the standard wave						
Fast transient burst(IEC 1000-4-4)		2.5kV/5min.						
Environment	Operation	-25~70°C						
	Storage	-30~80°C						
	Relative humidity	30~90%RH(No freezing)						
Trip indicator		Red LED	Red/Green LED		Red LED	Red/Green LED	Red LED	Red/Green LED
Dimension(mm) W × H × D		44 × 71 × 78		53 × 77.5 × 87.5		53 × 68 × 87.5		53 × 38 × 87.5
Mounting type		Direct mount onto a MC			Separate mount(Screw or Din-rail) Note3)			
Applied MC		GMC-9, GMC-12, GMC-18, GMC-22						
Certification		UL, cUL, CE						

Note1) When it is 2CT model, only two-phase protection is available

Note2) 1a1b Aux. switch is optional in GMP 22-2P model

Note3) The bracket for Din-rail mount is optional

## Ratings



Model	GMP40-2P	GMP40-3P/3PR	GMP40-2S	GMP40-3S/3SR	GMP40-2T	GMP40-3T/3TR	GMP80-2S	GMP80-3S/3SR
Type	Pin type		Screw type		Tunnel type		Screw type	
No. of CT	2CT	3CT	2CT	3CT	2CT	3CT	2CT	3CT
Protection	Overcurrent	●	●	●	●	●	●	●
	Phase failure	●	●	●	●	●	●	●
	Stall	●	●	●	●	●	●	●
	Asymmetry	—	●	—	●	—	—	●
	Reverse phase	—	● (3PR)	—	● (3SR)	—	● (3TR)	—
Current setting range(A)	4~20						16~80	
	8~40							
Operating time characteristics		Inverse time characteristics						
Time setting (sec)	Inverse time	0~30 sec						
	Reset time	Manual reset (Prompt)						
		Reset after 1 Min.(Optional)						
Tolerance	Current	±5%						
	Time	±5%(or±0.5sec)						
Control power	Voltage	AC 100~260V						
	Frequency	50/60Hz						
Aux. contact	Contact	2SPST(When power applied, 1a1b)						
	Ratings	3A/250VAC Resistive load						
	Operate	(95 ±96 Close)			(97± 98 Open)			
Insulation resistance		Min 100MΩ at 500Vdc						
Surge endurance(IEC 1000-4-5)		1.2 × 50μs 6kV Apply the standard wave						
Fast transient burst(IEC 1000-4-4)		2.5kV/5min.						
Environment Temperature	Operation	-25~70°C						
	Storage	-30~80°C						
	Relative humidity	30~90%RH((No freezing)						
Trip indicator	Red LED	Red/Green LED	Red LED	Red/Green LED	Red LED	Red/Green LED	Red LED	2Red LEDs
Dimension(mm)	W × H × D		53 × 68 × 87.5		53 × 38 × 87.5		89 × 77.5 × 97.4	
Mounting type	Direct mount onto a MC		Separate mount(Screw or Din-rail)				Direct/Separate mount (Screw or Din-rail )	
Applied MC	GMC-32, GMC-40						GMC-50, GMC-65, GMC-75, GMC-85	
Certification	UL, cUL, CE							

# Digital motor protection relays

## Specification



DMP□-S & DMP□-Sa

DMP□-T & DMP□-Ta

Model No.	DMP06-S/Sa		DMP60-S/Sa	DMP06-T/Ta		DMP60-T/Ta
<b>Wiring</b>	Screw type			Tunnel type		
<b>Panel mount</b>	Unit or Extension <i>Note1)</i>					
<b>Operation time</b>	Select either reverse time characteristics or definite time characteristics					
<b>Protection</b>	<b>Over current</b>	According to the setting time				
	<b>Phase failure</b>	3 sec.				
	<b>Reverse phase</b>	Within 0.1 sec.				
	<b>Asymmetry</b>	5 sec.				
	<b>Stall</b>	5 sec.				
	<b>Lock</b>	Within 0.5 sec.				
	<b>Under current</b>	3 sec.				
	<b>Ground fault</b>	Within 0.05~1 sec. Selectable (0.05~1.0sec)				
	<b>Short circuit <i>Note2)</i></b>	Within 50ms				
<b>Alarm</b>	Variable (60~110% of the setting current)					
<b>Current setting range (A)</b>	0.5~6		5~60	0.5~6		5~60
<b>Motor capacity (kW)</b>	<b>220~240V</b>	0.09~0.75	1.1~11	0.09~0.75	1.1~11	
	<b>380~440V</b>	0.12~1.5	2.2~22	0.09~1.5		2.2~22
<b>Time setting range (sec)</b>	<b>Definite time</b>	<b>Delay in starting</b>	0~60sec			
	<b>Inverse time</b>	<b>Delay in operating</b>	0~30sec			
	<b>Reset</b>		0~60sec			
<b>Tolerance</b>	<b>Current</b>	± 5%				
	<b>Time</b>	± 5% (or ± 0.5sec)				
<b>Operating power <i>Note3)</i></b>	<b>Voltage</b>	AC 190~250V				
	<b>Frequency</b>	60Hz (50Hz)				
<b>Aux. contact</b>	<b>OL</b>	<b>2-SPST</b>	3A/250Vac Resistive load			
	<b>AL</b>	<b>SPST</b>	3A/250Vac Resistive load			
<b>Insulation resistance</b>	Over DC500V 100MΩ					
<b>Surge impulse voltage(IEC1000-4-5)</b>	1.2 × 50μs 6kV (Apply standard wave form)					
<b>Fast transient burst(IEC1000-4-4)</b>	2.5kV/5min					
<b>Environment</b>	<b>Temperature</b>	<b>Operation</b>	-25~70°C			
		<b>Storage</b>	-30~80°C			
	<b>Humidity</b>	30~90% RH (No freezing)				
<b>Display</b>	<b>7-Segment</b>		3 phase current, cause of a fault			
	<b>Bar-Graph</b>		60~110% of real load current			
<b>Mounting type</b>	35mm Din-rail/Panel					

*Note1)* In extension type, the digital EMPR is calibrated with combining the display part and main body so, please cautious not to combine the display part and main body with different part No.

*Note2)* Instantaneous short circuit protection is optional

*Note3)* Operational voltage of AC 110V and 50Hz is optional

# Mini overload relays

## Bimetallic style

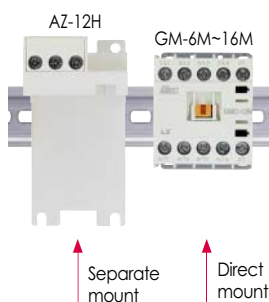


### Description

- Direct mount on the mini contactors with screw clamp connection.  
contactor types : GMC(D)-6M, GMC(D)-9M,  
GMC(D)-12M, GMC(D)-16M,
- DIN rail or screw mountable with the optional base AZ-22H
- Small physical size : 44 mm wide
- 1NO+1NC trip contacts
- Trip class 10A according to IEC60947-4-1
- Differential current/Phase failure protection : GTK types
- Non-differential GTH types are available for the economic solution
- Ambient compensated -5 to 40 °C
- Manual/Automatic reset convertible.
- Remote reset is optional
- Trip free designed



GT-12M



Separate mount

Direct mount



GT-12M

### Catalog No.

Setting ranges(A)	Differential type	Non-differential type	
	3-heater	3-heater	2-heater
0.1 - 0.16	GTK-12M • 0.14	GTH-12M/3 • 0.14	GTH-12M • 0.14
0.16 - 0.25	GTK-12M • 0.21	GTH-12M/3 • 0.21	GTH-12M • 0.21
0.25 - 0.4	GTK-12M • 0.33	GTH-12M/3 • 0.33	GTH-12M • 0.33
0.4 - 0.63	GTK-12M • 0.52	GTH-12M/3 • 0.52	GTH-12M • 0.52
0.63 - 1	GTK-12M • 0.82	GTH-12M/3 • 0.82	GTH-12M • 0.82
1 - 1.6	GTK-12M • 1.3	GTH-12M/3 • 1.3	GTH-12M • 1.3
1.6 - 2.5	GTK-12M • 2.1	GTH-12M/3 • 2.1	GTH-12M • 2.1
2.5 - 4	GTK-12M • 3.3	GTH-12M/3 • 3.3	GTH-12M • 3.3
4 - 6	GTK-12M • 5	GTH-12M/3 • 5	GTH-12M • 5
5 - 8	GTK-12M • 6.5	GTH-12M/3 • 6.5	GTH-12M • 6.5
6 - 9	GTK-12M • 7.5	GTH-12M/3 • 7.5	GTH-12M • 7.5
7 - 10	GTK-12M • 8.5	GTH-12M/3 • 8.5	GTH-12M • 8.5
9 - 13	GTK-12M • 12	GTH-12M/3 • 12	GTH-12M • 12
12 - 16	GTK-12M • 14	GTH-12M/3 • 14	GTH-12M • 14

### Auxiliary (Trip) contact rating

AC15(11) duty			DC13(11) duty	
110V	220V	550V	110V	220V
2.5(0.3)A	2(0.3)A	1(0.3)A	0.28A	0.14A

Note) Values of ( ) are the ratings of NO contact under auto reset mode.

### For more information

- Drawings → page 174
- Mini Contactors → page 24~27
- Starters → page 50
- Separate mounting unit → page 113

**Certificate**  
CE, ULcUL

# Thermal overload relays, Class 10A

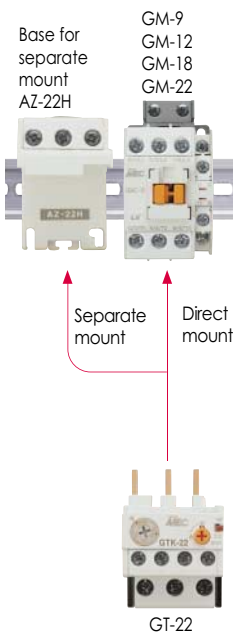
22A

## Description

- Direct mount on the GM-9, 12, 18, 22 contactors (9, 12, 18, 22A frames)
- DIN rail or screw mountable with the optional base AZ-22H
- Small physical size : 44 mm wide
- 1NO+1NC trip contacts
- Trip class 10A
- Differential current/Phase failure protection : GTK types
- Non-differential GTH types are available for the economic solution
- Ambient compensated -5 to 40°C
- Manual/Automatic reset
- Trip free design
- Bimetallic style



GT-22



## Catalog No.

Setting ranges(A)	Differential type	Non-differential type	
	3-heater	3-heater	2-heater
0.1 - 0.16	GTK-22 · 0.14	GTH-22/3 · 0.14	GTH-22 · 0.14
0.16 - 0.25	GTK-22 · 0.21	GTH-22/3 · 0.21	GTH-22 · 0.21
0.25 - 0.4	GTK-22 · 0.33	GTH-22/3 · 0.33	GTH-22 · 0.33
0.4 - 0.63	GTK-22 · 0.52	GTH-22/3 · 0.52	GTH-22 · 0.52
0.63 - 1	GTK-22 · 0.82	GTH-22/3 · 0.82	GTH-22 · 0.82
1 - 1.6	GTK-22 · 1.3	GTH-22/3 · 1.3	GTH-22 · 1.3
1.6 - 2.5	GTK-22 · 2.1	GTH-22/3 · 2.1	GTH-22 · 2.1
2.5 - 4	GTK-22 · 3.3	GTH-22/3 · 3.3	GTH-22 · 3.3
4 - 6	GTK-22 · 5	GTH-22/3 · 5	GTH-22 · 5
5 - 8	GTK-22 · 6.5	GTH-22/3 · 6.5	GTH-22 · 6.5
6 - 9	GTK-22 · 7.5	GTH-22/3 · 7.5	GTH-22 · 7.5
7 - 10	GTK-22 · 8.5	GTH-22/3 · 8.5	GTH-22 · 8.5
9 - 13	GTK-22 · 11	GTH-22/3 · 11	GTH-22 · 11
12 - 18	GTK-22 · 15	GTH-22/3 · 15	GTH-22 · 15
16 - 22	GTK-22 · 19	GTH-22/3 · 19	GTH-22 · 19

## Connection

<b>Main</b>	Screw(M4) clamp terminal
<b>(Load)</b>	Cable capacity : 1.25~5.5mm <sup>2</sup> / ϕ 1.6~2.6
<b>Auxiliary</b>	Screw(M3.5) clamp terminal

## Ordering information

Specify catalog number

## For more information

- Technical specification ➔ page 123~158
- Drawings ➔ page 175
- Contactors ➔ page 28
- Starters ➔ page 51
- Separate mounting unit ➔ page 171
- Electronic overload relay ➔ page 100
- Operating curves ➔ page 153

**Certificate**

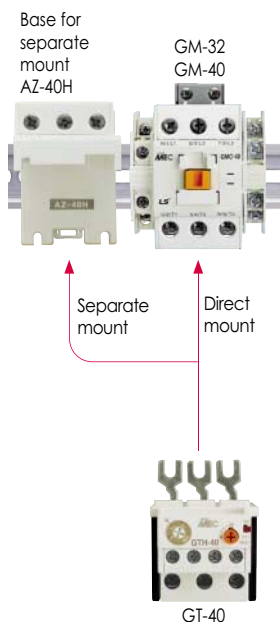
CE, ULcUL, Lloyd,  
CCC(China)

## Description

- Direct mount on the GM-32, 40 contactors (32, 40A frames)
- DIN rail or screw mountable with the optional base AZ-40H
- Small physical size : 53 mm wide
- 1NO+1NC trip contacts
- Trip class 10A
- Differential current/Phase failure protection : GTK types
- Non-differential GTH types are available for the economic solution
- Ambient compensated -5 to 40°C
- Manual/Automatic reset
- Trip free design
- Bimetallic style



GT-40



## Catalog No.

Setting ranges(A)	Differential type	Non-differential type	
	3-heater	3-heater	2-heater
4 - 6	GTK-40 · 5	GTH-40/3 · 5	GTH-40 · 5
5 - 8	GTK-40 · 6.5	GTH-40/3 · 6.5	GTH-40 · 6.5
6 - 9	GTK-40 · 7.5	GTH-40/3 · 7.5	GTH-40 · 7.5
7 - 10	GTK-40 · 8.5	GTH-40/3 · 8.5	GTH-40 · 8.5
9 - 13	GTK-40 · 11	GTH-40/3 · 11	GTH-40 · 11
12 - 18	GTK-40 · 15	GTH-40/3 · 15	GTH-40 · 15
16 - 22	GTK-40 · 19	GTH-40/3 · 19	GTH-40 · 19
18 - 26	GTK-40 · 22	GTH-40/3 · 22	GTH-40 · 22
24 - 36	GTK-40 · 30	GTH-40/3 · 30	GTH-40 · 30
28 - 40	GTK-40 · 34	GTH-40/3 · 34	GTH-40 · 34

## Connection

<b>Main</b>	Screw(M5) clamp terminal
<b>(Load)</b>	Cable capacity : 2~14mm <sup>2</sup> / ϕ 1.6~3.6
<b>Auxiliary</b>	Screw(M3.5) clamp terminal

## Ordering information

Specify catalog number

## For more information

- Technical specification → page 123~158
- Drawings → page 175
- Contactors → page 30
- Starters → page 51
- Separate mounting unit → page 171
- Electronic overload relay → page 102
- Operating curves → page 153

**Certificate**  
CE, ULcUL, Lloyd,  
CCC(China)

# Thermal overload relays, Class 10A

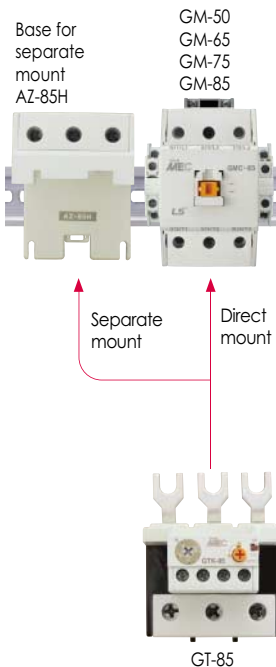
85A

## Description

- Direct mount on the GM-50, 65, 75, 85 contactors (50, 65, 75, 85A frames)
- DIN rail or screw mountable with the optional base AZ-85H
- Small physical size : 70 mm wide
- 1NO+1NC trip contacts
- Trip class 10A
- Differential current/Phase failure protection : GTK types
- Non-differential GTH types are available for the economic solution
- Ambient compensated -5 to 40°C
- Manual/Automatic reset
- Trip free design
- Bimetallic style



GT-85



## Catalog No.

Setting ranges(A)	Differential type	Non-differential type	
	3-heater	3-heater	2-heater
7 - 10	GTK-85 · 8.5	GTH-85/3 · 8.5	GTH-85 · 8.5
9 - 13	GTK-85 · 11	GTH-85/3 · 11	GTH-85 · 11
12 - 18	GTK-85 · 15	GTH-85/3 · 15	GTH-85 · 15
16 - 22	GTK-85 · 19	GTH-85/3 · 19	GTH-85 · 19
18 - 26	GTK-85 · 22	GTH-85/3 · 22	GTH-85 · 22
24 - 36	GTK-85 · 30	GTH-85/3 · 30	GTH-85 · 30
28 - 40	GTK-85 · 34	GTH-85/3 · 34	GTH-85 · 34
34 - 50	GTK-85 · 42	GTH-85/3 · 42	GTH-85 · 42
45 - 65	GTK-85 · 55	GTH-85/3 · 55	GTH-85 · 55
54 - 75	GTK-85 · 65	GTH-85/3 · 65	GTH-85 · 65
63 - 85	GTK-85 · 74	GTH-85/3 · 74	GTH-85 · 74

## Connection

<b>Main (Load)</b>	<b>up to 50A</b>	Screw(M6) clamp terminal
		Cable capacity : 2-22mm <sup>2</sup>
	<b>above 50A</b>	Screw(M8) clamp terminal
		Cable capacity : 2-38mm <sup>2</sup>
<b>Auxiliary</b>		Screw(M3.5) clamp terminal

## Ordering information

Specify catalog number

## For more information

- Technical specification → page 123~158
- Drawings → page 175
- Contactors → page 32
- Starters → page 51
- Separate mounting unit → page 171
- Electronic overload relay → page 104
- Operating curves → page 153

### Certificate

CE, ULcUL, Lloyd,  
CCC(China)



## Description

- Directly mountable to the contactors with brackets and connectors.  
GT-100 for GMC-100, 125 contactors (100, 125A frames)  
GT-150 for GMC-150 contactor (150A frame)
- 1NO+1NC trip contacts
- Trip class 10A
- Differential current/Phase failure protection : GTK types
- Non-differential GTH types are available for the economic solution
- Ambient compensated -5 to 40°C
- Manual/Automatic reset
- Trip free design
- Bimetallic style

### Catalog No. for 100A frame



GT-100

Setting ranges(A)	Differential type	Non-differential type	
	3-heater	3-heater	2-heater
34 - 50	GTK-100 · 41	GTH-100/3 · 41	GTH-100 · 41
39 - 57	GTK-100 · 48	GTH-100/3 · 48	GTH-100 · 48
43 - 65	GTK-100 · 56	GTH-100/3 · 56	GTH-100 · 56
54 - 80	GTK-100 · 67	GTH-100/3 · 67	GTH-100 · 67
65 - 100	GTK-100 · 80	GTH-100/3 · 80	GTH-100 · 80
85 - 125	GTK-100 · 107	GTH-100/3 · 107	GTH-100 · 107

### Catalog No. for 150A frame



GT-150

Setting ranges(A)	Differential type	Non-differential type	
	3-heater	3-heater	2-heater
34 - 50	GTK-150 · 41	GTH-150/3 · 41	GTH-150 · 41
39 - 57	GTK-150 · 48	GTH-150/3 · 48	GTH-150 · 48
43 - 65	GTK-150 · 56	GTH-150/3 · 56	GTH-150 · 56
54 - 80	GTK-150 · 67	GTH-150/3 · 67	GTH-150 · 67
65 - 150	GTK-150 · 80	GTH-150/3 · 80	GTH-150 · 80
85 - 125	GTK-150 · 107	GTH-150/3 · 107	GTH-150 · 107
100 - 150	GTK-150 · 130	GTH-150/3 · 130	GTH-150 · 130

### Connection

<b>Main (Load)</b>	Screw(M8) clamp terminal
	Cable capacity : 2~100mm <sup>2</sup>
<b>Auxiliary</b>	Screw(M4) clamp terminal

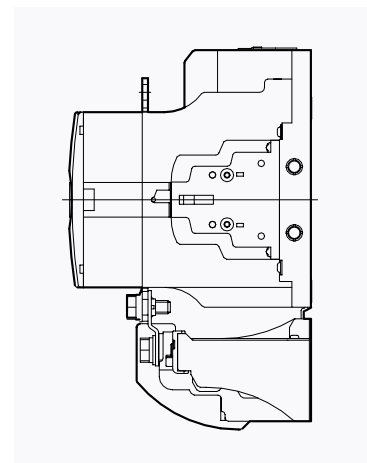
### Ordering information

Specify catalog number

### For more information

- Technical specification → page 123~158
- Drawings → page 176
- Contactors → page 34
- Starters → page 51
- Operating curves → page 154
- Terminal covers → page 117

### Direct mount to a contactor



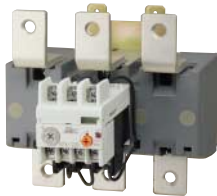
**Certificate**  
CE, ULcUL, Lloyd,  
CCC(China)

# Thermal overload relays, Class 10A

220A 400A

## Description

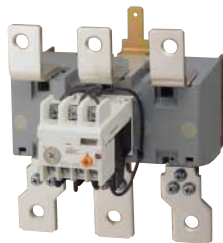
- Directly mountable to the contactors.
  - GT-220 for GMC-180, 220 contactors (180, 220A frames)
  - GT-400 for GMC-300, 400 contactors (300, 400A frames)
- 1NO+1NC trip contacts
- Trip class 10A
- Differential current/Phase failure protection : GTK types
- Non-differential GTH types are available for the economic solution
- Ambient compensated -5 to 40°C
- Manual/Automatic reset
- Trip free design
- Bimetallic style
- CT operated type



GT-220

### Catalog No. for 220A frame

Setting ranges(A)	Differential type	Non-differential type	
	3-heater	3-heater	2-heater
65 - 100	GTK-220 · 80	GTH-220/3 · 80	GTH-220 · 80
85 - 125	GTK-220 · 107	GTH-220/3 · 107	GTH-220 · 107
100 - 160	GTK-220 · 130	GTH-220/3 · 130	GTH-220 · 130
120 - 180	GTK-220 · 150	GTH-220/3 · 150	GTH-220 · 150
160 - 240	GTK-220 · 200	GTH-220/3 · 200	GTH-220 · 200



GT-400

### Catalog No. for 400A frame

Setting ranges(A)	Differential type	Non-differential type	
	3-heater	3-heater	2-heater
85 - 125	GTK-400 · 107	GTH-400/3 · 107	GTH-400 · 107
100 - 160	GTK-400 · 130	GTH-400/3 · 130	GTH-400 · 130
120 - 180	GTK-400 · 150	GTH-400/3 · 150	GTH-400 · 150
160 - 240	GTK-400 · 200	GTH-400/3 · 200	GTH-400 · 200
200 - 300	GTK-400 · 250	GTH-400/3 · 250	GTH-400 · 250
260 - 400	GTK-400 · 350	GTH-400/3 · 350	GTH-400 · 350

## Connection

Main (Load)	GT-220	Screw(M10) clamp terminal Cable capacity : 2~150mm <sup>2</sup>
	GT-400	Screw(M12) clamp terminal Cable capacity : 2~200mm <sup>2</sup>
Auxiliary		Screw(M3.5) clamp terminal

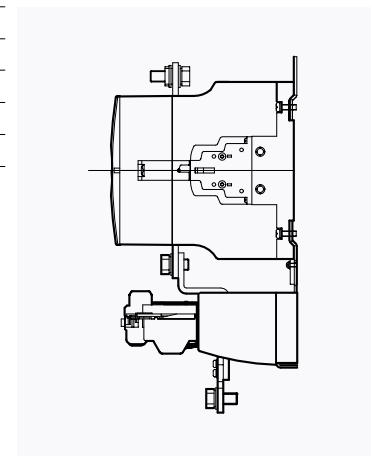
### Ordering information

Specify catalog number

### For more information

- Technical specification → page 123~158
- Drawings → page 177
- Contactors → page 36
- Starters → page 51
- Operating curves → page 154
- Terminal covers → page 117

## Direct mount to a contactor



### Certificate

CE, ULcUL, Lloyd,  
CCC(China)

## Description

- Directly mountable to the contactors.
- 1NO+1NC trip contacts
- Trip class 10A
- Differential current/Phase failure protection : GTK types
- Non-differential GTH types are available for the economic solution
- Ambient compensated -5 to 40°C
- Manual/Automatic reset
- Trip free design
- Bimetallic style
- CT operated type



GT-600

## Catalog No.

Setting ranges(A)	Differential type	Non-differential type	
	3-heater	3-heater	2-heater
200 - 300	GTK-600 · 250	GTH-600/3 · 250	GTH-600 · 250
260 - 400	GTK-600 · 350	GTH-600/3 · 350	GTH-600 · 350
400 - 600	GTK-600 · 500	GTH-600/3 · 500	GTH-600 · 500
520 - 800	GTK-600 · 660	GTH-600/3 · 660	GTH-600 · 660

## Connection

<b>Main</b>	Screw(M16) clamp terminal
<b>(Load)</b>	Cable capacity : 80~325mm <sup>2</sup>
<b>Auxiliary</b>	Screw(M3.5) clamp terminal

## Ordering information

Specify catalog number

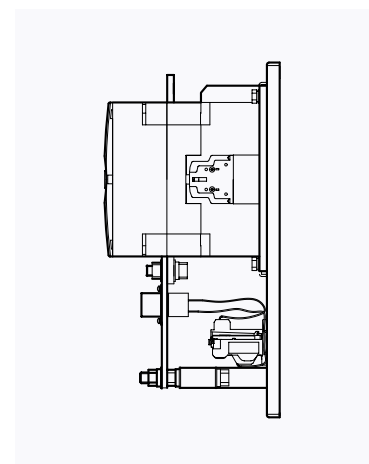
### For more information

- Technical specification ➔ page 123~158
- Drawings ➔ page 177
- Contactors ➔ page 38
- Starters ➔ page 51
- Operating curves ➔ page 154
- Terminal covers ➔ page 117

### Certificate

CE, ULcUL, Lloyd,  
CCC(China)

## Direct mount to a contactor



# Thermal overload relays, Class 20

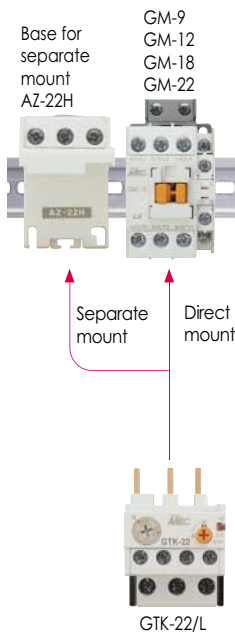
22A



GTK-22/L

## Description

- Direct mount on the GM-9, 12, 18, 22 contactors (9, 12, 18, 22A frames)
- DIN rail or screw mountable with the optional base AZ-22H
- Small physical size : 44 mm wide
- 1NO+1NC trip contacts
- Trip class 20
- Differential current/Phase failure protection
- Ambient compensated -5 to 40°C
- Manual/Automatic reset
- Trip free design
- Bimetallic style



## Catalog No.

Setting ranges(A)	Class 20
	<b>3-heater</b>
1 - 1.6	GTK-22/L · 1.3
1.6 - 2.5	GTK-22/L · 2.1
2.5 - 4	GTK-22/L · 3.3
4 - 6	GTK-22/L · 5
5 - 8	GTK-22/L · 6.5
6 - 9	GTK-22/L · 7.5
7 - 10	GTK-22/L · 8.5
9 - 13	GTK-22/L · 11
12 - 18	GTK-22/L · 15
16 - 22	GTK-22/L · 19

## Connection

<b>Main</b>	Screw(M4) clamp terminal
<b>(Load)</b>	Cable capacity : 1.25~5.5mm <sup>2</sup> / ϕ 1.6~2.6
<b>Auxiliary</b>	Screw(M3.5) clamp terminal

## Ordering information

Specify catalog number

## For more information

- Technical specification → page 123~158
- Drawings → page 178
- Contactors → page 28
- Starters → page 51
- Separate mounting unit → page 174
- Electronic overload relay → page 100
- Operating curves → page 153

**Certificate**

CE, ULcUL, Lloyd,  
CCC(China)



GTK-40/L

### Description

- Direct mount on the GM-32, 40 contactors (32, 40A frames)
- DIN rail or screw mountable with the optional base AZ-40H
- Small physical size : 53 mm wide
- 1NO+1NC trip contacts
- Trip class 20
- Differential current/Phase failure protection
- Ambient compensated -5 to 40°C
- Manual/Automatic reset
- Trip free design
- Bimetallic style



Base for separate mount AZ-40H

GM-32  
GM-40

Separate mount

Direct mount



GTK-40/L

### Catalog No.

Setting ranges(A)	Class 20 3-heater
4 - 6	GTK-40/L · 5
5 - 8	GTK-40/L · 6.5
6 - 9	GTK-40/L · 7.5
7 - 10	GTK-40/L · 8.5
9 - 13	GTK-40/L · 11
12 - 18	GTK-40/L · 15
16 - 22	GTK-40/L · 19
18 - 26	GTK-40/L · 22
24 - 36	GTK-40/L · 30
28 - 40	GTK-40/L · 34

### Connection

<b>Main</b>	Screw(M5) clamp terminal
<b>(Load)</b>	Cable capacity : 2~14mm <sup>2</sup> / ϕ 1.6~3.6
<b>Auxiliary</b>	Screw(M3.5) clamp terminal

### Ordering information

Specify catalog number

### For more information

- Technical specification → page 123~158
- Drawings → page 178
- Contactors → page 30
- Starters → page 51
- Separate mounting unit → page 174
- Electronic overload relay → page 102
- Operating curves → page 153

**Certificate**  
CE, ULcUL, Lloyd,  
CCC(China)

# Thermal overload relays, Class 20

85A



GTK-85/L

## Description

- Direct mount on the GM-50, 65, 75, 85 contactors (50, 65, 75, 85A frames)
- DIN rail or screw mountable with the optional base AZ-85H
- Small physical size : 70 mm wide
- 1NO+1NC trip contacts
- Trip class 20
- Differential current/Phase failure protection
- Ambient compensated -5 to 40°C
- Manual/Automatic reset
- Trip free design
- Bimetallic style



Base for  
separate  
mount  
AZ-85H

GM-50  
GM-65  
GM-75  
GM-85

Separate  
mount

Direct  
mount



GTK-85/L

## Catalog No.

Setting ranges(A)	Class 20
	<b>3-heater</b>
7 - 10	GTK-85/L · 8.5
9 - 13	GTK-85/L · 11
12 - 18	GTK-85/L · 15
16 - 22	GTK-85/L · 19
18 - 26	GTK-85/L · 22
24 - 36	GTK-85/L · 30
28 - 40	GTK-85/L · 34
34 - 50	GTK-85/L · 42
45 - 65	GTK-85/L · 55
54 - 75	GTK-85/L · 65
63 - 85	GTK-85/L · 74

## Connection

<b>Main (Load)</b>	<b>up to 50A</b>	Screw(M6) clamp terminal Cable capacity : 2~22mm <sup>2</sup>
	<b>above 50A</b>	Screw(M8) clamp terminal Cable capacity : 2~38mm <sup>2</sup>
<b>Auxiliary</b>		Screw(M3.5) clamp terminal

## Ordering information

Specify catalog number

## For more information

- Technical specification → page 123~158
- Drawings → page 178
- Contactors → page 32
- Starters → page 51
- Separate mounting unit → page 172
- Electronic overload relay → page 104
- Operating curves → page 155

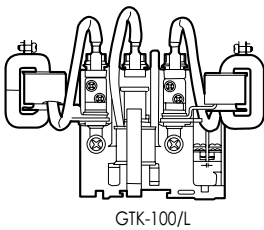
**Certificate**

CE, ULcUL, Lloyd,  
CCC(China)

## Description

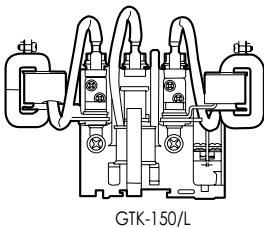
- Directly mountable to the contactors with brackets and connectors.  
 GT-100 for GMC-100, 125 contactors (100, 125A frames)  
 GT-150 for GMC-150 contactor (150A frame)
- 1NO+1NC trip contacts
- Trip class 20
- Differential current/Phase failure protection
- Ambient compensated -5 to 40°C
- Manual/Automatic reset
- Trip free design
- Bimetallic style

### Catalog No. for 100A frame



Setting ranges(A)	Class 20
	<b>3-heater</b>
34 - 50	GTK-100/L · 41
39 - 57	GTK-100/L · 48
43 - 65	GTK-100/L · 56
54 - 80	GTK-100/L · 67
65 - 100	GTK-100/L · 80
85 - 125	GTK-100/L · 107

### Catalog No. for 150A frame



Setting ranges(A)	Class 20
	<b>3-heater</b>
34 - 50	GTK-150/L · 41
39 - 57	GTK-150/L · 48
43 - 65	GTK-150/L · 56
54 - 80	GTK-150/L · 67
65 - 150	GTK-150/L · 80
85 - 125	GTK-150/L · 107
100 - 150	GTK-150/L · 130

## Connection

<b>Main (Load)</b>	Screw(M8) clamp terminal
	Cable capacity : 2~100mm <sup>2</sup>
<b>Auxiliary</b>	Screw(M4) clamp terminal

### Ordering information

Specify catalog number

### For more information

- Technical specification → page 123~158
- Drawings → page 179
- Contactors → page 34
- Starters → page 51
- Operating curves → page 155

### Certificate

CE, ULcUL, Lloyd,  
CCC(China)

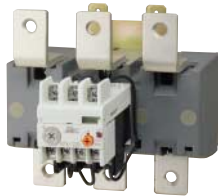
# Thermal overload relays, Class 20

220A 400A

## Description

- Directly mountable to the contactors  
GT-220 for GMC-180, 220 contactors (180, 220A frames)  
GT-400 for GMC-300, 400 contactors (300, 400A frames)
- 1NO+1NC trip contacts
- Trip class 20
- Differential current/Phase failure protection
- Ambient compensated -5 to 40°C
- Manual/Automatic reset
- Trip free design
- Bimetallic style
- CT operated type

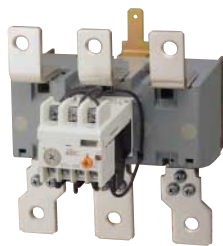
### Catalog No. for 220A frame



GTK-220/L

Setting ranges(A)	Class 20
	<b>3-heater</b>
65 - 100	GTK-220/L · 80
85 - 125	GTK-220/L · 107
100 - 160	GTK-220/L · 130
120 - 180	GTK-220/L · 150
160 - 240	GTK-220/L · 200

### Catalog No. for 400A frame



GTK-400/L

Setting ranges(A)	Class 20
	<b>3-heater</b>
85 - 125	GTK-400/L · 107
100 - 160	GTK-400/L · 130
120 - 180	GTK-400/L · 150
160 - 240	GTK-400/L · 200
200 - 300	GTK-400/L · 250
260 - 400	GTK-400/L · 350

## Connection

<b>Main (Load)</b>	<b>GT-220</b>	Screw(M10) clamp terminal Cable capacity : 2~150mm <sup>2</sup>
	<b>GT-400</b>	Screw(M12) clamp terminal Cable capacity : 2~200mm <sup>2</sup>
<b>Auxiliary</b>		Screw(M3.5) clamp terminal

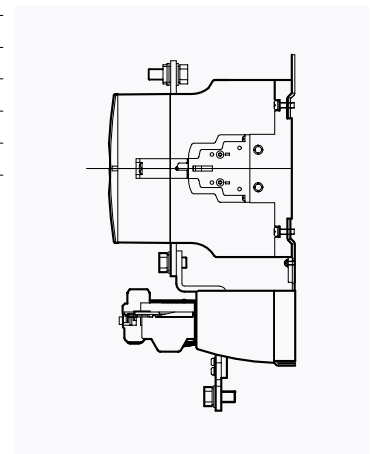
### Ordering information

Specify catalog number

### For more information

- Technical specification ➔ page 123~158
- Drawings ➔ page 179
- Contactors ➔ page 36
- Starters ➔ page 51
- Operating curves ➔ page 155
- Terminal covers ➔ page 117

### Direct mount to a contactor



### Certificate

CE, ULcUL, Lloyd,  
CCC(China)



## Description

- Directly mountable to the contactors.
- 1NO+1NC trip contacts
- Trip class 20
- Differential current/Phase failure protection
- Ambient compensated -5 to 40°C
- Manual/Automatic reset
- Trip free design
- Bimetallic style
- CT operated type

## Catalog No.



GTK-600/L

Setting ranges(A)	Class 20 3-heater
200 - 300	GTK-600/L · 250
260 - 400	GTK-600/L · 350
400 - 600	GTK-600/L · 500
520 - 800	GTK-600/L · 660

## Connection

<b>Main (Load)</b>	Screw(M16) clamp terminal
	Cable capacity : 80~325mm <sup>2</sup>
<b>Auxiliary</b>	Screw(M3.5) clamp terminal

## Ordering information

Specify catalog number

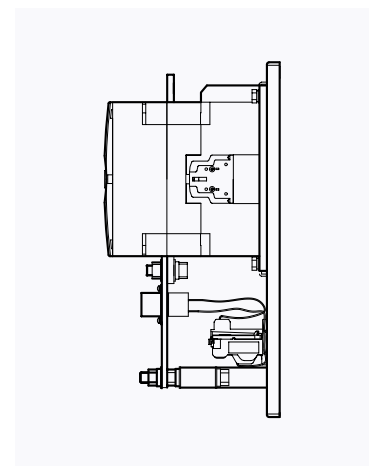
## For more information

- Technical specification → page 123~158
- Drawings → page 179
- Contactors → page 38
- Starters → page 51
- Operating curves → page 155
- Terminal covers → page 117

### Certificate

CE, ULcUL, Lloyd,  
CCC(China)

## Direct mount to a contactor



# Electronic overload relays

## 22A Inverse time characteristics

### Description

- Wide and adjustable current range
- Adjustable trip time (trip class 5-10-15-20-30)
- Designed suitable for use with contactors
  - Directly mountable on the GM-9, 12, 18, 22 contactors
  - Separate mount versions are also available
  - Separately mountable on 35mm DIN rail or with screws
- 1NO+1NC trip contacts
- Manual reset as standard (Automatic reset optional)



### Extended protective functions

Number of sensors		2CT	3CT	3CT
Types (GMP22-□)		(-2P, -2T, -2S)	(-3P, -3T, -3S)	(-3PR, -3TR, -3SR)
Functions	Overcurrent	✓	✓	✓
	Phase loss	✓	✓	✓
	Locked rotor	✓	✓	✓
	Phase unbalance		✓	✓
	Phase reversed			✓

### Selection

Mount/Connection	Sensor	Setting range	Catalog No.
Directly on a contactor	2-sensor (2 CT)	0.3 - 1.5A	GMP22 - 2P · 1.5
		1 - 5A	GMP22 - 2P · 5
		4.4 - 22A	GMP22 - 2P · 22
	3-sensor (3 CT)	0.3 - 1.5A	GMP22 - 3P · 1.5
		1 - 5A	GMP22 - 3P · 5
		4.4 - 22A	GMP22 - 3P · 22
3-sensor Reverse phase detection	0.3 - 1.5A	GMP22 - 3PR · 1.5	
	1 - 5A	GMP22 - 3PR · 5	
	4.4 - 22A	GMP22 - 3PR · 22	
Separate mount ①	2-sensor (2 CT)	0.3 - 1.5A	GMP22 - 2S · 1.5
		1 - 5A	GMP22 - 2S · 5
		4.4 - 22A	GMP22 - 2S · 22
Cable connection with a screw ②	3-sensor (3 CT)	0.3 - 1.5A	GMP22 - 3S · 1.5
		1 - 5A	GMP22 - 3S · 5
		4.4 - 22A	GMP22 - 3S · 22
	3-sensor Reverse phase detection	0.3 - 1.5A	GMP22 - 3SR · 1.5
		1 - 5A	GMP22 - 3SR · 5
		4.4 - 22A	GMP22 - 3SR · 22
Separate mount ①	2-sensor (2 CT)	0.3 - 1.5A	GMP22 - 2T · 1.5
		1 - 5A	GMP22 - 2T · 5
		4.4 - 22A	GMP22 - 2T · 22
Connection without a screw ② - cables pass through CT holes	3-sensor (3 CT)	0.3 - 1.5A	GMP22 - 3T · 1.5
		1 - 5A	GMP22 - 3T · 5
		4.4 - 22A	GMP22 - 3T · 22
	3-sensor Reverse phase detection	0.3 - 1.5A	GMP22 - 3TR · 1.5
		1 - 5A	GMP22 - 3TR · 5
		4.4 - 22A	GMP22 - 3TR · 22

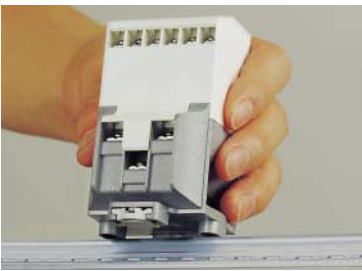
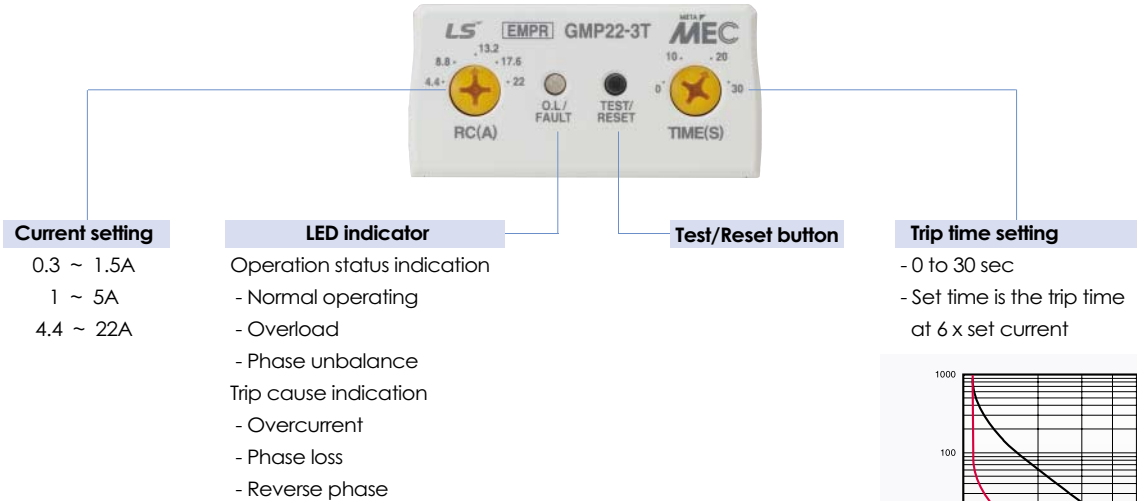


**Certificate**  
CE, ULcUL

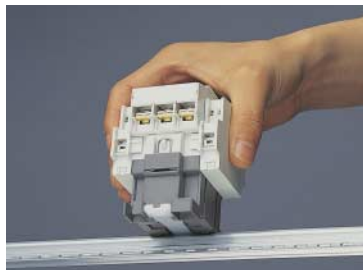
### Ordering information

Specify catalog number

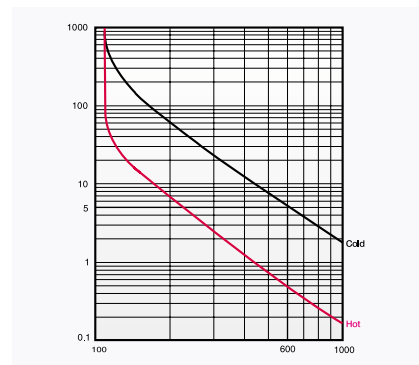
## Front face configuration



① To mount on 35mm DIN rail



② Cable connection part can be modified between screw connection and passing CT hole



## Technical information

<b>Relay control voltage</b>	100 to 260V AC 50/60Hz
<b>Auxiliary contact</b>	3A/250VAC at resistive load 1NO(97-98) + 1NC(95-96)
<b>Setting tolerance</b>	Current $\pm 5\%$ Time $\pm 5\%$ (or $\pm 0.5\text{sec}$ )
<b>Insulation resistance</b>	Min 100M $\Omega$ at 500V DC
<b>Impulse withstand voltage</b>	1.2x50 $\mu\text{s}$ 5kV (IEC1000-4-5)
<b>Fast transient burst</b>	2kV/5min (IEC1000-4-4)
<b>Ambient temperature</b>	-25 to 70°C for operation -30 to 80°C for storage
<b>Humidity</b>	30 to 90% RH

## For more information

Drawings	➔ page 209
Connections	➔ page 195
Contactors	➔ page 28
Starters	➔ page 51
Bimetallic overload relay	➔ page 88
Operating curves	➔ page 157

# Electronic overload relays

## 40A Inverse time characteristics



### Description

- Wide and adjustable current range
- Adjustable trip time (trip class 5-10-15-20-30)
- Designed suitable for use with contactors
  - Directly mountable on the GM-32, 40 contactors
  - Separate mount versions are also available
  - Separately mountable on 35mm DIN rail or with screws
- 1NO+1NC trip contacts
- Manual reset as standard (Automatic reset optional)

### Extended protective functions

Number of sensors		2CT	3CT	3CT
Types (GMP40-□)		(-2P, -2T, -2S)	(-3P, -3T, -3S)	(-3PR, -3TR, -3SR)
Functions	Overcurrent	✓	✓	✓
	Phase loss	✓	✓	✓
	Locked rotor	✓	✓	✓
	Phase unbalance		✓	✓
	Phase reversed			✓

### Selection



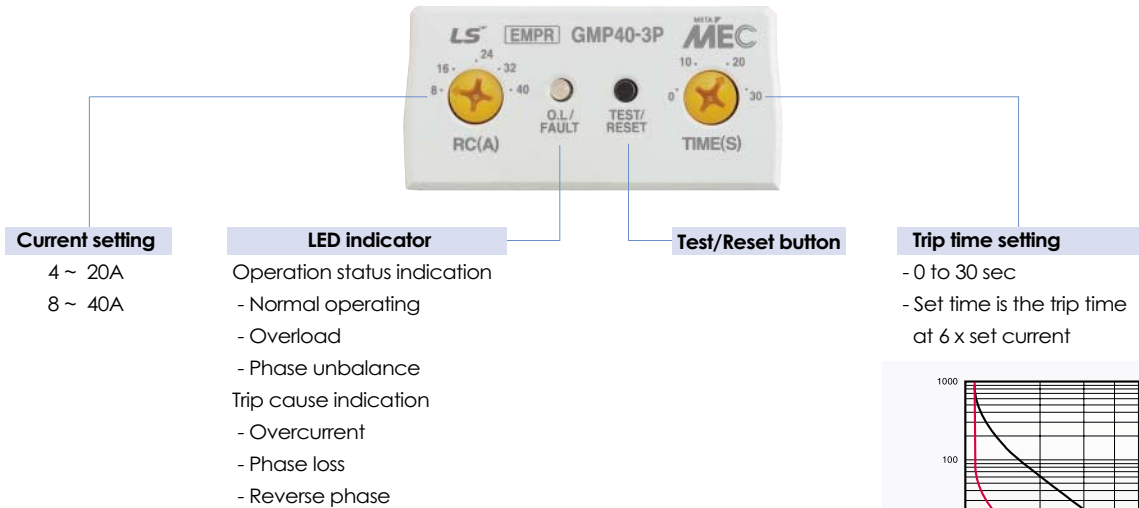
Mount/Connection	Sensor	Setting range	Catalog No.		
Directly on a contactor	2-sensor ( 2 CT )	4 - 20A 8 - 40A	GMP40-2P · 20 GMP40-2P · 40		
	3-sensor ( 3 CT )	4 - 20A 8 - 40A	GMP40-3P · 20 GMP40-3P · 40		
	3-sensor Reverse phase detection	4 - 20A 8 - 40A	GMP40-3PR · 20 GMP40-3PR · 40		
	Separate mount ①	2-sensor ( 2 CT )	4 - 20A 8 - 40A	GMP40-2S · 20 GMP40-2S · 40	
		Cable connection with a screw ②	3-sensor ( 3 CT )	4 - 20A 8 - 40A	GMP40-3S · 20 GMP40-3S · 40
			3-sensor Reverse phase detection	4 - 20A 8 - 40A	GMP40-3SR · 20 GMP40-3SR · 40
Separate mount ①	2-sensor ( 2 CT )	4 - 20A 8 - 40A	GMP40-2T · 20 GMP40-2T · 40		
	Connection without a screw ②	3-sensor ( 3 CT )	4 - 20A 8 - 40A	GMP40-3T · 20 GMP40-3T · 40	
		3-sensor Reverse phase detection	4 - 20A 8 - 40A	GMP40-3TR · 20 GMP40-3TR · 40	
	- cables pass through CT holes	3-sensor	4 - 20A	GMP40-3TR · 20	
		Reverse phase detection	8 - 40A	GMP40-3TR · 40	

**Certificate**  
CE, ULcUL

### Ordering information

Specify catalog number

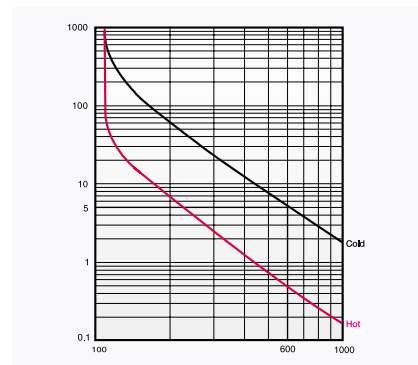
## Front face configuration



① To mount on 35mm DIN rail



② Cable connection part can be modified between screw connection and passing CT hole



## Technical information

<b>Relay control voltage</b>	100 to 260V AC 50/60Hz
<b>Auxiliary contact</b>	3A/250VAC at resistive load 1NO(97-98) + 1NC(95-96)
<b>Setting tolerance</b>	Current $\pm 5\%$ Time $\pm 5\%$ (or $\pm 0.5\text{sec}$ )
<b>Insulation resistance</b>	Min 100M $\Omega$ at 500V DC
<b>Impulse withstand voltage</b>	1.2x50 $\mu\text{s}$ 5kV (IEC1000-4-5)
<b>Fast transient burst</b>	2kV/5min (IEC1000-4-4)
<b>Ambient temperature</b>	-25 to 70°C for operation -30 to 80°C for storage
<b>Humidity</b>	30 to 90% RH

## For more information

Drawings	➔ page 209
Connections	➔ page 195
Contactors	➔ page 30
Starters	➔ page 51
Bimetallic overload relay	➔ page 89
Operating curves	➔ page 157

# Electronic overload relays

## 80A Inverse time characteristics



### Description

- Wide and adjustable current range
- Adjustable trip time (trip class 5-10-15-20-30)
- Designed suitable for use with contactors GM-50, 65, 75, 85
- Separately mountable on 35mm DIN rail or with screws
- 1NO+1NC trip contacts
- Manual reset as standard (Automatic reset optional)
- Extended protective functions

### Extended protective functions

Number of sensors		2CT	3CT	3CT
Types (GMP80-□)		(-2S)	(-3S)	(-3SR)
Functions	Overcurrent	✓	✓	✓
	Phase loss	✓	✓	✓
	Locked rotor	✓	✓	✓
	Phase unbalance		✓	✓
	Phase reversed			✓

### Selection



Mount/Connection	Sensor	Setting range	Catalog No.
Separate mount	2-sensor ( 2 CT )	16 - 80A	GMP80-2S · 80
Cable connection with a screw	3-sensor ( 3 CT )	16 - 80A	GMP80-3S · 80
	3-sensor Reverse phase detection	16 - 80A	GMP80-3SR · 80

### Technical information

Relay control voltage	100 to 260V AC 50/60Hz
Auxiliary contact	3A/250VAC at resistive load 1NO( 97-98 ) + 1NC( 95-96 )
Setting tolerance	Current ± 5% Time ± 5% ( or ±0.5sec )
Insulation resistance	Min 100MΩ at 500V DC
Impulse withstand voltage	1.2x50μs 5kV ( IEC1000-4-5 )
Fast transient burst	2kV/5min ( IEC1000-4-4 )
Ambient temperature	-25 to 70°C for operation -30 to 80°C for storage
Humidity	30 to 90% RH

### For more information

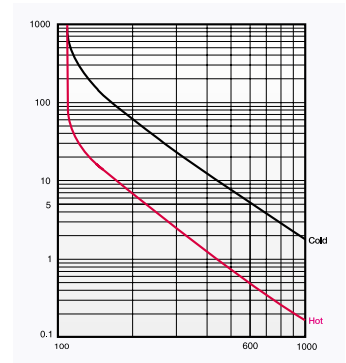
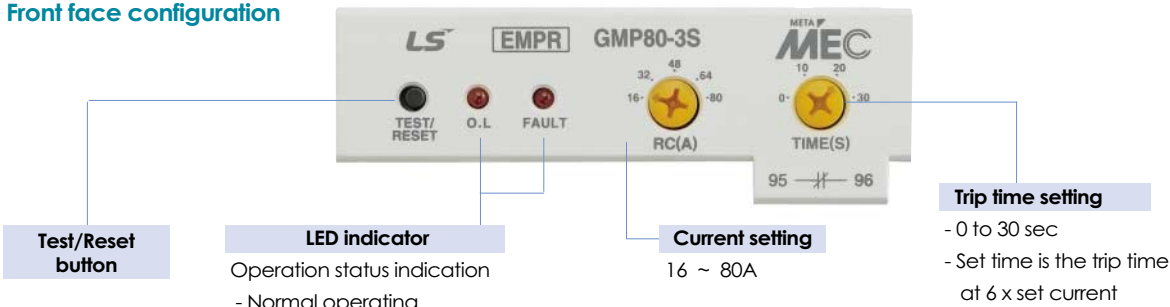
- Drawings → page 209
- Connections → page 195
- Contactors → page 32
- Starters → page 51
- Bimetallic overload relay → page 90
- Operating curves → page 157

### Ordering information

Specify catalog number

**Certificate**  
CE, ULcUL

### Front face configuration



### Indicate the cause of the fault by the LEDs

When it is tripped, you can check the causes of the fault by seeing the LED on it and you can troubleshoot the causes in a short time

Condition		Red O.L LED	Green Fault LED	Note
Operation	Normal	Off	Off	
	Over current	On & Off	Off	0.4 second interval
	Over current	On	Off	
Trip	Phase failure (3CT)	R On	On & Off	1 Times for 3second
		S On	On & Off	2 Times for 3second
		T On	On & Off	3 Times for 3second
	Phase failure(2CT)	On & Off	Protect 2phases of 3phases, trips within 3sec.	
	Reverse phase(3CT)	On & Off	On & Off	One after the other

### Technical information

Relay control voltage	100 to 260V AC 50/60Hz
Auxiliary contact	3A/250VAC at resistive load
	1NO( 97-98 ) + 1NC( 95-96 )
Setting tolerance	Current $\pm$ 5%
	Time $\pm$ 5% ( or $\pm$ 0.5sec )
Insulation resistance	Min 100M $\Omega$ at 500V DC
Impulse withstand voltage	1.2x50 $\mu$ s 5kV ( IEC1000-4-5 )
Fast transient burst	2kV/5min ( IEC1000-4-4 )
Ambient temperature	-25 to 70°C for operation
	-30 to 80°C for storage
Humidity	30 to 90% RH

# Electronic overload relays

## 60A Definite time characteristics



### Description

- Small size, economical
- Delay time setting in starting and operation
- Over current, phase failure protection
- Definite time characteristics
- Wide current setting range
- Screw or Din-rail mounting

### Extended protective functions

Number of sensors		2CT
Types (GMP-60T)		
Functions	Overcurrent	✓
	Phase loss	✓ $\Delta$ Note1)
	Locked rotor	✓
	Phase unbalance	
	Phase reversed	

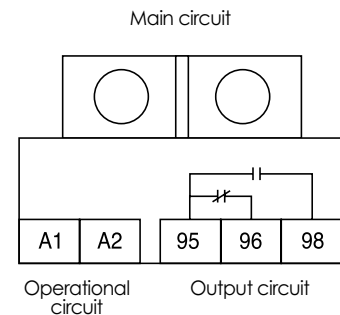
### Ratings (Tunnel type)

Model		GMP60T
Type		Tunnel type
No. of CT		2
Current setting range(A)		0.5~6
		3~30
		5~60
Operating time characteristics		Definite time characteristics
Time setting (sec.)	Starting time	0.2~30
	Operating time	0.2~15
	Reset time	Manual reset
Allowable error	Current	$\pm 5\%$
	Time	$\pm 5\%$ (or $\pm 0.5$ sec.)
Control power	Voltage	180~260V (110V / 440V) Note2)
	Frequency	50 / 60Hz
Aux. s/w	Contact	1SPDT (1c)
	Ratings	5A 250Vac, resistive load
	Operation	95 $\overline{}$ 96close
Insulation resistance		Min. 50M $\Omega$ at 500Vdc
Surge insurance(IEC 1000-4-5)		7kV(6times for 1min. Interval)
Fast transient burst(IEC 1000-4-4)		2.5kV/5min.
Environment	Operation	-25~70°C
	Storage	-50~80°C
Relative humidity		46~85 RH(No freezing)
Trip indicator		LED
Dimension(mm) W x H x D		72 x 63 x 69
Mounting type		Separate mount(Screw & Din-rail)
Applied MC		GMC-9, 12, 18, 32, 40, 50
Certification		UL, CUL, CE

Note 1) Under phase failure condition over current flows  
The EMPR tripped if it is over the setting over current

Note 2) ( ) are optional specifications

### Contact configuration



### Tunnel type EMPR protects the current under 0.1A

- The tunnel type EMPR with 0.5~6A nominal current, can detect the current under 0.1A

If we increase the number of times of a wire pass through the CT (Tunnel), the EMPR can detect the lower current

No. of times to pass through	Current setting range
1	0.5~6
2	0.25~3
3	0.17~2
4	0.12~1.5



# Digital motor protection relays, DMPR

DMP-S/T & DMP-Sa/Ta **New**



## Over-current/Under current/Phase failure/Asymmetry Stall/Lock/Instantaneous short circuit protection

- Unit type or extension type is available
  - Extension type : Remotely mounts the display unit on the panel surface
- 3 phase ampere meter function : Check the 3 phase current and setting value by press the display button
- Select the inverse time or definite time
- Easy to operate : Set the most function by the operation button and knob
- Display the causes of the fault and the values
- Alarm setting : Load ratio is displayed up to setting current

### Protect function

<b>Over current</b>	Depend on setting time	Selectable the inverse/definite
<b>Phase loss</b>	Within 3seconds	Over 70% of the rate of unbalance
<b>Phase unbalance</b>	Within 5seconds	Over 50% of the rate of unbalance
<b>Phase reverse</b>	Within 0.1seconds	Function enable
<b>Stall</b>	Within 5seconds	Over 180% of the setting current
<b>Lock</b>	Within 0.5seconds	Setting 200~900% of rated current
<b>Under current</b>	Within 3seconds	Setting 30~70% of rated current

Note) Lock protection is operated after setting D-time in case of definite time type

### Function selection

FUNC	Sel	Description
<b>1. CHA</b>	Inv/DEF	Operating characteristics setting(Inverse/definite time type)
<b>2. dEF</b>	0~30(S)	Setting the operating time(In definite type)
<b>3. r.P</b>	oFF/on	Phase reverse enable
<b>4. Und</b>	oFF/30~70(%)	Under current enable and setting
<b>5. Alt</b>	oFF/60~110(%)	Alerting enable and setting
<b>6. Stl</b>	oFF/on	Stall enable
<b>7. Loc</b>	oFF/200~900(%)	Lock enable and setting
<b>8. Ct</b>	1~120	CT ratio setting
<b>9. P.F</b>	on/oFF	Phase fault enable
<b>b. StA</b>	0~120	Operating time setting by month
<b>c. StH</b>	10~730	Operating time setting by hour
<b>d. tAH</b>	A000,000.0	Displaying total operating time (month, hour)
<b>E. rAH</b>	A000,000.0	Displaying operating time (month, hour)
<b>Sto</b>	Sto	Store

Note 1) [2.dEF] is only displayed when [dEF] is selected in a [1.CHA] mode

Note 2) Functions for b to e are available for only Sa & Ta type.

### Ratings

Model		DMP□-S/Sa	DMP□-T/Ta
<b>Type</b>	<b>Wiring method</b>	Screw	Tunnel
	<b>Panel mount</b>	Unit or Extension	
<b>Operating characteristics</b>		Inverse/definite type	
<b>Alerting function</b>		Variable between 60 and 110%	
<b>Current range(A)</b>	<b>DMP06-□</b>	0.5~6	
	<b>DMP60-□</b>	5~60	
<b>Setting time</b>	<b>Definite Delay(D-T)</b>	0~60seconds	
	<b>Operating(O-T)</b>	0~30seconds	
	<b>Inverse</b>	0~60seconds	
<b>Reset type</b>		Manual reset	
<b>Operating voltage</b>	<b>Voltage</b>	AC 190~250V	
	<b>Frequency</b>	60Hz (50Hz)	
<b>Aux. contacts</b>	<b>OL 2-SPST(95~98)</b>	3A/250Vac resistive load	
	<b>AL SPST(07-08)</b>	3A/250Vac resistive load	
<b>Indicate</b>	<b>7-segment</b>	3-phase current value, fault cause	
	<b>Bar-LED arrays</b>	Load ratio (60~110%)	
<b>Mounting</b>		35mm Din-rail/Panel	

# Digital motor protection relays, DMPR

## DMP-S/T & DMP-SZa/TZa



### Over-current/Under current/Phase failure/Asymmetry/Stall/Lock/Ground-fault

- Unit type or extension type is available
  - Extension type: Remotely mounts the display unit on the panel surface
- 3 phase amper meter function: Check the 3 phase current and setting value by press the display button
- Select the inverse time or definite time
- Easy to operate: Set the most function by the operation button and knob
- Display the causes of the fault and the values
- Ground fault protect function is added

### Protect function

Protect function	Response time	Setting
Over current	Depend on setting time	Selectable the inverse/definite
Phase loss	Within 3seconds	Over 70% of the rate of unbalance
Phase unbalance	Within 5seconds	Over 50% of the rate of unbalance
Phase reverse	Within 0.1seconds	Function enable
Stall	Within 5seconds	Over 180% of the setting current
Lock	Within 0.5seconds	Setting 200~900% of rated current
Under current	Within 3seconds	Setting 30~70% of rated current
Ground fault <small>Note)</small>	Selectable 0.05~1.0seconds	Grounded current setting by dip s/w (100~2500mA)

Note) Lock protection is operated after setting D-time in case of definite time type

### Function selection

FUNC	Sel	Description
1. CHA	Inv/dEF	Operating characteristics setting(Inverse/definite time type)
2. dEF	0~30(S)	Setting the operating time(In definite type)
3. r.P	oFF/on	Phase reverse enable
4. Und	oFF/30~70(%)	Under current enable and setting
5. g-F	oFF/0.05~1.0(S)	Ground fault enable and setting
6. StI	oFF/on	Stall enable
7. Loc	oFF/200~900(%)	Lock enable and setting
8. Ct	1~120	CT ratio setting
9. P.F	on/oFF	Phase fault enable
A. gFd	oFF/on	Setting delay of ground fault
b. StA	0~120	Operating time setting by month
c. StH	10~730	Operating time setting by hour
d. tAH	A000,000.0	Displaying total operating time (month, hour)
E. rAH	A000,000.0	Displaying operating time (month, hour)
Sto	Sto	Store

Note 1) [2.dEF] is only displayed when [dEF] is selected in a [1.CHA] mode ※ [2.dEF]: Refer to page 10

Note 2) Ground fault sensitive current selection: Refer to page 114

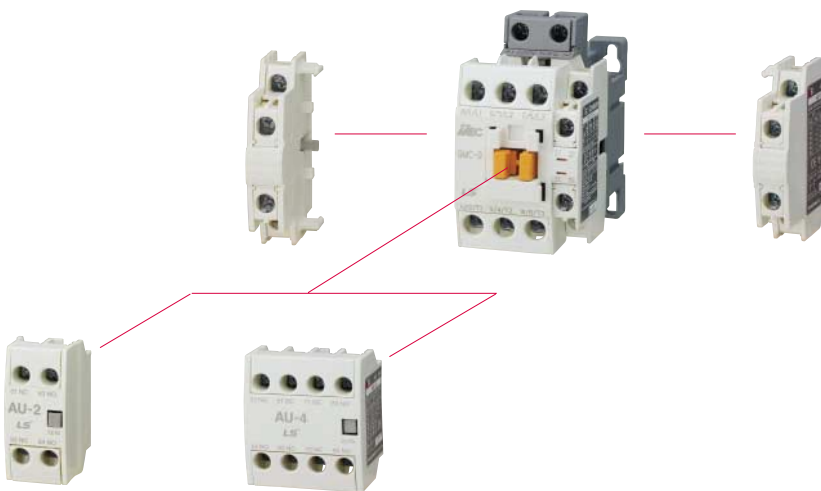
Note 3) Functions for b to e are available for only SZa & TZa type.

### Ratings

Model	DMP□-SZ/SZa		DMP□-TZ/TZa
Type	Wiring method		Screw
	Panel mount		Tunnel
Operating characteristics	Unit or Extension		
Alerting function	Inverse/definite type		
Current range(A)	Variable between 60 and 110%		
Setting time	DMP06-□ DMP60-□	Definite Delay(D-T)	0.5~6
		Operating(O-T)	5~60
Inverse	Reset type	Delay(D-T)	0~60seconds
		Operating(O-T)	0~30seconds
		Inverse	0~60seconds
Operating voltage	Frequency	Reset type	Manual reset
		voltage	AC 190~250V
		ZCT input (07-08)	60Hz (50Hz)
Aux. contacts(2a, 2b, 1a1b)	OL, GR 2-SPST(95~98)	200mA/110mV(ZCT) [30φ, 50φ, 65φ, 80φ]	
Indicate	7-segment	3A/250Vac resistive load	
		Bar-LED arrays	3-phase current value, fault cause
Mounting	Bar-LED arrays	Load ratio (60~110%)	
		35mm Din-rail/Panel	

**Accessories**

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# Accessories for mini contactors

## Auxiliary contact

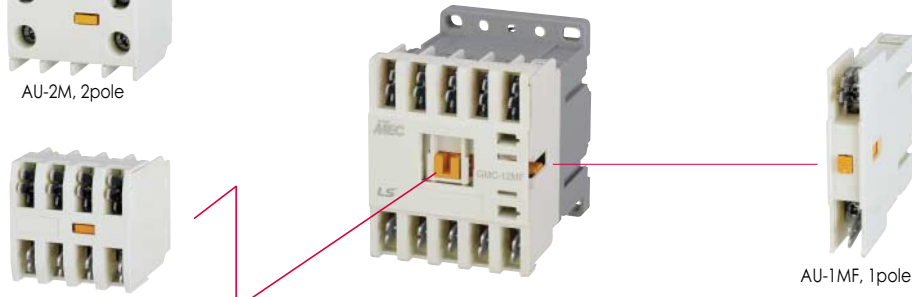
### Front mount blocks

### Side mount blocks

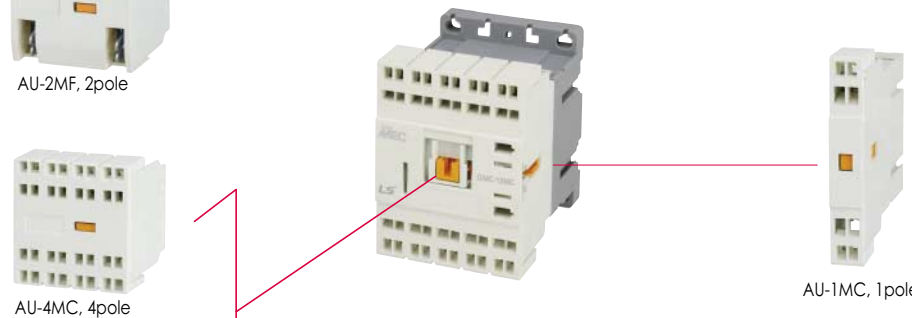
#### Screw clamp connection



#### Fast-on connection



#### Cage clamp connection



#### Solder pin connection



### Catalog No.

Connection type	Applying contactors	Mounting type	Composition	Catalog no.			
<b>Screw clamp</b>	GMC-, GMD-, GMS- 6M, 6MR 9M, 9MR 12M, 12MR 16M, 16MR	Front mount	2NO	AU-2M20			
			2NC	AU-2M02			
			1NO+1NC	AU-2M11			
			4NO	AU-4M40			
			3NO+1NC	AU-4M31			
			2NO+2NC	AU-4M22			
			1NO+3NC	AU-4M13			
		Side mount	4NC	AU-4M04			
			1NO	AU-1M10			
			1NC	AU-1M01			
			<b>Fast-on</b>	GMC-, GMD-, GMS- 6MF, 6MRF 9MF, 9MRF 12MF, 12MRF 16MF, 16MRF	Front mount	2NO	AU-2MF20
						2NC	AU-2MF02
						1NO+1NC	AU-2MF11
						4NO	AU-4MF40
3NO+1NC	AU-4MF31						
2NO+2NC	AU-4MF22						
1NO+3NC	AU-4MF13						
Side mount	4NC	AU-4MF04					
	1NO	AU-1MF10					
	1NC	AU-1MF01					
	<b>Cage clamp</b>	GMC-, GMD-, GMS- 6MC, 6MRC 9MC, 9MRC 12MC, 12MRC 16MC, 16MRC			Front mount	2NO	AU-2MC20
						2NC	AU-2MC02
						1NO+1NC	AU-2MC11
						4NO	AU-4MC40
3NO+1NC			AU-4MC31				
2NO+2NC			AU-4MC22				
1NO+3NC			AU-4MC13				
Side mount			4NC	AU-4MC04			
			1NO	AU-1MC10			
			1NC	AU-1MC01			
			<b>Solder pin</b>	GMC-, GMD-, GMS- 6MP, 6MRP 9MP, 9MRP 12MP, 12MRP 16MP, 16MRP	Side mount	1NO	AU-1MP10
						1NC	AU-1MP01

# Accessories for mini contactors

## Timer unit, AT-12M

- Electronic type
- ON/OFF time delay
- Front mount

Timer unit



Surge absorber unit



## Electronic Timer

Type	Control voltage	Delay	Time	Applied contactors
AT-12M / IN	AC/DC 24~48V	ON	0.1~30s	GMC-6M~16M GMD-6M~16M
AT-12M / IF	AC/DC 24~48V	OFF	0.1~30s	GMC-6M~16M GMD-6M~16M
AT-12M / 2N	AC 100~220V	ON	0.1~30s	GMC-6M~16M GMD-6M~16M
AT-12M / 2F	AC 100~220V	OFF	0.1~30s	GMC-6M~16M GMD-6M~16M

## Surge absorber unit, AS-12M

- Coil surge suppressor

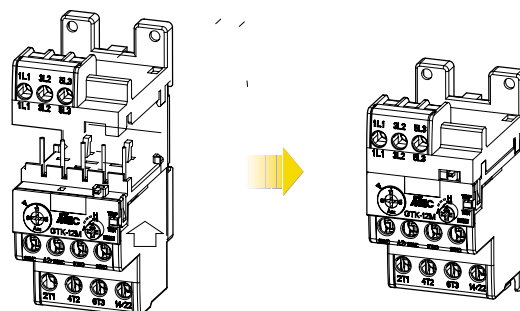


## Surge absorber unit

Type	Internal element	Operational voltage	Applied contactors
AS-12M / 1	Varistor	AC24~48V	GMC-6M~16M
AS-12M / 2		AC60~127V	
AS-12M / 3		AC200~240V	
AS-12M / 4		DC12~24V	GMD-6M~16M
AS-12M / 5		DC30~72V	
AS-12M / 6		DC100~127V	
AS-12M / 7		DC200~250V	

## Separate mounting unit, AZ-12MH

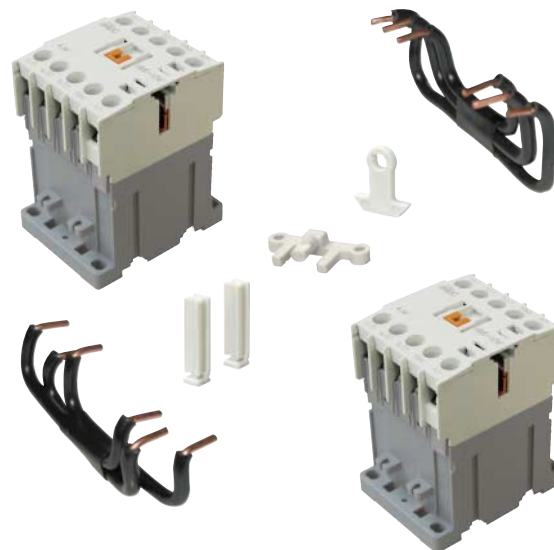
- To mount a relay separately from a contactor
- Mountable on DIN rail or by screw fixing



## Interlock unit, AR-12M

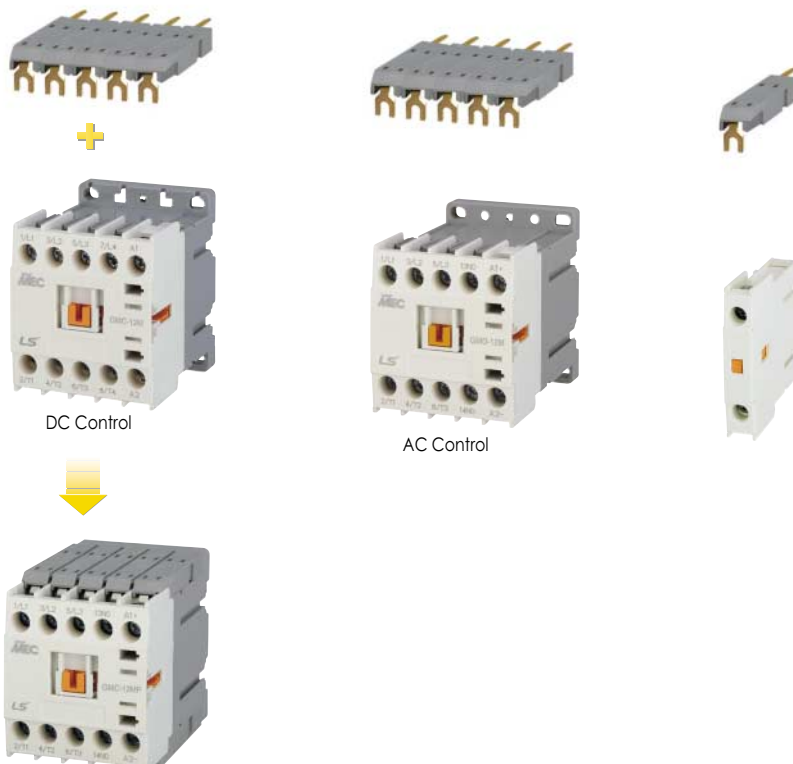
### consists of

- Mechanical interlock components
- Cable kits for line and load sides



## Solder pin terminals

To modify the connection to Solder pin type from Screw clamp type  
Available for contactors and auxiliary contact blocks



# Accessories

## Auxiliary contact

### Option

**AU-1**  
Side mount  
2 pole block

**AU-2**  
Front mount  
2 pole block

**AU-4**  
Front mount  
4 pole block

**AU-100**  
Side mount  
2 pole block

**Applying contactor frames**

9A	12A	18A	22A
32A	40A	50A	65A
75A	85A		

**Applying contactor frames**

100A	125A	150A
180A	220A	300A
400A	600A	800A



## Type

Applying contactors	Mounting type	Poles	Composition	Type
GM-9 to 85 type (9 to 85A frame)	Front mount	2 pole	2NO	AU-2
			2NC	
			1NO+1NC	
		4 pole	4NO	AU-4
			3NO+1NC	
			2NO+2NC	
	1NO+3NC			
	Side mount	2 pole	1NO	AU-1, 1E
			1NC	
GM-100 to 800 type (100 to 800A frame)	Side mount	2pole	1NO	AU-100, 100E
			1NC	

## Contact ratings

		AU-2	AU-4	AU-1	AU-100
<b>Continuous current, Ith</b>		16A	16A	16A	16A
<b>AC15 duty (A600)</b>	<b>120V</b>	6A	6A	6A	6A
	<b>240V</b>	3A	3A	3A	3A
	<b>480V</b>	1.5A	1.5A	1.5A	1.5A
	<b>600V</b>	1.2A	1.2A	1.2A	1.2A
<b>DC13 duty (P600)</b>	<b>125V</b>	1.1A	1.1A	1.1A	1.1A
	<b>250V</b>	0.55A	0.55A	0.55A	0.55A
	<b>440V</b>	0.31A	0.31A	0.31A	0.31A
	<b>600V</b>	0.2A	0.2A	0.2A	0.2A

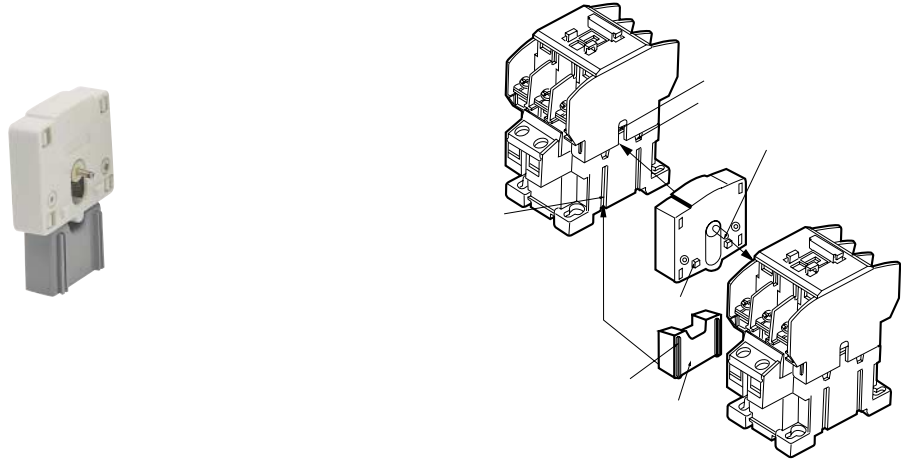
## Performance

		AU-2	AU-4	AU-1	AU-100
<b>Operation cycles/hour</b>		1800	1800	1800	1800
<b>Mechanical lifetime (mil. operations)</b>		20	20	25	10
<b>Electrical lifetime, (mil. operations)</b>					
<b>AC15 duty</b>	<b>220V</b>	0.5	0.5	0.5	0.5
	<b>440V</b>	0.5	0.5	0.5	0.5
<b>AC12 duty</b>	<b>220V</b>	0.25	0.25	0.25	0.25
	<b>440V</b>	0.25	0.25	0.25	0.25
<b>DC13, 12 duty</b>	<b>24~220V</b>	0.5	0.5	0.5	0.5

## Mechanical interlock

### Mechanical interlock, AR9

- for contactor frames **9A** **12A** **18A** **22A** **32A** **40A** **50A** **65A** **75A** **85A**



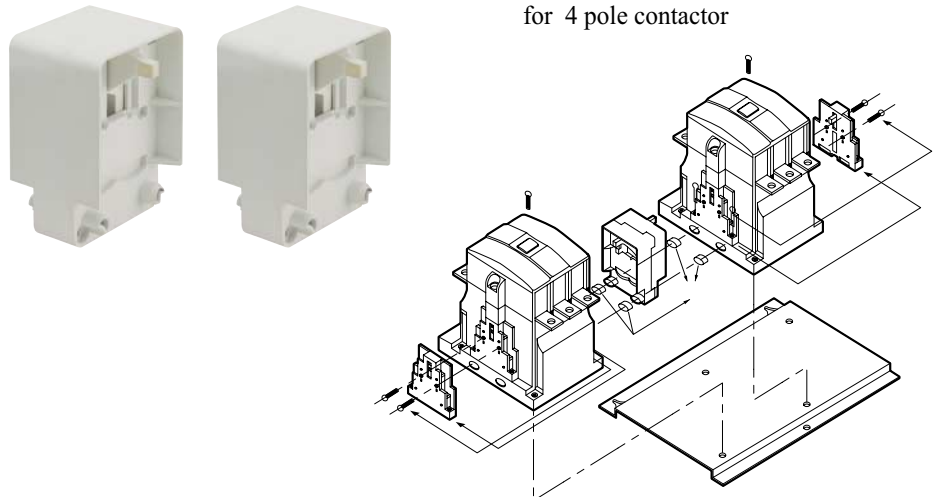
### Mechanical interlock, AR100 and AR180

**AR100:** **100A** **125A** **150A**

**AR180:** **180A** **220A** **300A** **400A**

**100A** **125A** **180A** **220A** **300A** **400A**

for 4 pole contactor



### Mechanical interlock, AR600

- for contactor frames **600A** **800A**



### Mechanical latch unit



Applying contactors	Type	Rebound coil voltage	
		Nominal volt.	Rated volt.
GM-9 to 40 type (9 to 40A frame)	AL-9	AC100V	100~127V 50/60Hz
		AC200V	200~240V 50/60Hz
GM-50 to 85 type (50 to 85A frame)	AL-50	AC300V	260~350V 50/60Hz
		AC400V	380~440V 50/60Hz
		AC500V	460~550V 50/60Hz
		DC12V	DC12V
		DC24V	DC24V
		DC48V	DC48V
		DC100V	DC100~110V
		DC125V	DC120~125V
		DC200V	DC200~220V



Note)

GMC-100, 125 type (100, 125A frame)	AL-100		
GMC-150 type (150A frame)	AL-150	AC100V	100~127V 50/60Hz
GMC-180, 220 type (180, 220A frame)	AL-220	AC200V	200~240V 50/60Hz
GMC-300, 400 type (300, 400A frame)	AL-400		

Note) As connection of latch unit it requires experts' skill, it is not separately provided from magnetic contactor.

### Terminal cover unit for Contactors



Applying contactors	Type		Remarks
	for 3 Pole	for 4 Pole	
GMC-100, 125 type (100, 125A frame)	AP100	AP220/4	2 pcs included
GMC-150 type (150A frame)	AP150		
GMC-180, 220 type (180, 220A frame)	AP220		
GMC-300, 400 type (300, 400A frame)	AP400	AP400/4	
GMC-600, 800 type (600, 800A frame)	AP800	AP800/4	

### Terminal cover unit for Thermal overload relays



Applying relays	Type	Remarks
GTK, GTH-125	APT125	
GTK, GTH-150	APT150	
GTK, GTH-220	APT220	
GTK, GTH-400	APT400	
GTK, GTH-600	APT600	

# Accessories



## Insulation barrier unit

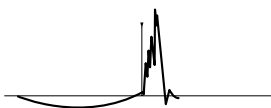
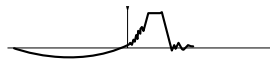

Applying contactors	Type	Remarks
<b>GMC-100, 125, 150 type</b> (100 to 150A frame)	AI-100	4 pcs required per contactor
<b>GMC-180, 220, 300, 400 type</b> (180 to 400A frame)	AI-180	
<b>GMC-600, 800 type</b> (600, 800A frame)	AI-600	

## Surge absorber unit



Type of element	Applying contactors	Operation voltage	Element spec.	Type	Catalog No.
Varistor ①	All types GM-9 to 85 (9 to 800A frame)	AC/DC 24~48V	Varistor 120V	AS-11	83611611026
		AC/DC 100~125V	Varistor 270V	AS-12	83611611030
		AC/DC 200~240V	Varistor 470V	AS-13	83611611034
		AC380~440V	Varistor 1000V	AS-14	83611611038
CR + Varistor ②	GMD-9 to 85 (9 to 85A frame with AC coil)	AC24~48V	Varistor 120V 0.1 $\mu$ F, 100 $\Omega$	AS-1	83611611002
		AC100~125V	Varistor 270V 0.1 $\mu$ F, 100 $\Omega$	AS-2	83611611006
		AC200~240V	Varistor 470V 0.1 $\mu$ F, 100 $\Omega$	AS-3	83611611010
	GMD-9 to 85 (9 to 85A frame with DC coil)	DC24~48V	Varistor 120V 0.47 $\mu$ F, 100 $\Omega$	AS-4	83611611014
		DC100~125V	Varistor 270V 0.47 $\mu$ F, 100 $\Omega$	AS-5	83611611018
		DC200~220V	Varistor 470V 0.47 $\mu$ F, 100 $\Omega$	AS-6	83611611022

## Comparison

Without surge unit	① With Varistor unit	② With CR+Varistor unit
Surge voltage, arise when the coil is off, may provoke mis-operation and damage in the circuit.	Varistor has an effect to cut down the peak voltage	Varistor has an effect to cut down the peak voltage and high frequency wave
		

### Delayed opening device

Delayed opening device prevents the inadvertent opening of a contactor in the event of a wide voltage drop or brief supply voltage interruptions of control power for 1 to 4 seconds.



Applying contactors	Type	Control voltage	
<b>GMD-9, 12, 18, 22, 32, 40 type</b> (9 to 40A frame with DC coil)	AD-9	Delayed opening device	Contactor coil
<b>GMD-50, 65, 75, 85 type</b> (50 to 85A frame with DC coil)	AD-50		
<b>GMC-100, 125, 150, 180, 220 type</b> (100 to 220A frame)	AD-100	AC100~110V	DC100/110V
<b>GMC-300, 400 type</b> (300 to 400A frame)	AD-300	AC200~220V	DC200/220V
<b>GMC-600, 800 type</b> (600. 800A frame)	AD-600		

Drawings & Circuit diagrams : page 192

### Lug terminals for Contactors



Applying contactors	Type	Remarks
	for 3 Pole	
<b>GMC-100, 125 type</b> (100, 125A frame)	AJ125 (70821614008)	
<b>GMC-150 type</b> (150A frame)	AJ150 (70821615008)	
<b>GMC-180, 220 type</b> (180, 220A frame)	AJ220 (70821616008)	
<b>GMC-300, 400 type</b> (300. 400A frame)	AJ400 (70821617008)	
<b>GMC-600, 800 type</b> (600. 800A frame)	AJ800 (70821618008)	

### Separate mounting unit

In case of installing the overload relays independently, the separate mounting kits are available for screw or 35mm Din-rail mounting.



Type	Applied TOR	Catalog No.
<b>AZ-22H</b>	GTH(K)-22	83661811005
<b>AZ-40H</b>	GTH(K)-40	83661812003
<b>AZ-85H</b>	GTH(K)-85	83661813006

# Accessories

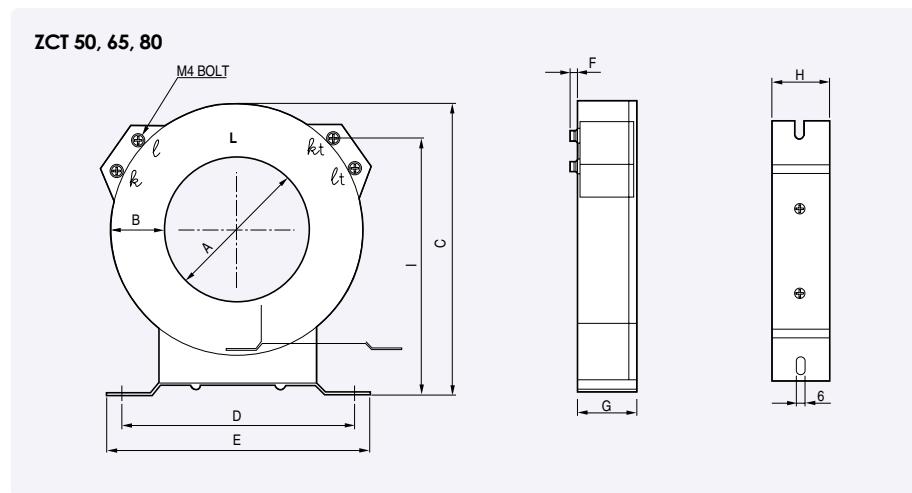
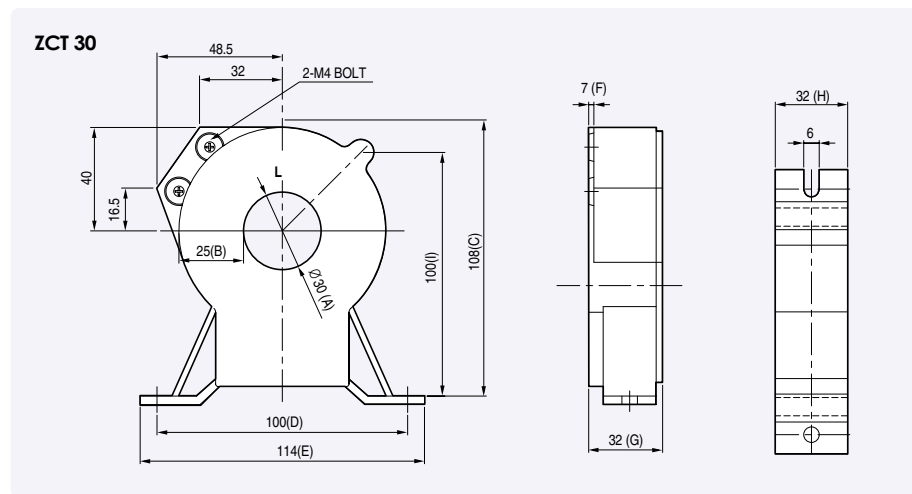
## Current transformer

### ZCT( Zero-phase Sequence Current Transformer)

#### Ratings

Type	Diameter(A)	Ratio	Weight(kg)	Model
ZCT, D30, DMP-Z	30	200mA/100mV	0.5	LZT-030
ZCT, D50, DMP-Z	50		0.7	LZT-050
ZCT, D65, DMP-Z	65		0.9	LZT-065
ZCT, D80, DMP-Z	80		1.5	LZT-080

#### Dimension

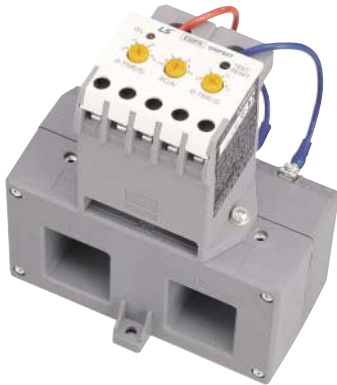


Unit : m/m

Model	A	B	C	D	E	F	G	H	φ
LZT-030	30	25	108	100	114	7	32	32	6
LZT-050	50	25	131	100	122	7	32	36	6
LZT-065	65	26	143	114	133	7	39	37	6
LZT-080	80	34	174	160	180	7	40	40	6

## DCT( Current transformer)

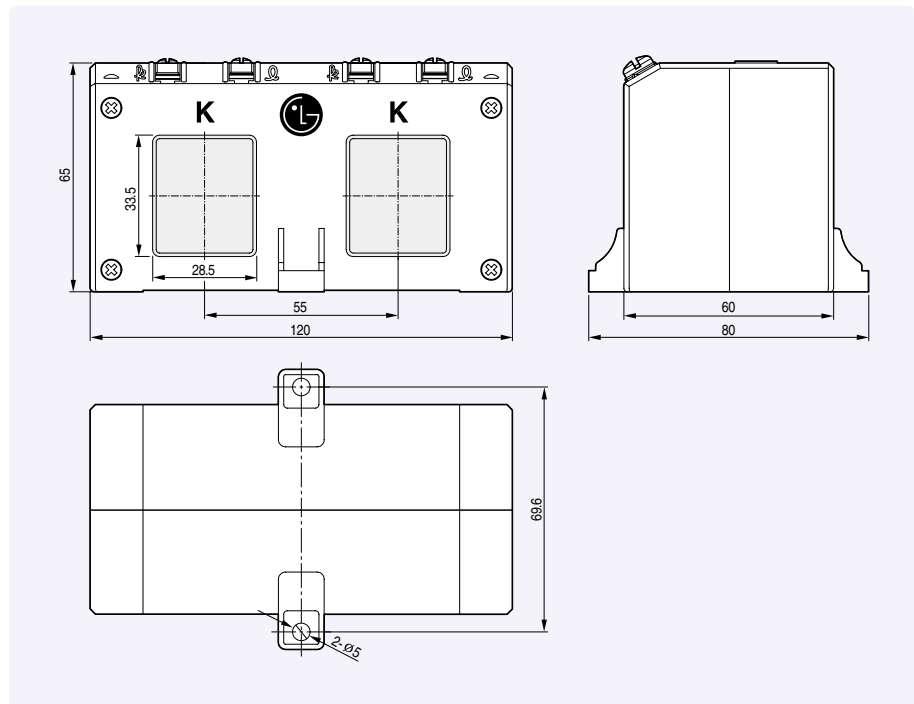
### Ratings



Type	2CT	Catalogue No.	
CT ratio	DCT-100	100 : 5A	76012116001
	DCT-150	150 : 5A	76012116002
	DCT-200	200 : 5A	76012116003
	DCT-300	300 : 5A	76012116004
	DCT-400	400 : 5A	76012116005
Class	1.0		
Burden	5VA		
Insulation voltage	600VAC		
Insulated impulse voltage	2kV		
Insulation resistance	10MΩ (DC 500V Megger)		
Mounting	Panel		

Note) Please use DCT for LG Electronic Motor Protection Relay only.

### Dimension



# Accessories

## Current transformer

### SCT(Current transformer)

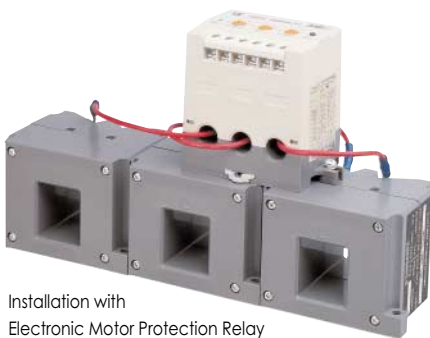
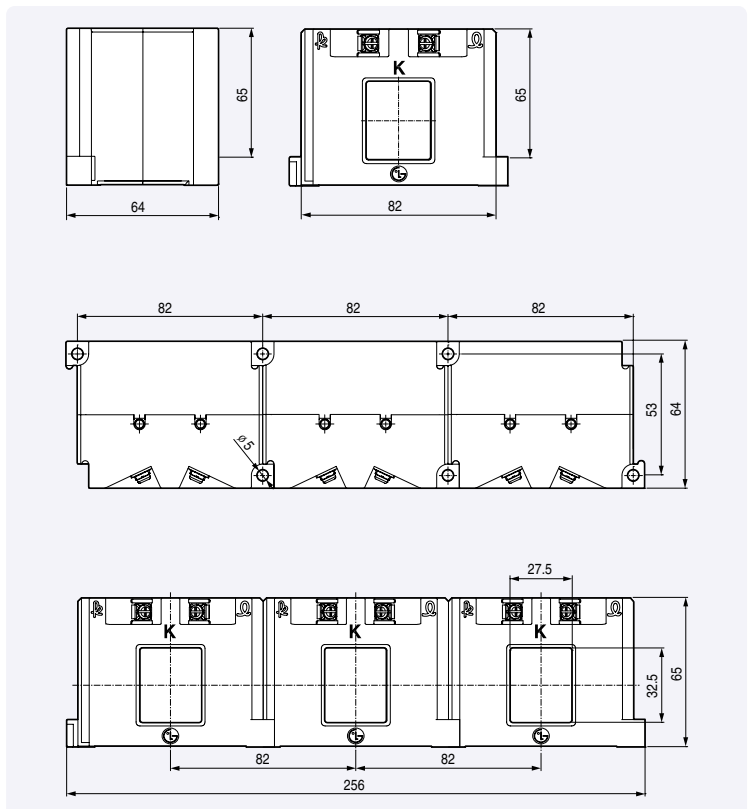


### Ratings

Type		3CT	Catalogue No.
CT ratio	SCT-100	100 : 5A	76012116006
	SCT-150	150 : 5A	76012116007
	SCT-200	200 : 5A	76012116008
	SCT-300	300 : 5A	76012116009
	SCT-400	400 : 5A	76012116010
Class		1.0	
Burden		5VA	
Insulation voltage		600VAC	
Insulated impulse voltage		2kV	
Insulation resistance		10MΩ (DC 500V Megger)	
Mounting		Panel	

Note) Please use SCT for LS Electronic Motor Protection Relay & DMPR only.

### Dimension





## Technical information

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# Technical information

## Rating of contactors, Direct starters & Auxiliary contacts

### Ratings of Contactors and Direct starters

Type		Rating																AC1 (Ith) A
Contactors	Direct Starters	AC3						AC2						AC4				
		200~220V		380~440V		500~550V		200~220V		380~440V		500~550V		200~220V		380~440V		
		kW	A	kW	A	kW	A	kW	A	kW	A	kW	A	kW	A	kW	A	
GMC - 9	GMS - 9	2.5	11	4	9	4	7	2.5	11	4	9	4	7	1.5	8	2.2	6	20
GMC - 12	GMS - 12	3.5	13	5.5	12	7.5	12	3.5	13	5.5	12	7.5	12	2.2	11	4	9	20
GMC - 18	GMS - 18	4.5	18	7.5	18	7.5	13	4.5	18	7.5	18	7.5	13	3.7	18	4	9	25
GMC - 22	GMS - 22	5.5	22	11	22	15	22	5.5	22	11	22	15	22	3.7	18	5.5	13	32
GMC - 32	GMS - 32	7.5	32	15	32	18.5	28	7.5	32	15	32	18.5	28	4.5	20	7.5	17	50
GMC - 40	GMS - 40	11	40	18.5	40	22	32	11	40	18.5	40	22	32	5.5	25	11	24	60
GMC - 50	GMS - 50	15	55	22	50	30	43	15	55	22	50	30	43	7.5	35	15	32	80
GMC - 65	GMS - 65	18.5	65	30	65	37	60	18.5	65	30	65	37	60	11	50	22	47	100
GMC - 75	GMS - 75	22	75	37	75	45	64	22	75	37	75	45	64	13	55	25	52	110
GMC - 85	GMS - 85	25	85	45	85	45	75	25	85	45	85	45	75	15	65	30	62	135
GMC - 100	GMS - 100	30	105	55	105	55	85	30	105	55	105	55	85	19	80	37	75	150
GMC - 125	GMS - 125	37	125	60	120	60	90	37	125	60	120	60	90	22	93	45	90	150
GMC - 150	GMS - 150	45	150	75	150	90	140	45	150	75	150	90	140	30	125	55	110	200
GMC - 180	GMS - 180	55	180	90	180	110	180	55	180	90	180	110	180	37	150	75	150	230
GMC - 220	GMS - 220	75	220	132	220	132	200	75	220	132	220	132	200	45	180	90	180	260
GMC - 300	GMS - 300	90	300	160	300	160	250	90	300	160	300	160	250	55	220	110	220	350
GMC - 400	GMS - 400	125	400	220	400	225	350	125	400	220	400	225	350	75	300	150	300	420
GMC - 600	GMS - 600	190	630	330	630	330	500	190	630	330	630	330	500	110	400	200	400	660
GMC - 800	GMS - 800	220	800	440	800	500	720	220	800	440	800	500	720	160	630	300	630	800

### Ratings of Auxiliary contacts

Type	Rated current (A)																AC1 (Ith) A
	AC 15				DC 13				AC 12				DC 12				
	110V	120V	440V	550V	24V	48V	110V	220V	110V	220V	440V	550V	24V	48V	110V	220V	
GMC(D)-9~22	6	3	1.5	1.2	3	1.5	0.55	0.27	10	8	5	5	5	3	2.5	1	16
GMC(D)-32~85	6	3	1.5	1.2	3	1.5	0.55	0.27	10	8	5	5	5	3	2.5	1	16
GMC-100~800	6	5	3	3	6	3	1.2	0.2	10	10	5	5	5	3	1.5	0.25	16

### Contact arrangement

Type	Standard	Option
GMC(D)-9~22	1NO 1NC	4NO, 3NO1NC, 2NO2NC, 1NO3NC
GMC(D)-32~85	2NO 2NC	4NO, 3NO1NC, 2NO2NC, 1NO3NC
GMC-100(/4)~800(/4)	2NO 2NC	2NO 2NC



# Rated power of AC4



## Rated power of AC4

Rated voltage(V) in main circuit	Rated power of inching operation (kW)												Rated power of plugging operation (kW)			
	200~220V						380~440V						200~220V		380~440V	
	10%		50%		100%		10%		50%		100%		Plugging 100%		Plugging 100%	
Electrical lifespan (x10,000 operation)	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	50
<b>GMC-9</b>	2.2	1	1	0.5	0.75	0.3	2.7	1.5	1.5	0.75	1.1	0.5	0.75	0.2	0.75	0.2
<b>GMC-12</b>	2.7	1.5	1.5	0.75	1.1	0.5	4	2.2	3.7	1.5	2.2	1.1	0.75	0.4	1	0.4
<b>GMC-18</b>	3.7	2.7	2.7	1.1	1.5	0.75	4	3.7	4	2.2	3.7	1.5	1.5	0.5	2.2	0.75
<b>GMC-22</b>	4	3.7	3.7	1.5	2.5	1.1	7.5	7.5	7.5	3.7	5.5	2.2	2.2	0.75	3.7	1.5
<b>GMC-32</b>	5.5	4.5	4.5	2.2	4.5	1.8	11	9	9	4.5	7.5	3.7	2.5	1.1	4.5	2.2
<b>GMC-40</b>	7.5	5.5	5.5	3.7	4.5	2.7	15	11	11	5.5	11	3.7	3.7	1.5	4.5	2.2
<b>GMC-50</b>	11	7.5	7.5	3.7	5.5	3.7	22	15	15	7.5	15	5.5	5.5	2.2	7.5	3.7
<b>GMC-65</b>	15	11	11	5.5	7.5	4	30	22	22	11	15	7.5	7.5	3	11	5.5
<b>GMC-75</b>	18.5	15	15	7.5	9	4	37	30	30	15	15	7.5	9	3.7	15	5.5
<b>GMC-85</b>	19	15	15	7.5	11	5.5	37	30	30	15	22	11	9	3.7	18.5	7.5
<b>GMC-100</b>	25	15	19	9	11	5.5	50	37	37	18.5	25	13	11	4.5	22	11
<b>GMC-125</b>	30	22	22	9	15	7.5	60	45	45	22	30	15	15	5.5	30	15
<b>GMC-150</b>	37	25	30	11	19	9	75	55	55	30	45	22	19	7.5	37	19
<b>GMC-180</b>	45	30	37	15	25	11	90	75	75	37	55	25	22	11	45	22
<b>GMC-220</b>	55	37	45	19	30	15	110	90	90	37	60	30	25	13	45	25
<b>GMC-300</b>	75	50	55	25	37	22	150	125	132	50	75	37	37	18.5	55	30
<b>GMC-400</b>	110	65	75	30	45	25	200	132	150	75	110	55	45	22	75	37
<b>GMC-600</b>	160	75	90	37	55	37	300	150	190	90	132	75	55	30	110	45
<b>GMC-800</b>	200	132	150	45	75	45	400	190	220	110	160	90	75	37	150	75

Note) 1. Inching(%)=  $\frac{\text{Times of inching operation}}{\text{Times of standard obligation} + \text{Times of inching operation}} \times 100$

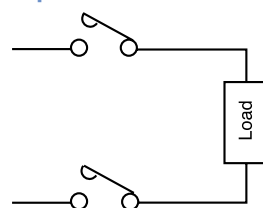
2. The limit of on/off operation frequency in inching is below 10 times based on 1 time/sec.

# Technical information

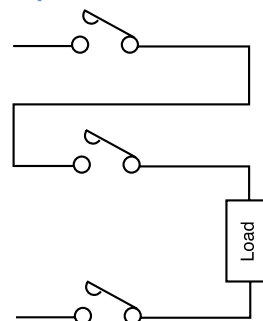
## DC Application

Type	Poles in series	Rated current (DC2, DC4) DC motor load (L/R=15ms)				Rated current (DC1) Resistant load (L/R=1ms)				Rated current (DC1) Coil load (L/R=100ms)			
		24V	48V	110V	220V	24V	48V	110V	220V	24V	48V	110V	220V
GMC(D)-9	2	8	4	2.5	0.8	10	10	6	3	8	4	2	0.3
	3	8	6	4	2	10	10	8	8	8	6	3	0.8
GMC(D)-12	2	12	6	4	1.2	12	12	10	7	12	6	3	0.5
	3	12	10	8	4	12	12	12	12	12	10	5	2
GMC(D)-18	2	12	6	4	1.2	18	18	13	8	12	6	3	0.5
	3	12	10	8	4	18	18	18	18	12	10	5	2
GMC(D)-22	2	20	15	8	2	20	20	15	10	20	12	3	1.2
	3	20	20	15	8	20	20	20	20	20	15	10	4
GMC(D)-32	2	25	20	10	3	25	25	25	12	25	15	4	1.2
	3	25	25	20	10	25	25	25	22	25	25	12	4
GMC(D)-40	2	35	20	10	3	35	35	25	12	35	15	4	1.2
	3	35	30	20	10	35	35	35	30	35	25	12	4
GMC(D)-50	2	45	25	15	3.5	50	40	35	15				
	3	50	35	30	12	50	50	50	40				
GMC(D)-65	2	45	25	15	3.5	50	40	35	15				
	3	50	35	30	12	65	65	65	50				
GMC(D)-75	2	65	40	20	5	75	65	50	20				
	3	80	60	50	20	75	75	75	55				
GMC(D)-85	2	65	40	20	5	80	65	50	20				
	3	80	60	50	20	80	80	80	60				
GMC-100	2	100	60	40	30	100	100	80	50				
	3	100	90	80	50	100	100	100	80				
GMC-125	2	120	60	40	30	120	100	80	50				
	3	120	90	80	50	120	120	100	80				
GMC-150	2	150	100	80	60	150	120	100	100				
	3	150	130	120	80	150	150	150	150				
GMC-180	2	180	150	120	80	180	180	150	150				
	3	180	180	150	100	180	180	180	180				
GMC-220	2	220	150	120	80	220	180	150	150				
	3	220	220	150	100	220	220	220	220				
GMC-300	2	300	200	150	90	300	240	200	200				
	3	300	280	200	150	300	300	300	300				
GMC-400	2	400	200	150	90	400	240	200	200				
	3	400	280	200	150	400	400	400	300				
GMC-600	2	630	630	630	630	630	630	630	630				
	3	630	630	630	630	630	630	630	630				
GMC-800	2	800	630	630	630	800	800	630	630				
	3	800	630	630	630	800	800	800	800				

2 poles in series



3 poles in series



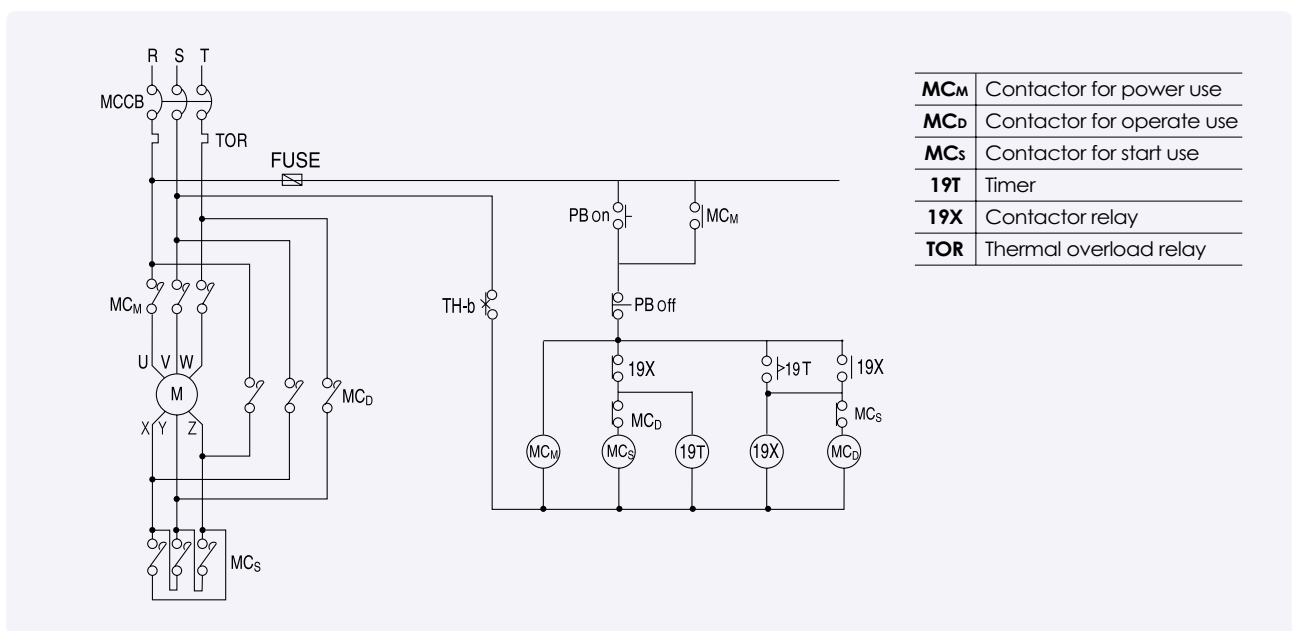
## Ratings for star-delta use Contactor

Start method	Start (Star contactors)				Operate (Delta contactor)		
	Start current	Torque	Full load current	Contact voltage	Full load current	Contact current	Contact voltage
Direct	6Im	1.5T	6Im	$E_m/\sqrt{3}$	Im	Im	$E_m/\sqrt{3}$
Star - delta	2Im	0.5T	2Im	$E_m/\sqrt{3}$	Im	$Im/\sqrt{3}$	$E_m$

## Contactor selection for star-delta use

Motor ratings		200~220V			380~480V		
(kW)	(HP)	Start use(MC <sub>s</sub> )	Operate use(MC <sub>D</sub> )	Power(MC <sub>M</sub> )	Start use(MC <sub>s</sub> )	Operate use(MC <sub>D</sub> )	Power(MC <sub>M</sub> )
5.5	7.5	GMC-9	GMC-18	GMC-18	GMC-9	GMC-12	GMC-12
7.5	10	GMC-12	GMC-18	GMC-18	GMC-9	GMC-18	GMC-18
11	10	GMC-18	GMC-32	GMC-32	GMC-12	GMC-18	GMC-18
15	20	GMC-22	GMC-50	GMC-50	GMC-18	GMC-18	GMC-18
18.5	25	GMC-32	GMC-50	GMC-50	GMC-18	GMC-22	GMC-22
22	30	GMC-32	GMC-65	GMC-65	GMC-18	GMC-32	GMC-32
30	40	GMC-65	GMC-85	GMC-85	GMC-22	GMC-50	GMC-50
37	50	GMC-65	GMC-100	GMC-100	GMC-32	GMC-50	GMC-50
45	50	GMC-75	GMC-125	GMC-125	GMC-32	GMC-65	GMC-65
55	60	GMC-85	GMC-150	GMC-150	GMC-50	GMC-85	GMC-85
75	100	GMC-100	GMC-180	GMC-180	GMC-65	GMC-100	GMC-100
90	125	GMC-125	GMC-220	GMC-220	GMC-65	GMC-125	GMC-125
110	125	GMC-150	GMC-300	GMC-300	GMC-85	GMC-150	GMC-150
132	150	GMC-180	GMC-300	GMC-300	GMC-100	GMC-180	GMC-180
160	200	GMC-220	GMC-400	GMC-400	GMC-125	GMC-220	GMC-220
250	300	GMC-300	GMC-600	GMC-600	GMC-150	GMC-300	GMC-300
300	400	GMC-400	GMC-600	GMC-600	GMC-220	GMC-400	GMC-400

- Note) 1. Above selection is made under AC3 standard squirrel cage motor use basis.  
 The selection may be changed according to the motor class or manufacturer  
 2. The motor start time is within 15sec  
 3. When you use phase advanced condenser, consider the inrush current for selection.



(Fig 1) Example of a wiring diagram for star-delta combination

# Technical information

## Selection guide for lighting circuit switching

### Incandescent

Maximum quantity of lamps per contactor

Type	Consumption	100V								200V							
		100W	150W	200W	250W	300W	500W	1000W	1500W	100W	150W	200W	250W	300W	500W	1000W	1500W
GMC(D)-9		11	7	5	4	3	2	1	-	22	14	11	8	7	4	2	1
GMC(D)-12		13	8	6	5	4	2	1	-	26	17	13	10	8	5	2	1
GMC(D)-18		18	12	9	7	6	3	1	1	36	24	18	14	12	7	3	2
GMC(D)-22		19	12	9	7	6	3	1	1	38	25	19	15	12	7	3	2
GMC(D)-32		26	17	13	10	8	5	2	1	52	34	26	20	17	10	5	3
GMC(D)-40		35	23	17	14	11	7	3	2	70	46	35	28	23	14	7	4
GMC(D)-50		50	33	25	20	15	10	5	3	100	66	50	40	33	20	10	6
GMC(D)-65		65	42	32	26	19	13	6	4	130	85	65	52	42	26	13	8

### Fluorescent

Maximum quantity of rapid-start fluorescents per contactor

Type	Consumption	100V							200V							
		40W		60W	80W	110W		220W	40W		60W	80W	110W		220W	
	N° Fluorescent.	1	2	1	1	1	2	1	1	2	1	1	1	2	1	1
	(A)	0.95 (1.2)	0.96 (1.1)	0.92	1.17	1.55	2.5	2.7	0.29 (0.6)	0.48 (0.55)	0.46	0.58	0.78	1.3	1.36	2.5
GMC(D)-9		18 (9)	11 (10)	12	9	7	4	4	37 (18)	22 (20)	23	19	14	8	8	4
GMC(D)-12		22 (10)	13 (11)	14	11	8	5	4	44 (21)	27 (23)	28	22	16	10	9	5
GMC(D)-18		30 (15)	18 (16)	19	15	11	7	6	62 (30)	37 (32)	39	31	23	13	13	7
GMC(D)-22		32 (15)	19 (17)	20	16	12	7	7	65 (31)	39 (34)	41	32	24	14	14	7
GMC(D)-32		44 (21)	27 (23)	28	22	16	10	9	89 (43)	54 (47)	56	44	33	20	19	10
GMC(D)-40		59 (29)	36 (31)	38	29	22	14	13	120 (58)	72 (63)	76	60	44	26	25	14
GMC(D)-50		84 (41)	52 (45)	54	42	32	20	18	172 (83)	104 (90)	108	86	64	38	37	20
GMC(D)-65		110 (54)	67 (59)	70	55	41	26	24	224 (108)	135 (118)	141	112	83	50	48	26

Note) 1. In 1 lamps, ( ) is the number of the lamps with low power factor.  
2. In 2 lamps, ( ) is the number of the flickerless type lamps.

### Mercury lamp

Maximum quantity of mercury lamps per contactor

Type	Consumption	Low power factor type-High power factor type															
		40W	100W	200W	250W	300W	400W	700W	1000W	40W	100W	200W	250W	300W	400W	700W	1000W
		(A)	1.25	2.6	4.6	5.1	6.0	8.0	14.5	21	0.53	1.0	1.9	2.1	2.5	3.3	5.9
		0.55	1.4	2.6	3.0	3.7	4.9	8.5	12	-	0.65	1.2	1.5	1.8	2.3	4.1	5.8
GMC(D)-9		8/20	4/7	2/4	2/3	1/2	1/1	-/-	-/-	20/-	11/16	5/9	5/7	4/6	3/4	1/2	1/1
GMC(D)-12		10/23	5/9	2/5	2/4	2/3	1/1	-/1	-/1	24/-	13/20	6/10	6/8	5/7	3/5	2/3	1/2
GMC(D)-18		14/32	6/12	3/6	3/6	3/4	2/3	1/2	-/1	33/-	18/27	9/15	8/12	7/10	5/7	3/3	2/3
GMC(D)-22		15/34	7/13	4/7	3/6	3/5	2/3	1/2	-/1	35/-	19/29	10/15	9/12	7/10	5/8	3/4	2/3
GMC(D)-32		20/47	10/18	5/10	5/8	4/7	3/5	1/3	1/2	49/-	26/40	13/21	12/17	10/14	7/11	4/6	3/4
GMC(D)-40		28/63	13/25	7/13	6/11	5/9	4/7	2/4	1/2	66/-	35/53	18/29	16/23	14/19	10/15	5/8	4/6
GMC(D)-50		40/90	19/35	10/19	9/16	8/13	6/10	3/5	2/4	94/-	50/76	26/41	23/33	20/27	15/21	8/12	6/8
GMC(D)-65		52/118	25/46	14/25	12/21	10/17	8/13	4/7	3/5	122/-	65/100	34/54	30/43	26/36	19/28	11/15	7/11

## Direct starters with molded case circuit breakers (50kA-415V · IEC60947)

Motor		MCCB		Contactor	Thermal overload relay	
(kW)	440V(A)	Type	Rating I <sub>r</sub> (A)	Type	Type	Settings range (A)
5.5	11	GBH(L)103	16	GMC-32	<b>GTH(K)-40</b>	9~13
7.5	15	GBH(L)103	16	GMC-32	<b>GTH(K)-40</b>	12~18
10	19	GBH(L)103	25	GMC-32	<b>GTH(K)-40</b>	18~26
11	21	GBH(L)103	25	GMC-32	<b>GTH(K)-40</b>	18~26
15	28	GBH(L)103	32	GMC-32	<b>GTH(K)-40</b>	24~36
18.5	34	GBH(L)103	40	GMC-75	<b>GTH(K)-85</b>	28~40
22	39	GBH(L)103	50	GMC-75	<b>GTH(K)-85</b>	34~50
30	54	GBH(L)103	63	GMC-75	<b>GTH(K)-85</b>	45~65
37	66	GBH(L)103	80	GMC-75	<b>GTH(K)-85</b>	54~75
45	80	GBH(L)103	100	GMC-100	<b>GTH(K)-100</b>	65~100
55	99	GBH(L)103	100	GMC-100	<b>GTH(K)-100</b>	85~125
75	135	GBH(L)203	160	GMC-150	<b>GTH(K)-150</b>	100~150
90	160	GBH(L)203	200	GMC-180	<b>GTH(K)-220</b>	120~180
110	192	GBH(L)203	200	GMC-180	<b>GTH(K)-220</b>	160~240
132	226	GBH(L)203	250	GMC-220	<b>GTH(K)-220</b>	160~240
160	265	ABH(L)403b	300	GMC-400	<b>GTH(K)-400</b>	200~300
200	330	ABH(L)403b	350	GMC-400	<b>GTH(K)-400</b>	260~400
220	353	ABH(L)403b	400	GMC-400	<b>GTH(K)-400</b>	260~400
250	400	ABS(L)803b	500	GMC-600	<b>GTH(K)-600</b>	260~400
300	480	ABS(L)803b	500	GMC-600	<b>GTH(K)-600</b>	400~600

Note) \* Magnetic only

## Direct starters with molded case circuit breakers (85kA-415V · IEC60947)

Motor		MCCB		Contactor	Thermal overload relay	
(kW)	440V(A)	Type	Rating I <sub>r</sub> (A)	Type	Type	Settings range (A)
5.5	11	GBL103	16	GMC-32	<b>GTH(K)-40</b>	9~13
7.5	15	GBL103	16	GMC-32	<b>GTH(K)-40</b>	12~18
10	19	GBL103	25	GMC-32	<b>GTH(K)-40</b>	18~26
11	21	GBL103	25	GMC-32	<b>GTH(K)-40</b>	18~26
15	28	GBL103	32	GMC-32	<b>GTH(K)-40</b>	24~36
18.5	34	GBL103	40	GMC-75	<b>GTH(K)-85</b>	28~40
22	39	GBL103	50	GMC-75	<b>GTH(K)-85</b>	34~50
30	54	GBL103	63	GMC-75	<b>GTH(K)-85</b>	45~65
37	66	GBL103	80	GMC-75	<b>GTH(K)-85</b>	54~75
45	80	GBL103	100	GMC-100	<b>GTH(K)-100</b>	65~100
55	99	GBL103	100	GMC-100	<b>GTH(K)-100</b>	85~125
75	135	GBL203	160	GMC-150	<b>GTH(K)-150</b>	100~150
90	160	GBL203	200	GMC-180	<b>GTH(K)-220</b>	120~180
110	192	GBL203	200	GMC-180	<b>GTH(K)-220</b>	160~240
132	226	GBL203	250	GMC-220	<b>GTH(K)-220</b>	160~240
160	265	ABL403b	300	GMC-400	<b>GTH(K)-400</b>	200~300
200	330	ABL403b	350	GMC-400	<b>GTH(K)-400</b>	260~400
220	353	ABL403b	400	GMC-400	<b>GTH(K)-400</b>	260~400
250	400	ABL803b	500	GMC-600	<b>GTH(K)-600</b>	260~400
300	480	ABL803b	500	GMC-600	<b>GTH(K)-600</b>	400~600

Note) Tables are based on a combination of tests on a previous range and technical comparison.

# Technical information

## Short circuit coordination

### Contactors with protection fuses

Type	AC1(A)	690V AC3 Ie(A)	Short-circuit test	
			Fuse available fault current 100,000A	Ue / "r"
<b>GMC-9</b>	20	5	gL/gG 25A	690V/1kA
<b>GMC-12</b>	20	9	gL/gG 32A	690V/1kA
<b>GMC-18</b>	25	9	gL/gG 35A	690V/3kA
<b>GMC-22</b>	32	18	gL/gG 50A	690V/3kA
<b>GMC-32</b>	50	20	gL/gG 63A	690V/3kA
<b>GMC-40</b>	60	23	gL/gG 80A	690V/3kA
<b>GMC-50</b>	80	28	gL/gG 100A	690V/3kA
<b>GMC-65</b>	100	35	gL/gG 100A	690V/3kA
<b>GMC-75</b>	110	42	gL/gG 100A	690V/3kA
<b>GMC-85</b>	135	45	gL/gG 200A	690V/3kA
<b>GMC-100</b>	150	65	gL/gG 150A	690V/5kA
<b>GMC-125</b>	150	70	gL/gG 160A	690V/5kA
<b>GMC-150</b>	200	100	gL/gG 200A	690V/5kA
<b>GMC-180</b>	230	120	gL/gG 225A	690V/5kA
<b>GMC-220</b>	260	150	gL/gG 250A	690V/10kA
<b>GMC-300</b>	350	220	gL/gG 355A	690V/10kA
<b>GMC-400</b>	420	300	gL/gG 400A	690V/10kA
<b>GMC-600</b>	660	420	gL/gG 630A	690V/18kA
<b>GMC-800</b>	800	630	gL/gG 800A	690V/18kA

Note) Tables are based on a combination of tests on a previous range and technical comparison.



## Thermal overload relays with protection fuses

Type	AC1(A)	690V AC3 I <sub>e</sub> (A)	Short-circuit test	
			Fuse available fault current 100,000A	U <sub>e</sub> / "r"
GTH(K)-22	32	1.6	gL/gG 4A	690V/1kA
GTH(K)-22		2.5	gL/gG 6A	690V/1kA
GTH(K)-22		4	gL/gG 10A	690V/1kA
GTH(K)-22		22	gL/gG 50A	690V/3kA
GTH(K)-40	60	6	gL/gG 16A	690V/1kA
GTH(K)-40		8	gL/gG 20A	690V/1kA
GTH(K)-40		9	gL/gG 20A	690V/1kA
GTH(K)-40		40	gL/gG 80A	690V/3kA
GTH(K)-85	135	18	gL/gG 35A	690V/3kA
GTH(K)-85		22	gL/gG 50A	690V/3kA
GTH(K)-85		26	gL/gG 63A	690V/3kA
GTH(K)-85		36	gL/gG 80A	690V/3kA
GTH(K)-85		40	gL/gG 80A	690V/3kA
GTH(K)-85		50	gL/gG 100A	690V/3kA
GTH(K)-85		65	gL/gG 160A	690V/5kA
GTH(K)-85		75	gL/gG 160A	690V/5kA
GTH(K)-100	150	85	gL/gG 200A	690V/5kA
GTH(K)-100		65	gL/gG 150A	690V/5kA
GTH(K)-150	200	125	gL/gG 225A	690V/5kA
GTH(K)-150		100	gL/gG 200A	690V/5kA
GTH(K)-220	260	150	gL/gG 250A	690V/10kA
GTH(K)-220		150	gL/gG 250A	690V/10kA
GTH(K)-400	420	240	gL/gG 355A	690V/10kA
GTH(K)-400		300	gL/gG 400A	690V/10kA
GTH(K)-600	800	400	gL/gG 630A	690V/18kA
GTH(K)-600		400	gL/gG 630A	690V/18kA
GTH(K)-600		630	gL/gG 800A	690V/18kA
GTH(K)-600		800	gL/gG 1400A	690V/30kA

Note) Tables are based on a combination of tests on a previous range and technical comparison.

# Technical information

## Coil characteristics

### Operating limits

When the operating coil is in the energized state an operating tolerance of between 85~110% of the coil's rated voltage is permitted, at temperatures up to 40°C at standard operating frequency. Operation out with the above may cause deterioration to electrical insulation and mechanical operation.

### Selections of coil

In GMC-9~85 contactors, 50Hz coil and 60Hz coil are separated.

But in GMC-100~800 contactors, the coils are AC/DC common use. (under DC 220V)

### Characteristics of AC coil

#### AC 220V, 60Hz

Type	Coil consumption (VA)		Thermal dissipation (W)	Operational voltage(V)		Coil current (mA)	Operational time (ms)	
	Inrush	Holding		Pick-up	Drop-out		Closing	Opening
GMC-9(/4)~22(/4)	95	9	2	141~156(142~157)*	105~125(112~132)*	41(36)	10~17	6~9
GMC-32(/4), 40(/4)	95	9	2	150~165(151~166)*	110~130(117~137)*	41(36)	11~19	6~10
GMC-50(/4)~85(/4)	220	17	5	145~160(146~161)*	100~120(107~127)*	77(68)	16~25	8~15
GMC-100, 125	298	12.3	4.4	77	48	56	30~34	63~67
GMC-150	298	12.3	4.4	77	48	56	37~41	47~52
GMC-180, 200	380	11.6	4.7	77	48	53	45	45
GMC-100(/4)~220(/4)	380	11.6	4.7	77	48	53	45	45
GMC-300(/4), 400(/4)	571	14	5	77	48	64	45~50	48~52
GMC-600(/4), 800(/4)	1000	29	7.8	150	91	132	66~69	55

Note) 1. Average values. 2. ( )\* values for 50Hz.

#### AC 110V, 60Hz

Type	Coil consumption (VA)		Thermal dissipation (W)	Operational voltage(V)		Coil current (mA)	Operational time (ms)	
	Inrush	Holding		Pick-up	Drop-out		Closing	Opening
GMC-9(/4)~22(/4)	95	9	2	75~85(74~84)*	55~65(54~64)*	73(73)*	11~18	6~9
GMC-32(/4), 40(/4)	95	9	2	75~85(74~84)*	55~65(54~64)*	73(73)*	13~20	6~9
GMC-50(/4)~85(/4)	220	17	5.5	68~78(67~77)*	40~50(39~49)*	154(154)*	16~25	9~16
GMC-100, 125	162	9.8	3.1	77	48	89	46~50	49~53
GMC-150	162	12.2	3	77	48	111	56~60	44~48
GMC-180, 200	220	9.1	3.4	77	48	83	60	41
GMC-100(/4)~220(/4)	220	9.1	3.4	77	48	83	60	41
GMC-300(/4), 400(/4)	393	14	4.4	77	48	128	64~68	43~47
GMC-600(/4), 800(/4)	1000	17	6.3	77	48	155	66~70	45~49

Note) 1. Average values. 2. ( )\* values for 50Hz.

### Characteristics of DC coil

#### DC 110V

Type	Coil consumption (VA)		Thermal contact (W)	Operational voltage(V)		Coil current (mA)	Operational time (ms)	
	Inrush	Holding		Pick-up	Drop-out		Closing	Opening
GMD-9(/4)~22(/4)	9	9	50	60~75	15~35	82	45~55	8~15
GMD-32(/4), 40(/4)	9	9	50	60~75	15~35	82	45~55	8~15
GMD-50(/4)~85(/4)	220	5	-	65~80	15~35	46	20~30	13~20

## Coil characteristics for GMR series

### AC coil (AC 220V, 60Hz)

Type		Coil consumption (VA)		Thermal dissipation (W)	Operation voltage (V)		Operation time (ms)			
		Inrush	Holding		Pick-up	Drop-out	Coil ON → NO contact ON	Coil ON → NC contact OFF	Coil OFF → NO contact OFF	Coil OFF → NC contact ON
GMR - 4	4NO	95	9	2	141~156	105~125	10~17	-	7~13	-
	2NO2NC				138~148	110~130	8~15	6~15	7~13	8~15
GMR - 6	6NO				145~160	100~120	10~17	-	7~13	-
	3NO3NC				140~155	105~125	10~16	5~13	7~13	8~15
GMR - 6	8NO				150~160	90~110	10~18	-	7~13	-
	4NO4NC				148~158	95~115	10~16	5~13	7~13	8~15

### DC coil (DC 110V)

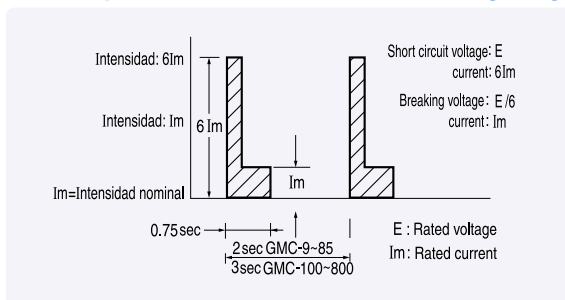
Type		Coil consumption (VA)		Thermal dissipation (W)	Operation voltage (V)		Operation time (ms)			
		Inrush	Holding		Pick-up	Drop-out	Coil ON → NO contact ON	Coil ON → NC contact OFF	Coil OFF → NO contact OFF	Coil OFF → NC contact ON
GMR - 4D	4NO	9	9	50	65~75	15~35	45~55	-	7~13	-
	2NO2NC				63~73	18~38	40~50	20~30	7~13	13~19
GMR - 6D	6NO				68~78	15~35	45~55	-	7~13	-
	3NO3NC				63~73	18~38	40~50	20~30	7~13	8~15
GMR - 6D	8NO				70~80	15~35	45~55	-	7~13	-
	4NO4NC				63~73	18~38	40~50	20~30	7~13	13~19

# Technical information

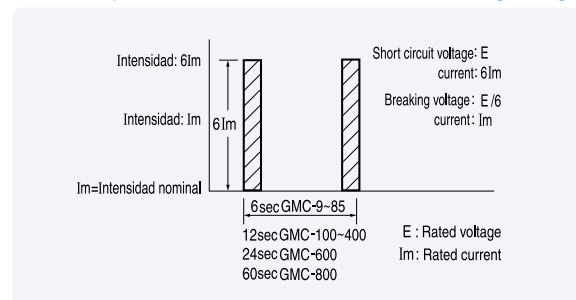
## Performance of contactors

Type	Rated voltage (V)	Rated current (A)	Short circuit max. current	Breaking capacity	Cycles per hour at AC3	Endurance (× 10,000 operations)		Performance Indicate
						Mechanical	Electrical	
GMC-9	220	11	132	110	1800	2500	250	AC3 · 1 · 0-0
	440	9	108	90				
GMC-12	220	13	156	130	1800	2500	250	AC3 · 1 · 0-0
	440	12	144	120				
GMC-18	220	18	216	180	1800	2500	250	AC3 · 1 · 0-0
	440	18	216	180				
GMC-22	220	22	264	220	1800	2500	250	AC3 · 1 · 0-0
	440	22	264	220				
GMC-32	220	32	385	320	1800	1500	200	AC3 · 1 · 0-0
	440	32	385	320				
GMC-40	220	40	480	400	1800	1500	200	AC3 · 1 · 0-0
	440	40	480	400				
GMC-50	220	55	660	550	1200	1000	200	AC3 · 1 · 0-0
	440	50	600	500				
GMC-65	220	65	780	650	1200	1000	200	AC3 · 1 · 0-0
	440	65	780	650				
GMC-75	220	75	900	750	1200	1000	200	AC3 · 1 · 0-0
	440	75	900	750				
GMC-85	220	80	960	800	1200	1000	200	AC3 · 1 · 0-0
	440	80	960	800				
GMC-100	220	105	1050	1050	1200	500	100	AC3 · 1 · 1-0
	440	105	1050	1050				
GMC-125	220	125	1250	1250	1200	500	100	AC3 · 1 · 1-0
	440	120	1200	1200				
GMC-150	440	150	1500	1500	1200	500	100	AC3 · 1 · 1-0
	440	150	1500	1500				
GMC-180	220	180	1800	1800	1200	500	100	AC3 · 1 · 1-0
	440	180	1800	1800				
GMC-220	220	220	2200	2200	1200	500	100	ACC3 · 1 · 1-0
	440	220	2200	2200				
GMC-300	220	300	3000	3000	1200	500	100	AC3 · 1 · 1-0
	440	300	3000	3000				
GMC-400	220	400	4000	4000	1200	500	50	AC3 · 1 · 1-1
	440	400	4000	4000				
GMC-600	220	630	6300	6300	1200	500	50	ACC3 · 1 · 1-1
	440	630	6300	6300				
GMC-800	220	800	8000	8000	1200	500	50	AC3 · 1 · 1-1
	440	800	8000	8000				

### Test duty of the electrical endurance (AC3)



### Test duty of the electrical endurance (AC4)



## 3-pole Contactors

Type	Cable section		Screw size		Torque(Nm)		
	AWG /MCM	ISOmm <sup>2</sup>		Contactor terminal	Coil terminal	Principal main	Aux.
		MIN	MAX				
GMC-9	10 AWG	1,5	4	M4	M3.5	2,3	2,3
GMC-12	10 AWG	1,5	4	M4	M3.5	2,3	2,3
GMC-18	10 AWG	1,5	6	M4	M3.5	4	2,3
GMC-22	8 AWG	2,5	10	M4	M3.5	4	2,3
GMC-32	6 AWG	4	16	M5	M3.5	4	2,3
GMC-40	6 AWG	4	16	M5	M3.5	4	2,3
GMC-50	4 AWG	6	25	M6	M3.5	5	2,3
GMC-65	2 AWG	10	35	M8	M3.5	5	2,3
GMC-75	2 AWG	10	35	M8	M3.5	5	2,3
GMC-85	0 AWG	10	50	M8	M3.5	5	2,3
GMC-100	00 AWG	25	70	M8	M4	9	2,3
GMC-125	00 AWG	25	70	M8	M4	9	2,3
GMC-150	0000 AWG	35	95	M8	M4	9	2,3
GMC-180	250 MCM	50	120	M10	M4	15	2,3
GMC-220	300 MCM	70	150	M10	M4	15	2,3
GMC-300	500 MCM	95	240	M12	M4	23	2,3
GMC-400	N° 2 30×5	150		M12	M4	23	2,3
GMC-600	N° 2 50×5	240		M16	M4	57	2,3
GMC-800	N° 2 60×5	240		M16	M4	57	2,3

## 4-pole Contactors

Type	Cable section		Screw size		Torque(Nm)	
	AWG/MCM	ISOmm <sup>2</sup>	Contactor terminal	Coil terminal	Principal main	Aux.
GMC-9/4	10 AWG	4	M3.5	M3.5	2,3	2,3
GMC-12/4	10 AWG	4	M3.5	M3.5	2,3	2,3
GMC-18/4	8 AWG	6	M4	M3.5	4	2,3
GMC-22/4	8 AWG	10	M4	M3.5	4	2,3
GMC-32/4	6 AWG	16	M5	M3.5	4	2,3
GMC-40/4	6 AWG	16	M5	M3.5	4	2,3
GMC-50/4	4 AWG	25	M6	M3.5	5	2,3
GMC-65/4	2 AWG	35	M8	M3.5	5	2,3
GMC-75/4	2 AWG	35	M8	M3.5	5	2,3
GMC-85/4	0 AWG	50	M8	M3.5	5	2,3
GMC-100/4	00 AWG	70	M8	M4	9	2,3
GMC-125/4	00 AWG	70	M8	M4	9	2,3
GMC-150/4	0000 AWG	95	M8	M4	9	2,3
GMC-180/4	250 MCM	120	M10	M4	15	2,3
GMC-220/4	300 MCM	150	M10	M4	15	2,3
GMC-300/4	500 MCM	240	M12	M4	23	2,3
GMC-400/4	N° 2 30×5	150	M12	M4	23	2,3
GMC-600/4	N° 2 50×5	240	M16	M4	57	2,3
GMC-800/4	N° 2 60×5	240	M16	M4	57	2,3

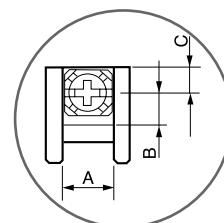
## Thermal overload relays

Type	Setting range	Cable selection		Torque (Nm)	Terminal screw size	
		AWG /MCM	ISOmm <sup>2</sup>			
GTH(K)-22	0.1~0.16	18AWG	1,5	2,3	M4	
	0.16~0.25	18AWG	1,5	2,3	M4	
	0.25~0.4	18AWG	1,5	2,3	M4	
	0.4~0.63	18AWG	1,5	2,3	M4	
	0.63~1	18AWG	1,5	2,3	M4	
	1~1.6	18AWG	1,5	2,3	M4	
	1.6~2.5	18AWG	1,5	2,3	M4	
	2.5~4	18AWG	1,5	2,3	M4	
	4~6	18AWG	1,5	2,3	M4	
	5~8	16AWG	1,5	2,3	M4	
	6~9	16AWG	1,5	2,3	M4	
	7~10	16AWG	1,5	2,3	M4	
	9~13	14AWG	1,5-2,5	2,3	M4	
	12~18	12AWG	2,5	2,3	M4	
	16~22	10AWG	2,5-4,0	2,3	M4	
	GTH(K)-40	4~6	18AWG	1,5	4	M5
5~8		16AWG	1,5	4	M5	
6~9		16AWG	1,5	4	M5	
7~10		16AWG	1,5	4	M5	
9~13		14AWG	1,5-2,5	4	M5	
12~18		12AWG	2,5	4	M5	
16~22		10AWG	2,5-4,0	4	M5	
18~26		10AWG	2,5-6,0	4	M5	
24~36		10AWG	4,0-10	4	M5	
28~40		10AWG	6,0-10	4	M5	
7~10		16AWG	1,5	5,1	M6	
9~13		14AWG	1,5-2,5	5,1	M6	
12~18		12AWG	2,5	5,1	M6	
16~22		10AWG	2,5-4,0	5,1	M6	
18~26		10AWG	2,5-6,6	5,1	M6	
24~36		10AWG	4,0-10	5,1	M6	
GTH(K)-85	28~40	10AWG	6,0-10	5,1	M6	
	34~50	6AWG	10-16	5,1	M6	
	45~65	4AWG	10-25	5,1	M8	
	54~75	4AWG	16-25	5,1	M8	
	63~85	3AWG	16-35	5,1	M8	
	34~50	6AWG	10-16	9	M8	
	39~57	6AWG	10-16	9	M8	
	GTH(K)-100	43~65	4AWG	10-25	9	M8
		54~80	4AWG	16-25	9	M8
		65~100	2AWG	25-35	9	M8
		85~125	1AWG	35-50	9	M8
		34~50	6AWG	10-16	9	M8
		39~57	6AWG	10-16	9	M8
		43~65	4AWG	10-25	9	M8
		54~80	4AWG	16-25	9	M8
	GTH(K)-150	65~100	2AWG	25-35	9	M8
85~125		1AWG	35-50	9	M8	
100~150		00AWG	35-70	9	M8	
65~100		2AWG	25-35	15	M10	
85~125		1AWG	35-50	15	M10	
100~160		00AWG	35-70	15	M10	
120~180		000AWG	50-95	15	M10	
160~240		250AWG	70-120	15	M10	
GTH(K)-220	85~125	1AWG	35-50	23	M12	
	100~160	00AWG	35-70	23	M12	
	120~180	000AWG	50-95	23	M12	
	160~240	250AWG	70-120	23	M12	
	200~300	400AWG	95-185	23	M12	
	260~400	500AWG	150-240	23	M12	
	200~300	400AWG	95-185	57	M16	
	260~400	500AWG	150-240	57	M16	
GTH(K)-400	400~600	N° 2 40×5	150-185	57	M16	
	520~800	N° 2 60×5	185-240	57	M16	
	GTH(K)-600	400~600	N° 2 40×5	150-185	57	M16
		520~800	N° 2 60×5	185-240	57	M16

# Technical information

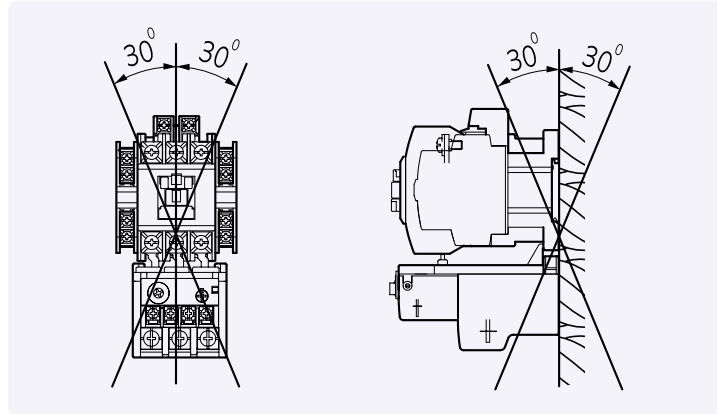
## Terminal dimensions

Type	Dimensions of terminal				Type	Dimensions of terminal			
	Main circuit		Auxiliary circuit			Main circuit		Auxiliary circuit	
	Terminal screw	A × B × C (mm)	Terminal screw	A × B × C (mm)		Terminal screw	A × B × C (mm)	Terminal screw	A × B × C (mm)
GMC-9(/4)	M4	9.5 × 5 × 4.9	M3.5	8 × 5 × 4.9	GTH(K)-22	M4	10 × 6.5 × 5	M3.5	7.8 × 4.3 × 7.3
GMC-12(/4)	M4	9.5 × 5 × 4.9	M3.5	8 × 5 × 4.9					
GMC-18(/4)	M4	9.5 × 5 × 4.9	M3.5	8 × 5 × 4.9					
GMC-22(/4)	M4	9.5 × 5 × 4.9	M3.5	8 × 5 × 4.9					
GMC-32(/4)	M5	12.4 × 6.5 × 6	M3.5	8 × 5 × 4.9	GTH(K)-40	M5	12.4 × 6.2 × 6.3	M3.5	7.8 × 4.3 × 7.3
GMC-40(/4)	M5	12.4 × 6.5 × 6	M3.5	8 × 5 × 4.9					
GMC-50(/4)	M6	17.5 × 7 × 8.7	M3.5	8 × 5 × 4.9	GTH(K)-85	M6	19 × 8.5 × 9	M3.5	7.8 × 4.3 × 7.3
GMC-65(/4)	M8	17.5 × 7 × 8.7	M3.5	8 × 5 × 4.9					
GMC-75(/4)	M8	17.5 × 7 × 8.7	M3.5	8 × 5 × 4.9					
GMC-85(/4)	M8	17.5 × 7 × 8.7	M3.5	8 × 5 × 4.9	GTH(K)-125	M8	15 × 9.5 × 9	M4	8.2 × 4.1 × 5.2
GMC-100(/4)	M8	15 × 8.5 × 9.5	M4	10.8 × 4.1 × 4.1					
GMC-125(/4)	M8	15 × 8.5 × 9.5	M4	10.8 × 4.1 × 4.1	GTH(K)-150	M8	20 × 10 × 10	M4	8.2 × 4.1 × 5.2
GMC-150(/4)	M8	20.5 × 10 × 9	M4	10.8 × 4.1 × 4.1					
GMC-180(/4)	M10	25 × 12.5 × 15	M4	10.8 × 4.1 × 4.1	GTH(K)-220	M10	25 × 12.5 × 13.5	M3.5	7.7 × 5 × 4.5
GMC-220(/4)	M10	25 × 12.5 × 15	M4	10.8 × 4.1 × 4.1					
GMC-300(/4)	M12	30 × 14.5 × 20	M4	10.8 × 4.1 × 4.1	GTH(K)-400	M12	30 × 15 × 11	M3.5	7.7 × 5 × 4.5
GMC-400(/4)	M12	30 × 14.5 × 20	M4	10.8 × 4.1 × 4.1					
GMC-600(/4)	M16	40 × 20 × 40.5	M4	10.8 × 4.1 × 4.1	GTH(K)-600	M16	30 × 11.2 × 23.2	M3.5	7.7 × 5 × 4.5
GMC-800(/4)	M16	40 × 20 × 40.5	M4	10.8 × 4.1 × 4.1					

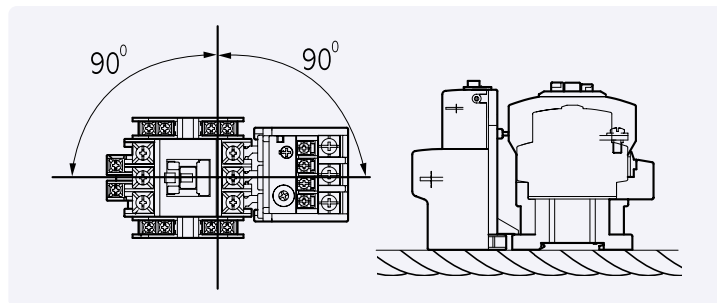


## Installation

### 1) Operating position



Normal installation

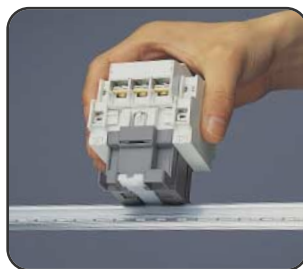


Horizontal or vertical installation

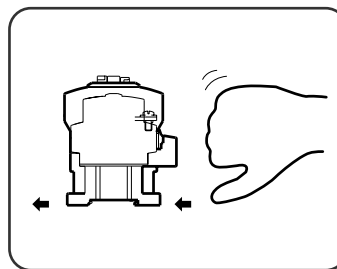
- In special installations, the endurance and other characteristics may be deteriorated.

## DIN rail(GMC-9~85)

- 35mm DIN rail



Installation



Un-install

## Environment

- 1) Ambient temperature
  - -25~40°C
- 2) Storage temperature
  - -30~65°C
- 3) Altitude : below 2,000m
- 4) Do not install below freezing point.

# Technical information

## Ratings & Performance of contactors with delayed opening device

### Ratings

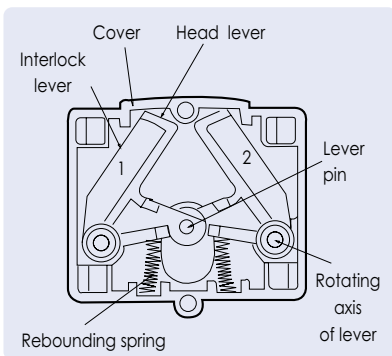
Type		Rate power(kw)			Rated current (A)			Ith AC 1 (A)	Aux. contact
		(AC 3)			(AC 3)				
Delay open device	Applied contactor	200~240V	380~440V	500~550V	200~240V	380~440V	500~550V		
AD - 9	GMD - 9	2.5	4	4	11	9	7	20	1NO1NC
	GMD - 12	3.5	5.5	7.5	13	12	12	20	
	GMD - 18	4.5	7.5	7.5	18	18	13	25	
	GMD - 22	5.5	11	15	22	22	22	32	
	GMD - 32	7.5	15	18.5	32	32	28	50	
AD - 50	GMD - 40	11	18.5	22	40	40	32	60	
	GMD - 50	15	22	30	55	50	43	80	
	GMD - 65	18.5	30	37	65	65	60	100	
	GMD - 75	22	37	45	75	75	64	110	
AD - 100	GMD - 85	25	45	45	85	85	75	135	2NO2NC
	GMC - 100	30	55	55	105	105	85	150	
	GMC - 125	37	60	60	125	120	90	150	
	GMC - 150	45	75	90	150	150	140	200	
	GMC - 180	55	90	110	180	180	180	230	
AD - 300	GMC - 220	75	132	132	220	220	200	260	
	GMC - 300	90	160	160	300	300	250	350	
AD - 600	GMC - 400	125	220	225	400	400	350	420	
	GMC - 600	190	330	330	630	630	500	660	
	GMC - 800	220	440	500	800	800	720	800	

### Performance

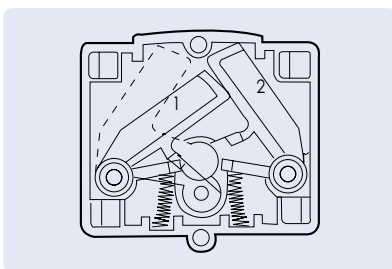
Type	Max. permissible current (A) (AC.3)	Frequency	Endurance		Delay time	Condenser endurance	Operational voltage
			Mec.	Ele.			
GMD - 9~40 + AD - 9 GMD - 50~85+AD - 50 GMC - 100~220 + AD - 100 GMC - 300~400 + AD - 300 GMC - 600~800 + AD - 600	Short circuit : Over10×In  Breaking : Over 8×In	600  Operations/ hour	5Mil.	1Mil.  0.5Mil.	1~4sec	<40℃ : 100,000 <45℃ : 80,000 <50℃ : 60,000	AC 200~220V 50Hz / 60Hz



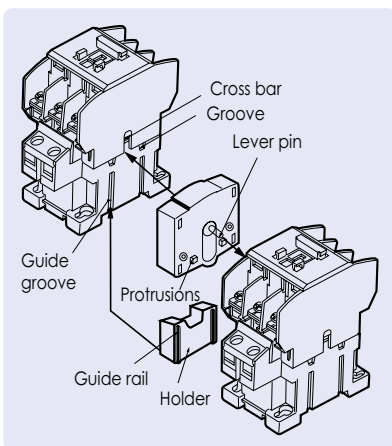




(a) Open state



(b) Interlocked



## Structure

- GMC(S)-9R~85R are Din-rail mounting type
- The mechanical interlock is common in GMC(S)-9R ~ 85R

## Operation

- Open state  
When the two contactors are in the “OFF” position, the lever maintains it’s “OPEN” state by rebounding springs.
- Interlocking  
When a any one of the contactors are energized, as the lever pin comes down by the crossbar, the interlock lever revolves around it’s axis of rotation and the heads of levers 1 and 2 are interlocked.
- Releasing  
If one of the two contactors is de-energized, crossbar comes up by the power of kick out spring, and then interlock lever goes up by the cross bar, and added with the power of rebounding springs, the interlock lever gets pushed up to the open position.

## Handling

- The electrical interlock should be commonly connected to the “NC” contacts of the two contactors.
- Do not install horizontally



# Technical information

## Operational Characteristics of Latching Contactors

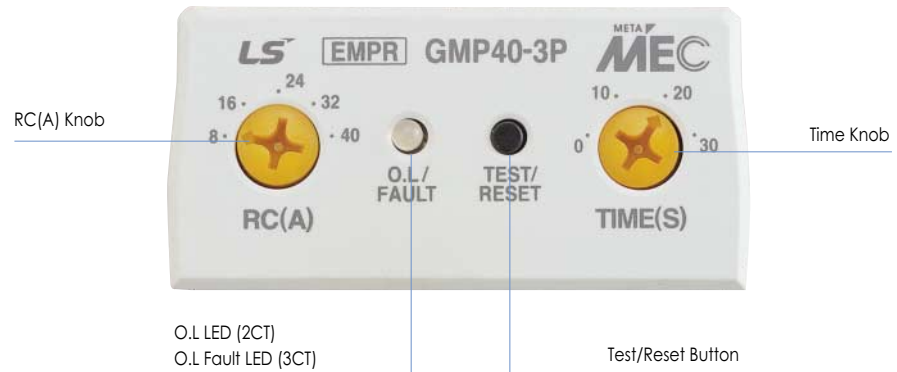
### Operational characteristics

Type	Consumption (VA)		Operational voltage (V)		Operational time (ms)		Transformer consumption (VA)
	Close	Open	Close	Open	Close	Open	
<b>GMC - 9L,12L,18L,22L</b>	100	90	160	45	15	11	40~60
<b>GMC - 32L,40L</b>	100	90	160	45	15	11	40~60
<b>GMC - 50L,65L,75L,85L</b>	120	100	160	45	30	15	40~60
<b>GMC - 100L,125L</b>	298	500	80	150	30~34	10~25	500
<b>GMC - 150L</b>	298	500	80	150	37~41	10~25	500
<b>GMC - 180L,220L</b>	380	500	80	150	45	10~25	500
<b>GMC - 300L,400L</b>	571	500	80	150	45~50	10~25	500

Note) AC220V, 60Hz The operational times are the average values after coil is energized



## Operating and setting method



### 1. Check the rated voltage and apply the control power to A1 and A2 terminal

Do not apply 220V to 110V use model

### 2. Check the TEST/RESET button operation

Check the operation of the output contact

- 1) Check if the control voltage and wiring method is correct (Refer to the wiring diagram)
- 2) When you press the 'Test/Reset' button, the O.L LED is turned on and the EMPR is tripped
- 3) When you press the 'Test/Reset' button under the EMPR is tripped, the O.L LED is turned off and the EMPR is reset
- 4) Auto reset function: When it is tripped by the over current, it is reset after 1 Min.(Optional)

**Caution)** For safety, when the motor is operating the 'Test/Reset' button do not work

### 3. Set the operating time

The operating time is set on the base of 600% of the rated current in the characteristic curve

- 1) Set the operating time by considering the operating time and start current according to the types of the load  
(Ex.: If the start current is 600% of the normal operation current and the starting is 10sec, set the time knob around 11~12sec. with 10~20%margin)
- 2) Operating time range is 0~30sec
- 3) If the time knob is set to 10sec, the EMPR is tripped when the start current (600% of the rated current) is applied for 10sec

**Caution)** The EMPR with inverse time characteristics can be tripped to protect the motor when the motor is started a few times continuously When a motor is frequently changing the rotating direction (forward and reverse), set the operating time longer For the crane and hoist use, select the EMPR with definite time characteristics

### 4. Set the operating current

Set the current by considering the rated current of a motor to protect from the over current

- 1) Check if the rated current of a motor is within the current setting range of an EMPR
- 2) Set the 'RC' (Rated current) knob to the maximum value and then start a motor
- 3) Under normal motor operation, rotate the 'RC' knob to the counterclockwise until the 'O.L.' LED turned on&off The current at this point in the 100% current rating under real load
- 4) At this point, rotate the 'RC' knob to the clockwise until the 'O.L.' LED turned off. In general case the setting value is around 110~120% of the rated current  
Ex) When the 'O.L.' LED flickering at 20A, the setting current will be 22A(=20x1.1)

**Note)** The brackets for connection is offered standard

# Technical information

## Setting method (Inverse time characteristics)

### 5. Check status of operation by LED

1) In case of overcurrent

If there will be an overcurrent during motor operation, the red color of LED will flicker at 0.4 second intervals. After tripping because of overcurrent, the red color of LED will light up.

2) In case of phase failure

If there will be a phase failure in three phase load, it will be tripped within 3 seconds.

In case of R phase failure, green color of FAULT LED will flicker at 3 second intervals.

In case of S phase failure, at 3 second intervals, green color of FAULT LED will flicker two times.

In case of T phase failure, at 3 second intervals, green color of FAULT LED will flicker two times.

**Note)** 2CT EMPR can protect motor from R or T phase failure.

3) In case of phase unbalance

- If phase unbalance rate is over 50%, FAULT LED will flicker 0.4 second intervals.

4) In case of Reverse phase

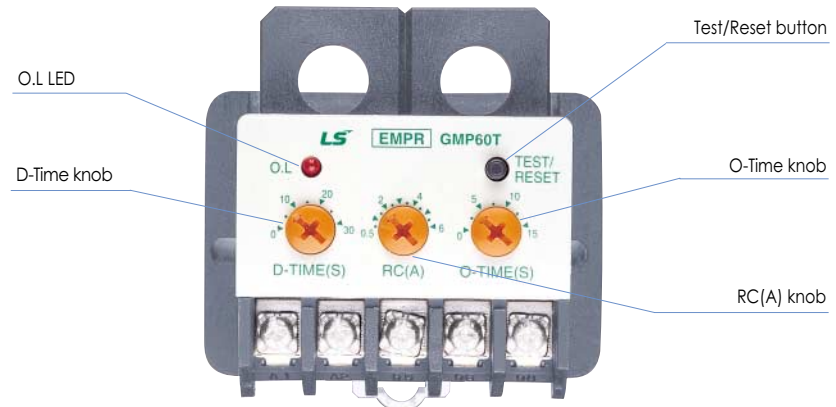
- Red & green color LED will flicker alternately.

5) Status of LED operation

Condition		LED Status	LED Diagram	Remark	
Operating status	Normal	LED OFF			
	Overcurrent	0.4 Second intervals			
	Phase unbalance (30~50%)	0.4 Second intervals		In case of GMP 80-3S/3SR model, only red color LED will flicker.	
Tripped status	Overcurrent	O.L LED light up			
	Phase failure (3CT)	R	1 time for 3 seconds		In case of GMP 80-3S/3SR model, O.L LED will light up and also FAULT LED will flicker.
		S	2 time for 3 seconds		
		T	3 time for 3 seconds		
	Phase failure (2CT)	Red LED light up for 0.9 sec LED goes off for 0.1 sec			
	Reverse phase (2CT)	Red & Green color LED flicker alternately			

**Note)** There are two red color LEDs for O.L (Overload) & Fault in the model of GMP 80S/3SR.

## Operating and setting method



## Tunnel type mounting

### 1. Check the Test/Reset button operation

#### Check if the EMPR operate in overcurrent

- 1) Check if the wiring is correct (Refer to the wiring diagram)
  - 2) Set the 'D-Time' and 'O-Time' knob to the min. ratings
  - 3) When the 'Test' button is pressed under tripped condition, the 'O.L' LED is turned off
  - 4) When you press the 'Test' button again then the lamp turned off and the EMPR reset
- Note)** In operation, even though you press the 'Test/Reset' button, the EMPR do not trip

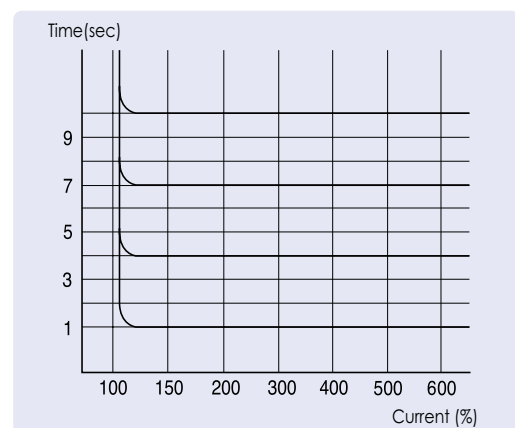
### 2. Set the operating time (Definite time characteristics)

#### ● D-time (Delay time) : 0.2~30 sec

The motor starting current, which flows when the motor is starting, is generally 600~800% of the rated current and the delay time varies according to the load condition. It is the time during which the EMPR do not operated by over-current during the starting time

- 1) Set the delay time by use of the 'D-time' knob
- 2) In case you do not know the delay time, start the motor by setting the 'D-time' knob to the max. position and after checking the time during which the staring current become stable, set the D-time (In general pump, the setting time is 3~5 seconds)

**Note)** The time delay is forced time delay type, therefore if you make a mistake to select the time, the motor may be burn



Definite time characteristics curve

#### ● The operating time is the time during which the EMPR tripped by the over-current. The EMPR is tripped after the selected operation time

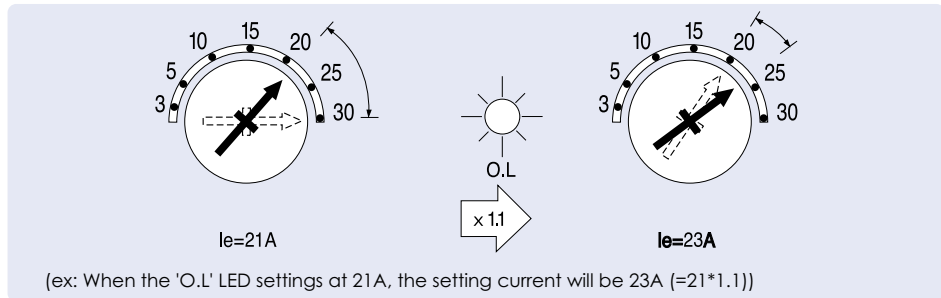
- 1) Set the operation time by the 'O-time' knob
- 2) In special case such as for mechanical shock relay, if you set the 'O-time' to the min value, the EMPR is tripped at once

**Note)** Generally set it to 4~6 seconds

### 3. Set the operating current (Similar to that of the pin type & screw type)

● Set the operation current to protect from over current. Set the current by considering the rated current

- 1) Start the motor by setting the 'RC' knob to the maximum position
- 2) Under operating condition, rotate the 'RC' knob to the counterclockwise until the 'O.L' LED turned on & off. The current at this point is the value (100%) under real load condition
- 3) Rotate the 'RC' knob to the clock-wise until the 'O.L' LED turned off. In general case the setting is 110~120% of the rated current



### 4. Check the LED condition when operation

- 1) Over-current
  - The EMPR is not tripped during the D-time under over-current but the O.L LED turned on and off to indicate that the over-current flows
  - If the EMPR is tripped after D-time the O.L LED turned on
- 2) Phase failure
  - If a motor does not rotate under phase failure, the high current may flows. At this time a motor is protected by the over-current protection function

Condition	Red O.L LED		Note
	State	Visual Representation	
Operation normal	Off		
Overcurrent	On & Off		On & Off under over current
Trip over-current	On		The EMPR is tripped

### Motor selection

Nominal current	Current setting range(A)	220~240VAC			440~480VAC		
		3 phase motor ratings kW(Hp)	Full load current (A)	3 phase motor ratings kW(Hp)	Full load current (A)		
1.5	0.3-1.5	~0.18	(~0.25)	1.5	0.12~0.55	(~0.75)	1.6
5	1-5	0.18~0.75	(0.25~1)	4.8	0.25~1.5	(0.33~2)	4
22	4.4-22	1.1~4	(1.5~5.5)	18.8	3~11	(4~15)	24
20	4-20	0.75~3.7	(1~5)	17.4	2.2~7.5	(3~10)	17
40	8-40	2.2~7.5	(3~10)	34	4~15	(5.5~20)	32.5
80	16-80	4~18.5	(5.5~25)	79	7.5~37	(10~50)	74
06	0.5-6	0.09~0.75	(0.13~1)	4.8	0.09~22	(0.13~3)	5.5
30	3-30	0.37~5.5	(0.5~7.5)	26	1.1~11	(1.5~15)	24
60	5-60	1.1~11	(1~15)	48	3~22	(4~30)	46.5

**Note)** The above values are the reference ones by AC3 class standard squirrel cage motor. The values may be changed according to the class and the manufacturer of a motor.

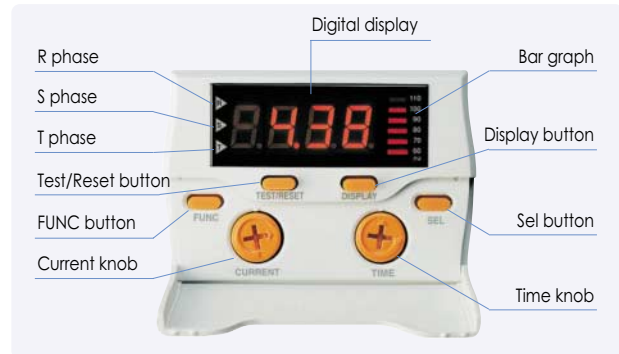
## Before operating a motor, set the D-EMPR as follows

### 1. Check the operation of the Test/Reset button

- Check the operation when it is tripped

- 1) Check the wiring method (Refer to P147~148)
- 2) Press the Test/Reset button and then test is displayed on the LED and the DMPR is tripped
- 3) Press the Test/Reset button again and then it is reset

**Note)** In order to avoid the trip fault, the push operation of Test/Reset is not available when a motor is rotating.



### 2. Shift the mode by pressing the FUNC key and then select the values by press the Sel key

- You can finish the setting by pressing the Sel key in the Sto mode
- To protect the operation under the motor rotating, setting is allowed only in the test mode

FUNC	Sel	Functions	Note
1.CHA	1 nu/dEF	Inverse or definite time characteristics	Default is inverse time characteristics
2.dEF	0~30	Set the O-time (Definite time only)	For D-time setting, use the time knob
3. r.P	oFF/on	Reverse phases protection	Default is "Off"
4.Und	oFF/30~70 (%)	Under current protection	Default is "Off" <b>Note1)</b>
5.ALt	oFF/60~110 (%)	Alarm function (With pre-alarm function)	Default is "Off"
5.9-F	oFF/0.05~1(SEC)	Ground fault and Setting the operating time	Default is "Off" (Z type)
6.5tL	oFF/on	Stall function	Default is "Off"
7.Loc	oFF/200~900 (%)	Lock function	Default is "Off"
8. Ct	1~120	CT ratio	Default is 1:1 <b>Note2)</b>
9.P-F	on/oFF	Phase failure	Default is "On" to store
A.9Fd	oFF/on	Setting delay of Ground Fault	Available for Sza/TZa
b.5tA	0~120	Operating time setting (Month)	Available for Sa/Ta/SZa/TZa
c.5tH	10~730	Operating time setting (Hour)	
d.tAH	A000,000.0	Displaying total operating time (Month, Hour)	
E.rAH	A000,000.0	Displaying operating time (Month, Hour)	
Sto	Sto	Store	Push the SEL button to store

**Note1)** Set the under current value from above 350mA

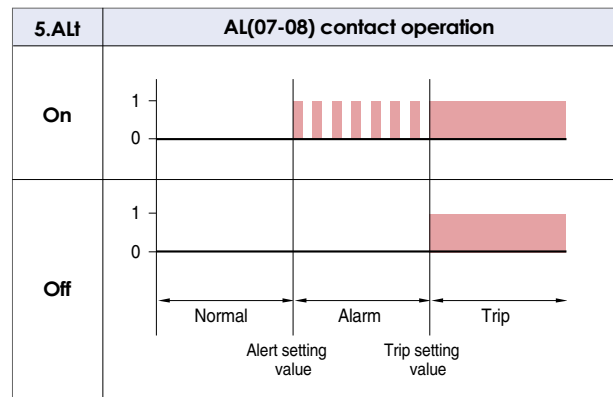
**Note2)** Do not change the CT ratio in 60 type (Default is 10:1)

# Technical information

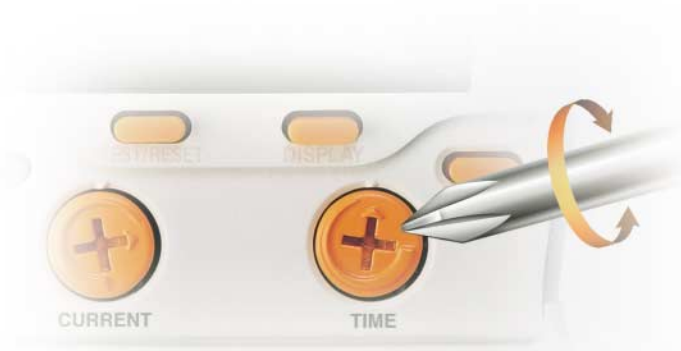
## Setting method

- 1) First shift to the test mode by press the "Test/Reset" button and then set the functions by press the "FUNC" button
- 2) Each time you press the "FUNC" button, the function mode switches from 1.CHA mode to Sto mode.  
When the mode that you want to change is displayed, push the "Sel" button to select the value you want.  
After you select the value, press the "FUNC" button to finish the settings and it displays the next mode
- 3) If no button is pressed in the selection mode, it remains in that mode
- 4) If you select the inverse time characteristics it skips the mode 2 (Definite O-time) and go to the mode 3 (Reverse phase)
- 5) Alt is the alert setting mode. It displays the load rate of the current setting value by the bar LED (60~110%)
  - If the current is higher than the setting value, the bar LED is switched on and off and the AL relay(07-08) make close and open in 1sec interval unit the EMPR is tripped (Pre-alarm function)
  - If the 5. Alt mode is set to off, the AL relay make close after the EMPR is tripped (Normal open contact)
- 6) To finish the settings you have to press the "Sel" button in the Sto mode

### Alarm signal (Alert function)



### 3. Adjust the operating time by the time knob



#### ● Inverse time characteristics

- 1) Select the inverse time in the 1. CHA mode, the default operating time is 600% of the rated current
- 2) The setting range of the operating time is 0~60sec. Set the time by considering the motor start time
- 3) When it is over the setting time, the EMPR operate in accord with the hot curve

#### ● Definite time characteristics

- 1) Select the definite in the 1. CHA mode, it is operated by the definite time characteristics
- 2) D-time means the time that delays the operating time when the motor is starting
- 3) The setting range of the operating time is 0~60sec. Set the time by considering the motor start time
- 4) Set the O-time at the setting mode 2. dEF and the range is 0~30sec

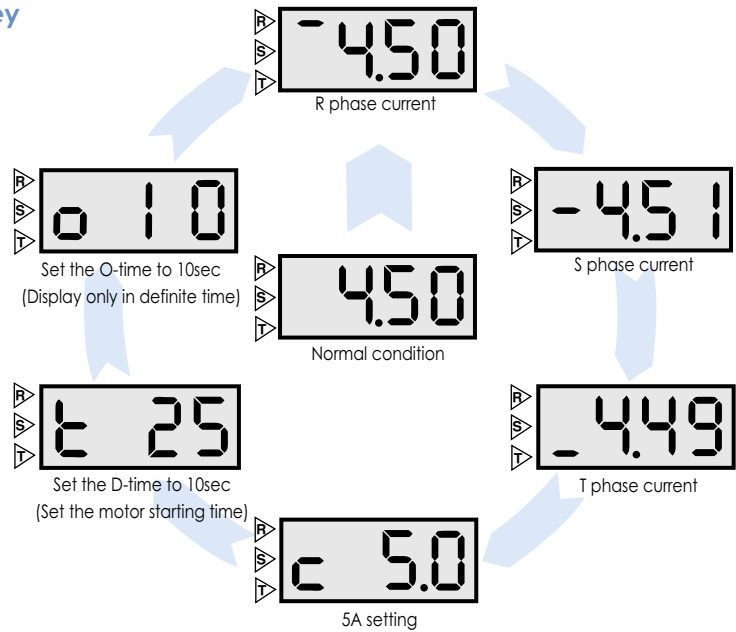
### 4. Adjust the operating current by the current knob

- 1) Set the operating current based on the rated current that is described in the name plate.  
Generally set the 110~115% of the real load current in the normal load condition
- 2) There are 2 CT types according to the current range (0.6 / 60). When you use the external CT you can see the real current by set the CT ratio (In 60CT type the default CT ration is 10:1)
- 3) You can easily set the current value by refer to the load rate which is displayed on the bar-graph (Approx. 90% load rate)



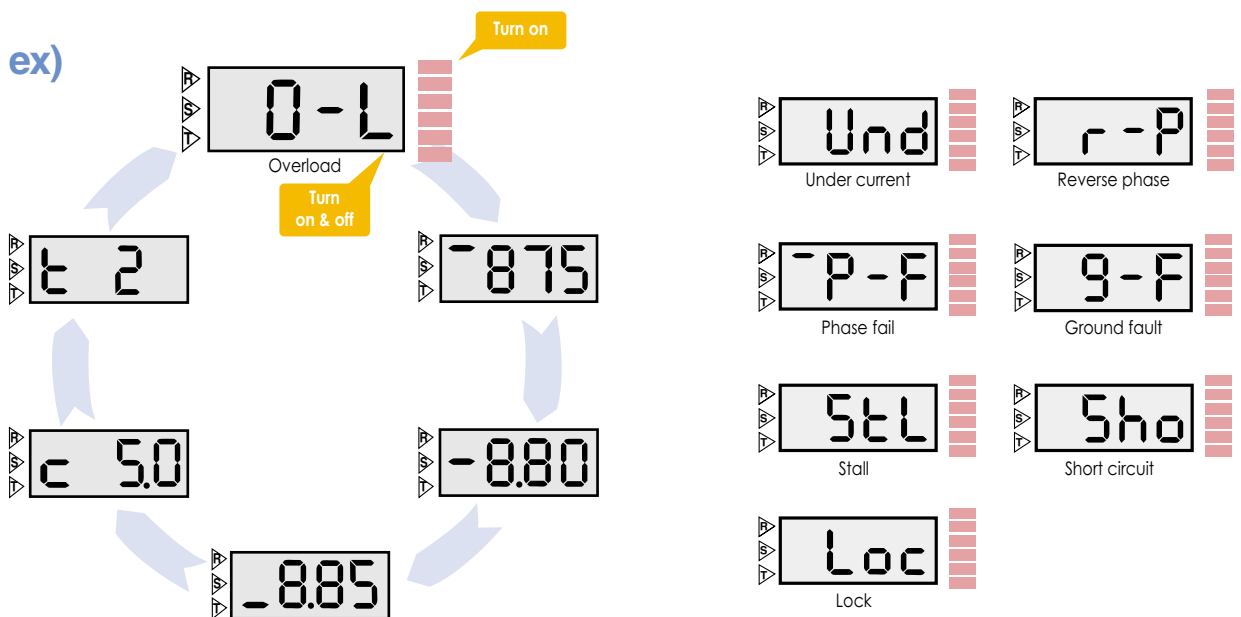
### 5. Check the setting state by the display key

- 1) In normal condition it display the maximum current among the three phase current
- 2) Each time you press the "Display" button you can see the current and values as PIG X
- 3) If no button is pressed for 3~4 seconds. It returned to the normal condition

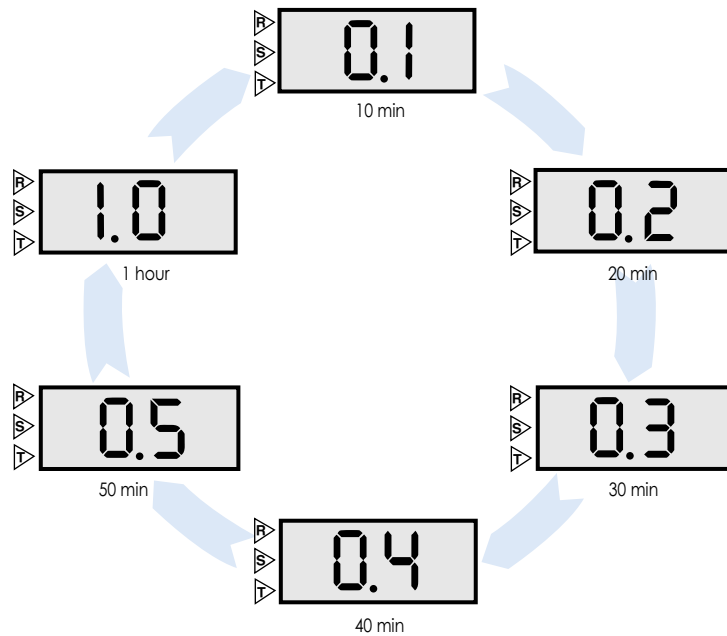


### 6. Check the causes of the fault by look at the display unit (7-segment)

- The causes of the fault is switched on and off for 0.5sec interval. If you press the "Display" button at this time, display you can see the values and the causes of the fault



### 7. How to check operating time for Sa/Ta/SZa/STa



- Operating time will be displayed as shown in the above diagram.
- As shown in above diagram, it will show 1.0 after 0.5 instead of 0.6. And, it means 1 hour.  
ex) 1.4 → 1hr 40min, 3.2 → 3hr 20min  
8.5 → 8hr 50min, 4.5 → 4hr 50min  
6.2 → 6hr 20min, 2.1 → 2hr 10min

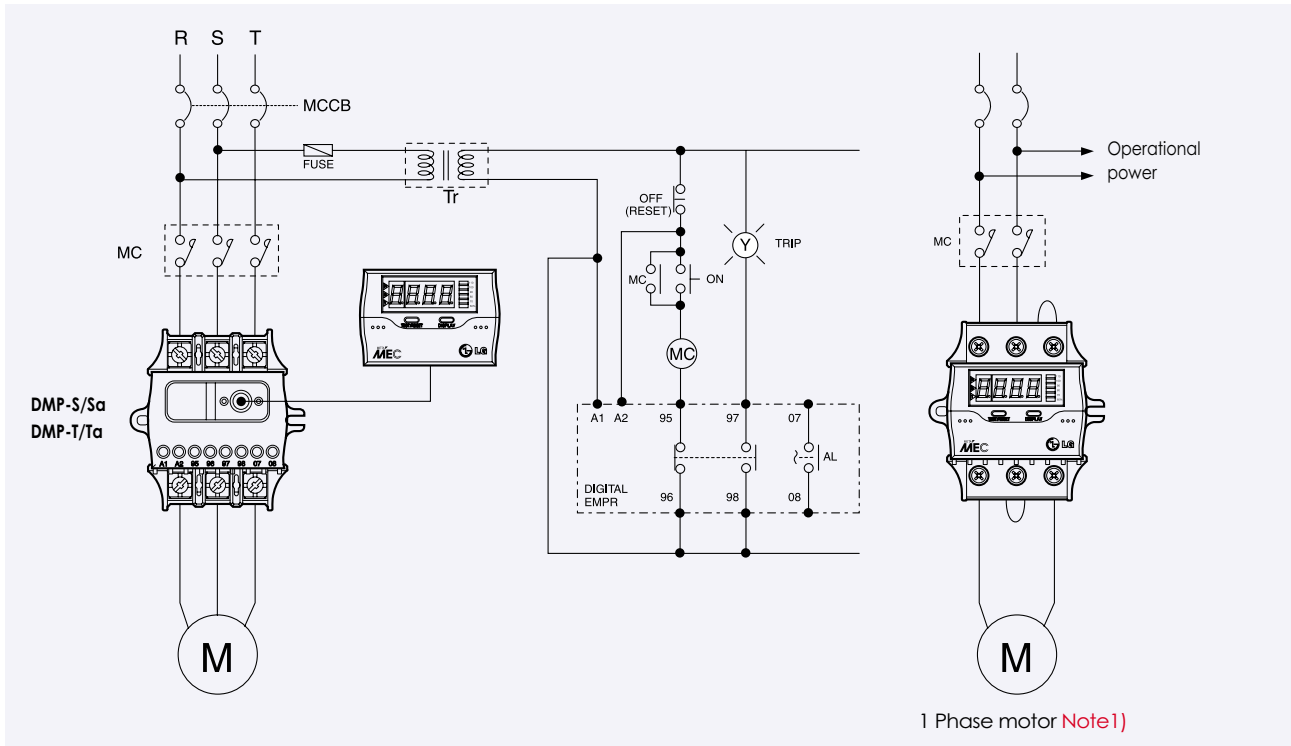
- The following will not be shown.

XX.6 XX.7 XX.8 XX.9

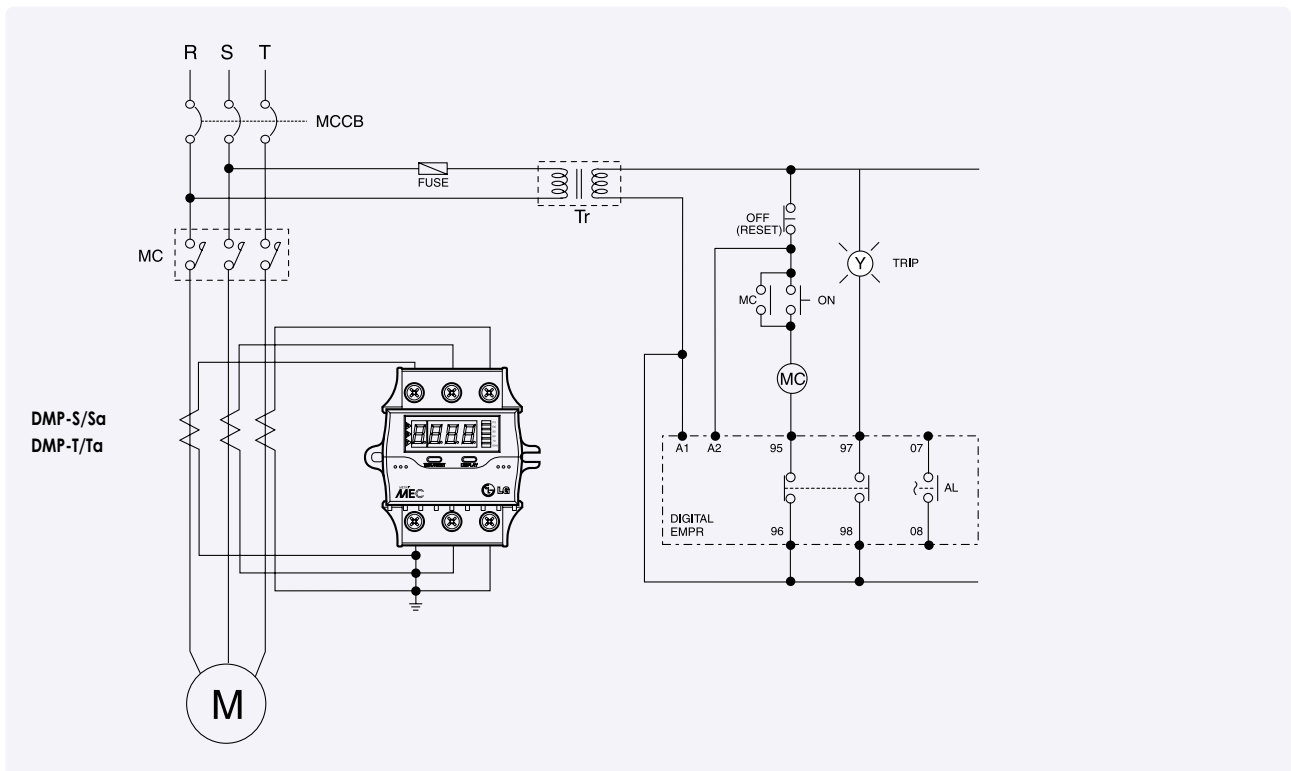
ex) 1.6(×), 2.8(×), 3.9(×), 4.7(×)



## Wiring method



## External CT combination

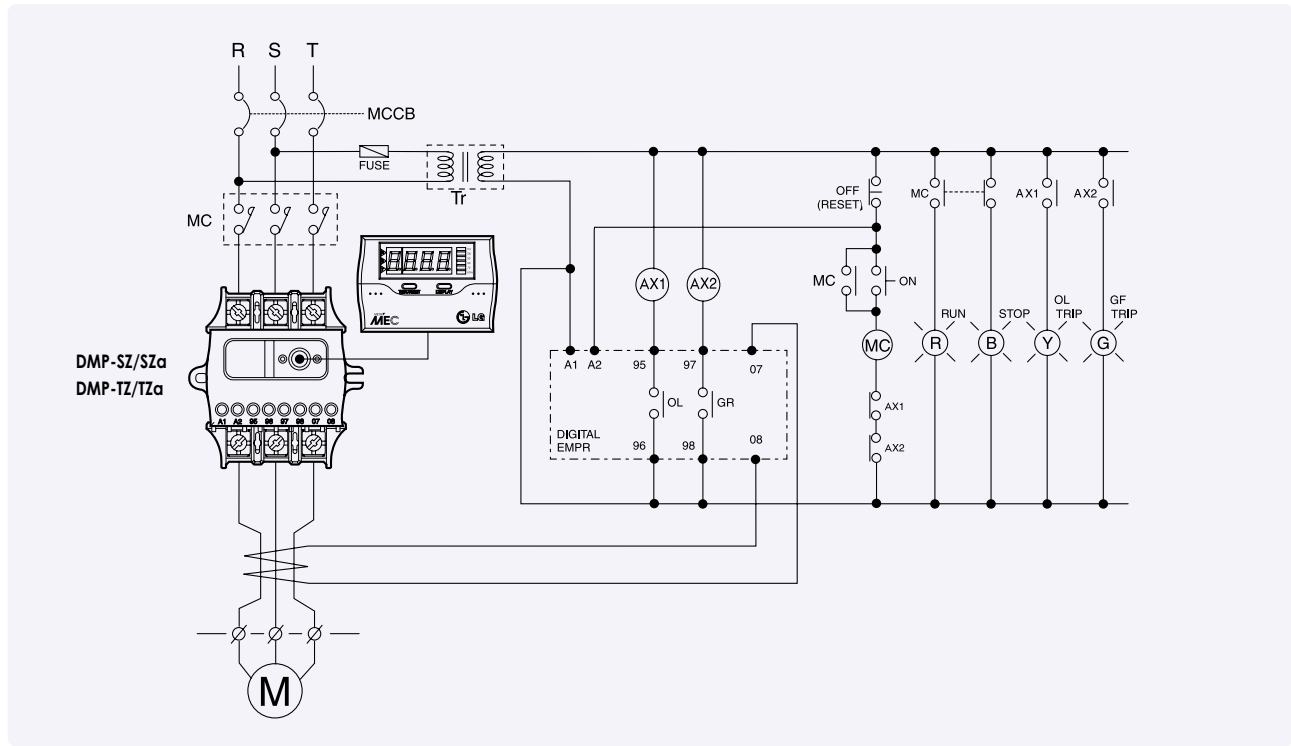


Note1) Please turn off the reverse phase function when it is used for 1 phase motor

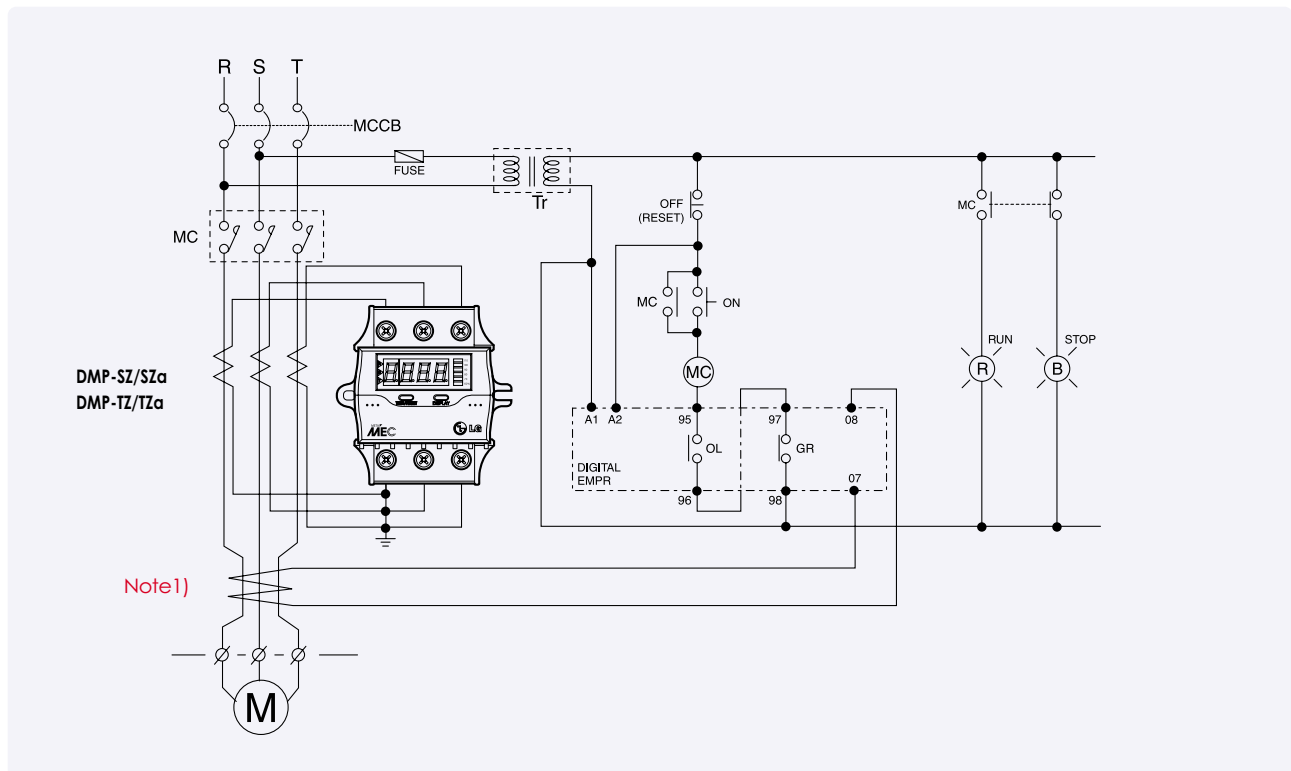
# Technical information

## Wiring method

### Wiring method



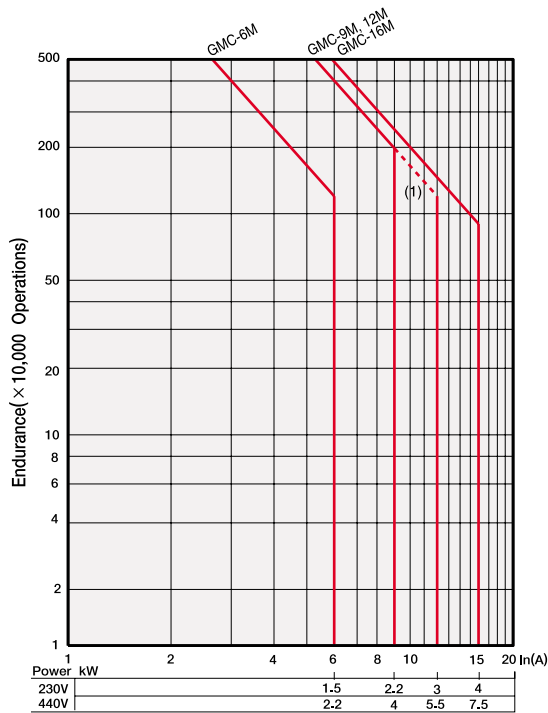
### External CT combination



## Electrical lifespan of contactors

Use in category AC-3

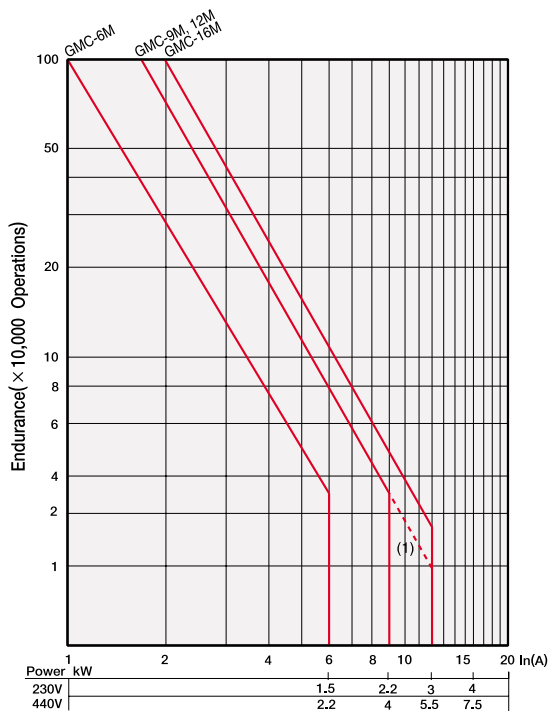
( $U_e \geq 440V$ )



(1) The dotted lines are only applicable to GMC-12M contactors.

Use in category AC-4

( $U_e \geq 440V$ )

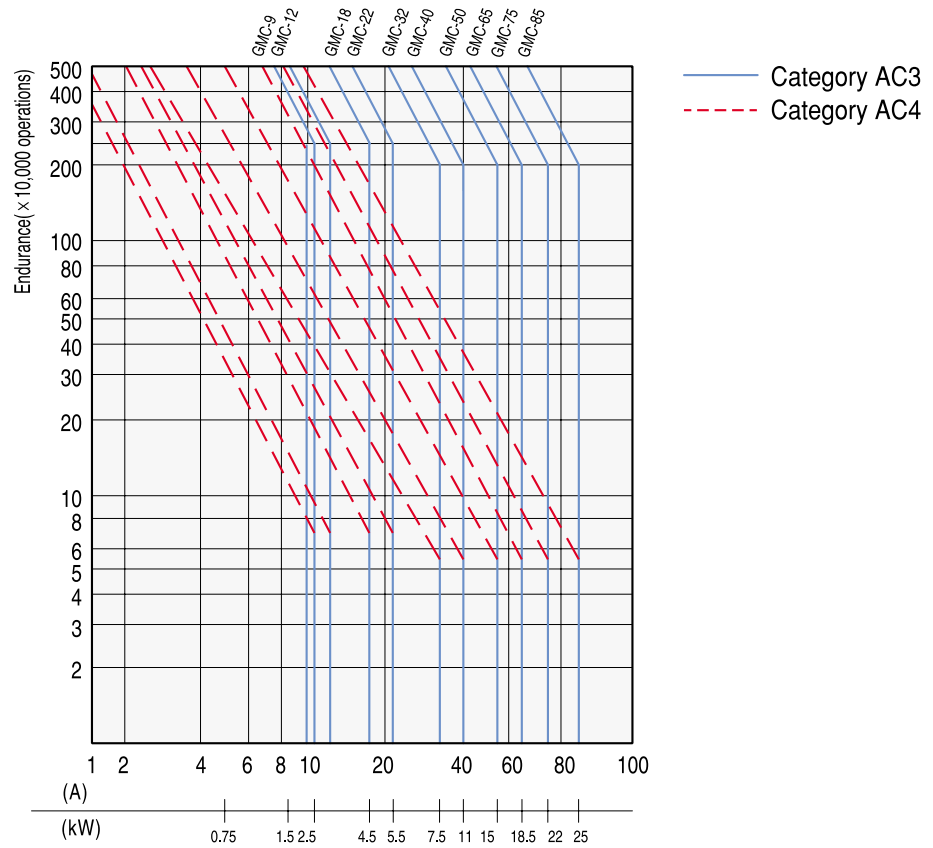


(1) The dotted lines are only applicable to GMC-12M contactors.

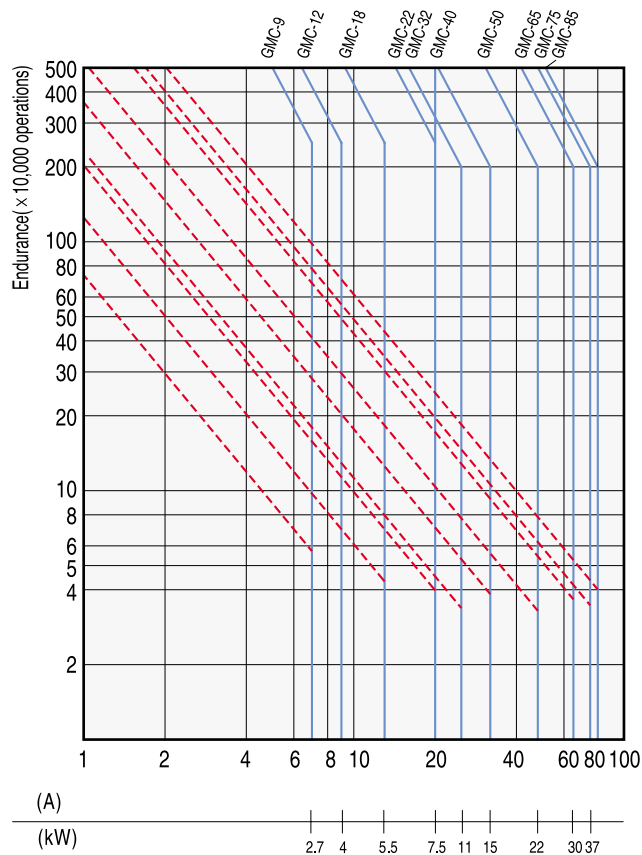
# Technical information

## Electrical lifetime : GMC-9 to 85

3 phase /  
AC 220~240V



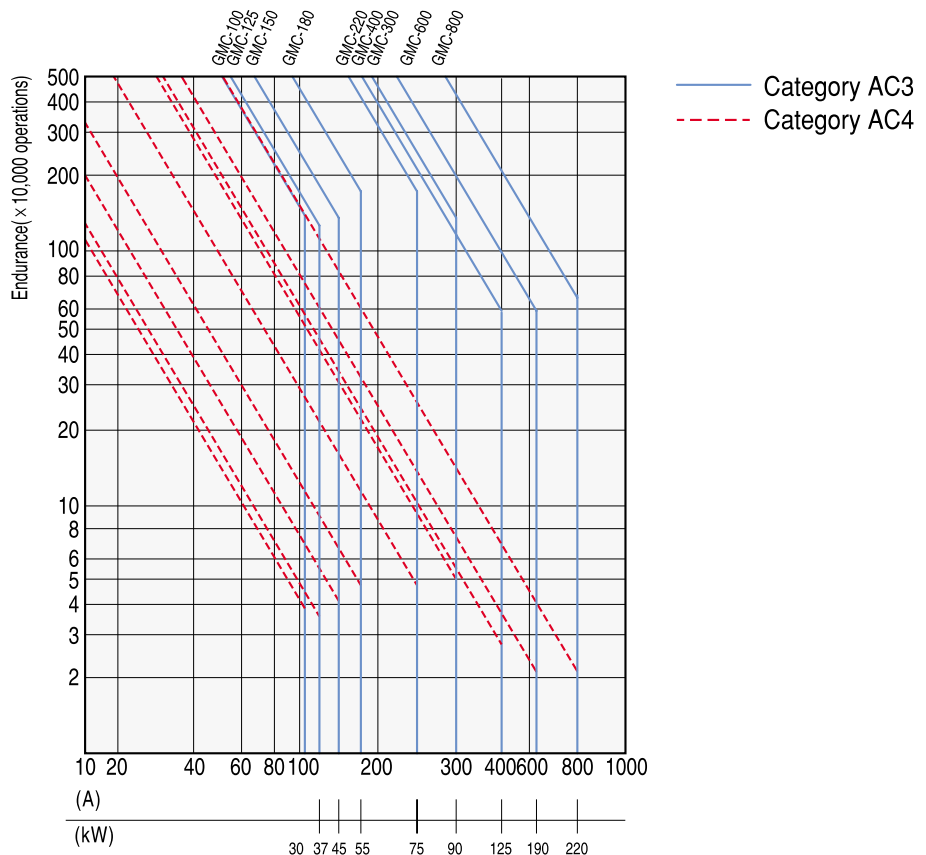
3 phase /  
AC 380~440V



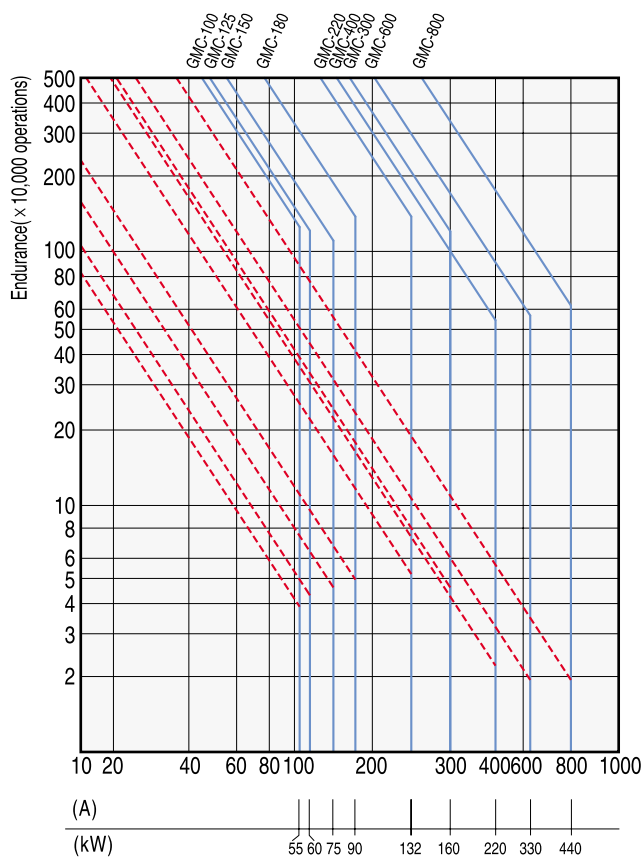
# Electrical lifetime : GMC-100 to 800



3 phase /  
AC 220~240V



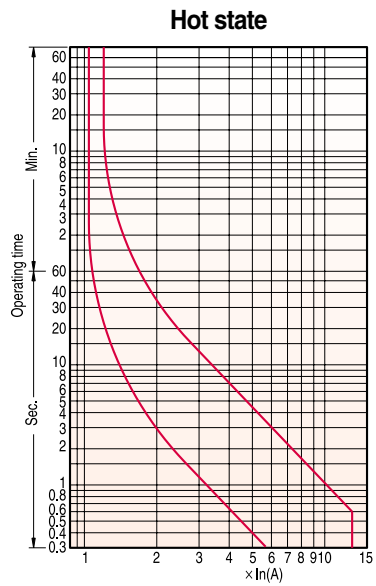
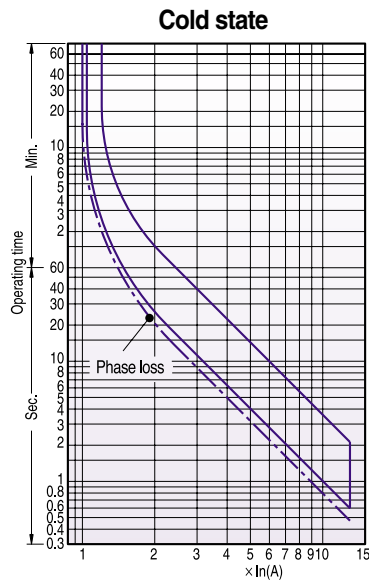
3 phase /  
AC 380~440V



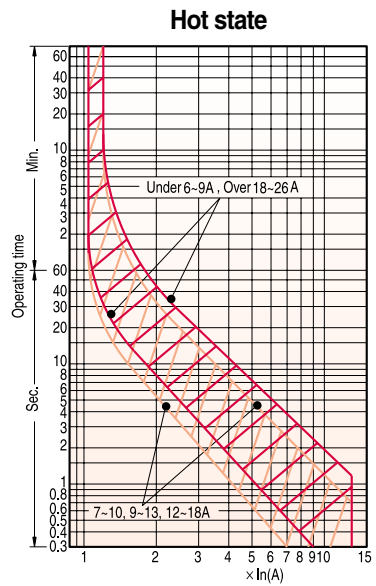
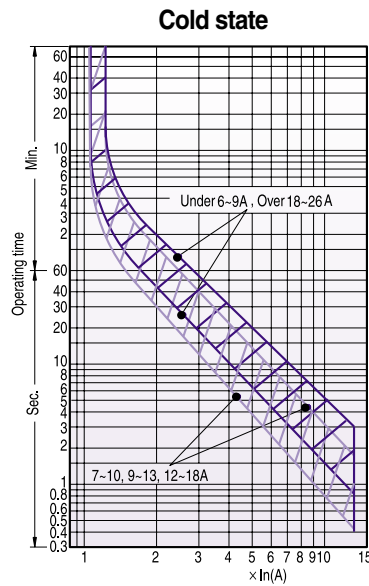
# Technical information

## Trip curves for thermal overload relays

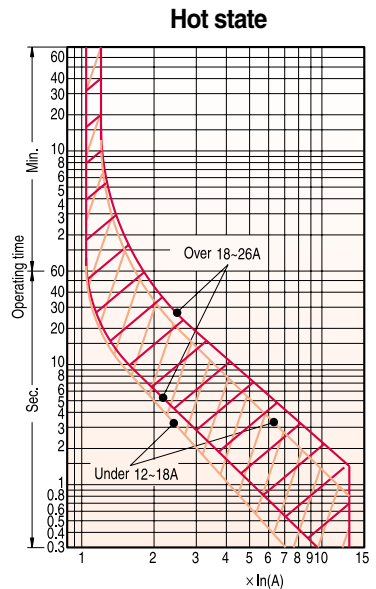
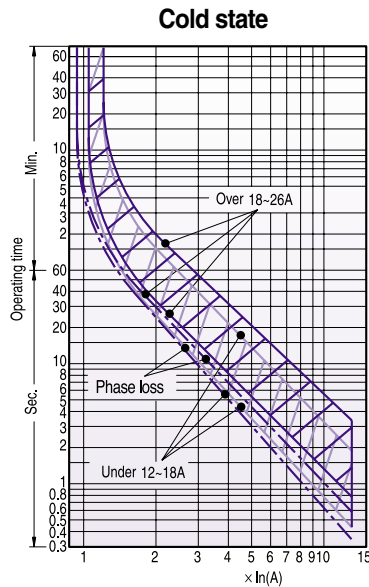
GTH(K)-22



GTH(K)-40



GTH(K)-85

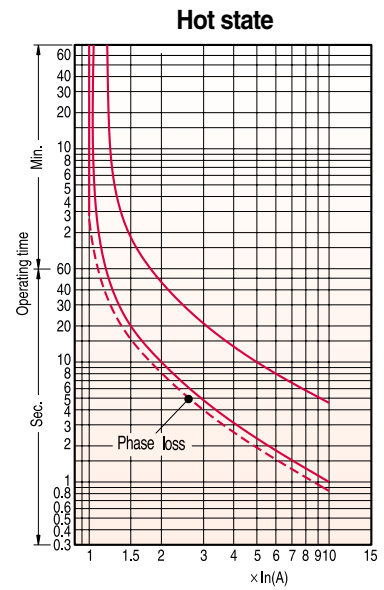
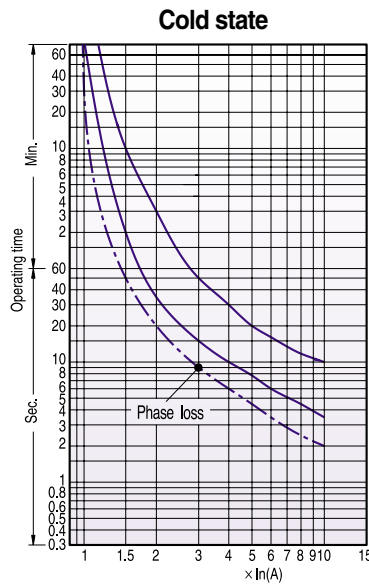




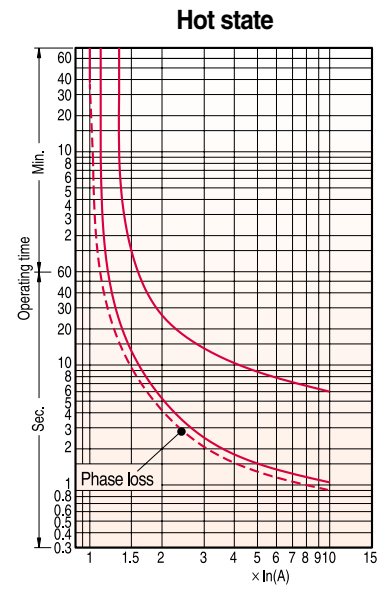
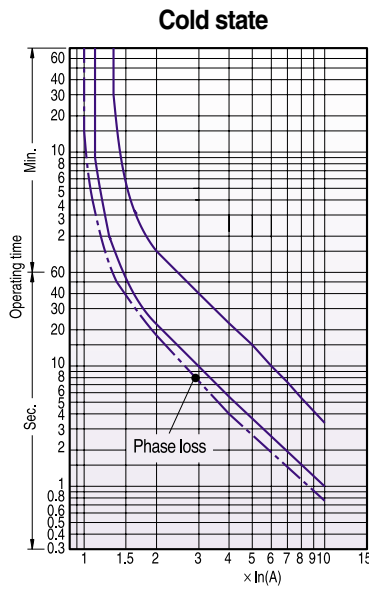
# Trip curves for thermal overload relays



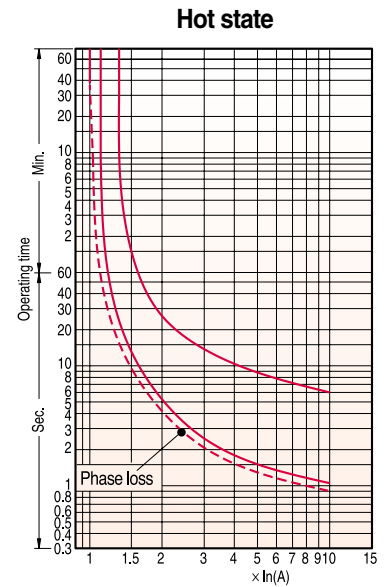
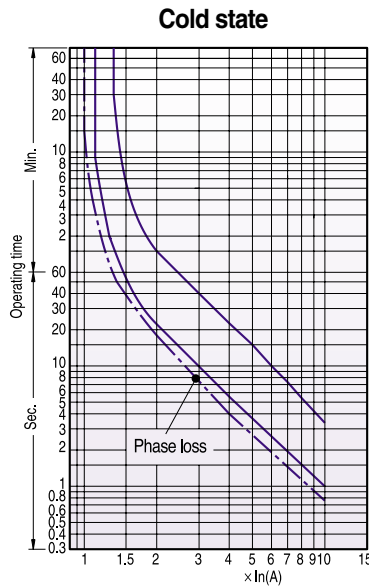
GTH(K)-100  
GTH(K)-150



GTH(K)-220  
GTH(K)-400



GTH(K)-600

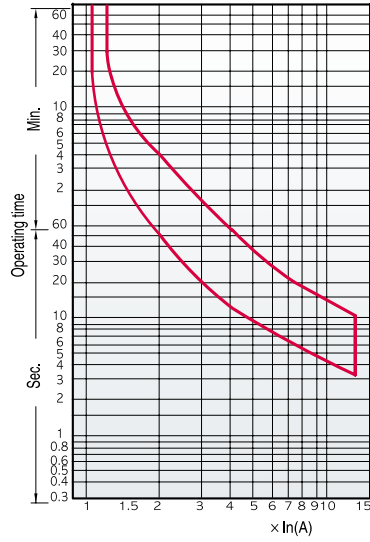


# Technical information

## Trip curves for thermal overload relays, Class 20

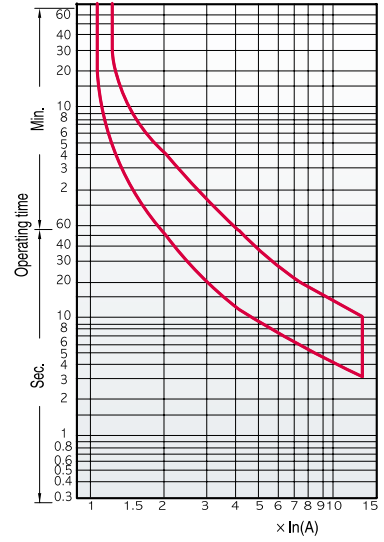
**GTK-22/L**

**Tripping characteristics**

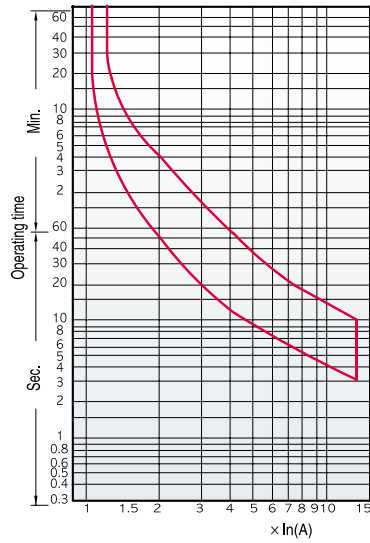


**GTK-40/L**

**Tripping characteristics**

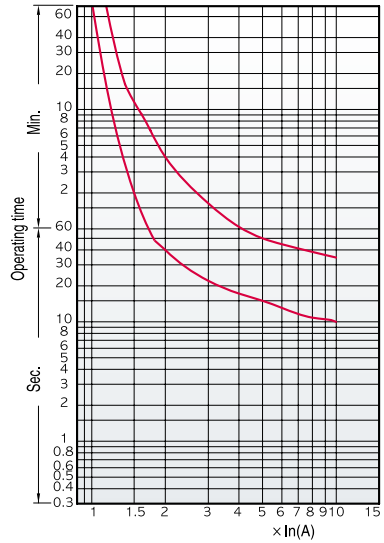


**GTK-85/L**



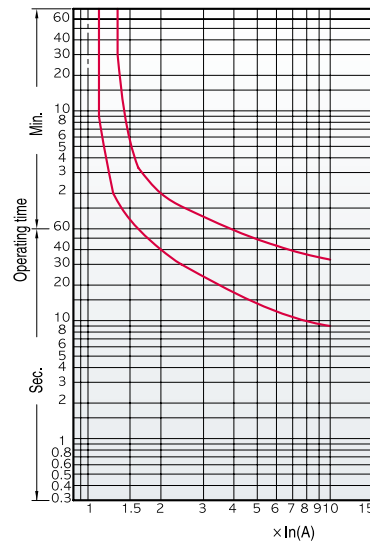
**GTK-100/L**

**GTK-150/L**

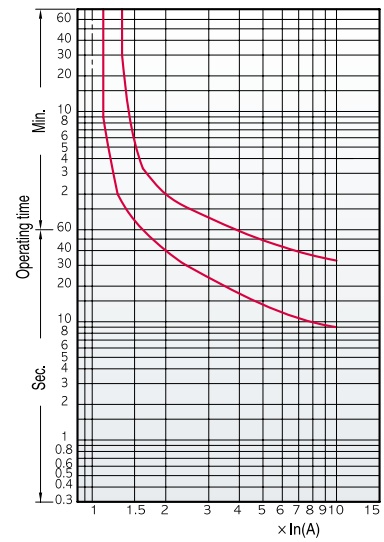


**GTK-220/L**

**GTK-400/L**

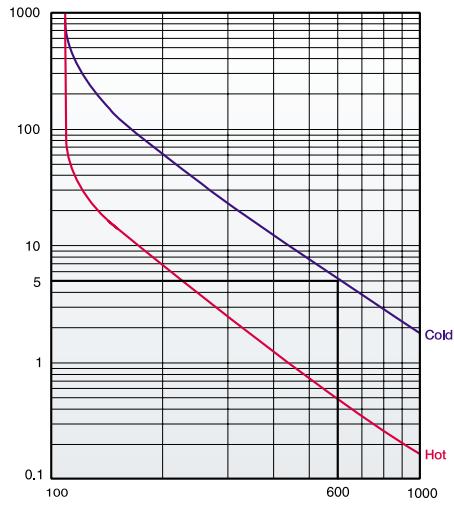


**GTK-600/L**

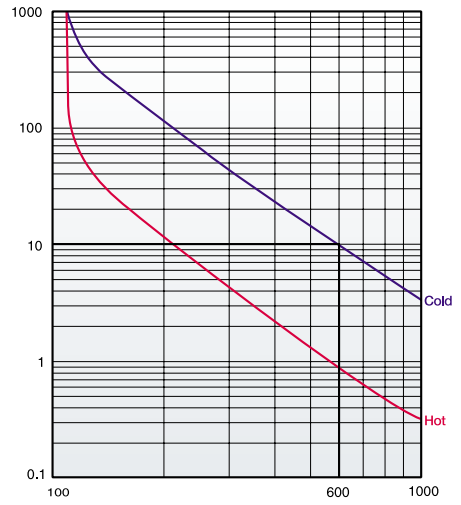


GMP

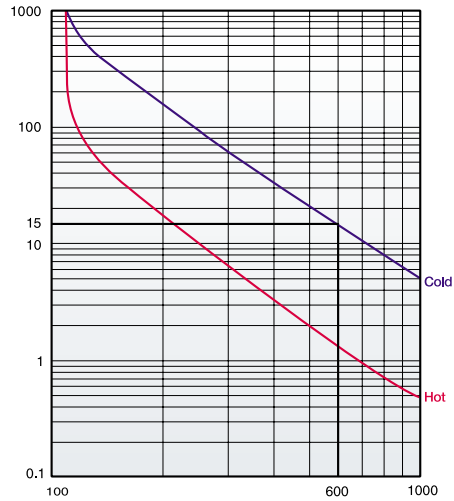
**Trip class 5**



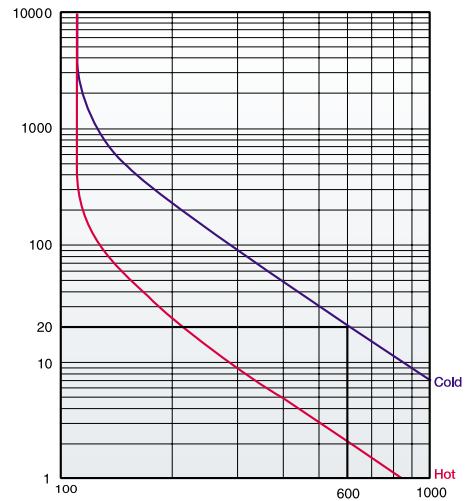
**Trip class 10**



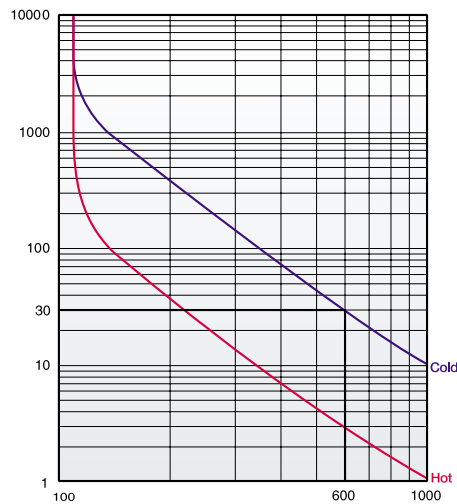
**Trip class 15**



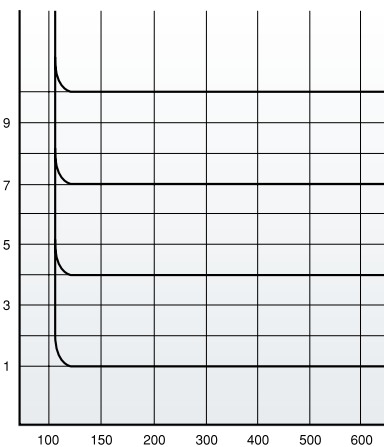
**Trip class 20**



**Trip class 30**



**Definite time curve**

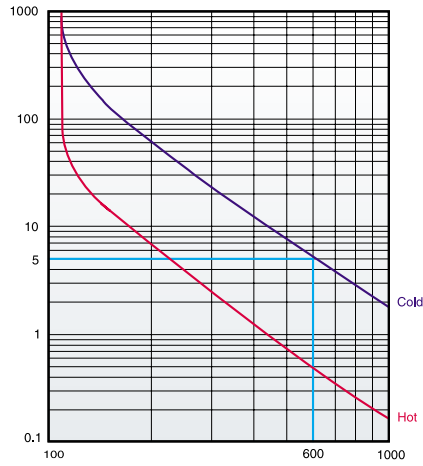


# Technical information

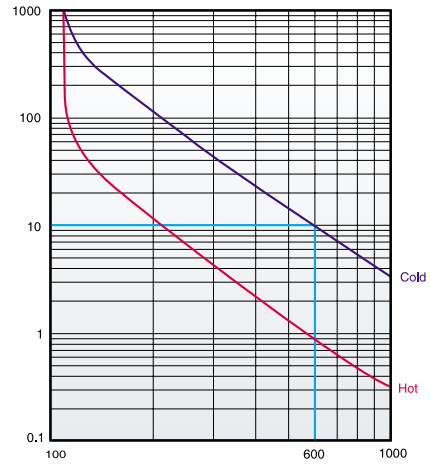
## Trip curves for digital motor protection relays

DMP

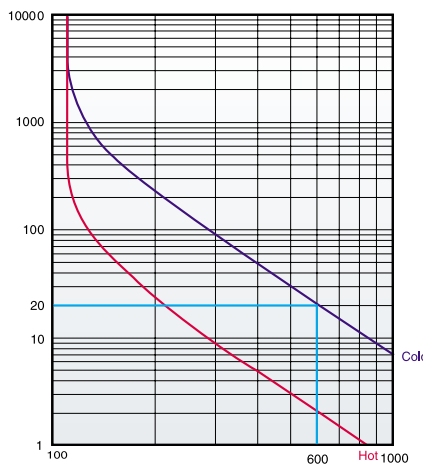
Trip class 5



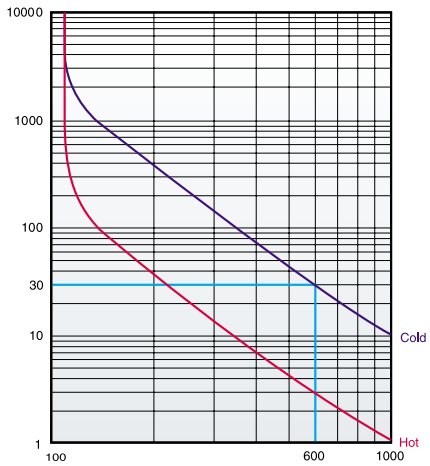
Trip class 10



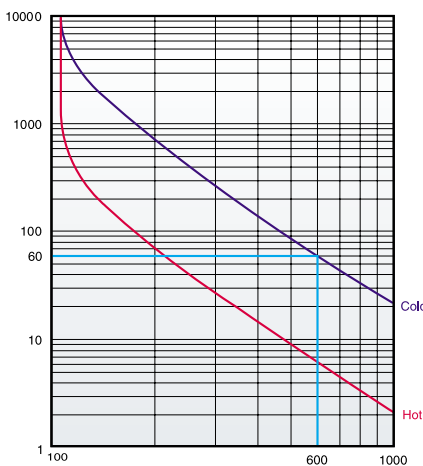
Trip class 20



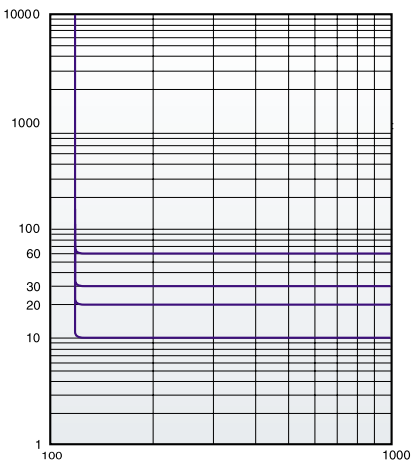
Trip class 30



Trip class 60



Definite time characteristics



**Dimensions**



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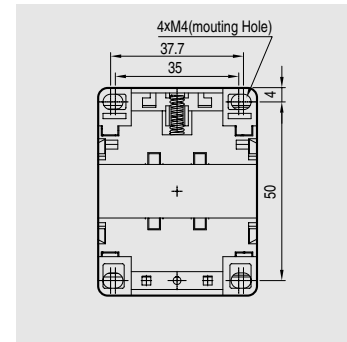
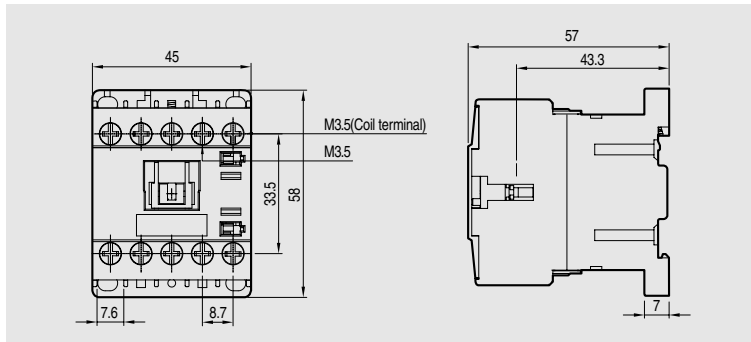


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# Dimensions

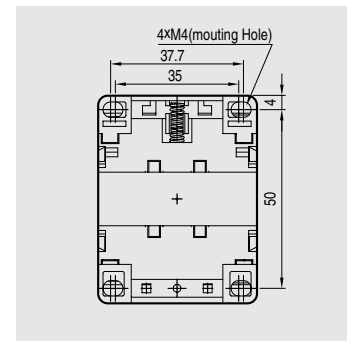
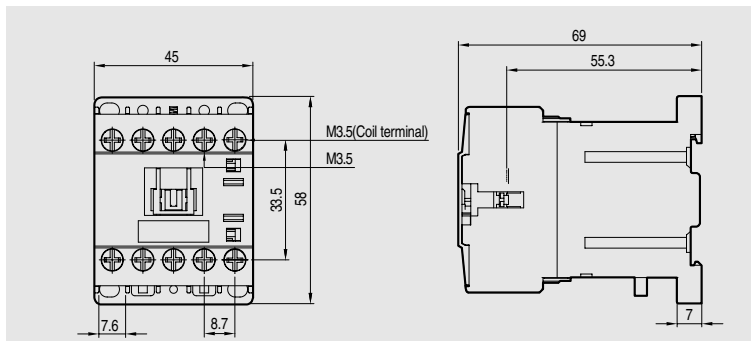
## Mini contactors (Screw clamp type)

- GMC-6M
- GMC-9M
- GMC-12M
- GMC-16M
- GMC-6M/4
- GMC-9M/4
- GMC-12M/4
- GMC-16M/4



0.17kg

- GMD-6M
- GMD-9M
- GMD-12M
- GMD-16M
- GMD-6M/4
- GMD-9M/4
- GMD-12M/4
- GMD-16M/4

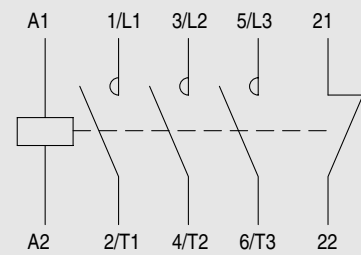
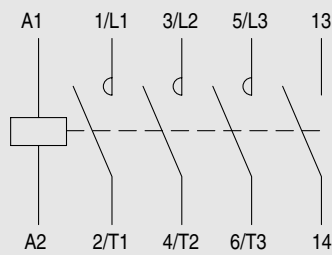


0.23kg

### Circuit diagram

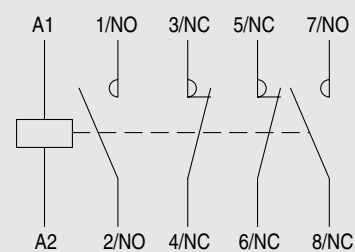
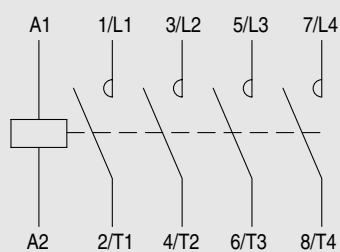
#### GMC-6M~16M, GMD-6M~16M

##### 3-Pole contactors



#### GMC-6M/4~16M/4, GMD-6M/4~16M/4

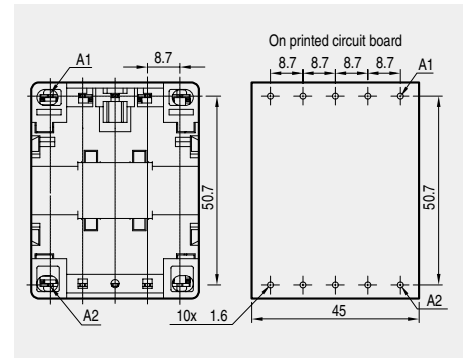
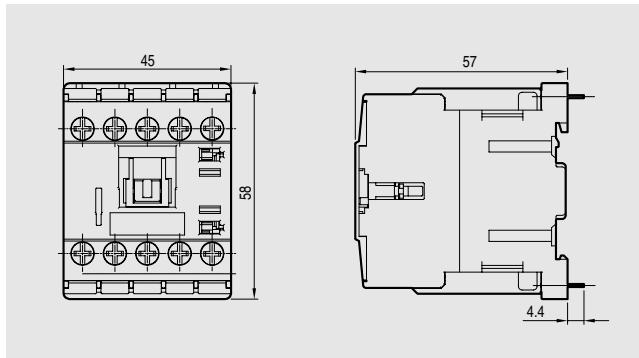
##### 4-Pole contactors



# Mini contactors (Solder pin type)

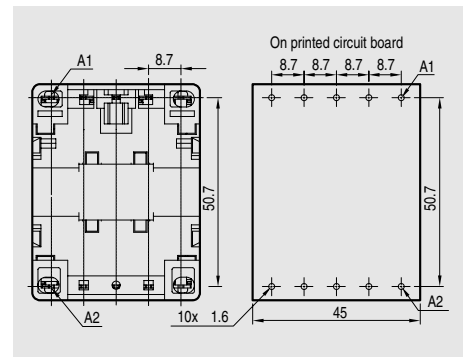
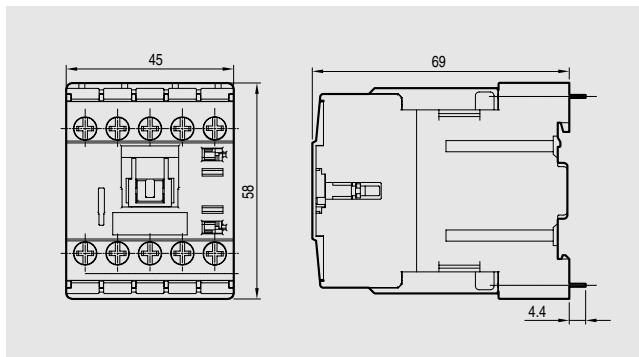


- GMC-6MP
- GMC-9MP
- GMC-12MP
- GMC-16MP
- GMC-6MP/4
- GMC-9MP/4
- GMC-12MP/4
- GMC-16MP/4



0.17kg

- GMD-6MP
- GMD-9MP
- GMD-12MP
- GMD-16MP
- GMD-6MP/4
- GMD-9MP/4
- GMD-12MP/4
- GMD-16MP/4

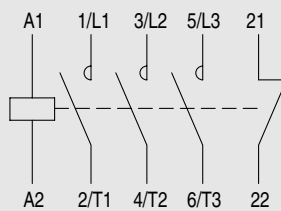
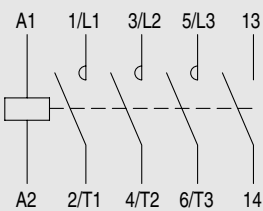


0.23kg

## Circuit diagram

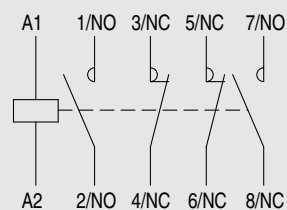
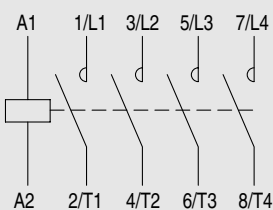
### GMC-6MP~16MP, GMD-6MP~16MP

3-Pole contactors



### GMC-6MP/4~16MP/4, GMD-6MP/4~16MP/4

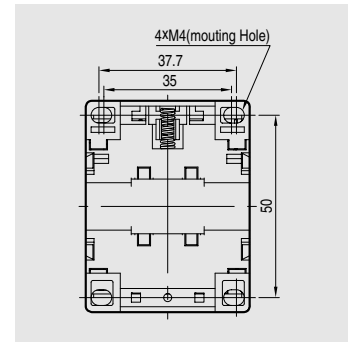
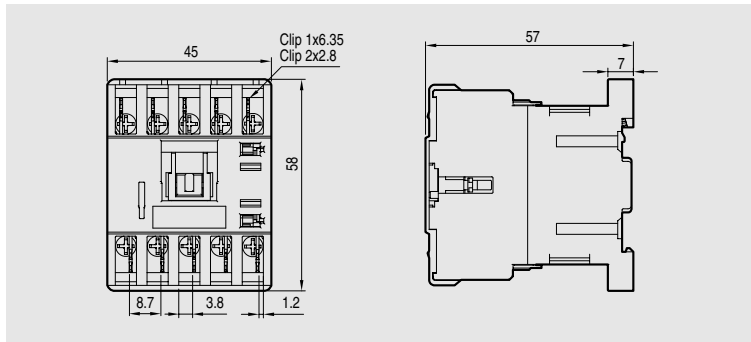
4-Pole contactors



# Dimensions

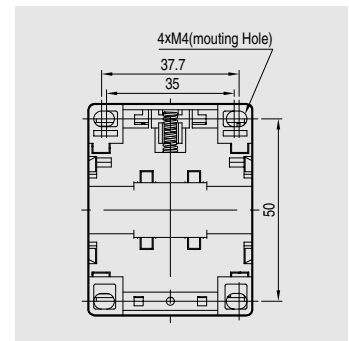
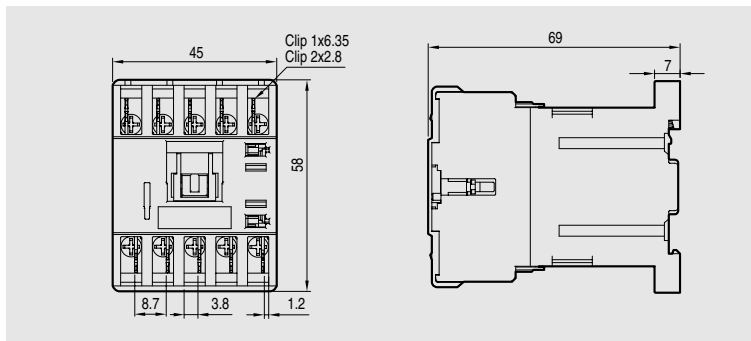
## Mini contactors (Fast-on type)

- GMC-6MF
- GMC-9MF
- GMC-12MF
- GMC-16MF
- GMC-6MF/4
- GMC-9MF/4
- GMC-12MF/4
- GMC-16MF/4



0.18kg

- GMD-6MF
- GMD-9MF
- GMD-12MF
- GMD-16MF
- GMD-6MF/4
- GMD-9MF/4
- GMD-12MF/4
- GMD-16MF/4

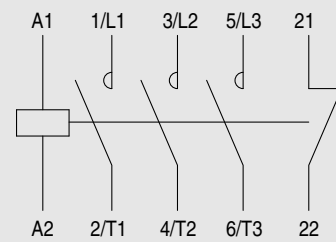
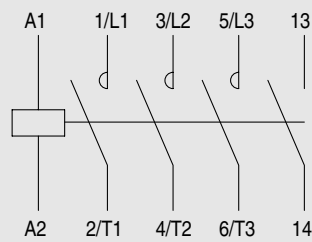


0.27kg

## Circuit diagram

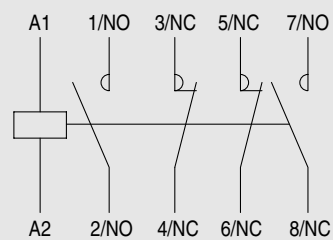
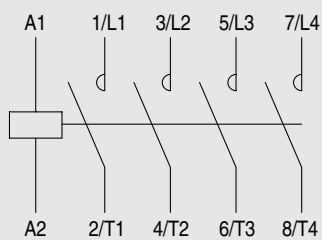
### GMC-6MF~16MF, GMD-6MF~16MF

#### 3-Pole contactors



### GMC-6MF/4~16MF/4, GMD-6MF/4~16MF/4

#### 4-Pole contactors

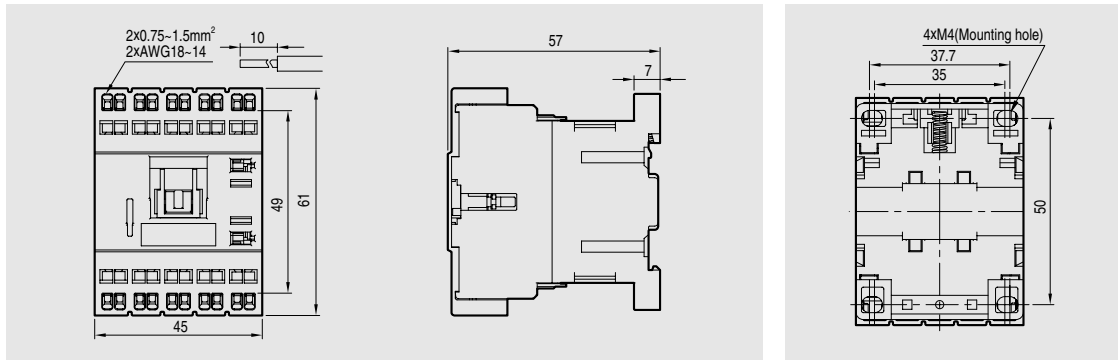




# Mini contactors (Cage clamp type)

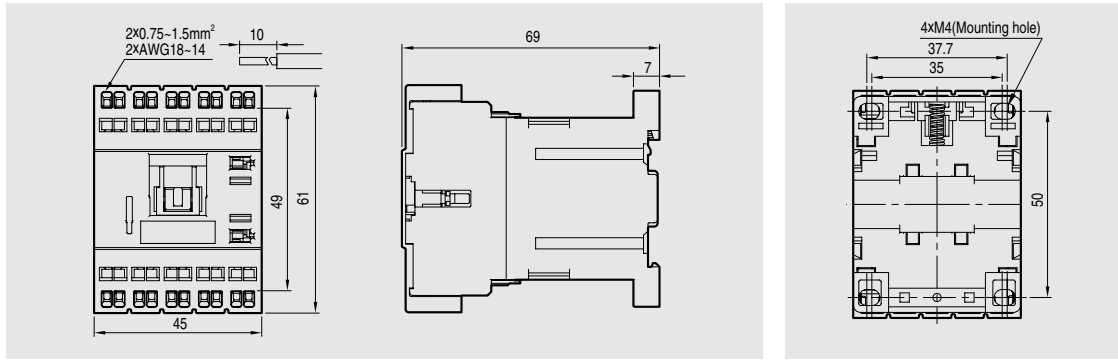


- GMC-6MC
- GMC-9MC
- GMC-12MC
- GMC-16MC
- GMC-6MC/4
- GMC-9MC/4
- GMC-12MC/4
- GMC-16MC/4



0.19kg

- GMD-6MC
- GMD-9MC
- GMD-12MC
- GMD-16MC
- GMD-6MC/4
- GMD-9MC/4
- GMD-12MC/4
- GMD-16MC/4

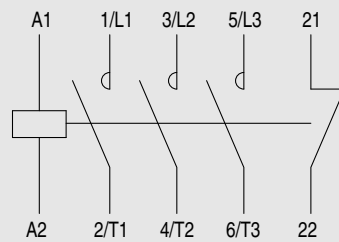
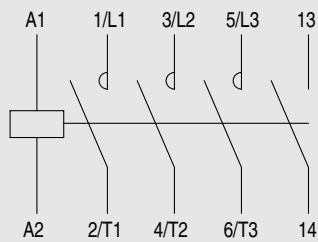


0.28kg

## Circuit diagram

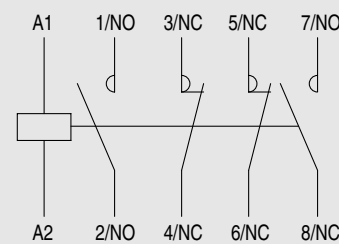
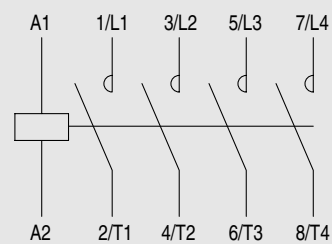
### GMC-6MC~16MC, GMD-6MC~16MC

3-Pole contactors



### GMC-6MC/4~16MC/4, GMD-6MC/4~16MC/4

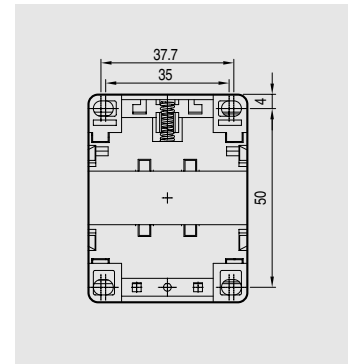
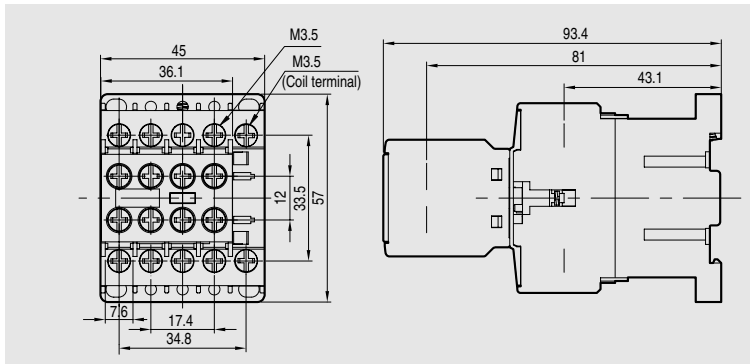
4-Pole contactors



# Dimensions

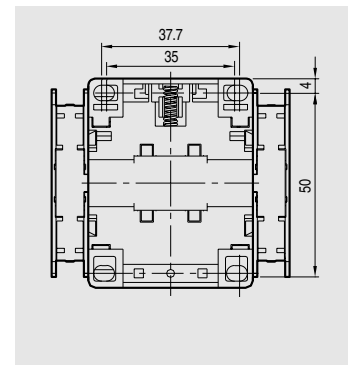
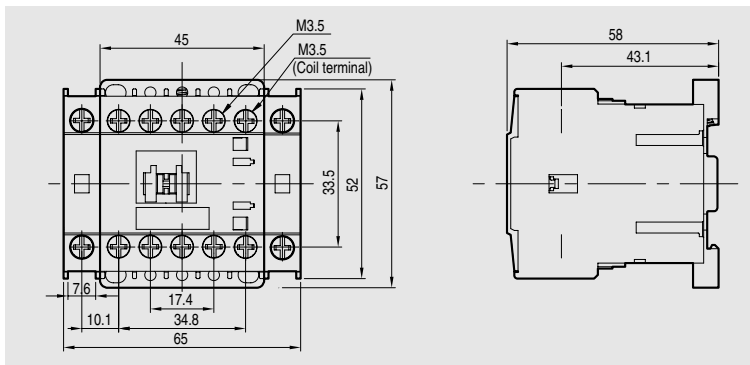
## Mini contactors with Auxiliary contacts

- GMC-6M
- GMC-9M
- GMC-12M
- GMC-16M
- +
- AU-4M



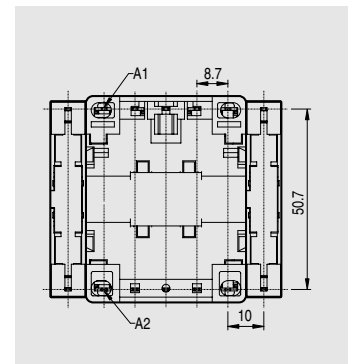
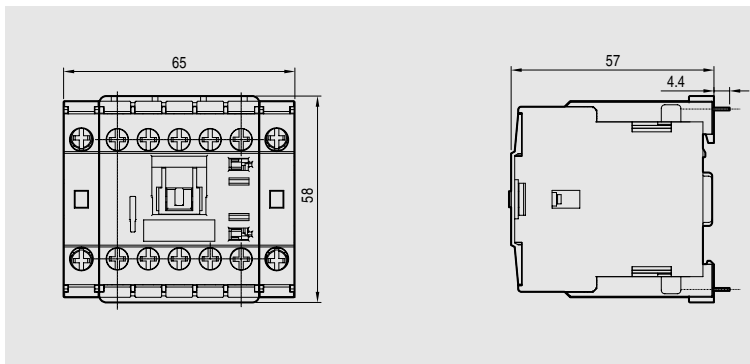
0.21kg

- GMC-6M
- GMC-9M
- GMC-12M
- GMC-16M
- +
- 2 × AU-1M

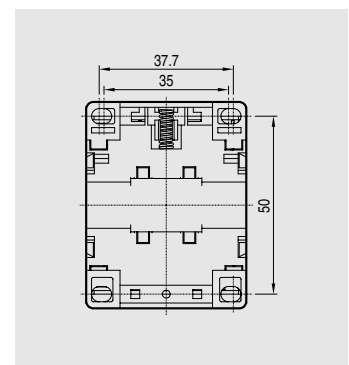
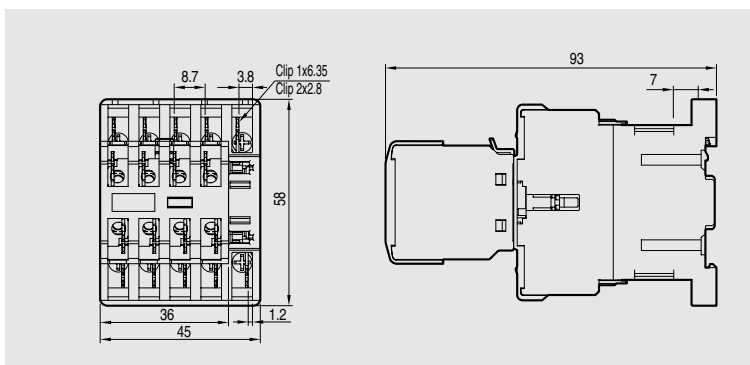


0.21kg

- GMC-6MP
- GMC-9MP
- GMC-12MP
- GMC-16MP
- +
- 2 × AU-1MP

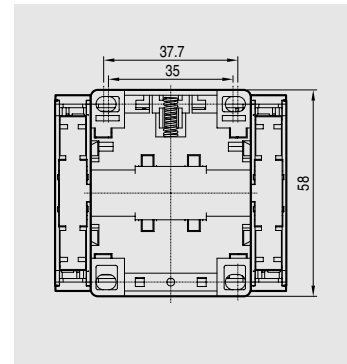
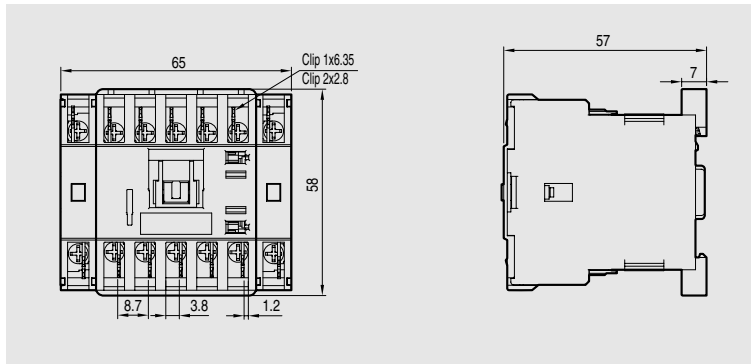


- GMC-6MF
- GMC-9MF
- GMC-12MF
- GMC-16MF
- +
- AU-4MF



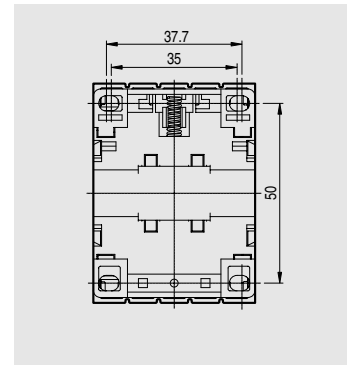
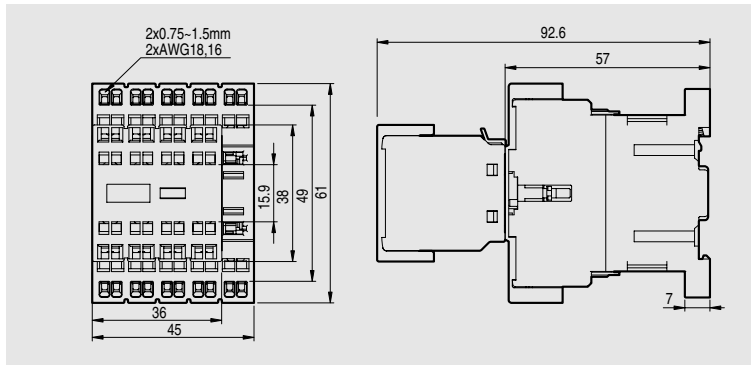
0.23kg

GMC-6MF  
GMC-9MF  
GMC-12MF  
GMC-16MF  
+  
2 × AU-1MF



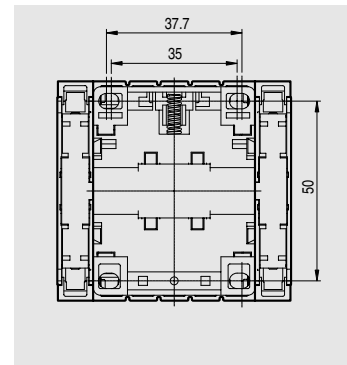
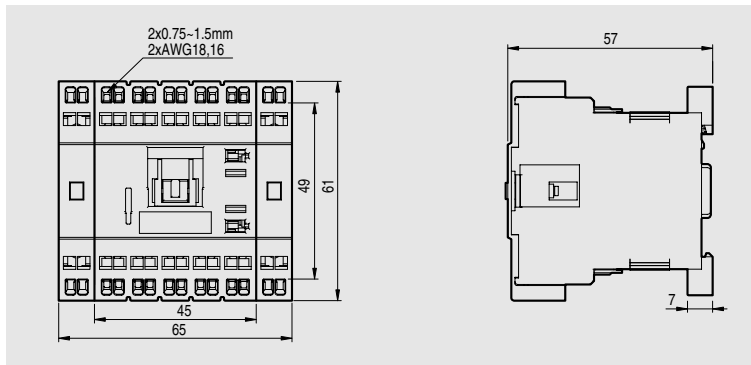
0.32kg

GMC-6MC  
GMC-9MC  
GMC-12MC  
GMC-16MC  
+  
AU-4MC



0.24kg

GMC-6MC  
GMC-9MC  
GMC-12MC  
GMC-16MC  
+  
2 × AU-1MC

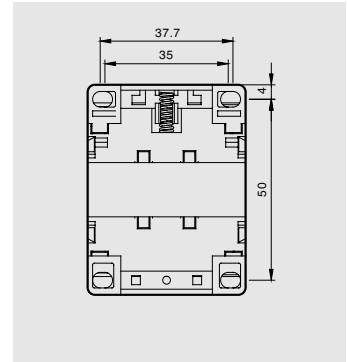
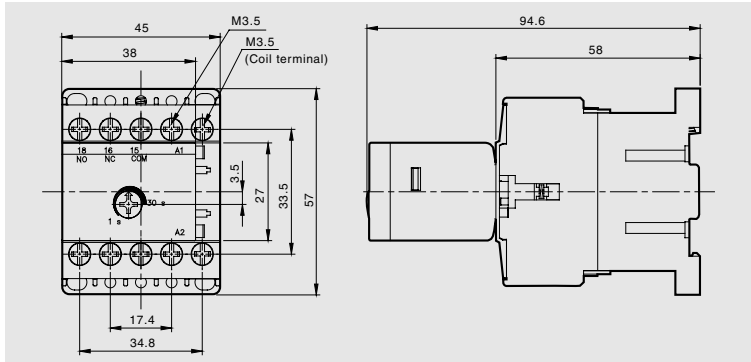


0.23kg

# Dimensions

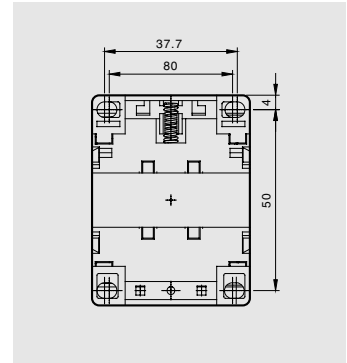
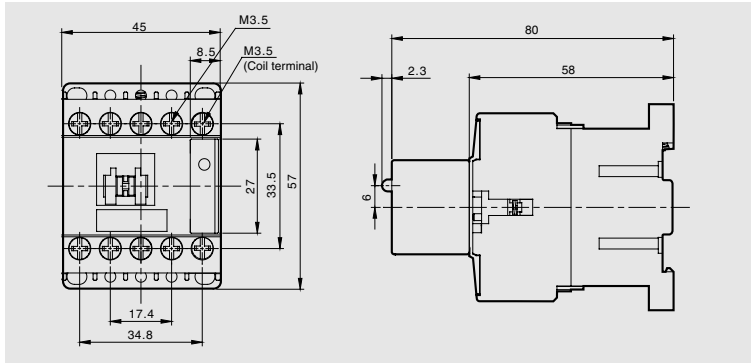
## Mini contactors with external accessories

- GMC-6M
- GMC-9M
- GMC-12M
- GMC-16M
- +
- AT-12M



0.21kg

- GMD-6M
- GMD-9M
- GMD-12M
- GMD-16M
- +
- AS-12M

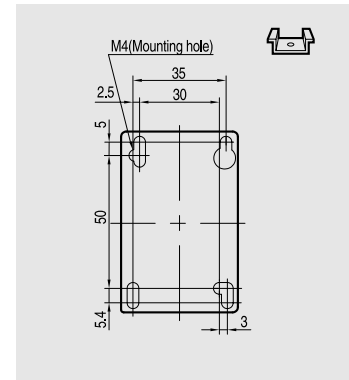
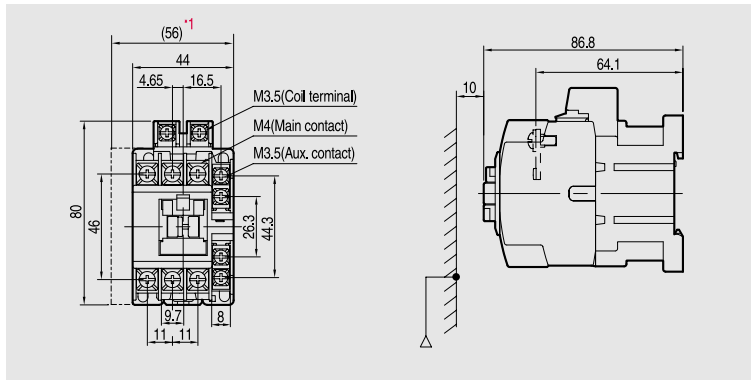


0.175kg

# 3-pole Contactors / AC coil



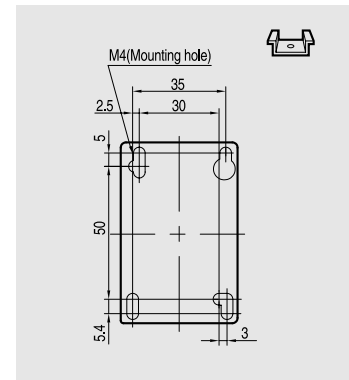
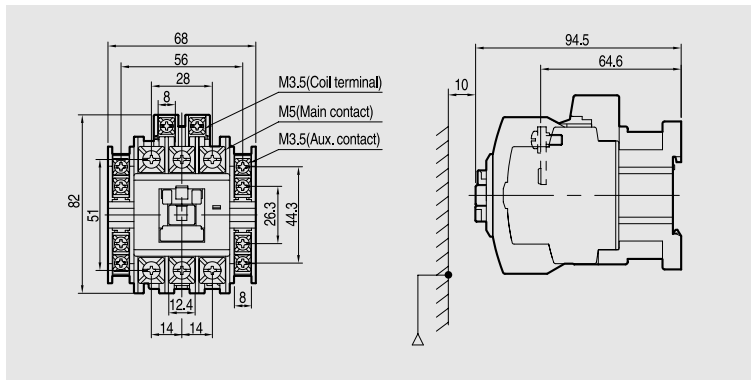
- GMC-9
- GMC-12
- GMC-18
- GMC-22



\* 1 : Optional auxiliary contact unit ( side mount type )

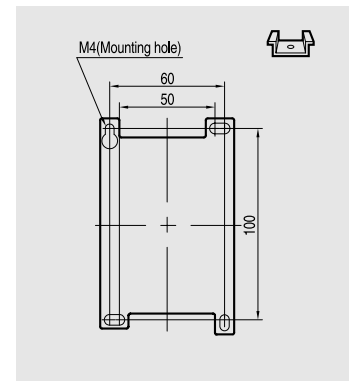
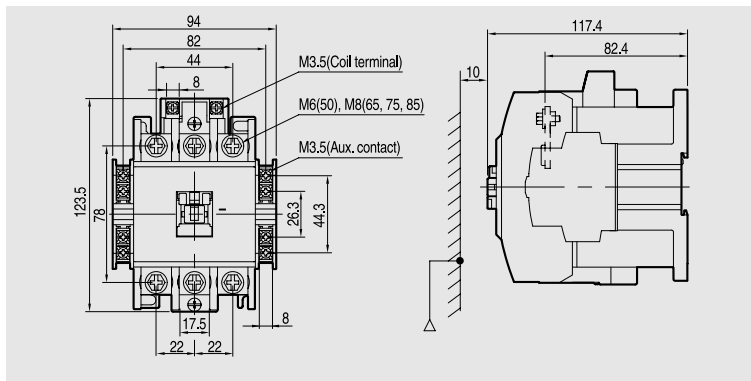
GMC-9,12:0.33kg  
GMC-18,22:0.37kg

- GMC-32
- GMC-40



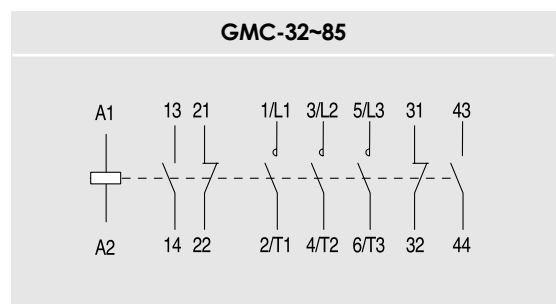
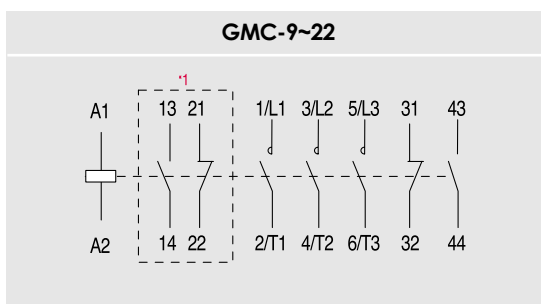
0.45kg

- GMC-50
- GMC-65
- GMC-75
- GMC-85



1kg

## Circuit diagram



\* 1 : Optional auxiliary contact unit

# Dimensions

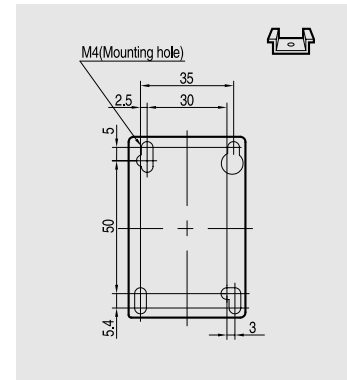
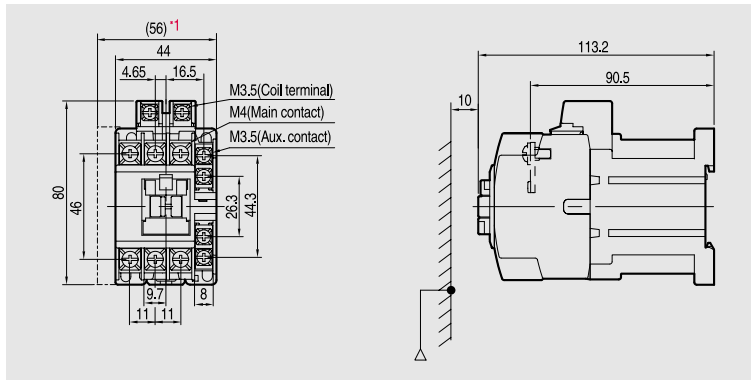
## 3-pole Contactors / DC coil

GMD-9

GMD-12

GMD-18

GMD-22

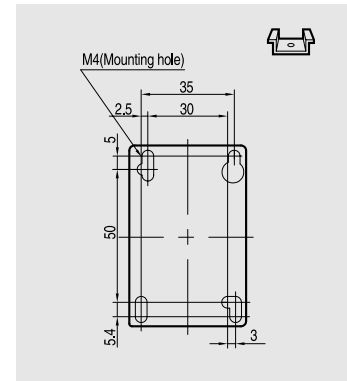
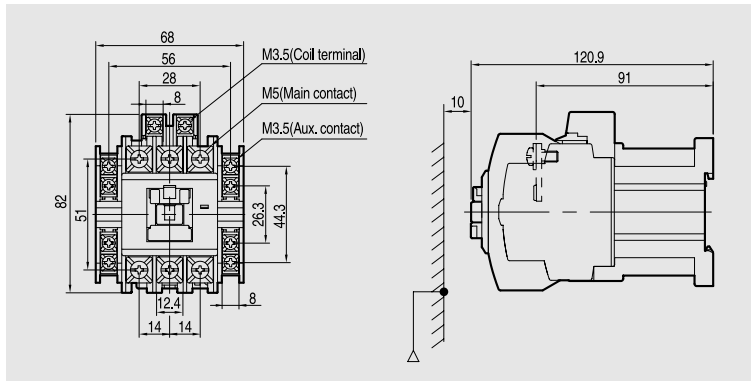


\* 1 : Optional auxiliary contact unit ( side mount type )

GMD-9,12:0.55kg  
GMD-18,22:0.59kg

GMD-32

GMD-40



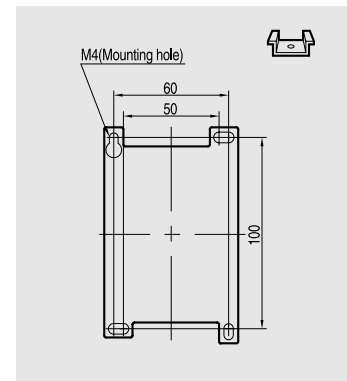
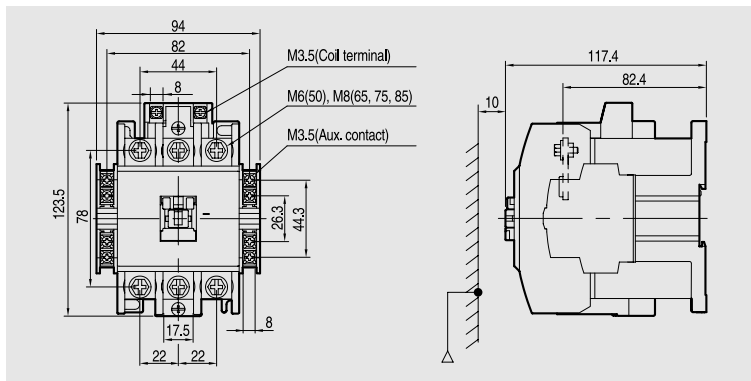
0.67kg

GMD-50

GMD-65

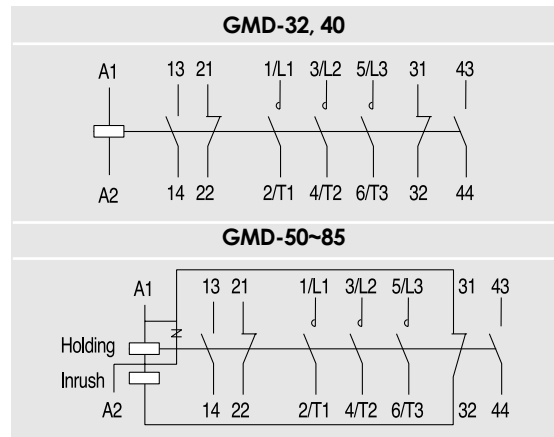
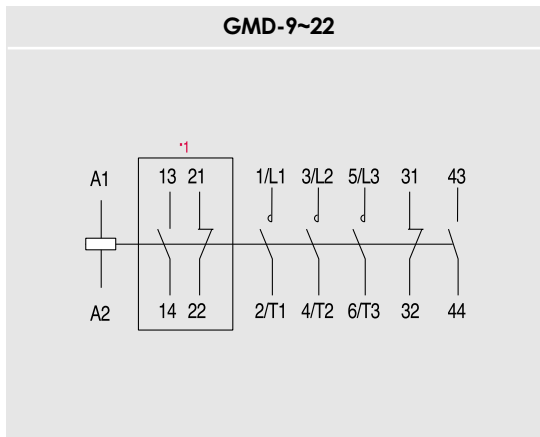
GMD-75

GMD-85



1.06kg

### Circuit diagram

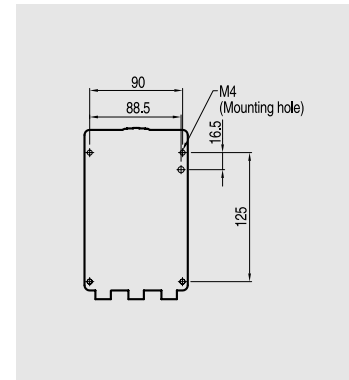
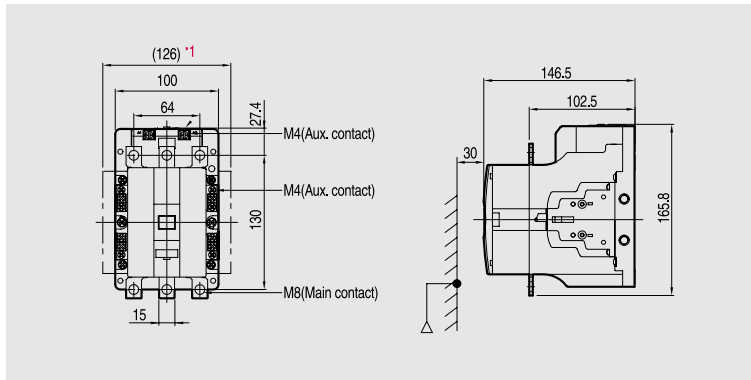


\* 1 : Optional auxiliary contact unit

# 3-pole Contactors / AC coil

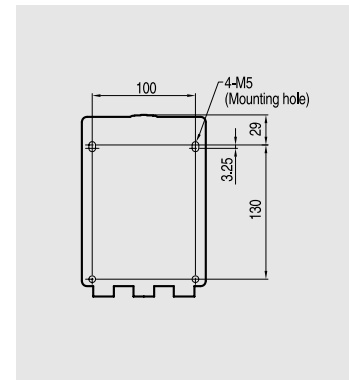
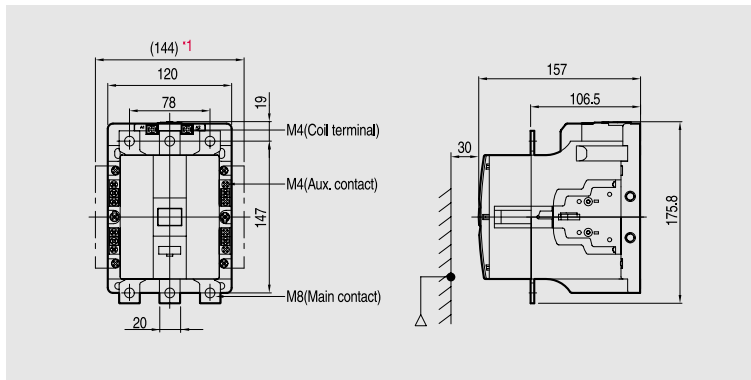


GMC-100  
GMC-125



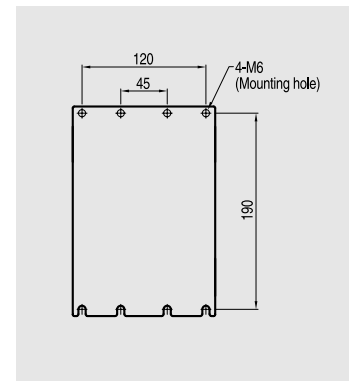
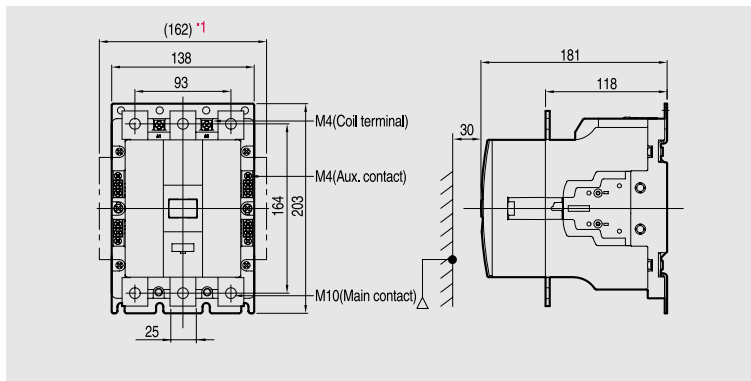
2.9kg

GMC-150



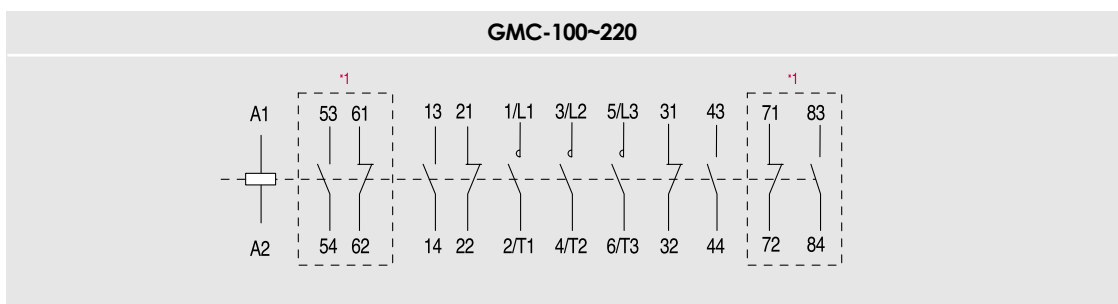
3.4kg

GMC-180  
GMC-220



5.4kg

## Circuit diagram



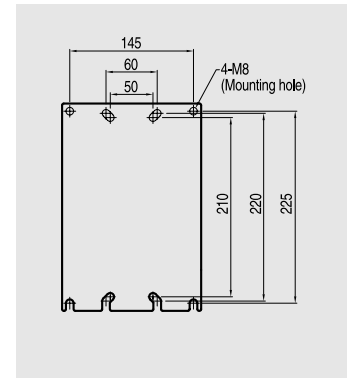
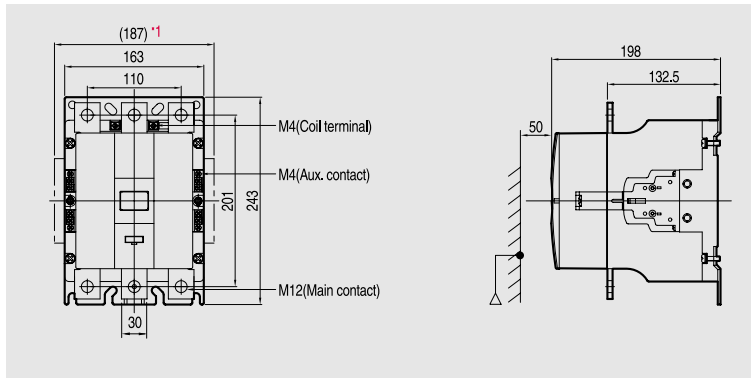
\*1 : Optional auxiliary contact unit ( side mount type )

# Dimensions

## 3-pole Contactors / AC coil

GMC-300

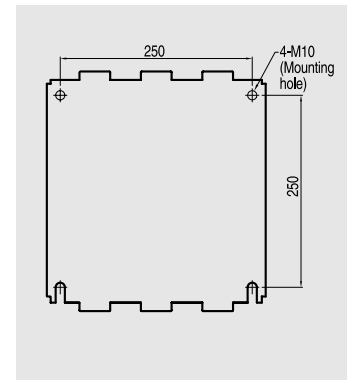
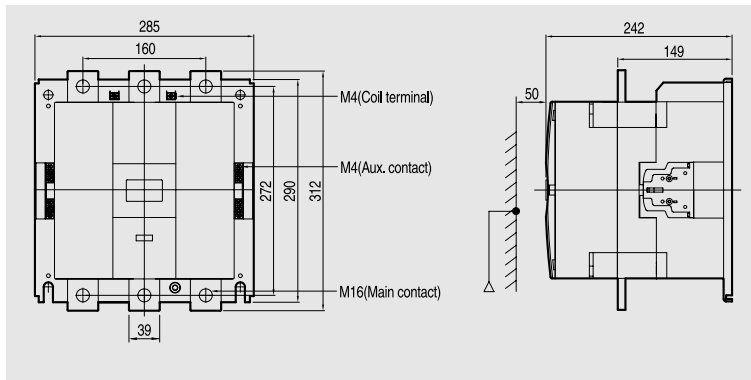
GMC-400



9.2kg

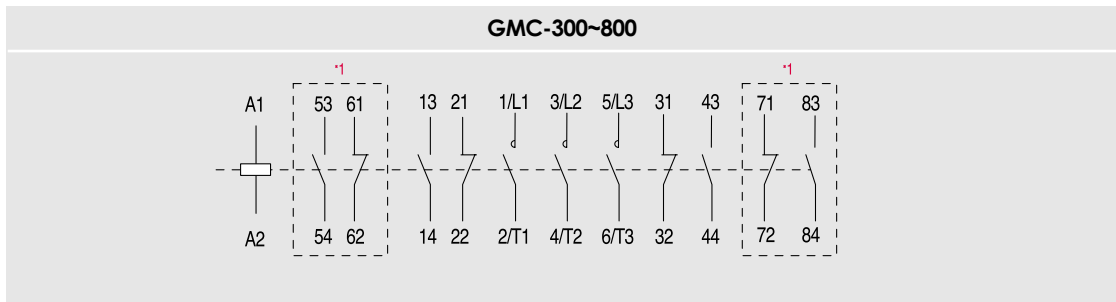
GMC-600

GMC-800



22.4kg

### Circuit diagram



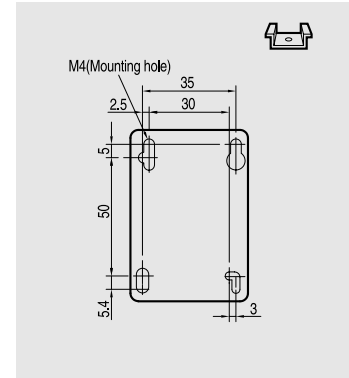
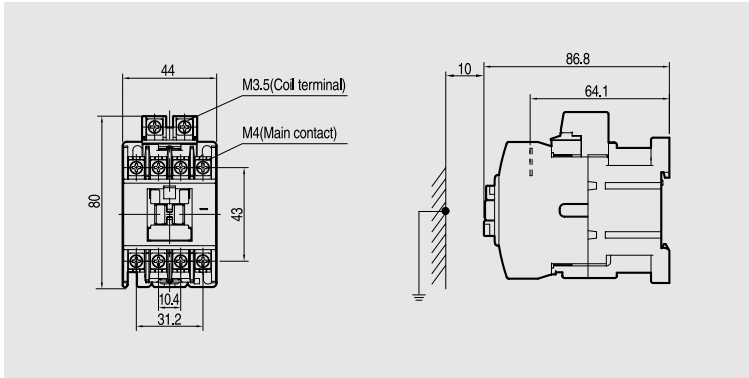
\* 1 : Optional auxiliary contact unit ( side mount type )



# 4-pole Contactors / AC coil



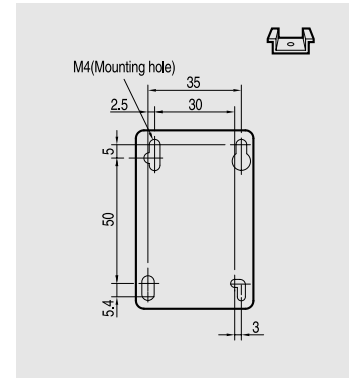
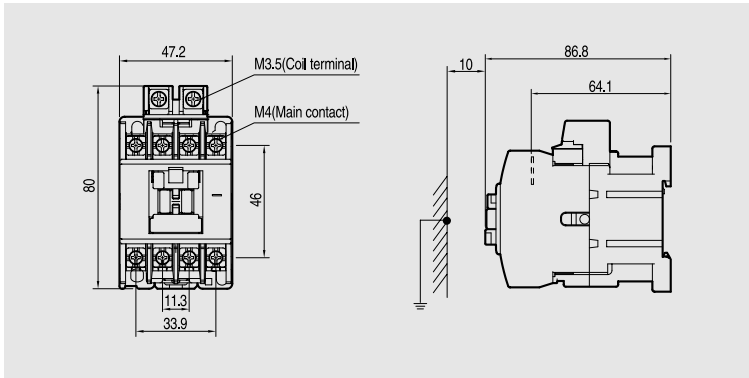
GMC-9/4  
GMC-12/4



\* 1 : Optional auxiliary contact unit (side mount type)

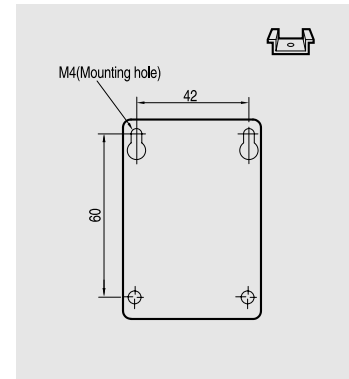
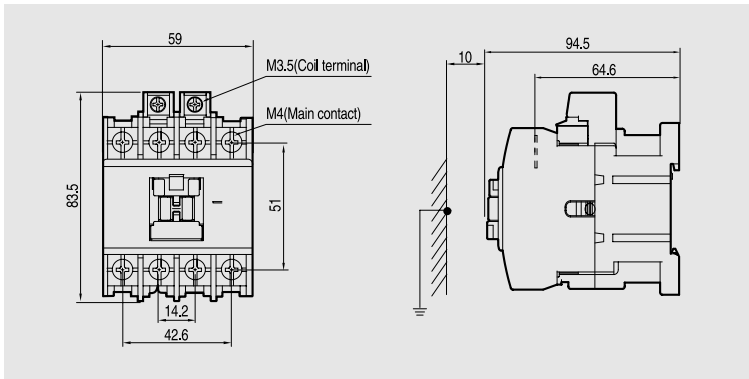
0.33kg

GMC-18/4  
GMC-22/4



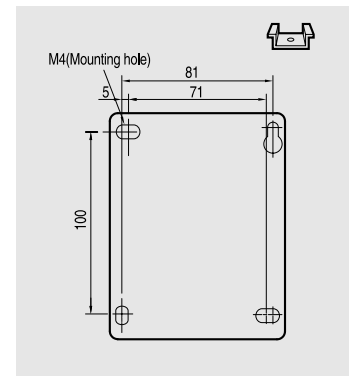
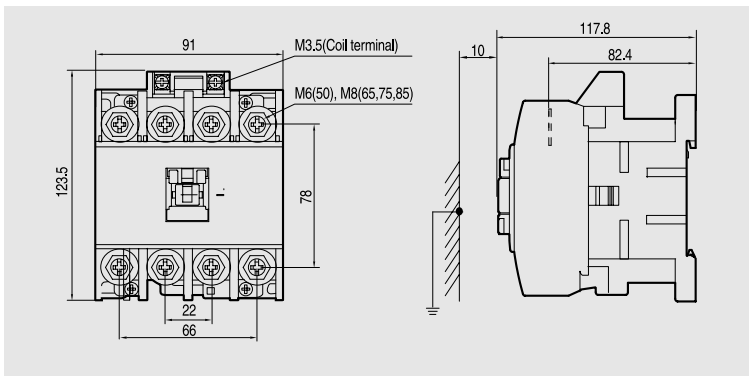
0.4kg

GMC-32/4  
GMC-40/4



0.59kg

GMC-50/4  
GMC-65/4  
GMC-75/4  
GMC-85/4



1.2kg

# Dimensions

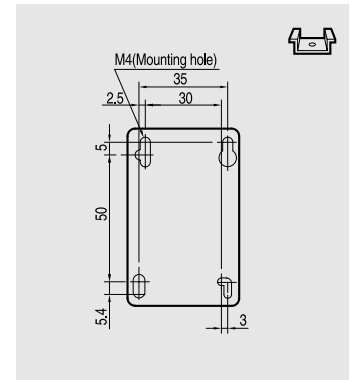
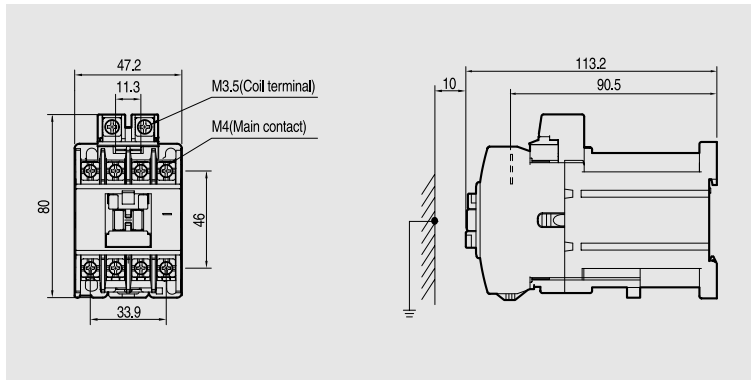
## 4-pole Contactors / DC coil

GMD-9/4

GMD-12/4

GMD-18/4

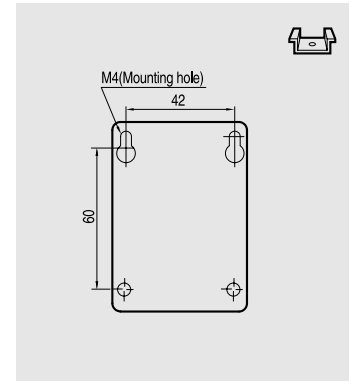
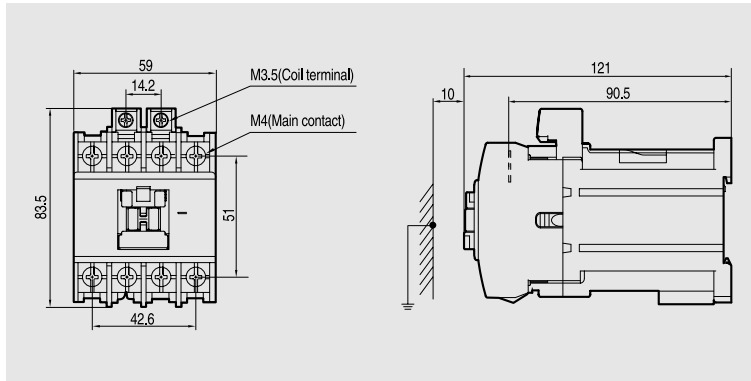
GMD-22/4



0.5kg

GMD-32/4

GMD-40/4



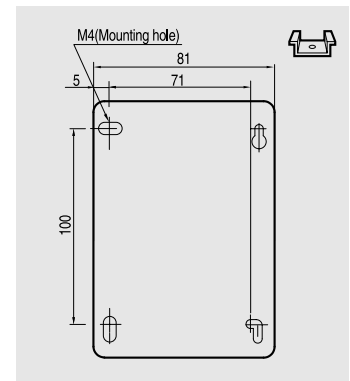
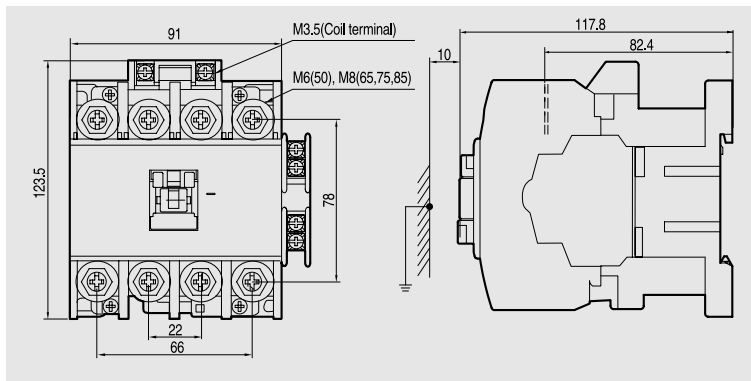
0.7kg

GMD-50/4

GMD-65/4

GMD-75/4

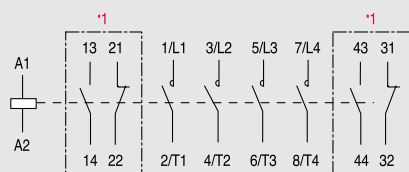
GMD-85/4



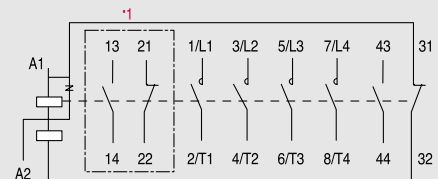
1.29kg

### Circuit diagram

GMC-9/4~85/4, GMD-9/4~40/4



GMD-50/4~85/4

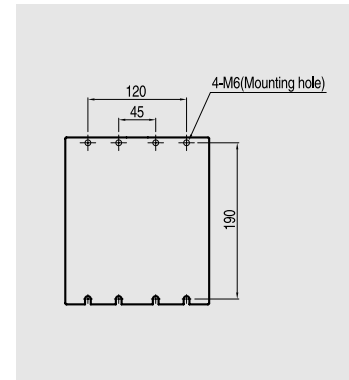
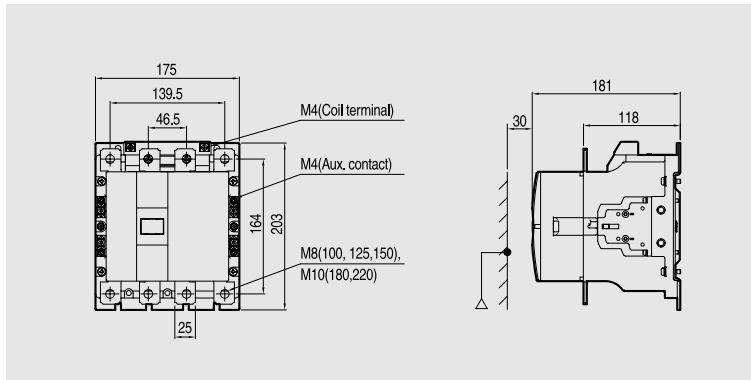


\*1, \*2: Optional auxiliary contact unit

# 4-pole Contactors / AC coil

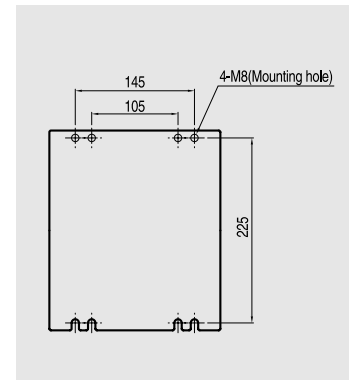
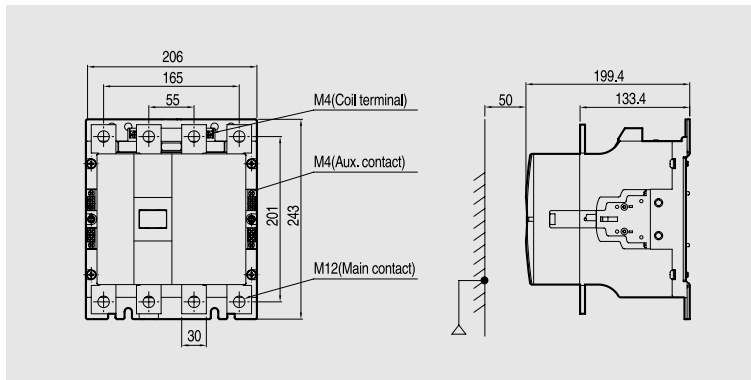


- GMC-100/4
- GMC-125/4
- GMC-150/4
- GMC-180/4
- GMC-220/4



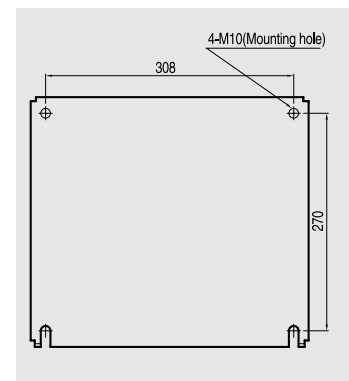
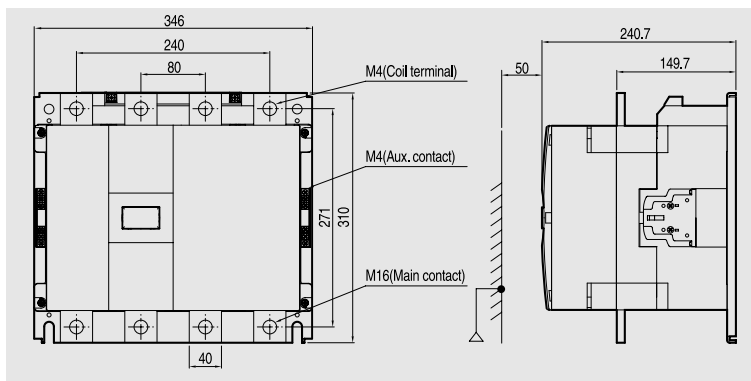
5.6kg

- GMC-300/4
- GMC-400/4



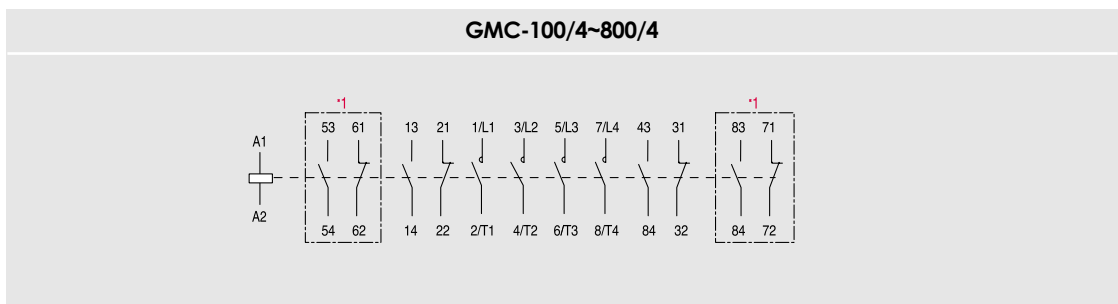
9.9kg

- GMC-600/4
- GMC-800/4



26.3kg

## Circuit diagram

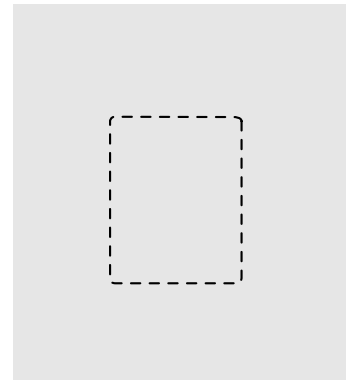
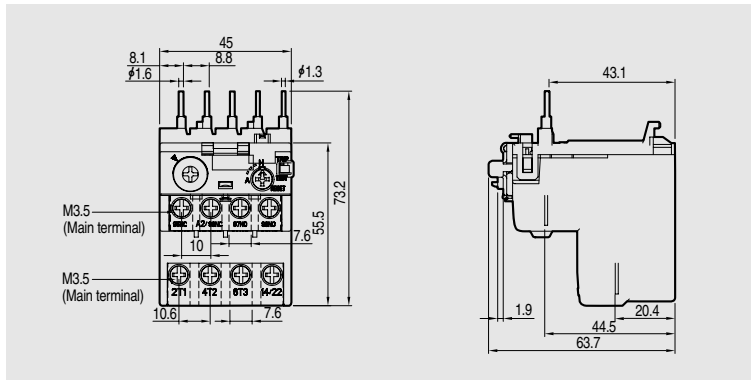


\* 1 : Optional auxiliary contact unit ( side mount type )

# Dimensions

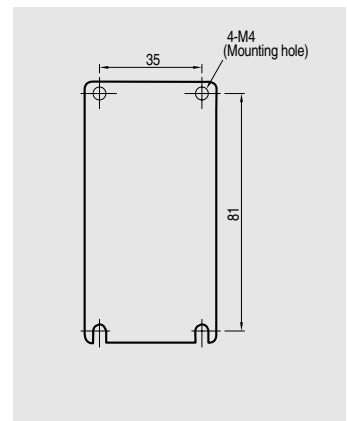
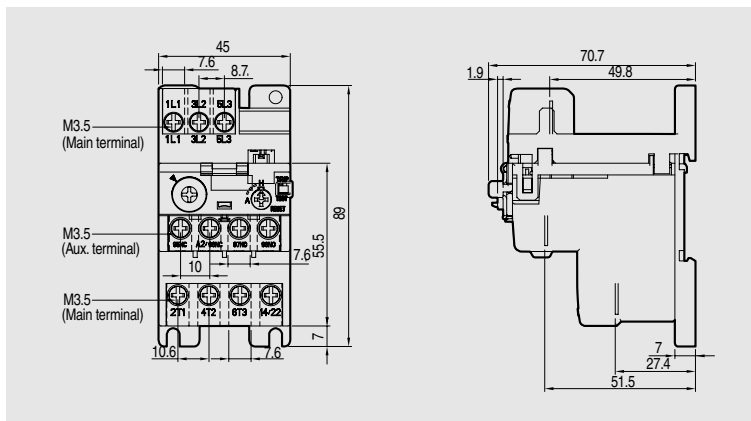
## Thermal overload relays for Mini contactors

**GTH(K)-12M**



0.1kg

**GTH(K)-12MH**

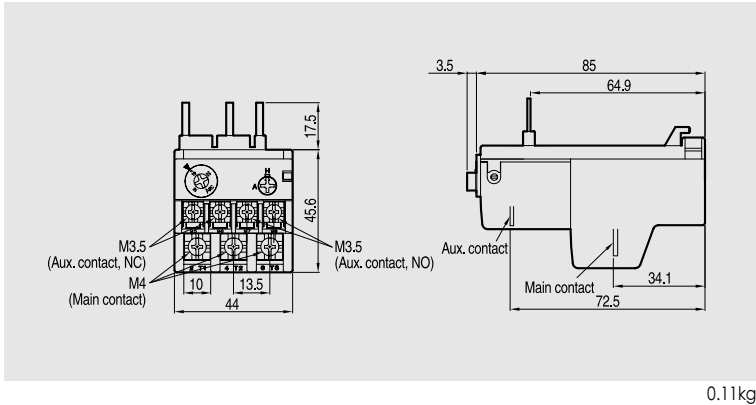


0.4kg

# Thermal overload relays (Class 10A)



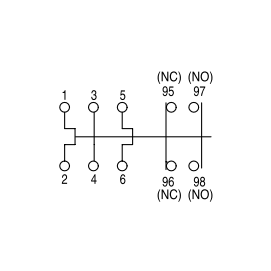
- GTH-22
- GTK-22
- GTH-22/3



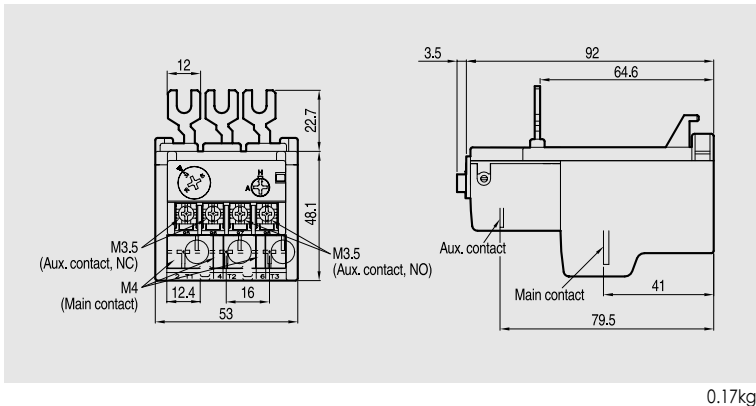
0.11kg

## Diagrams

GTH-22, 40, 85  
(2 heater types)

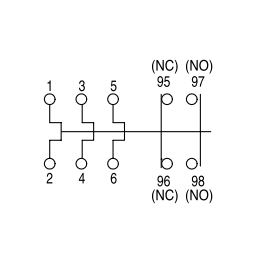


- GTH-40
- GTK-40
- GTH-40/3

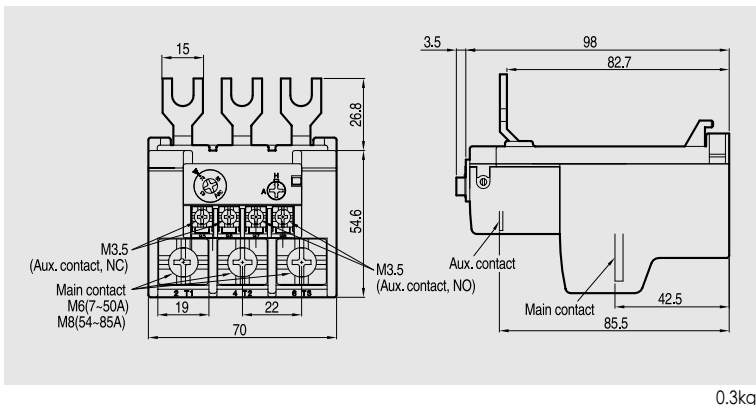


0.17kg

GTH-22/3, 40/3, 85/3  
GTK-22, 40, 85  
(3 heater types)



- GTH-85
- GTK-85
- GTH-85/3



0.3kg

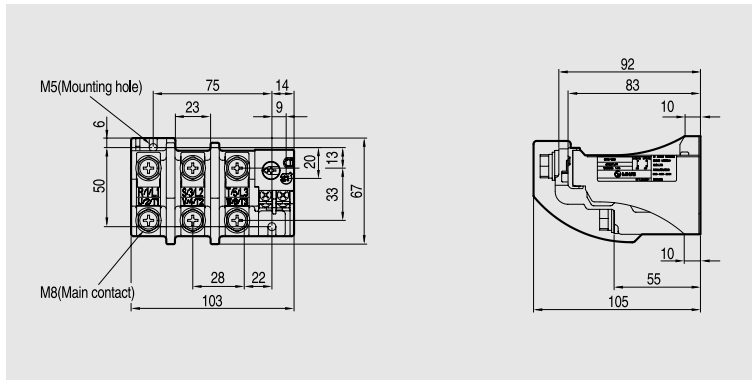
# Dimensions

## Thermal overload relays (Class 10A)

GTH-100

GTK-100

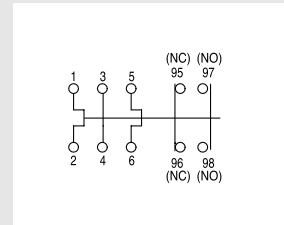
GTH-100/3



0.48kg

### Diagrams

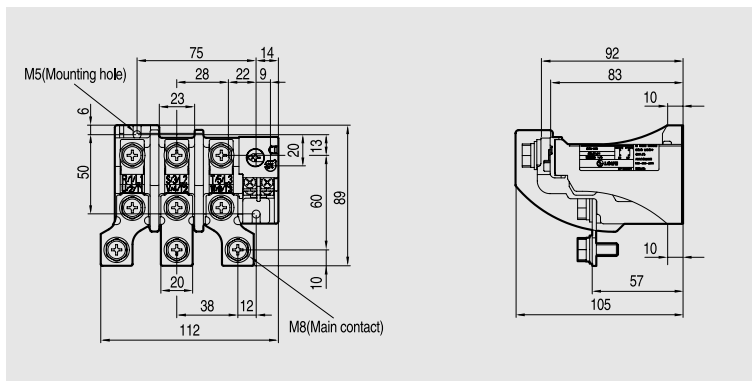
GTH-100, 150  
(2 heater types)



GTH-150

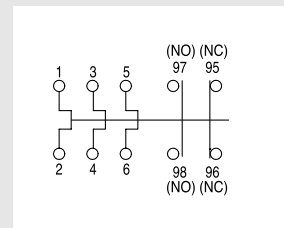
GTK-150

GTH-150/3

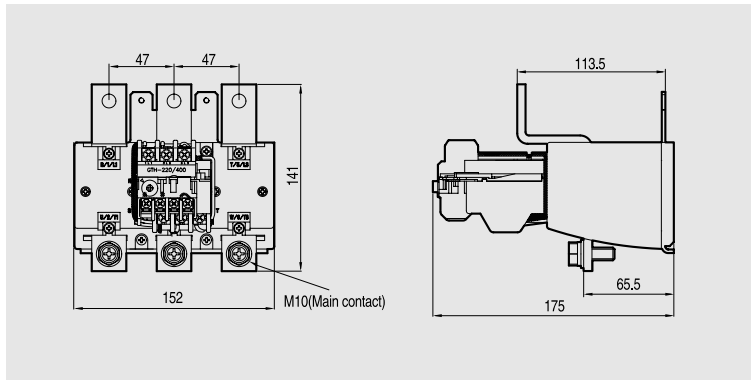


0.6kg

GTH-100/3, 150/3  
GTK-100, 150  
(3 heater types)

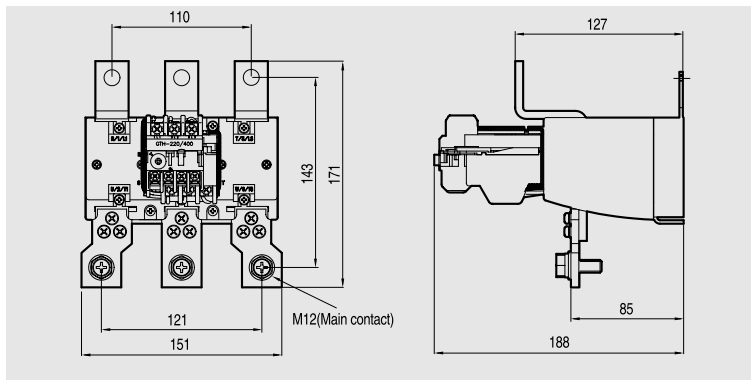


- GTH-220
- GTK-220
- GTH-220/3



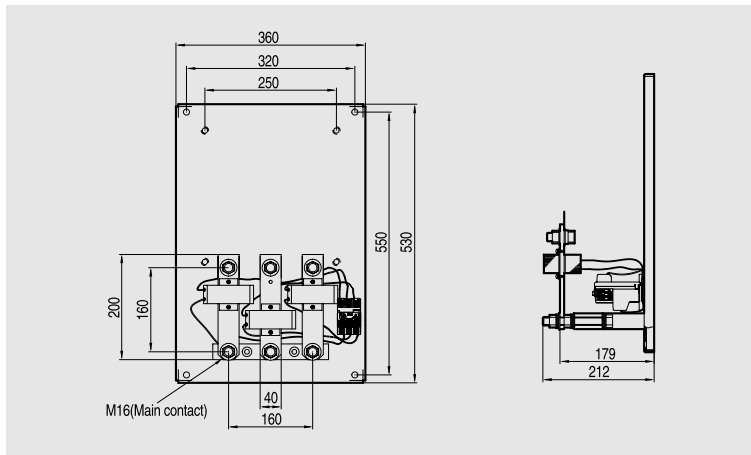
2.5kg

- GTH-400
- GTK-400
- GTH-400/3



2.6kg

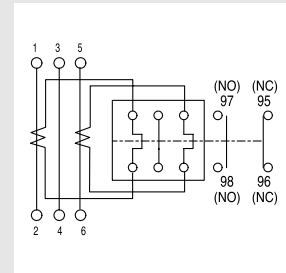
- GTH-600
- GTK-600
- GTH-600/3



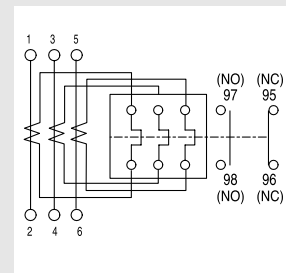
11.5kg

### Diagrams

**GTH- 220, 400, 600**  
**(2 heater types)**



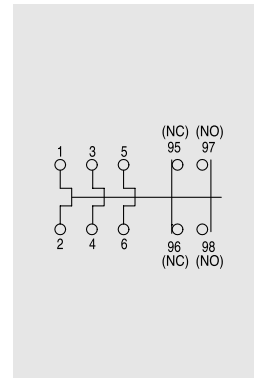
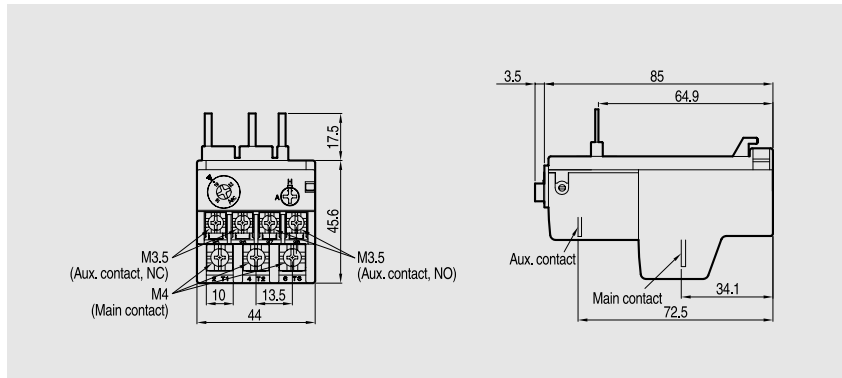
**GTH-220/3, 400/3, 600/3**  
**GTK-220, 400, 600**  
**(3 heater types)**



# Dimensions

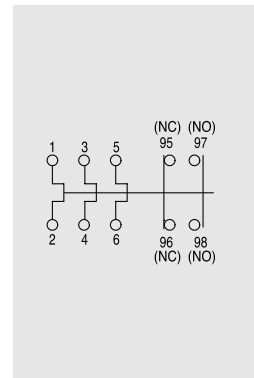
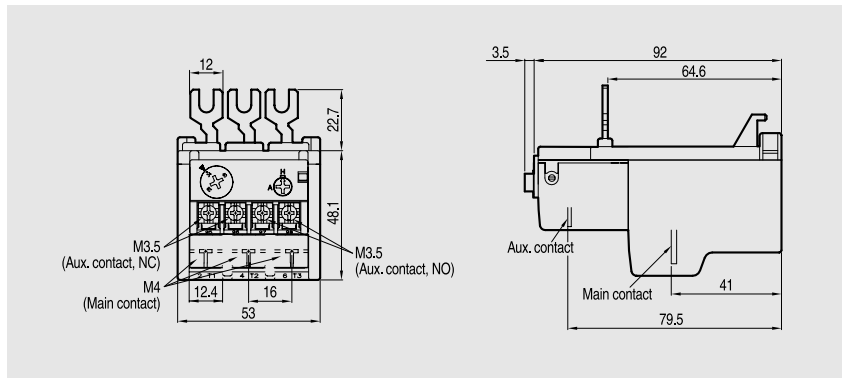
## Thermal overload relays (Class 20)

**GTK-22/L**



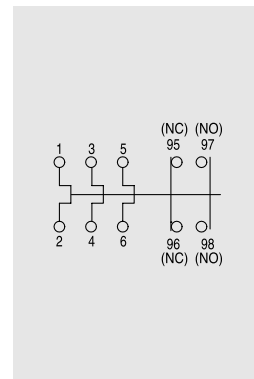
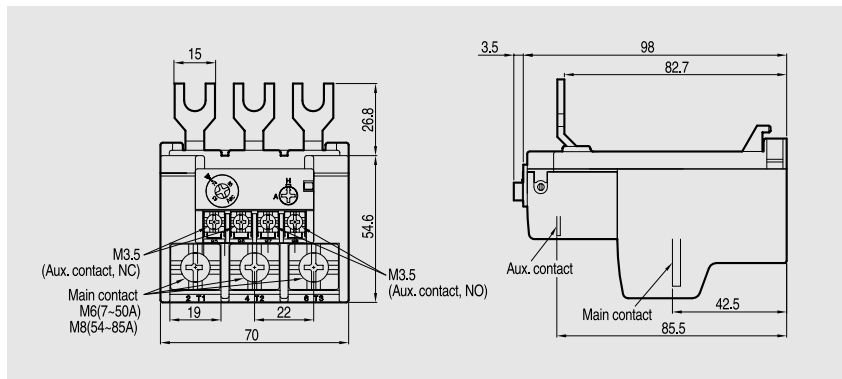
0.11Kg

**GTK-40/L**



0.17Kg

**GTK-85/L**

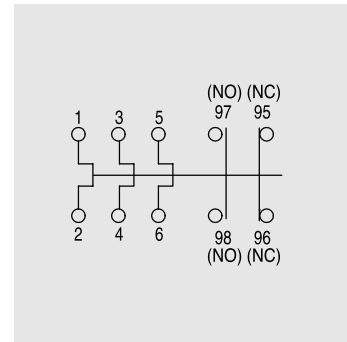
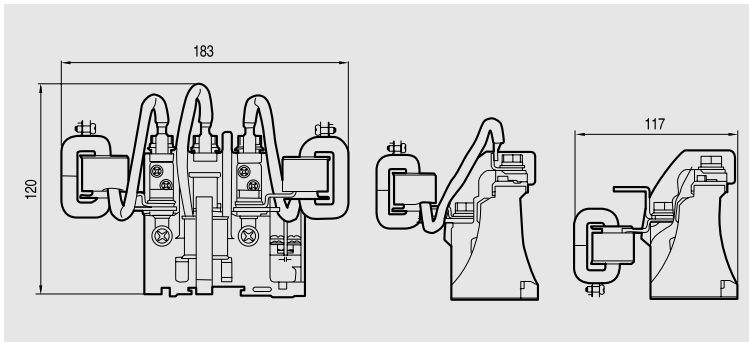


0.3Kg



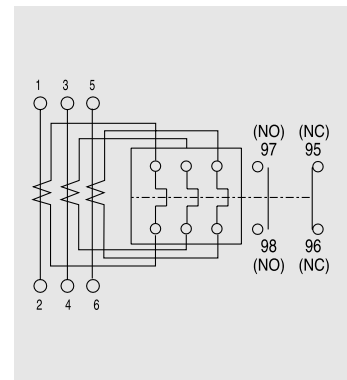
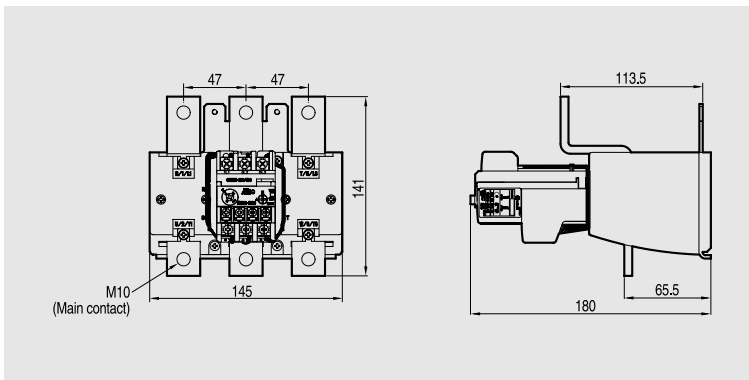
GTK-100/L

GTK-150/L



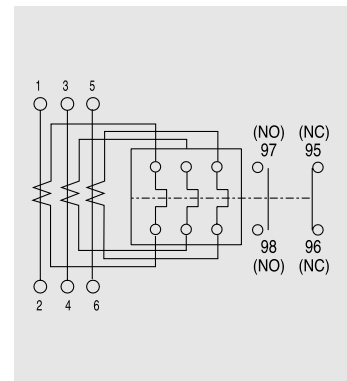
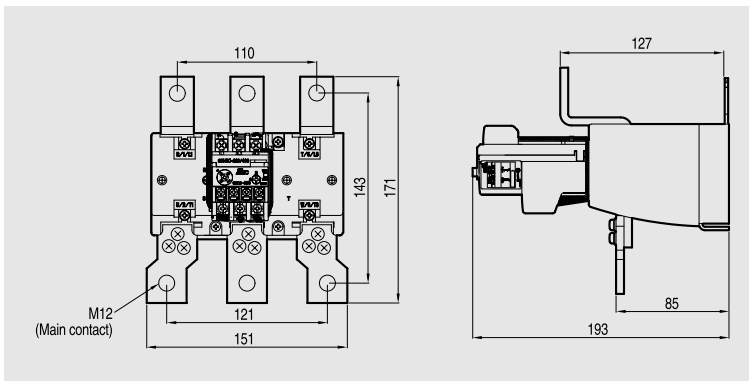
0.8Kg

GTK-220/L



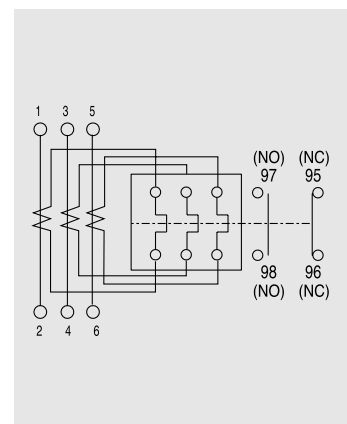
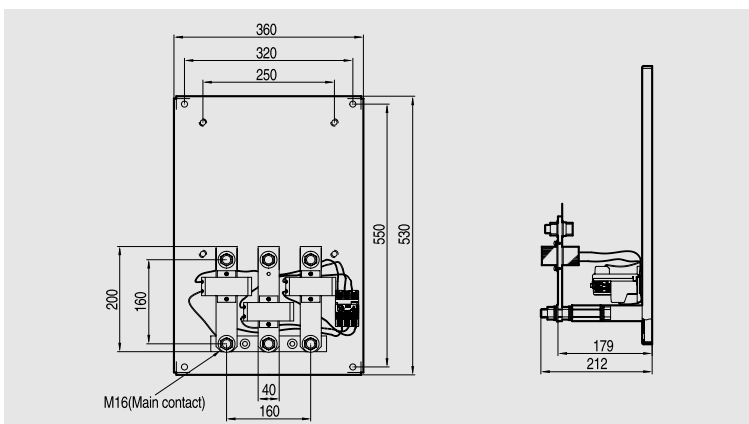
2.5Kg

GTK-400/L



2.6Kg

GTK-600/L



11.5Kg

# Dimensions

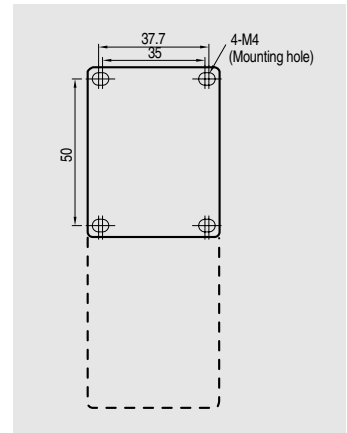
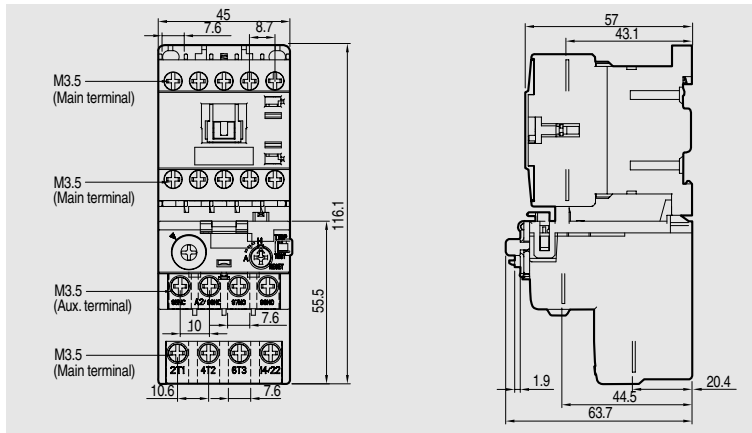
## Mini motor starters, open

GMS-6M

GMS-9M

GMS-12M

GMS-16M



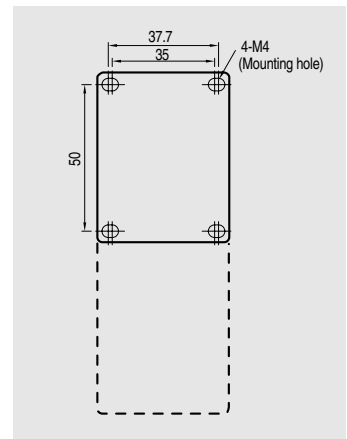
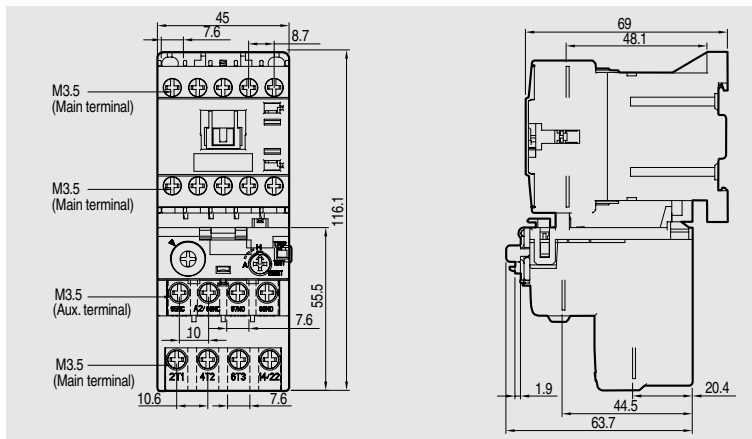
0.26kg

GMS-6MD

GMS-9MD

GMS-12MD

GMS-16MD

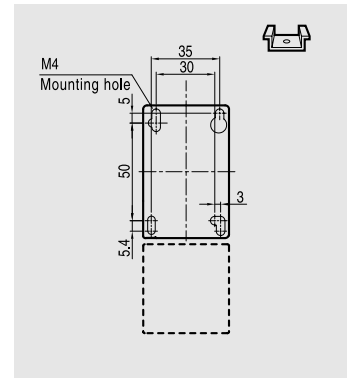
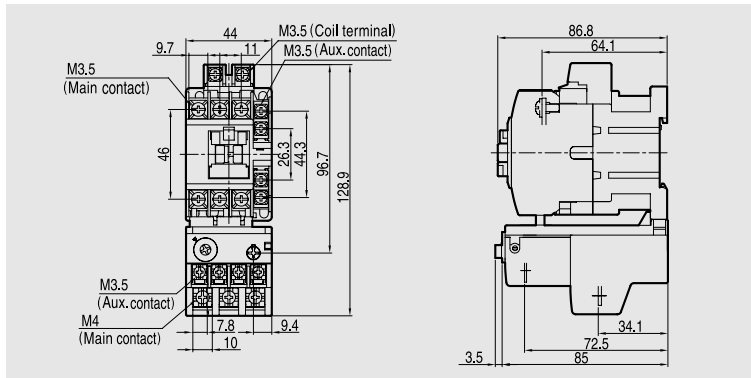


0.39kg

# Motor starters, open

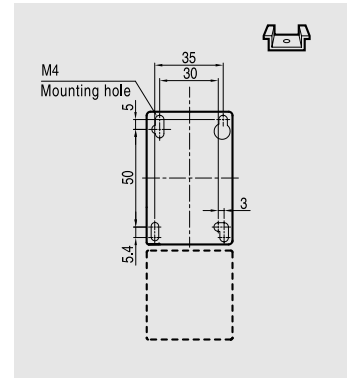
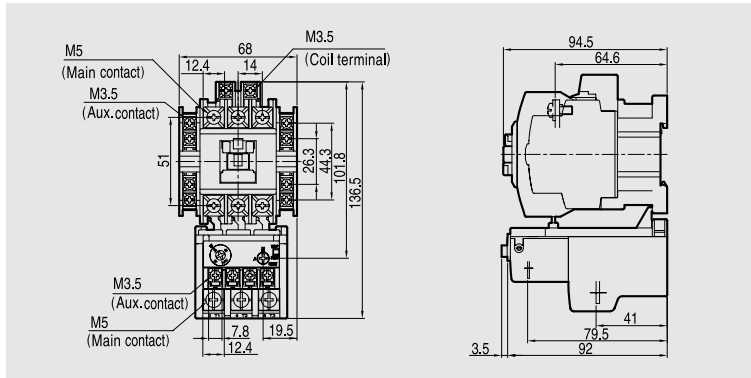


- GMS-9/K
- GMS-12/K
- GMS-18/K
- GMS-22/K



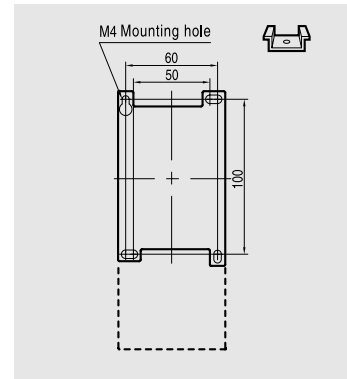
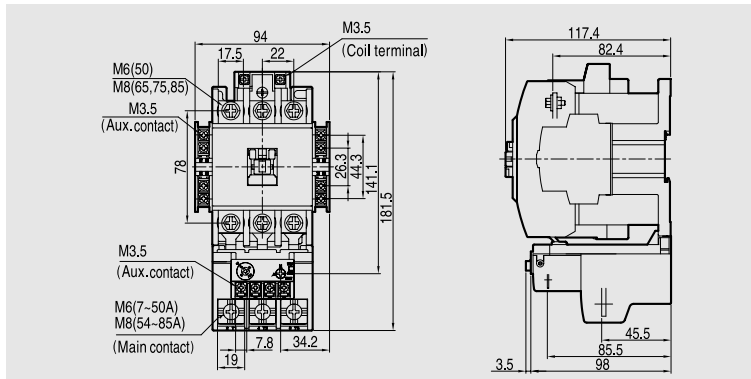
GMC-9, 12 + GTH(K) :0.46kg  
GMC-18, 22 + GTH(K):0.5kg

- GMS-32/K
- GMS-40/K



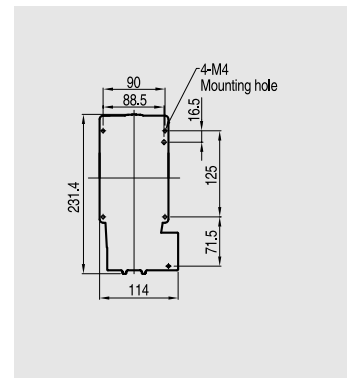
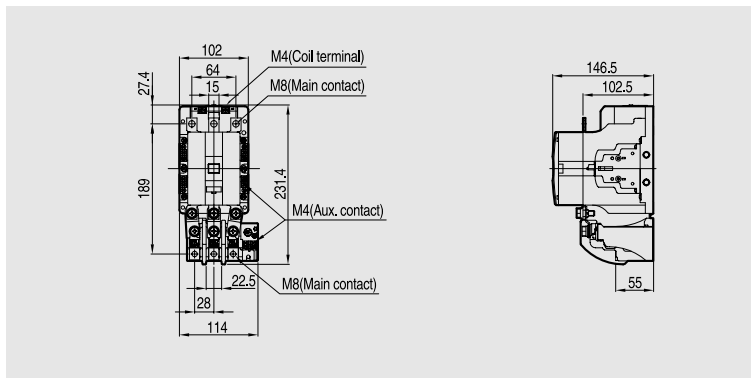
0.65kg

- GMS-50/K
- GMS-65/K
- GMS-75/K
- GMS-85/K



1.12kg

- GMS-100/K
- GMS-125/K

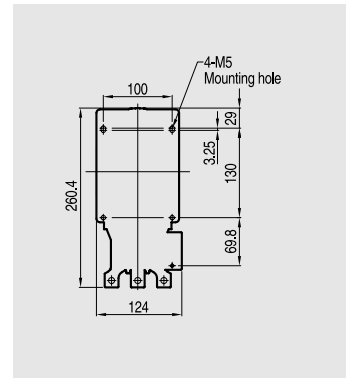
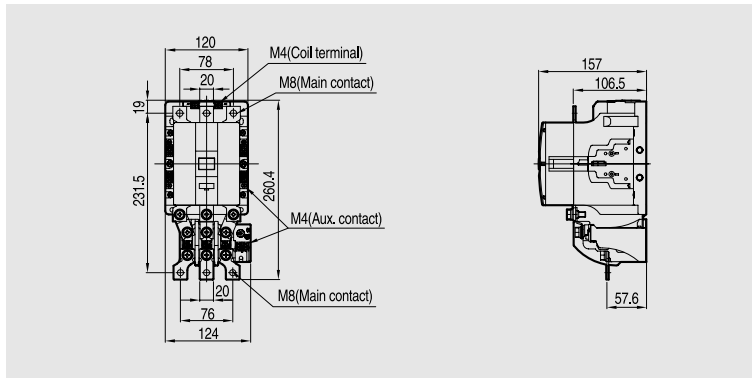


3.4kg

# Dimensions

## Motor starters, open

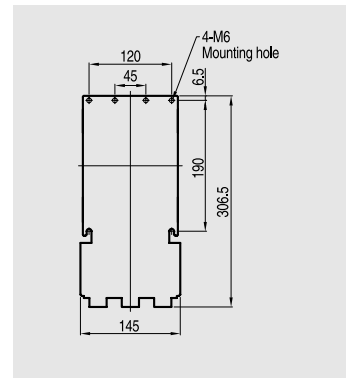
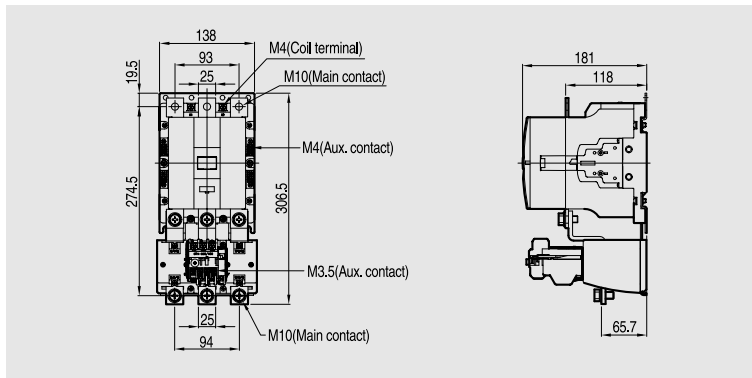
**GMS-150/K**



4kg

**GMS-180/K**

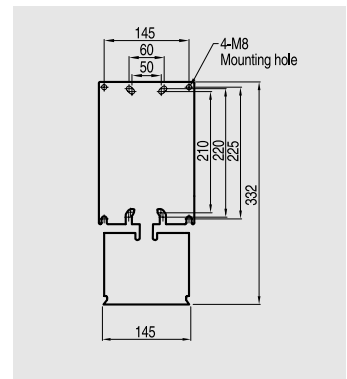
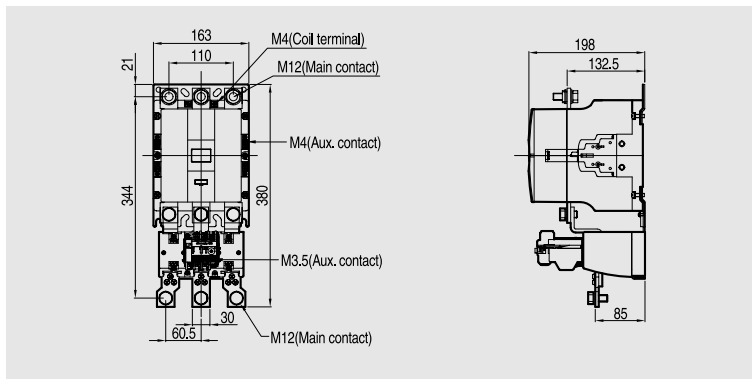
**GMS-220/K**



7.9kg

**GMS-300/K**

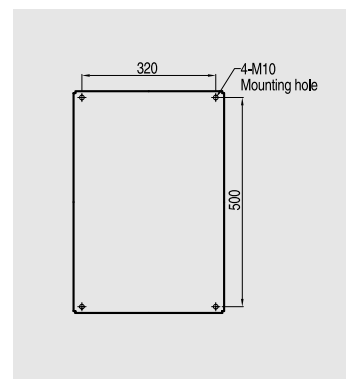
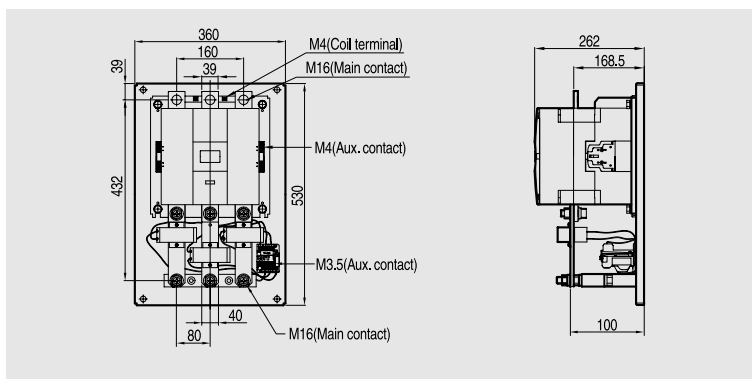
**GMS-400/K**



11.8kg

**GMS-600/K**

**GMS-800/K**



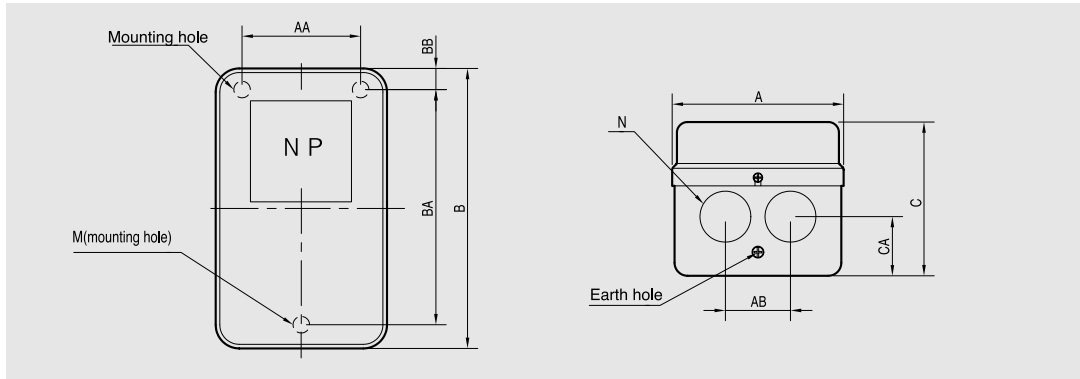
28kg

## Metal enclosure

GMW-9~22

GMW-9/3~22/3

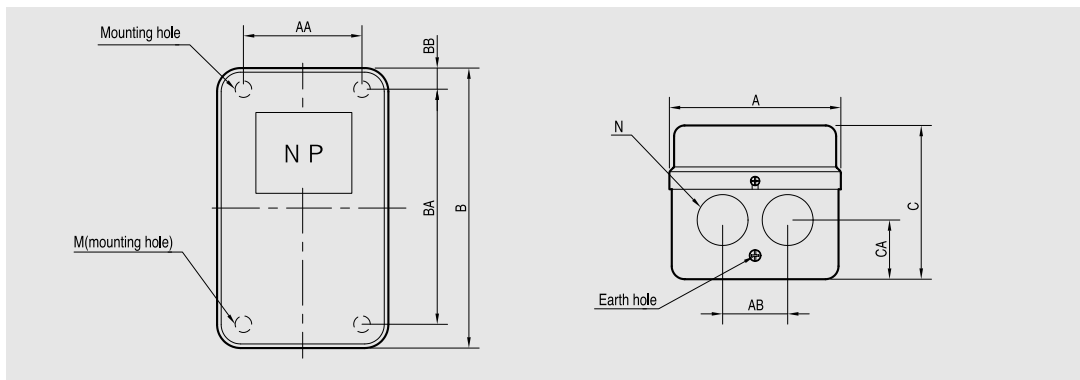
GMW-9/K~22/K



GMW-32~85

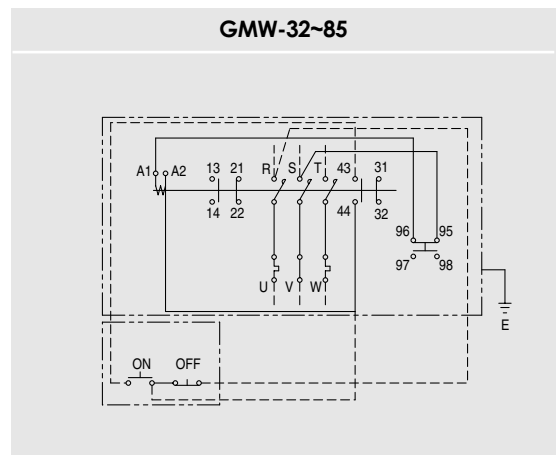
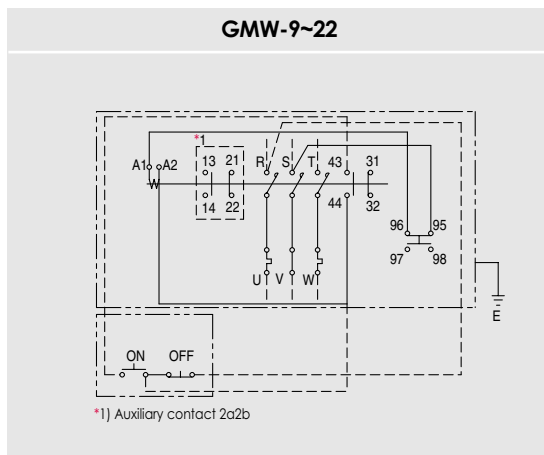
GMW-32/3~85/3

GMW-32/K~85/K



Type	A	AA	AB	B	BA	BB	C	CA	M	N	Weight(kg)
GMW-9, 12, 18, 22	104	76	40	170	140	15	114	37	M6	∅ 22	1.1
GMW-32, 40	145	80	55	245	165	17.5	130	50	M6	∅ 35	1.7
GMW-50, 65, 75, 85	160	120	74	290	220	35	141.5	50	M6	∅ 35	3.6

## Circuit diagram



# Dimensions

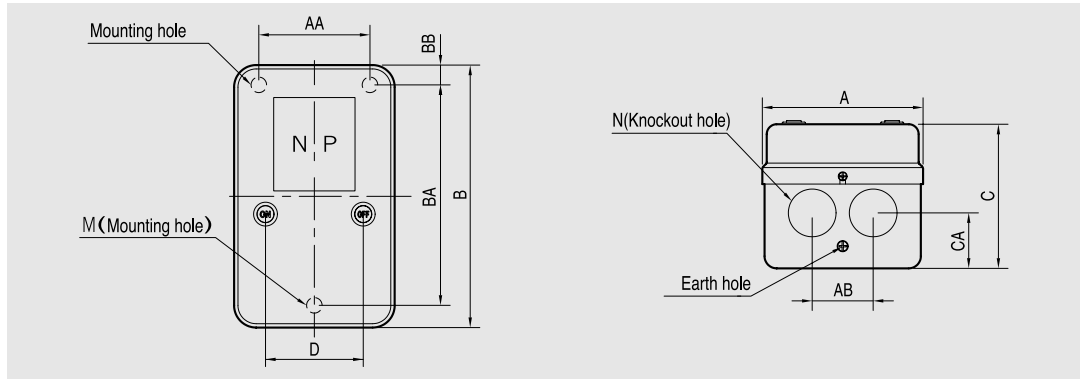
## Enclosed motor starters with push buttons

### Metal enclosure

GMW-9B~22B

GMW-9B/3~22B/3

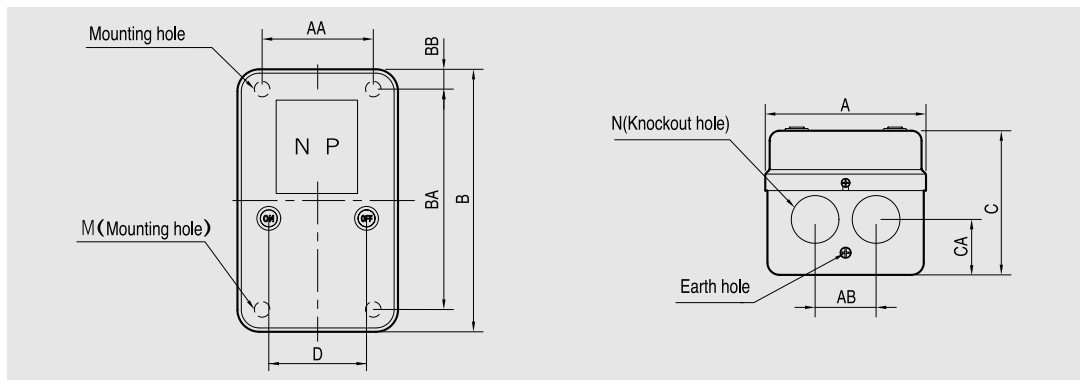
GMW-9B/K~22B/K



GMW-32B~85B

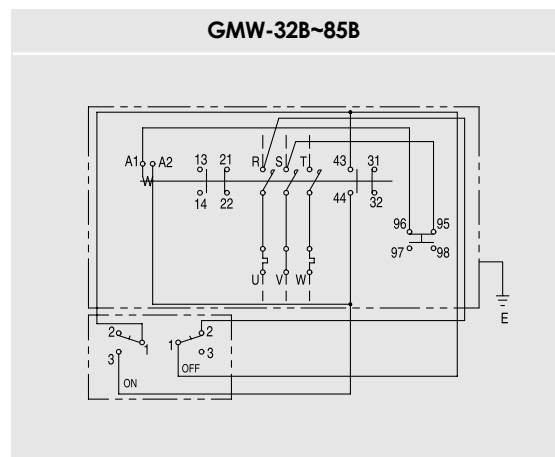
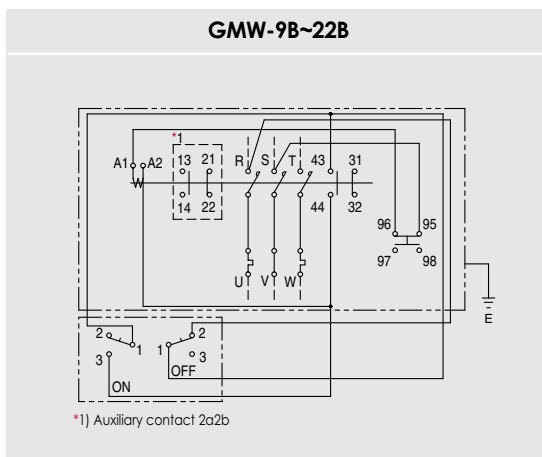
GMW-32B/3~85B/3

GMW-32B/K~85B/K



Type	A	AA	AB	B	BA	BB	C	CA	D	M	N	Weight(kg)
GMW-9B, 12B, 18B, 22B	104	76	40	170	140	15	114	37	59	M6	φ 22	1.1
GMW-32B, 40B	145	95	55	245	165	17.5	130	50	97	M6	φ 35	1.7
GMW-50B, 65B, 75B, 85B	160	120	74	290	220	35	141.5	50	114	M6	φ 35	3.6

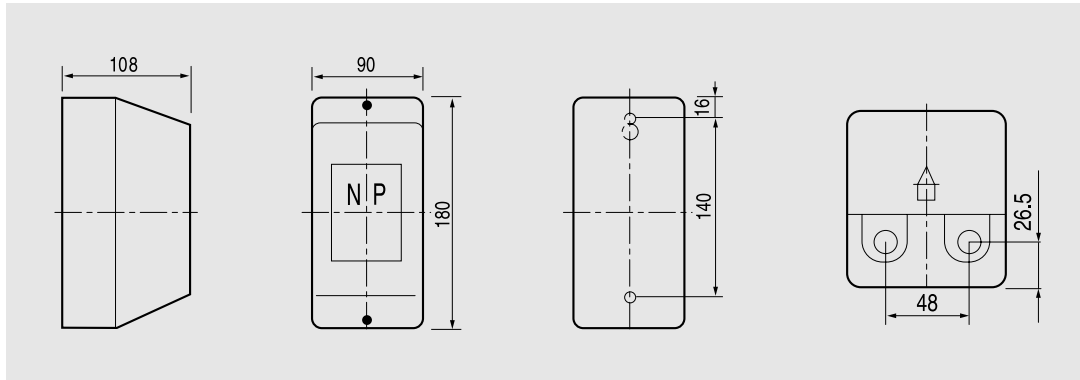
### Circuit diagram



## Mould enclosure

### Types without push buttons

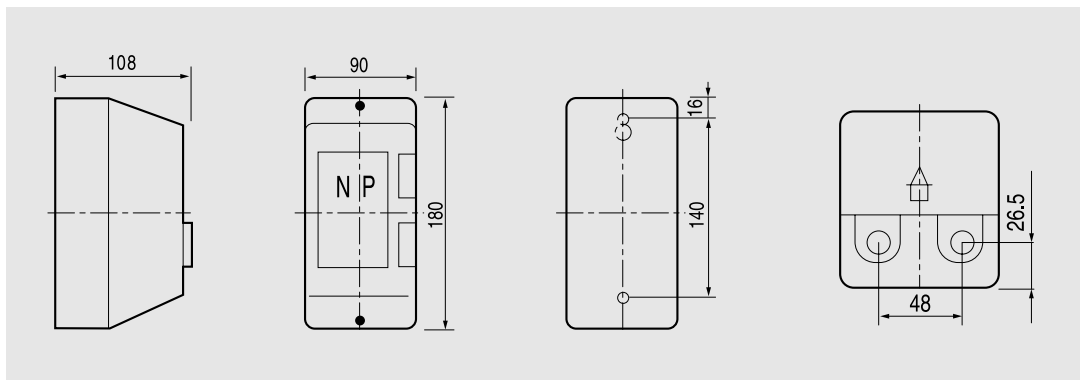
- GMW-9M~22M
- GMW-9M/K~22M/K



GMW-9M, 12M:0.83kg  
GMW-18M, 22M:0.88kg

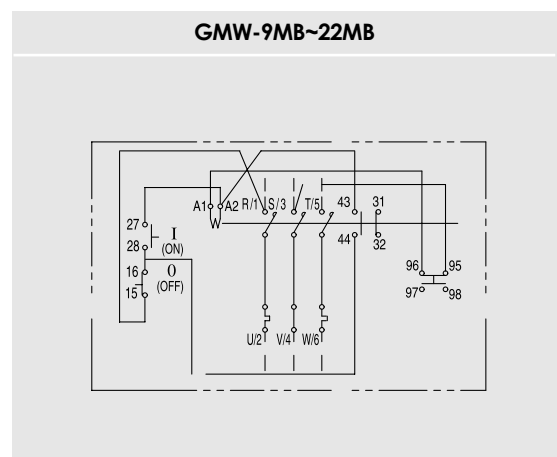
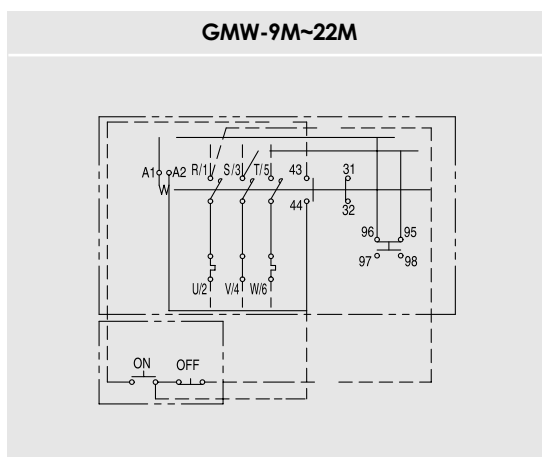
### Types with push buttons

- GMW-9MB~22MB
- GMW-9MB/K~22MB/K



GMW-9MB, 12MB:0.83kg  
GMW-18MB, 22MB:0.88kg

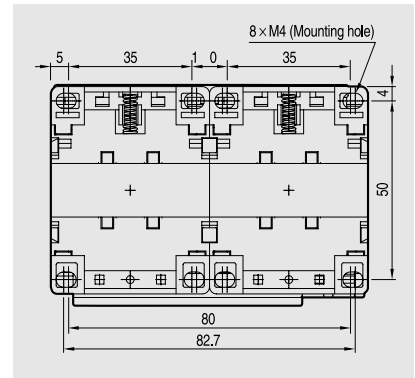
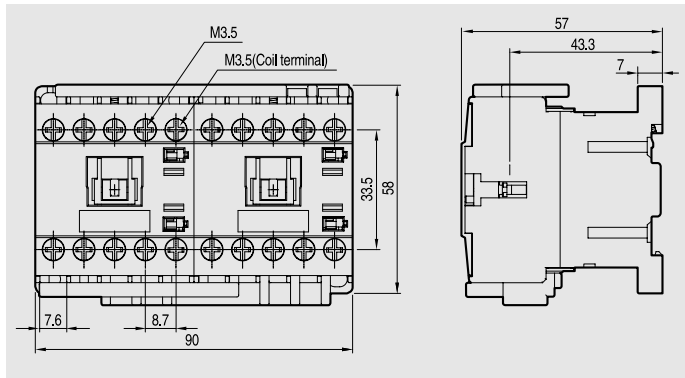
## Circuit diagram



# Dimensions

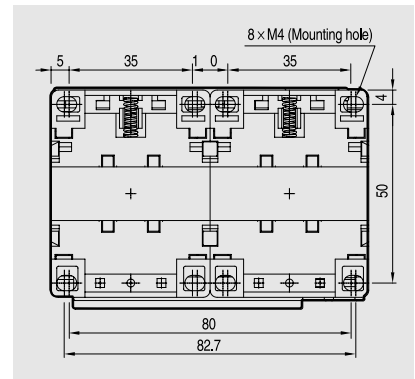
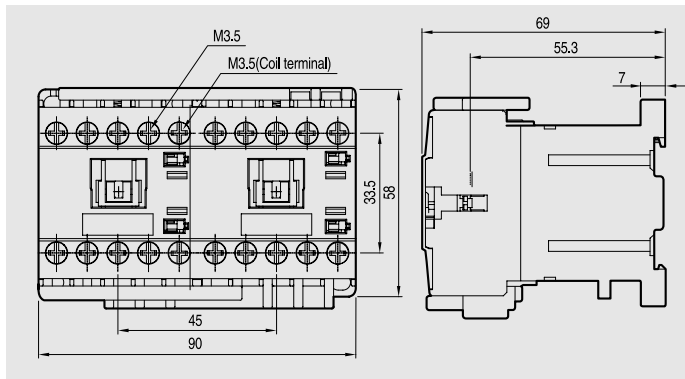
## Mini contactors, Reversing type

- GMC-6MR
- GMC-9MR
- GMC-12MR
- GMC-16MR
- GMC-6MR/4
- GMC-9MR/4
- GMC-12MR/4
- GMC-16MR/4



Weight: 0.36kg

- GMD-6MR
- GMD-9MR
- GMD-12MR
- GMD-16MR
- GMD-6MR/4
- GMD-9MR/4
- GMD-12MR/4
- GMD-16MR/4

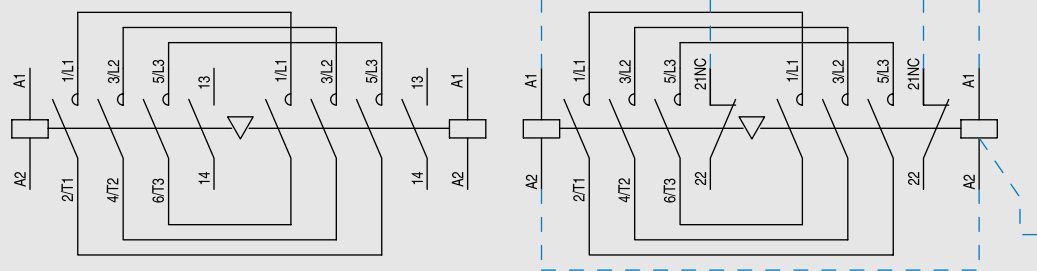


Weight: 0.48kg

### Circuit diagram

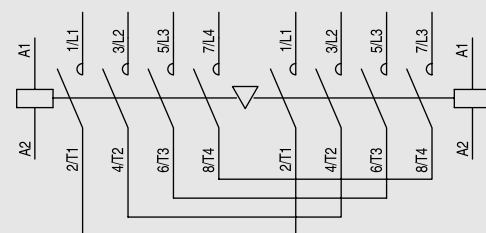
#### GMC-6MR~16MR, GMD-6MR~16MR

3-Pole contactors



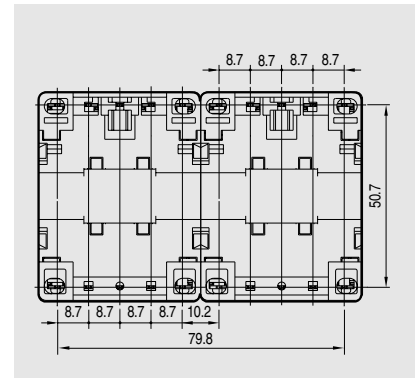
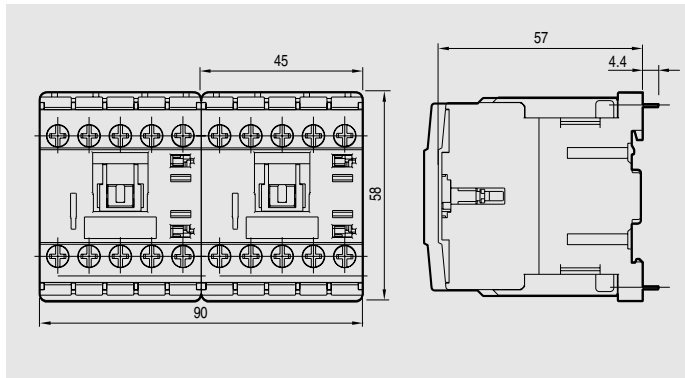
#### GMC-6MR/4~16MR/4, GMD-6MR/4~16MR/4

4-Pole contactors



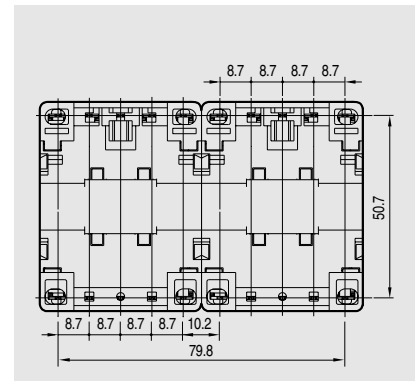
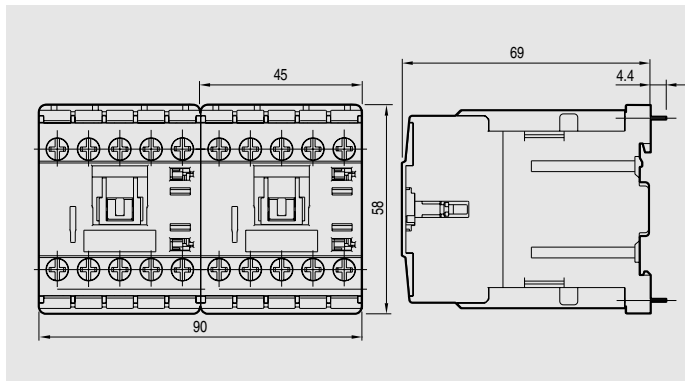


- GMC-6MPR
- GMC-9MPR
- GMC-12MPR
- GMC-16MPR
- GMC-6MPR/4
- GMC-9MPR/4
- GMC-12MPR/4
- GMC-16MPR/4



Weight: 0.38kg

- GMD-6MPR
- GMP-9MPR
- GMD-12MPR
- GMD-16MPR
- GMD-6MPR/4
- GMD-9MPR/4
- GMD-12MPR/4
- GMD-16MPR/4

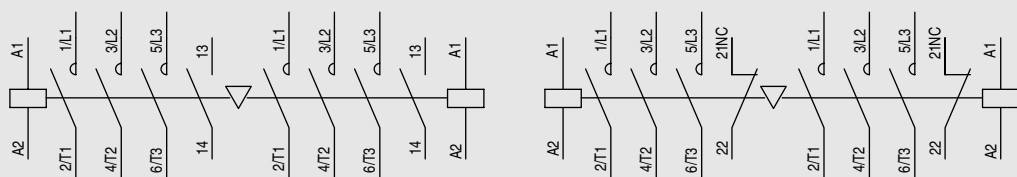


Weight: 0.56kg

### Circuit diagram

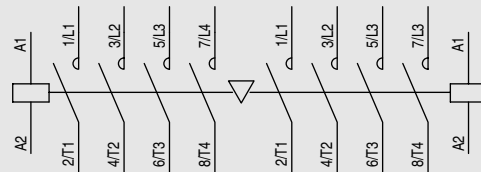
#### GMC-6MPR~16MPR, GMD-6MPR~16MPR

3-Pole contactors



#### GMC-6MPR/4~16MPR/4, GMD-6MPR/4~16MPR/4

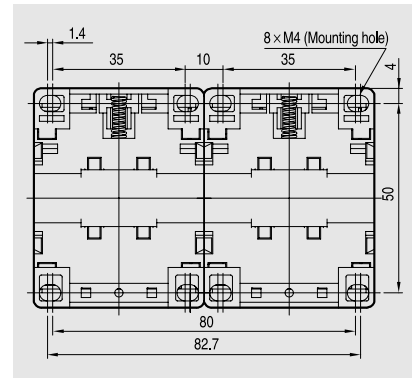
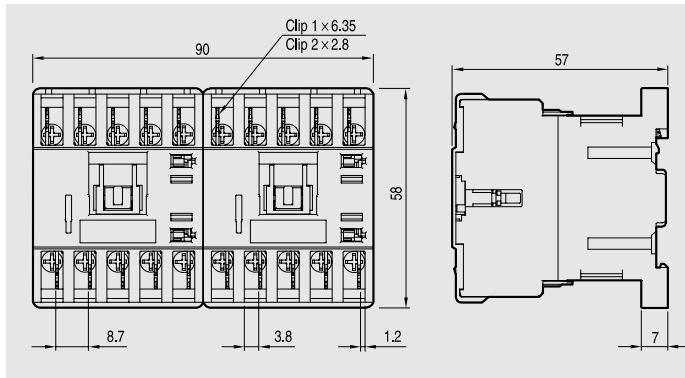
4-Pole contactors



# Dimensions

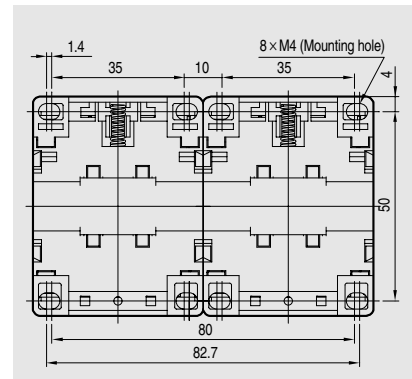
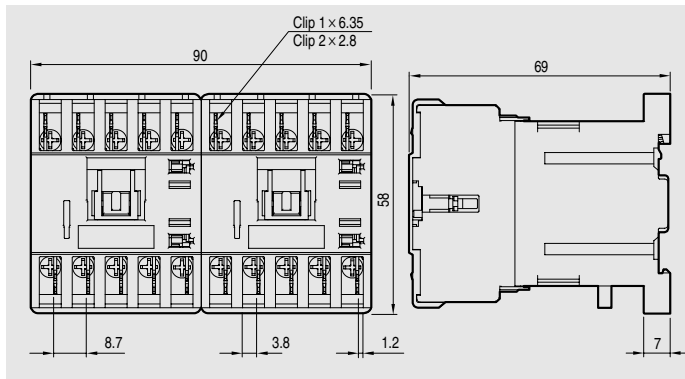
## Mini contactors, Reversing type

- GMC-6MFR
- GMC-9MFR
- GMC-12MFR
- GMC-16MFR
- GMC-6MFR/4
- GMC-9MFR/4
- GMC-12MFR/4
- GMC-16MFR/4



Weight: 0.36kg

- GMD-6MFR
- GMD-9MFR
- GMD-12MFR
- GMD-16MFR
- GMD-6MFR/4
- GMD-9MFR/4
- GMD-12MFR/4
- GMD-16MFR/4

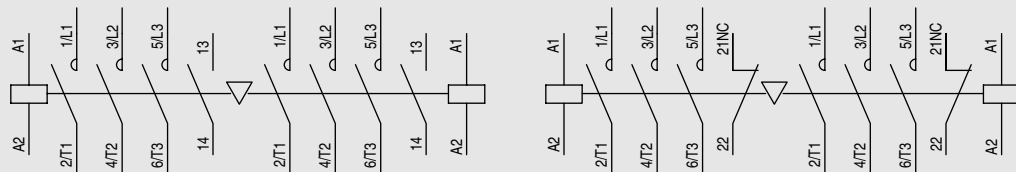


Weight: 0.54kg

### Circuit diagram

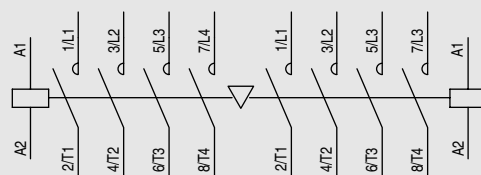
#### GMC-6MFR~16MFR, GMD-6MFR~16MFR

3-Pole contactors

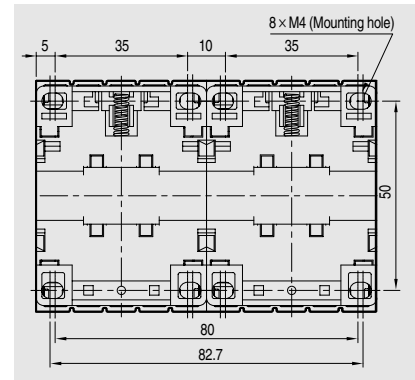
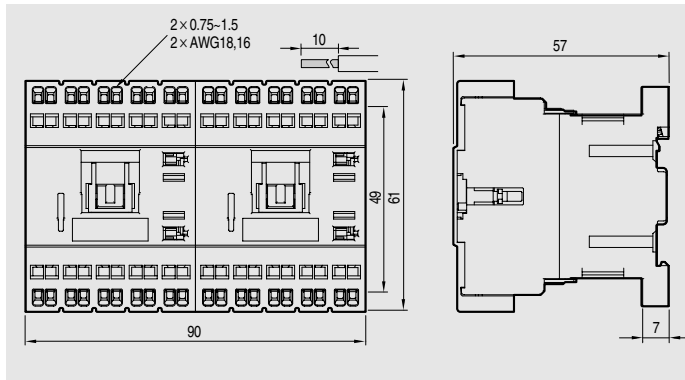


#### GMC-6MFR/4~16MFR/4, GMD-6MFR/4~16MFR/4

4-Pole contactors

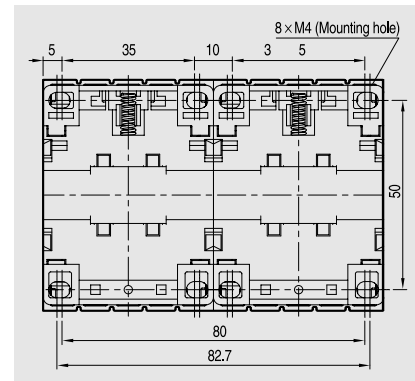
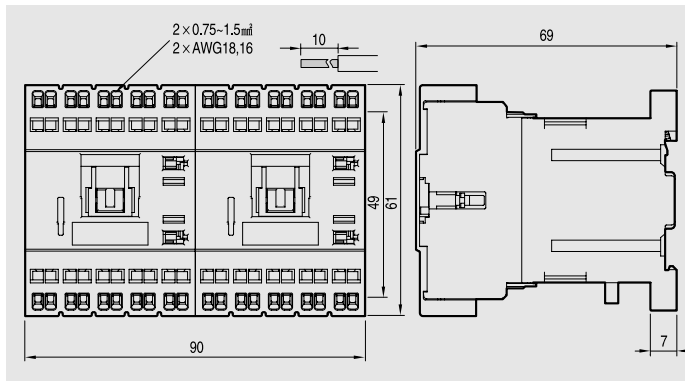


- GMC-6MCR
- GMC-9MCR
- GMC-12MCR
- GMC-16MCR
- GMC-6MCR/4
- GMC-9MCR/4
- GMC-12MCR/4
- GMC-16MCR/4



Weight: 0.38kg

- GMD-6MCR
- GMD-9MCR
- GMD-12MCR
- GMD-16MCR
- GMD-6MCR/4
- GMD-9MCR/4
- GMD-12MCR/4
- GMD-16MCR/4

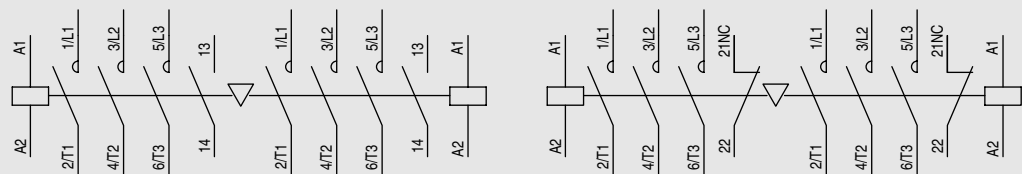


Weight: 0.56kg

## Circuit diagram

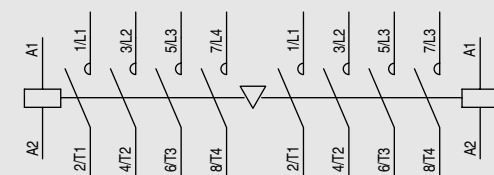
### GMC-6MCR~16MCR, GMD-6MCR~16MCR

3-Pole contactors



### GMC-6MCR/4~16MCR/4, GMD-6MCR/4~16MCR/4

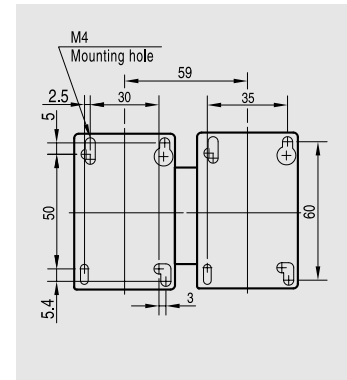
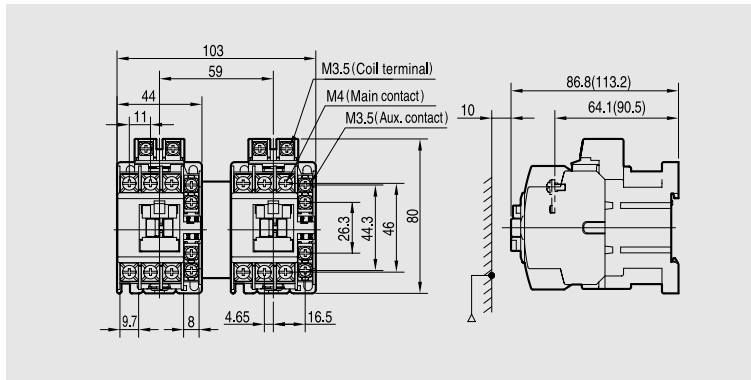
4-Pole contactors



# Dimensions

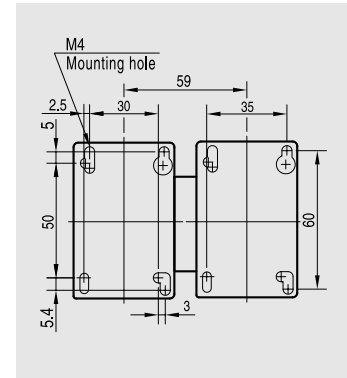
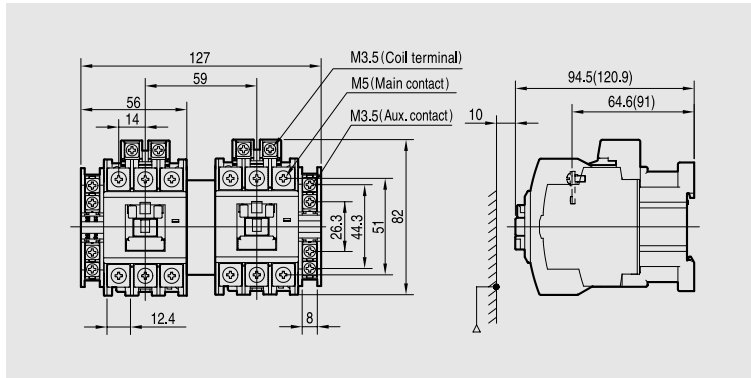
## Reversing contactors , 3-pole

- GMC(D)-9R
- GMC(D)-12R
- GMC(D)-18R
- GMC(D)-22R



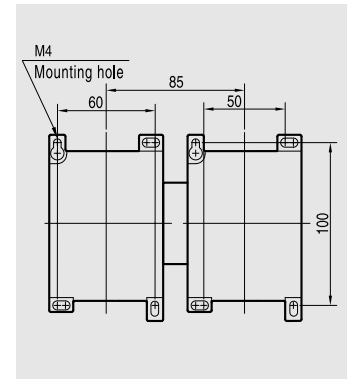
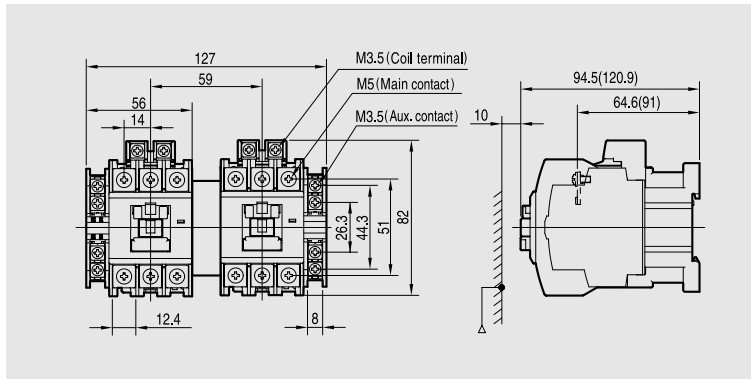
GMC(D)-9R, 12R:0.69(1.13)kg  
GMC(D)-18R, 22R:0.77(1.21)kg

- GMC(D)-32R
- GMC(D)-40R



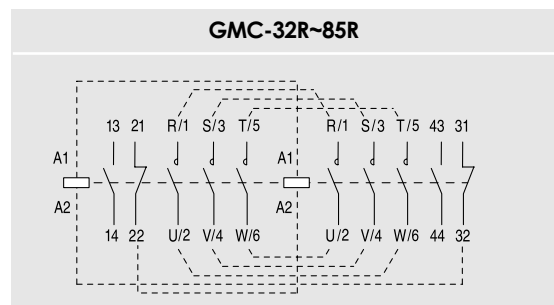
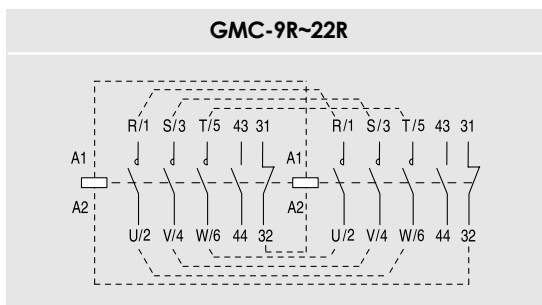
1.0(1.44)kg

- GMC(D)-50R
- GMC(D)-65R
- GMC(D)-75R
- GMC(D)-85R



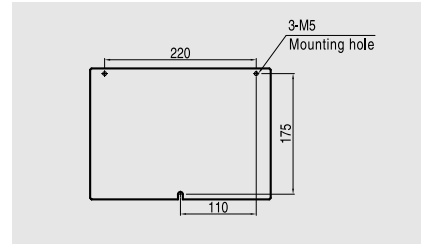
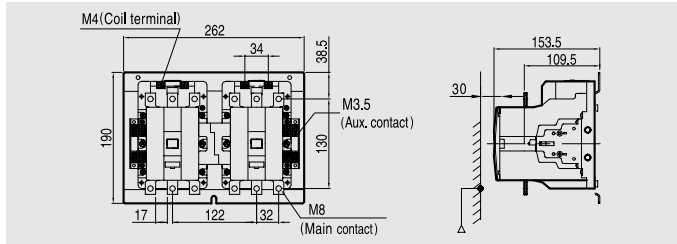
2.1(2.2)kg

### Circuit diagram



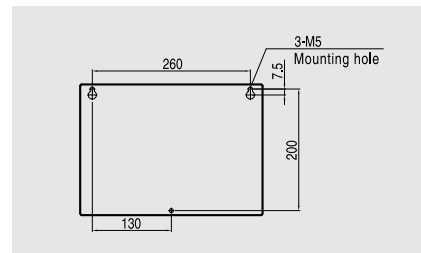
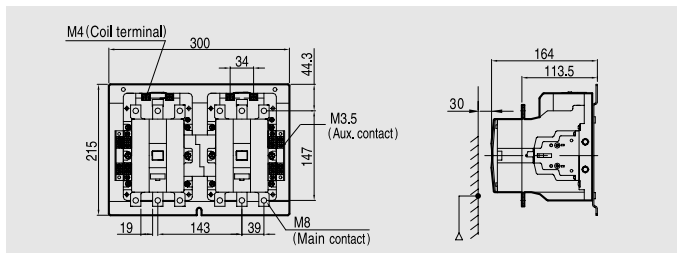
**GMC-100R**

**GMC-125R**



6.7kg

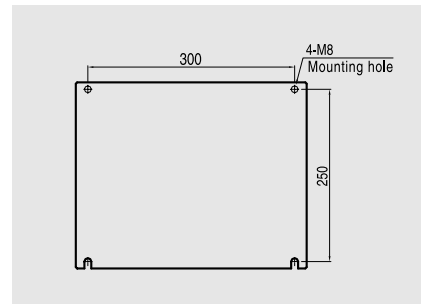
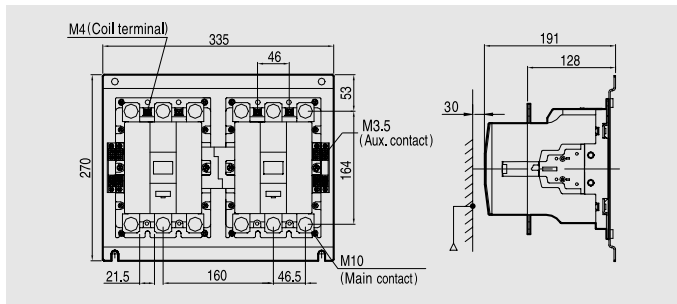
**GMC-150R**



8.1kg

**GMC-180R**

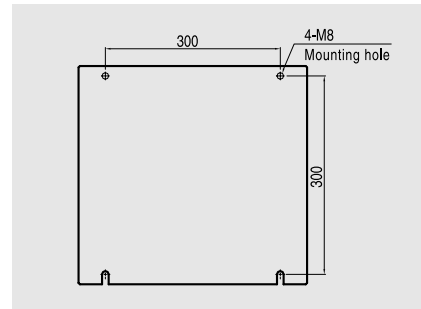
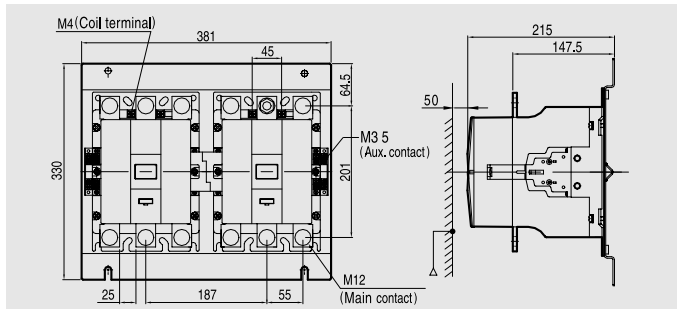
**GMC-220R**



12.9kg

**GMC-300R**

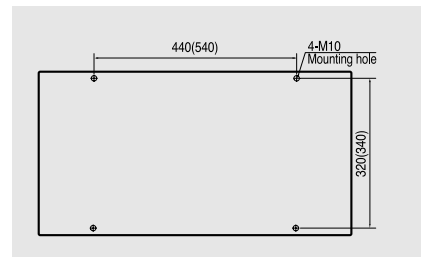
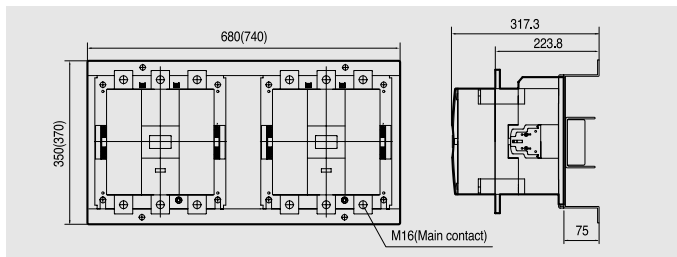
**GMC-400R**



21.4kg

**GMC-600R**

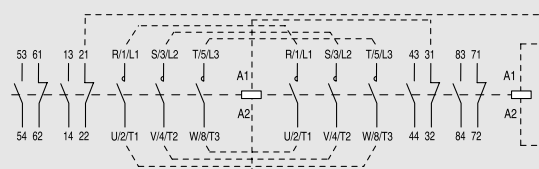
**GMC-800R**



60kg

**Circuit diagram**

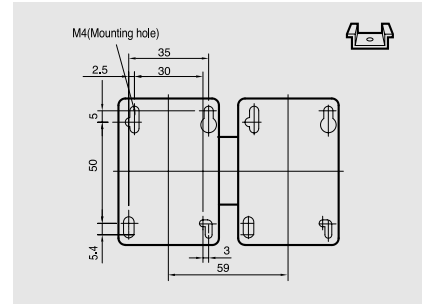
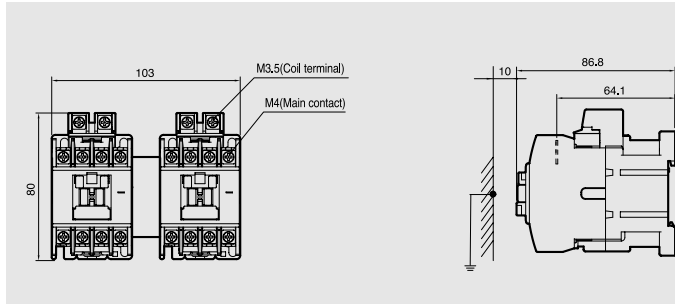
**GMC-100R~800R**



# Dimensions

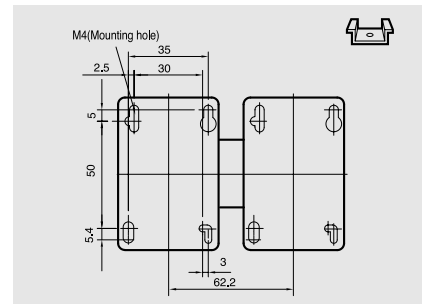
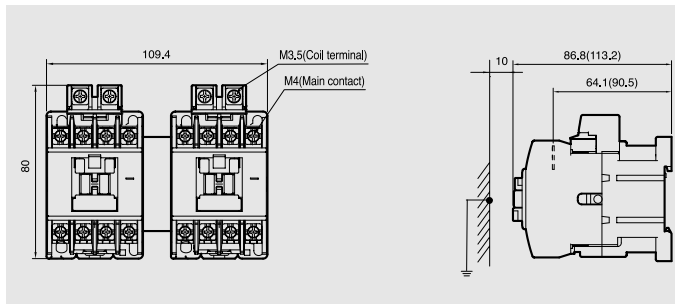
## Reversing contactors , 4-pole

- GMC-9R/4
- GMC-12R/4
- GMC-18R/4
- GMC-22R/4



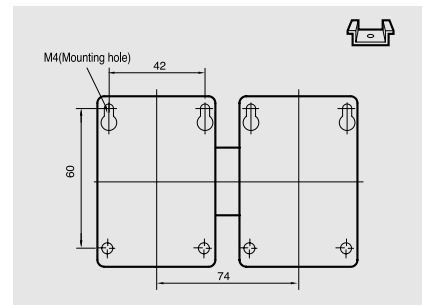
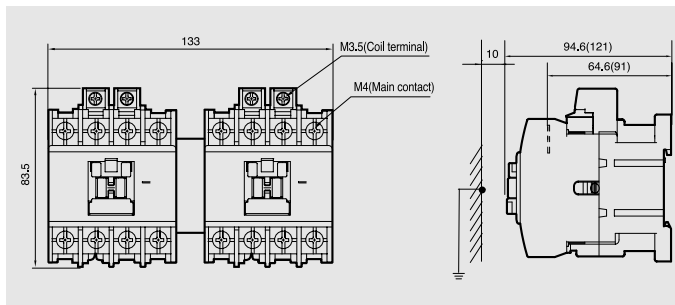
3.33kg

- GMD-9R/4
- GMD-12R/4
- GMD-18R/4
- GMD-22R/4



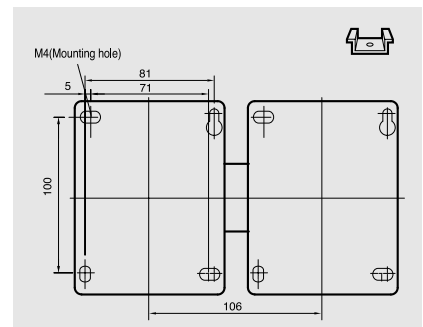
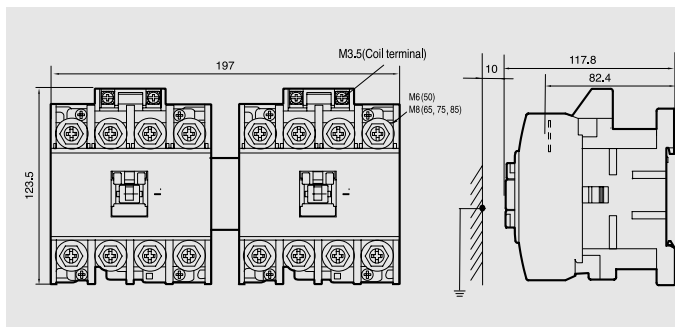
0.4kg

- GMC(D)-32/4
- GMC(D)-40/4



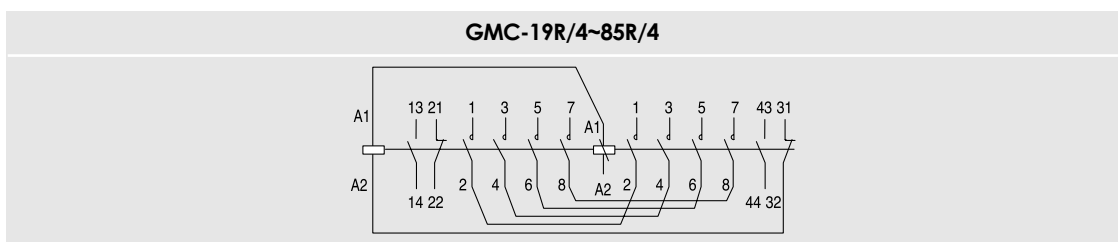
0.59kg

- GMC(D)-50/4
- GMC(D)-65/4
- GMC(D)-75/4
- GMC(D)-85/4

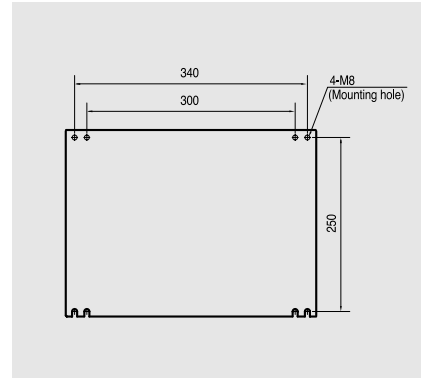
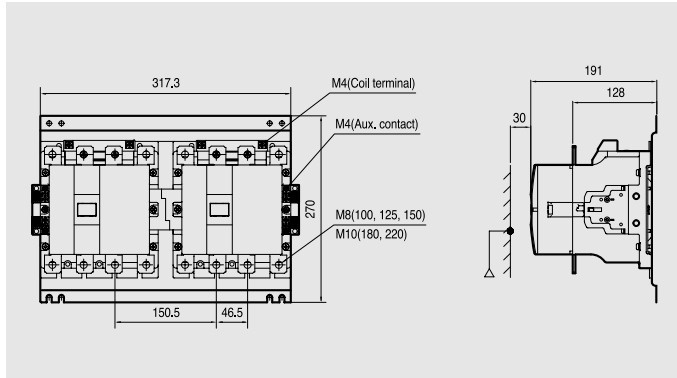


1.2kg

### Circuit diagram

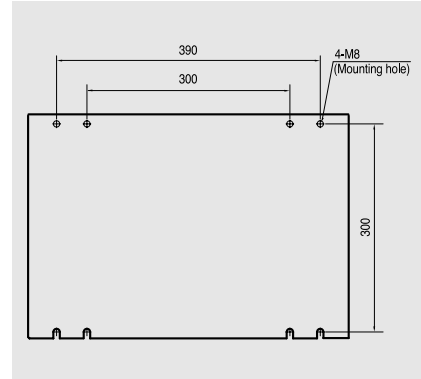
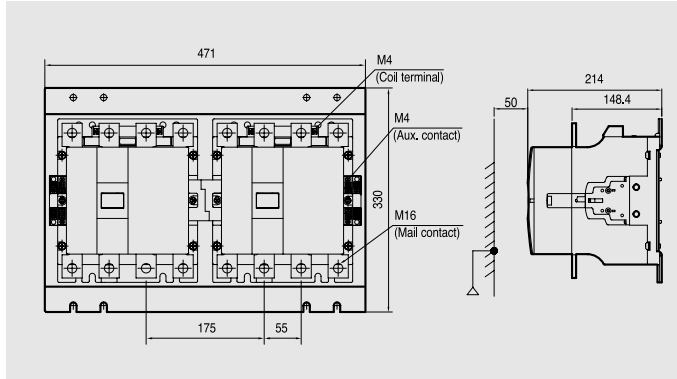


- GMC-100/4R
- GMC-125/4R
- GMC-150/4R
- GMC-180/4R
- GMC-220/4R



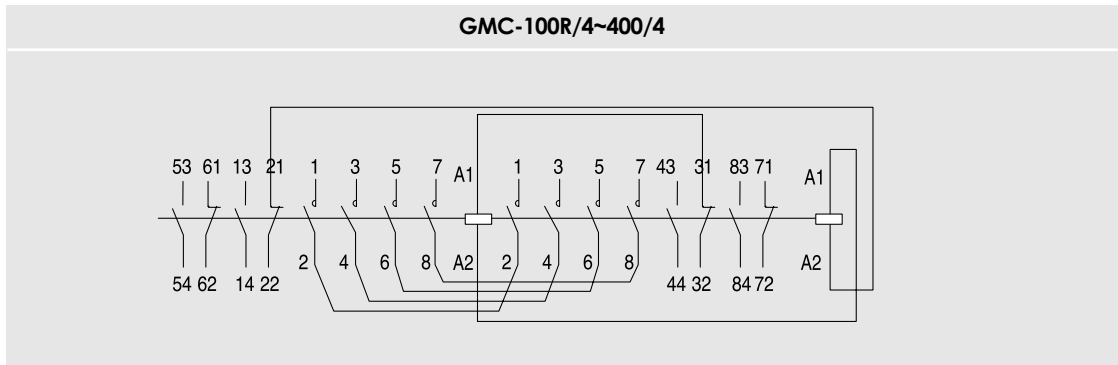
5.6kg

- GMC-300/4R
- GMC-400/4R



9.9kg

### Circuit diagram



# Dimensions

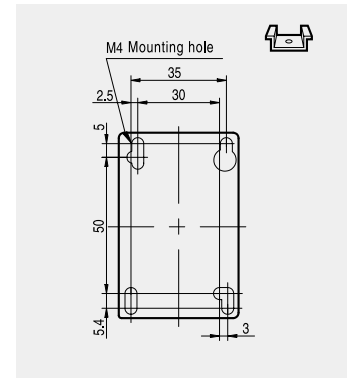
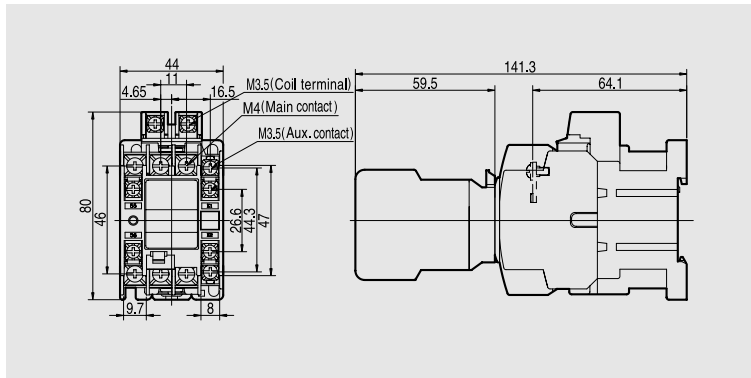
## Latching contactors

GMC-9L

GMC-12L

GMC-18L

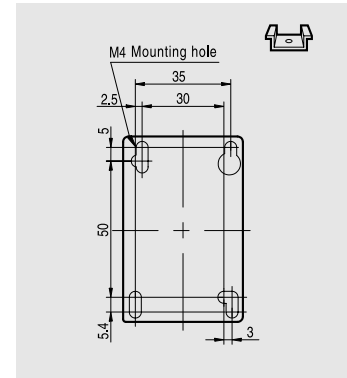
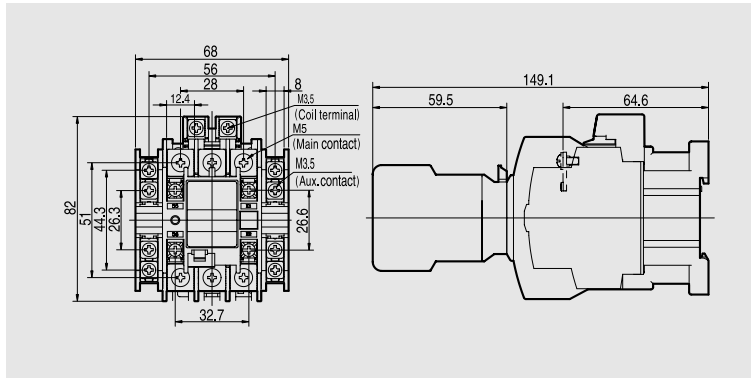
GMC-22L



GMC-9L,12L:0.47kg  
GMC-18L,22L :0.51kg

GMC-32L

GMC-40L



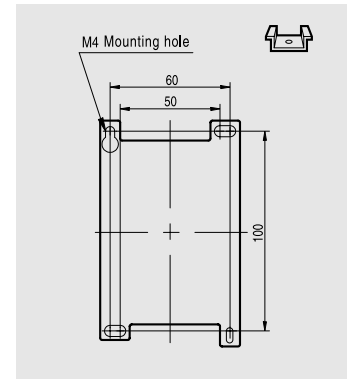
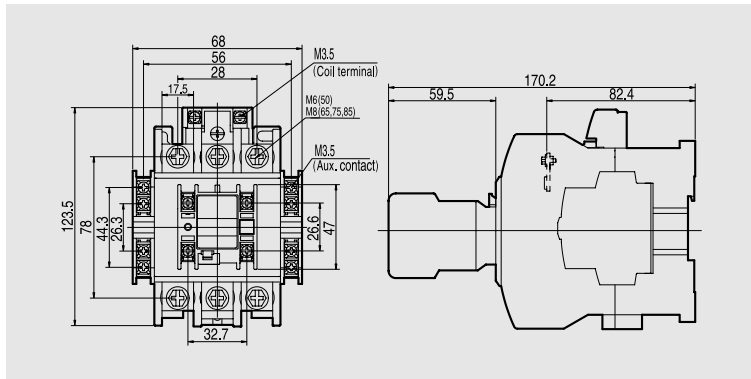
0.59kg

GMC-50L

GMC-65L

GMC-75L

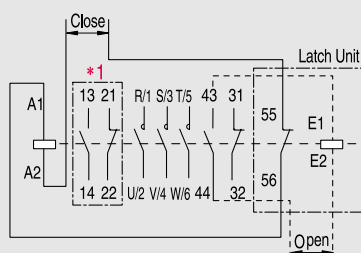
GMC-85L



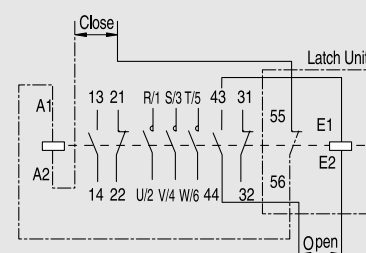
1.14kg

### Circuit diagram

GMC-9L~22L



GMC-32L~85L

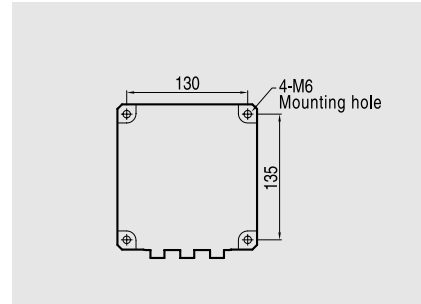
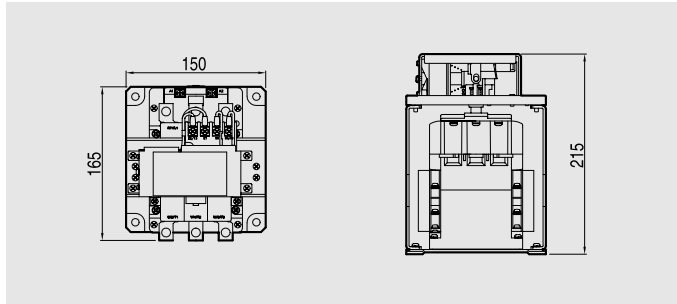


\* 1: Aux. contacts 2NO 2NC



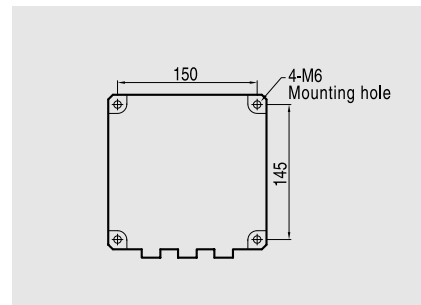
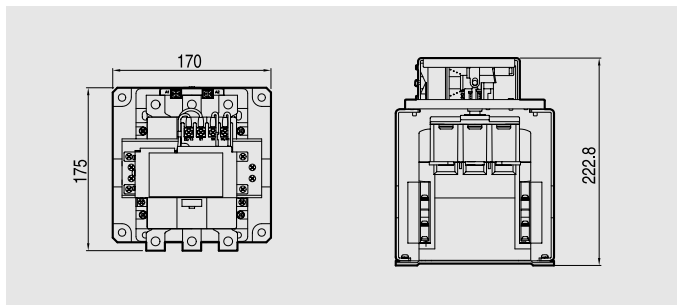
GMC-100L

GMC-125L



4.5kg

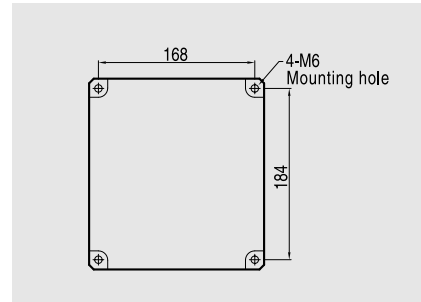
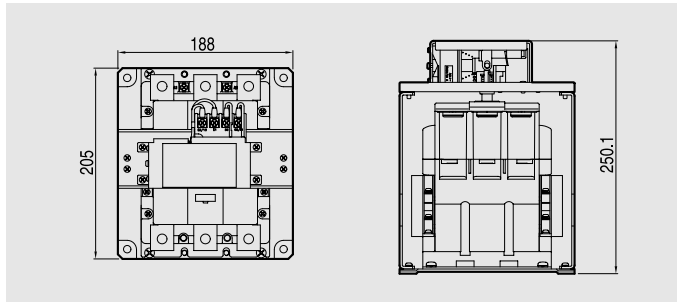
GMC-150L



5.1kg

GMC-180L

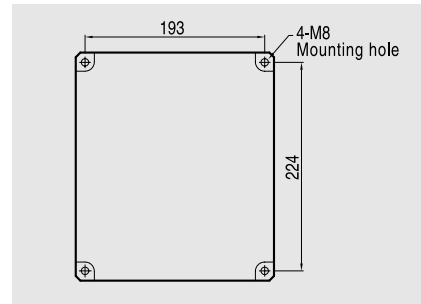
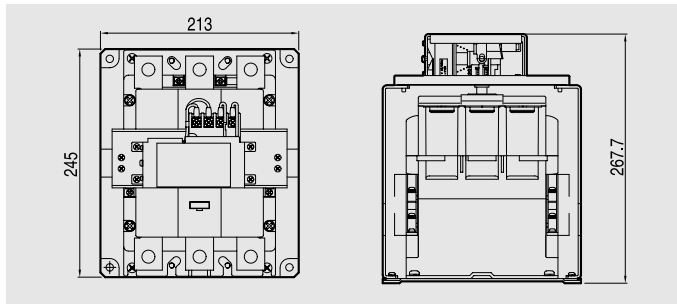
GMC-220L



7.4kg

GMC-300L

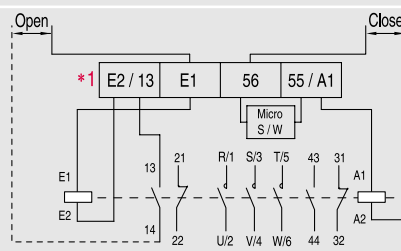
GMC-400L



11.6kg

### Circuit diagram

#### GMC-100L ~ 400L

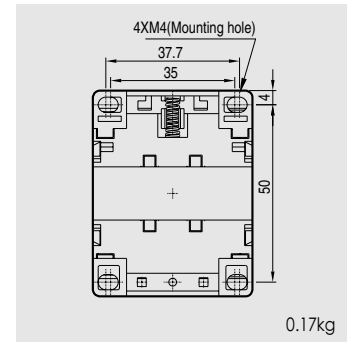
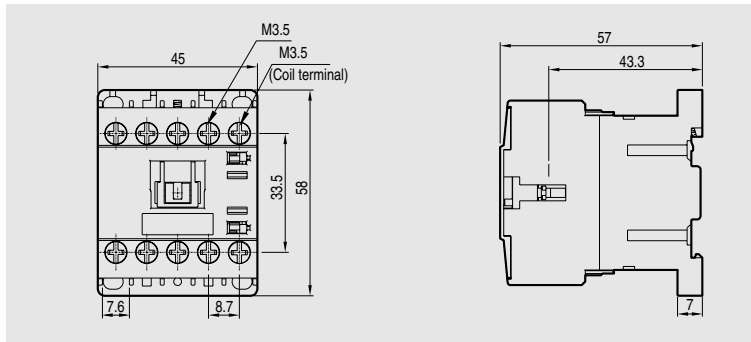


\* 1 : Customer wiring shown intermittent.

# Dimensions

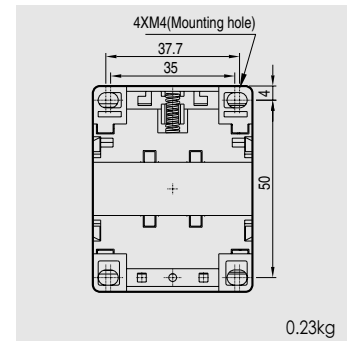
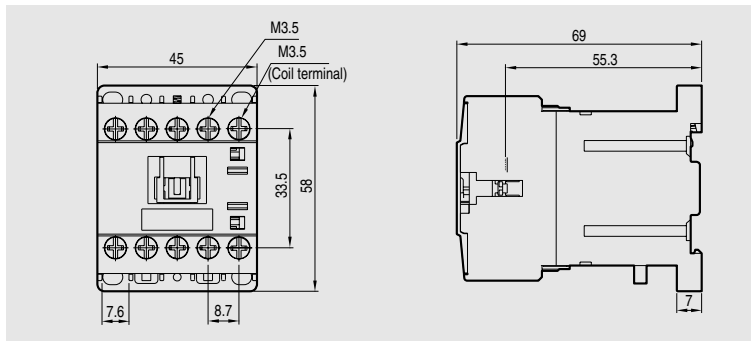
## Mini contactor relays

**GMR-4M**



0.17kg

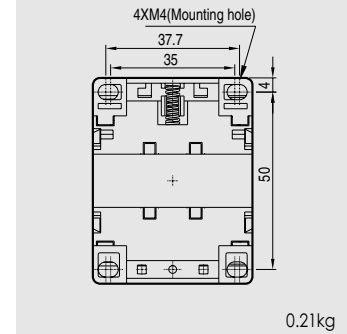
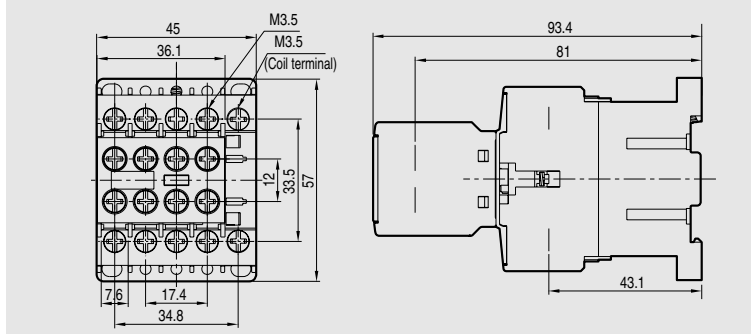
**GMR-4MD**



0.23kg

**GMR-4M**

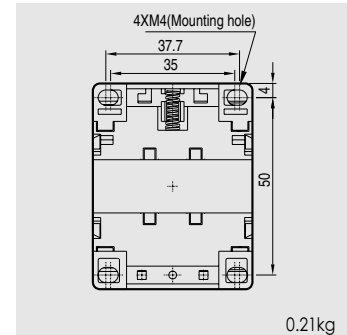
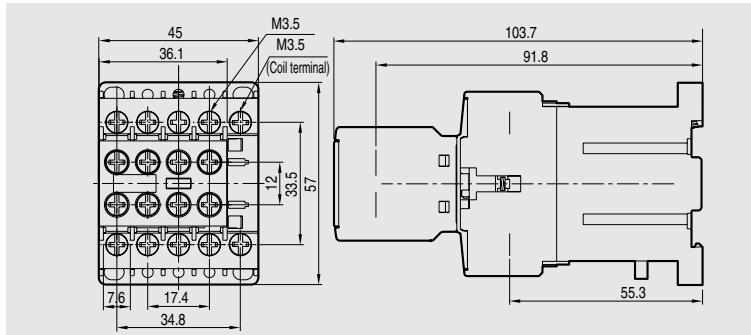
**GMR-8M**



0.21kg

**GMR-4M**

**GMR-8M**

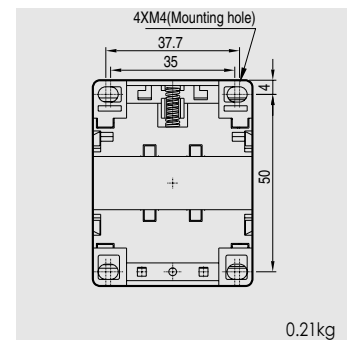
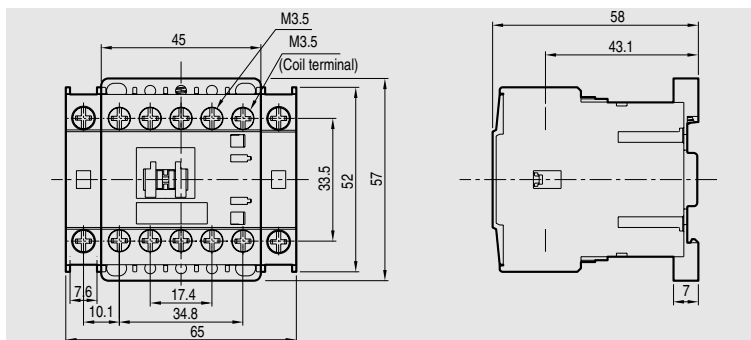


0.21kg

**GMR-4M**

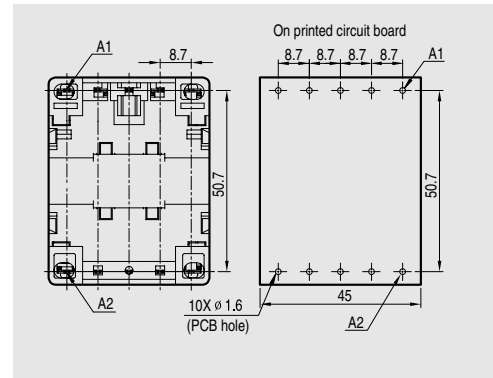
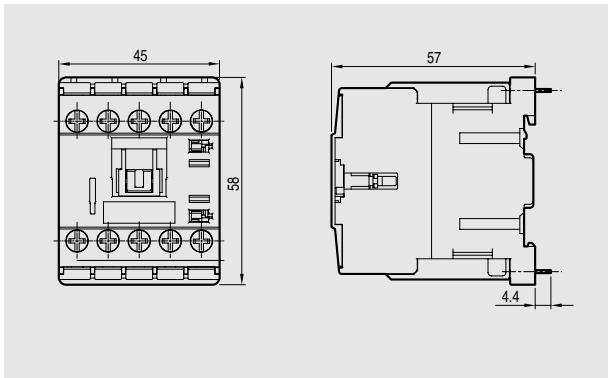
+

**2 × AU-1M**



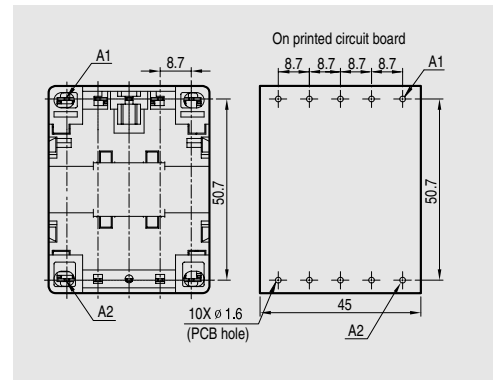
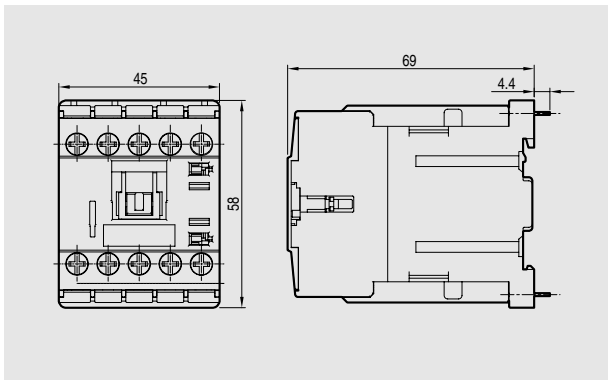
0.21kg

**GMR-4MP**



0.19kg

**GMR-4MPD**

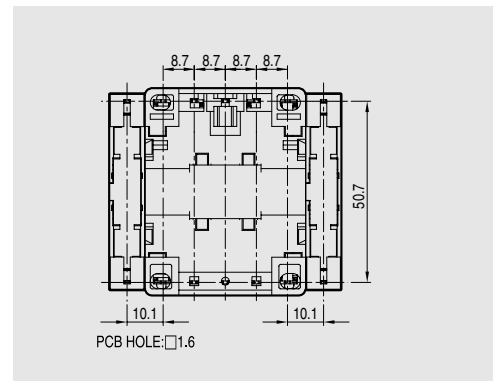
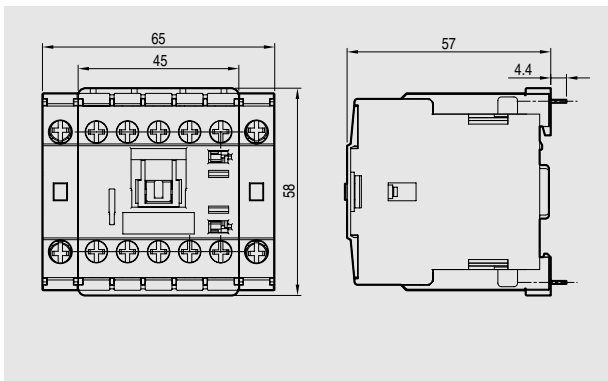


0.28kg

**GMR-4MP**

+

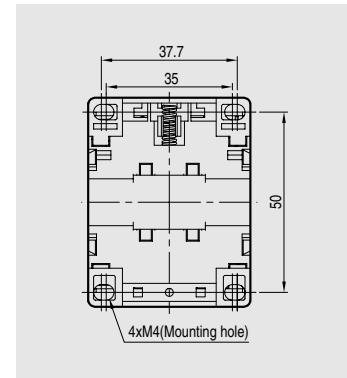
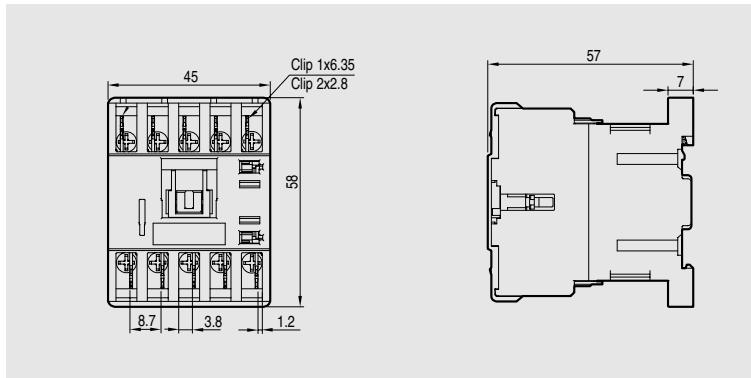
**2 × AU-1M**



# Dimensions

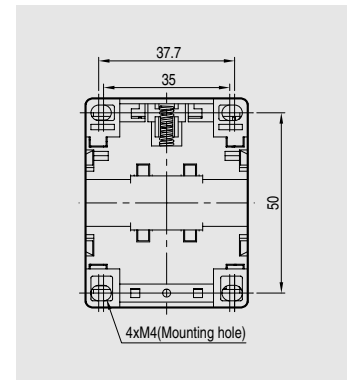
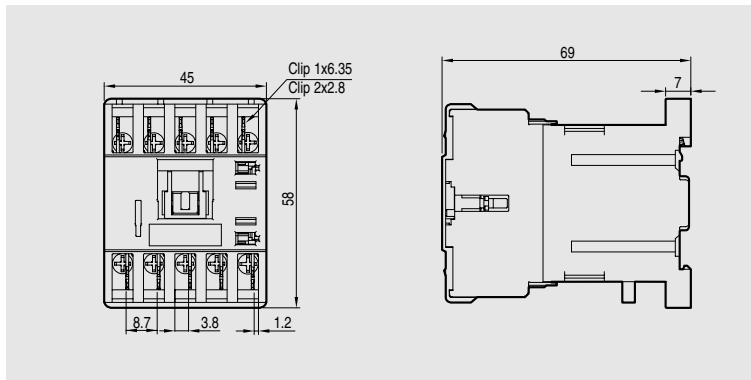
## Mini contactor relays

**GMR-4MF**



0.18kg

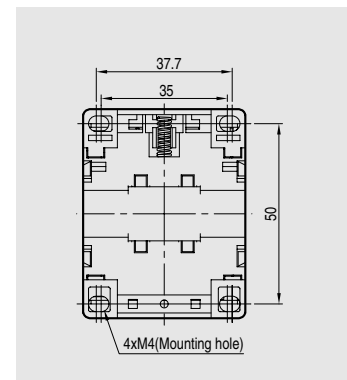
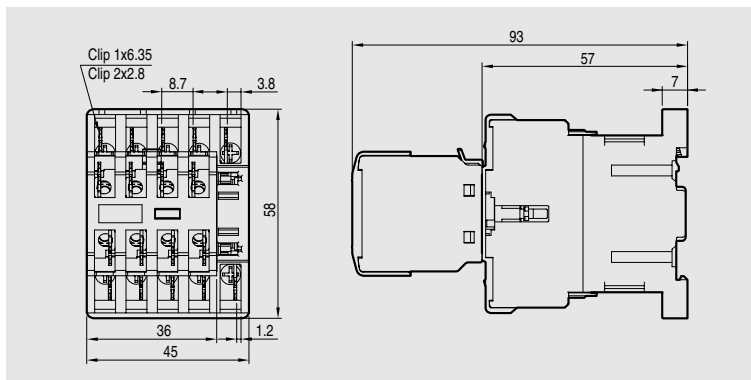
**GMR-4MFD**



0.27kg

**GMR-6MF**

**GMR-8MF**

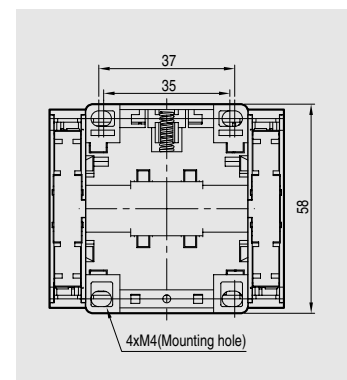
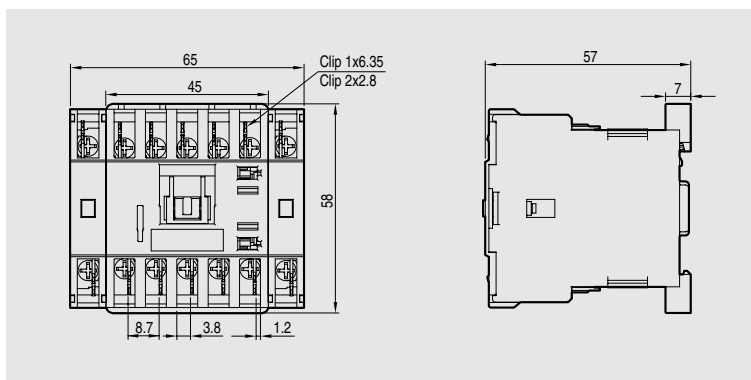


0.23kg

**GMR-4MF**

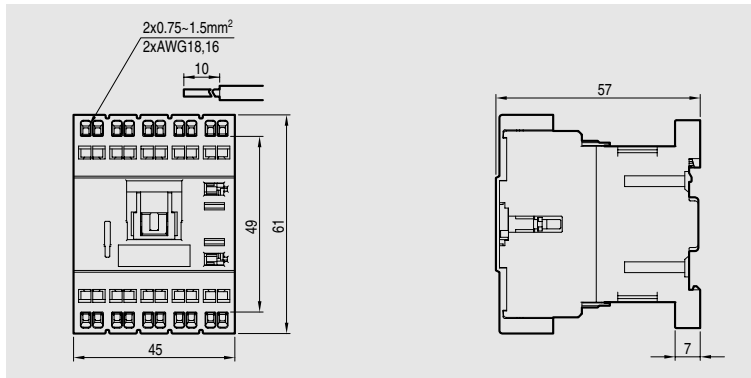
+

**2 × AU-1MF**



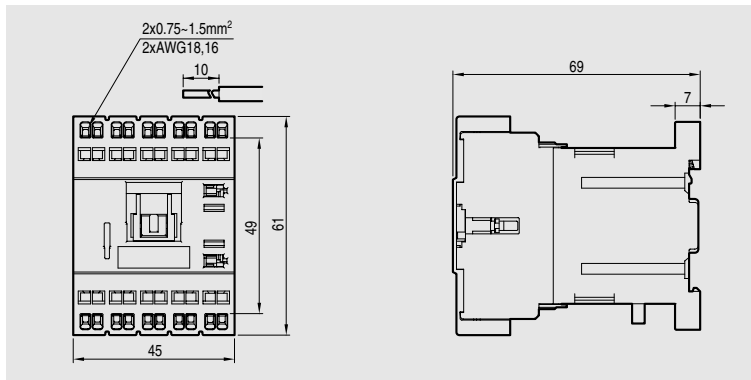
0.32kg

**GMR-4MC**



0.18kg

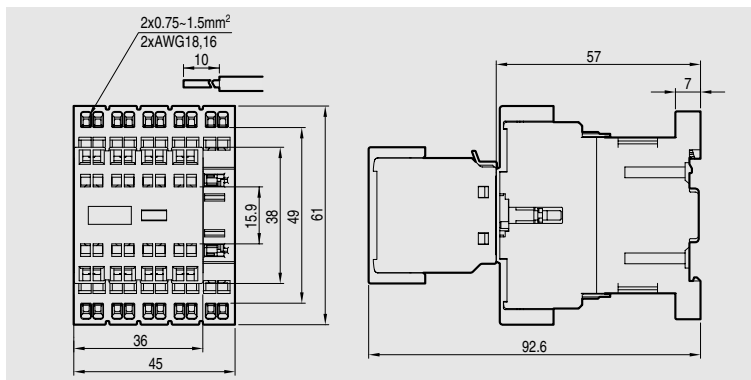
**GMR-4MCD**



0.27kg

**GMR-6MC**

**GMR-8MC**

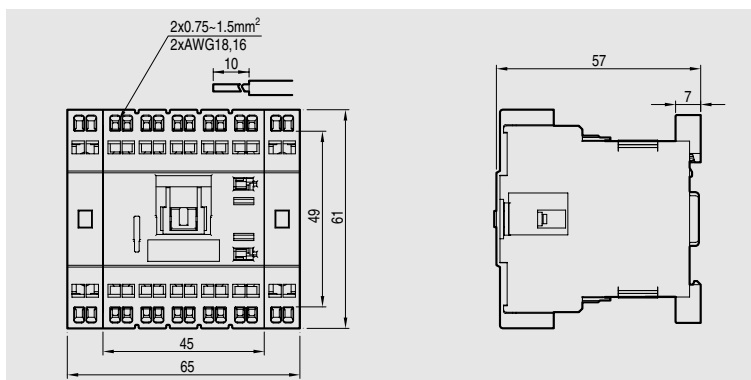


0.23kg

**GMR-4MC**

+

**2 × AU-1MC**

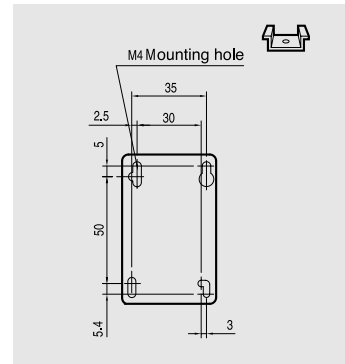
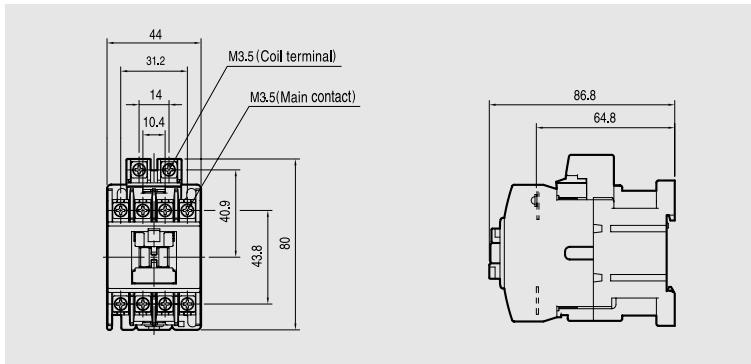


0.32kg

# Dimensions

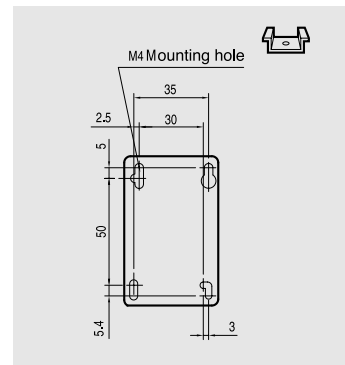
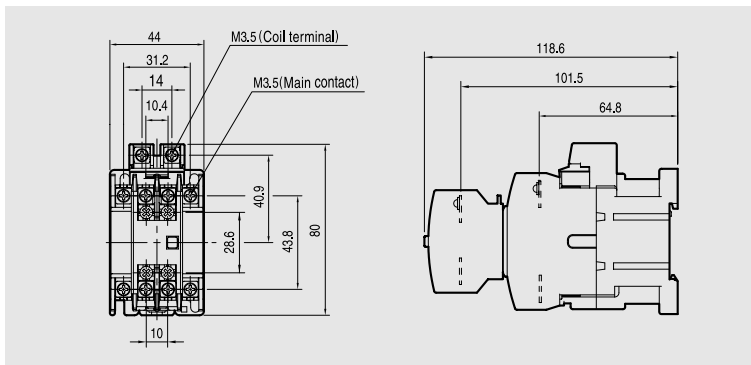
## Contactors relays, AC coil

**GMR-4**



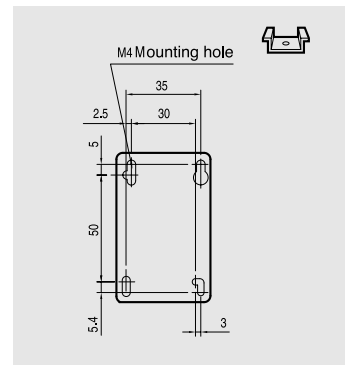
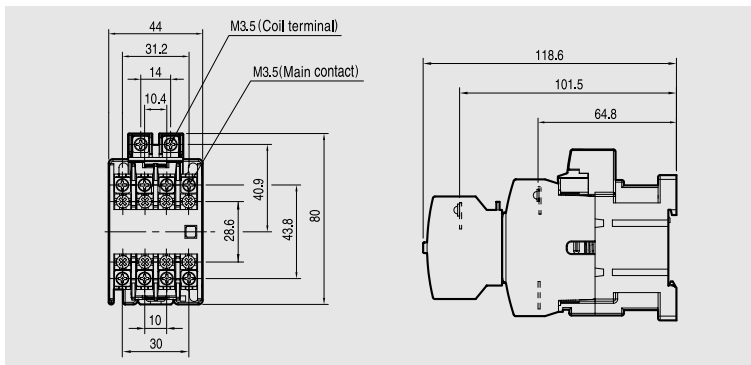
0.33kg

**GMR-6**



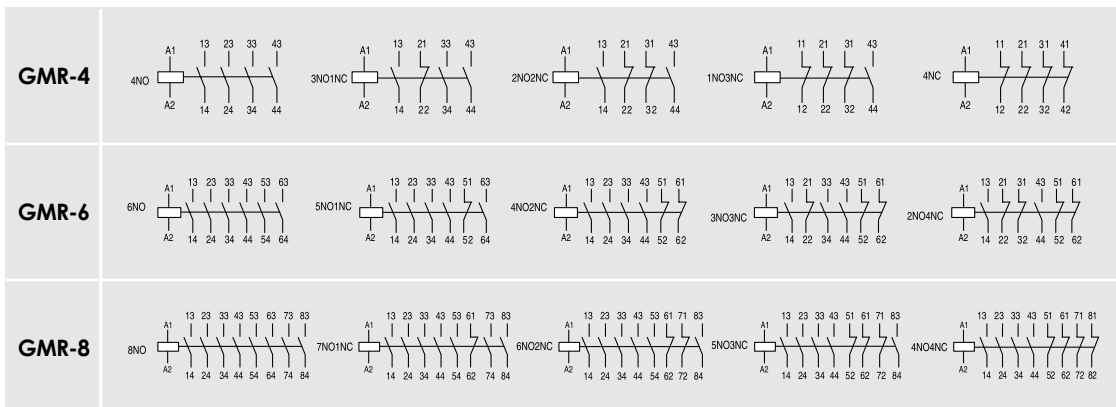
0.36kg

**GMR-8**



0.38kg

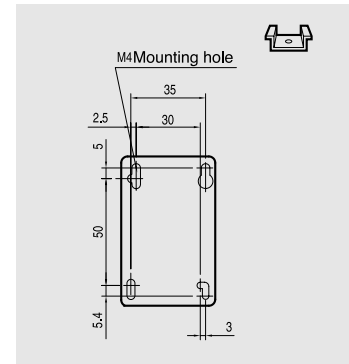
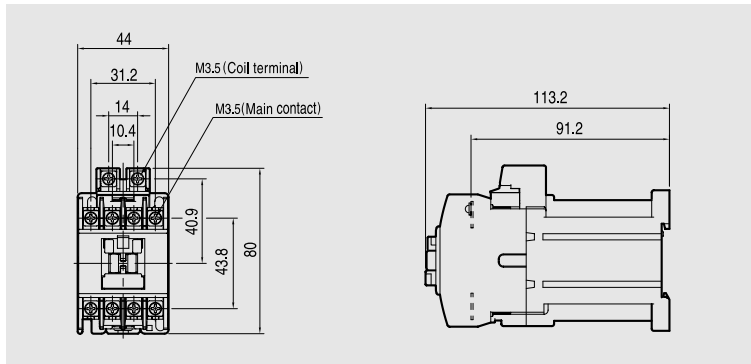
### Circuit diagram



# Contactor relays, DC coil

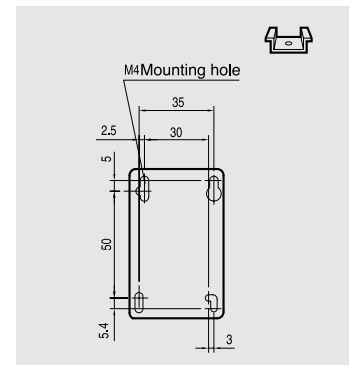
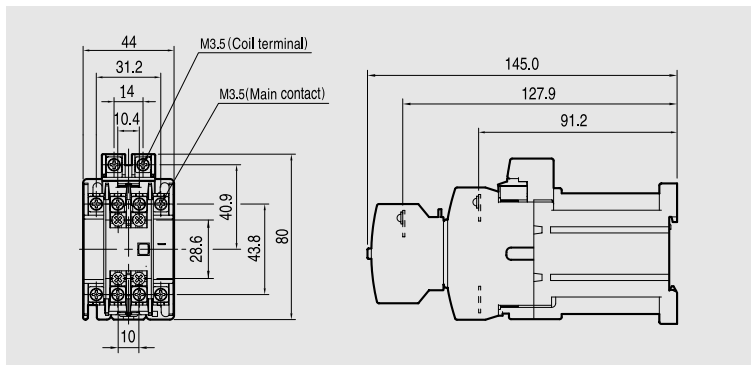


## GMR-4D



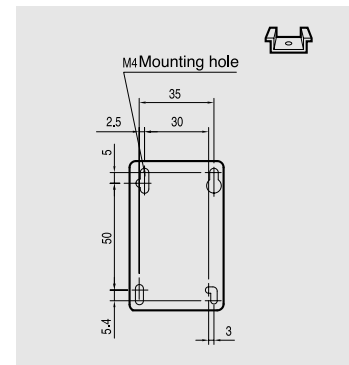
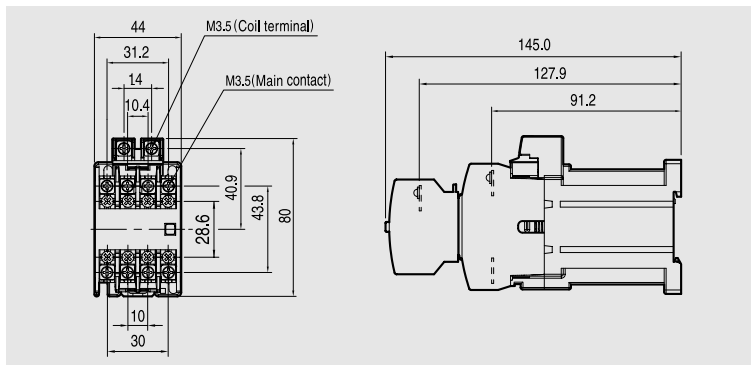
0.55kg

## GMR-6D



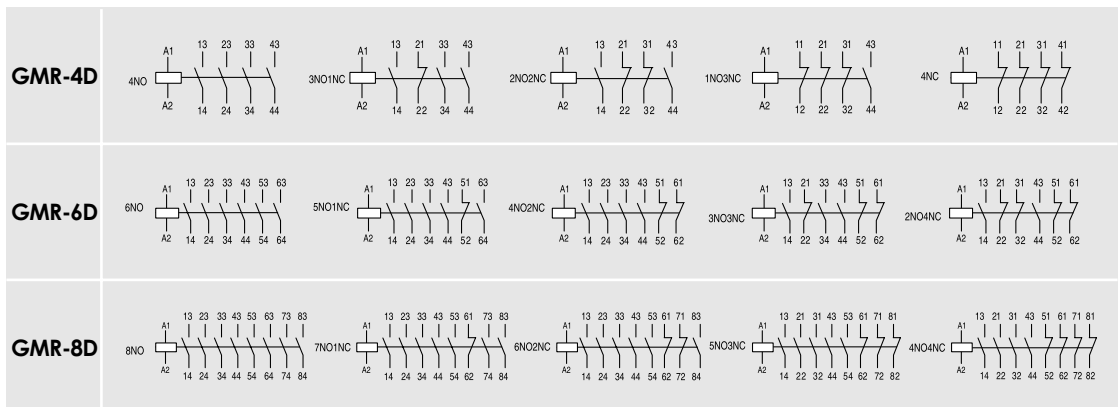
0.57kg

## GMR-8D



0.59kg

## Circuit diagram



# Dimensions

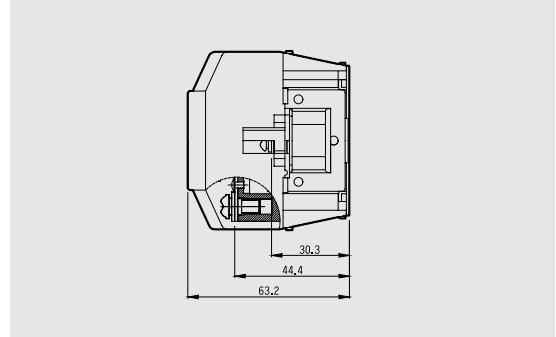
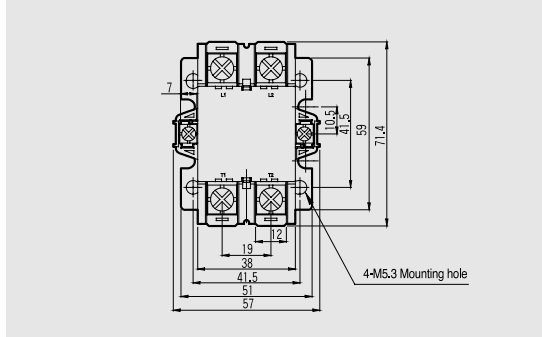
## 2-pole AC Contactors

### Terminal type : TSBS

SMC-20P2

SMC-25P2

SMC-30P2

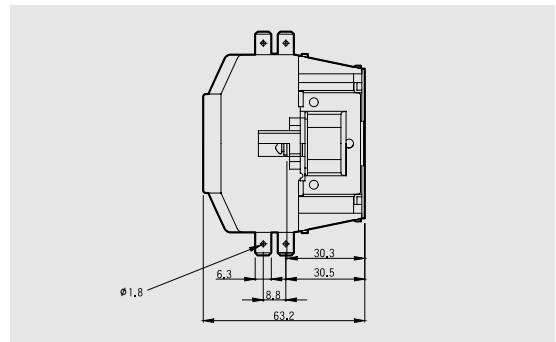
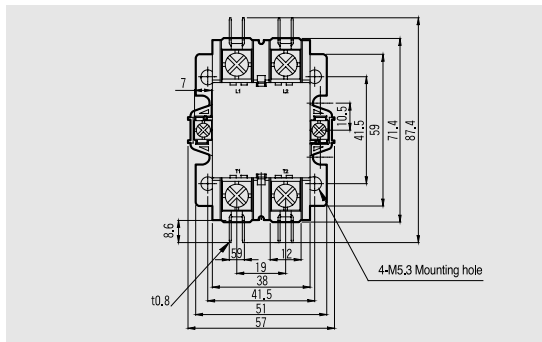


0.25kg

### Terminal type : TQBS

SMC-20P2

SMC-25P2



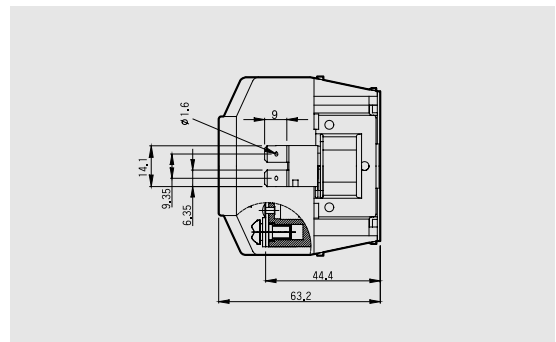
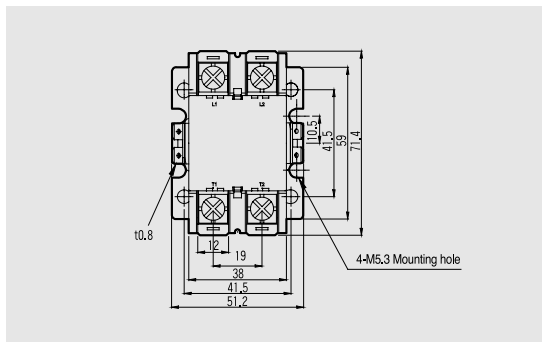
0.26kg

### Terminal type : TSBQ

SMC-20P2

SMC-25P2

SMC-30P2

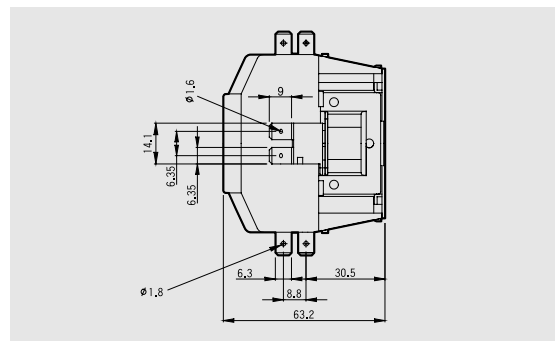
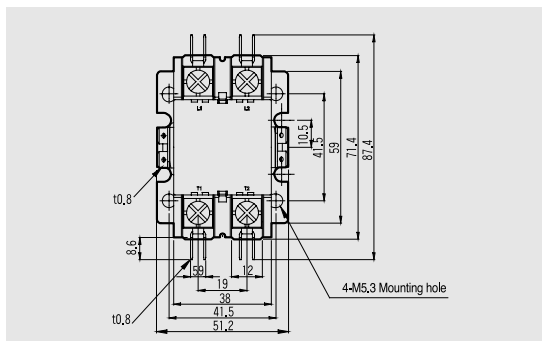


0.25kg

### Terminal type : TQBQ

SMC-20P2

SMC-25P2



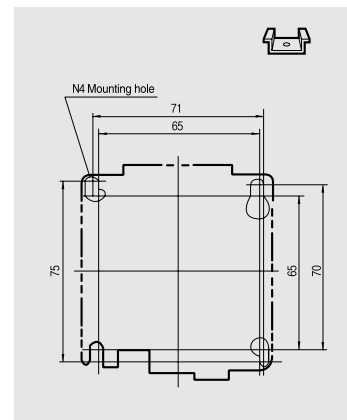
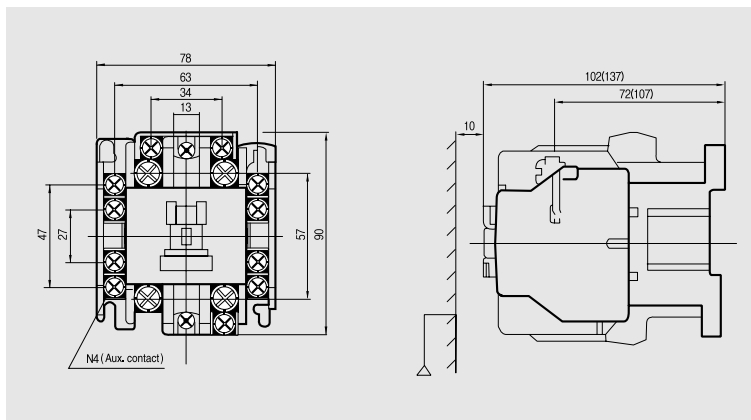
0.26kg



# 2-pole DC Contactors

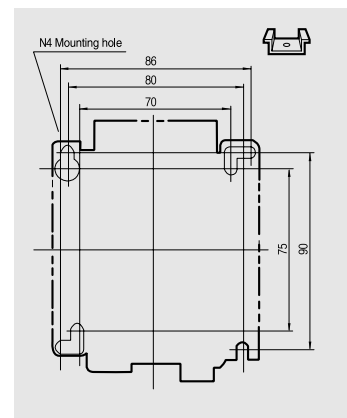
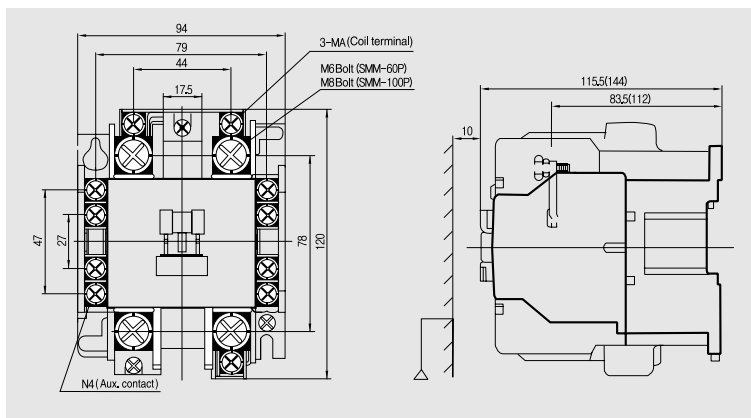


- SMM-30P
- SMM-30DP



0.61(0.93)kg

- SMM-60P
- SMM-100P
- SMM-60DP
- SMM-100DP

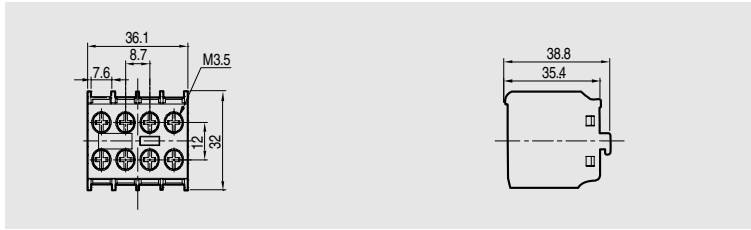


1.15(2.17)kg

# Dimensions

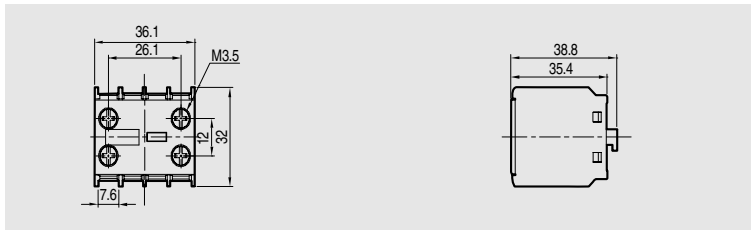
## Accessories for Mini contactors

**AU-4M**



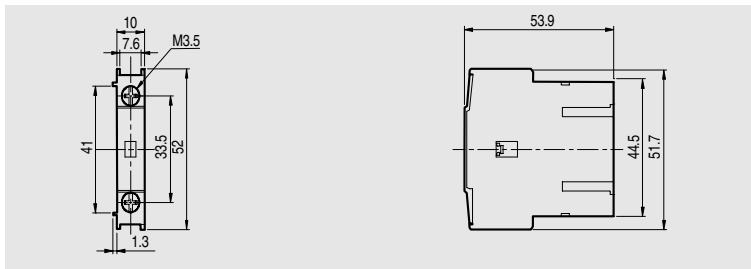
0.04kg

**AU-2M**



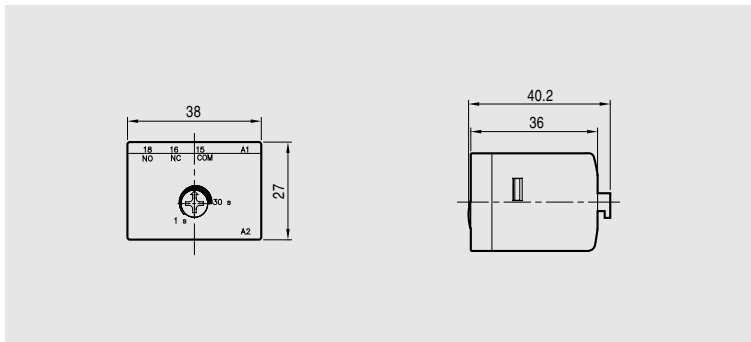
0.03kg

**AU-1M**



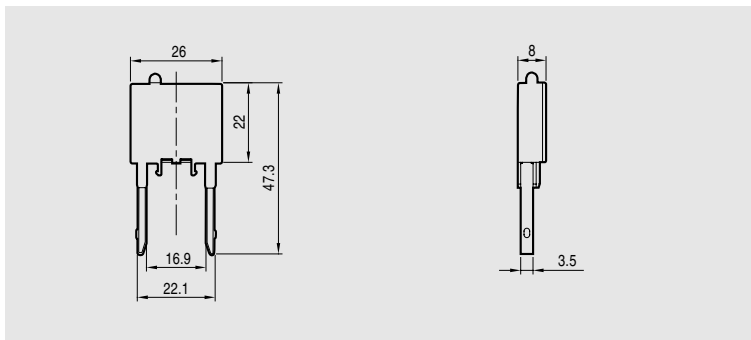
0.02kg

**AT-12M**



0.04kg

**AS-12M**

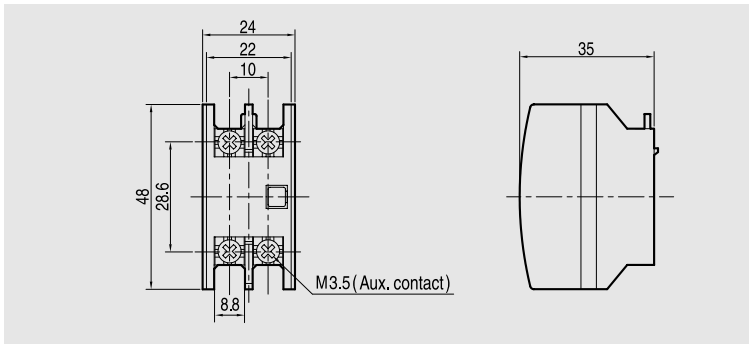


0.005kg

# Auxiliary contact blocks, front mount

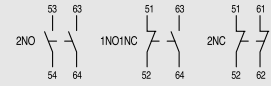


AU-2

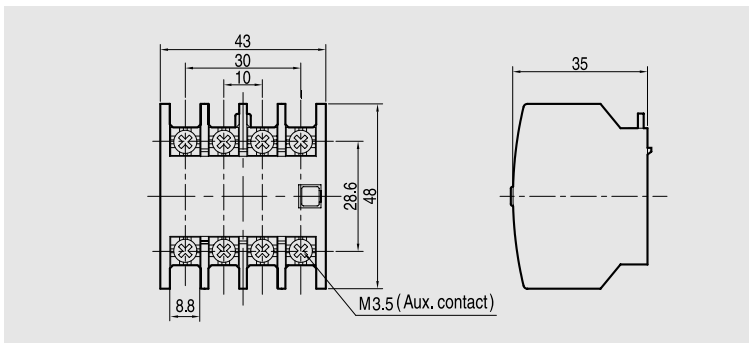


50g

## Circuit diagram

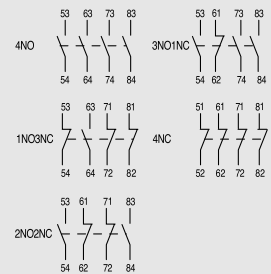


AU-4



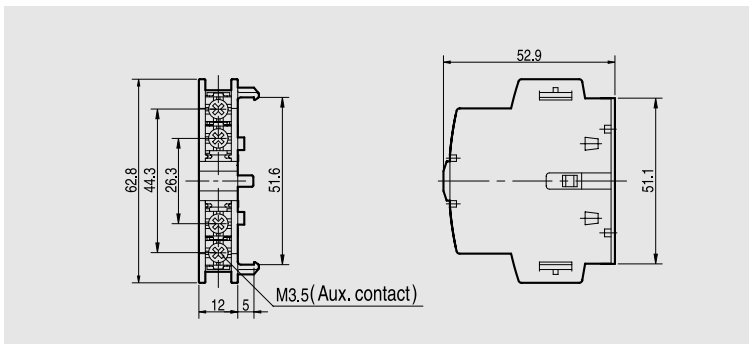
45g

## Circuit diagram



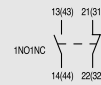
# Auxiliary contact blocks, side mount

AU-1

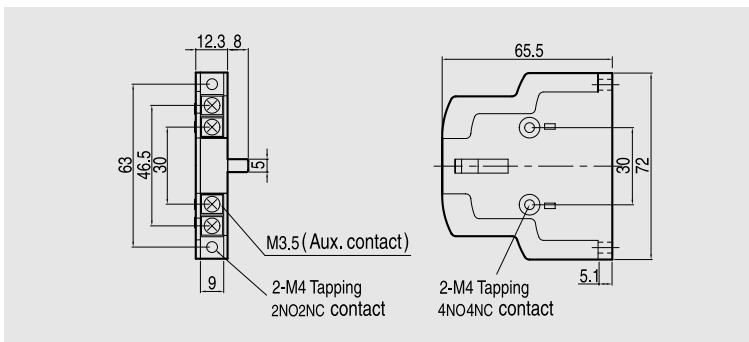


33g

## Circuit diagram

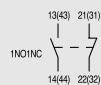


AU-100



45g

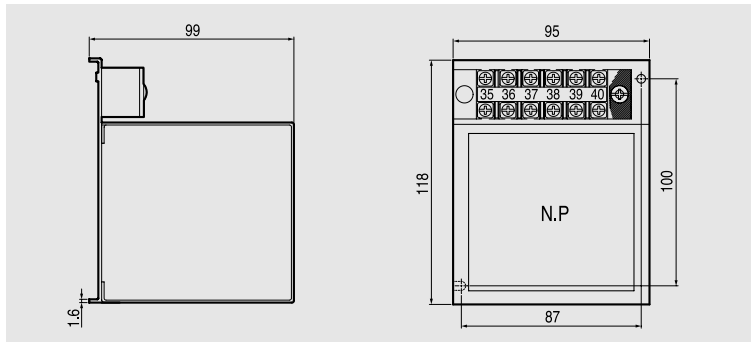
## Circuit diagram



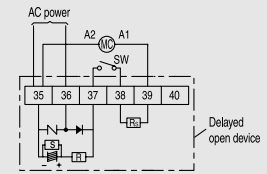
# Dimensions

## Delayed opening devices

AD-9



### Circuit diagram



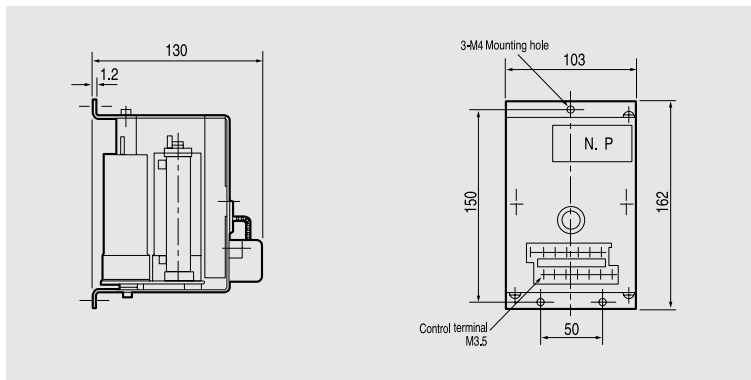
0.85kg

AD-50

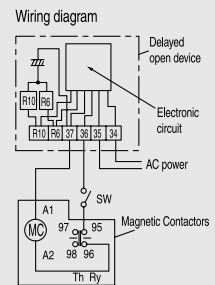
AD-100

AD-300

AD-600



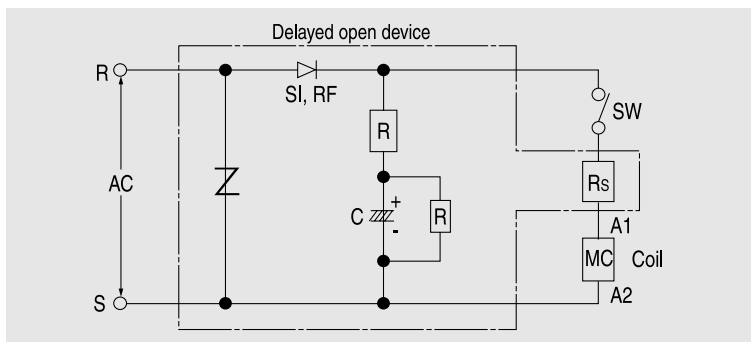
### Circuit diagram



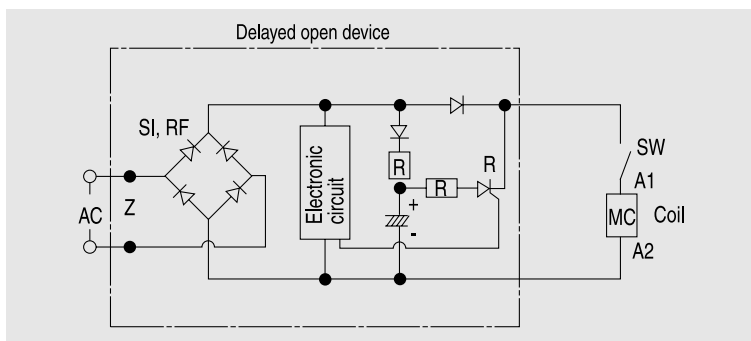
0.8kg

## Control circuit diagram

AD-9



AD-50~600



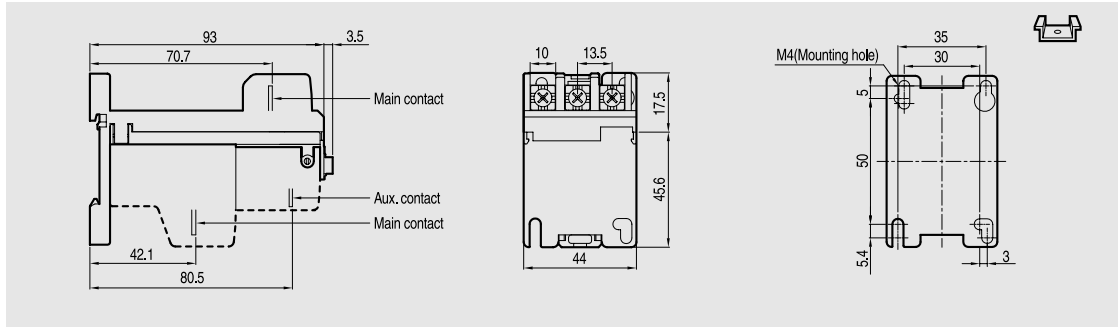
MC : Contactor  
SW : Switch  
SI, RF : Rectifier  
C : Condenser  
Rs : Resistance in series

# Separate mounting units for overload relays



## AZ-22H

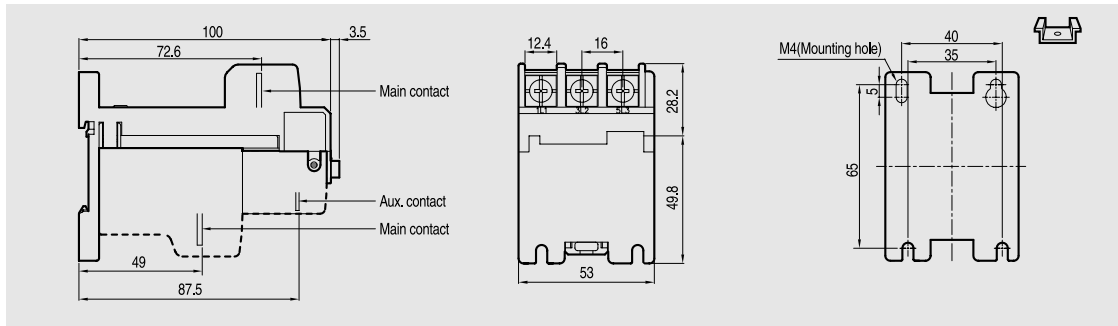
for use with  
overload relay  
GTH(K)-22



44g

## AZ-40H

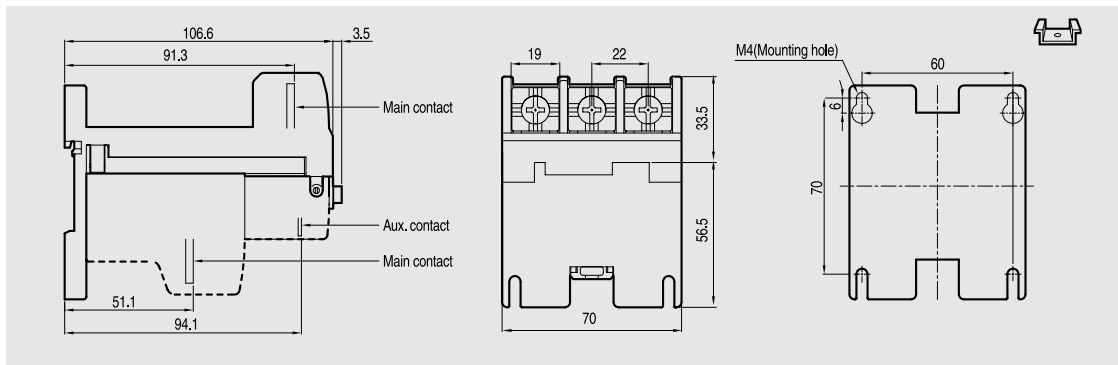
for use with  
overload relay  
GTH(K)-40



72g

## AZ-85H

for use with  
overload relay  
GTH(K)-85

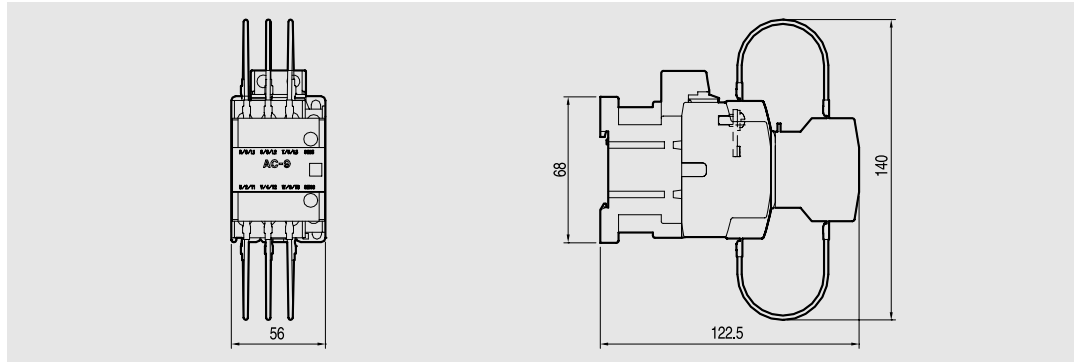


144g

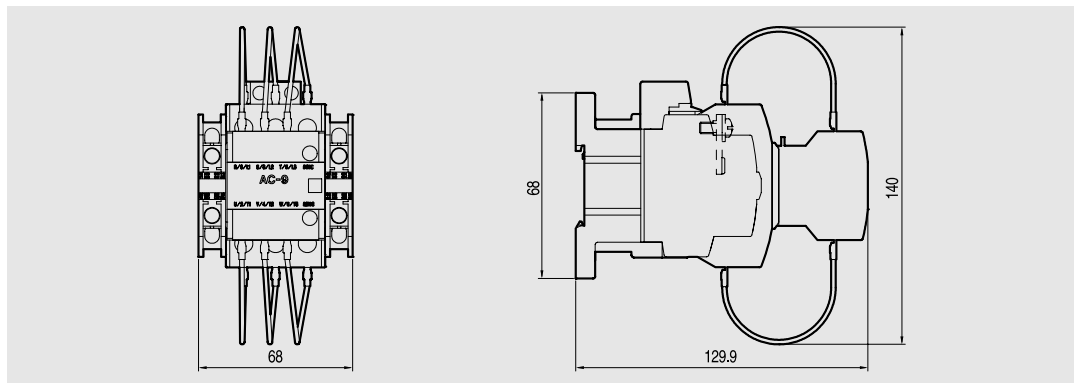
# Dimensions

## Capacitor contactors

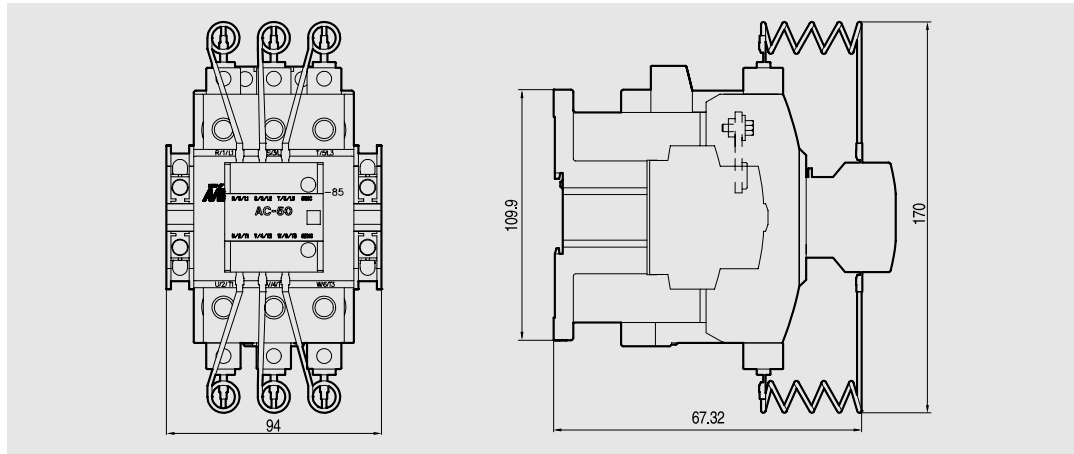
GMC-9C~22C



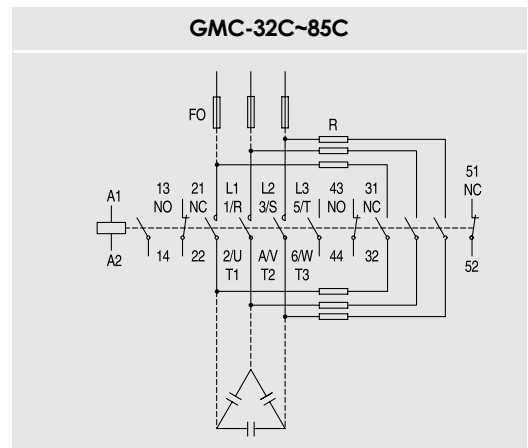
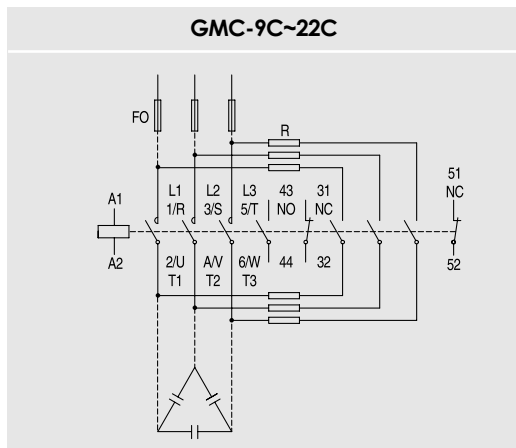
GMC-32C, 40C



GMC-50C~85C



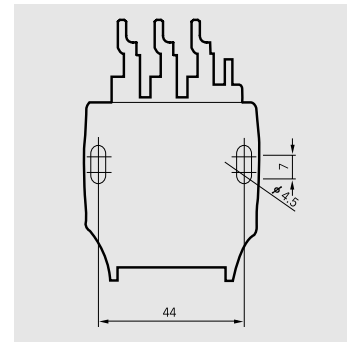
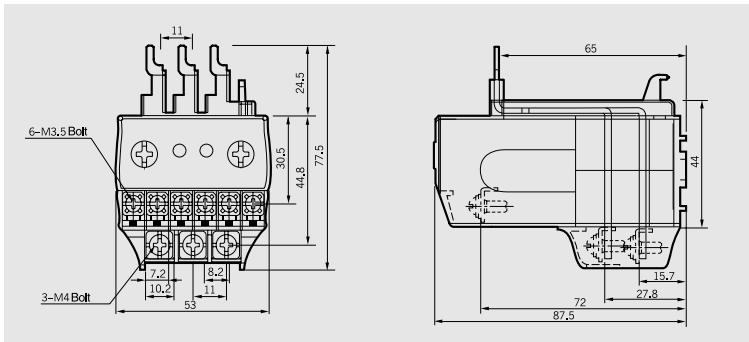
### Circuit diagram



# Electronic overload relays



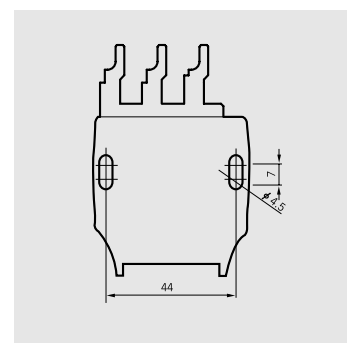
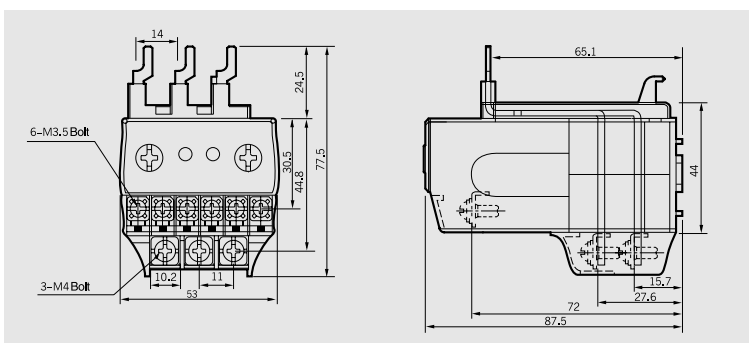
- GMP22-2P
- GMP22-3P
- GMP22-3PR



Terminal configuration : See Fig. 1 on the next page

0.18kg

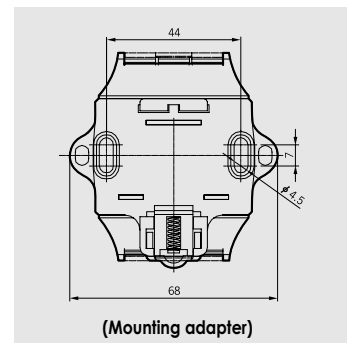
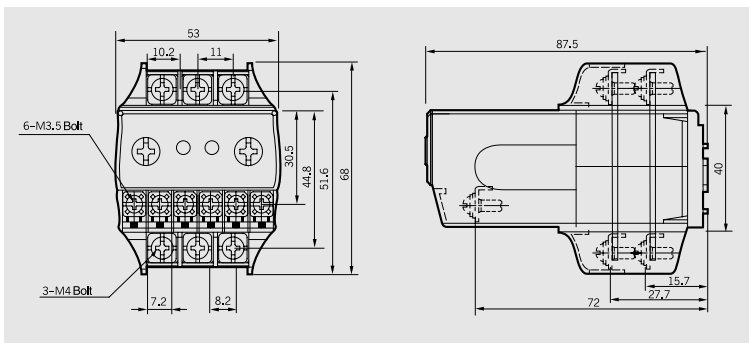
- GMP40-2P
- GMP40-3P
- GMP40-3PR



Terminal configuration : See Fig. 1 on the next page

0.20kg/0.22kg

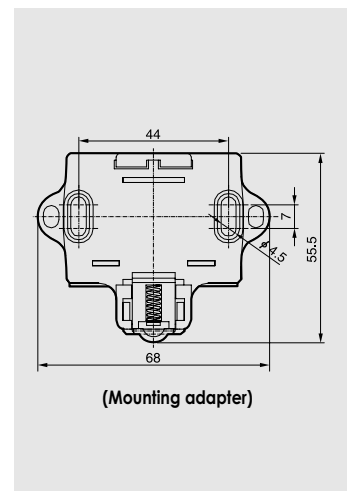
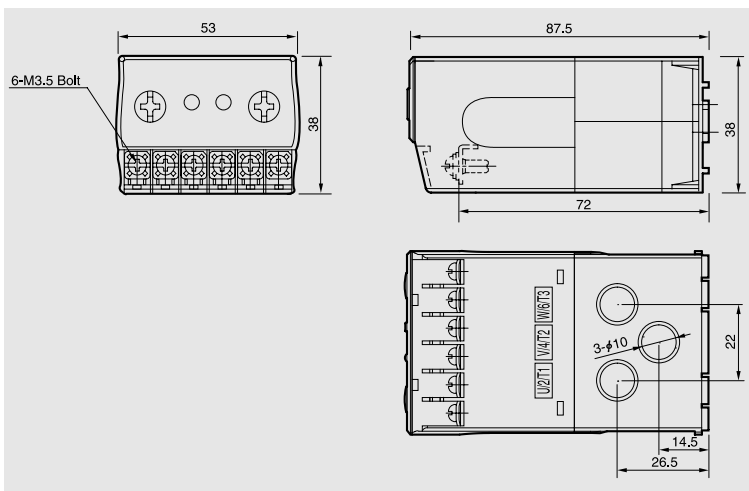
- GMP22-2S
- GMP22-3S
- GMP22-3SR
- GMP40-2S
- GMP40-3S
- GMP40-3SR



Terminal configuration : See Fig. 2 on the next page

0.19kg/0.21kg

- GMP22-2T
- GMP22-3T
- GMP22-3TR
- GMP40-2T
- GMP40-3T
- GMP40-3TR



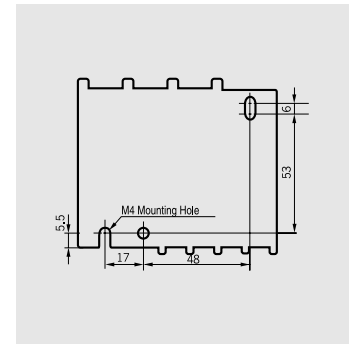
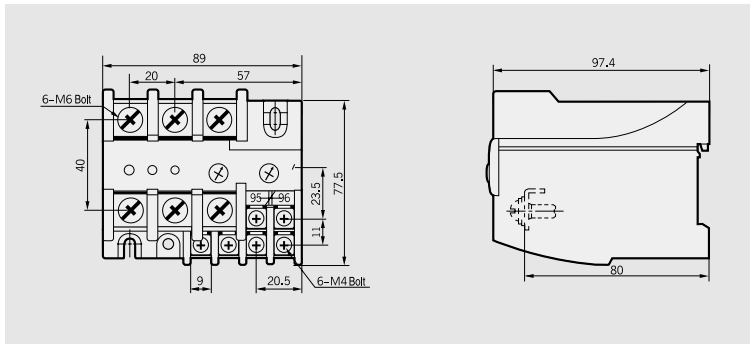
Terminal configuration : See Fig. 3 on the next page

0.14kg/0.16kg

# Dimensions

## Electronic overload relays

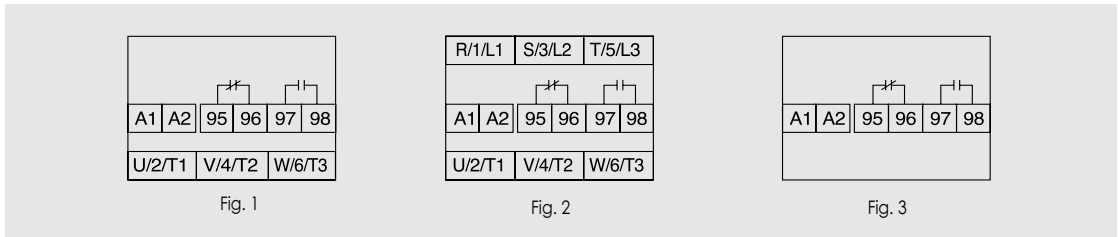
- GMP80-2S
- GMP80-3S
- GMP80-3SR



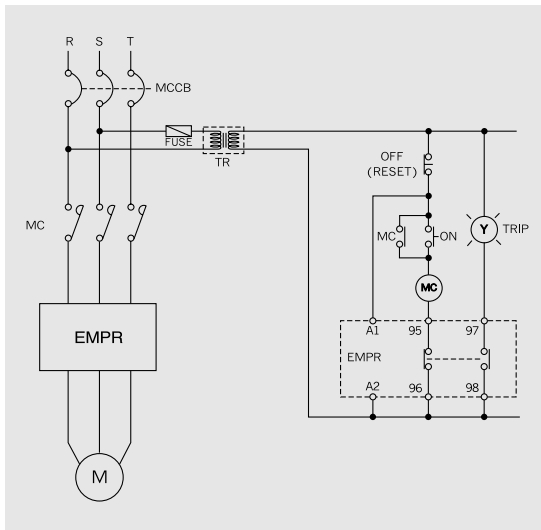
Terminal configuration : See Fig. 2

0.42kg/0.46kg

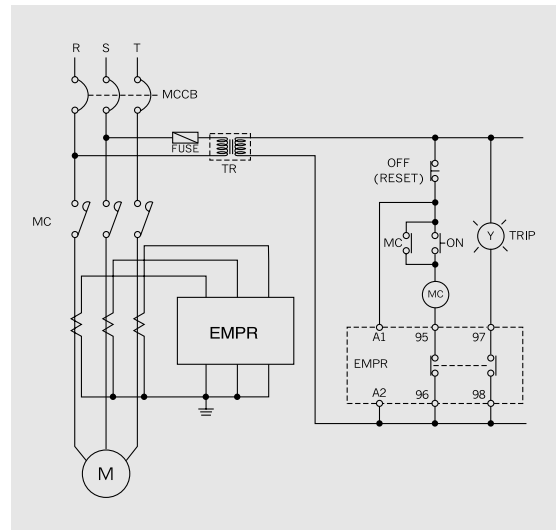
## Terminal configuration



## Circuit diagram



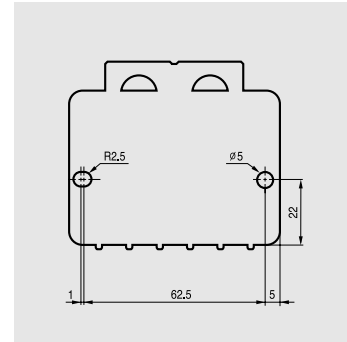
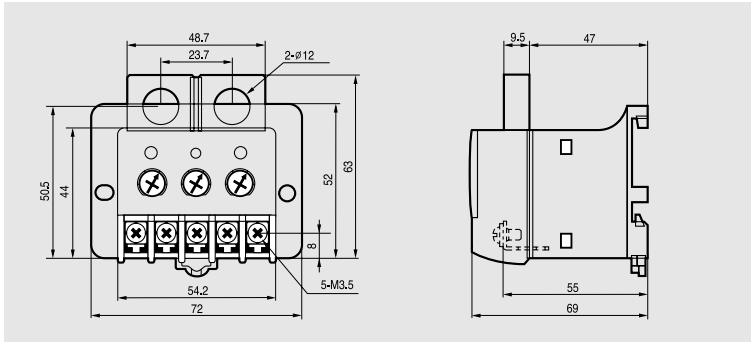
Without additional CTs



In case of using additional CTs

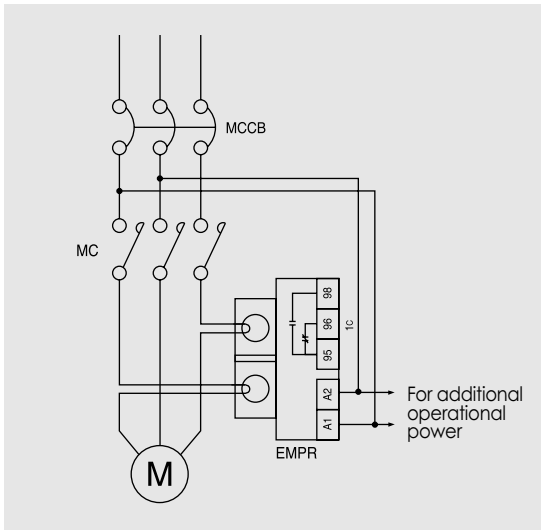


**GMP 60T**

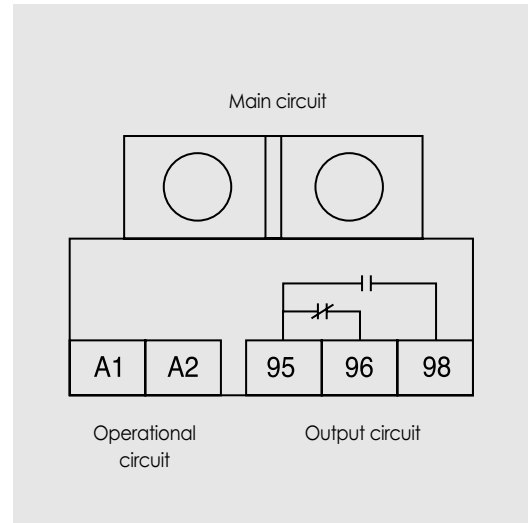


0.42kg/0.46kg

**Circuit diagram**



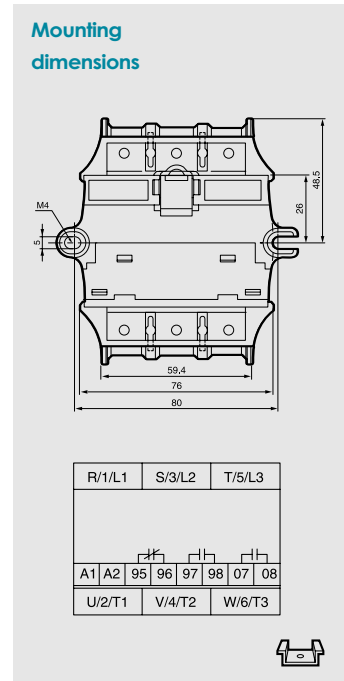
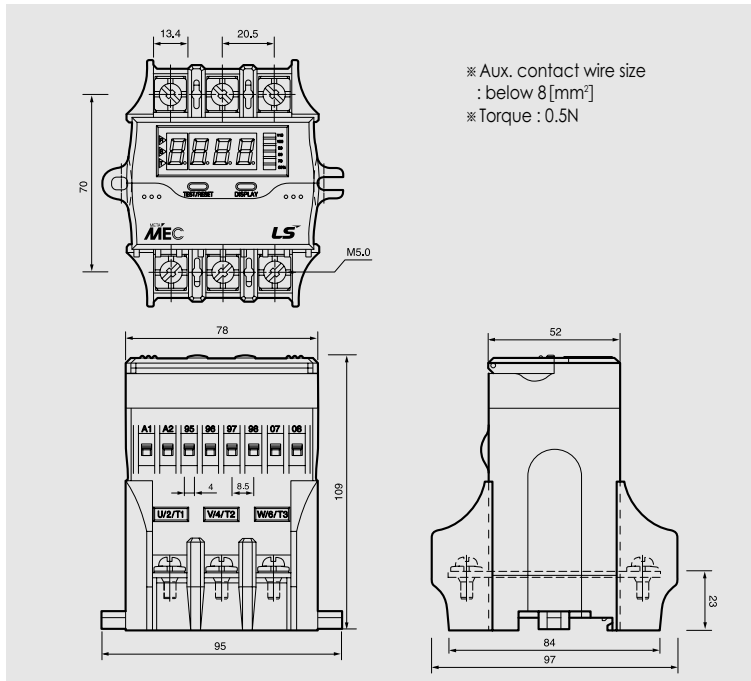
**Terminal configuration**



# Dimensions

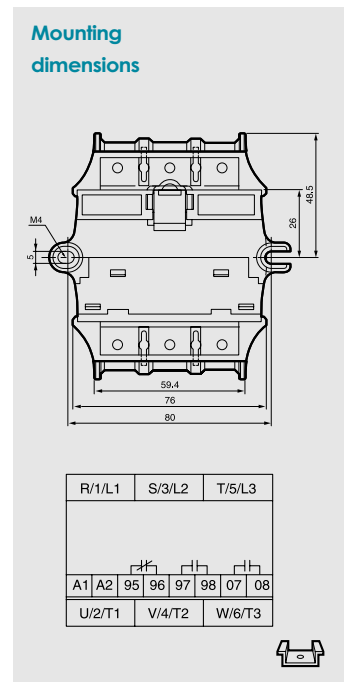
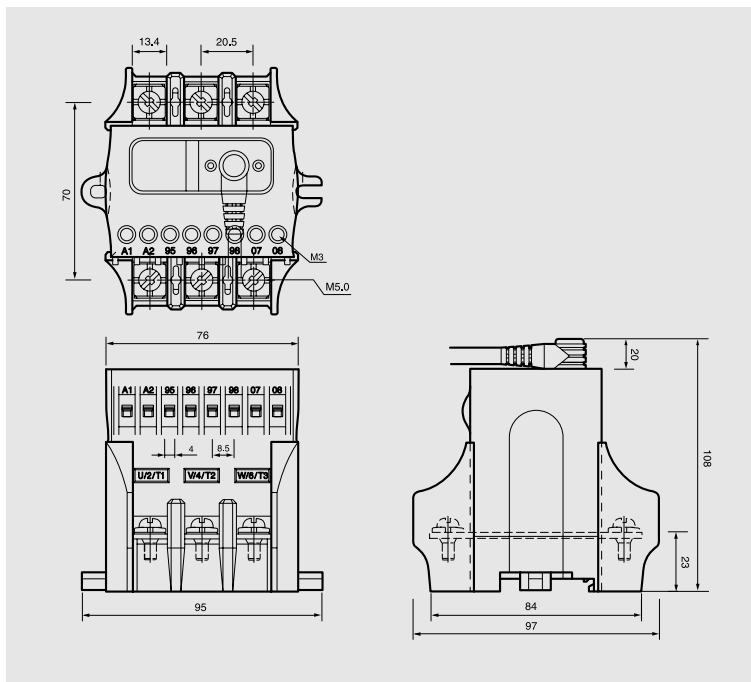
## Digital motor protection relay

- DMP□-S**
- DMP□-SZ**
- DMP□-Sa**
- DMP□-SZa**



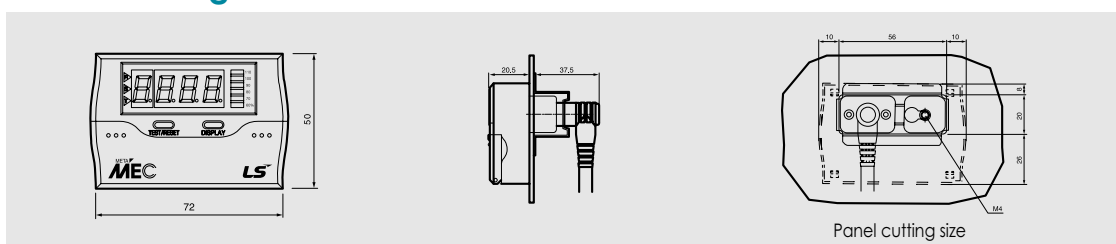
0.7kg

- DMP□-S**
- DMP□-SZ**
- DMP□-Sa**
- DMP□-SZa**

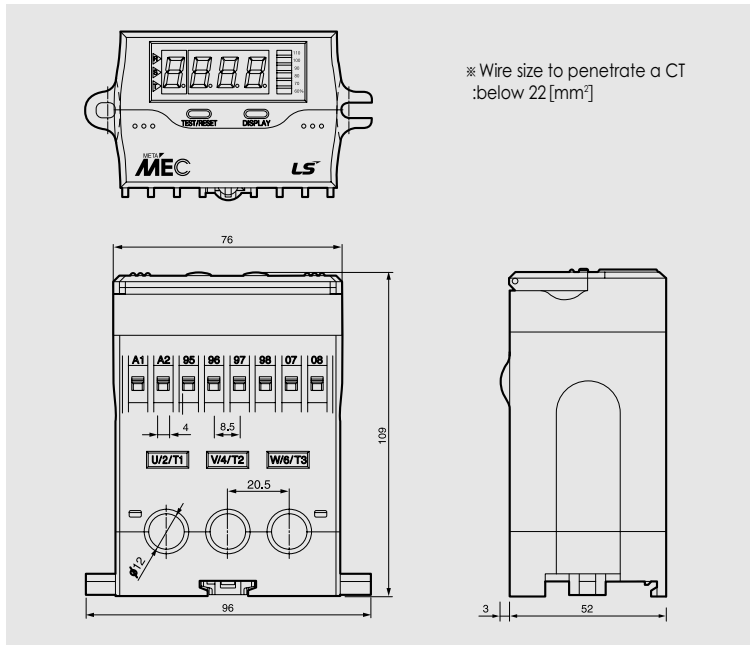


0.64kg

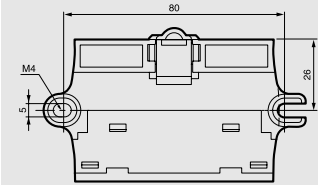
### Panel mounting



- DMP□-T
- DMP□-TZ
- DMP□-Tα
- DMP□-TZα



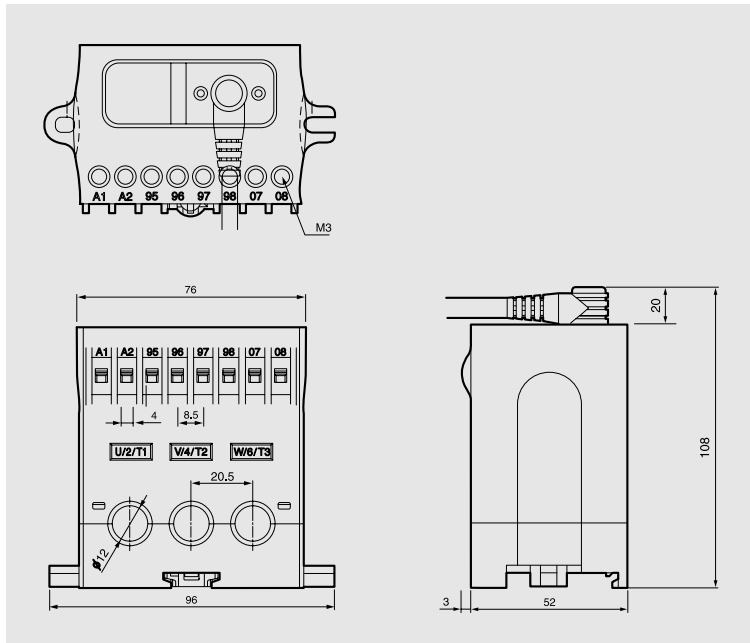
### Mounting dimensions



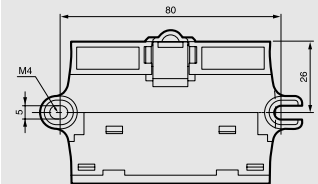
R/1/L1	S/3/L2	T/5/L3
A1	A2	95
96	97	98
07	08	
U/2/T1	V/4/T2	W/6/T3

0.56kg

- DMP□-T
- DMP□-TZ
- DMP□-Tα
- DMP□-TZα



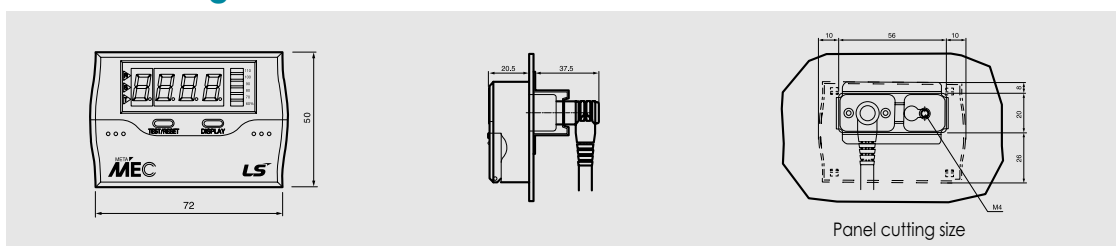
### Mounting dimensions



R/1/L1	S/3/L2	T/5/L3
A1	A2	95
96	97	98
07	08	
U/2/T1	V/4/T2	W/6/T3

0.5kg

### Panel mounting



- Note) 1. In extension type, the digital EMPR is calibrated with combining the display unit and mainbody so, please cautious not to combine the display unit and mainbody with different part No.  
 2. The 07-08 contacts are the ZCT input terminal (Digital EMPR with ground fault function)

# Catalogue numbers index

## Mini Contactors

### 3-pole AC operating Mini Contactors (6~16A)

Catalogue No.	Model	Coil Voltage (V)	Hz	No. of Auxiliary Contact	Pole	Page No.
1269022800	GMC-6M	AC24V	50/60Hz	1a	3P	24
1269022900	GMC-6M	AC36V	50/60Hz	1a	3P	24
1269023000	GMC-6M	AC42V	50/60Hz	1a	3P	24
1269023100	GMC-6M	AC48V	50/60Hz	1a	3P	24
1269023200	GMC-6M	AC110V	50/60Hz	1a	3P	24
1269023300	GMC-6M	AC115V	50/60Hz	1a	3P	24
1269023400	GMC-6M	AC120V	50/60Hz	1a	3P	24
1269023500	GMC-6M	AC127V	50/60Hz	1a	3P	24
1269034400	GMC-6M	AC200V	50/60Hz	1a	3P	24
1269023700	GMC-6M	AC220V	50/60Hz	1a	3P	24
1269037500	GMC-6M	AC240V	50/60Hz	1a	3P	24
1269024000	GMC-6M	AC256V	50/60Hz	1a	3P	24
1269024100	GMC-6M	AC277V	50/60Hz	1a	3P	24
1269032900	GMC-6M	AC380V	50/60Hz	1a	3P	24
1269024300	GMC-6M	AC400V	50/60Hz	1a	3P	24
1269024400	GMC-6M	AC440V	50/60Hz	1a	3P	24
1269024500	GMC-6M	AC480V	50/60Hz	1a	3P	24
1269024600	GMC-6M	AC500V	50/60Hz	1a	3P	24
1269024700	GMC-6M	AC550V	50/60Hz	1a	3P	24
1269002100	GMC-6M	AC24V	50/60Hz	1b	3P	24
1269002200	GMC-6M	AC36V	50/60Hz	1b	3P	24
1269002300	GMC-6M	AC42V	50/60Hz	1b	3P	24
1269002400	GMC-6M	AC48V	50/60Hz	1b	3P	24
1269002500	GMC-6M	AC110V	50/60Hz	1b	3P	24
1269002600	GMC-6M	AC115V	50/60Hz	1b	3P	24
1269002700	GMC-6M	AC120V	50/60Hz	1b	3P	24
1269002800	GMC-6M	AC127V	50/60Hz	1b	3P	24
1269037600	GMC-6M	AC200V	50/60Hz	1b	3P	24
1269003000	GMC-6M	AC220V	50/60Hz	1b	3P	24
1269037700	GMC-6M	AC240V	50/60Hz	1b	3P	24
1269003300	GMC-6M	AC256V	50/60Hz	1b	3P	24
1269003400	GMC-6M	AC277V	50/60Hz	1b	3P	24
1269033000	GMC-6M	AC380V	50/60Hz	1b	3P	24
1269003600	GMC-6M	AC400V	50/60Hz	1b	3P	24
1269003700	GMC-6M	AC440V	50/60Hz	1b	3P	24
1269003800	GMC-6M	AC480V	50/60Hz	1b	3P	24
1269003900	GMC-6M	AC500V	50/60Hz	1b	3P	24
1269004000	GMC-6M	AC550V	50/60Hz	1b	3P	24
1269008100	GMC-9M	AC24V	50/60Hz	1a	3P	24
1269008200	GMC-9M	AC36V	50/60Hz	1a	3P	24
1269008300	GMC-9M	AC42V	50/60Hz	1a	3P	24
1269008400	GMC-9M	AC48V	50/60Hz	1a	3P	24
1269008500	GMC-9M	AC110V	50/60Hz	1a	3P	24
1269008600	GMC-9M	AC115V	50/60Hz	1a	3P	24
1269008700	GMC-9M	AC120V	50/60Hz	1a	3P	24
1269008800	GMC-9M	AC127V	50/60Hz	1a	3P	24
1269034500	GMC-9M	AC200V	50/60Hz	1a	3P	24
1269009000	GMC-9M	AC220V	50/60Hz	1a	3P	24
1269038200	GMC-9M	AC240V	50/60Hz	1a	3P	24
1269009300	GMC-9M	AC256V	50/60Hz	1a	3P	24
1269009400	GMC-9M	AC277V	50/60Hz	1a	3P	24
1269033300	GMC-9M	AC380V	50/60Hz	1a	3P	24
1269009600	GMC-9M	AC400V	50/60Hz	1a	3P	24
1269009700	GMC-9M	AC440V	50/60Hz	1a	3P	24
1269009800	GMC-9M	AC480V	50/60Hz	1a	3P	24

### 3-pole AC operating Mini Contactors (6~16A)

Catalogue No.	Model	Coil Voltage (V)	Hz	No. of Auxiliary Contact	Pole	Page No.
1269009900	GMC-9M	AC500V	50/60Hz	1a	3P	24
1269010000	GMC-9M	AC550V	50/60Hz	1a	3P	24
1269010100	GMC-9M	AC24V	50/60Hz	1b	3P	24
1269010200	GMC-9M	AC36V	50/60Hz	1b	3P	24
1269010300	GMC-9M	AC42V	50/60Hz	1b	3P	24
1269010400	GMC-9M	AC48V	50/60Hz	1b	3P	24
1269010500	GMC-9M	AC110V	50/60Hz	1b	3P	24
1269010600	GMC-9M	AC115V	50/60Hz	1b	3P	24
1269010700	GMC-9M	AC120V	50/60Hz	1b	3P	24
1269010800	GMC-9M	AC127V	50/60Hz	1b	3P	24
1269038300	GMC-9M	AC200V	50/60Hz	1b	3P	24
1269011000	GMC-9M	AC220V	50/60Hz	1b	3P	24
1269038400	GMC-9M	AC240V	50/60Hz	1b	3P	24
1269011300	GMC-9M	AC256V	50/60Hz	1b	3P	24
1269011400	GMC-9M	AC277V	50/60Hz	1b	3P	24
1269033400	GMC-9M	AC380V	50/60Hz	1b	3P	24
1269011600	GMC-9M	AC400V	50/60Hz	1b	3P	24
1269011700	GMC-9M	AC440V	50/60Hz	1b	3P	24
1269011800	GMC-9M	AC480V	50/60Hz	1b	3P	24
1269011900	GMC-9M	AC500V	50/60Hz	1b	3P	24
1269012000	GMC-9M	AC550V	50/60Hz	1b	3P	24
1269040100	GMC-9MF	AC120V	50/60Hz	1a	3P	24
1269016700	GMC-12M	AC24V	50/60Hz	1a	3P	24
1269016800	GMC-12M	AC36V	50/60Hz	1a	3P	24
1269016900	GMC-12M	AC42V	50/60Hz	1a	3P	24
1269017000	GMC-12M	AC48V	50/60Hz	1a	3P	24
1269017100	GMC-12M	AC110V	50/60Hz	1a	3P	24
1269017200	GMC-12M	AC115V	50/60Hz	1a	3P	24
1269017300	GMC-12M	AC120V	50/60Hz	1a	3P	24
1269017400	GMC-12M	AC127V	50/60Hz	1a	3P	24
1269034600	GMC-12M	AC200V	50/60Hz	1a	3P	24
1269017600	GMC-12M	AC220V	50/60Hz	1a	3P	24
1269038900	GMC-12M	AC240V	50/60Hz	1a	3P	24
1269017900	GMC-12M	AC256V	50/60Hz	1a	3P	24
1269018000	GMC-12M	AC277V	50/60Hz	1a	3P	24
1269033700	GMC-12M	AC380V	50/60Hz	1a	3P	24
1269018200	GMC-12M	AC400V	50/60Hz	1a	3P	24
1269018300	GMC-12M	AC440V	50/60Hz	1a	3P	24
1269018400	GMC-12M	AC480V	50/60Hz	1a	3P	24
1269018500	GMC-12M	AC500V	50/60Hz	1a	3P	24
1269018600	GMC-12M	AC550V	50/60Hz	1a	3P	24
1269018800	GMC-12M	AC24V	50/60Hz	1b	3P	24
1269018900	GMC-12M	AC36V	50/60Hz	1b	3P	24
1269019000	GMC-12M	AC42V	50/60Hz	1b	3P	24
1269019100	GMC-12M	AC48V	50/60Hz	1b	3P	24
1269019200	GMC-12M	AC110V	50/60Hz	1b	3P	24
1269019300	GMC-12M	AC115V	50/60Hz	1b	3P	24
1269019400	GMC-12M	AC120V	50/60Hz	1b	3P	24
1269019500	GMC-12M	AC127V	50/60Hz	1b	3P	24
1269039000	GMC-12M	AC200V	50/60Hz	1b	3P	24
1269019700	GMC-12M	AC220V	50/60Hz	1b	3P	24
1269039100	GMC-12M	AC240V	50/60Hz	1b	3P	24
1269020000	GMC-12M	AC256V	50/60Hz	1b	3P	24
1269020100	GMC-12M	AC277V	50/60Hz	1b	3P	24
1269033800	GMC-12M	AC380V	50/60Hz	1b	3P	24

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## Mini Contactors

### 3-pole AC operating Mini Contactors (6~16A)

Catalogue No.	Model	Coil Voltage (V)	Hz	No. of Auxiliary Contact	Pole	Page No.
1269020300	GMC-12M	AC400V	50/60Hz	1b	3P	24
1269020400	GMC-12M	AC440V	50/60Hz	1b	3P	24
1269020500	GMC-12M	AC480V	50/60Hz	1b	3P	24
1269020600	GMC-12M	AC500V	50/60Hz	1b	3P	24
1269020700	GMC-12M	AC550V	50/60Hz	1b	3P	24
1269026800	GMC-16M	AC24V	50/60Hz	1a	3P	24
1269026900	GMC-16M	AC36V	50/60Hz	1a	3P	24
1269027000	GMC-16M	AC42V	50/60Hz	1a	3P	24
1269027100	GMC-16M	AC48V	50/60Hz	1a	3P	24
1269027200	GMC-16M	AC110V	50/60Hz	1a	3P	24
1269027300	GMC-16M	AC115V	50/60Hz	1a	3P	24
1269027400	GMC-16M	AC120V	50/60Hz	1a	3P	24
1269027500	GMC-16M	AC127V	50/60Hz	1a	3P	24
1269034700	GMC-16M	AC200V	50/60Hz	1a	3P	24
1269027700	GMC-16M	AC220V	50/60Hz	1a	3P	24
1269047600	GMC-16M	AC230V	50/60Hz	1a	3P	24
1269039600	GMC-16M	AC240V	50/60Hz	1a	3P	24
1269028000	GMC-16M	AC256V	50/60Hz	1a	3P	24
1269028100	GMC-16M	AC277V	50/60Hz	1a	3P	24
1269034100	GMC-16M	AC380V	50/60Hz	1a	3P	24
1269028300	GMC-16M	AC400V	50/60Hz	1a	3P	24
1269028400	GMC-16M	AC440V	50/60Hz	1a	3P	24
1269028500	GMC-16M	AC480V	50/60Hz	1a	3P	24
1269028600	GMC-16M	AC500V	50/60Hz	1a	3P	24
1269028700	GMC-16M	AC550V	50/60Hz	1a	3P	24
1269028800	GMC-16M	AC24V	50/60Hz	1b	3P	24
1269028900	GMC-16M	AC36V	50/60Hz	1b	3P	24
1269029000	GMC-16M	AC42V	50/60Hz	1b	3P	24
1269029100	GMC-16M	AC48V	50/60Hz	1b	3P	24
1269029200	GMC-16M	AC110V	50/60Hz	1b	3P	24
1269029300	GMC-16M	AC115V	50/60Hz	1b	3P	24
1269029400	GMC-16M	AC120V	50/60Hz	1b	3P	24
1269029500	GMC-16M	AC127V	50/60Hz	1b	3P	24
1269039700	GMC-16M	AC200V	50/60Hz	1b	3P	24
1269029700	GMC-16M	AC220V	50/60Hz	1b	3P	24
1269039800	GMC-16M	AC240V	50/60Hz	1b	3P	24
1269030000	GMC-16M	AC256V	50/60Hz	1b	3P	24
1269030100	GMC-16M	AC277V	50/60Hz	1b	3P	24
1269034200	GMC-16M	AC380V	50/60Hz	1b	3P	24
1269030300	GMC-16M	AC400V	50/60Hz	1b	3P	24
1269030400	GMC-16M	AC440V	50/60Hz	1b	3P	24
1269030500	GMC-16M	AC480V	50/60Hz	1b	3P	24
1269030600	GMC-16M	AC500V	50/60Hz	1b	3P	24
1269030700	GMC-16M	AC550V	50/60Hz	1b	3P	24
1269047800	GMC-9MP	AC230V	50/60Hz	1a	3P	25
1269047500	GMC-12MP	AC230V	50/60Hz	1a	3P	25
1269043700	GMC-16MP	AC120V	50/60Hz	1a	3P	25
1269045000	GMC-16MP	AC120V	50/60Hz	1b	3P	25
1269047700	GMC-12MF	AC230V	50/60Hz	1a	3P	24
1269040200	GMC-16MF	AC120V	50/60Hz	1a	3P	24
1269048400	GMC-16MF	AC24V	50/60Hz	1b	3P	24
1269048500	GMC-16MF	AC120V	50/60Hz	1b	3P	24
1269040400	GMC-16MC	AC120V	50/60Hz	1a	3P	25
1269047900	GMC-16MC	AC230V	50/60Hz	1a	3P	25

### 3-pole DC operating Mini Contactors (6~16A)

Catalogue No.	Model	Coil Voltage (V)	Coil consumption	No. of Auxiliary Contact	Pole	Page No.
1270004300	GMD-6M	DC12V	1.2W	1a	3P	26
1270004400	GMD-6M	DC20V	1.2W	1a	3P	26
1270004500	GMD-6M	DC24V	1.2W	1a	3P	26
1270004600	GMD-6M	DC48V	1.2W	1a	3P	26
1270004700	GMD-6M	DC72V	1.2W	1a	3P	26
1270004800	GMD-6M	DC110V	1.2W	1a	3P	26
1270004900	GMD-6M	DC120V	1.2W	1a	3P	26
1270007100	GMD-6M	DC12V	1.2W	1b	3P	26
1270007200	GMD-6M	DC20V	1.2W	1b	3P	26
1270007300	GMD-6M	DC24V	1.2W	1b	3P	26
1270007400	GMD-6M	DC48V	1.2W	1b	3P	26
1270007500	GMD-6M	DC72V	1.2W	1b	3P	26
1270007600	GMD-6M	DC110V	1.2W	1b	3P	26
1270007700	GMD-6M	DC120V	1.2W	1b	3P	26
1270005000	GMD-6M	DC12V	2W	1a	3P	26
1270005100	GMD-6M	DC20V	2W	1a	3P	26
1270005200	GMD-6M	DC24V	2W	1a	3P	26
1270005300	GMD-6M	DC48V	2W	1a	3P	26
1270005400	GMD-6M	DC72V	2W	1a	3P	26
1270005500	GMD-6M	DC110V	2W	1a	3P	26
1270005600	GMD-6M	DC120V	2W	1a	3P	26
1270007800	GMD-6M	DC12V	2W	1b	3P	26
1270007900	GMD-6M	DC20V	2W	1b	3P	26
1270008000	GMD-6M	DC24V	2W	1b	3P	26
1270008100	GMD-6M	DC48V	2W	1b	3P	26
1270008200	GMD-6M	DC72V	2W	1b	3P	26
1270008300	GMD-6M	DC110V	2W	1b	3P	26
1270008400	GMD-6M	DC120V	2W	1b	3P	26
1270002900	GMD-6M	DC12V	3W	1a	3P	26
1270003000	GMD-6M	DC20V	3W	1a	3P	26
1270003100	GMD-6M	DC24V	3W	1a	3P	26
1270003200	GMD-6M	DC36V	3W	1a	3P	26
1270003300	GMD-6M	DC42V	3W	1a	3P	26
1270003400	GMD-6M	DC48V	3W	1a	3P	26
1270003500	GMD-6M	DC60V	3W	1a	3P	26
1270003600	GMD-6M	DC72V	3W	1a	3P	26
1270003700	GMD-6M	DC110V	3W	1a	3P	26
1270003800	GMD-6M	DC120V	3W	1a	3P	26
1270003900	GMD-6M	DC125V	3W	1a	3P	26
1270004000	GMD-6M	DC220V	3W	1a	3P	26
1270004100	GMD-6M	DC240V	3W	1a	3P	26
1270004200	GMD-6M	DC250V	3W	1a	3P	26
1270005700	GMD-6M	DC12V	3W	1b	3P	26
1270005800	GMD-6M	DC20V	3W	1b	3P	26
1270005900	GMD-6M	DC24V	3W	1b	3P	26
1270006000	GMD-6M	DC36V	3W	1b	3P	26
1270006100	GMD-6M	DC42V	3W	1b	3P	26
1270006200	GMD-6M	DC48V	3W	1b	3P	26
1270006300	GMD-6M	DC60V	3W	1b	3P	26
1270006400	GMD-6M	DC72V	3W	1b	3P	26
1270006500	GMD-6M	DC110V	3W	1b	3P	26
1270006600	GMD-6M	DC120V	3W	1b	3P	26
1270006700	GMD-6M	DC125V	3W	1b	3P	26
1270006800	GMD-6M	DC220V	3W	1b	3P	26
1270006900	GMD-6M	DC240V	3W	1b	3P	26
1270007000	GMD-6M	DC250V	3W	1b	3P	26
1270015500	GMD-9M	DC12V	1.2W	1a	3P	26

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## Mini Contactors

### 3-pole DC operating Mini Contactors (6~16A)

Catalogue No.	Model	Coil Voltage (V)	Coil consumption	No. of Auxiliary Contact	Pole	Page No.
1270015600	GMD-9M	DC20V	1.2W	1a	3P	26
1270015700	GMD-9M	DC24V	1.2W	1a	3P	26
1270015800	GMD-9M	DC48V	1.2W	1a	3P	26
1270015900	GMD-9M	DC72V	1.2W	1a	3P	26
1270016000	GMD-9M	DC110V	1.2W	1a	3P	26
1270016100	GMD-9M	DC120V	1.2W	1a	3P	26
1270018600	GMD-9M	DC12V	1.2W	1b	3P	26
1270018700	GMD-9M	DC20V	1.2W	1b	3P	26
1270018800	GMD-9M	DC24V	1.2W	1b	3P	26
1270018900	GMD-9M	DC48V	1.2W	1b	3P	26
1270019000	GMD-9M	DC72V	1.2W	1b	3P	26
1270019100	GMD-9M	DC110V	1.2W	1b	3P	26
1270019200	GMD-9M	DC120V	1.2W	1b	3P	26
1270016200	GMD-9M	DC12V	2W	1a	3P	26
1270016300	GMD-9M	DC20V	2W	1a	3P	26
1270016400	GMD-9M	DC24V	2W	1a	3P	26
1270016500	GMD-9M	DC48V	2W	1a	3P	26
1270016600	GMD-9M	DC72V	2W	1a	3P	26
1270016700	GMD-9M	DC110V	2W	1a	3P	26
1270016800	GMD-9M	DC120V	2W	1a	3P	26
1270019300	GMD-9M	DC12V	2W	1b	3P	26
1270019400	GMD-9M	DC20V	2W	1b	3P	26
1270019500	GMD-9M	DC24V	2W	1b	3P	26
1270019600	GMD-9M	DC48V	2W	1b	3P	26
1270019700	GMD-9M	DC72V	2W	1b	3P	26
1270019800	GMD-9M	DC110V	2W	1b	3P	26
1270019900	GMD-9M	DC120V	2W	1b	3P	26
1270014100	GMD-9M	DC12V	3W	1a	3P	26
1270014200	GMD-9M	DC20V	3W	1a	3P	26
1270014300	GMD-9M	DC24V	3W	1a	3P	26
1270014400	GMD-9M	DC36V	3W	1a	3P	26
1270014500	GMD-9M	DC42V	3W	1a	3P	26
1270014600	GMD-9M	DC48V	3W	1a	3P	26
1270014700	GMD-9M	DC60V	3W	1a	3P	26
1270014800	GMD-9M	DC72V	3W	1a	3P	26
1270014900	GMD-9M	DC110V	3W	1a	3P	26
1270015000	GMD-9M	DC120V	3W	1a	3P	26
1270015100	GMD-9M	DC125V	3W	1a	3P	26
1270015200	GMD-9M	DC220V	3W	1a	3P	26
1270015300	GMD-9M	DC240V	3W	1a	3P	26
1270015400	GMD-9M	DC250V	3W	1a	3P	26
1270017200	GMD-9M	DC12V	3W	1b	3P	26
1270017300	GMD-9M	DC20V	3W	1b	3P	26
1270017400	GMD-9M	DC24V	3W	1b	3P	26
1270017500	GMD-9M	DC36V	3W	1b	3P	26
1270017600	GMD-9M	DC42V	3W	1b	3P	26
1270017700	GMD-9M	DC48V	3W	1b	3P	26
1270017800	GMD-9M	DC60V	3W	1b	3P	26
1270017900	GMD-9M	DC72V	3W	1b	3P	26
1270018000	GMD-9M	DC110V	3W	1b	3P	26
1270018100	GMD-9M	DC120V	3W	1b	3P	26
1270018200	GMD-9M	DC125V	3W	1b	3P	26
1270018300	GMD-9M	DC220V	3W	1b	3P	26
1270018400	GMD-9M	DC240V	3W	1b	3P	26
1270018500	GMD-9M	DC250V	3W	1b	3P	26
1270027000	GMD-12M	DC12V	1.2W	1a	3P	26
1270027100	GMD-12M	DC20V	1.2W	1a	3P	26



### 3-pole DC operating Mini Contactors (6~16A)

Catalogue No.	Model	Coil Voltage (V)	Coil consumption	No. of Auxiliary Contact	Pole	Page No.
1270027200	GMD-12M	DC24V	1.2W	1a	3P	26
1270027300	GMD-12M	DC48V	1.2W	1a	3P	26
1270027400	GMD-12M	DC72V	1.2W	1a	3P	26
1270027500	GMD-12M	DC110V	1.2W	1a	3P	26
1270027600	GMD-12M	DC120V	1.2W	1a	3P	26
1270029800	GMD-12M	DC12V	1.2W	1b	3P	26
1270029900	GMD-12M	DC20V	1.2W	1b	3P	26
1270030000	GMD-12M	DC24V	1.2W	1b	3P	26
1270030100	GMD-12M	DC48V	1.2W	1b	3P	26
1270030200	GMD-12M	DC72V	1.2W	1b	3P	26
1270030300	GMD-12M	DC110V	1.2W	1b	3P	26
1270030400	GMD-12M	DC120V	1.2W	1b	3P	26
1270027700	GMD-12M	DC12V	2W	1a	3P	26
1270027800	GMD-12M	DC20V	2W	1a	3P	26
1270027900	GMD-12M	DC24V	2W	1a	3P	26
1270028000	GMD-12M	DC48V	2W	1a	3P	26
1270028100	GMD-12M	DC72V	2W	1a	3P	26
1270028200	GMD-12M	DC110V	2W	1a	3P	26
1270028300	GMD-12M	DC120V	2W	1a	3P	26
1270030500	GMD-12M	DC12V	2W	1b	3P	26
1270030600	GMD-12M	DC20V	2W	1b	3P	26
1270030700	GMD-12M	DC24V	2W	1b	3P	26
1270030800	GMD-12M	DC48V	2W	1b	3P	26
1270030900	GMD-12M	DC72V	2W	1b	3P	26
1270031000	GMD-12M	DC110V	2W	1b	3P	26
1270031100	GMD-12M	DC120V	2W	1b	3P	26
1270025600	GMD-12M	DC12V	3W	1a	3P	26
1270025700	GMD-12M	DC20V	3W	1a	3P	26
1270025800	GMD-12M	DC24V	3W	1a	3P	26
1270025900	GMD-12M	DC36V	3W	1a	3P	26
1270026000	GMD-12M	DC42V	3W	1a	3P	26
1270026100	GMD-12M	DC48V	3W	1a	3P	26
1270026200	GMD-12M	DC60V	3W	1a	3P	26
1270026300	GMD-12M	DC72V	3W	1a	3P	26
1270026400	GMD-12M	DC110V	3W	1a	3P	26
1270026500	GMD-12M	DC120V	3W	1a	3P	26
1270026600	GMD-12M	DC125V	3W	1a	3P	26
1270026700	GMD-12M	DC220V	3W	1a	3P	26
1270026800	GMD-12M	DC240V	3W	1a	3P	26
1270026900	GMD-12M	DC250V	3W	1a	3P	26
1270028400	GMD-12M	DC12V	3W	1b	3P	26
1270028500	GMD-12M	DC20V	3W	1b	3P	26
1270028600	GMD-12M	DC24V	3W	1b	3P	26
1270028700	GMD-12M	DC36V	3W	1b	3P	26
1270028800	GMD-12M	DC42V	3W	1b	3P	26
1270028900	GMD-12M	DC48V	3W	1b	3P	26
1270029000	GMD-12M	DC60V	3W	1b	3P	26
1270029100	GMD-12M	DC72V	3W	1b	3P	26
1270029200	GMD-12M	DC110V	3W	1b	3P	26
1270029300	GMD-12M	DC120V	3W	1b	3P	26
1270029400	GMD-12M	DC125V	3W	1b	3P	26
1270029500	GMD-12M	DC220V	3W	1b	3P	26
1270029600	GMD-12M	DC240V	3W	1b	3P	26
1270029700	GMD-12M	DC250V	3W	1b	3P	26
1270038300	GMD-16M	DC12V	1.2W	1a	3P	26
1270038400	GMD-16M	DC20V	1.2W	1a	3P	26
1270038500	GMD-16M	DC24V	1.2W	1a	3P	26

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## Mini Contactors

### 3-pole DC operating Mini Contactors (6~16A)

Catalogue No.	Model	Coil Voltage (V)	Coil consumption	No. of Auxiliary Contact	Pole	Page No.
1270038600	GMD-16M	DC48V	1.2W	1a	3P	26
1270038700	GMD-16M	DC72V	1.2W	1a	3P	26
1270038800	GMD-16M	DC110V	1.2W	1a	3P	26
1270038900	GMD-16M	DC120V	1.2W	1a	3P	26
1270041100	GMD-16M	DC12V	1.2W	1b	3P	26
1270041200	GMD-16M	DC20V	1.2W	1b	3P	26
1270041300	GMD-16M	DC24V	1.2W	1b	3P	26
1270041400	GMD-16M	DC48V	1.2W	1b	3P	26
1270041500	GMD-16M	DC72V	1.2W	1b	3P	26
1270041600	GMD-16M	DC110V	1.2W	1b	3P	26
1270041700	GMD-16M	DC120V	1.2W	1b	3P	26
1270039000	GMD-16M	DC12V	2W	1a	3P	26
1270039100	GMD-16M	DC20V	2W	1a	3P	26
1270039200	GMD-16M	DC24V	2W	1a	3P	26
1270039300	GMD-16M	DC48V	2W	1a	3P	26
1270039400	GMD-16M	DC72V	2W	1a	3P	26
1270039500	GMD-16M	DC110V	2W	1a	3P	26
1270039600	GMD-16M	DC120V	2W	1a	3P	26
1270041800	GMD-16M	DC12V	2W	1b	3P	26
1270041900	GMD-16M	DC20V	2W	1b	3P	26
1270042000	GMD-16M	DC24V	2W	1b	3P	26
1270042100	GMD-16M	DC48V	2W	1b	3P	26
1270042200	GMD-16M	DC72V	2W	1b	3P	26
1270042300	GMD-16M	DC110V	2W	1b	3P	26
1270042400	GMD-16M	DC120V	2W	1b	3P	26
1270036900	GMD-16M	DC12V	3W	1a	3P	26
1270037000	GMD-16M	DC20V	3W	1a	3P	26
1270037100	GMD-16M	DC24V	3W	1a	3P	26
1270037200	GMD-16M	DC36V	3W	1a	3P	26
1270037300	GMD-16M	DC42V	3W	1a	3P	26
1270037400	GMD-16M	DC48V	3W	1a	3P	26
1270037500	GMD-16M	DC60V	3W	1a	3P	26
1270037600	GMD-16M	DC72V	3W	1a	3P	26
1270037700	GMD-16M	DC110V	3W	1a	3P	26
1270037800	GMD-16M	DC120V	3W	1a	3P	26
1270037900	GMD-16M	DC125V	3W	1a	3P	26
1270038000	GMD-16M	DC220V	3W	1a	3P	26
1270038100	GMD-16M	DC240V	3W	1a	3P	26
1270038200	GMD-16M	DC250V	3W	1a	3P	26
1270039700	GMD-16M	DC12V	3W	1b	3P	26
1270039800	GMD-16M	DC20V	3W	1b	3P	26
1270039900	GMD-16M	DC24V	3W	1b	3P	26
1270040000	GMD-16M	DC36V	3W	1b	3P	26
1270040100	GMD-16M	DC42V	3W	1b	3P	26
1270040200	GMD-16M	DC48V	3W	1b	3P	26
1270040300	GMD-16M	DC60V	3W	1b	3P	26
1270040400	GMD-16M	DC72V	3W	1b	3P	26
1270040500	GMD-16M	DC110V	3W	1b	3P	26
1270040600	GMD-16M	DC120V	3W	1b	3P	26
1270040700	GMD-16M	DC125V	3W	1b	3P	26
1270040800	GMD-16M	DC220V	3W	1b	3P	26
1270040900	GMD-16M	DC240V	3W	1b	3P	26
1270041000	GMD-16M	DC250V	3W	1b	3P	26
1270047300	GMD-6MF	DC220V	3W	1a	3P	26
1270046200	GMD-9MP	DC24V	3W	1a	3P	27
1270045900	GMD-12MP	DC24V	1.2W	1a	3P	27
1270046000	GMD-9MR	DC60V	3W	2b	3P	63

## 4-pole AC operating Mini Contactors (6~16A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Main Contact	Pole	Page No.
1269004100	GMC-6M	AC24V	50/60Hz	2a2b	4P	
1269004200	GMC-6M	AC36V	50/60Hz	2a2b	4P	
1269004300	GMC-6M	AC42V	50/60Hz	2a2b	4P	
1269004400	GMC-6M	AC48V	50/60Hz	2a2b	4P	
1269004500	GMC-6M	AC110V	50/60Hz	2a2b	4P	
1269004600	GMC-6M	AC115V	50/60Hz	2a2b	4P	
1269004700	GMC-6M	AC120V	50/60Hz	2a2b	4P	
1269004800	GMC-6M	AC127V	50/60Hz	2a2b	4P	
1269037800	GMC-6M	AC200V	50/60Hz	2a2b	4P	
1269005000	GMC-6M	AC220V	50/60Hz	2a2b	4P	
1269037900	GMC-6M	AC240V	50/60Hz	2a2b	4P	
1269005300	GMC-6M	AC256V	50/60Hz	2a2b	4P	
1269005400	GMC-6M	AC277V	50/60Hz	2a2b	4P	
1269033100	GMC-6M	AC380V	50/60Hz	2a2b	4P	
1269005600	GMC-6M	AC400V	50/60Hz	2a2b	4P	
1269005700	GMC-6M	AC440V	50/60Hz	2a2b	4P	
1269005800	GMC-6M	AC480V	50/60Hz	2a2b	4P	
1269005900	GMC-6M	AC500V	50/60Hz	2a2b	4P	
1269006000	GMC-6M	AC550V	50/60Hz	2a2b	4P	
1269000100	GMC-6M	AC24V	50/60Hz	4a	4P	
1269000200	GMC-6M	AC36V	50/60Hz	4a	4P	
1269000300	GMC-6M	AC42V	50/60Hz	4a	4P	
1269000400	GMC-6M	AC48V	50/60Hz	4a	4P	
1269000500	GMC-6M	AC110V	50/60Hz	4a	4P	
1269000600	GMC-6M	AC115V	50/60Hz	4a	4P	
1269000700	GMC-6M	AC120V	50/60Hz	4a	4P	
1269000800	GMC-6M	AC127V	50/60Hz	4a	4P	
1269037300	GMC-6M	AC200V	50/60Hz	4a	4P	
1269001000	GMC-6M	AC220V	50/60Hz	4a	4P	
1269037400	GMC-6M	AC240V	50/60Hz	4a	4P	
1269001300	GMC-6M	AC256V	50/60Hz	4a	4P	
1269001400	GMC-6M	AC277V	50/60Hz	4a	4P	
1269032800	GMC-6M	AC380V	50/60Hz	4a	4P	
1269001600	GMC-6M	AC400V	50/60Hz	4a	4P	
1269001700	GMC-6M	AC440V	50/60Hz	4a	4P	
1269001800	GMC-6M	AC480V	50/60Hz	4a	4P	
1269001900	GMC-6M	AC500V	50/60Hz	4a	4P	
1269002000	GMC-6M	AC550V	50/60Hz	4a	4P	
1269012100	GMC-9M	AC24V	50/60Hz	2a2b	4P	
1269012200	GMC-9M	AC36V	50/60Hz	2a2b	4P	
1269012300	GMC-9M	AC42V	50/60Hz	2a2b	4P	
1269012400	GMC-9M	AC48V	50/60Hz	2a2b	4P	
1269012500	GMC-9M	AC110V	50/60Hz	2a2b	4P	
1269012600	GMC-9M	AC115V	50/60Hz	2a2b	4P	
1269012700	GMC-9M	AC120V	50/60Hz	2a2b	4P	
1269012800	GMC-9M	AC127V	50/60Hz	2a2b	4P	
1269038500	GMC-9M	AC200V	50/60Hz	2a2b	4P	
1269013000	GMC-9M	AC220V	50/60Hz	2a2b	4P	
1269038600	GMC-9M	AC240V	50/60Hz	2a2b	4P	
1269013300	GMC-9M	AC256V	50/60Hz	2a2b	4P	
1269013400	GMC-9M	AC277V	50/60Hz	2a2b	4P	
1269033500	GMC-9M	AC380V	50/60Hz	2a2b	4P	
1269013600	GMC-9M	AC400V	50/60Hz	2a2b	4P	
1269013700	GMC-9M	AC440V	50/60Hz	2a2b	4P	
1269013800	GMC-9M	AC480V	50/60Hz	2a2b	4P	

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## Mini Contactors

### 4-pole AC operating Mini Contactors (6~16A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Main Contact	Pole	Page No.
1269013900	GMC-9M	AC500V	50/60Hz	2a2b	4P	
1269014000	GMC-9M	AC550V	50/60Hz	2a2b	4P	
1269006100	GMC-9M	AC24V	50/60Hz	4a	4P	
1269006200	GMC-9M	AC36V	50/60Hz	4a	4P	
1269006300	GMC-9M	AC42V	50/60Hz	4a	4P	
1269006400	GMC-9M	AC48V	50/60Hz	4a	4P	
1269006500	GMC-9M	AC110V	50/60Hz	4a	4P	
1269006600	GMC-9M	AC115V	50/60Hz	4a	4P	
1269006700	GMC-9M	AC120V	50/60Hz	4a	4P	
1269006800	GMC-9M	AC127V	50/60Hz	4a	4P	
1269038000	GMC-9M	AC200V	50/60Hz	4a	4P	
1269007000	GMC-9M	AC220V	50/60Hz	4a	4P	
1269038100	GMC-9M	AC240V	50/60Hz	4a	4P	
1269007300	GMC-9M	AC256V	50/60Hz	4a	4P	
1269007400	GMC-9M	AC277V	50/60Hz	4a	4P	
1269033200	GMC-9M	AC380V	50/60Hz	4a	4P	
1269007600	GMC-9M	AC400V	50/60Hz	4a	4P	
1269007700	GMC-9M	AC440V	50/60Hz	4a	4P	
1269007800	GMC-9M	AC480V	50/60Hz	4a	4P	
1269007900	GMC-9M	AC500V	50/60Hz	4a	4P	
1269008000	GMC-9M	AC550V	50/60Hz	4a	4P	
1269020800	GMC-12M	AC24V	50/60Hz	2a2b	4P	
1269020900	GMC-12M	AC36V	50/60Hz	2a2b	4P	
1269021000	GMC-12M	AC42V	50/60Hz	2a2b	4P	
1269021100	GMC-12M	AC48V	50/60Hz	2a2b	4P	
1269021200	GMC-12M	AC110V	50/60Hz	2a2b	4P	
1269021300	GMC-12M	AC115V	50/60Hz	2a2b	4P	
1269021400	GMC-12M	AC120V	50/60Hz	2a2b	4P	
1269021500	GMC-12M	AC127V	50/60Hz	2a2b	4P	
1269039200	GMC-12M	AC200V	50/60Hz	2a2b	4P	
1269021700	GMC-12M	AC220V	50/60Hz	2a2b	4P	
1269039300	GMC-12M	AC240V	50/60Hz	2a2b	4P	
1269022000	GMC-12M	AC256V	50/60Hz	2a2b	4P	
1269022100	GMC-12M	AC277V	50/60Hz	2a2b	4P	
1269033900	GMC-12M	AC380V	50/60Hz	2a2b	4P	
1269022300	GMC-12M	AC400V	50/60Hz	2a2b	4P	
1269022400	GMC-12M	AC440V	50/60Hz	2a2b	4P	
1269022500	GMC-12M	AC480V	50/60Hz	2a2b	4P	
1269022600	GMC-12M	AC500V	50/60Hz	2a2b	4P	
1269022700	GMC-12M	AC550V	50/60Hz	2a2b	4P	
1269014100	GMC-12M	AC24V	50/60Hz	4a	4P	
1269014200	GMC-12M	AC36V	50/60Hz	4a	4P	
1269014300	GMC-12M	AC42V	50/60Hz	4a	4P	
1269014400	GMC-12M	AC48V	50/60Hz	4a	4P	
1269014500	GMC-12M	AC110V	50/60Hz	4a	4P	
1269014600	GMC-12M	AC115V	50/60Hz	4a	4P	
1269014700	GMC-12M	AC120V	50/60Hz	4a	4P	
1269014800	GMC-12M	AC127V	50/60Hz	4a	4P	
1269038700	GMC-12M	AC200V	50/60Hz	4a	4P	
1269015000	GMC-12M	AC220V	50/60Hz	4a	4P	
1269038800	GMC-12M	AC240V	50/60Hz	4a	4P	
1269015300	GMC-12M	AC256V	50/60Hz	4a	4P	
1269015400	GMC-12M	AC277V	50/60Hz	4a	4P	
1269033600	GMC-12M	AC380V	50/60Hz	4a	4P	
1269016200	GMC-12M	AC400V	50/60Hz	4a	4P	

## 4-pole AC operating Mini Contactors (6~16A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Main Contact	Pole	Page No.
1269016300	GMC-12M	AC440V	50/60Hz	4a	4P	
1269016400	GMC-12M	AC480V	50/60Hz	4a	4P	
1269016500	GMC-12M	AC500V	50/60Hz	4a	4P	
1269030800	GMC-16M	AC24V	50/60Hz	2a2b	4P	
1269030900	GMC-16M	AC36V	50/60Hz	2a2b	4P	
1269031000	GMC-16M	AC42V	50/60Hz	2a2b	4P	
1269031100	GMC-16M	AC48V	50/60Hz	2a2b	4P	
1269031200	GMC-16M	AC110V	50/60Hz	2a2b	4P	
1269031300	GMC-16M	AC115V	50/60Hz	2a2b	4P	
1269031400	GMC-16M	AC120V	50/60Hz	2a2b	4P	
1269031500	GMC-16M	AC127V	50/60Hz	2a2b	4P	
1269039900	GMC-16M	AC200V	50/60Hz	2a2b	4P	
1269031700	GMC-16M	AC220V	50/60Hz	2a2b	4P	
1269040000	GMC-16M	AC240V	50/60Hz	2a2b	4P	
1269032000	GMC-16M	AC256V	50/60Hz	2a2b	4P	
1269032100	GMC-16M	AC277V	50/60Hz	2a2b	4P	
1269034300	GMC-16M	AC380V	50/60Hz	2a2b	4P	
1269032300	GMC-16M	AC400V	50/60Hz	2a2b	4P	
1269032400	GMC-16M	AC440V	50/60Hz	2a2b	4P	
1269032500	GMC-16M	AC480V	50/60Hz	2a2b	4P	
1269032600	GMC-16M	AC500V	50/60Hz	2a2b	4P	
1269032700	GMC-16M	AC550V	50/60Hz	2a2b	4P	
1269024800	GMC-16M	AC24V	50/60Hz	4a	4P	
1269024900	GMC-16M	AC36V	50/60Hz	4a	4P	
1269025000	GMC-16M	AC42V	50/60Hz	4a	4P	
1269025100	GMC-16M	AC48V	50/60Hz	4a	4P	
1269025200	GMC-16M	AC110V	50/60Hz	4a	4P	
1269025300	GMC-16M	AC115V	50/60Hz	4a	4P	
1269025400	GMC-16M	AC120V	50/60Hz	4a	4P	
1269025500	GMC-16M	AC127V	50/60Hz	4a	4P	
1269039400	GMC-16M	AC200V	50/60Hz	4a	4P	
1269025700	GMC-16M	AC220V	50/60Hz	4a	4P	
1269039500	GMC-16M	AC240V	50/60Hz	4a	4P	
1269026000	GMC-16M	AC256V	50/60Hz	4a	4P	
1269026100	GMC-16M	AC277V	50/60Hz	4a	4P	
1269034000	GMC-16M	AC380V	50/60Hz	4a	4P	
1269026300	GMC-16M	AC400V	50/60Hz	4a	4P	
1269026400	GMC-16M	AC440V	50/60Hz	4a	4P	
1269026500	GMC-16M	AC480V	50/60Hz	4a	4P	
1269026600	GMC-16M	AC500V	50/60Hz	4a	4P	
1269026700	GMC-16M	AC550V	50/60Hz	4a	4P	

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## Mini Contactors

### 4-pole DC operating Mini Contactors (6~16A)

Catalogue No.	Model	Coil Voltage (V)	Coil consumption	Main Contact	Pole	Page No.
1270009900	GMD-6M	DC12V	1.2W	2a2b	4P	
1270010000	GMD-6M	DC20V	1.2W	2a2b	4P	
1270010100	GMD-6M	DC24V	1.2W	2a2b	4P	
1270010200	GMD-6M	DC48V	1.2W	2a2b	4P	
1270010300	GMD-6M	DC72V	1.2W	2a2b	4P	
1270010400	GMD-6M	DC110V	1.2W	2a2b	4P	
1270010500	GMD-6M	DC120V	1.2W	2a2b	4P	
1270001500	GMD-6M	DC12V	1.2W	4a	4P	
1270001600	GMD-6M	DC20V	1.2W	4a	4P	
1270001700	GMD-6M	DC24V	1.2W	4a	4P	
1270001800	GMD-6M	DC48V	1.2W	4a	4P	
1270001900	GMD-6M	DC72V	1.2W	4a	4P	
1270002000	GMD-6M	DC110V	1.2W	4a	4P	
1270002100	GMD-6M	DC120V	1.2W	4a	4P	
1270010600	GMD-6M	DC12V	2W	2a2b	4P	
1270010700	GMD-6M	DC20V	2W	2a2b	4P	
1270010800	GMD-6M	DC24V	2W	2a2b	4P	
1270010900	GMD-6M	DC48V	2W	2a2b	4P	
1270011000	GMD-6M	DC72V	2W	2a2b	4P	
1270011100	GMD-6M	DC110V	2W	2a2b	4P	
1270011200	GMD-6M	DC120V	2W	2a2b	4P	
1270002200	GMD-6M	DC12V	2W	4a	4P	
1270002300	GMD-6M	DC20V	2W	4a	4P	
1270002400	GMD-6M	DC24V	2W	4a	4P	
1270002500	GMD-6M	DC48V	2W	4a	4P	
1270002600	GMD-6M	DC72V	2W	4a	4P	
1270002700	GMD-6M	DC110V	2W	4a	4P	
1270002800	GMD-6M	DC120V	2W	4a	4P	
1270000100	GMD-6M	DC12V	3W	4a	4P	
1270000200	GMD-6M	DC20V	3W	4a	4P	
1270000300	GMD-6M	DC24V	3W	4a	4P	
1270000400	GMD-6M	DC36V	3W	4a	4P	
1270000500	GMD-6M	DC42V	3W	4a	4P	
1270000600	GMD-6M	DC48V	3W	4a	4P	
1270000700	GMD-6M	DC60V	3W	4a	4P	
1270000800	GMD-6M	DC72V	3W	4a	4P	
1270000900	GMD-6M	DC110V	3W	4a	4P	
1270001000	GMD-6M	DC120V	3W	4a	4P	
1270001100	GMD-6M	DC125V	3W	4a	4P	
1270001200	GMD-6M	DC220V	3W	4a	4P	
1270001300	GMD-6M	DC240V	3W	4a	4P	
1270001400	GMD-6M	DC250V	3W	4a	4P	
1270008500	GMD-6M	DC12V	3W	2a2b	4P	
1270008600	GMD-6M	DC20V	3W	2a2b	4P	
1270008700	GMD-6M	DC24V	3W	2a2b	4P	
1270008800	GMD-6M	DC36V	3W	2a2b	4P	
1270008900	GMD-6M	DC42V	3W	2a2b	4P	
1270009000	GMD-6M	DC48V	3W	2a2b	4P	
1270009100	GMD-6M	DC60V	3W	2a2b	4P	
1270009200	GMD-6M	DC72V	3W	2a2b	4P	
1270009300	GMD-6M	DC110V	3W	2a2b	4P	
1270009400	GMD-6M	DC120V	3W	2a2b	4P	
1270009500	GMD-6M	DC125V	3W	2a2b	4P	
1270009600	GMD-6M	DC220V	3W	2a2b	4P	
1270009700	GMD-6M	DC240V	3W	2a2b	4P	
1270009800	GMD-6M	DC250V	3W	2a2b	4P	
1270021400	GMD-9M	DC12V	1.2W	2a2b	4P	
1270021500	GMD-9M	DC20V	1.2W	2a2b	4P	



## 4-pole DC operating Mini Contactors (6~16A)

Catalogue No.	Model	Coil Voltage (V)	Coil consumption	Main Contact	Pole	Page No.
1270021600	GMD-9M	DC24V	1.2W	2a2b	4P	
1270021700	GMD-9M	DC48V	1.2W	2a2b	4P	
1270021800	GMD-9M	DC72V	1.2W	2a2b	4P	
1270021900	GMD-9M	DC110V	1.2W	2a2b	4P	
1270022000	GMD-9M	DC120V	1.2W	2a2b	4P	
1270012700	GMD-9M	DC12V	1.2W	4a	4P	
1270012800	GMD-9M	DC20V	1.2W	4a	4P	
1270012900	GMD-9M	DC24V	1.2W	4a	4P	
1270013000	GMD-9M	DC48V	1.2W	4a	4P	
1270013100	GMD-9M	DC72V	1.2W	4a	4P	
1270013200	GMD-9M	DC110V	1.2W	4a	4P	
1270013300	GMD-9M	DC120V	1.2W	4a	4P	
1270022100	GMD-9M	DC12V	2W	2a2b	4P	
1270022200	GMD-9M	DC20V	2W	2a2b	4P	
1270022300	GMD-9M	DC24V	2W	2a2b	4P	
1270022400	GMD-9M	DC48V	2W	2a2b	4P	
1270022500	GMD-9M	DC72V	2W	2a2b	4P	
1270022600	GMD-9M	DC110V	2W	2a2b	4P	
1270022700	GMD-9M	DC120V	2W	2a2b	4P	
1270013400	GMD-9M	DC12V	2W	4a	4P	
1270013500	GMD-9M	DC20V	2W	4a	4P	
1270013600	GMD-9M	DC24V	2W	4a	4P	
1270013700	GMD-9M	DC48V	2W	4a	4P	
1270013800	GMD-9M	DC72V	2W	4a	4P	
1270013900	GMD-9M	DC110V	2W	4a	4P	
1270014000	GMD-9M	DC120V	2W	4a	4P	
1270011300	GMD-9M	DC12V	3W	4a	4P	
1270011400	GMD-9M	DC20V	3W	4a	4P	
1270011500	GMD-9M	DC24V	3W	4a	4P	
1270011600	GMD-9M	DC36V	3W	4a	4P	
1270011700	GMD-9M	DC42V	3W	4a	4P	
1270011800	GMD-9M	DC48V	3W	4a	4P	
1270011900	GMD-9M	DC60V	3W	4a	4P	
1270012000	GMD-9M	DC72V	3W	4a	4P	
1270012100	GMD-9M	DC110V	3W	4a	4P	
1270012200	GMD-9M	DC120V	3W	4a	4P	
1270012300	GMD-9M	DC125V	3W	4a	4P	
1270012400	GMD-9M	DC220V	3W	4a	4P	
1270012500	GMD-9M	DC240V	3W	4a	4P	
1270012600	GMD-9M	DC250V	3W	4a	4P	
1270020000	GMD-9M	DC12V	3W	2a2b	4P	
1270020100	GMD-9M	DC20V	3W	2a2b	4P	
1270020200	GMD-9M	DC24V	3W	2a2b	4P	
1270020300	GMD-9M	DC36V	3W	2a2b	4P	
1270020400	GMD-9M	DC42V	3W	2a2b	4P	
1270020500	GMD-9M	DC48V	3W	2a2b	4P	
1270020600	GMD-9M	DC60V	3W	2a2b	4P	
1270020700	GMD-9M	DC72V	3W	2a2b	4P	
1270020800	GMD-9M	DC110V	3W	2a2b	4P	
1270020900	GMD-9M	DC120V	3W	2a2b	4P	
1270021000	GMD-9M	DC125V	3W	2a2b	4P	
1270021100	GMD-9M	DC220V	3W	2a2b	4P	
1270021200	GMD-9M	DC240V	3W	2a2b	4P	
1270021300	GMD-9M	DC250V	3W	2a2b	4P	
1270032600	GMD-12M	DC12V	1.2W	2a2b	4P	
1270032700	GMD-12M	DC20V	1.2W	2a2b	4P	
1270032800	GMD-12M	DC24V	1.2W	2a2b	4P	
1270032900	GMD-12M	DC48V	1.2W	2a2b	4P	

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## Mini Contactors

### 4-pole DC operating Mini Contactors (6~16A)

Catalogue No.	Model	Coil Voltage (V)	Coil consumption	Main Contact	Pole	Page No.
1270033000	GMD-12M	DC72V	1.2W	2a2b	4P	
1270033100	GMD-12M	DC110V	1.2W	2a2b	4P	
1270033200	GMD-12M	DC120V	1.2W	2a2b	4P	
1270024200	GMD-12M	DC12V	1.2W	4a	4P	
1270024300	GMD-12M	DC20V	1.2W	4a	4P	
1270024400	GMD-12M	DC24V	1.2W	4a	4P	
1270024500	GMD-12M	DC48V	1.2W	4a	4P	
1270024600	GMD-12M	DC72V	1.2W	4a	4P	
1270024700	GMD-12M	DC110V	1.2W	4a	4P	
1270024800	GMD-12M	DC120V	1.2W	4a	4P	
1270033300	GMD-12M	DC12V	2W	2a2b	4P	
1270033400	GMD-12M	DC20V	2W	2a2b	4P	
1270033500	GMD-12M	DC24V	2W	2a2b	4P	
1270033600	GMD-12M	DC48V	2W	2a2b	4P	
1270033700	GMD-12M	DC72V	2W	2a2b	4P	
1270033800	GMD-12M	DC110V	2W	2a2b	4P	
1270033900	GMD-12M	DC120V	2W	2a2b	4P	
1270024900	GMD-12M	DC12V	2W	4a	4P	
1270025000	GMD-12M	DC20V	2W	4a	4P	
1270025100	GMD-12M	DC24V	2W	4a	4P	
1270025200	GMD-12M	DC48V	2W	4a	4P	
1270025300	GMD-12M	DC72V	2W	4a	4P	
1270025400	GMD-12M	DC110V	2W	4a	4P	
1270025500	GMD-12M	DC120V	2W	4a	4P	
1270031200	GMD-12M	DC12V	3W	2a2b	4P	
1270031300	GMD-12M	DC20V	3W	2a2b	4P	
1270031400	GMD-12M	DC24V	3W	2a2b	4P	
1270031500	GMD-12M	DC36V	3W	2a2b	4P	
1270031600	GMD-12M	DC42V	3W	2a2b	4P	
1270031700	GMD-12M	DC48V	3W	2a2b	4P	
1270031800	GMD-12M	DC60V	3W	2a2b	4P	
1270031900	GMD-12M	DC72V	3W	2a2b	4P	
1270032000	GMD-12M	DC110V	3W	2a2b	4P	
1270032100	GMD-12M	DC120V	3W	2a2b	4P	
1270032200	GMD-12M	DC125V	3W	2a2b	4P	
1270032300	GMD-12M	DC220V	3W	2a2b	4P	
1270032400	GMD-12M	DC240V	3W	2a2b	4P	
1270032500	GMD-12M	DC250V	3W	2a2b	4P	
1270022800	GMD-12M	DC12V	3W	4a	4P	
1270022900	GMD-12M	DC20V	3W	4a	4P	
1270023000	GMD-12M	DC24V	3W	4a	4P	
1270023100	GMD-12M	DC36V	3W	4a	4P	
1270023200	GMD-12M	DC42V	3W	4a	4P	
1270023300	GMD-12M	DC48V	3W	4a	4P	
1270023400	GMD-12M	DC60V	3W	4a	4P	
1270023500	GMD-12M	DC72V	3W	4a	4P	
1270023600	GMD-12M	DC110V	3W	4a	4P	
1270023700	GMD-12M	DC120V	3W	4a	4P	
1270023800	GMD-12M	DC125V	3W	4a	4P	
1270023900	GMD-12M	DC220V	3W	4a	4P	
1270024000	GMD-12M	DC240V	3W	4a	4P	
1270024100	GMD-12M	DC250V	3W	4a	4P	
1270043900	GMD-16M	DC12V	1.2W	2a2b	4P	
1270044000	GMD-16M	DC20V	1.2W	2a2b	4P	
1270044100	GMD-16M	DC24V	1.2W	2a2b	4P	
1270044200	GMD-16M	DC48V	1.2W	2a2b	4P	
1270044300	GMD-16M	DC72V	1.2W	2a2b	4P	
1270044400	GMD-16M	DC110V	1.2W	2a2b	4P	



## 4-pole DC operating Mini Contactors (6~16A)

Catalogue No.	Model	Coil Voltage (V)	Coil consumption	Main Contact	Pole	Page No.
1270044500	GMD-16M	DC120V	1.2W	2a2b	4P	
1270035500	GMD-16M	DC12V	1.2W	4a	4P	
1270035600	GMD-16M	DC20V	1.2W	4a	4P	
1270035700	GMD-16M	DC24V	1.2W	4a	4P	
1270035800	GMD-16M	DC48V	1.2W	4a	4P	
1270035900	GMD-16M	DC72V	1.2W	4a	4P	
1270036000	GMD-16M	DC110V	1.2W	4a	4P	
1270036100	GMD-16M	DC120V	1.2W	4a	4P	
1270044600	GMD-16M	DC12V	2W	2a2b	4P	
1270044700	GMD-16M	DC20V	2W	2a2b	4P	
1270044800	GMD-16M	DC24V	2W	2a2b	4P	
1270044900	GMD-16M	DC48V	2W	2a2b	4P	
1270045000	GMD-16M	DC72V	2W	2a2b	4P	
1270045100	GMD-16M	DC110V	2W	2a2b	4P	
1270045200	GMD-16M	DC120V	2W	2a2b	4P	
1270036200	GMD-16M	DC12V	2W	4a	4P	
1270036300	GMD-16M	DC20V	2W	4a	4P	
1270036400	GMD-16M	DC24V	2W	4a	4P	
1270036500	GMD-16M	DC48V	2W	4a	4P	
1270036600	GMD-16M	DC72V	2W	4a	4P	
1270036700	GMD-16M	DC110V	2W	4a	4P	
1270036800	GMD-16M	DC120V	2W	4a	4P	
1270042500	GMD-16M	DC12V	3W	2a2b	4P	
1270042600	GMD-16M	DC20V	3W	2a2b	4P	
1270042700	GMD-16M	DC24V	3W	2a2b	4P	
1270042800	GMD-16M	DC36V	3W	2a2b	4P	
1270042900	GMD-16M	DC42V	3W	2a2b	4P	
1270043000	GMD-16M	DC48V	3W	2a2b	4P	
1270043100	GMD-16M	DC60V	3W	2a2b	4P	
1270043200	GMD-16M	DC72V	3W	2a2b	4P	
1270043300	GMD-16M	DC110V	3W	2a2b	4P	
1270043400	GMD-16M	DC120V	3W	2a2b	4P	
1270043500	GMD-16M	DC125V	3W	2a2b	4P	
1270043600	GMD-16M	DC220V	3W	2a2b	4P	
1270043700	GMD-16M	DC240V	3W	2a2b	4P	
1270043800	GMD-16M	DC250V	3W	2a2b	4P	
1270034100	GMD-16M	DC12V	3W	4a	4P	
1270034200	GMD-16M	DC20V	3W	4a	4P	
1270034400	GMD-16M	DC36V	3W	4a	4P	
1270034500	GMD-16M	DC42V	3W	4a	4P	
1270034600	GMD-16M	DC48V	3W	4a	4P	
1270034700	GMD-16M	DC60V	3W	4a	4P	
1270034800	GMD-16M	DC72V	3W	4a	4P	
1270034900	GMD-16M	DC110V	3W	4a	4P	
1270035000	GMD-16M	DC120V	3W	4a	4P	
1270035100	GMD-16M	DC125V	3W	4a	4P	
1270035200	GMD-16M	DC220V	3W	4a	4P	
1270035300	GMD-16M	DC240V	3W	4a	4P	
1270035400	GMD-16M	DC250V	3W	4a	4P	

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**GMC**

## 3-pole AC operating Contactors (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	No. of Auxiliary Contact	Pole	Page No.
1250001300	GMC-9	AC24V	50Hz	1a1b	3P	28
1250001400	GMC-9	AC42V	50Hz	1a1b	3P	28
1250001500	GMC-9	AC48V	50Hz	1a1b	3P	28
1250047900	GMC-9	AC100V	50Hz	1a1b	3P	28
1250001600	GMC-9	AC110V	50Hz	1a1b	3P	28
1250001700	GMC-9	AC220V	50Hz	1a1b	3P	28
1250003000	GMC-9	AC230V	50Hz	1a1b	3P	28
1250001900	GMC-9	AC240V	50Hz	1a1b	3P	28
1250002000	GMC-9	AC380V	50Hz	1a1b	3P	28
1250002100	GMC-9	AC400V	50Hz	1a1b	3P	28
1250002500	GMC-9	AC415V	50Hz	1a1b	3P	28
1250002200	GMC-9	AC440V	50Hz	1a1b	3P	28
1250002300	GMC-9	AC500V	50Hz	1a1b	3P	28
1250002400	GMC-9	AC550V	50Hz	1a1b	3P	28
1250034700	GMC-9	AC24V	50/60Hz	1a1b	3P	28
1250017900	GMC-9	AC48V	50/60Hz	1a1b	3P	28
1250031100	GMC-9	AC110V	50/60Hz	1a1b	3P	28
1250058700	GMC-9	AC120V	50/60Hz	1a1b	3P	28
1250034400	GMC-9	AC220V	50/60Hz	1a1b	3P	28
1250061200	GMC-9	AC220V	50/60Hz	2a2b	3P	28
1250055000	GMC-9	AC230V	50/60Hz	1a1b	3P	28
1250003100	GMC-9	AC240V	50/60Hz	1a1b	3P	28
1250003200	GMC-9	AC380V	50/60Hz	1a1b	3P	28
1250034000	GMC-9	AC415V	50/60Hz	1a1b	3P	28
1250000100	GMC-9	AC24V	60Hz	1a1b	3P	28
1250000200	GMC-9	AC48V	60Hz	1a1b	3P	28
1250000300	GMC-9	AC110V	60Hz	1a1b	3P	28
1250000400	GMC-9	AC120V	60Hz	1a1b	3P	28
1250000500	GMC-9	AC208V	60Hz	1a1b	3P	28
1250000600	GMC-9	AC220V	60Hz	1a1b	3P	28
1250000700	GMC-9	AC240V	60Hz	1a1b	3P	28
1250000800	GMC-9	AC277V	60Hz	1a1b	3P	28
1250000900	GMC-9	AC380V	60Hz	1a1b	3P	28
1250001000	GMC-9	AC440V	60Hz	1a1b	3P	28
1250001100	GMC-9	AC480V	60Hz	1a1b	3P	28
1250001200	GMC-9	AC600V	60Hz	1a1b	3P	28
1250005800	GMC-12	AC24V	50Hz	1a1b	3P	28
1250005900	GMC-12	AC42V	50Hz	1a1b	3P	28
1250006000	GMC-12	AC48V	50Hz	1a1b	3P	28
1250048000	GMC-12	AC100V	50Hz	1a1b	3P	28
1250006100	GMC-12	AC110V	50Hz	1a1b	3P	28
1250006200	GMC-12	AC220V	50Hz	1a1b	3P	28
1250049900	GMC-12	AC220V	50Hz	2a2b	3P	28
1250006300	GMC-12	AC230V	50Hz	1a1b	3P	28
1250006400	GMC-12	AC240V	50Hz	1a1b	3P	28
1250006500	GMC-12	AC380V	50Hz	1a1b	3P	28
1250006600	GMC-12	AC400V	50Hz	1a1b	3P	28
1250007000	GMC-12	AC415V	50Hz	1a1b	3P	28
1250006700	GMC-12	AC440V	50Hz	1a1b	3P	28
1250006800	GMC-12	AC500V	50Hz	1a1b	3P	28
1250006900	GMC-12	AC550V	50Hz	1a1b	3P	28
1250034300	GMC-12	AC24V	50/60Hz	1a1b	3P	28
1250046400	GMC-12	AC48V	50/60Hz	1a1b	3P	28
1250031200	GMC-12	AC110V	50/60Hz	1a1b	3P	28
1250058800	GMC-12	AC120V	50/60Hz	1a1b	3P	28

### 3-pole AC operating Contactors (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	No. of Auxiliary Contact	Pole	Page No.
1250031300	GMC-12	AC220V	50/60Hz	1a1b	3P	28
1250061300	GMC-12	AC220V	50/60Hz	2a2b	3P	28
1250007500	GMC-12	AC240V	50/60Hz	1a1b	3P	28
1250034200	GMC-12	AC380V	50/60Hz	1a1b	3P	28
1250007800	GMC-12	AC415V	50/60Hz	1a1b	3P	28
1250004100	GMC-12	AC24V	60Hz	1a1b	3P	28
1250004200	GMC-12	AC48V	60Hz	1a1b	3P	28
1250004300	GMC-12	AC110V	60Hz	1a1b	3P	28
1250004500	GMC-12	AC120V	60Hz	1a1b	3P	28
1250004600	GMC-12	AC208V	60Hz	1a1b	3P	28
1250004700	GMC-12	AC220V	60Hz	1a1b	3P	28
1250049000	GMC-12	AC230V	60Hz	1a1b	3P	28
1250004800	GMC-12	AC240V	60Hz	1a1b	3P	28
1250004900	GMC-12	AC277V	60Hz	1a1b	3P	28
1250005000	GMC-12	AC380V	60Hz	1a1b	3P	28
1250005500	GMC-12	AC440V	60Hz	1a1b	3P	28
1250005600	GMC-12	AC480V	60Hz	1a1b	3P	28
1250005700	GMC-12	AC600V	60Hz	1a1b	3P	28
1250009700	GMC-18	AC24V	50Hz	1a1b	3P	28
1250009800	GMC-18	AC42V	50Hz	1a1b	3P	28
1250009900	GMC-18	AC48V	50Hz	1a1b	3P	28
1250010000	GMC-18	AC110V	50Hz	1a1b	3P	28
1250010500	GMC-18	AC220V	50Hz	1a1b	3P	28
1250010600	GMC-18	AC230V	50Hz	1a1b	3P	28
1250010700	GMC-18	AC240V	50Hz	1a1b	3P	28
1250010800	GMC-18	AC380V	50Hz	1a1b	3P	28
1250010900	GMC-18	AC400V	50Hz	1a1b	3P	28
1250011000	GMC-18	AC415V	50Hz	1a1b	3P	28
1250011100	GMC-18	AC440V	50Hz	1a1b	3P	28
1250011200	GMC-18	AC500V	50Hz	1a1b	3P	28
1250011300	GMC-18	AC550V	50Hz	1a1b	3P	28
1250034800	GMC-18	AC24V	50/60Hz	1a1b	3P	28
1250011500	GMC-18	AC48V	50/60Hz	1a1b	3P	28
1250031400	GMC-18	AC110V	50/60Hz	1a1b	3P	28
1250058900	GMC-18	AC120V	50/60Hz	1a1b	3P	28
1250031500	GMC-18	AC220V	50/60Hz	1a1b	3P	28
1250011800	GMC-18	AC240V	50/60Hz	1a1b	3P	28
1250034100	GMC-18	AC380V	50/60Hz	1a1b	3P	28
1250012100	GMC-18	AC415V	50/60Hz	1a1b	3P	28
1250008500	GMC-18	AC24V	60Hz	1a1b	3P	28
1250008600	GMC-18	AC48V	60Hz	1a1b	3P	28
1250008700	GMC-18	AC110V	60Hz	1a1b	3P	28
1250008800	GMC-18	AC120V	60Hz	1a1b	3P	28
1250008900	GMC-18	AC208V	60Hz	1a1b	3P	28
1250009000	GMC-18	AC220V	60Hz	1a1b	3P	28
1250049200	GMC-18	AC230V	60Hz	1a1b	3P	28
1250009100	GMC-18	AC240V	60Hz	1a1b	3P	28
1250009200	GMC-18	AC277V	60Hz	1a1b	3P	28
1250009300	GMC-18	AC380V	60Hz	1a1b	3P	28
1250009400	GMC-18	AC440V	60Hz	1a1b	3P	28
1250009500	GMC-18	AC480V	60Hz	1a1b	3P	28
1250009600	GMC-18	AC600V	60Hz	1a1b	3P	28
1250014500	GMC-22	AC24V	50Hz	1a1b	3P	28
1250014600	GMC-22	AC42V	50Hz	1a1b	3P	28
1250014700	GMC-22	AC48V	50Hz	1a1b	3P	28

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**GMC**

## 3-pole AC operating Contactors (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	No. of Auxiliary Contact	Pole	Page No.
1250048200	GMC-22	AC100V	50Hz	1a1b	3P	28
1250014800	GMC-22	AC110V	50Hz	1a1b	3P	28
1250031900	GMC-22	AC110V	50Hz	2a2b	3P	28
1250014900	GMC-22	AC220V	50Hz	1a1b	3P	28
1250019700	GMC-22	AC220V	50Hz	2a2b	3P	28
1250015000	GMC-22	AC230V	50Hz	1a1b	3P	28
1250015500	GMC-22	AC240V	50Hz	1a1b	3P	28
1250015600	GMC-22	AC380V	50Hz	1a1b	3P	28
1250050400	GMC-22	AC380V	50Hz	2a2b	3P	28
1250015700	GMC-22	AC400V	50Hz	1a1b	3P	28
1250015800	GMC-22	AC415V	50Hz	1a1b	3P	28
1250015900	GMC-22	AC440V	50Hz	1a1b	3P	28
1250016000	GMC-22	AC500V	50Hz	1a1b	3P	28
1250016100	GMC-22	AC550V	50Hz	1a1b	3P	28
1250034900	GMC-22	AC24V	50/60Hz	1a1b	3P	28
1250016300	GMC-22	AC48V	50/60Hz	1a1b	3P	28
1250031600	GMC-22	AC110V	50/60Hz	1a1b	3P	28
1250059000	GMC-22	AC120V	50/60Hz	1a1b	3P	28
1250031700	GMC-22	AC220V	50/60Hz	1a1b	3P	28
1250055100	GMC-22	AC230V	50/60Hz	1a1b	3P	28
1250016600	GMC-22	AC240V	50/60Hz	1a1b	3P	28
1250016700	GMC-22	AC380V	50/60Hz	1a1b	3P	28
1250016900	GMC-22	AC415V	50/60Hz	1a1b	3P	28
1250012800	GMC-22	AC24V	60Hz	1a1b	3P	28
1250012900	GMC-22	AC48V	60Hz	1a1b	3P	28
1250013000	GMC-22	AC110V	60Hz	1a1b	3P	28
1250013300	GMC-22	AC120V	60Hz	1a1b	3P	28
1250032500	GMC-22	AC120V	60Hz	2a2b	3P	28
1250013400	GMC-22	AC208V	60Hz	1a1b	3P	28
1250013500	GMC-22	AC220V	60Hz	1a1b	3P	28
1250013700	GMC-22	AC220V	60Hz	2a2b	3P	28
1250013900	GMC-22	AC240V	60Hz	1a1b	3P	28
1250014000	GMC-22	AC277V	60Hz	1a1b	3P	28
1250014100	GMC-22	AC380V	60Hz	1a1b	3P	28
1250014200	GMC-22	AC440V	60Hz	1a1b	3P	28
1250014300	GMC-22	AC480V	60Hz	1a1b	3P	28
1250014400	GMC-22	AC600V	60Hz	1a1b	3P	28
1254001700	GMC-32	AC24V	50Hz	2a2b	3P	30
1254001800	GMC-32	AC42V	50Hz	2a2b	3P	30
1254001900	GMC-32	AC48V	50Hz	2a2b	3P	30
1254031500	GMC-32	AC80V	50Hz	2a2b	3P	30
1254030400	GMC-32	AC100V	50Hz	2a2b	3P	30
1254002100	GMC-32	AC110V	50Hz	1a1b	3P	30
1254002000	GMC-32	AC110V	50Hz	2a2b	3P	30
1254002200	GMC-32	AC220V	50Hz	2a2b	3P	30
1254002300	GMC-32	AC230V	50Hz	2a2b	3P	30
1254002500	GMC-32	AC240V	50Hz	1a1b	3P	30
1254002400	GMC-32	AC240V	50Hz	2a2b	3P	30
1254002600	GMC-32	AC380V	50Hz	2a2b	3P	30
1254002700	GMC-32	AC400V	50Hz	2a2b	3P	30
1254034100	GMC-32	AC415V	50Hz	1a1b	3P	30
1254002800	GMC-32	AC415V	50Hz	2a2b	3P	30
1254002900	GMC-32	AC440V	50Hz	2a2b	3P	30
1254003000	GMC-32	AC500V	50Hz	2a2b	3P	30
1254003100	GMC-32	AC550V	50Hz	2a2b	3P	30

### 3-pole AC operating Contactors (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	No. of Auxiliary Contact	Pole	Page No.
1254022900	GMC-32	AC24V	50/60Hz	2a2b	3P	30
1254021300	GMC-32	AC110V	50/60Hz	1a1b	3P	30
1254003400	GMC-32	AC110V	50/60Hz	2a2b	3P	30
1254036800	GMC-32	AC120V	50/60Hz	2a2b	3P	30
1254021400	GMC-32	AC220V	50/60Hz	1a1b	3P	30
1254003500	GMC-32	AC220V	50/60Hz	2a2b	3P	30
1254034200	GMC-32	AC230V	50/60Hz	1a1b	3P	30
1254003600	GMC-32	AC240V	50/60Hz	2a2b	3P	30
1254003700	GMC-32	AC380V	50/60Hz	2a2b	3P	30
1254003900	GMC-32	AC415V	50/60Hz	2a2b	3P	30
1254000100	GMC-32	AC24V	60Hz	2a2b	3P	30
1254000200	GMC-32	AC48V	60Hz	2a2b	3P	30
1254000300	GMC-32	AC110V	60Hz	2a2b	3P	30
1254000600	GMC-32	AC120V	60Hz	2a2b	3P	30
1254000700	GMC-32	AC208V	60Hz	2a2b	3P	30
1254000800	GMC-32	AC220V	60Hz	2a2b	3P	30
1254001100	GMC-32	AC240V	60Hz	2a2b	3P	30
1254001200	GMC-32	AC277V	60Hz	2a2b	3P	30
1254001300	GMC-32	AC380V	60Hz	2a2b	3P	30
1254001400	GMC-32	AC440V	60Hz	2a2b	3P	30
1254001500	GMC-32	AC480V	60Hz	2a2b	3P	30
1254001600	GMC-32	AC600V	60Hz	2a2b	3P	30
1254006600	GMC-40	AC24V	50Hz	2a2b	3P	30
1254006700	GMC-40	AC42V	50Hz	2a2b	3P	30
1254006800	GMC-40	AC48V	50Hz	2a2b	3P	30
1254029200	GMC-40	AC80V	50Hz	2a2b	3P	30
1254030500	GMC-40	AC100V	50Hz	2a2b	3P	30
1254005400	GMC-40	AC110V	50Hz	1a1b	3P	30
1254006900	GMC-40	AC110V	50Hz	2a2b	3P	30
1254007000	GMC-40	AC220V	50Hz	2a2b	3P	30
1254007100	GMC-40	AC230V	50Hz	2a2b	3P	30
1254007300	GMC-40	AC240V	50Hz	1a1b	3P	30
1254007200	GMC-40	AC240V	50Hz	2a2b	3P	30
1254007400	GMC-40	AC380V	50Hz	2a2b	3P	30
1254007500	GMC-40	AC400V	50Hz	2a2b	3P	30
1254007600	GMC-40	AC415V	50Hz	2a2b	3P	30
1254007700	GMC-40	AC440V	50Hz	2a2b	3P	30
1254007800	GMC-40	AC500V	50Hz	2a2b	3P	30
1254008000	GMC-40	AC550V	50Hz	2a2b	3P	30
1254023000	GMC-40	AC24V	50/60Hz	2a2b	3P	30
1254021500	GMC-40	AC110V	50/60Hz	1a1b	3P	30
1254008300	GMC-40	AC110V	50/60Hz	2a2b	3P	30
1254036900	GMC-40	AC120V	50/60Hz	2a2b	3P	30
1254021600	GMC-40	AC220V	50/60Hz	1a1b	3P	30
1254008400	GMC-40	AC220V	50/60Hz	2a2b	3P	30
1254034300	GMC-40	AC230V	50/60Hz	1a1b	3P	30
1254008500	GMC-40	AC240V	50/60Hz	2a2b	3P	30
1254008600	GMC-40	AC380V	50/60Hz	2a2b	3P	30
1254008800	GMC-40	AC415V	50/60Hz	2a2b	3P	30
1254005000	GMC-40	AC24V	60Hz	2a2b	3P	30
1254005100	GMC-40	AC48V	60Hz	2a2b	3P	30
1254005200	GMC-40	AC110V	60Hz	2a2b	3P	30
1254005500	GMC-40	AC120V	60Hz	2a2b	3P	30
1254005600	GMC-40	AC208V	60Hz	2a2b	3P	30
1254005700	GMC-40	AC220V	60Hz	2a2b	3P	30

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**GMC**

## 3-pole AC operating Contactors (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	No. of Auxiliary Contact	Pole	Page No.
1254030700	GMC-40	AC230V	60Hz	2a2b	3P	30
1254006000	GMC-40	AC240V	60Hz	2a2b	3P	30
1254006100	GMC-40	AC277V	60Hz	2a2b	3P	30
1254006200	GMC-40	AC380V	60Hz	2a2b	3P	30
1254006300	GMC-40	AC440V	60Hz	2a2b	3P	30
1254006400	GMC-40	AC480V	60Hz	2a2b	3P	30
1254006500	GMC-40	AC600V	60Hz	2a2b	3P	30
1258001700	GMC-50	AC24V	50Hz	2a2b	3P	32
1258001800	GMC-50	AC42V	50Hz	2a2b	3P	32
1258001900	GMC-50	AC48V	50Hz	2a2b	3P	32
1258044400	GMC-50	AC100V	50Hz	2a2b	3P	32
1258044900	GMC-50	AC110V	50Hz	1a1b	3P	32
1258002000	GMC-50	AC110V	50Hz	2a2b	3P	32
1258002200	GMC-50	AC220V	50Hz	2a2b	3P	32
1258002300	GMC-50	AC230V	50Hz	2a2b	3P	32
1258045000	GMC-50	AC240V	50Hz	1a1b	3P	32
1258002400	GMC-50	AC240V	50Hz	2a2b	3P	32
1258002500	GMC-50	AC240V	50Hz	2a2b	3P	32
1258002600	GMC-50	AC380V	50Hz	2a2b	3P	32
1258002700	GMC-50	AC400V	50Hz	2a2b	3P	32
1258044800	GMC-50	AC415V	50Hz	1a1b	3P	32
1258003100	GMC-50	AC415V	50Hz	2a2b	3P	32
1258002800	GMC-50	AC440V	50Hz	2a2b	3P	32
1258002900	GMC-50	AC500V	50Hz	2a2b	3P	32
1258003000	GMC-50	AC550V	50Hz	2a2b	3P	32
1258058600	GMC-50	AC24V	50/60Hz	1a1b	3P	32
1258003200	GMC-50	AC24V	50/60Hz	2a2b	3P	32
1258058100	GMC-50	AC48V	50/60Hz	1a1b	3P	32
1258030900	GMC-50	AC110V	50/60Hz	1a1b	3P	32
1258003400	GMC-50	AC110V	50/60Hz	2a2b	3P	32
1258052900	GMC-50	AC120V	50/60Hz	2a2b	3P	32
1258031000	GMC-50	AC220V	50/60Hz	1a1b	3P	32
1258003500	GMC-50	AC220V	50/60Hz	2a2b	3P	32
1258049800	GMC-50	AC230V	50/60Hz	1a1b	3P	32
1258003600	GMC-50	AC240V	50/60Hz	2a2b	3P	32
1258003700	GMC-50	AC380V	50/60Hz	2a2b	3P	32
1258003900	GMC-50	AC415V	50/60Hz	2a2b	3P	32
1258000100	GMC-50	AC24V	60Hz	2a2b	3P	32
1258000200	GMC-50	AC48V	60Hz	2a2b	3P	32
1258000300	GMC-50	AC110V	60Hz	2a2b	3P	32
1258000600	GMC-50	AC120V	60Hz	2a2b	3P	32
1258000700	GMC-50	AC208V	60Hz	2a2b	3P	32
1258000800	GMC-50	AC220V	60Hz	2a2b	3P	32
1258045200	GMC-50	AC230V	60Hz	2a2b	3P	32
1258001100	GMC-50	AC240V	60Hz	2a2b	3P	32
1258001200	GMC-50	AC277V	60Hz	2a2b	3P	32
1258001300	GMC-50	AC380V	60Hz	2a2b	3P	32
1258001400	GMC-50	AC440V	60Hz	2a2b	3P	32
1258001500	GMC-50	AC480V	60Hz	2a2b	3P	32
1258001600	GMC-50	AC600V	60Hz	2a2b	3P	32
1258006500	GMC-65	AC24V	50Hz	2a2b	3P	32
1258006600	GMC-65	AC42V	50Hz	2a2b	3P	32
1258006700	GMC-65	AC48V	50Hz	2a2b	3P	32
1258044500	GMC-65	AC100V	50Hz	2a2b	3P	32
1258006900	GMC-65	AC110V	50Hz	1a1b	3P	32



### 3-pole AC operating Contactors (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	No. of Auxiliary Contact	Pole	Page No.
1258006800	GMC-65	AC110V	50Hz	2a2b	3P	32
1258007000	GMC-65	AC220V	50Hz	2a2b	3P	32
1258007100	GMC-65	AC230V	50Hz	2a2b	3P	32
1258007300	GMC-65	AC240V	50Hz	1a1b	3P	32
1258007200	GMC-65	AC240V	50Hz	2a2b	3P	32
1258007400	GMC-65	AC380V	50Hz	2a2b	3P	32
1258007500	GMC-65	AC400V	50Hz	2a2b	3P	32
1258049500	GMC-65	AC415V	50Hz	1a1b	3P	32
1258007600	GMC-65	AC415V	50Hz	2a2b	3P	32
1258007700	GMC-65	AC440V	50Hz	2a2b	3P	32
1258007800	GMC-65	AC500V	50Hz	2a2b	3P	32
1258007900	GMC-65	AC550V	50Hz	2a2b	3P	32
1258008000	GMC-65	AC24V	50/60Hz	2a2b	3P	32
1258031100	GMC-65	AC110V	50/60Hz	1a1b	3P	32
1258008200	GMC-65	AC110V	50/60Hz	2a2b	3P	32
1258053000	GMC-65	AC120V	50/60Hz	2a2b	3P	32
1258031200	GMC-65	AC220V	50/60Hz	1a1b	3P	32
1258008300	GMC-65	AC220V	50/60Hz	2a2b	3P	32
1258049900	GMC-65	AC230V	50/60Hz	1a1b	3P	32
1258008400	GMC-65	AC240V	50/60Hz	2a2b	3P	32
1258008500	GMC-65	AC380V	50/60Hz	2a2b	3P	32
1258008700	GMC-65	AC415V	50/60Hz	2a2b	3P	32
1258005000	GMC-65	AC24V	60Hz	2a2b	3P	32
1258005100	GMC-65	AC48V	60Hz	2a2b	3P	32
1258005200	GMC-65	AC110V	60Hz	2a2b	3P	32
1258005400	GMC-65	AC120V	60Hz	2a2b	3P	32
1258005500	GMC-65	AC208V	60Hz	2a2b	3P	32
1258005600	GMC-65	AC220V	60Hz	2a2b	3P	32
1258005900	GMC-65	AC240V	60Hz	2a2b	3P	32
1258006000	GMC-65	AC277V	60Hz	2a2b	3P	32
1258006100	GMC-65	AC380V	60Hz	2a2b	3P	32
1258006200	GMC-65	AC440V	60Hz	2a2b	3P	32
1258006300	GMC-65	AC480V	60Hz	2a2b	3P	32
1258006400	GMC-65	AC600V	60Hz	2a2b	3P	32
1258011300	GMC-75	AC24V	50Hz	2a2b	3P	32
1258011400	GMC-75	AC42V	50Hz	2a2b	3P	32
1258011500	GMC-75	AC48V	50Hz	2a2b	3P	32
1258011600	GMC-75	AC110V	50Hz	2a2b	3P	32
1258011700	GMC-75	AC110V	50Hz	1a1b	3P	32
1258011800	GMC-75	AC220V	50Hz	2a2b	3P	32
1258011900	GMC-75	AC230V	50Hz	2a2b	3P	32
1258012000	GMC-75	AC240V	50Hz	2a2b	3P	32
1258012100	GMC-75	AC240V	50Hz	1a1b	3P	32
1258012200	GMC-75	AC380V	50Hz	2a2b	3P	32
1258012300	GMC-75	AC400V	50Hz	2a2b	3P	32
1258012400	GMC-75	AC415V	50Hz	2a2b	3P	32
1258049700	GMC-75	AC415V	50Hz	1a1b	3P	32
1258012500	GMC-75	AC440V	50Hz	2a2b	3P	32
1258012600	GMC-75	AC500V	50Hz	2a2b	3P	32
1258012700	GMC-75	AC550V	50Hz	2a2b	3P	32
1258012800	GMC-75	AC24V	50/60Hz	2a2b	3P	32
1258013000	GMC-75	AC110V	50/60Hz	2a2b	3P	32
1258031300	GMC-75	AC110V	50/60Hz	1a1b	3P	32
1258058000	GMC-75	AC120V	50/60Hz	2a2b	3P	32
1258013100	GMC-75	AC220V	50/60Hz	2a2b	3P	32

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**GMC**

## 3-pole AC operating Contactors (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	No. of Auxiliary Contact	Pole	Page No.
1258031400	GMC-75	AC220V	50/60Hz	1a1b	3P	32
1258057900	GMC-75	AC230V	50/60Hz	1a1b	3P	32
1258013200	GMC-75	AC240V	50/60Hz	2a2b	3P	32
1258013300	GMC-75	AC380V	50/60Hz	2a2b	3P	32
1258013500	GMC-75	AC415V	50/60Hz	2a2b	3P	32
1258010000	GMC-75	AC24V	60Hz	2a2b	3P	32
1258010100	GMC-75	AC48V	60Hz	2a2b	3P	32
1258010200	GMC-75	AC110V	60Hz	2a2b	3P	32
1258010400	GMC-75	AC120V	60Hz	2a2b	3P	32
1258010500	GMC-75	AC208V	60Hz	2a2b	3P	32
1258010600	GMC-75	AC220V	60Hz	2a2b	3P	32
1258010700	GMC-75	AC240V	60Hz	2a2b	3P	32
1258010800	GMC-75	AC277V	60Hz	2a2b	3P	32
1258010900	GMC-75	AC380V	60Hz	2a2b	3P	32
1258011000	GMC-75	AC440V	60Hz	2a2b	3P	32
1258011100	GMC-75	AC480V	60Hz	2a2b	3P	32
1258011200	GMC-75	AC600V	60Hz	2a2b	3P	32
1258015900	GMC-85	AC24V	50Hz	2a2b	3P	32
1258016000	GMC-85	AC42V	50Hz	2a2b	3P	32
1258016100	GMC-85	AC48V	50Hz	2a2b	3P	32
1258016300	GMC-85	AC110V	50Hz	1a1b	3P	32
1258016200	GMC-85	AC110V	50Hz	2a2b	3P	32
1258016400	GMC-85	AC220V	50Hz	2a2b	3P	32
1258018400	GMC-85	AC230V	50Hz	2a2b	3P	32
1258016600	GMC-85	AC240V	50Hz	1a1b	3P	32
1258016500	GMC-85	AC240V	50Hz	2a2b	3P	32
1258016700	GMC-85	AC380V	50Hz	2a2b	3P	32
1258016800	GMC-85	AC400V	50Hz	2a2b	3P	32
1258049600	GMC-85	AC415V	50Hz	1a1b	3P	32
1258016900	GMC-85	AC415V	50Hz	2a2b	3P	32
1258017000	GMC-85	AC440V	50Hz	2a2b	3P	32
1258017100	GMC-85	AC500V	50Hz	2a2b	3P	32
1258017200	GMC-85	AC550V	50Hz	2a2b	3P	32
1258017300	GMC-85	AC24V	50/60Hz	2a2b	3P	32
1258058200	GMC-85	AC48V	50/60Hz	1a1b	3P	32
1258031500	GMC-85	AC110V	50/60Hz	1a1b	3P	32
1258017500	GMC-85	AC110V	50/60Hz	2a2b	3P	32
1258053100	GMC-85	AC120V	50/60Hz	2a2b	3P	32
1258017600	GMC-85	AC220V	50/60Hz	2a2b	3P	32
1258050000	GMC-85	AC230V	50/60Hz	1a1b	3P	32
1258056700	GMC-85	AC230V	50/60Hz	2a2b	3P	32
1258032000	GMC-85	AC240V	50/60Hz	2a2b	3P	32
1258017800	GMC-85	AC380V	50/60Hz	2a2b	3P	32
1258014500	GMC-85	AC24V	60Hz	2a2b	3P	32
1258014600	GMC-85	AC48V	60Hz	2a2b	3P	32
1258014700	GMC-85	AC110V	60Hz	2a2b	3P	32
1258014900	GMC-85	AC120V	60Hz	2a2b	3P	32
1258015000	GMC-85	AC208V	60Hz	2a2b	3P	32
1258015100	GMC-85	AC220V	60Hz	2a2b	3P	32
1258015300	GMC-85	AC240V	60Hz	2a2b	3P	32
1258015400	GMC-85	AC277V	60Hz	2a2b	3P	32
1258015500	GMC-85	AC380V	60Hz	2a2b	3P	32
1258015600	GMC-85	AC440V	60Hz	2a2b	3P	32
1258015700	GMC-85	AC480V	60Hz	2a2b	3P	32
1258015800	GMC-85	AC600V	60Hz	2a2b	3P	32



### 3-pole AC operating Contactors (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	No. of Auxiliary Contact	Pole	Page No.
1236000500	GMC-100	AC/DC24V		2a2b	3P	34
1236000600	GMC-100	AC/DC48V		2a2b	3P	34
1236000300	GMC-100	AC/DC100-200V		2a2b	3P	34
1236000700	GMC-100	AC300V		2a2b	3P	34
1236000800	GMC-100	AC400V		2a2b	3P	34
1236000900	GMC-100	AC500V		2a2b	3P	34
1236001700	GMC-125	AC/DC24V		2a2b	3P	34
1236001800	GMC-125	AC/DC48V		2a2b	3P	34
1236001500	GMC-125	AC/DC100-200V		2a2b	3P	34
1236001900	GMC-125	AC300V		2a2b	3P	34
1236002000	GMC-125	AC400V		2a2b	3P	34
1236002100	GMC-125	AC500V		2a2b	3P	34
1238000500	GMC-150	AC/DC24V		2a2b	3P	34
1238000600	GMC-150	AC/DC48V		2a2b	3P	34
1238000300	GMC-150	AC/DC100-200V		2a2b	3P	34
1238000700	GMC-150	AC300V		2a2b	3P	34
1238000800	GMC-150	AC400V		2a2b	3P	34
1238000900	GMC-150	AC500V		2a2b	3P	34
1240000500	GMC-180	AC/DC24V		2a2b	3P	36
1240000600	GMC-180	AC/DC48V		2a2b	3P	36
1240000300	GMC-180	AC/DC100-200V		2a2b	3P	36
1240000700	GMC-180	AC300V		2a2b	3P	36
1240000800	GMC-180	AC400V		2a2b	3P	36
1240000900	GMC-180	AC500V		2a2b	3P	36
1240001800	GMC-220	AC/DC24V		2a2b	3P	36
1240001900	GMC-220	AC/DC48V		2a2b	3P	36
1240001600	GMC-220	AC/DC100-200V		2a2b	3P	36
1240002100	GMC-220	AC300V		2a2b	3P	36
1240002200	GMC-220	AC400V		2a2b	3P	36
1240002300	GMC-220	AC500V		2a2b	3P	36
1242003100	GMC-300	DC70-110V		2a2b	3P	36
1242000300	GMC-300	AC/DC100-200V		2a2b	3P	36
1242000500	GMC-300	AC300V		2a2b	3P	36
1242000600	GMC-300	AC400V		2a2b	3P	36
1242000700	GMC-300	AC500V		2a2b	3P	36
1242001200	GMC-400	AC/DC100-200V		2a2b	3P	36
1242001400	GMC-400	AC300V		2a2b	3P	36
1242001500	GMC-400	AC400V		2a2b	3P	36
1242001600	GMC-400	AC500V		2a2b	3P	36
1244000300	GMC-600	AC/DC100V		2a2b	3P	38
1244000100	GMC-600	AC/DC200V		2a2b	3P	38
1244000800	GMC-600	AC/DC200V		3a3b	3P	38
1244000500	GMC-600	AC300V		2a2b	3P	38
1244000600	GMC-600	AC400V		2a2b	3P	38
1244000700	GMC-600	AC500V		2a2b	3P	38
1244000900	GMC-600	AC500V		3a3b	3P	38
1244001200	GMC-800	AC/DC100V		2a2b	3P	38
1244001000	GMC-800	AC/CD200V		2a2b	3P	38
1244001400	GMC-800	AC300V		2a2b	3P	38
1244001500	GMC-800	AC400V		2a2b	3P	38
1244001600	GMC-800	AC500V		2a2b	3P	38

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**GMC**

## 3-pole AC/DC operating Contactors (100~800A)

Catalogue No.	Model	Coil Voltage (V)	Hz	No. of Auxiliary Contact	Pole	Page No.
1236000500	GMC-100	AC/DC24V	50/60Hz	2a2b	3P	34
1236000600	GMC-100	AC/DC48V	50/60Hz	2a2b	3P	34
1236000300	GMC-100	AC/DC100-200V	50/60Hz	2a2b	3P	34
1236000700	GMC-100	AC300V	50/60Hz	2a2b	3P	34
1236000800	GMC-100	AC400V	50/60Hz	2a2b	3P	34
1236000900	GMC-100	AC500V	50/60Hz	2a2b	3P	34
1236001700	GMC-125	AC/DC24V	50/60Hz	2a2b	3P	34
1236001800	GMC-125	AC/DC48V	50/60Hz	2a2b	3P	34
1236001500	GMC-125	AC/DC100-200V	50/60Hz	2a2b	3P	34
1236001900	GMC-125	AC300V	50/60Hz	2a2b	3P	34
1236002000	GMC-125	AC400V	50/60Hz	2a2b	3P	34
1236002100	GMC-125	AC500V	50/60Hz	2a2b	3P	34
1238000500	GMC-150	AC/DC24V	50/60Hz	2a2b	3P	34
1238000600	GMC-150	AC/DC48V	50/60Hz	2a2b	3P	34
1238000300	GMC-150	AC/DC100-200V	50/60Hz	2a2b	3P	34
1238000700	GMC-150	AC300V	50/60Hz	2a2b	3P	34
1238000800	GMC-150	AC400V	50/60Hz	2a2b	3P	34
1238000900	GMC-150	AC500V	50/60Hz	2a2b	3P	34
1240000500	GMC-180	AC/DC24V	50/60Hz	2a2b	3P	36
1240000600	GMC-180	AC/DC48V	50/60Hz	2a2b	3P	36
1240000300	GMC-180	AC/DC100-200V	50/60Hz	2a2b	3P	36
1240000700	GMC-180	AC300V	50/60Hz	2a2b	3P	36
1240000800	GMC-180	AC400V	50/60Hz	2a2b	3P	36
1240000900	GMC-180	AC500V	50/60Hz	2a2b	3P	36
1240001800	GMC-220	AC/DC24V	50/60Hz	2a2b	3P	36
1240001900	GMC-220	AC/DC48V	50/60Hz	2a2b	3P	36
1240001600	GMC-220	AC/DC100-200V	50/60Hz	2a2b	3P	36
1240002100	GMC-220	AC300V	50/60Hz	2a2b	3P	36
1240002200	GMC-220	AC400V	50/60Hz	2a2b	3P	36
1240002300	GMC-220	AC500V	50/60Hz	2a2b	3P	36
1242003100	GMC-300	DC70-110V	50/60Hz	2a2b	3P	36
1242000300	GMC-300	AC/DC100-200V	50/60Hz	2a2b	3P	36
1242000500	GMC-300	AC300V	50/60Hz	2a2b	3P	36
1242000600	GMC-300	AC400V	50/60Hz	2a2b	3P	36
1242000700	GMC-300	AC500V	50/60Hz	2a2b	3P	36
1242001200	GMC-400	AC/DC100-200V	50/60Hz	2a2b	3P	36
1242001400	GMC-400	AC300V	50/60Hz	2a2b	3P	36
1242001500	GMC-400	AC400V	50/60Hz	2a2b	3P	36
1242001600	GMC-400	AC500V	50/60Hz	2a2b	3P	36
1244000300	GMC-600	AC/DC100V	50/60Hz	2a2b	3P	38
1244000100	GMC-600	AC/DC200V	50/60Hz	2a2b	3P	38
1244000800	GMC-600	AC/DC200V	50/60Hz	2a2b	3P	38
1244000500	GMC-600	AC300V	50/60Hz	2a2b	3P	38
1244000600	GMC-600	AC400V	50/60Hz	2a2b	3P	38
1244000700	GMC-600	AC500V	50/60Hz	2a2b	3P	38
1244000900	GMC-600	AC500V	50/60Hz	2a2b	3P	38
1244001200	GMC-800	AC/DC100V	50/60Hz	2a2b	3P	38
1244001000	GMC-800	AC/CD200V	50/60Hz	2a2b	3P	38
1244001400	GMC-800	AC300V	50/60Hz	2a2b	3P	38
1244001500	GMC-800	AC400V	50/60Hz	2a2b	3P	38
1244001600	GMC-800	AC500V	50/60Hz	2a2b	3P	38

## 3-pole DC operating Contactors (9~85A)

Catalogue No.	Model	Coil Voltage (V)	No. of Contact	Pole	Page No.
1251000100	GMD-9	DC12V	1a1b	3P	28
1251000200	GMD-9	DC24V	1a1b	3P	28
1251000300	GMD-9	DC48V	1a1b	3P	28
1251000400	GMD-9	DC60V	1a1b	3P	28
1251000500	GMD-9	DC100V	1a1b	3P	28
1251000600	GMD-9	DC110V	1a1b	3P	28
1251012100	GMD-9	DC110V	2a2b	3P	28
1251000700	GMD-9	DC125V	1a1b	3P	28
1251000800	GMD-9	DC200V	1a1b	3P	28
1251000900	GMD-9	DC220V	1a1b	3P	28
1251001000	GMD-9	DC250V	1a1b	3P	28
1251001100	GMD-12	DC12V	1a1b	3P	28
1251001200	GMD-12	DC24V	1a1b	3P	28
1251001300	GMD-12	DC48V	1a1b	3P	28
1251001400	GMD-12	DC60V	1a1b	3P	28
1251001500	GMD-12	DC100V	1a1b	3P	28
1251001600	GMD-12	DC110V	1a1b	3P	28
1251010800	GMD-12	DC110V	2a2b	3P	28
1251001700	GMD-12	DC125V	1a1b	3P	28
1251001800	GMD-12	DC200V	1a1b	3P	28
1251001900	GMD-12	DC220V	1a1b	3P	28
1251002000	GMD-12	DC250V	1a1b	3P	28
1251002200	GMD-18	DC12V	1a1b	3P	28
1251002300	GMD-18	DC20V	1a1b	3P	28
1251002400	GMD-18	DC24V	1a1b	3P	28
1251002500	GMD-18	DC48V	1a1b	3P	28
1251002600	GMD-18	DC60V	1a1b	3P	28
1251002700	GMD-18	DC80V	1a1b	3P	28
1251002800	GMD-18	DC100V	1a1b	3P	28
1251002900	GMD-18	DC110V	1a1b	3P	28
1251003000	GMD-18	DC125V	1a1b	3P	28
1251003100	GMD-18	DC200V	1a1b	3P	28
1251003200	GMD-18	DC220V	1a1b	3P	28
1251003300	GMD-18	DC250V	1a1b	3P	28
1251003500	GMD-22	DC12V	1a1b	3P	28
1251003600	GMD-22	DC24V	1a1b	3P	28
1251003800	GMD-22	DC48V	1a1b	3P	28
1251003900	GMD-22	DC60V	1a1b	3P	28
1251010100	GMD-22	DC125V	2a2b	3P	28
1251010200	GMD-22	DC48V	2a2b	3P	28
1251004000	GMD-22	DC100V	1a1b	3P	28
1251004100	GMD-22	DC110V	1a1b	3P	28
1251004200	GMD-22	DC125V	1a1b	3P	28
1251004300	GMD-22	DC200V	1a1b	3P	28
1251004400	GMD-22	DC220V	1a1b	3P	28
1251004500	GMD-22	DC250V	1a1b	3P	28
1255000100	GMD-32	DC12V	2a2b	3P	30
1255000200	GMD-32	DC24V	2a2b	3P	30
12550009600	GMD-32	DC24V	1a1b	3P	30
1255000300	GMD-32	DC48V	2a2b	3P	30
1255000400	GMD-32	DC60V	2a2b	3P	30
1255009000	GMD-32	DC80V	2a2b	3P	30
1255000500	GMD-32	DC100V	2a2b	3P	30
1255000600	GMD-32	DC110V	2a2b	3P	30
1255000700	GMD-32	DC125V	2a2b	3P	30
1255000800	GMD-32	DC200V	2a2b	3P	30
1255000900	GMD-32	DC220V	2a2b	3P	30

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## GMD

### 3-pole DC operating Contactors (9~85A)

Catalogue No.	Model	Coil Voltage (V)	No. of Contact	Pole	Page No.
1255001000	GMD-32	DC250V	2a2b	3P	30
1255001200	GMD-40	DC12V	2a2b	3P	30
1255001300	GMD-40	DC24V	2a2b	3P	30
1255009700	GMD-40	DC24V	1a1b	3P	30
1255001400	GMD-40	DC48V	2a2b	3P	30
1255001500	GMD-40	DC60V	2a2b	3P	30
1255001600	GMD-40	DC80V	2a2b	3P	30
1255001700	GMD-40	DC100V	2a2b	3P	30
1255001800	GMD-40	DC110V	2a2b	3P	30
1255001900	GMD-40	DC125V	2a2b	3P	30
1255002000	GMD-40	DC200V	2a2b	3P	30
1255002100	GMD-40	DC220V	2a2b	3P	30
1255002200	GMD-40	DC250V	2a2b	3P	30
1259000100	GMD-50	DC12V	2a2b	3P	32
1259000200	GMD-50	DC24V	2a2b	3P	32
1259000300	GMD-50	DC48V	2a2b	3P	32
1259000400	GMD-50	DC60V	2a2b	3P	32
1259011300	GMD-50	DC80V	2a2b	3P	32
1259000500	GMD-50	DC100V	2a2b	3P	32
1259000600	GMD-50	DC110V	2a2b	3P	32
1259000700	GMD-50	DC125V	2a2b	3P	32
1259000800	GMD-50	DC200V	2a2b	3P	32
1259000900	GMD-50	DC220V	2a2b	3P	32
1259001000	GMD-50	DC250V	2a2b	3P	32
1259001200	GMD-65	DC12V	2a2b	3P	32
1259001300	GMD-65	DC24V	2a2b	3P	32
1259012500	GMD-65	DC24V	1a1b	3P	32
1259001400	GMD-65	DC48V	2a2b	3P	32
1259001500	GMD-65	DC60V	2a2b	3P	32
1259001600	GMD-65	DC80V	2a2b	3P	32
1259001700	GMD-65	DC100V	2a2b	3P	32
1259001800	GMD-65	DC110V	2a2b	3P	32
1259001900	GMD-65	DC125V	2a2b	3P	32
1259002000	GMD-65	DC200V	2a2b	3P	32
1259002100	GMD-65	DC220V	2a2b	3P	32
1259002200	GMD-65	DC250V	2a2b	3P	32
1259002300	GMD-75	DC12V	2a2b	3P	32
1259002400	GMD-75	DC24V	2a2b	3P	32
1259002500	GMD-75	DC48V	2a2b	3P	32
1259002600	GMD-75	DC60V	2a2b	3P	32
1259002700	GMD-75	DC100V	2a2b	3P	32
1259002800	GMD-75	DC110V	2a2b	3P	32
1259002900	GMD-75	DC125V	2a2b	3P	32
1259003000	GMD-75	DC200V	2a2b	3P	32
1259003100	GMD-75	DC220V	2a2b	3P	32
1259003200	GMD-75	DC250V	2a2b	3P	32
1259003300	GMD-85	DC12V	2a2b	3P	32
1259003400	GMD-85	DC24V	2a2b	3P	32
1259003500	GMD-85	DC48V	2a2b	3P	32
1259003600	GMD-85	DC60V	2a2b	3P	32
1259003700	GMD-85	DC80V	2a2b	3P	32
1259003800	GMD-85	DC100V	2a2b	3P	32
1259003900	GMD-85	DC110V	2a2b	3P	32
1259004000	GMD-85	DC125V	2a2b	3P	32
1259004100	GMD-85	DC200V	2a2b	3P	32
1259004200	GMD-85	DC220V	2a2b	3P	32
1259004300	GMD-85	DC250V	2a2b	3P	32

## 4-pole AC operating Contactors (9~800A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Main Contact	Auxiliary Contact	Pole	Page No.
1250021900	GMC-9	AC24V	50Hz	4a	-	4P	40
1250022000	GMC-9	AC42V	50Hz	4a	-	4P	40
1250022100	GMC-9	AC48V	50Hz	4a	-	4P	40
1250022200	GMC-9	AC110V	50Hz	4a	-	4P	40
1250022300	GMC-9	AC220V	50Hz	4a	-	4P	40
1250022400	GMC-9	AC230V	50Hz	4a	-	4P	40
1250022500	GMC-9	AC240V	50Hz	4a	-	4P	40
1250022600	GMC-9	AC380V	50Hz	4a	-	4P	40
1250022700	GMC-9	AC400V	50Hz	4a	-	4P	40
1250022800	GMC-9	AC415V	50Hz	4a	-	4P	40
1250022900	GMC-9	AC440V	50Hz	4a	-	4P	40
1250023000	GMC-9	AC500V	50Hz	4a	-	4P	40
1250023100	GMC-9	AC550V	50Hz	4a	-	4P	40
1250024400	GMC-12	AC24V	50Hz	4a	-	4P	40
1250024500	GMC-12	AC42V	50Hz	4a	-	4P	40
1250024600	GMC-12	AC48V	50Hz	4a	-	4P	40
1250024700	GMC-12	AC110V	50Hz	4a	-	4P	40
1250024800	GMC-12	AC220V	50Hz	4a	-	4P	40
1250024900	GMC-12	AC230V	50Hz	4a	-	4P	40
1250025000	GMC-12	AC240V	50Hz	4a	-	4P	40
1250025100	GMC-12	AC380V	50Hz	4a	-	4P	40
1250025200	GMC-12	AC400V	50Hz	4a	-	4P	40
1250025300	GMC-12	AC415V	50Hz	4a	-	4P	40
1250025400	GMC-12	AC440V	50Hz	4a	-	4P	40
1250025500	GMC-12	AC500V	50Hz	4a	-	4P	40
1250025600	GMC-12	AC550V	50Hz	4a	-	4P	40
1250026900	GMC-18	AC24V	50Hz	4a	-	4P	40
1250027000	GMC-18	AC42V	50Hz	4a	-	4P	40
1250027100	GMC-18	AC48V	50Hz	4a	-	4P	40
1250027200	GMC-18	AC110V	50Hz	4a	-	4P	40
1250027300	GMC-18	AC220V	50Hz	4a	-	4P	40
1250027400	GMC-18	AC230V	50Hz	4a	-	4P	40
1250027500	GMC-18	AC240V	50Hz	4a	-	4P	40
1250027600	GMC-18	AC380V	50Hz	4a	-	4P	40
1250027700	GMC-18	AC400V	50Hz	4a	-	4P	40
1250027800	GMC-18	AC415V	50Hz	4a	-	4P	40
1250027900	GMC-18	AC440V	50Hz	4a	-	4P	40
1250028000	GMC-18	AC500V	50Hz	4a	-	4P	40
1250028100	GMC-18	AC550V	50Hz	4a	-	4P	40
1250029400	GMC-22	AC24V	50Hz	4a	-	4P	40
1250029500	GMC-22	AC42V	50Hz	4a	-	4P	40
1250029600	GMC-22	AC48V	50Hz	4a	-	4P	40
1250029700	GMC-22	AC110V	50Hz	4a	-	4P	40
1250029800	GMC-22	AC220V	50Hz	4a	-	4P	40
1250029900	GMC-22	AC230V	50Hz	4a	-	4P	40
1250030000	GMC-22	AC240V	50Hz	4a	-	4P	40
1250030100	GMC-22	AC380V	50Hz	4a	-	4P	40
1250030200	GMC-22	AC400V	50Hz	4a	-	4P	40
1250030300	GMC-22	AC415V	50Hz	4a	-	4P	40
1250030400	GMC-22	AC440V	50Hz	4a	-	4P	40
1250030500	GMC-22	AC500V	50Hz	4a	-	4P	40
1250030600	GMC-22	AC550V	50Hz	4a	-	4P	40

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**GMC**

## 4-pole AC operating Contactors (9~800A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Main Contact	Auxiliary Contact	Pole	Page No.
1254014800	GMC-32	AC24V	50Hz	4a	-	4P	42
1254014900	GMC-32	AC42V	50Hz	4a	-	4P	42
1254015000	GMC-32	AC48V	50Hz	4a	-	4P	42
1254015100	GMC-32	AC110V	50Hz	4a	-	4P	42
1254015200	GMC-32	AC220V	50Hz	4a	-	4P	42
1254033400	GMC-32	AC220V	50Hz	4a	-	4P	42
1254015300	GMC-32	AC230V	50Hz	4a	-	4P	42
1254015400	GMC-32	AC240V	50Hz	4a	-	4P	42
1254015500	GMC-32	AC380V	50Hz	4a	-	4P	42
1254015600	GMC-32	AC400V	50Hz	4a	-	4P	42
1254015700	GMC-32	AC415V	50Hz	4a	-	4P	42
1254015800	GMC-32	AC440V	50Hz	4a	-	4P	42
1254015900	GMC-32	AC500V	50Hz	4a	-	4P	42
1254016000	GMC-32	AC550V	50Hz	4a	-	4P	42
1254017300	GMC-40	AC24V	50Hz	4a	-	4P	42
1254017400	GMC-40	AC42V	50Hz	4a	-	4P	42
1254017500	GMC-40	AC48V	50Hz	4a	-	4P	42
1254017600	GMC-40	AC110V	50Hz	4a	-	4P	42
1254017700	GMC-40	AC220V	50Hz	4a	-	4P	42
1254017800	GMC-40	AC230V	50Hz	4a	-	4P	42
1254017900	GMC-40	AC240V	50Hz	4a	-	4P	42
1254018000	GMC-40	AC380V	50Hz	4a	-	4P	42
1254018100	GMC-40	AC400V	50Hz	4a	-	4P	42
1254018200	GMC-40	AC415V	50Hz	4a	-	4P	42
1254018300	GMC-40	AC440V	50Hz	4a	-	4P	42
1254018400	GMC-40	AC500V	50Hz	4a	-	4P	42
1254018500	GMC-40	AC550V	50Hz	4a	-	4P	42
1258021900	GMC-50	AC24V	50Hz	4a	-	4P	44
1258022100	GMC-50	AC48V	50Hz	4a	-	4P	44
1258022200	GMC-50	AC110V	50Hz	4a	-	4P	44
1258022300	GMC-50	AC220V	50Hz	4a	-	4P	44
1258022500	GMC-50	AC240V	50Hz	4a	-	4P	44
1258022600	GMC-50	AC380V	50Hz	4a	-	4P	44
1258022700	GMC-50	AC400V	50Hz	4a	-	4P	44
1258022800	GMC-50	AC415V	50Hz	4a	-	4P	44
1258022900	GMC-50	AC440V	50Hz	4a	-	4P	44
1258023000	GMC-50	AC500V	50Hz	4a	-	4P	44
1258023100	GMC-50	AC550V	50Hz	4a	-	4P	44
1258024400	GMC-65	AC24V	50Hz	4a	-	4P	44
1258024600	GMC-65	AC48V	50Hz	4a	-	4P	44
1258024700	GMC-65	AC110V	50Hz	4a	-	4P	44
1258024800	GMC-65	AC220V	50Hz	4a	-	4P	44
1258057200	GMC-65	AC230V	50Hz	4a	-	4P	44
1258025000	GMC-65	AC240V	50Hz	4a	-	4P	44
1258025100	GMC-65	AC380V	50Hz	4a	-	4P	44
1258025200	GMC-65	AC400V	50Hz	4a	-	4P	44
1258025300	GMC-65	AC415V	50Hz	4a	-	4P	44
1258025400	GMC-65	AC440V	50Hz	4a	-	4P	44
1258025500	GMC-65	AC500V	50Hz	4a	-	4P	44
1258025600	GMC-65	AC550V	50Hz	4a	-	4P	44
1258026900	GMC-75	AC24V	50Hz	4a	-	4P	44
1258027100	GMC-75	AC48V	50Hz	4a	-	4P	44

## 4-pole AC operating Contactors (9~800A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Main Contact	Auxiliary Contact	Pole	Page No.
1258027200	GMC-75	AC110V	50Hz	4a	-	4P	44
1258027300	GMC-75	AC220V	50Hz	4a	-	4P	44
1258027500	GMC-75	AC240V	50Hz	4a	-	4P	44
1258027600	GMC-75	AC380V	50Hz	4a	-	4P	44
1258027700	GMC-75	AC400V	50Hz	4a	-	4P	44
1258027800	GMC-75	AC415V	50Hz	4a	-	4P	44
1258027900	GMC-75	AC440V	50Hz	4a	-	4P	44
1258028000	GMC-75	AC500V	50Hz	4a	-	4P	44
1258028100	GMC-75	AC550V	50Hz	4a	-	4P	44
1258029400	GMC-85	AC24V	50Hz	4a	-	4P	44
1258029600	GMC-85	AC48V	50Hz	4a	-	4P	44
1258029700	GMC-85	AC110V	50Hz	4a	-	4P	44
1258029800	GMC-85	AC220V	50Hz	4a	-	4P	44
1258030000	GMC-85	AC240V	50Hz	4a	-	4P	44
1258030100	GMC-85	AC380V	50Hz	4a	-	4P	44
1258030200	GMC-85	AC400V	50Hz	4a	-	4P	44
1258030300	GMC-85	AC415V	50Hz	4a	-	4P	44
1258030400	GMC-85	AC440V	50Hz	4a	-	4P	44
1258030500	GMC-85	AC500V	50Hz	4a	-	4P	44
1258030600	GMC-85	AC550V	50Hz	4a	-	4P	44
1250020700	GMC-9	AC24V	50/60Hz	4a	-	4P	40
1250020800	GMC-9	AC48V	50/60Hz	4a	-	4P	40
1250020900	GMC-9	AC110V	50/60Hz	4a	-	4P	40
1250021200	GMC-9	AC220V	50/60Hz	4a	-	4P	40
1250021300	GMC-9	AC240V	50/60Hz	4a	-	4P	40
1250021500	GMC-9	AC380V	50/60Hz	4a	-	4P	40
1250021600	GMC-9	AC440V	50/60Hz	4a	-	4P	40
1250023200	GMC-12	AC24V	50/60Hz	4a	-	4P	40
1250023300	GMC-12	AC48V	50/60Hz	4a	-	4P	40
1250023400	GMC-12	AC110V	50/60Hz	4a	-	4P	40
1250023700	GMC-12	AC220V	50/60Hz	4a	-	4P	40
1250023800	GMC-12	AC240V	50/60Hz	4a	-	4P	40
1250024000	GMC-12	AC380V	50/60Hz	4a	-	4P	40
1250024100	GMC-12	AC440V	50/60Hz	4a	-	4P	40
1250025700	GMC-18	AC24V	50/60Hz	4a	-	4P	40
1250025800	GMC-18	AC48V	50/60Hz	4a	-	4P	40
1250025900	GMC-18	AC110V	50/60Hz	4a	-	4P	40
1250026200	GMC-18	AC220V	50/60Hz	4a	-	4P	40
1250026300	GMC-18	AC240V	50/60Hz	4a	-	4P	40
1250026500	GMC-18	AC380V	50/60Hz	4a	-	4P	40
1250026600	GMC-18	AC440V	50/60Hz	4a	-	4P	40
1250028200	GMC-22	AC24V	50/60Hz	4a	-	4P	40
1250028300	GMC-22	AC48V	50/60Hz	4a	-	4P	40
1250028400	GMC-22	AC110V	50/60Hz	4a	-	4P	40
1250028700	GMC-22	AC220V	50/60Hz	4a	-	4P	40
1250028800	GMC-22	AC240V	50/60Hz	4a	-	4P	40
1250029000	GMC-22	AC380V	50/60Hz	4a	-	4P	40
1250029100	GMC-22	AC440V	50/60Hz	4a	-	4P	40
1254013600	GMC-32	AC24V	50/60Hz	4a	-	4P	42
1254013700	GMC-32	AC48V	50/60Hz	4a	-	4P	42
1254013800	GMC-32	AC110V	50/60Hz	4a	-	4P	42
1254014100	GMC-32	AC220V	50/60Hz	4a	-	4P	42



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**GMC**

## 4-pole AC operating Contactors (9~800A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Main Contact	Auxiliary Contact	Pole	Page No.
1254014200	GMC-32	AC240V	50/60Hz	4a	-	4P	42
1254014400	GMC-32	AC380V	50/60Hz	4a	-	4P	42
1254014500	GMC-32	AC440V	50/60Hz	4a	-	4P	42
1254016100	GMC-40	AC24V	50/60Hz	4a	-	4P	42
1254016200	GMC-40	AC48V	50/60Hz	4a	-	4P	42
1254016300	GMC-40	AC110V	50/60Hz	4a	-	4P	42
1254016600	GMC-40	AC220V	50/60Hz	4a	-	4P	42
1254031400	GMC-40	AC230V	50/60Hz	4a	-	4P	42
1254016700	GMC-40	AC240V	50/60Hz	4a	-	4P	42
1254016900	GMC-40	AC380V	50/60Hz	4a	-	4P	42
1254017000	GMC-40	AC440V	50/60Hz	4a	-	4P	42
1258020700	GMC-50	AC24V	50/60Hz	4a	-	4P	44
1258020800	GMC-50	AC48V	50/60Hz	4a	-	4P	44
1258020900	GMC-50	AC110V	50/60Hz	4a	-	4P	44
1258021300	GMC-50	AC240V	50/60Hz	4a	-	4P	44
1258021500	GMC-50	AC380V	50/60Hz	4a	-	4P	44
1258021600	GMC-50	AC440V	50/60Hz	4a	-	4P	44
1258023200	GMC-65	AC24V	50/60Hz	4a	-	4P	44
1258023300	GMC-65	AC48V	50/60Hz	4a	-	4P	44
1258023400	GMC-65	AC110V	50/60Hz	4a	-	4P	44
1258023700	GMC-65	AC220V	50/60Hz	4a	-	4P	44
1258023800	GMC-65	AC240V	50/60Hz	4a	-	4P	44
1258024000	GMC-65	AC380V	50/60Hz	4a	-	4P	44
1258024100	GMC-65	AC440V	50/60Hz	4a	-	4P	44
1258025700	GMC-75	AC24V	50/60Hz	4a	-	4P	44
1258025800	GMC-75	AC48V	50/60Hz	4a	-	4P	44
1258025900	GMC-75	AC110V	50/60Hz	4a	-	4P	44
1258026200	GMC-75	AC220V	50/60Hz	4a	-	4P	44
1258026300	GMC-75	AC240V	50/60Hz	4a	-	4P	44
1258026500	GMC-75	AC380V	50/60Hz	4a	-	4P	44
1258026600	GMC-75	AC440V	50/60Hz	4a	-	4P	44
1258052600	GMC-75	AC230V	50/60Hz	4a	-	4P	44
1258028200	GMC-85	AC24V	50/60Hz	4a	-	4P	44
1258028300	GMC-85	AC48V	50/60Hz	4a	-	4P	44
1258028400	GMC-85	AC110V	50/60Hz	4a	-	4P	44
1258028700	GMC-85	AC220V	50/60Hz	4a	-	4P	44
1258046700	GMC-85	AC230V	50/60Hz	4a	-	4P	44
1258028800	GMC-85	AC240V	50/60Hz	4a	-	4P	44
1258029000	GMC-85	AC380V	50/60Hz	4a	-	4P	44
1258029100	GMC-85	AC440V	50/60Hz	4a	-	4P	44
1250035400	GMC-9	AC24V	60Hz	4a	-	4P	40
1250037500	GMC-9	AC48V	60Hz	4a	-	4P	40
1250045800	GMC-9	AC110V	60Hz	4a	-	4P	40
1250037700	GMC-9	AC120V	60Hz	4a	-	4P	40
1250037800	GMC-9	AC208V	60Hz	4a	-	4P	40
1250037900	GMC-9	AC220V	60Hz	4a	-	4P	40
1250038000	GMC-9	AC240V	60Hz	4a	-	4P	40
1250038100	GMC-9	AC277V	60Hz	4a	-	4P	40
1250038200	GMC-9	AC380V	60Hz	4a	-	4P	40
1250038300	GMC-9	AC440V	60Hz	4a	-	4P	40
1250038400	GMC-9	AC480V	60Hz	4a	-	4P	40
1250038500	GMC-9	AC600V	60Hz	4a	-	4P	40



## 4-pole AC operating Contactors (9~800A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Main Contact	Auxiliary Contact	Pole	Page No.
1250039800	GMC-12	AC24V	60Hz	4a	-	4P	40
1250039900	GMC-12	AC48V	60Hz	4a	-	4P	40
1250040000	GMC-12	AC110V	60Hz	4a	-	4P	40
1250040100	GMC-12	AC120V	60Hz	4a	-	4P	40
1250040200	GMC-12	AC208V	60Hz	4a	-	4P	40
1250040300	GMC-12	AC220V	60Hz	4a	-	4P	40
1250040400	GMC-12	AC240V	60Hz	4a	-	4P	40
1250040500	GMC-12	AC277V	60Hz	4a	-	4P	40
1250040600	GMC-12	AC380V	60Hz	4a	-	4P	40
1250040700	GMC-12	AC440V	60Hz	4a	-	4P	40
1250040800	GMC-12	AC480V	60Hz	4a	-	4P	40
1250040900	GMC-12	AC600V	60Hz	4a	-	4P	40
1250042200	GMC-18	AC24V	60Hz	4a	-	4P	40
1250042300	GMC-18	AC48V	60Hz	4a	-	4P	40
1250042400	GMC-18	AC110V	60Hz	4a	-	4P	40
1250045900	GMC-18	AC120V	60Hz	4a	-	4P	40
1250042600	GMC-18	AC208V	60Hz	4a	-	4P	40
1250042700	GMC-18	AC220V	60Hz	4a	-	4P	40
1250042800	GMC-18	AC240V	60Hz	4a	-	4P	40
1250042900	GMC-18	AC277V	60Hz	4a	-	4P	40
1250043000	GMC-18	AC380V	60Hz	4a	-	4P	40
1250043100	GMC-18	AC440V	60Hz	4a	-	4P	40
1250043200	GMC-18	AC480V	60Hz	4a	-	4P	40
1250046000	GMC-18	AC600V	60Hz	4a	-	4P	40
1250044600	GMC-22	AC24V	60Hz	4a	-	4P	40
1250044700	GMC-22	AC48V	60Hz	4a	-	4P	40
1250044800	GMC-22	AC110V	60Hz	4a	-	4P	40
1250044900	GMC-22	AC120V	60Hz	4a	-	4P	40
1250045000	GMC-22	AC208V	60Hz	4a	-	4P	40
1250045100	GMC-22	AC220V	60Hz	4a	-	4P	40
1250045200	GMC-22	AC240V	60Hz	4a	-	4P	40
1250045300	GMC-22	AC277V	60Hz	4a	-	4P	40
1250045400	GMC-22	AC380V	60Hz	4a	-	4P	40
1250045500	GMC-22	AC440V	60Hz	4a	-	4P	40
1250045600	GMC-22	AC480V	60Hz	4a	-	4P	40
1250045700	GMC-22	AC600V	60Hz	4a	-	4P	40
1254024300	GMC-32	AC24V	60Hz	4a	-	4P	42
1254024400	GMC-32	AC48V	60Hz	4a	-	4P	42
1254024500	GMC-32	AC110V	60Hz	4a	-	4P	42
1254024600	GMC-32	AC120V	60Hz	4a	-	4P	42
1254024700	GMC-32	AC208V	60Hz	4a	-	4P	42
1254024800	GMC-32	AC220V	60Hz	4a	-	4P	42
1254024900	GMC-32	AC240V	60Hz	4a	-	4P	42
1254025000	GMC-32	AC277V	60Hz	4a	-	4P	42
1254025100	GMC-32	AC380V	60Hz	4a	-	4P	42
1254025200	GMC-32	AC440V	60Hz	4a	-	4P	42
1254025300	GMC-32	AC480V	60Hz	4a	-	4P	42
1254025400	GMC-32	AC600V	60Hz	4a	-	4P	42
1254026700	GMC-40	AC24V	60Hz	4a	-	4P	42
1254026800	GMC-40	AC48V	60Hz	4a	-	4P	42
1254026900	GMC-40	AC110V	60Hz	4a	-	4P	42
1254027000	GMC-40	AC120V	60Hz	4a	-	4P	42

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## 4-pole AC operating Contactors (9~800A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Main Contact	Auxiliary Contact	Pole	Page No.
1254027100	GMC-40	AC208V	60Hz	4a	-	4P	42
1254027200	GMC-40	AC220V	60Hz	4a	-	4P	42
1254027300	GMC-40	AC240V	60Hz	4a	-	4P	42
1254027400	GMC-40	AC277V	60Hz	4a	-	4P	42
1254027500	GMC-40	AC380V	60Hz	4a	-	4P	42
1254027600	GMC-40	AC440V	60Hz	4a	-	4P	42
1254027700	GMC-40	AC480V	60Hz	4a	-	4P	42
1254027800	GMC-40	AC600V	60Hz	4a	-	4P	42
1258033400	GMC-50	AC24V	60Hz	4a	-	4P	44
1258033500	GMC-50	AC48V	60Hz	4a	-	4P	44
1258033600	GMC-50	AC110V	60Hz	4a	-	4P	44
1258033700	GMC-50	AC120V	60Hz	4a	-	4P	44
1258033800	GMC-50	AC208V	60Hz	4a	-	4P	44
1258033900	GMC-50	AC220V	60Hz	4a	-	4P	44
1258034000	GMC-50	AC240V	60Hz	4a	-	4P	44
1258034100	GMC-50	AC277V	60Hz	4a	-	4P	44
1258034200	GMC-50	AC380V	60Hz	4a	-	4P	44
1258034300	GMC-50	AC440V	60Hz	4a	-	4P	44
1258034400	GMC-50	AC480V	60Hz	4a	-	4P	44
1258034500	GMC-50	AC600V	60Hz	4a	-	4P	44
1258035800	GMC-65	AC24V	60Hz	4a	-	4P	44
1258035900	GMC-65	AC48V	60Hz	4a	-	4P	44
1258036000	GMC-65	AC110V	60Hz	4a	-	4P	44
1258036100	GMC-65	AC120V	60Hz	4a	-	4P	44
1258036200	GMC-65	AC208V	60Hz	4a	-	4P	44
1258036300	GMC-65	AC220V	60Hz	4a	-	4P	44
1258036400	GMC-65	AC240V	60Hz	4a	-	4P	44
1258036500	GMC-65	AC277V	60Hz	4a	-	4P	44
1258036600	GMC-65	AC380V	60Hz	4a	-	4P	44
1258036700	GMC-65	AC440V	60Hz	4a	-	4P	44
1258036800	GMC-65	AC480V	60Hz	4a	-	4P	44
1258036900	GMC-65	AC600V	60Hz	4a	-	4P	44
1258038200	GMC-75	AC24V	60Hz	4a	-	4P	44
1258038300	GMC-75	AC48V	60Hz	4a	-	4P	44
1258038400	GMC-75	AC110V	60Hz	4a	-	4P	44
1258038500	GMC-75	AC120V	60Hz	4a	-	4P	44
1258038600	GMC-75	AC208V	60Hz	4a	-	4P	44
1258038700	GMC-75	AC220V	60Hz	4a	-	4P	44
1258038800	GMC-75	AC240V	60Hz	4a	-	4P	44
1258038900	GMC-75	AC277V	60Hz	4a	-	4P	44
1258039000	GMC-75	AC380V	60Hz	4a	-	4P	44
1258039100	GMC-75	AC440V	60Hz	4a	-	4P	44
1258039200	GMC-75	AC480V	60Hz	4a	-	4P	44
1258039300	GMC-75	AC600V	60Hz	4a	-	4P	44
1258040600	GMC-85	AC24V	60Hz	4a	-	4P	44
1258040700	GMC-85	AC48V	60Hz	4a	-	4P	44
1258040800	GMC-85	AC110V	60Hz	4a	-	4P	44
1258040900	GMC-85	AC120V	60Hz	4a	-	4P	44
1258041000	GMC-85	AC208V	60Hz	4a	-	4P	44
1258041100	GMC-85	AC220V	60Hz	4a	-	4P	44
1258041200	GMC-85	AC240V	60Hz	4a	-	4P	44
1258041300	GMC-85	AC277V	60Hz	4a	-	4P	44

## 4-pole AC operating Contactors (9~800A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Main Contact	Auxiliary Contact	Pole	Page No.
1258041400	GMC-85	AC380V	60Hz	4a	-	4P	44
1258041500	GMC-85	AC440V	60Hz	4a	-	4P	44
1258041600	GMC-85	AC480V	60Hz	4a	-	4P	44
1258041700	GMC-85	AC600V	60Hz	4a	-	4P	44
1236002600	GMC-100	AC/DC24V	50/60Hz	4a	2a2b	4P	46
1236002700	GMC-100	AC/DC48V	50/60Hz	4a	2a2b	4P	46
1236002800	GMC-100	AC/DC100~240V	50/60Hz	4a	2a2b	4P	46
1236002900	GMC-100	AC300V	50/60Hz	4a	2a2b	4P	46
1236003000	GMC-100	AC400V	50/60Hz	4a	2a2b	4P	46
1236003100	GMC-100	AC500V	50/60Hz	4a	2a2b	4P	46
1236003200	GMC-125	AC/DC24V	50/60Hz	4a	2a2b	4P	46
1236003300	GMC-125	AC/DC48V	50/60Hz	4a	2a2b	4P	46
1236003400	GMC-125	AC/DC100~240V	50/60Hz	4a	2a2b	4P	46
1236003500	GMC-125	AC300V	50/60Hz	4a	2a2b	4P	46
1236003600	GMC-125	AC400V	50/60Hz	4a	2a2b	4P	46
1236003700	GMC-125	AC500V	50/60Hz	4a	2a2b	4P	46
1238001800	GMC-150	AC/DC24V	50/60Hz	4a	2a2b	4P	46
1238001900	GMC-150	AC/DC48V	50/60Hz	4a	2a2b	4P	46
1238002000	GMC-150	AC/DC100~240V	50/60Hz	4a	2a2b	4P	46
1238002100	GMC-150	AC300V	50/60Hz	4a	2a2b	4P	46
1238002200	GMC-150	AC400V	50/60Hz	4a	2a2b	4P	46
1238002300	GMC-150	AC500V	50/60Hz	4a	2a2b	4P	46
1240003100	GMC-180	AC/DC100~240V	50/60Hz	4a	2a2b	4P	46
1240002900	GMC-180	AC/DC24V	50/60Hz	4a	2a2b	4P	46
1240003000	GMC-180	AC/DC48V	50/60Hz	4a	2a2b	4P	46
1240003200	GMC-180	AC300V	50/60Hz	4a	2a2b	4P	46
1240003300	GMC-180	AC400V	50/60Hz	4a	2a2b	4P	46
1240003400	GMC-180	AC500V	50/60Hz	4a	2a2b	4P	46
1240003500	GMC-220	AC/DC24V	50/60Hz	4a	2a2b	4P	46
1240003600	GMC-220	AC/DC48V	50/60Hz	4a	2a2b	4P	46
1240003700	GMC-220	AC/DC100~240V	50/60Hz	4a	2a2b	4P	46
1240003800	GMC-220	AC300V	50/60Hz	4a	2a2b	4P	46
1240003900	GMC-220	AC400V	50/60Hz	4a	2a2b	4P	46
1240004000	GMC-220	AC500V	50/60Hz	4a	2a2b	4P	46
1242002000	GMC-300	AC/DC100~220V	50/60Hz	4a	2a2b	4P	48
1242002100	GMC-300	AC300V	50/60Hz	4a	2a2b	4P	48
1242002200	GMC-300	AC400V	50/60Hz	4a	2a2b	4P	48
1242002300	GMC-300	AC500V	50/60Hz	4a	2a2b	4P	48
1242002400	GMC-400	AC/DC100~220V	50/60Hz	4a	2a2b	4P	48
1242002500	GMC-400	AC300V	50/60Hz	4a	2a2b	4P	48
1242002600	GMC-400	AC400V	50/60Hz	4a	2a2b	4P	48
1242002700	GMC-400	AC500V	50/60Hz	4a	2a2b	4P	48
1244001800	GMC-600	AC/DC100V	50/60Hz	4a	2a2b	4P	48
1244001700	GMC-600	AC/DC200~240V	50/60Hz	4a	2a2b	4P	48
1244001900	GMC-600	AC300V	50/60Hz	4a	2a2b	4P	48
1244002000	GMC-600	AC400V	50/60Hz	4a	2a2b	4P	48
1244002100	GMC-600	AC500V	50/60Hz	4a	2a2b	4P	48
1244002300	GMC-800	AC/DC100V	50/60Hz	4a	2a2b	4P	48
1244002200	GMC-800	AC/DC200~240V	50/60Hz	4a	2a2b	4P	48
1244002400	GMC-800	AC300V	50/60Hz	4a	2a2b	4P	48
1244002500	GMC-800	AC400V	50/60Hz	4a	2a2b	4P	48
1244002600	GMC-800	AC500V	50/60Hz	4a	2a2b	4P	48

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## GMD

### 4-pole DC operating Contactors (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Main Contact	Auxiliary Contact	Pole	Page No.
1251004900	GMD-9	DC12V	4a	-	4P	40
1251005000	GMD-9	DC20V	4a	-	4P	40
1251005100	GMD-9	DC24V	4a	-	4P	40
1251005200	GMD-9	DC48V	4a	-	4P	40
1251005300	GMD-9	DC60V	4a	-	4P	40
1251005400	GMD-9	DC80V	4a	-	4P	40
1251005500	GMD-9	DC100V	4a	-	4P	40
1251005600	GMD-9	DC110V	4a	-	4P	40
1251005700	GMD-9	DC125V	4a	-	4P	40
1251005800	GMD-9	DC200V	4a	-	4P	40
1251005900	GMD-9	DC220V	4a	-	4P	40
1251006000	GMD-9	DC250V	4a	-	4P	40
1251006100	GMD-12	DC12V	4a	-	4P	40
1251006200	GMD-12	DC20V	4a	-	4P	40
1251006300	GMD-12	DC24V	4a	-	4P	40
1251006400	GMD-12	DC48V	4a	-	4P	40
1251006500	GMD-12	DC60V	4a	-	4P	40
1251006600	GMD-12	DC80V	4a	-	4P	40
1251006700	GMD-12	DC100V	4a	-	4P	40
1251006800	GMD-12	DC110V	4a	-	4P	40
1251006900	GMD-12	DC125V	4a	-	4P	40
1251007000	GMD-12	DC200V	4a	-	4P	40
1251007100	GMD-12	DC220V	4a	-	4P	40
1251007200	GMD-12	DC250V	4a	-	4P	40
1251007300	GMD-18	DC12V	4a	-	4P	40
1251007400	GMD-18	DC20V	4a	-	4P	40
1251007500	GMD-18	DC24V	4a	-	4P	40
1251007600	GMD-18	DC48V	4a	-	4P	40
1251007700	GMD-18	DC60V	4a	-	4P	40
1251007800	GMD-18	DC80V	4a	-	4P	40
1251007900	GMD-18	DC100V	4a	-	4P	40
1251008000	GMD-18	DC110V	4a	-	4P	40
1251008100	GMD-18	DC125V	4a	-	4P	40
1251008200	GMD-18	DC200V	4a	-	4P	40
1251008300	GMD-18	DC220V	4a	-	4P	40
1251008400	GMD-18	DC250V	4a	-	4P	40
1251008500	GMD-22	DC12V	4a	-	4P	40
1251008600	GMD-22	DC20V	4a	-	4P	40
1251008700	GMD-22	DC24V	4a	-	4P	40
1251008800	GMD-22	DC48V	4a	-	4P	40
1251008900	GMD-22	DC60V	4a	-	4P	40
1251009000	GMD-22	DC80V	4a	-	4P	40
1251009100	GMD-22	DC100V	4a	-	4P	40
1251009200	GMD-22	DC110V	4a	-	4P	40
1251009300	GMD-22	DC125V	4a	-	4P	40
1251009400	GMD-22	DC200V	4a	-	4P	40
1251009500	GMD-22	DC220V	4a	-	4P	40
1251009600	GMD-22	DC250V	4a	-	4P	40
1255003700	GMD-32	DC12V	4a	-	4P	42
1255003800	GMD-32	DC20V	4a	-	4P	42
1255003900	GMD-32	DC24V	4a	-	4P	42
1255004000	GMD-32	DC48V	4a	-	4P	42
1255004100	GMD-32	DC60V	4a	-	4P	42
1255004200	GMD-32	DC80V	4a	-	4P	42
1255004300	GMD-32	DC100V	4a	-	4P	42
1255004400	GMD-32	DC110V	4a	-	4P	42
1255004500	GMD-32	DC125V	4a	-	4P	42
1255004600	GMD-32	DC200V	4a	-	4P	42
1255004700	GMD-32	DC220V	4a	-	4P	42
1255004800	GMD-32	DC250V	4a	-	4P	42

## 4-pole DC operating Contactors (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Main Contact	Auxiliary Contact	Pole	Page No.
1255004900	GMD-40	DC12V	4a	-	4P	42
1255005000	GMD-40	DC20V	4a	-	4P	42
1255005100	GMD-40	DC24V	4a	-	4P	42
1255005200	GMD-40	DC48V	4a	-	4P	42
1255005300	GMD-40	DC60V	4a	-	4P	42
1255005400	GMD-40	DC80V	4a	-	4P	42
1255005500	GMD-40	DC100V	4a	-	4P	42
1255005600	GMD-40	DC110V	4a	-	4P	42
1255005700	GMD-40	DC125V	4a	-	4P	42
1255005800	GMD-40	DC200V	4a	-	4P	42
1255005900	GMD-40	DC220V	4a	-	4P	42
1255006000	GMD-40	DC250V	4a	-	4P	42
1259004400	GMD-50	DC12V	4a	1a1b	4P	44
1259004500	GMD-50	DC20V	4a	1a1b	4P	44
1259004600	GMD-50	DC24V	4a	1a1b	4P	44
1259004700	GMD-50	DC48V	4a	1a1b	4P	44
1259004800	GMD-50	DC60V	4a	1a1b	4P	44
1259004900	GMD-50	DC80V	4a	1a1b	4P	44
1259005000	GMD-50	DC100V	4a	1a1b	4P	44
1259005100	GMD-50	DC110V	4a	1a1b	4P	44
1259005200	GMD-50	DC125V	4a	1a1b	4P	44
1259005300	GMD-50	DC200V	4a	1a1b	4P	44
1259005400	GMD-50	DC220V	4a	1a1b	4P	44
1259005500	GMD-50	DC250V	4a	1a1b	4P	44
1259005600	GMD-65	DC12V	4a	1a1b	4P	44
1259005700	GMD-65	DC20V	4a	1a1b	4P	44
1259005800	GMD-65	DC24V	4a	1a1b	4P	44
1259005900	GMD-65	DC48V	4a	1a1b	4P	44
1259006000	GMD-65	DC60V	4a	1a1b	4P	44
1259006100	GMD-65	DC80V	4a	1a1b	4P	44
1259006200	GMD-65	DC100V	4a	1a1b	4P	44
1259006300	GMD-65	DC110V	4a	1a1b	4P	44
1259006400	GMD-65	DC125V	4a	1a1b	4P	44
1259006500	GMD-65	DC200V	4a	1a1b	4P	44
1259006600	GMD-65	DC220V	4a	1a1b	4P	44
1259006700	GMD-65	DC250V	4a	1a1b	4P	44
1259006800	GMD-75	DC12V	4a	1a1b	4P	44
1259006900	GMD-75	DC20V	4a	1a1b	4P	44
1259007000	GMD-75	DC24V	4a	1a1b	4P	44
1259007100	GMD-75	DC48V	4a	1a1b	4P	44
1259007200	GMD-75	DC60V	4a	1a1b	4P	44
1259007300	GMD-75	DC80V	4a	1a1b	4P	44
1259007400	GMD-75	DC100V	4a	1a1b	4P	44
1259007500	GMD-75	DC110V	4a	1a1b	4P	44
1259007600	GMD-75	DC125V	4a	1a1b	4P	44
1259007700	GMD-75	DC200V	4a	1a1b	4P	44
1259007900	GMD-75	DC250V	4a	1a1b	4P	44
1259008000	GMD-85	DC12V	4a	1a1b	4P	44
1259008100	GMD-85	DC20V	4a	1a1b	4P	44
1259008200	GMD-85	DC24V	4a	1a1b	4P	44
1259008300	GMD-85	DC48V	4a	1a1b	4P	44
1259008400	GMD-85	DC60V	4a	1a1b	4P	44
1259008500	GMD-85	DC80V	4a	1a1b	4P	44
1259008600	GMD-85	DC100V	4a	1a1b	4P	44
1259008700	GMD-85	DC110V	4a	1a1b	4P	44
1259008800	GMD-85	DC125V	4a	1a1b	4P	44
1259008900	GMD-85	DC200V	4a	1a1b	4P	44
1259009000	GMD-85	DC220V	4a	1a1b	4P	44
1259009100	GMD-85	DC250V	4a	1a1b	4P	44

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## GMC-R

### Reversing Contactors (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary Contact	Pole	Page No.
1269047300	GMC-9MR	AC24V	50/60Hz	2a	3P	61
1269047400	GMC-12MR	AC24V	50/60Hz	2a	3P	61
1269044400	GMC-12MR	AC220V	50/60Hz	2a	3P	61
1269044500	GMC-12MR	AC220V	50/60Hz	2b	3P	61
1269048200	GMC-16MRF	AC24V	50/60Hz	2b	3P	61
1269048300	GMC-16MRF	AC120V	50/60Hz	2b	3P	61
1250060500	GMC-9R	AC100V	50Hz	2a2b	3P	66
1250032200	GMC-9R	AC110V	50Hz	2a2b	3P	66
1250004000	GMC-9R	AC220V	50Hz	2a2b	3P	66
1250050500	GMC-9R	AC380V	50Hz	2a2b	3P	66
1250059300	GMC-12R	AC100V	50Hz	2a2b	3P	66
1250008400	GMC-12R	AC220V	50Hz	2a2b	3P	66
1250059100	GMC-12R	AC240V	50Hz	2a2b	3P	66
1250019000	GMC-12R	AC380V	50Hz	2a2b	3P	66
1250012700	GMC-18R	AC220V	50Hz	2a2b	3P	66
1250030900	GMC-18R	AC380V	50Hz	2a2b	3P	66
1250017500	GMC-22R	AC220V	50Hz	2a2b	3P	66
1250048900	GMC-22R	AC220V	50Hz	2a2b	3P	66
1250059200	GMC-22R	AC240V	50Hz	2a2b	3P	66
1250020500	GMC-22R	AC380V	50Hz	2a2b	3P	66
1255007300	GMC-32R	AC220V	50Hz	2a2b	3P	66
1254013300	GMC-40R	AC110V	50Hz	2a2b	3P	66
1254009400	GMC-40R	AC220V	50Hz	2a2b	3P	66
1254031800	GMC-40R	AC380V	50Hz	2a2b	3P	66
1258042200	GMC-50R	AC110V	50Hz	2a2b	3P	66
1258044300	GMC-50R	AC220V	50Hz	2a2b	3P	66
1258004500	GMC-50R	AC230V	50Hz	2a2b	3P	66
1258053200	GMC-50R	AC240V	50Hz	2a2b	3P	66
1258009300	GMC-65R	AC220V	50Hz	2a2b	3P	66
1258019900	GMC-65R	AC110V	50Hz	2a2b	3P	66
1258047000	GMC-65R	AC380V	50Hz	2a2b	3P	66
1258013900	GMC-75R	AC220V	50Hz	2a2b	3P	66
1258018800	GMC-85R	AC220V	50Hz	2a2b	3P	66
1250003900	GMC-9R	AC110V	60Hz	2a2b	3P	66
1250017300	GMC-22R	AC220V	60Hz	2a2b	3P	66
1254004300	GMC-32R	AC110V	60Hz	2a2b	3P	66
1254009300	GMC-40R	AC240V	60Hz	2a2b	3P	66
1258004300	GMC-50R	AC110V	60Hz	2a2b	3P	66
1258004400	GMC-50R	AC220V	60Hz	2a2b	3P	66
1258009100	GMC-65R	AC110V	60Hz	2a2b	3P	66
1258030800	GMC-75R	AC220V	60Hz	2a2b	3P	66
1258018700	GMC-85R	AC110V	60Hz	2a2b	3P	66
1236001000	GMC-100R	AC/DC100-200V	50/60Hz	4a4b	3P	68
1236004800	GMC-100R	AC400V	50/60Hz	4a4b	3P	68
1236002300	GMC-125R	AC/DC100-200V	50/60Hz	4a4b	3P	68
1238001200	GMC-150R	AC/DC100-200V	50/60Hz	4a4b	3P	68
1238001300	GMC-150R	AC400V	50/60Hz	4a4b	3P	68
1240001100	GMC-180R	AC/DC100-200V	50/60Hz	4a4b	3P	68
1240005400	GMC-180R	AC400V	50/60Hz	4a4b	3P	68
1240002500	GMC-220R	AC/DC100-200V	50/60Hz	4a4b	3P	68
1240005600	GMC-220R	AC400V	50/60Hz	2a2b	3P	68
1242000800	GMC-300R	AC/DC100-200V	50/60Hz	4a4b	3P	68
1242004000	GMC-300R	AC400V	50/60Hz	4a4b	3P	68
1242001700	GMC-400R	AC/DC100-200V	50/60Hz	4a4b	3P	68
1242004100	GMC-400R	AC400V	50/60Hz	4a4b	3P	68



## Motor starters, open (9~800A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1252018400	GMS-9	AC220V	50Hz	1a1b	1.3A	3H	51
1252018300	GMS-9	AC220V	50Hz	1a1b	2.1A	3H	51
1252018500	GMS-9	AC220V	50Hz	1a1b	3.3A	3H	51
1252012400	GMS-9	AC220V	50Hz	1a1b	5A	3H	51
1252013200	GMS-9	AC220V	50Hz	1a1b	6.5A	3H	51
1252060500	GMS-9	AC380V	50Hz	1a1b	1.3A	3H	51
1252060600	GMS-9	AC380V	50Hz	1a1b	2.1A	3H	51
1252060700	GMS-9	AC380V	50Hz	1a1b	3.3A	3H	51
1252060800	GMS-9	AC380V	50Hz	1a1b	5A	3H	51
1252003900	GMS-12	AC220V	50Hz	1a1b	2.1A	3H	51
1252004000	GMS-12	AC220V	50Hz	1a1b	3.3A	3H	51
1252012500	GMS-12	AC220V	50Hz	1a1b	5A	3H	51
1252018200	GMS-12	AC220V	50Hz	1a1b	6.5A	3H	51
1252013300	GMS-12	AC220V	50Hz	1a1b	8.5A	3H	51
1252118500	GMS-12	AC380V	50Hz	1a1b	6.5A	3H	51
1252118800	GMS-12	AC380V	50Hz	1a1b	11A	3H	51
1252004600	GMS-18	AC24V	50Hz	1a1b	2.1A	3H	51
1252011700	GMS-18	AC220V	50Hz	2a2b	15A	3H	51
1252011900	GMS-18	AC220V	50Hz	1a1b	15A	3H	51
1252004700	GMS-18	AC240V	50Hz	1a1b	3.3A	3H	51
1252005200	GMS-22	AC24V	50Hz	1a1b	2.1A	3H	51
1252005300	GMS-22	AC24V	50Hz	1a1b	3.3A	3H	51
1252235100	GMS-22	AC110V	50Hz	1a1b	3.3A	3H	51
1252011300	GMS-22	AC220V	50Hz	1a1b	0.82A	3H	51
1252006500	GMS-22	AC220V	50Hz	1a1b	2.1A	3H	51
1252010600	GMS-22	AC220V	50Hz	1a1b	8.5A	3H	51
1252012600	GMS-22	AC220V	50Hz	1a1b	11A	3H	51
1252013100	GMS-22	AC220V	50Hz	1a1b	15A	3H	51
1252013400	GMS-22	AC220V	50Hz	1a1b	19A	3H	51
1252006600	GMS-22	AC240V	50Hz	1a1b	2.1A	3H	51
1252006700	GMS-22	AC240V	50Hz	1a1b	5A	3H	51
1252006800	GMS-22	AC240V	50Hz	1a1b	11A	3H	51
1252006900	GMS-22	AC240V	50Hz	1a1b	15A	3H	51
1252237700	GMS-22	AC380V	50Hz	2a2b	15A	3H	51
1256000300	GMS-32	AC220V	50Hz	2a2b	11A	3H	51
1256002800	GMS-32	AC220V	50Hz	2a2b	15A	3H	51
1256002600	GMS-32	AC220V	50Hz	2a2b	22A	3H	51
1256004300	GMS-32	AC220V	50Hz	2a2b	34A	3H	51
1256008200	GMS-32	AC380V	50Hz	2a2b	34A	3H	51
1256000700	GMS-40	AC24V	50Hz	2a2b	15A	3H	51
1256000800	GMS-40	AC240V	50Hz	2a2b	15A	3H	51
1256001300	GMS-40	AC220V	50Hz	2a2b	15A	3H	51
1256002900	GMS-40	AC220V	50Hz	2a2b	19A	3H	51
1256002700	GMS-40	AC220V	50Hz	2a2b	30A	3H	51
1260001200	GMS-50	AC24V	50Hz	2a2b	22A	3H	51
1260001300	GMS-50	AC220V	50Hz	2a2b	19A	3H	51
1260001400	GMS-50	AC220V	50Hz	2a2b	22A	3H	51
1260003900	GMS-50	AC220V	50Hz	2a2b	34A	3H	51
1260005500	GMS-50	AC220V	50Hz	2a2b	42A	3H	51
1260001500	GMS-50	AC240V	50Hz	2a2b	22A	3H	51
1260004600	GMS-50	AC380V	50Hz	2a2b	42A	3H	51
1260002000	GMS-65	AC220V	50Hz	2a2b	30A	3H	51
1260004000	GMS-65	AC220V	50Hz	2a2b	42A	3H	51
1260003100	GMS-85	AC220V	50Hz	2a2b	42A	3H	51
1260003200	GMS-85	AC220V	50Hz	2a2b	55A	3H	51
1260003300	GMS-85	AC220V	50Hz	2a2b	65A	3H	51

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## GMS

### Motor starters, open (9~800A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1252010800	GMS-9	AC24V	60Hz	1a1b	2.1A	3H	51
1252008200	GMS-9	AC220V	60Hz	1a1b	5A	3H	51
1252008300	GMS-9	AC220V	60Hz	1a1b	3.3A	3H	51
1252008400	GMS-9	AC220V	60Hz	1a1b	2.1A	3H	51
1252008500	GMS-9	AC220V	60Hz	1a1b	1.3A	3H	51
1252004100	GMS-12	AC110V	60Hz	1a1b	1.3A	3H	51
1252004200	GMS-12	AC110V	60Hz	1a1b	2.1A	3H	51
1252004300	GMS-12	AC110V	60Hz	1a1b	0.52A	3H	51
1252003800	GMS-12	AC220V	60Hz	1a1b	11A	3H	51
1252007000	GMS-12	AC220V	60Hz	2a2b	7.5A	3H	51
1252007600	GMS-18	AC220V	60Hz	2a2b	15A	3H	51
1252005700	GMS-22	AC24V	60Hz	1a1b	2.1A	3H	51
1252005800	GMS-22	AC24V	60Hz	1a1b	3.3A	3H	51
1252005900	GMS-22	AC24V	60Hz	1a1b	7.5A	3H	51
1252006000	GMS-22	AC24V	60Hz	1a1b	8.5A	3H	51
1252006100	GMS-22	AC24V	60Hz	1a1b	11A	3H	51
1252006200	GMS-22	AC24V	60Hz	1a1b	15A	3H	51
1252007900	GMS-22	AC220V	60Hz	2a2b	15A	3H	51
1256002400	GMS-32	AC110V	60Hz	2a2b	5A	3H	51
1256001600	GMS-32	AC220V	60Hz	2a2b	22A	3H	51
1256001100	GMS-40	AC24V	60Hz	2a2b	30A	3H	51
1256001200	GMS-40	AC24V	60Hz	2a2b	22A	3H	51
1256002000	GMS-40	AC220V	60Hz	2a2b	30A	3H	51
1260000900	GMS-50	AC24V	60Hz	2a2b	34A	3H	51
1260001000	GMS-50	AC24V	60Hz	2a2b	42A	3H	51
1260001100	GMS-50	AC24V	60Hz	2a2b	22A	3H	51
1260003000	GMS-50	AC220V	60Hz	2a2b	42A	3H	51
1260002400	GMS-75	AC220V	60Hz	2a2b	65A	3H	51
1260004300	GMS-85	AC24V	60Hz	1a1b	55A	3H	51
1260002800	GMS-85	AC110V	60Hz	2a2b	65A	3H	51
1260002900	GMS-85	AC220V	60Hz	2a2b	65A	3H	51
1237005200	GMS-100	AC/DC24V	50/60Hz	2a2b	41A	3H	52
1237005300	GMS-100	AC/DC24V	50/60Hz	2a2b	48A	3H	52
1237005400	GMS-100	AC/DC24V	50/60Hz	2a2b	56A	3H	52
1237005500	GMS-100	AC/DC24V	50/60Hz	2a2b	67A	3H	52
1237005600	GMS-100	AC/DC24V	50/60Hz	2a2b	80A	3H	52
1237005700	GMS-100	AC/DC48V	50/60Hz	2a2b	41A	3H	52
1237005800	GMS-100	AC/DC48V	50/60Hz	2a2b	48A	3H	52
1237005900	GMS-100	AC/DC48V	50/60Hz	2a2b	56A	3H	52
1237006000	GMS-100	AC/DC48V	50/60Hz	2a2b	67A	3H	52
1237006100	GMS-100	AC/DC48V	50/60Hz	2a2b	80A	3H	52
1237003200	GMS-100	AC/DC100-200V	50/60Hz	2a2b	41A	3H	52
1237003300	GMS-100	AC/DC100-200V	50/60Hz	2a2b	48A	3H	52
1237003400	GMS-100	AC/DC100-200V	50/60Hz	2a2b	56A	3H	52
1237003500	GMS-100	AC/DC100-200V	50/60Hz	2a2b	67A	3H	52
1237003600	GMS-100	AC/DC100-200V	50/60Hz	2a2b	80A	3H	52
1237003700	GMS-100	AC/DC300V	50/60Hz	2a2b	41A	3H	52
1237003800	GMS-100	AC/DC300V	50/60Hz	2a2b	48A	3H	52
1237003900	GMS-100	AC/DC300V	50/60Hz	2a2b	56A	3H	52
1237004000	GMS-100	AC/DC300V	50/60Hz	2a2b	67A	3H	52
1237004100	GMS-100	AC/DC300V	50/60Hz	2a2b	80A	3H	52
1237004200	GMS-100	AC/DC400V	50/60Hz	2a2b	41A	3H	52
1237004300	GMS-100	AC/DC400V	50/60Hz	2a2b	48A	3H	52
1237004400	GMS-100	AC/DC400V	50/60Hz	2a2b	56A	3H	52
1237004500	GMS-100	AC/DC400V	50/60Hz	2a2b	67A	3H	52
1237004600	GMS-100	AC/DC400V	50/60Hz	2a2b	80A	3H	52



## Motor starters, open (9~800A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1237004700	GMS-100	AC/DC500V	50/60Hz	2a2b	41A	3H	52
1237004800	GMS-100	AC/DC500V	50/60Hz	2a2b	48A	3H	52
1237004900	GMS-100	AC/DC500V	50/60Hz	2a2b	56A	3H	52
1237005000	GMS-100	AC/DC500V	50/60Hz	2a2b	67A	3H	52
1237005100	GMS-100	AC/DC500V	50/60Hz	2a2b	80A	3H	52
1237010300	GMS-125	AC/DC100-200V	50/60Hz	2a2b	107A	3H	52
1237013300	GMS-125K	AC/DC100-200V	50/60Hz	2a2b	80A	3H	52
1239004700	GMS-150	AC/DC100-200V	50/60Hz	2a2b	107A	3H	52
1239004800	GMS-150	AC/DC100-200V	50/60Hz	2a2b	130A	3H	52
1239006200	GMS-150	AC/DC400V	50/60Hz	2a2b	130A	3H	52
1239006900	GMS-150	AC/DC500V	50/60Hz	2a2b	130A	3H	52
1239008400	GMS-150K	AC/DC100-200V	50/60Hz	2a2b	130A	3H	52
1241002500	GMS-180	AC/DC100-200V	50/60Hz	2a2b	107A	3H	52
1241002600	GMS-180	AC/DC100-200V	50/60Hz	2a2b	130A	3H	52
1241002700	GMS-180	AC/DC100-200V	50/60Hz	2a2b	150A	3H	52
1241003400	GMS-180	AC/DC400V	50/60Hz	2a2b	130A	3H	52
1241008100	GMS-220	AC/DC100-200V	50/60Hz	2a2b	200A	3H	52
1241009100	GMS-220	AC/DC400V	50/60Hz	2a2b	200A	3H	52
1241010600	GMS-220K	AC/DC100-200V	50/60Hz	2a2b	200A	3H	52
1243002200	GMS-300	AC/DC100-200V	50/60Hz	2a2b	130A	3H	52
1243002400	GMS-300	AC/DC100-200V	50/60Hz	2a2b	200A	3H	52
1243002500	GMS-300	AC/DC100-200V	50/60Hz	2a2b	250A	3H	52
1243003500	GMS-300	AC/DC400V	50/60Hz	2a2b	250A	3H	52
1243004100	GMS-300K	AC/DC100-200V	50/60Hz	2a2b	130A	3H	52
1243007000	GMS-400	AC/DC100-200V	50/60Hz	2a2b	250A	3H	52
1243007100	GMS-400	AC/DC100-200V	50/60Hz	2a2b	350A	3H	52
1243008300	GMS-400	AC/DC400V	50/60Hz	2a2b	350A	3H	52
1243009100	GMS-400K	AC/DC100-200V	50/60Hz	2a2b	350A	3H	52
1245007000	GMS-800K	AC/DC100V	50/60Hz	2a2b	660A	3H	52
1252011100	GMS-9	AC110V	50Hz	1a1b	0.33A	2H	51
1252010900	GMS-9	AC110V	50Hz	1a1b	0.52A	2H	51
1252011000	GMS-9	AC110V	50Hz	1a1b	1.3A	2H	51
1252078400	GMS-12	AC110V	50Hz	1a1b	0.82A	2H	51
1252078500	GMS-12	AC110V	50Hz	1a1b	1.3A	2H	51
1252078600	GMS-12	AC110V	50Hz	1a1b	2.1A	2H	51
1252002600	GMS-12	AC220V	50Hz	1a1b	3.3A	2H	51
1252135700	GMS-18	AC110V	50Hz	1a1b	0.21A	2H	51
1252136300	GMS-18	AC110V	50Hz	1a1b	3.3A	2H	51
1252136600	GMS-18	AC110V	50Hz	1a1b	7.5A	2H	51
1252136900	GMS-18	AC110V	50Hz	1a1b	15A	2H	51
1256004500	GMS-40	AC110V	50Hz	2a2b	30A	2H	51
1256004100	GMS-40	AC220V	50Hz	2a2b	22A	2H	51
1260007900	GMS-50	AC110V	50Hz	2a2b	42A	2H	51
1260000600	GMS-50	AC220V	50Hz	2a2b	19A	2H	51
1260007800	GMS-85	AC110V	50Hz	2a2b	74A	2H	51
1252003400	GMS-12	AC110V	60Hz	1a1b	3.3A	2H	51
1252002300	GMS-12	AC220V	60Hz	1a1b	3.3A	2H	51
1252010500	GMS-18	AC110V	60Hz	1a1b	15A	2H	51
1252005000	GMS-18	AC220V	60Hz	1a1b	15A	2H	51
1260000500	GMS-50	AC220V	60Hz	2a2b	30A	2H	51
1237000500	GMS-100	AC/DC100-200V	50/60Hz	2a2b	80A	2H	52
1239000700	GMS-150	AC/DC100-200V	50/60Hz	2a2b	130A	2H	52
1241000400	GMS-180	AC/DC100-200V	50/60Hz	2a2b	150A	2H	52
1241005100	GMS-220	AC/DC100-200V	50/60Hz	2a2b	200A	2H	52
1243000500	GMS-300	AC/DC100-200V	50/60Hz	2a2b	250A	2H	52
1243004700	GMS-400	AC/DC100-200V	50/60Hz	2a2b	350A	2H	52

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## Enclosed Motor starters without push buttons (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1253003700	GMW-9K	AC220V	60Hz	1a1b	5A	3H	53
1253003900	GMW-9K	AC220V	60Hz	1a1b	11A	3H	53
1253035300	GMW-9K	AC220V	60Hz	1a1b	8.5A	3H	53
1253055300	GMW-9K	AC208V	60Hz	1a1b	8.5A	3H	53
1253034700	GMW-12K	AC220V	60Hz	1a1b	11A	3H	53
1253048500	GMW-12K	AC208V	60Hz	1a1b	11A	3H	53
1253034800	GMW-18K	AC220V	60Hz	1a1b	15A	3H	53
1253048600	GMW-18K	AC208V	60Hz	1a1b	15A	3H	53
1253035000	GMW-22K	AC220V	60Hz	1a1b	19A	3H	53
1253048700	GMW-22K	AC208V	60Hz	1a1b	19A	3H	53
1257008400	GMW-32K	AC220V	60Hz	2a2b	30A	3H	53
1257010200	GMW-32K	AC208V	60Hz	2a2b	30A	3H	53
1253024900	GMW-9	AC380V	50Hz	1a1b	1.3A	3H	54
1253046000	GMW-9	AC220V	50Hz	1a1b	1.3A	3H	54
1253024200	GMW-9	AC220V	50Hz	1a1b	2.1A	3H	54
1253025000	GMW-9	AC380V	50Hz	1a1b	2.1A	3H	54
1253024300	GMW-9	AC220V	50Hz	1a1b	3.3A	3H	54
1253025100	GMW-9	AC380V	50Hz	1a1b	3.3A	3H	54
1253024400	GMW-9	AC220V	50Hz	1a1b	5A	3H	54
1253049400	GMW-9	AC380V	50Hz	1a1b	5A	3H	54
1253024500	GMW-9	AC220V	50Hz	1a1b	6.5A	3H	54
1253025300	GMW-9	AC380V	50Hz	1a1b	6.5A	3H	54
1253024600	GMW-9	AC220V	50Hz	1a1b	7.5A	3H	54
1253025400	GMW-9	AC380V	50Hz	1a1b	7.5A	3H	54
1253024700	GMW-9	AC220V	50Hz	1a1b	8.5A	3H	54
1253025500	GMW-9	AC380V	50Hz	1a1b	8.5A	3H	54
1253024800	GMW-9	AC220V	50Hz	1a1b	11A	3H	54
1253049500	GMW-9	AC380V	50Hz	1a1b	11A	3H	54
1253050300	GMW-12	AC220V	50Hz	1a1b	3.3A	3H	54
1253047500	GMW-12	AC220V	50Hz	1a1b	5A	3H	54
1253028700	GMW-12	AC220V	50Hz	1a1b	6.5A	3H	54
1253028800	GMW-12	AC220V	50Hz	1a1b	7.5A	3H	54
1253028900	GMW-12	AC220V	50Hz	1a1b	8.5A	3H	54
1253029000	GMW-12	AC220V	50Hz	1a1b	11A	3H	54
1253029100	GMW-12	AC220V	50Hz	1a1b	15A	3H	54
1253050400	GMW-12	AC380V	50Hz	1a1b	3.3A	3H	54
1253047600	GMW-12	AC380V	50Hz	1a1b	5A	3H	54
1253029200	GMW-12	AC380V	50Hz	1a1b	6.5A	3H	54
1253029300	GMW-12	AC380V	50Hz	1a1b	7.5A	3H	54
1253029400	GMW-12	AC380V	50Hz	1a1b	8.5A	3H	54
1253029500	GMW-12	AC380V	50Hz	1a1b	11A	3H	54
1253030800	GMW-18	AC220V	50Hz	1a1b	8.5A	3H	54
1253030900	GMW-18	AC220V	50Hz	1a1b	11A	3H	54
1253031000	GMW-18	AC220V	50Hz	1a1b	15A	3H	54
1253031100	GMW-18	AC220V	50Hz	1a1b	19A	3H	54
1253031200	GMW-18	AC380V	50Hz	1a1b	8.5A	3H	54
1253031300	GMW-18	AC380V	50Hz	1a1b	11A	3H	54
1253031400	GMW-18	AC380V	50Hz	1a1b	15A	3H	54
1253031500	GMW-18	AC380V	50Hz	1a1b	19A	3H	54
1253032800	GMW-22	AC220V	50Hz	1a1b	8.5A	3H	54
1253032900	GMW-22	AC220V	50Hz	1a1b	11A	3H	54
1253033000	GMW-22	AC220V	50Hz	1a1b	15A	3H	54
1253033100	GMW-22	AC220V	50Hz	1a1b	19A	3H	54
1253033200	GMW-22	AC220V	50Hz	1a1b	22A	3H	54

## Enclosed Motor starters without push buttons (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1253033300	GMW-22	AC380V	50Hz	1a1b	8.5A	3H	54
1253033400	GMW-22	AC380V	50Hz	1a1b	11A	3H	54
1253033500	GMW-22	AC380V	50Hz	1a1b	15A	3H	54
1253033600	GMW-22	AC380V	50Hz	1a1b	19A	3H	54
1253033700	GMW-22	AC380V	50Hz	1a1b	22A	3H	54
1257005400	GMW-32	AC220V	50Hz	2a2b	15A	3H	54
1257005500	GMW-32	AC220V	50Hz	2a2b	19A	3H	54
1257005600	GMW-32	AC220V	50Hz	2a2b	22A	3H	54
1257005700	GMW-32	AC220V	50Hz	2a2b	30A	3H	54
1257005800	GMW-32	AC220V	50Hz	2a2b	34A	3H	54
1257005900	GMW-32	AC380V	50Hz	2a2b	15A	3H	54
1257006000	GMW-32	AC380V	50Hz	2a2b	19A	3H	54
1257006100	GMW-32	AC380V	50Hz	2a2b	22A	3H	54
1257006200	GMW-32	AC380V	50Hz	2a2b	30A	3H	54
1257006300	GMW-32	AC380V	50Hz	2a2b	34A	3H	54
1257007100	GMW-40	AC220V	50Hz	2a2b	22A	3H	54
1257007200	GMW-40	AC220V	50Hz	2a2b	30A	3H	54
1257007300	GMW-40	AC220V	50Hz	2a2b	34A	3H	54
1257007400	GMW-40	AC380V	50Hz	2a2b	22A	3H	54
1257007500	GMW-40	AC380V	50Hz	2a2b	30A	3H	54
1257007600	GMW-40	AC380V	50Hz	2a2b	34A	3H	54
1261003400	GMW-50	AC220V	50Hz	2a2b	34A	3H	54
1261003500	GMW-50	AC220V	50Hz	2a2b	42A	3H	54
1261003600	GMW-50	AC220V	50Hz	2a2b	55A	3H	54
1261003700	GMW-50	AC380V	50Hz	2a2b	34A	3H	54
1261003800	GMW-50	AC380V	50Hz	2a2b	42A	3H	54
1261003900	GMW-50	AC380V	50Hz	2a2b	55A	3H	54
1253045900	GMW-9	AC220V	60Hz	1a1b	1.3A	3H	54
1253000300	GMW-9	AC220V	60Hz	1a1b	3.3A	3H	54
1253000400	GMW-9	AC220V	60Hz	1a1b	6.5A	3H	54
1253000100	GMW-9	AC110V	60Hz	1a1b	8.5A	3H	54
1253000200	GMW-9	AC220V	60Hz	1a1b	8.5A	3H	54
1253007600	GMW-12	AC110V	60Hz	1a1b	11A	3H	54
1253007700	GMW-12	AC220V	60Hz	1a1b	11A	3H	54
1253015000	GMW-18	AC110V	60Hz	1a1b	15A	3H	54
1253015100	GMW-18	AC220V	60Hz	1a1b	15A	3H	54
1253019000	GMW-22	AC110V	60Hz	1a1b	19A	3H	54
1253019100	GMW-22	AC220V	60Hz	1a1b	19A	3H	54
1257000100	GMW-32	AC110V	60Hz	2a2b	30A	3H	54
1257000200	GMW-32	AC220V	60Hz	2a2b	30A	3H	54
1257003900	GMW-40	AC220V	60Hz	2a2b	34A	3H	54
1261000300	GMW-50	AC220V	60Hz	2a2b	42A	3H	54
1261001200	GMW-65	AC220V	60Hz	2a2b	55A	3H	54
1261001900	GMW-75	AC220V	60Hz	2a2b	65A	3H	54
1261002600	GMW-85	AC220V	60Hz	2a2b	74A	3H	54
1253007900	GMW-12	AC220V	60Hz	1a1b	11A	2H	55
1253008000	GMW-12	AC380V	60Hz	1a1b	11A	2H	55
1253007800	GMW-12	AC440V	60Hz	1a1b	5A	2H	55
1253015200	GMW-18	AC220V	60Hz	1a1b	15A	2H	55
1253015300	GMW-18	AC380V	60Hz	1a1b	15A	2H	55
1253019200	GMW-22	AC220V	60Hz	1a1b	15A	2H	55
1253019500	GMW-22	AC220V	60Hz	1a1b	19A	2H	55
1257003800	GMW-40	AC220V	60Hz	2a2b	34A	2H	55
1261001100	GMW-65	AC220V	60Hz	2a2b	55A	2H	55

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## Enclosed Motor starters without push buttons (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1261001800	GMW-75	AC220V	60Hz	2a2b	65A	2H	55
1261002500	GMW-85	AC220V	60Hz	2a2b	74A	2H	55
1253042000	GMW-9M	AC220V	50Hz	1a1b	3.3A	3H	56
1253042100	GMW-9M	AC220V	50Hz	1a1b	5A	3H	56
1253042200	GMW-9M	AC220V	50Hz	1a1b	7.5A	3H	56
1253059100	GMW-9M	AC415V	50Hz	1a1b	3.3A	3H	56
1253061300	GMW-9M	AC415V	50Hz	1a1b	7.5A	3H	56
1253010000	GMW-12M	AC220V	50Hz	1a1b	3.3A	3H	56
1253010100	GMW-12M	AC220V	50Hz	1a1b	6.5A	3H	56
1253010200	GMW-12M	AC220V	50Hz	1a1b	8.5A	3H	56
1253042300	GMW-12M	AC220V	50Hz	1a1b	11A	3H	56
1253059200	GMW-12M	AC415V	50Hz	1a1b	11A	3H	56
1253016600	GMW-18M	AC220V	50Hz	1a1b	11A	3H	56
1253016700	GMW-18M	AC220V	50Hz	1a1b	15A	3H	56
1253059300	GMW-18M	AC415V	50Hz	1a1b	15A	3H	56
1253046400	GMW-22M	AC220V	50Hz	1a1b	15A	3H	56
1253059500	GMW-9M	AC380V	50/60Hz	1a1b	7.5A	3H	56
1253059400	GMW-9MK	AC380V	50/60Hz	1a1b	7.5A	3H	56
1253059700	GMW-12M	AC380V	50/60Hz	1a1b	11A	3H	56
1253059600	GMW-12MK	AC380V	50/60Hz	1a1b	11A	3H	56
1253003300	GMW-9M	AC110V	60Hz	1a1b	8.5A	3H	56
1253003400	GMW-9M	AC220V	60Hz	1a1b	8.5A	3H	56
1253003800	GMW-9MK	AC220V	60Hz	1a1b	8.5A	3H	56
1253040600	GMW-9MK	AC220V	60Hz	1a1b	6.5A	3H	56
1253040700	GMW-9MK	AC220V	60Hz	1a1b	7.5A	3H	56
1253010300	GMW-12M	AC440V	60Hz	1a1b	5A	2H	56
1253010400	GMW-12M	AC110V	60Hz	1a1b	11A	3H	56
1253010500	GMW-12M	AC220V	60Hz	1a1b	11A	3H	56
1253011000	GMW-12MK	AC220V	60Hz	1a1b	5A	3H	56
1253011100	GMW-12MK	AC220V	60Hz	1a1b	8.5A	3H	56
1253011200	GMW-12MK	AC220V	60Hz	1a1b	11A	3H	56
1253016800	GMW-18M	AC110V	60Hz	1a1b	15A	3H	56
1253016900	GMW-18M	AC220V	60Hz	1a1b	15A	3H	56
1253034900	GMW-18MK	AC220V	60Hz	1a1b	15A	3H	56
1253040500	GMW-18MK	AC220V	60Hz	1a1b	11A	3H	56
1253021300	GMW-22M	AC220V	60Hz	1a1b	15A	2H	56
1253021400	GMW-22M	AC110V	60Hz	1a1b	19A	3H	56
1253021500	GMW-22M	AC220V	60Hz	1a1b	19A	3H	56

## Enclosed Motor starters with push buttons (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1253026900	GMW-9MB	AC220V	50Hz	1a1b	2.1A	3H	57
1253027000	GMW-9MB	AC220V	50Hz	1a1b	3.3A	3H	57
1253027100	GMW-9MB	AC220V	50Hz	1a1b	5A	3H	57
1253027200	GMW-9MB	AC220V	50Hz	1a1b	6.5A	3H	57
1253027300	GMW-9MB	AC220V	50Hz	1a1b	7.5A	3H	57
1253027400	GMW-9MB	AC220V	50Hz	1a1b	8.5A	3H	57
1253027500	GMW-9MB	AC220V	50Hz	1a1b	11A	3H	57
1253060300	GMW-9MB	AC240V	50Hz	1a1b	8.5A	3H	57
1253027600	GMW-9MB	AC380V	50Hz	1a1b	1.3A	3H	57
1253027700	GMW-9MB	AC380V	50Hz	1a1b	2.1A	3H	57
1253027800	GMW-9MB	AC380V	50Hz	1a1b	3.3A	3H	57
1253027900	GMW-9MB	AC380V	50Hz	1a1b	5A	3H	57
1253028000	GMW-9MB	AC380V	50Hz	1a1b	6.5A	3H	57
1253028100	GMW-9MB	AC380V	50Hz	1a1b	7.5A	3H	57
1253028200	GMW-9MB	AC380V	50Hz	1a1b	8.5A	3H	57
1253072800	GMW-9MB	AC400V	50Hz	1a1b	0.21A	3H	57
1253072900	GMW-9MB	AC400V	50Hz	1a1b	0.33A	3H	57
1253073000	GMW-9MB	AC400V	50Hz	1a1b	0.52A	3H	57
1253073100	GMW-9MB	AC400V	50Hz	1a1b	0.82A	3H	57
1253073200	GMW-9MB	AC400V	50Hz	1a1b	0.14A	3H	57
1253070400	GMW-9MB	AC415V	50Hz	1a1b	1.3A	3H	57
1253005100	GMW-9MB	AC415V	50Hz	1a1b	2.1A	3H	57
1253005200	GMW-9MB	AC415V	50Hz	1a1b	3.3A	3H	57
1253005300	GMW-9MB	AC415V	50Hz	1a1b	5A	3H	57
1253048400	GMW-9MB	AC415V	50Hz	1a1b	6.5A	3H	57
1253005400	GMW-9MB	AC415V	50Hz	1a1b	7.5A	3H	57
1253070500	GMW-9MB	AC415V	50Hz	1a1b	8.5A	3H	57
1253047300	GMW-9MB	AC415V	50Hz	1a1b	11A	3H	57
1253057900	GMW-9MB	AC440V	50Hz	1a1b	1.3A	3H	57
1253058000	GMW-9MB	AC440V	50Hz	1a1b	2.1A	3H	57
1253058100	GMW-9MB	AC440V	50Hz	1a1b	3.3A	3H	57
1253058200	GMW-9MB	AC440V	50Hz	1a1b	5A	3H	57
1253058300	GMW-9MB	AC440V	50Hz	1a1b	8.5A	3H	57
1253049800	GMW-12MB	AC220V	50Hz	1a1b	1.3A	3H	57
1253050200	GMW-12MB	AC220V	50Hz	1a1b	2.1A	3H	57
1253012300	GMW-12MB	AC220V	50Hz	1a1b	3.3A	3H	57
1253013100	GMW-12MB	AC220V	50Hz	1a1b	5A	3H	57
1253012400	GMW-12MB	AC220V	50Hz	1a1b	6.5A	3H	57
1253044500	GMW-12MB	AC220V	50Hz	1a1b	7.5A	3H	57
1253012500	GMW-12MB	AC220V	50Hz	1a1b	8.5A	3H	57
1253012600	GMW-12MB	AC220V	50Hz	1a1b	11A	3H	57
1253012700	GMW-12MB	AC220V	50Hz	1a1b	15A	3H	57
1253049900	GMW-12MB	AC220V	50Hz	1a1b	19A	3H	57
1253037800	GMW-12MB	AC240V	50Hz	1a1b	2.1A	3H	57
1253037900	GMW-12MB	AC240V	50Hz	1a1b	3.3A	3H	57
1253038000	GMW-12MB	AC240V	50Hz	1a1b	5A	3H	57
1253038100	GMW-12MB	AC240V	50Hz	1a1b	6.5A	3H	57
1253038200	GMW-12MB	AC240V	50Hz	1a1b	8.5A	3H	57
1253011900	GMW-12MB	AC240V	50Hz	1a1b	11A	3H	57
1253013200	GMW-12MB	AC380V	50Hz	1a1b	3.3A	3H	57
1253030600	GMW-12MB	AC380V	50Hz	1a1b	5A	3H	57
1253013300	GMW-12MB	AC380V	50Hz	1a1b	6.5A	3H	57
1253044600	GMW-12MB	AC380V	50Hz	1a1b	7.5A	3H	57
1253030700	GMW-12MB	AC380V	50Hz	1a1b	8.5A	3H	57
1253044700	GMW-12MB	AC380V	50Hz	1a1b	11A	3H	57
1253052000	GMW-12MB	AC400V	50Hz	1a1b	8.5A	3H	57

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## Enclosed Motor starters with push buttons (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1253038300	GMW-12MB	AC415V	50Hz	1a1b	2.1A	3H	57
1253038400	GMW-12MB	AC415V	50Hz	1a1b	3.3A	3H	57
1253038500	GMW-12MB	AC415V	50Hz	1a1b	5A	3H	57
1253038600	GMW-12MB	AC415V	50Hz	1a1b	6.5A	3H	57
1253054700	GMW-12MB	AC415V	50Hz	1a1b	7.5A	3H	57
1253038700	GMW-12MB	AC415V	50Hz	1a1b	8.5A	3H	57
1253011700	GMW-12MB	AC415V	50Hz	1a1b	11A	3H	57
1253044400	GMW-12MB	AC415V	50Hz	1a1b	15A	3H	57
1253011500	GMW-12MB	AC440V	50Hz	1a1b	15A	3H	57
1253064300	GMW-12MB	AC440V	50Hz	1a1b	5A	3H	57
1253064400	GMW-12MB	AC440V	50Hz	1a1b	6.5A	3H	57
1253074800	GMW-12MB	AC440V	50Hz	1a1b	8.5A	3H	57
1253012800	GMW-12MB	AC440V	50Hz	1a1b	11A	3H	57
1253044800	GMW-18MB	AC220V	50Hz	1a1b	8.5A	3H	57
1253017500	GMW-18MB	AC220V	50Hz	1a1b	11A	3H	57
1253017600	GMW-18MB	AC220V	50Hz	1a1b	15A	3H	57
1253044900	GMW-18MB	AC220V	50Hz	1a1b	19A	3H	57
1253060400	GMW-18MB	AC240V	50Hz	1a1b	19A	3H	57
1253042700	GMW-18MB	AC380V	50Hz	1a1b	8.5A	3H	57
1253042800	GMW-18MB	AC380V	50Hz	1a1b	11A	3H	57
1253042900	GMW-18MB	AC380V	50Hz	1a1b	15A	3H	57
1253043100	GMW-18MB	AC380V	50Hz	1a1b	19A	3H	57
1253052100	GMW-18MB	AC400V	50Hz	1a1b	11A	3H	57
1253054200	GMW-18MB	AC415V	50Hz	1a1b	11A	3H	57
1253017300	GMW-18MB	AC415V	50Hz	1a1b	15A	3H	57
1253052900	GMW-18MB	AC415V	50Hz	1a1b	19A	3H	57
1253058900	GMW-18MB	AC440V	50Hz	1a1b	11A	3H	57
1253059000	GMW-18MB	AC440V	50Hz	1a1b	15A	3H	57
1253074300	GMW-18MB	AC440V	50Hz	1a1b	19A	3H	57
1253043200	GMW-22MB	AC220V	50Hz	1a1b	6.5A	3H	57
1253043400	GMW-22MB	AC220V	50Hz	1a1b	7.5A	3H	57
1253043500	GMW-22MB	AC220V	50Hz	1a1b	8.5A	3H	57
1253022800	GMW-22MB	AC220V	50Hz	1a1b	11A	3H	57
1253022900	GMW-22MB	AC220V	50Hz	1a1b	15A	3H	57
1253043600	GMW-22MB	AC220V	50Hz	1a1b	19A	3H	57
1253039100	GMW-22MB	AC240V	50Hz	1a1b	11A	3H	57
1253039200	GMW-22MB	AC240V	50Hz	1a1b	15A	3H	57
1253060500	GMW-22MB	AC240V	50Hz	1a1b	19A	3H	57
1253043700	GMW-22MB	AC380V	50Hz	1a1b	6.5A	3H	57
1253043800	GMW-22MB	AC380V	50Hz	1a1b	7.5A	3H	57
1253043900	GMW-22MB	AC380V	50Hz	1a1b	8.5A	3H	57
1253044000	GMW-22MB	AC380V	50Hz	1a1b	11A	3H	57
1253023000	GMW-22MB	AC380V	50Hz	1a1b	15A	3H	57
1253044200	GMW-22MB	AC380V	50Hz	1a1b	19A	3H	57
1253052200	GMW-22MB	AC400V	50Hz	1a1b	15A	3H	57
1253039300	GMW-22MB	AC415V	50Hz	1a1b	11A	3H	57
1253039400	GMW-22MB	AC415V	50Hz	1a1b	15A	3H	57
1253022000	GMW-22MB	AC415V	50Hz	1a1b	19A	3H	57
1253022400	GMW-22MB	AC440V	50Hz	1a1b	11A	3H	57
1253022500	GMW-22MB	AC440V	50Hz	1a1b	15A	3H	57
1253004100	GMW-9MB	AC110V	60Hz	1a1b	8.5A	3H	57
1253004300	GMW-9MB	AC220V	60Hz	1a1b	2.1A	3H	57
1253004400	GMW-9MB	AC220V	60Hz	1a1b	3.3A	3H	57
1253004600	GMW-9MB	AC220V	60Hz	1a1b	5A	3H	57
1253004500	GMW-9MB	AC220V	60Hz	1a1b	6.5A	3H	57
1253041700	GMW-9MB	AC220V	60Hz	1a1b	7.5A	3H	57



## Enclosed Motor starters with push buttons (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1253004200	GMW-9MB	AC220V	60Hz	1a1b	8.5A	3H	57
1253041800	GMW-9MB	AC220V	60Hz	1a1b	11A	3H	57
1253012900	GMW-12MB	AC110V	60Hz	1a1b	11A	3H	57
1253050900	GMW-12MB	AC220V	60Hz	1a1b	6.5A	3H	57
1253013000	GMW-12MB	AC220V	60Hz	1a1b	11A	3H	57
1253051000	GMW-12MB	AC220V	60Hz	1a1b	15A	3H	57
1253072200	GMW-12MB	AC415V	50/60Hz	1a1b	3.3A	3H	57
1253017700	GMW-18MB	AC110V	60Hz	1a1b	15A	3H	57
1253017800	GMW-18MB	AC220V	60Hz	1a1b	15A	3H	57
1253059900	GMW-18MB	AC220V	60Hz	1a1b	19A	3H	57
1253022600	GMW-22MB	AC110V	60Hz	1a1b	19A	3H	57
1253022300	GMW-22MB	AC120V	60Hz	1a1b	19A	3H	57
1253022700	GMW-22MB	AC220V	60Hz	1a1b	19A	3H	57
1253035500	GMW-9MBK	AC220V	50Hz	1a1b	1.3A	3H	57
1253035600	GMW-9MBK	AC220V	50Hz	1a1b	3.3A	3H	57
1253035700	GMW-9MBK	AC220V	50Hz	1a1b	5A	3H	57
1253063200	GMW-9MBK	AC380V	50Hz	1a1b	8.5A	3H	57
1253071500	GMW-9MBK	AC415V	50Hz	1a1b	5A	3H	57
1253071600	GMW-9MBK	AC415V	50Hz	1a1b	7.5A	3H	57
1253073500	GMW-9MBK	AC440V	50Hz	1a1b	2.1A	3H	57
1253073600	GMW-9MBK	AC440V	50Hz	1a1b	3.3A	3H	57
1253073700	GMW-9MBK	AC440V	50Hz	1a1b	5A	3H	57
1253062900	GMW-12MBK	AC380V	50Hz	1a1b	11A	3H	57
1253014600	GMW-12MBK	AC415V	50Hz	1a1b	5A	3H	57
1253014500	GMW-12MBK	AC415V	50Hz	1a1b	11A	3H	57
1253074600	GMW-12MBK	AC415V	50Hz	1a1b	15A	3H	57
1253073900	GMW-12MBK	AC440V	50Hz	1a1b	6.5A	3H	57
1253063000	GMW-18MBK	AC380V	50Hz	1a1b	19A	3H	57
1253071700	GMW-18MBK	AC415V	50Hz	1a1b	15A	3H	57
1253073800	GMW-12MBK	AC440V	50Hz	1a1b	8.5A	3H	57
1253074000	GMW-18MBK	AC440V	50Hz	1a1b	11A	3H	57
1253074100	GMW-18MBK	AC440V	50Hz	1a1b	15A	3H	57
1253074200	GMW-18MBK	AC440V	50Hz	1a1b	19A	3H	57
1253035200	GMW-22MBK	AC220V	50Hz	1a1b	15A	3H	57
1253063100	GMW-22MBK	AC380V	50Hz	1a1b	19A	3H	57
1253070700	GMW-22MBK	AC110V	50Hz	1a1b	19A	3H	57
1253071800	GMW-22MBK	AC415V	50Hz	1a1b	19A	3H	57
1253007100	GMW-9MBK	AC24V	60Hz	1a1b	5A	3H	57
1253007200	GMW-9MBK	AC24V	60Hz	1a1b	6.5A	3H	57
1253056600	GMW-9MBK	AC120V	60Hz	1a1b	1.3A	3H	57
1253047000	GMW-9MBK	AC120V	60Hz	1a1b	2.1A	3H	57
1253035800	GMW-9MBK	AC120V	60Hz	1a1b	5A	3H	57
1253035900	GMW-9MBK	AC120V	60Hz	1a1b	6.5A	3H	57
1253036000	GMW-9MBK	AC120V	60Hz	1a1b	7.5A	3H	57
1253036200	GMW-9MBK	AC220V	60Hz	1a1b	0.82A	3H	57
1253036100	GMW-9MBK	AC220V	60Hz	1a1b	1.3A	3H	57
1253006100	GMW-9MBK	AC220V	60Hz	1a1b	2.1A	3H	57
1253005800	GMW-9MBK	AC220V	60Hz	1a1b	3.3A	3H	57
1253006000	GMW-9MBK	AC220V	60Hz	1a1b	5A	3H	57
1253005900	GMW-9MBK	AC220V	60Hz	1a1b	6.5A	3H	57
1253006400	GMW-9MBK	AC220V	60Hz	1a1b	7.5A	3H	57
1253036300	GMW-9MBK	AC220V	60Hz	1a1b	8.5A	3H	57
1253006500	GMW-9MBK	AC220V	60Hz	1a1b	11A	3H	57
1253040000	GMW-9MBK	AC380V	60Hz	1a1b	1.3A	3H	57
1253006600	GMW-9MBK	AC380V	60Hz	1a1b	2.1A	3H	57
1253006700	GMW-9MBK	AC380V	60Hz	1a1b	3.3A	3H	57

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## Enclosed Motor starters with push buttons (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1253006800	GMW-9MBK	AC380V	60Hz	1a1b	5A	3H	57
1253006900	GMW-9MBK	AC380V	60Hz	1a1b	6.5A	3H	57
1253007000	GMW-9MBK	AC380V	60Hz	1a1b	7.5A	3H	57
1253007300	GMW-9MBK	AC440V	60Hz	1a1b	3.3A	3H	57
1253007400	GMW-9MBK	AC440V	60Hz	1a1b	5A	3H	57
1253047100	GMW-9MBK	AC440V	60Hz	1a1b	8.5A	3H	57
1253014300	GMW-12MBK	AC24V	60Hz	1a1b	8.5A	3H	57
1253068100	GMW-12MBK	AC110V	60Hz	1a1b	11A	3H	57
1253056700	GMW-12MBK	AC120V	60Hz	1a1b	2.1A	3H	57
1253050100	GMW-12MBK	AC220V	60Hz	1a1b	6.5A	3H	57
1253013600	GMW-12MBK	AC220V	60Hz	1a1b	7.5A	3H	57
1253013500	GMW-12MBK	AC220V	60Hz	1a1b	8.5A	3H	57
1253041500	GMW-12MBK	AC220V	60Hz	1a1b	11A	3H	57
1253065700	GMW-12MBK	AC240V	60Hz	1a1b	3.3A	3H	57
1253065800	GMW-12MBK	AC240V	60Hz	1a1b	5A	3H	57
1253065900	GMW-12MBK	AC240V	60Hz	1a1b	8.5A	3H	57
1253013900	GMW-12MBK	AC380V	60Hz	1a1b	6.5A	3H	57
1253014000	GMW-12MBK	AC380V	60Hz	1a1b	7.5A	3H	57
1253014100	GMW-12MBK	AC380V	60Hz	1a1b	8.5A	3H	57
1253014200	GMW-12MBK	AC380V	60Hz	1a1b	11A	3H	57
1253056800	GMW-18MBK	AC120V	60Hz	1a1b	3.3A	3H	57
1253039500	GMW-18MBK	AC220V	60Hz	1a1b	3.3A	3H	57
1253018100	GMW-18MBK	AC220V	60Hz	1a1b	5A	3H	57
1253039600	GMW-18MBK	AC220V	60Hz	1a1b	6.5A	3H	57
1253039700	GMW-18MBK	AC220V	60Hz	1a1b	7.5A	3H	57
1253018200	GMW-18MBK	AC220V	60Hz	1a1b	8.5A	3H	57
1253018300	GMW-18MBK	AC220V	60Hz	1a1b	11A	3H	57
1253018000	GMW-18MBK	AC220V	60Hz	1a1b	15A	3H	57
1253018400	GMW-18MBK	AC220V	60Hz	1a1b	19A	3H	57
1253066600	GMW-18MBK	AC240V	60Hz	1a1b	6.5A	3H	57
1253066700	GMW-18MBK	AC240V	60Hz	1a1b	11A	3H	57
1253066800	GMW-18MBK	AC240V	60Hz	1a1b	15A	3H	57
1253039800	GMW-18MBK	AC380V	60Hz	1a1b	6.5A	3H	57
1253039900	GMW-18MBK	AC380V	60Hz	1a1b	7.5A	3H	57
1253018500	GMW-18MBK	AC380V	60Hz	1a1b	8.5A	3H	57
1253018600	GMW-18MBK	AC380V	60Hz	1a1b	11A	3H	57
1253018700	GMW-18MBK	AC380V	60Hz	1a1b	15A	3H	57
1253018800	GMW-18MBK	AC380V	60Hz	1a1b	19A	3H	57
1253018900	GMW-18MBK	AC440V	60Hz	1a1b	15A	3H	57
1253073300	GMW-18MBK	AC600V	60Hz	1a1b	15A	3H	57
1253056900	GMW-22MBK	AC120V	60Hz	1a1b	5A	3H	57
1253023400	GMW-22MBK	AC220V	60Hz	1a1b	5A	3H	57
1253023500	GMW-22MBK	AC220V	60Hz	1a1b	8.5A	3H	57
1253023600	GMW-22MBK	AC220V	60Hz	1a1b	11A	3H	57
1253023700	GMW-22MBK	AC220V	60Hz	1a1b	15A	3H	57
1253023800	GMW-22MBK	AC220V	60Hz	1a1b	19A	3H	57
1253066300	GMW-22MBK	AC240V	60Hz	1a1b	11A	3H	57
1253066400	GMW-22MBK	AC240V	60Hz	1a1b	15A	3H	57
1253066500	GMW-22MBK	AC240V	60Hz	1a1b	19A	3H	57
1253023900	GMW-22MBK	AC380V	60Hz	1a1b	15A	3H	57
1253024000	GMW-22MBK	AC380V	60Hz	1a1b	19A	3H	57
1253024100	GMW-22MBK	AC440V	60Hz	1a1b	15A	3H	57
1253067800	GMW-9BK	AC220V	50Hz	1a1b	2.1A	3H	58
1253069000	GMW-9BK	AC220V	50Hz	1a1b	5A	3H	58
1253069100	GMW-9BK	AC220V	50Hz	1a1b	6.5A	3H	58
1253069200	GMW-9BK	AC220V	50Hz	1a1b	11A	3H	58



## Enclosed Motor starters with push buttons (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1253053000	GMW-9BK	AC415V	50Hz	1a1b	5A	3H	58
1253053100	GMW-9BK	AC415V	50Hz	1a1b	6.5A	3H	58
1253071900	GMW-9BK	AC415V	50Hz	1a1b	7.5A	3H	58
1253053200	GMW-9BK	AC415V	50Hz	1a1b	8.5A	3H	58
1253053300	GMW-9BK	AC415V	50Hz	1a1b	11A	3H	58
1253067900	GMW-9BK	AC440V	50Hz	1a1b	2.1A	3H	58
1253060600	GMW-9BK	AC440V	50Hz	1a1b	3.3A	3H	58
1253071000	GMW-9BK	AC440V	50Hz	1a1b	5A	3H	58
1253075500	GMW-9BK	AC440V	50Hz	1a1b	8.5A	3H	58
1253060700	GMW-9BK	AC440V	50Hz	1a1b	11A	3H	58
1253060900	GMW-12BK	AC220V	50Hz	1a1b	15A	3H	58
1253054300	GMW-12BK	AC240V	50Hz	1a1b	11A	3H	58
1253074400	GMW-12BK	AC415V	50Hz	1a1b	5A	3H	58
1253074500	GMW-12BK	AC415V	50Hz	1a1b	7.5A	3H	58
1253061100	GMW-12BK	AC415V	50Hz	1a1b	11A	3H	58
1253053400	GMW-12BK	AC415V	50Hz	1a1b	15A	3H	58
1253071100	GMW-12BK	AC440V	50Hz	1a1b	8.5A	3H	58
1253071200	GMW-12BK	AC440V	50Hz	1a1b	11A	3H	58
1253060800	GMW-12BK	AC440V	50Hz	1a1b	15A	3H	58
1253061000	GMW-18BK	AC415V	50Hz	1a1b	15A	3H	58
1253071300	GMW-18BK	AC440V	50Hz	1a1b	11A	3H	58
1253035100	GMW-22BK	AC220V	50Hz	1a1b	19A	3H	58
1253061200	GMW-22BK	AC415V	50Hz	1a1b	19A	3H	58
1253064800	GMW-22BK	AC440V	50Hz	1a1b	19A	3H	58
1257010800	GMW-32BK	AC415V	50Hz	2a2b	22A	3H	58
1257012800	GMW-32BK	AC440V	50Hz	2a2b	22A	3H	58
1257009600	GMW-32BK	AC440V	50Hz	2a2b	30A	3H	58
1257013500	GMW-40BK	AC220V	50Hz	2a2b	30A	3H	58
1257010900	GMW-40BK	AC415V	50Hz	2a2b	30A	3H	58
1257009800	GMW-40BK	AC440V	50Hz	2a2b	22A	3H	58
1257012200	GMW-40BK	AC440V	50Hz	2a2b	30A	3H	58
1257009900	GMW-40BK	AC440V	50Hz	2a2b	34A	3H	58
1261007400	GMW-50BK	AC415V	50Hz	2a2b	42A	3H	58
1261008300	GMW-50BK	AC440V	50Hz	2a2b	42A	3H	58
1261007500	GMW-65BK	AC415V	50Hz	2a2b	55A	3H	58
1261008400	GMW-65BK	AC440V	50Hz	2a2b	55A	3H	58
1261007600	GMW-75BK	AC415V	50Hz	2a2b	65A	3H	58
1261008500	GMW-75BK	AC440V	50Hz	2a2b	65A	3H	58
1261007700	GMW-85BK	AC415V	50Hz	2a2b	74A	3H	58
1261008600	GMW-85BK	AC440V	50Hz	2a2b	74A	3H	58
1253046100	GMW-9B	AC220V	50Hz	1a1b	1.3A	3H	59
1253025700	GMW-9B	AC220V	50Hz	1a1b	2.1A	3H	59
1253001400	GMW-9B	AC220V	50Hz	1a1b	3.3A	3H	59
1253025800	GMW-9B	AC220V	50Hz	1a1b	5A	3H	59
1253025900	GMW-9B	AC220V	50Hz	1a1b	6.5A	3H	59
1253026000	GMW-9B	AC220V	50Hz	1a1b	7.5A	3H	59
1253026100	GMW-9B	AC220V	50Hz	1a1b	8.5A	3H	59
1253026200	GMW-9B	AC220V	50Hz	1a1b	11A	3H	59
1253002300	GMW-9B	AC240V	50Hz	1a1b	0.82A	3H	59
1253002400	GMW-9B	AC240V	50Hz	1a1b	2.1A	3H	59
1253002500	GMW-9B	AC240V	50Hz	1a1b	3.3A	3H	59
1253053500	GMW-9B	AC240V	50Hz	1a1b	5A	3H	59
1253002600	GMW-9B	AC240V	50Hz	1a1b	7.5A	3H	59
1253026300	GMW-9B	AC380V	50Hz	1a1b	1.3A	3H	59
1253026400	GMW-9B	AC380V	50Hz	1a1b	2.1A	3H	59
1253001800	GMW-9B	AC380V	50Hz	1a1b	3.3A	3H	59

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## Enclosed Motor starters with push buttons (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1253001000	GMW-9B	AC380V	50Hz	1a1b	5A	3H	59
1253001100	GMW-9B	AC380V	50Hz	1a1b	6.5A	3H	59
1253001200	GMW-9B	AC380V	50Hz	1a1b	7.5A	3H	59
1253001300	GMW-9B	AC380V	50Hz	1a1b	8.5A	3H	59
1253050500	GMW-9B	AC380V	50Hz	1a1b	11A	3H	59
1253072300	GMW-9B	AC400V	50Hz	1a1b	0.14A	3H	59
1253072400	GMW-9B	AC400V	50Hz	1a1b	0.21A	3H	59
1253072500	GMW-9B	AC400V	50Hz	1a1b	0.33A	3H	59
1253072600	GMW-9B	AC400V	50Hz	1a1b	0.52A	3H	59
1253072700	GMW-9B	AC400V	50Hz	1a1b	0.82A	3H	59
1253054500	GMW-9B	AC415V	50Hz	1a1b	0.52A	3H	59
1253054600	GMW-9B	AC415V	50Hz	1a1b	0.82A	3H	59
1253051300	GMW-9B	AC415V	50Hz	1a1b	1.3A	3H	59
1253053800	GMW-9B	AC415V	50Hz	1a1b	2.1A	3H	59
1253002200	GMW-9B	AC415V	50Hz	1a1b	3.3A	3H	59
1253051400	GMW-9B	AC415V	50Hz	1a1b	5A	3H	59
1253051500	GMW-9B	AC415V	50Hz	1a1b	6.5A	3H	59
1253053900	GMW-9B	AC415V	50Hz	1a1b	7.5A	3H	59
1253005700	GMW-9B	AC415V	50Hz	1a1b	8.5A	3H	59
1253054800	GMW-9B	AC415V	50Hz	1a1b	15A	3H	59
1253057300	GMW-9B	AC440V	50Hz	1a1b	1.3A	3H	59
1253057400	GMW-9B	AC440V	50Hz	1a1b	2.1A	3H	59
1253057500	GMW-9B	AC440V	50Hz	1a1b	3.3A	3H	59
1253057600	GMW-9B	AC440V	50Hz	1a1b	5A	3H	59
1253057700	GMW-9B	AC440V	50Hz	1a1b	7.5A	3H	59
1253057800	GMW-9B	AC440V	50Hz	1a1b	8.5A	3H	59
1253050600	GMW-12B	AC220V	50Hz	1a1b	3.3A	3H	59
1253009100	GMW-12B	AC220V	50Hz	1a1b	5A	3H	59
1253029600	GMW-12B	AC220V	50Hz	1a1b	6.5A	3H	59
1253029700	GMW-12B	AC220V	50Hz	1a1b	7.5A	3H	59
1253029800	GMW-12B	AC220V	50Hz	1a1b	8.5A	3H	59
1253029900	GMW-12B	AC220V	50Hz	1a1b	11A	3H	59
1253030000	GMW-12B	AC220V	50Hz	1a1b	15A	3H	59
1253036900	GMW-12B	AC240V	50Hz	1a1b	2.1A	3H	59
1253037000	GMW-12B	AC240V	50Hz	1a1b	3.3A	3H	59
1253037100	GMW-12B	AC240V	50Hz	1a1b	5A	3H	59
1253037200	GMW-12B	AC240V	50Hz	1a1b	6.5A	3H	59
1253037300	GMW-12B	AC240V	50Hz	1a1b	8.5A	3H	59
1253056400	GMW-12B	AC240V	50Hz	1a1b	11A	3H	59
1253068900	GMW-12B	AC380V	50Hz	1a1b	2.1A	3H	59
1253050700	GMW-12B	AC380V	50Hz	1a1b	3.3A	3H	59
1253009500	GMW-12B	AC380V	50Hz	1a1b	5A	3H	59
1253030100	GMW-12B	AC380V	50Hz	1a1b	6.5A	3H	59
1253030200	GMW-12B	AC380V	50Hz	1a1b	7.5A	3H	59
1253030300	GMW-12B	AC380V	50Hz	1a1b	8.5A	3H	59
1253009200	GMW-12B	AC380V	50Hz	1a1b	11A	3H	59
1253051700	GMW-12B	AC400V	50Hz	1a1b	8.5A	3H	59
1253037400	GMW-12B	AC415V	50Hz	1a1b	2.1A	3H	59
1253037500	GMW-12B	AC415V	50Hz	1a1b	3.3A	3H	59
1253008800	GMW-12B	AC415V	50Hz	1a1b	5A	3H	59
1253040400	GMW-12B	AC415V	50Hz	1a1b	6.5A	3H	59
1253041000	GMW-12B	AC415V	50Hz	1a1b	6.5A	3H	59
1253008900	GMW-12B	AC415V	50Hz	1a1b	7.5A	3H	59
1253037600	GMW-12B	AC415V	50Hz	1a1b	8.5A	3H	59
1253009000	GMW-12B	AC415V	50Hz	1a1b	11A	3H	59
1253064000	GMW-12B	AC440V	50Hz	1a1b	3.3A	3H	59

## Enclosed Motor starters with push buttons (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1253064100	GMW-12B	AC440V	50Hz	1a1b	5A	3H	59
1253062400	GMW-12B	AC440V	50Hz	1a1b	6.5A	3H	59
1253064200	GMW-12B	AC440V	50Hz	1a1b	7.5A	3H	59
1253058400	GMW-12B	AC440V	50Hz	1a1b	8.5A	3H	59
1253058500	GMW-12B	AC440V	50Hz	1a1b	11A	3H	59
1253058600	GMW-12B	AC440V	50Hz	1a1b	15A	3H	59
1253015400	GMW-18B	AC220V	50Hz	1a1b	6.5A	3H	59
1253031700	GMW-18B	AC220V	50Hz	1a1b	8.5A	3H	59
1253031800	GMW-18B	AC220V	50Hz	1a1b	11A	3H	59
1253031900	GMW-18B	AC220V	50Hz	1a1b	15A	3H	59
1253032000	GMW-18B	AC220V	50Hz	1a1b	19A	3H	59
1253016100	GMW-18B	AC240V	50Hz	1a1b	6.5A	3H	59
1253016200	GMW-18B	AC240V	50Hz	1a1b	7.5A	3H	59
1253016300	GMW-18B	AC240V	50Hz	1a1b	8.5A	3H	59
1253053600	GMW-18B	AC240V	50Hz	1a1b	11A	3H	59
1253053700	GMW-18B	AC240V	50Hz	1a1b	15A	3H	59
1253015800	GMW-18B	AC380V	50Hz	1a1b	6.5A	3H	59
1253060000	GMW-18B	AC380V	50Hz	1a1b	7.5A	3H	59
1253032100	GMW-18B	AC380V	50Hz	1a1b	8.5A	3H	59
1253032200	GMW-18B	AC380V	50Hz	1a1b	11A	3H	59
1253015500	GMW-18B	AC380V	50Hz	1a1b	15A	3H	59
1253032300	GMW-18B	AC380V	50Hz	1a1b	19A	3H	59
1253051800	GMW-18B	AC400V	50Hz	1a1b	11A	3H	59
1253054000	GMW-18B	AC415V	50Hz	1a1b	11A	3H	59
1253016400	GMW-18B	AC415V	50Hz	1a1b	15A	3H	59
1253058700	GMW-18B	AC440V	50Hz	1a1b	11A	3H	59
1253058800	GMW-18B	AC440V	50Hz	1a1b	15A	3H	59
1253060100	GMW-22B	AC220V	50Hz	1a1b	8.5A	3H	59
1253021000	GMW-22B	AC220V	50Hz	1a1b	11A	3H	59
1253034100	GMW-22B	AC220V	50Hz	1a1b	15A	3H	59
1253034200	GMW-22B	AC220V	50Hz	1a1b	19A	3H	59
1253034300	GMW-22B	AC220V	50Hz	1a1b	22A	3H	59
1253019800	GMW-22B	AC240V	50Hz	1a1b	11A	3H	59
1253019900	GMW-22B	AC240V	50Hz	1a1b	15A	3H	59
1253020000	GMW-22B	AC240V	50Hz	1a1b	19A	3H	59
1253060200	GMW-22B	AC380V	50Hz	1a1b	6.5A	3H	59
1253072100	GMW-22B	AC380V	50Hz	1a1b	8.5A	3H	59
1253020900	GMW-22B	AC380V	50Hz	1a1b	11A	3H	59
1253034400	GMW-22B	AC380V	50Hz	1a1b	15A	3H	59
1253020600	GMW-22B	AC380V	50Hz	1a1b	19A	3H	59
1253051900	GMW-22B	AC400V	50Hz	1a1b	15A	3H	59
1253038800	GMW-22B	AC415V	50Hz	1a1b	11A	3H	59
1253038900	GMW-22B	AC415V	50Hz	1a1b	15A	3H	59
1253020500	GMW-22B	AC415V	50Hz	1a1b	19A	3H	59
1253056500	GMW-22B	AC415V	50Hz	1a1b	22A	3H	59
1253062500	GMW-22B	AC440V	50Hz	1a1b	19A	3H	59
1257006600	GMW-32B	AC220V	50Hz	2a2b	11A	3H	59
1257000900	GMW-32B	AC220V	50Hz	2a2b	15A	3H	59
1257006700	GMW-32B	AC220V	50Hz	2a2b	19A	3H	59
1257001400	GMW-32B	AC220V	50Hz	2a2b	22A	3H	59
1257001500	GMW-32B	AC220V	50Hz	2a2b	30A	3H	59
1257006800	GMW-32B	AC220V	50Hz	2a2b	34A	3H	59
1257010500	GMW-32B	AC240V	50Hz	2a2b	11A	3H	59
1257011300	GMW-32B	AC240V	50Hz	2a2b	22A	3H	59
1257011400	GMW-32B	AC240V	50Hz	2a2b	30A	3H	59
1257001200	GMW-32B	AC380V	50Hz	2a2b	15A	3H	59

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## Enclosed Motor starters with push buttons (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1257006900	GMW-32B	AC380V	50Hz	2a2b	19A	3H	59
1257001700	GMW-32B	AC380V	50Hz	2a2b	22A	3H	59
1257000800	GMW-32B	AC380V	50Hz	2a2b	30A	3H	59
1257007000	GMW-32B	AC380V	50Hz	2a2b	34A	3H	59
1257011100	GMW-32B	AC400V	50Hz	2a2b	22A	3H	59
1257008900	GMW-32B	AC415V	50Hz	2a2b	22A	3H	59
1257002000	GMW-32B	AC415V	50Hz	2a2b	30A	3H	59
1257002100	GMW-32B	AC440V	50Hz	2a2b	22A	3H	59
1257002200	GMW-32B	AC440V	50Hz	2a2b	30A	3H	59
1257004100	GMW-40B	AC220V	50Hz	2a2b	22A	3H	59
1257008000	GMW-40B	AC220V	50Hz	2a2b	30A	3H	59
1257008200	GMW-40B	AC220V	50Hz	2a2b	34A	3H	59
1257004200	GMW-40B	AC380V	50Hz	2a2b	22A	3H	59
1257004400	GMW-40B	AC380V	50Hz	2a2b	30A	3H	59
1257008300	GMW-40B	AC380V	50Hz	2a2b	34A	3H	59
1257011200	GMW-40B	AC400V	50Hz	2a2b	30A	3H	59
1257009000	GMW-40B	AC415V	50Hz	2a2b	30A	3H	59
1257004800	GMW-40B	AC415V	50Hz	2a2b	34A	3H	59
1261000400	GMW-50B	AC220V	50Hz	2a2b	30A	3H	59
1261005700	GMW-50B	AC220V	50Hz	2a2b	42A	3H	59
1261005800	GMW-50B	AC220V	50Hz	2a2b	55A	3H	59
1261000500	GMW-50B	AC380V	50Hz	2a2b	30A	3H	59
1261006400	GMW-50B	AC380V	50Hz	2a2b	42A	3H	59
1261004600	GMW-50B	AC415V	50Hz	2a2b	34A	3H	59
1261000900	GMW-50B	AC415V	50Hz	2a2b	42A	3H	59
1261001400	GMW-65B	AC220V	50Hz	2a2b	42A	3H	59
1261007100	GMW-65B	AC220V	50Hz	2a2b	55A	3H	59
1261001500	GMW-65B	AC380V	50Hz	2a2b	42A	3H	59
1261006500	GMW-65B	AC380V	50Hz	2a2b	55A	3H	59
1261006300	GMW-65B	AC380V	50Hz	2a2b	65A	3H	59
1261001700	GMW-65B	AC415V	50Hz	2a2b	55A	3H	59
1261002100	GMW-75B	AC220V	50Hz	2a2b	42A	3H	59
1261002200	GMW-75B	AC220V	50Hz	2a2b	65A	3H	59
1261006600	GMW-75B	AC380V	50Hz	2a2b	65A	3H	59
1261002300	GMW-75B	AC415V	50Hz	2a2b	74A	3H	59
1261006700	GMW-85B	AC380V	50Hz	2a2b	74A	3H	59
1253002700	GMW-9BK	AC24V	60Hz	1a1b	5A	3H	58
1253002800	GMW-9BK	AC24V	60Hz	1a1b	6.5A	3H	58
1253048800	GMW-9BK	AC208V	60Hz	1a1b	8.5A	3H	58
1253045600	GMW-9BK	AC220V	60Hz	1a1b	0.82A	3H	58
1253045500	GMW-9BK	AC220V	60Hz	1a1b	1.3A	3H	58
1253045400	GMW-9BK	AC220V	60Hz	1a1b	2.1A	3H	58
1253045300	GMW-9BK	AC220V	60Hz	1a1b	3.3A	3H	58
1253045200	GMW-9BK	AC220V	60Hz	1a1b	5A	3H	58
1253045100	GMW-9BK	AC220V	60Hz	1a1b	6.5A	3H	58
1253035400	GMW-9BK	AC220V	60Hz	1a1b	8.5A	3H	58
1253002900	GMW-9BK	AC440V	60Hz	1a1b	3.3A	3H	58
1253003000	GMW-9BK	AC440V	60Hz	1a1b	5A	3H	58
1253009800	GMW-12BK	AC24V	60Hz	1a1b	8.5A	3H	58
1253068000	GMW-12BK	AC110V	60Hz	1a1b	11A	3H	58
1253049000	GMW-12BK	AC208V	60Hz	1a1b	11A	3H	58
1253069700	GMW-12BK	AC220V	60Hz	1a1b	2.1A	3H	58
1253070100	GMW-12BK	AC220V	60Hz	1a1b	3.3A	3H	58
1253052300	GMW-12BK	AC220V	60Hz	1a1b	6.5A	3H	58
1253045000	GMW-12BK	AC220V	60Hz	1a1b	8.5A	3H	58
1253009900	GMW-12BK	AC220V	60Hz	1a1b	11A	3H	58

## Enclosed Motor starters with push buttons (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1253070200	GMW-12BK	AC440V	60Hz	1a1b	1.3A	3H	58
1253070300	GMW-12BK	AC440V	60Hz	1a1b	2.1A	3H	58
1253043000	GMW-12BK	AC440V	60Hz	1a1b	3.3A	3H	58
1253043300	GMW-12BK	AC440V	60Hz	1a1b	5A	3H	58
1253044100	GMW-12BK	AC440V	60Hz	1a1b	6.5A	3H	58
1253046700	GMW-18BK	AC208V	60Hz	1a1b	15A	3H	58
1253073400	GMW-18BK	AC600V	60Hz	1a1b	15A	3H	58
1253046800	GMW-22BK	AC208V	60Hz	1a1b	19A	3H	58
1253069500	GMW-22BK	AC220V	60Hz	1a1b	11A	3H	58
1253044300	GMW-22BK	AC220V	60Hz	1a1b	15A	3H	58
1253021100	GMW-22BK	AC220V	60Hz	1a1b	19A	3H	58
1253071400	GMW-22BK	AC440V	60Hz	1a1b	11A	3H	58
1253069600	GMW-22BK	AC440V	60Hz	1a1b	15A	3H	58
1257009500	GMW-32BK	AC120V	60Hz	2a2b	22A	3H	58
1257010300	GMW-32BK	AC208V	60Hz	2a2b	30A	3H	58
1257009100	GMW-32BK	AC220V	60Hz	2a2b	8.5A	3H	58
1257002700	GMW-32BK	AC220V	60Hz	2a2b	22A	3H	58
1257002800	GMW-32BK	AC220V	60Hz	2a2b	30A	3H	58
1257013200	GMW-32BK	AC240V	60Hz	2a2b	19A	3H	58
1257013300	GMW-32BK	AC240V	60Hz	2a2b	22A	3H	58
1257002900	GMW-32BK	AC380V	60Hz	2a2b	22A	3H	58
1257003000	GMW-32BK	AC440V	60Hz	2a2b	30A	3H	58
1257005000	GMW-40BK	AC220V	60Hz	2a2b	22A	3H	58
1257008600	GMW-40BK	AC220V	60Hz	2a2b	30A	3H	58
1257008700	GMW-40BK	AC220V	60Hz	2a2b	34A	3H	58
1257013400	GMW-40BK	AC240V	60Hz	2a2b	34A	3H	58
1257009200	GMW-40BK	AC380V	60Hz	2a2b	30A	3H	58
1257008800	GMW-40BK	AC380V	60Hz	2a2b	34A	3H	58
1257013900	GMW-40BK	AC440V	60Hz	2a2b	30A	3H	58
1261004700	GMW-50BK	AC220V	60Hz	2a2b	8.5A	3H	58
1261006000	GMW-50BK	AC220V	60Hz	2a2b	30A	3H	58
1261005100	GMW-50BK	AC220V	60Hz	2a2b	34A	3H	58
1261004100	GMW-50BK	AC220V	60Hz	2a2b	42A	3H	58
1261004200	GMW-50BK	AC220V	60Hz	2a2b	55A	3H	58
1261010300	GMW-50BK	AC240V	60Hz	2a2b	42A	3H	58
1261004300	GMW-50BK	AC380V	60Hz	2a2b	42A	3H	58
1261011300	GMW-50BK	AC440V	60Hz	2a2b	55A	3H	58
1261011500	GMW-50BK	AC440V	60Hz	2a2b	34A	3H	58
1261004800	GMW-65BK	AC220V	60Hz	2a2b	42A	3H	58
1261004900	GMW-65BK	AC220V	60Hz	2a2b	55A	3H	58
1261004400	GMW-65BK	AC220V	60Hz	2a2b	65A	3H	58
1261005000	GMW-65BK	AC380V	60Hz	2a2b	55A	3H	58
1261005900	GMW-75BK	AC220V	60Hz	2a2b	55A	3H	58
1261002400	GMW-75BK	AC220V	60Hz	2a2b	74A	3H	58
1261008700	GMW-85BK	AC120V	60Hz	2a2b	74A	3H	58
1261005300	GMW-85BK	AC220V	60Hz	2a2b	55A	3H	58
1261005400	GMW-85BK	AC220V	60Hz	2a2b	65A	3H	58
1261002700	GMW-85BK	AC220V	60Hz	2a2b	74A	3H	58
1261011600	GMW-85BK	AC440V	60Hz	2a2b	55A	3H	58
1261011400	GMW-85BK	AC440V	60Hz	2a2b	65A	3H	58
1253001500	GMW-9B	AC110V	60Hz	1a1b	8.5A	3H	59
1253045800	GMW-9B	AC220V	60Hz	1a1b	1.3A	3H	59
1253001600	GMW-9B	AC220V	60Hz	1a1b	3.3A	3H	59
1253047200	GMW-9B	AC220V	60Hz	1a1b	5A	3H	59
1253048000	GMW-9B	AC220V	60Hz	1a1b	6.5A	3H	59
1253001700	GMW-9B	AC220V	60Hz	1a1b	8.5A	3H	59

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**GMW**

## Enclosed Motor starters with push buttons (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	Auxiliary contact	Rated operational current (A)	No. of bimetal element	Page No.
1253009300	GMW-12B	AC110V	60Hz	1a1b	11A	3H	59
1253048100	GMW-12B	AC220V	60Hz	1a1b	8.5A	3H	59
1253009400	GMW-12B	AC220V	60Hz	1a1b	11A	3H	59
1253015600	GMW-18B	AC110V	60Hz	1a1b	15A	3H	59
1253074700	GMW-18B	AC220V	60Hz	1a1b	7.5A	3H	59
1253048200	GMW-18B	AC220V	60Hz	1a1b	11A	3H	59
1253015700	GMW-18B	AC220V	60Hz	1a1b	15A	3H	59
1253020700	GMW-22B	AC110V	60Hz	1a1b	19A	3H	59
1253048300	GMW-22B	AC220V	60Hz	1a1b	15A	3H	59
1253020800	GMW-22B	AC220V	60Hz	1a1b	19A	3H	59
1257001000	GMW-32B	AC110V	60Hz	2a2b	30A	3H	59
1257001300	GMW-32B	AC220V	60Hz	2a2b	22A	3H	59
1257001100	GMW-32B	AC220V	60Hz	2a2b	30A	3H	59
1257009400	GMW-32B	AC220V	60Hz	1a1b	34A	3H	59
1257010400	GMW-32B	AC220V	60Hz	2a2b	34A	3H	59
1257010600	GMW-40B	AC220V	60Hz	2a2b	30A	3H	59
1257004300	GMW-40B	AC220V	60Hz	2a2b	34A	3H	59
1261000600	GMW-50B	AC220V	60Hz	2a2b	42A	3H	59
1261008000	GMW-50B	AC220V	60Hz	2a2b	55A	3H	59
1261001300	GMW-65B	AC120V	60Hz	1a1b	55A	3H	59
1261001600	GMW-65B	AC220V	60Hz	2a2b	55A	3H	59
1261007800	GMW-75B	AC220V	60Hz	2a2b	65A	3H	59
1261007000	GMW-85B	AC220V	60Hz	2a2b	65A	3H	59
1261009000	GMW-85B	AC220V	60Hz	2a2b	74A	3H	59
1253055800	GMW-9B	AC220V	50/60Hz	1a1b	3.3A	3H	59
1253055900	GMW-9B	AC220V	50/60Hz	1a1b	5A	3H	59
1253056000	GMW-9B	AC220V	50/60Hz	1a1b	6.5A	3H	59
1253057000	GMW-12B	AC220V	50/60Hz	1a1b	7.5A	3H	59
1253056100	GMW-12B	AC220V	50/60Hz	1a1b	8.5A	3H	59
1253056200	GMW-18B	AC220V	50/60Hz	1a1b	11A	3H	59
1253057100	GMW-18B	AC220V	50/60Hz	1a1b	15A	3H	59
1253056300	GMW-22B	AC220V	50/60Hz	1a1b	15A	3H	59
1253057200	GMW-22B	AC220V	50/60Hz	1a1b	19A	3H	59
1257011700	GMW-32B	AC220V	50/60Hz	2a2b	22A	3H	59
1257011800	GMW-40B	AC220V	50/60Hz	2a2b	30A	3H	59
1257012000	GMW-40B	AC220V	50/60Hz	2a2b	34A	3H	59
1261008200	GMW-50B	AC220V	50/60Hz	2a2b	42A	3H	59
1261008100	GMW-65B	AC220V	50/60Hz	2a2b	55A	3H	59
1261008800	GMW-75B	AC220V	50/60Hz	2a2b	65A	3H	59
1261008900	GMW-85B	AC220V	50/60Hz	2a2b	74A	3H	59



Enclosed Motor starters without TOR (9~85A)

Catalogue No.	Model	Coil Voltage (V)	Hz	No. of Contact	Page No.
1253061900	GMW-9	AC415V	50/60Hz	1a1b	54
1253001900	GMW-9B	AC220V	50Hz	1a1b	59
1253002000	GMW-9B	AC380V	50Hz	1a1b	59
1253067300	GMW-9B	AC415V	50/60Hz	1a1b	59
1253003500	GMW-9M	AC220V	50Hz	1a1b	56
1253070600	GMW-9M	AC415V	50Hz	1a1b	56
1253004900	GMW-9MB	AC220V	50Hz	1a1b	57
1253005000	GMW-9MB	AC380V	50Hz	1a1b	57
1253062000	GMW-12	AC415V	50/60Hz	1a1b	54
1253067400	GMW-12B	AC415V	50/60Hz	1a1b	59
1253010600	GMW-12M	AC220V	50Hz	1a1b	56
1253075600	GMW-12M	AC415V	50Hz	1a1b	56
1253012000	GMW-12MB	AC415V	50Hz	1a1b	57
1253012100	GMW-12MB	AC380V	50Hz	1a1b	57
1253012200	GMW-12MB	AC220V	50Hz	1a1b	57
1253030500	GMW-12MB	AC240V	50Hz	1a1b	57
1253046600	GMW-12MB	AC400V	50Hz	1a1b	57
1253062100	GMW-18	AC415V	50/60Hz	1a1b	54
1253015900	GMW-18B	AC220V	50Hz	1a1b	59
1253016000	GMW-18B	AC380V	50Hz	1a1b	59
1253067500	GMW-18B	AC415V	50/60Hz	1a1b	59
1253075000	GMW-18B	AC120V	60Hz	1a1b	59
1253075100	GMW-18B	AC220V	60Hz	1a1b	59
1253075200	GMW-18B	AC600V	60Hz	1a1b	59
1253017000	GMW-18M	AC220V	50Hz	1a1b	56
1253075800	GMW-18M	AC415V	50Hz	1a1b	56
1253017100	GMW-18MB	AC380V	50Hz	1a1b	57
1253017200	GMW-18MB	AC220V	50Hz	1a1b	57
1253032400	GMW-18MB	AC240V	50Hz	1a1b	57
1253075300	GMW-18MB	AC220V	60Hz	1a1b	57
1253075400	GMW-18MB	AC600V	60Hz	1a1b	57
1253045700	GMW-22	AC120V	60Hz	1a1b	54
1253062200	GMW-22	AC415V	50/60Hz	1a1b	54
1253019600	GMW-22B	AC220V	50Hz	1a1b	59
1253019700	GMW-22B	AC380V	50Hz	1a1b	59
1253067600	GMW-22B	AC415V	50/60Hz	1a1b	59
1253022100	GMW-22MB	AC220V	50Hz	1a1b	57
1253022200	GMW-22MB	AC380V	50Hz	1a1b	57
1253034600	GMW-22MB	AC240V	50Hz	1a1b	57
1257006400	GMW-32B	AC220V	50Hz	2a2b	59
1257003700	GMW-40	AC220V	50Hz	2a2b	54
1257004500	GMW-40B	AC220V	50Hz	2a2b	59
1257007800	GMW-40B	AC240V	50Hz	2a2b	59
1261006100	GMW-50	AC120V	60Hz	1a1b	54
1261005200	GMW-75	AC220V	50Hz	2a2b	54
1261002000	GMW-75B	AC220V	50Hz	2a2b	59
1261006200	GMW-85	AC120V	60Hz	1a1b	54

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## GMR

### Contactors relays, AC operating

Catalogue No.	Model	Rated Voltage (V)	Hz	No. of Contact	Page No.
1273003700	GMR-4M	AC24V	50/60Hz	2a2b	74
1273000700	GMR-4M	AC110V	50/60Hz	3a1b	74
1273001100	GMR-4M	AC110V	50/60Hz	4a	74
1273003200	GMR-4M	AC110V	50/60Hz	2a2b	74
1273001700	GMR-4M	AC220V	50/60Hz	4a	74
1273001800	GMR-4M	AC220V	50/60Hz	3a1b	74
1273001900	GMR-4M	AC220V	50/60Hz	2a2b	74
1273005700	GMR-4M	AC230V	50/60Hz	2a2b	74
1273001200	GMR-4M	AC240V	50/60Hz	4b	74
1273001600	GMR-4M	AC240V	50/60Hz	2a2b	74
1273005500	GMR-4M	AC240V	50/60Hz	4a	74
1273000800	GMR-6M	AC110V	50/60Hz	6a	74
1273001300	GMR-6M	AC240V	50/60Hz	2a4b	74
1273000900	GMR-8M	AC110V	50/60Hz	8a	74
1273001000	GMR-8M	AC110V	50/60Hz	6a2b	74
1273001400	GMR-8M	AC240V	50/60Hz	4a4b	74
1262013800	GMR-4	AC24V	50/60Hz	2a2b	75
1262014100	GMR-4	AC220V	50/60Hz	2a2b	75
1262011800	GMR-4	AC110V	50/60Hz	4a	75
1262012000	GMR-4	AC240V	50/60Hz	4a	75
1262016800	GMR-4	AC240V	50/60Hz	4b	75
1262016400	GMR-4	AC24V	50/60Hz	4b	75
1262009400	GMR-4	AC24V	50Hz	1a3b	75
1262009500	GMR-4	AC42V	50Hz	1a3b	75
1262009600	GMR-4	AC48V	50Hz	1a3b	75
1262009700	GMR-4	AC110V	50Hz	1a3b	75
1262009800	GMR-4	AC220V	50Hz	1a3b	75
1262009900	GMR-4	AC240V	50Hz	1a3b	75
1262010000	GMR-4	AC380V	50Hz	1a3b	75
1262010100	GMR-4	AC400V	50Hz	1a3b	75
1262010200	GMR-4	AC440V	50Hz	1a3b	75
1262010300	GMR-4	AC500V	50Hz	1a3b	75
1262010400	GMR-4	AC550V	50Hz	1a3b	75
1262001300	GMR-4	AC24V	50Hz	2a2b	75
1262001400	GMR-4	AC42V	50Hz	2a2b	75
1262001500	GMR-4	AC48V	50Hz	2a2b	75
1262001600	GMR-4	AC110V	50Hz	2a2b	75
1262001700	GMR-4	AC220V	50Hz	2a2b	75
1262056600	GMR-4	AC230V	50Hz	2a2b	75
1262001800	GMR-4	AC240V	50Hz	2a2b	75
1262001900	GMR-4	AC380V	50Hz	2a2b	75
1262002000	GMR-4	AC400V	50Hz	2a2b	75
1262002100	GMR-4	AC440V	50Hz	2a2b	75
1262002200	GMR-4	AC500V	50Hz	2a2b	75
1262002300	GMR-4	AC550V	50Hz	2a2b	75
1262008300	GMR-4	AC24V	50Hz	3a1b	75
1262008400	GMR-4	AC42V	50Hz	3a1b	75
1262008500	GMR-4	AC48V	50Hz	3a1b	75
1262008600	GMR-4	AC110V	50Hz	3a1b	75
1262008700	GMR-4	AC220V	50Hz	3a1b	75
1262008800	GMR-4	AC240V	50Hz	3a1b	75
1262008900	GMR-4	AC380V	50Hz	3a1b	75
1262009000	GMR-4	AC400V	50Hz	3a1b	75
1262009100	GMR-4	AC440V	50Hz	3a1b	75
1262009200	GMR-4	AC500V	50Hz	3a1b	75
1262009300	GMR-4	AC550V	50Hz	3a1b	75
1262007200	GMR-4	AC24V	50Hz	4a	75
1262007300	GMR-4	AC42V	50Hz	4a	75
1262007400	GMR-4	AC48V	50Hz	4a	75
1262007500	GMR-4	AC110V	50Hz	4a	75
1262007600	GMR-4	AC220V	50Hz	4a	75
1262007700	GMR-4	AC240V	50Hz	4a	75
1262007800	GMR-4	AC380V	50Hz	4a	75



## Contactor relays, AC operating

Catalogue No.	Model	Rated Voltage (V)	Hz	No. of Contact	Page No.
1262007900	GMR-4	AC400V	50Hz	4a	75
1262008000	GMR-4	AC440V	50Hz	4a	75
1262008100	GMR-4	AC500V	50Hz	4a	75
1262008200	GMR-4	AC550V	50Hz	4a	75
1262010500	GMR-4	AC24V	50Hz	4b	75
1262010600	GMR-4	AC42V	50Hz	4b	75
1262010700	GMR-4	AC48V	50Hz	4b	75
1262010800	GMR-4	AC110V	50Hz	4b	75
1262010900	GMR-4	AC220V	50Hz	4b	75
1262011000	GMR-4	AC240V	50Hz	4b	75
1262011100	GMR-4	AC380V	50Hz	4b	75
1262011200	GMR-4	AC400V	50Hz	4b	75
1262011300	GMR-4	AC440V	50Hz	4b	75
1262011400	GMR-4	AC500V	50Hz	4b	75
1262011500	GMR-4	AC550V	50Hz	4b	75
1262019200	GMR-6	AC24V	50Hz	4a2b	75
1262019300	GMR-6	AC42V	50Hz	4a2b	75
1262019400	GMR-6	AC48V	50Hz	4a2b	75
1262019500	GMR-6	AC110V	50Hz	4a2b	75
1262019600	GMR-6	AC220V	50Hz	4a2b	75
1262019700	GMR-6	AC240V	50Hz	4a2b	75
1262019800	GMR-6	AC380V	50Hz	4a2b	75
1262019900	GMR-6	AC400V	50Hz	4a2b	75
1262020000	GMR-6	AC440V	50Hz	4a2b	75
1262020100	GMR-6	AC500V	50Hz	4a2b	75
1262020200	GMR-6	AC550V	50Hz	4a2b	75
1262025100	GMR-6	AC24V	50Hz	6a	75
1262025200	GMR-6	AC42V	50Hz	6a	75
1262025300	GMR-6	AC48V	50Hz	6a	75
1262025400	GMR-6	AC110V	50Hz	6a	75
1262025500	GMR-6	AC220V	50Hz	6a	75
1262025600	GMR-6	AC240V	50Hz	6a	75
1262025700	GMR-6	AC380V	50Hz	6a	75
1262025800	GMR-6	AC400V	50Hz	6a	75
1262025900	GMR-6	AC440V	50Hz	6a	75
1262026000	GMR-6	AC500V	50Hz	6a	75
1262026100	GMR-6	AC550V	50Hz	6a	75
1262026200	GMR-6	AC24V	50Hz	5a1b	75
1262026300	GMR-6	AC42V	50Hz	5a1b	75
1262026400	GMR-6	AC48V	50Hz	5a1b	75
1262026500	GMR-6	AC110V	50Hz	5a1b	75
1262026600	GMR-6	AC220V	50Hz	5a1b	75
1262026700	GMR-6	AC240V	50Hz	5a1b	75
1262026800	GMR-6	AC380V	50Hz	5a1b	75
1262026900	GMR-6	AC400V	50Hz	5a1b	75
1262027000	GMR-6	AC440V	50Hz	5a1b	75
1262027100	GMR-6	AC500V	50Hz	5a1b	75
1262027200	GMR-6	AC550V	50Hz	5a1b	75
1262027300	GMR-6	AC24V	50Hz	3a3b	75
1262027400	GMR-6	AC42V	50Hz	3a3b	75
1262027500	GMR-6	AC48V	50Hz	3a3b	75
1262027600	GMR-6	AC110V	50Hz	3a3b	75
1262027700	GMR-6	AC220V	50Hz	3a3b	75
1262027800	GMR-6	AC240V	50Hz	3a3b	75
1262027900	GMR-6	AC380V	50Hz	3a3b	75
1262028000	GMR-6	AC400V	50Hz	3a3b	75
1262028100	GMR-6	AC440V	50Hz	3a3b	75
1262028200	GMR-6	AC500V	50Hz	3a3b	75
1262028300	GMR-6	AC550V	50Hz	3a3b	75
1262028400	GMR-6	AC24V	50Hz	2a4b	75
1262028500	GMR-6	AC42V	50Hz	2a4b	75
1262028600	GMR-6	AC48V	50Hz	2a4b	75
1262028700	GMR-6	AC110V	50Hz	2a4b	75

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## GMR

### Contactors relays, AC operating

Catalogue No.	Model	Rated Voltage (V)	Hz	No. of Contact	Page No.
1262028800	GMR-6	AC220V	50Hz	2a4b	75
1262028900	GMR-6	AC240V	50Hz	2a4b	75
1262029000	GMR-6	AC380V	50Hz	2a4b	75
1262029100	GMR-6	AC400V	50Hz	2a4b	75
1262029200	GMR-6	AC440V	50Hz	2a4b	75
1262029300	GMR-6	AC500V	50Hz	2a4b	75
1262029400	GMR-6	AC550V	50Hz	2a4b	75
1262033000	GMR-6	AC24V	50/60Hz	3a3b	75
1262033300	GMR-6	AC220V	50/60Hz	3a3b	75
1262057900	GMR-6	AC230V	50/60Hz	5a1b	75
1262051400	GMR-8	AC24V	50/60Hz	4a4b	75
1262051700	GMR-8	AC220V	50/60Hz	4a4b	75
1262036700	GMR-8	AC24V	50Hz	6a2b	75
1262036800	GMR-8	AC42V	50Hz	6a2b	75
1262036900	GMR-8	AC48V	50Hz	6a2b	75
1262037000	GMR-8	AC110V	50Hz	6a2b	75
1262037100	GMR-8	AC220V	50Hz	6a2b	75
1262037200	GMR-8	AC240V	50Hz	6a2b	75
1262037300	GMR-8	AC380V	50Hz	6a2b	75
1262037400	GMR-8	AC400V	50Hz	6a2b	75
1262037500	GMR-8	AC440V	50Hz	6a2b	75
1262037600	GMR-8	AC500V	50Hz	6a2b	75
1262037700	GMR-8	AC550V	50Hz	6a2b	75
1262042600	GMR-8	AC24V	50Hz	8a	75
1262042700	GMR-8	AC42V	50Hz	8a	75
1262042800	GMR-8	AC48V	50Hz	8a	75
1262042900	GMR-8	AC110V	50Hz	8a	75
1262043000	GMR-8	AC220V	50Hz	8a	75
1262043100	GMR-8	AC240V	50Hz	8a	75
1262043200	GMR-8	AC380V	50Hz	8a	75
1262043300	GMR-8	AC400V	50Hz	8a	75
1262043400	GMR-8	AC440V	50Hz	8a	75
1262043500	GMR-8	AC500V	50Hz	8a	75
1262043600	GMR-8	AC550V	50Hz	8a	75
1262043700	GMR-8	AC24V	50Hz	7a1b	75
1262043800	GMR-8	AC42V	50Hz	7a1b	75
1262043900	GMR-8	AC48V	50Hz	7a1b	75
1262044000	GMR-8	AC110V	50Hz	7a1b	75
1262044100	GMR-8	AC220V	50Hz	7a1b	75
1262044200	GMR-8	AC240V	50Hz	7a1b	75
1262044300	GMR-8	AC380V	50Hz	7a1b	75
1262044400	GMR-8	AC400V	50Hz	7a1b	75
1262044500	GMR-8	AC440V	50Hz	7a1b	75
1262044600	GMR-8	AC500V	50Hz	7a1b	75
1262044700	GMR-8	AC550V	50Hz	7a1b	75
1262044800	GMR-8	AC24V	50Hz	5a3b	75
1262044900	GMR-8	AC42V	50Hz	5a3b	75
1262045000	GMR-8	AC48V	50Hz	5a3b	75
1262045100	GMR-8	AC110V	50Hz	5a3b	75
1262045200	GMR-8	AC220V	50Hz	5a3b	75
1262045300	GMR-8	AC240V	50Hz	5a3b	75
1262045400	GMR-8	AC380V	50Hz	5a3b	75
1262045500	GMR-8	AC400V	50Hz	5a3b	75
1262045600	GMR-8	AC440V	50Hz	5a3b	75
1262045700	GMR-8	AC500V	50Hz	5a3b	75
1262045800	GMR-8	AC550V	50Hz	5a3b	75
1262045900	GMR-8	AC24V	50Hz	4a4b	75
1262046000	GMR-8	AC42V	50Hz	4a4b	75
1262046100	GMR-8	AC48V	50Hz	4a4b	75
1262046200	GMR-8	AC110V	50Hz	4a4b	75
1262046300	GMR-8	AC220V	50Hz	4a4b	75
1262046400	GMR-8	AC240V	50Hz	4a4b	75
1262046500	GMR-8	AC380V	50Hz	4a4b	75

## Contactor relays, AC operating

Catalogue No.	Model	Rated Voltage (V)	Hz	No. of Contact	Page No.
1262046600	GMR-8	AC400V	50Hz	4a4b	75
1262046700	GMR-8	AC440V	50Hz	4a4b	75
1262046800	GMR-8	AC500V	50Hz	4a4b	75
1262046900	GMR-8	AC550V	50Hz	4a4b	75
1262057200	GMR-8	AC100V	50Hz	5a3b	75
1262058000	GMR-8	AC230V	50Hz	4a4b	75
1262000100	GMR-4	AC24V	60Hz	2a2b	75
1262000200	GMR-4	AC48V	60Hz	2a2b	75
1262000300	GMR-4	AC110V	60Hz	2a2b	75
1262000400	GMR-4	AC120V	60Hz	2a2b	75
1262000500	GMR-4	AC208V	60Hz	2a2b	75
1262000600	GMR-4	AC220V	60Hz	2a2b	75
1262000700	GMR-4	AC240V	60Hz	2a2b	75
1262000800	GMR-4	AC277V	60Hz	2a2b	75
1262000900	GMR-4	AC380V	60Hz	2a2b	75
1262001000	GMR-4	AC440V	60Hz	2a2b	75
1262001100	GMR-4	AC480V	60Hz	2a2b	75
1262001200	GMR-4	AC600V	60Hz	2a2b	75
1262002400	GMR-4	AC24V	60Hz	4a	75
1262002500	GMR-4	AC48V	60Hz	4a	75
1262002600	GMR-4	AC110V	60Hz	4a	75
1262002700	GMR-4	AC120V	60Hz	4a	75
1262002800	GMR-4	AC208V	60Hz	4a	75
1262002900	GMR-4	AC220V	60Hz	4a	75
1262003000	GMR-4	AC240V	60Hz	4a	75
1262003100	GMR-4	AC277V	60Hz	4a	75
1262003200	GMR-4	AC380V	60Hz	4a	75
1262003300	GMR-4	AC440V	60Hz	4a	75
1262003400	GMR-4	AC480V	60Hz	4a	75
1262003500	GMR-4	AC600V	60Hz	4a	75
1262003600	GMR-4	AC24V	60Hz	3a1b	75
1262003700	GMR-4	AC48V	60Hz	3a1b	75
1262003800	GMR-4	AC110V	60Hz	3a1b	75
1262003900	GMR-4	AC120V	60Hz	3a1b	75
1262004000	GMR-4	AC208V	60Hz	3a1b	75
1262004100	GMR-4	AC220V	60Hz	3a1b	75
1262004200	GMR-4	AC240V	60Hz	3a1b	75
1262004300	GMR-4	AC277V	60Hz	3a1b	75
1262004400	GMR-4	AC380V	60Hz	3a1b	75
1262004500	GMR-4	AC440V	60Hz	3a1b	75
1262004600	GMR-4	AC480V	60Hz	3a1b	75
1262004700	GMR-4	AC600V	60Hz	3a1b	75
1262004800	GMR-4	AC24V	60Hz	1a3b	75
1262004900	GMR-4	AC48V	60Hz	1a3b	75
1262005000	GMR-4	AC110V	60Hz	1a3b	75
1262005100	GMR-4	AC120V	60Hz	1a3b	75
1262005200	GMR-4	AC208V	60Hz	1a3b	75
1262005300	GMR-4	AC220V	60Hz	1a3b	75
1262005400	GMR-4	AC240V	60Hz	1a3b	75
1262005500	GMR-4	AC277V	60Hz	1a3b	75
1262005600	GMR-4	AC380V	60Hz	1a3b	75
1262005700	GMR-4	AC440V	60Hz	1a3b	75
1262005800	GMR-4	AC480V	60Hz	1a3b	75
1262005900	GMR-4	AC600V	60Hz	1a3b	75
1262006000	GMR-4	AC24V	60Hz	4b	75
1262006100	GMR-4	AC48V	60Hz	4b	75
1262006200	GMR-4	AC110V	60Hz	4b	75
1262006300	GMR-4	AC120V	60Hz	4b	75
1262006400	GMR-4	AC208V	60Hz	4b	75
1262006500	GMR-4	AC220V	60Hz	4b	75
1262006600	GMR-4	AC240V	60Hz	4b	75
1262006700	GMR-4	AC277V	60Hz	4b	75
1262006800	GMR-4	AC380V	60Hz	4b	75

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## GMR

### Contactors relays, AC operating

Catalogue No.	Model	Rated Voltage (V)	Hz	No. of Contact	Page No.
1262006900	GMR-4	AC440V	60Hz	4b	75
1262007000	GMR-4	AC480V	60Hz	4b	75
1262007100	GMR-4	AC600V	60Hz	4b	75
1262018000	GMR-6	AC24V	60Hz	4a2b	75
1262018100	GMR-6	AC48V	60Hz	4a2b	75
1262018200	GMR-6	AC110V	60Hz	4a2b	75
1262018300	GMR-6	AC120V	60Hz	4a2b	75
1262018400	GMR-6	AC208V	60Hz	4a2b	75
1262018500	GMR-6	AC220V	60Hz	4a2b	75
1262018600	GMR-6	AC240V	60Hz	4a2b	75
1262018700	GMR-6	AC277V	60Hz	4a2b	75
1262018800	GMR-6	AC380V	60Hz	4a2b	75
1262018900	GMR-6	AC440V	60Hz	4a2b	75
1262019000	GMR-6	AC480V	60Hz	4a2b	75
1262019100	GMR-6	AC600V	60Hz	4a2b	75
1262020300	GMR-6	AC24V	60Hz	6a	75
1262020400	GMR-6	AC48V	60Hz	6a	75
1262020500	GMR-6	AC110V	60Hz	6a	75
1262020600	GMR-6	AC120V	60Hz	6a	75
1262020700	GMR-6	AC208V	60Hz	6a	75
1262020800	GMR-6	AC220V	60Hz	6a	75
1262020900	GMR-6	AC240V	60Hz	6a	75
1262021000	GMR-6	AC277V	60Hz	6a	75
1262021100	GMR-6	AC380V	60Hz	6a	75
1262021200	GMR-6	AC440V	60Hz	6a	75
1262021300	GMR-6	AC480V	60Hz	6a	75
1262021400	GMR-6	AC600V	60Hz	6a	75
1262021500	GMR-6	AC24V	60Hz	5a1b	75
1262021600	GMR-6	AC48V	60Hz	5a1b	75
1262021700	GMR-6	AC110V	60Hz	5a1b	75
1262021800	GMR-6	AC120V	60Hz	5a1b	75
1262021900	GMR-6	AC208V	60Hz	5a1b	75
1262022000	GMR-6	AC220V	60Hz	5a1b	75
1262022100	GMR-6	AC240V	60Hz	5a1b	75
1262022200	GMR-6	AC277V	60Hz	5a1b	75
1262022300	GMR-6	AC380V	60Hz	5a1b	75
1262022400	GMR-6	AC440V	60Hz	5a1b	75
1262022500	GMR-6	AC480V	60Hz	5a1b	75
1262022600	GMR-6	AC600V	60Hz	5a1b	75
1262022700	GMR-6	AC24V	60Hz	3a3b	75
1262022800	GMR-6	AC48V	60Hz	3a3b	75
1262022900	GMR-6	AC110V	60Hz	3a3b	75
1262023000	GMR-6	AC120V	60Hz	3a3b	75
1262023100	GMR-6	AC208V	60Hz	3a3b	75
1262023200	GMR-6	AC220V	60Hz	3a3b	75
1262023300	GMR-6	AC240V	60Hz	3a3b	75
1262023400	GMR-6	AC277V	60Hz	3a3b	75
1262023500	GMR-6	AC380V	60Hz	3a3b	75
1262023600	GMR-6	AC440V	60Hz	3a3b	75
1262023700	GMR-6	AC480V	60Hz	3a3b	75
1262023800	GMR-6	AC600V	60Hz	3a3b	75
1262023900	GMR-6	AC24V	60Hz	2a4b	75
1262024000	GMR-6	AC48V	60Hz	2a4b	75
1262024100	GMR-6	AC110V	60Hz	2a4b	75
1262024200	GMR-6	AC120V	60Hz	2a4b	75
1262024300	GMR-6	AC208V	60Hz	2a4b	75
1262024400	GMR-6	AC220V	60Hz	2a4b	75
1262024500	GMR-6	AC240V	60Hz	2a4b	75
1262024600	GMR-6	AC277V	60Hz	2a4b	75
1262024700	GMR-6	AC380V	60Hz	2a4b	75
1262024800	GMR-6	AC440V	60Hz	2a4b	75
1262024900	GMR-6	AC480V	60Hz	2a4b	75
1262025000	GMR-6	AC600V	60Hz	2a4b	75

## Contactor relays, AC operating

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1262035500	GMR-8	AC24V	60Hz	6a2b	75
1262035600	GMR-8	AC48V	60Hz	6a2b	75
1262035700	GMR-8	AC110V	60Hz	6a2b	75
1262035800	GMR-8	AC120V	60Hz	6a2b	75
1262035900	GMR-8	AC208V	60Hz	6a2b	75
1262036000	GMR-8	AC220V	60Hz	6a2b	75
1262036100	GMR-8	AC240V	60Hz	6a2b	75
1262036200	GMR-8	AC277V	60Hz	6a2b	75
1262036300	GMR-8	AC380V	60Hz	6a2b	75
1262036400	GMR-8	AC440V	60Hz	6a2b	75
1262036500	GMR-8	AC480V	60Hz	6a2b	75
1262036600	GMR-8	AC600V	60Hz	6a2b	75
1262037800	GMR-8	AC24V	60Hz	8a	75
1262037900	GMR-8	AC48V	60Hz	8a	75
1262038000	GMR-8	AC110V	60Hz	8a	75
1262038100	GMR-8	AC120V	60Hz	8a	75
1262038200	GMR-8	AC208V	60Hz	8a	75
1262038300	GMR-8	AC220V	60Hz	8a	75
1262038400	GMR-8	AC240V	60Hz	8a	75
1262038500	GMR-8	AC277V	60Hz	8a	75
1262038600	GMR-8	AC380V	60Hz	8a	75
1262038700	GMR-8	AC440V	60Hz	8a	75
1262038800	GMR-8	AC480V	60Hz	8a	75
1262038900	GMR-8	AC600V	60Hz	8a	75
1262039000	GMR-8	AC24V	60Hz	7a1b	75
1262039100	GMR-8	AC48V	60Hz	7a1b	75
1262039200	GMR-8	AC110V	60Hz	7a1b	75
1262039300	GMR-8	AC120V	60Hz	7a1b	75
1262039400	GMR-8	AC208V	60Hz	7a1b	75
1262039500	GMR-8	AC220V	60Hz	7a1b	75
1262039600	GMR-8	AC240V	60Hz	7a1b	75
1262039700	GMR-8	AC277V	60Hz	7a1b	75
1262039800	GMR-8	AC380V	60Hz	7a1b	75
1262039900	GMR-8	AC440V	60Hz	7a1b	75
1262040000	GMR-8	AC480V	60Hz	7a1b	75
1262040100	GMR-8	AC600V	60Hz	7a1b	75
1262040200	GMR-8	AC24V	60Hz	5a3b	75
1262040300	GMR-8	AC48V	60Hz	5a3b	75
1262040400	GMR-8	AC110V	60Hz	5a3b	75
1262040500	GMR-8	AC120V	60Hz	5a3b	75
1262040600	GMR-8	AC208V	60Hz	5a3b	75
1262040700	GMR-8	AC220V	60Hz	5a3b	75
1262040800	GMR-8	AC240V	60Hz	5a3b	75
1262040900	GMR-8	AC277V	60Hz	5a3b	75
1262041000	GMR-8	AC380V	60Hz	5a3b	75
1262041100	GMR-8	AC440V	60Hz	5a3b	75
1262041200	GMR-8	AC480V	60Hz	5a3b	75
1262041300	GMR-8	AC600V	60Hz	5a3b	75
1262041400	GMR-8	AC24V	60Hz	4a4b	75
1262041500	GMR-8	AC48V	60Hz	4a4b	75
1262041600	GMR-8	AC110V	60Hz	4a4b	75
1262041700	GMR-8	AC120V	60Hz	4a4b	75
1262041800	GMR-8	AC208V	60Hz	4a4b	75
1262041900	GMR-8	AC220V	60Hz	4a4b	75
1262042000	GMR-8	AC240V	60Hz	4a4b	75
1262042100	GMR-8	AC277V	60Hz	4a4b	75
1262042200	GMR-8	AC380V	60Hz	4a4b	75
1262042300	GMR-8	AC440V	60Hz	4a4b	75
1262042400	GMR-8	AC480V	60Hz	4a4b	75
1262042500	GMR-8	AC600V	60Hz	4a4b	75

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## GMR

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Catalogue No.	Model	Rated Voltage	No. of Contact	Coil consumption	Page No.
1274000500	GMR-4MD	DC24V	2a2b	3W	74
1274003000	GMR-4MD	DC60V	2a2b	3W	74
1274003300	GMR-4MD	DC110V	2a2b	3W	74
1274006600	GMR-4MD	DC125V	2a2b	3W	74
1274000300	GMR-4MD	DC24V	3a1b	3W	74
1274003200	GMR-4MD	DC110V	3a1b	3W	74
1274000100	GMR-4MD	DC24V	4a	3W	74
1274001100	GMR-4MD	DC48V	4a	1.2W	74
1274001200	GMR-4MD	DC110V	4a	1.2W	74
1274003100	GMR-4MD	DC110V	4a	3W	74
1274006700	GMR-4MD	DC125V	4a	3W	74
1274003500	GMR-4MD	DC110V	4b	3W	74
1263001700	GMR-4D	DC220V	4a		75
1263001800	GMR-4D	DC250V	4a		75
1263001900	GMR-4D	DC12V	3a1b		75
1263002000	GMR-4D	DC24V	3a1b		75
1263002100	GMR-4D	DC48V	3a1b		75
1263002200	GMR-4D	DC100V	3a1b		75
1263002300	GMR-4D	DC110V	3a1b		75
1263002400	GMR-4D	DC125V	3a1b		75
1263002500	GMR-4D	DC200V	3a1b		75
1263002600	GMR-4D	DC220V	3a1b		75
1263002700	GMR-4D	DC250V	3a1b		75
1263002800	GMR-4D	DC12V	1a3b		75
1263002900	GMR-4D	DC24V	1a3b		75
1263003000	GMR-4D	DC48V	1a3b		75
1263003100	GMR-4D	DC100V	1a3b		75
1263003200	GMR-4D	DC110V	1a3b		75
1263003300	GMR-4D	DC125V	1a3b		75
1263003400	GMR-4D	DC200V	1a3b		75
1263003500	GMR-4D	DC220V	1a3b		75
1263003600	GMR-4D	DC250V	1a3b		75
1263003700	GMR-4D	DC12V	4b		75
1263003800	GMR-4D	DC24V	4b		75
1263003900	GMR-4D	DC48V	4b		75
1263004000	GMR-4D	DC100V	4b		75
1263004100	GMR-4D	DC110V	4b		75
1263004200	GMR-4D	DC125V	4b		75
1263004300	GMR-4D	DC200V	4b		75
1263004400	GMR-4D	DC220V	4b		75
1263004500	GMR-4D	DC250V	4b		75
1263000100	GMR-4D	DC12V	2a2b		75
1263000200	GMR-4D	DC24V	2a2b		75
1263000300	GMR-4D	DC48V	2a2b		75
1263000400	GMR-4D	DC100V	2a2b		75
1263000500	GMR-4D	DC110V	2a2b		75
1263000600	GMR-4D	DC125V	2a2b		75
1263000700	GMR-4D	DC200V	2a2b		75
1263000800	GMR-4D	DC220V	2a2b		75
1263000900	GMR-4D	DC250V	2a2b		75
1263001000	GMR-4D	DC12V	4a		75
1263001100	GMR-4D	DC24V	4a		75
1263001200	GMR-4D	DC48V	4a		75
1263001300	GMR-4D	DC100V	4a		75
1263001400	GMR-4D	DC110V	4a		75



## Contactor relays, DC operating

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1263001500	GMR-4D	DC125V	4a		75
1263001600	GMR-4D	DC200V	4a		75
1263004600	GMR-6D	DC12V	4a2b		75
1263004700	GMR-6D	DC24V	4a2b		75
1263004800	GMR-6D	DC48V	4a2b		75
1263004900	GMR-6D	DC100V	4a2b		75
1263005000	GMR-6D	DC110V	4a2b		75
1263005100	GMR-6D	DC125V	4a2b		75
1263005200	GMR-6D	DC200V	4a2b		75
1263005300	GMR-6D	DC220V	4a2b		75
1263005400	GMR-6D	DC250V	4a2b		75
1263005500	GMR-6D	DC12V	6a		75
1263005600	GMR-6D	DC24V	6a		75
1263005700	GMR-6D	DC48V	6a		75
1263005800	GMR-6D	DC100V	6a		75
1263005900	GMR-6D	DC110V	6a		75
1263006000	GMR-6D	DC125V	6a		75
1263006100	GMR-6D	DC200V	6a		75
1263006200	GMR-6D	DC220V	6a		75
1263006300	GMR-6D	DC250V	6a		75
1263006400	GMR-6D	DC12V	5a1b		75
1263006500	GMR-6D	DC24V	5a1b		75
1263006600	GMR-6D	DC48V	5a1b		75
1263006700	GMR-6D	DC100V	5a1b		75
1263006800	GMR-6D	DC110V	5a1b		75
1263006900	GMR-6D	DC125V	5a1b		75
1263007000	GMR-6D	DC200V	5a1b		75
1263007100	GMR-6D	DC220V	5a1b		75
1263007200	GMR-6D	DC250V	5a1b		75
1263007300	GMR-6D	DC12V	3a3b		75
1263007400	GMR-6D	DC24V	3a3b		75
1263007500	GMR-6D	DC48V	3a3b		75
1263007600	GMR-6D	DC100V	3a3b		75
1263007700	GMR-6D	DC110V	3a3b		75
1263007800	GMR-6D	DC125V	3a3b		75
1263007900	GMR-6D	DC200V	3a3b		75
1263008000	GMR-6D	DC220V	3a3b		75
1263008100	GMR-6D	DC250V	3a3b		75
1263008200	GMR-6D	DC12V	2a4b		75
1263008300	GMR-6D	DC24V	2a4b		75
1263008400	GMR-6D	DC48V	2a4b		75
1263008500	GMR-6D	DC100V	2a4b		75
1263008600	GMR-6D	DC110V	2a4b		75
1263008700	GMR-6D	DC125V	2a4b		75
1263008800	GMR-6D	DC200V	2a4b		75
1263008900	GMR-6D	DC220V	2a4b		75
1263009000	GMR-6D	DC250V	2a4b		75
1263009100	GMR-8D	DC12V	6a2b		75
1263009200	GMR-8D	DC24V	6a2b		75
1263009300	GMR-8D	DC48V	6a2b		75
1263009400	GMR-8D	DC100V	6a2b		75
1263009500	GMR-8D	DC110V	6a2b		75
1263009600	GMR-8D	DC125V	6a2b		75
1263009700	GMR-8D	DC200V	6a2b		75
1263009800	GMR-8D	DC220V	6a2b		75

# Catalogue numbers index

## GMR

### Contactors relays, DC operating

Catalogue No.	Model	Rated Voltage	No. of Contact	Coil consumption	Page No.
1263009900	GMR-8D	DC250V	6a2b		75
1263010000	GMR-8D	DC12V	8a		75
1263010100	GMR-8D	DC24V	8a		75
1263010200	GMR-8D	DC48V	8a		75
1263010300	GMR-8D	DC100V	8a		75
1263010400	GMR-8D	DC110V	8a		75
1263010500	GMR-8D	DC125V	8a		75
1263010600	GMR-8D	DC200V	8a		75
1263010700	GMR-8D	DC220V	8a		75
1263010800	GMR-8D	DC250V	8a		75
1263010900	GMR-8D	DC12V	7a1b		75
1263011000	GMR-8D	DC24V	7a1b		75
1263011100	GMR-8D	DC48V	7a1b		75
1263011200	GMR-8D	DC100V	7a1b		75
1263011300	GMR-8D	DC110V	7a1b		75
1263011400	GMR-8D	DC125V	7a1b		75
1263011500	GMR-8D	DC200V	7a1b		75
1263011600	GMR-8D	DC220V	7a1b		75
1263011700	GMR-8D	DC250V	7a1b		75
1263011800	GMR-8D	DC12V	5a3b		75
1263011900	GMR-8D	DC24V	5a3b		75
1263012000	GMR-8D	DC48V	5a3b		75
1263012100	GMR-8D	DC100V	5a3b		75
1263012200	GMR-8D	DC110V	5a3b		75
1263012300	GMR-8D	DC125V	5a3b		75
1263012400	GMR-8D	DC200V	5a3b		75
1263012500	GMR-8D	DC220V	5a3b		75
1263012600	GMR-8D	DC250V	5a3b		75
1263012700	GMR-8D	DC12V	4a4b		75
1263012800	GMR-8D	DC24V	4a4b		75
1263012900	GMR-8D	DC48V	4a4b		75
1263013000	GMR-8D	DC100V	4a4b		75
1263013100	GMR-8D	DC110V	4a4b		75
1263013200	GMR-8D	DC125V	4a4b		75
1263013300	GMR-8D	DC200V	4a4b		75
1263013400	GMR-8D	DC220V	4a4b		75
1263013500	GMR-8D	DC250V	4a4b		75



## 2-pole DC Contactors &amp; AC Contactors, Definite purpose

Catalogue No.	Model	Rated Voltage	Hz	No. of Contact	Terminal code	Page No.
1232000700	SMM-30P	AC120V		2a2b		77
1232002500	SMM-60P	AC100V		2a2b		77
1232002700	SMM-60P	AC120V		2a2b		77
1232004500	SMM-100P	AC100V		2a2b		77
1232004700	SMM-100P	AC120V		2a2b		77
1232006100	SMM-30DP	DC24V		2a2b		77
1232006300	SMM-30DP	DC48V		2a2b		77
1232006700	SMM-30DP	DC110V		2a2b		77
1232007300	SMM-30DP	DC220V		2a2b		77
1232007500	SMM-60DP	DC24V		2a2b		77
1232007700	SMM-60DP	DC48V		2a2b		77
1232008100	SMM-60DP	DC110V		2a2b		77
1232008700	SMM-60DP	DC220V		2a2b		77
1232008900	SMM-100DP	DC24V		2a2b		77
1232009100	SMM-100DP	DC48V		2a2b		77
1230003400	SMC-30P2	AC208-240V	50/60Hz		TSBS	78
1230004900	SMC-20P2	AC110V	50Hz		TSBS	78
1230005000	SMC-25P2	AC110V	50Hz		TSBS	78
1230005100	SMC-30P2	AC110V	50Hz		TSBS	78
1230004800	SMC-20P2	AC220V	50Hz		TSBS	78
1230003900	SMC-25P2	AC220V	50Hz		TSBS	78
1230004100	SMC-30P2	AC220V	50Hz		TSBS	78
1230000100	SMC-20P2	AC24V	60Hz		TSBS	78
1230001300	SMC-20P2	AC24V	60Hz		TQBQ	78
1230000200	SMC-20P2	AC48V	60Hz		TSBS	78
1230000300	SMC-20P2	AC110V	60Hz		TSBS	76
1230001400	SMC-20P2	AC110V	60Hz		TQBQ	78
1230000400	SMC-20P2	AC120V	60Hz		TSBS	78
1230000500	SMC-20P2	AC220V	60Hz		TSBS	78
1230001500	SMC-20P2	AC220V	60Hz		TQBQ	78
1230001600	SMC-25P2	AC24V	60Hz		TSBS	78
1230001700	SMC-25P2	AC110V	60Hz		TSBS	78
1230002000	SMC-25P2	AC110V	60Hz		TQBS	78
1230002300	SMC-25P2	AC110V	60Hz		TSBQ	78
1230002600	SMC-25P2	AC110V	60Hz		TQBQ	78
1230001800	SMC-25P2	AC220V	60Hz		TSBS	78
1230002100	SMC-25P2	AC220V	60Hz		TQBS	78
1230002400	SMC-25P2	AC220V	60Hz		TSBQ	78
1230002700	SMC-25P2	AC220V	60Hz		TQBQ	78
1230002800	SMC-30P2	AC24V	60Hz		TSBS	78
1230003100	SMC-30P2	AC24V	60Hz		TSBQ	78
1230003700	SMC-30P2	AC24V	60Hz		TQBQ	78
1230002900	SMC-30P2	AC110V	60Hz		TSBS	78
1230003200	SMC-30P2	AC110V	60Hz		TSBQ	78
1230003800	SMC-30P2	AC110V	60Hz		TQBQ	78
1230003000	SMC-30P2	AC220V	60Hz		TSBS	78
1230003300	SMC-30P2	AC220V	60Hz		TSBQ	78
1230004200	SMC-30P2	AC220V	60Hz		TQBQ	78

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## GTH

### Thermal overload relays, non-differential type, 3H

Catalogue No.	Model	Rated operational current (A)	No. of bimetal element	Page No.
1271001500	GTH-12M	0.14A	3H	87
1271001600	GTH-12M	0.21A	3H	87
1271001700	GTH-12M	0.33A	3H	87
1271001800	GTH-12M	0.52A	3H	87
1271001900	GTH-12M	0.82A	3H	87
1271002000	GTH-12M	1.3A	3H	87
1271002100	GTH-12M	2.1A	3H	87
1271002200	GTH-12M	3.3A	3H	87
1271002300	GTH-12M	5A	3H	87
1271002400	GTH-12M	6.5A	3H	87
1271002500	GTH-12M	7.5A	3H	87
1271002600	GTH-12M	8.5A	3H	87
1271002700	GTH-12M	11A	3H	87
1271002800	GTH-12M	14A	3H	87
1264001600	GTH-22	0.14A	3H	88
1264001700	GTH-22	0.21A	3H	88
1264001800	GTH-22	0.33A	3H	88
1264001900	GTH-22	0.52A	3H	88
1264002000	GTH-22	0.82A	3H	88
1264002100	GTH-22	1.3A	3H	88
1264002200	GTH-22	2.1A	3H	88
1264002300	GTH-22	3.3A	3H	88
1264002400	GTH-22	5A	3H	88
1264002500	GTH-22	6.5A	3H	88
1264002600	GTH-22	7.5A	3H	88
1264002700	GTH-22	8.5A	3H	88
1264002800	GTH-22	11A	3H	88
1264002900	GTH-22	15A	3H	88
1264003000	GTH-22	19A	3H	88
1265001100	GTH-40	5A	3H	89
1265001200	GTH-40	6.5A	3H	89
1265001300	GTH-40	7.5A	3H	89
1265001400	GTH-40	8.5A	3H	89
1265001500	GTH-40	11A	3H	89
1265001600	GTH-40	15A	3H	89
1265001700	GTH-40	19A	3H	89
1265001800	GTH-40	22A	3H	89
1265001900	GTH-40	30A	3H	89
1265002000	GTH-40	34A	3H	89
1266001200	GTH-85	8.5A	3H	90
1266001300	GTH-85	11A	3H	90
1266001400	GTH-85	15A	3H	90
1266001500	GTH-85	19A	3H	90
1266001600	GTH-85	22A	3H	90
1266001700	GTH-85	30A	3H	90
1266001800	GTH-85	34A	3H	90
1266001900	GTH-85	42A	3H	90
1266002000	GTH-85	55A	3H	90
1266002100	GTH-85	65A	3H	90
1266002200	GTH-85	74A	3H	90
1246000700	GTH-100	41A	3H	91
1246000800	GTH-100	48A	3H	91
1246000900	GTH-100	56A	3H	91
1246001000	GTH-100	67A	3H	91
1246001100	GTH-100	80A	3H	91
1246001200	GTH-100	107A	3H	91
1246010300	GTH-150	41A	3H	91
1246010400	GTH-150	48A	3H	91
1246010500	GTH-150	56A	3H	91
1246010600	GTH-150	67A	3H	91
1246010700	GTH-150	80A	3H	91
1246003000	GTH-150	107A	3H	91

## Thermal overload relays, non-differential type, 3H

Catalogue No.	Model	Rated operational current (A)	No. of bimetal element	Page No.
1246003100	GTH-150	130A	3H	91
1246005400	GTH-220	80A	3H	92
1246005500	GTH-220	107A	3H	92
1246005600	GTH-220	130A	3H	92
1246005700	GTH-220	150A	3H	92
1246005800	GTH-220	200A	3H	92
1246007200	GTH-400	107A	3H	92
1246007300	GTH-400	130A	3H	92
1246007400	GTH-400	150A	3H	92
1246007500	GTH-400	200A	3H	92
1246007600	GTH-400	250A	3H	92
1246007700	GTH-400	350A	3H	92
1246009000	GTH-600	250A	3H	93
1246009100	GTH-600	350A	3H	93
1246009200	GTH-600	500A	3H	93
1246009300	GTH-600	660A	3H	93
1271005700	GTH-12MH	0.14A	3H	87
1271005800	GTH-12MH	0.21A	3H	87
1271005900	GTH-12MH	0.33A	3H	87
1271006000	GTH-12MH	0.52A	3H	87
1271006100	GTH-12MH	0.82A	3H	87
1271006200	GTH-12MH	1.3A	3H	87
1271006300	GTH-12MH	2.1A	3H	87
1271006400	GTH-12MH	3.3A	3H	87
1271006500	GTH-12MH	5A	3H	87
1271006600	GTH-12MH	6.5A	3H	87
1271006700	GTH-12MH	7.5A	3H	87
1271006800	GTH-12MH	8.5A	3H	87
1271006900	GTH-12MH	11A	3H	87
1271007000	GTH-12MH	14A	3H	87
1264011300	GTH-22H	0.21A	3H	88
1264010500	GTH-22H	0.33A	3H	88
1264010600	GTH-22H	0.52A	3H	88
1264003900	GTH-22H	0.82A	3H	88
1264008500	GTH-22H	1.3A	3H	88
1264003600	GTH-22H	2.1A	3H	88
1264004200	GTH-22H	3.3A	3H	88
1264003800	GTH-22H	5A	3H	88
1264004300	GTH-22H	6.5A	3H	88
1264004400	GTH-22H	7.5A	3H	88
1264009800	GTH-22H	8.5A	3H	88
1264008600	GTH-22H	11A	3H	88
1264004000	GTH-22H	15A	3H	88
1264004100	GTH-22H	19A	3H	88
1265006400	GTH-40H	6.5A	3H	89
1265005900	GTH-40H	7.5A	3H	89
1265005100	GTH-40H	8.5A	3H	89
1265002400	GTH-40H	11A	3H	89
1265002500	GTH-40H	15A	3H	89
1265006200	GTH-40H	19A	3H	89
1265004900	GTH-40H	22A	3H	89
1265005000	GTH-40H	30A	3H	89
1265006000	GTH-40H	34A	3H	89
1266002300	GTH-85H	22A	3H	90
1266002400	GTH-85H	34A	3H	90
1266002500	GTH-85H	30A	3H	90
1266002600	GTH-85H	42A	3H	90
1266002700	GTH-85H	55A	3H	90
1266002800	GTH-85H	65A	3H	90
1266002900	GTH-85H	74A	3H	90
1246009400	GTH-600H	350A	3H	93

# Catalogue numbers index

## GTH

### Thermal overload relays, non-differential type, 2H

Catalogue No.	Model	Rated operational current (A)	No. of bimetal element	Page No.
1271000100	GTH-12M	0.14A	2H	87
1271000200	GTH-12M	0.21A	2H	87
1271000300	GTH-12M	0.33A	2H	87
1271000400	GTH-12M	0.52A	2H	87
1271000500	GTH-12M	0.82A	2H	87
1271000600	GTH-12M	1.3A	2H	87
1271000700	GTH-12M	2.1A	2H	87
1271000800	GTH-12M	3.3A	2H	87
1271000900	GTH-12M	5A	2H	87
1271001000	GTH-12M	6.5A	2H	87
1271001100	GTH-12M	7.5A	2H	87
1271001200	GTH-12M	8.5A	2H	87
1271001300	GTH-12M	11A	2H	87
1271001400	GTH-12M	14A	2H	87
1264000100	GTH-22	0.14A	2H	88
1264000200	GTH-22	0.21A	2H	88
1264000300	GTH-22	0.33A	2H	88
1264000400	GTH-22	0.52A	2H	88
1264000500	GTH-22	0.82A	2H	88
1264000600	GTH-22	1.3A	2H	88
1264000700	GTH-22	2.1A	2H	88
1264000800	GTH-22	3.3A	2H	88
1264000900	GTH-22	5A	2H	88
1264001000	GTH-22	6.5A	2H	88
1264001100	GTH-22	7.5A	2H	88
1264001200	GTH-22	8.5A	2H	88
1264001300	GTH-22	11A	2H	88
1264001400	GTH-22	15A	2H	88
1264001500	GTH-22	19A	2H	88
1265000100	GTH-40	5A	2H	89
1265000200	GTH-40	6.5A	2H	89
1265000300	GTH-40	7.5A	2H	89
1265000400	GTH-40	8.5A	2H	89
1265000500	GTH-40	11A	2H	89
1265000600	GTH-40	15A	2H	89
1265000700	GTH-40	19A	2H	89
1265000800	GTH-40	22A	2H	89
1265000900	GTH-40	30A	2H	89
1265001000	GTH-40	34A	2H	89
1266000100	GTH-85	8.5A	2H	90
1266000200	GTH-85	11A	2H	90
1266000300	GTH-85	15A	2H	90
1266000400	GTH-85	19A	2H	90
1266000500	GTH-85	22A	2H	90
1266000600	GTH-85	30A	2H	90
1266000700	GTH-85	34A	2H	90
1266000800	GTH-85	42A	2H	90
1266000900	GTH-85	55A	2H	90
1266001000	GTH-85	65A	2H	90
1266001100	GTH-85	74A	2H	90
1246000100	GTH-100	41A	2H	91
1246000200	GTH-100	48A	2H	91
1246000300	GTH-100	56A	2H	91
1246000400	GTH-100	67A	2H	91
1246000500	GTH-100	80A	2H	91
1246000600	GTH-100	107A	2H	91
1246002800	GTH-150	107A	2H	91

## Thermal overload relays, non-differential type, 2H

Catalogue No.	Model	Rated operational current (A)	No. of bimetal element	Page No.
1246002900	GTH-150	130A	2H	91
1246004900	GTH-220	80A	2H	92
1246005000	GTH-220	107A	2H	92
1246005100	GTH-220	130A	2H	92
1246005200	GTH-220	150A	2H	92
1246005300	GTH-220	200A	2H	92
1246006600	GTH-400	107A	2H	92
1246006700	GTH-400	130A	2H	92
1246006800	GTH-400	150A	2H	92
1246006900	GTH-400	200A	2H	92
1246007000	GTH-400	250A	2H	92
1246007100	GTH-400	350A	2H	92
1246008600	GTH-600	250A	2H	93
1246008700	GTH-600	350A	2H	93
1246008800	GTH-600	500A	2H	93
1246008900	GTH-600	660A	2H	93
1271004300	GTH-12MH	0.14A	2H	87
1271004400	GTH-12MH	0.21A	2H	87
1271004500	GTH-12MH	0.33A	2H	87
1271004600	GTH-12MH	0.52A	2H	87
1271004700	GTH-12MH	0.82A	2H	87
1271004800	GTH-12MH	1.3A	2H	87
1271004900	GTH-12MH	2.1A	2H	87
1271005000	GTH-12MH	3.3A	2H	87
1271005100	GTH-12MH	5A	2H	87
1271005200	GTH-12MH	6.5A	2H	87
1271005300	GTH-12MH	7.5A	2H	87
1271005400	GTH-12MH	8.5A	2H	87
1271005500	GTH-12MH	11A	2H	87
1271005600	GTH-12MH	14A	2H	87
1264003300	GTH-22H	2.1A	2H	88

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## GTK

### Thermal overload relays, differential type, 3H

Catalogue No.	Model	Rated operational current (A)	No. of bimetal element	Page No.
1264004500	GTK-22	0.14A	3H	88
1264004600	GTK-22	0.21A	3H	88
1264004700	GTK-22	0.33A	3H	88
1264004800	GTK-22	0.52A	3H	88
1264004900	GTK-22	0.82A	3H	88
1264005000	GTK-22	1.3A	3H	88
1264005100	GTK-22	2.1A	3H	88
1264005200	GTK-22	3.3A	3H	88
1264005300	GTK-22	5A	3H	88
1264005400	GTK-22	6.5A	3H	88
1264005500	GTK-22	7.5A	3H	88
1264005600	GTK-22	8.5A	3H	88
1264005700	GTK-22	11A	3H	88
1264005800	GTK-22	15A	3H	88
1264005900	GTK-22	19A	3H	88
1265002600	GTK-40	5A	3H	89
1265002700	GTK-40	6.5A	3H	89
1265002800	GTK-40	7.5A	3H	89
1265002900	GTK-40	8.5A	3H	89
1265003000	GTK-40	11A	3H	89
1265003100	GTK-40	15A	3H	89
1265003200	GTK-40	19A	3H	89
1265003300	GTK-40	22A	3H	89
1265003400	GTK-40	30A	3H	89
1265003500	GTK-40	34A	3H	89
1266003000	GTK-85	8.5A	3H	90
1266003100	GTK-85	11A	3H	90
1266003200	GTK-85	15A	3H	90
1266003300	GTK-85	19A	3H	90
1266003400	GTK-85	22A	3H	90
1266003500	GTK-85	30A	3H	90
1266003600	GTK-85	34A	3H	90
1266003700	GTK-85	42A	3H	90
1266003800	GTK-85	55A	3H	90
1266003900	GTK-85	65A	3H	90
1266004000	GTK-85	74A	3H	90
1246001700	GTK-100	41A	3H	91
1246001800	GTK-100	48A	3H	91
1246001900	GTK-100	56A	3H	91
1246002000	GTK-100	67A	3H	91
1246002100	GTK-100	80A	3H	91
1246002300	GTK-100	107A	3H	91
1246004300	GTK-150	41A	3H	91
1246004400	GTK-150	48A	3H	91
1246004500	GTK-150	56A	3H	91
1246010200	GTK-150	67A	3H	91
1246004800	GTK-150	80A	3H	91
1246004100	GTK-150	107A	3H	91
1246004200	GTK-150	130A	3H	91
1246006100	GTK-220	80A	3H	92
1246006200	GTK-220	107A	3H	92
1246006300	GTK-220	130A	3H	92
1246006400	GTK-220	150A	3H	92
1246006500	GTK-220	200A	3H	92
1246008000	GTK-400	107A	3H	92
1246008100	GTK-400	130A	3H	92
1246008200	GTK-400	150A	3H	92
1246008300	GTK-400	200A	3H	92
1246008400	GTK-400	250A	3H	92
1246008500	GTK-400	350A	3H	92
1246009500	GTK-600	250A	3H	93
1246009600	GTK-600	350A	3H	93
1246009700	GTK-600	500A	3H	93
1246009800	GTK-600	660A	3H	93
1264007000	GTK-22L	1.3A	3H	94

## Thermal overload relays, differential type, 3H

Catalogue No.	Model	Rated operational current (A)	No. of bimetal element	Page No.
1264007100	GTK-22L	2.1A	3H	94
1264007200	GTK-22L	3.3A	3H	94
1264007300	GTK-22L	5A	3H	94
1264007400	GTK-22L	6.5A	3H	94
1264007500	GTK-22L	7.5A	3H	94
1264007600	GTK-22L	8.5A	3H	94
1264007700	GTK-22L	11A	3H	94
1264007800	GTK-22L	15A	3H	94
1264007900	GTK-22L	19A	3H	94
1265003900	GTK-40L	5A	3H	95
1265004000	GTK-40L	6.5A	3H	95
1265004100	GTK-40L	7.5A	3H	95
1265004200	GTK-40L	8.5A	3H	95
1265004300	GTK-40L	11A	3H	95
1265004400	GTK-40L	15A	3H	95
1265004500	GTK-40L	19A	3H	95
1265004600	GTK-40L	22A	3H	95
1265004700	GTK-40L	30A	3H	95
1265004800	GTK-40L	34A	3H	95
1266004300	GTK-85L	8.5A	3H	96
1266004400	GTK-85L	11A	3H	96
1266004500	GTK-85L	15A	3H	96
1266004600	GTK-85L	19A	3H	96
1266004700	GTK-85L	22A	3H	96
1266004800	GTK-85L	30A	3H	96
1266004900	GTK-85L	34A	3H	96
1266005000	GTK-85L	42A	3H	96
1266005100	GTK-85L	55A	3H	96
1266005200	GTK-85L	65A	3H	96
1266005300	GTK-85L	74A	3H	96
1246012600	GTK-100L	67A	3H	97
1246011100	GTK-100L	80A	3H	97
1246012700	GTK-100L	107A	3H	97
1246013200	GTK-220L	107A	3H	98
1246013300	GTK-220L	150A	3H	98
1246011600	GTK-220L	200A	3H	98
1264009200	GTK-22H	0.82A	3H	88
1264011400	GTK-22H	1.3A	3H	88
1264009400	GTK-22H	2.1A	3H	88
1264009600	GTK-22H	3.3A	3H	88
1264006100	GTK-22H	5A	3H	88
1264006200	GTK-22H	6.5A	3H	88
1264006300	GTK-22H	7.5A	3H	88
1264006400	GTK-22H	11A	3H	88
1264006500	GTK-22H	15A	3H	88
1264006600	GTK-22H	19A	3H	88
1265003600	GTK-40H	22A	3H	89
1265003700	GTK-40H	30A	3H	89
1265003800	GTK-40H	34A	3H	89
1266004100	GTK-85H	42A	3H	90
1266004200	GTK-85H	55A	3H	90
1266006200	GTK-85H	65A	3H	96
1266006000	GTK-85H	74A	3H	96
1264010800	GTK-22HL	2.1A	3H	94
1264011100	GTK-22HL	3.3A	3H	94
1264010900	GTK-22HL	5A	3H	94
1264011000	GTK-22HL	6.5A	3H	94
1264011800	GTK-22HL	7.5A	3H	94
1264013100	GTK-22HL	8.5A	3H	94
1264011700	GTK-22HL	15A	3H	94
1265006600	GTK-40HL	22A	3H	95
1265006500	GTK-40HL	30A	3H	95
1266005900	GTK-85HL	42A	3H	96
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1266007000	GTK-85HL	65A	3H	96

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## GMP/DMP

### Electronic & Digital Motor Protection relays

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3802000400	GMP22-2P	1.5A	220V	1c	100
3802006000	GMP22-2P	5A	110/220V	1a1b	100
3802000500	GMP22-2P	5A	220V	1c	100
3802005000	GMP22-2P	22A	110/220V	1a1b	100
3802000600	GMP22-2P	22A	220V	1c	100
3802001900	GMP22-3P	1.5A	110/220V	1a1b	100
3802002000	GMP22-3P	5A	110/220V	1a1b	100
3802002100	GMP22-3P	22A	110/220V	1a1b	100
3802002200	GMP22-3PR	1.5A	110/220V	1a1b	100
3802002300	GMP22-3PR	5A	110/220V	1a1b	100
3802002400	GMP22-3PR	22A	110/220V	1a1b	100
3802000700	GMP22-2S	1.5A	110/220V	1a1b	100
3802000800	GMP22-2S	5A	110/220V	1a1b	100
3802000900	GMP22-2S	22A	110/220V	1a1b	100
3802002500	GMP22-3S	1.5A	110/220V	1a1b	100
3802002600	GMP22-3S	5A	110/220V	1a1b	100
3802002700	GMP22-3S	22A	110/220V	1a1b	100
3802003100	GMP22-3SR	1.5A	110/220V	1a1b	100
3802003200	GMP22-3SR	5A	110/220V	1a1b	100
3802003300	GMP22-3SR	22A	110/220V	1a1b	100
3802001400	GMP22-2T	5A	110/220V	1a1b	100
3802001500	GMP22-2T	22A	110/220V	1a1b	100
3802003700	GMP22-3T	1.5A	110/220V	1a1b	100
3802003800	GMP22-3T	5A	110/220V	1a1b	100
3802003900	GMP22-3T	22A	110/220V	1a1b	100
3802004300	GMP22-3TR	1.5A	110/220V	1a1b	100
3802004500	GMP22-3TR	22A	110/220V	1a1b	100
3802004400	GMP22-3TR	5A	110/220V	1a1b	100
3804000100	GMP40-2P	20A	110/220V	1a1b	102
3804000200	GMP40-2P	40A	110/220V	1a1b	102
3804001100	GMP40-3P	20A	110/220V	1a1b	102
3804001200	GMP40-3P	40A	110/220V	1a1b	102
3804001300	GMP40-3PR	20A	110/220V	1a1b	102
3804001400	GMP40-3PR	40A	110/220V	1a1b	102
3804000300	GMP40-2S	20A	110/220V	1a1b	102
3804000400	GMP40-2S	40A	110/220V	1a1b	102
3804001500	GMP40-3S	20A	110/220V	1a1b	102
3804001600	GMP40-3S	40A	110/220V	1a1b	102
3804001900	GMP40-3SR	20A	110/220V	1a1b	102
3804002000	GMP40-3SR	40A	110/220V	1a1b	102
3804000700	GMP40-2T	20A	110/220V	1a1b	102
3804002300	GMP40-3T	20A	110/220V	1a1b	102
3804002400	GMP40-3T	40A	110/220V	1a1b	102
3804002700	GMP40-3TR	20A	110/220V	1a1b	102
3804002800	GMP40-3TR	40A	110/220V	1a1b	102
3805000300	GMP80-2S	80A	110/220V	1a1b	104
3805000400	GMP80-3S	80A	110/220V	1a1b	104
3805000500	GMP80-3SR	80A	110/220V	1a1b	104
3806000200	GMP60-T	30A	110V	1c	106
3806000500	GMP60-T	30A	220V	1c	106
3806000300	GMP60-T	60A	110V	1c	106
3806000600	GMP60-T	60A	220V	1c	106
3806002100	GMP60-T	60A	380V/440V	1c	106
3806000100	GMP60-T	6A	110V	1c	106
3806000400	GMP60-T	6A	220V	1c	106



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3806001900	GMP60-T	6A	380V/440V	1c	106
3806004600	GMP60-TE	60A	110V	1c	106
3806001500	GMP60-TE	60A	220V	1c	106
3806004400	GMP60-TE	6A	110V	1c	106
3806001300	GMP60-TE	6A	220V	1c	106
3807000100	DMP06-S	6A	110V	2a1b	107
3807000200	DMP06-S	6A	220V	2a1b	107
3807000300	DMP06-SI	6A	110V	2a1b	107
3807000400	DMP06-SI	6A	220V	2a1b	107
3807003500	DMP06-SZ	6A	110V	2a	108
3807003600	DMP06-SZ	6A	220V	2a	108
3807005100	DMP06-SZ	6A	220V	2b	108
3807005200	DMP06-SZ	6A	110V	2b	108
3807006500	DMP06-SZ	6A	220V	1a1b	108
3807001000	DMP06-T	6A	220V	2a1b	107
3807001600	DMP06-TI	6A	220V	2a1b	107
3807004000	DMP06-TZ	6A	220V	2a	108
3807001700	DMP60-S	60A	110V	2a1b	107
3807001800	DMP60-S	60A	220V	2a1b	107
3807001900	DMP60-SI	60A	110V	2a1b	107
3807002000	DMP60-SI	60A	220V	2a1b	107
3807004300	DMP60-SZ	60A	110V	2a	108
3807004400	DMP60-SZ	60A	220V	2a	108
3807005900	DMP60-SZ	60A	220V	2b	108
3807006000	DMP60-SZ	60A	110V	2b	108
3807006600	DMP60-SZ	60A	220V	1a1b	108
3807007000	DMP60-SZ	60A	110V	1a1b	108
3807002500	DMP60-T	60A	110V	2a1b	107
3807002600	DMP60-T	60A	220V	2a1b	107
3807002800	DMP60-TI	60A	220V	2a1b	107
3807004800	DMP60-TZ	60A	220V	2a	108
3807006300	DMP60-TZ	60A	220V	2b	108
3807007800	DMP06-Sa	6A	110V	2a1b	107
3807007900	DMP06-Sa	6A	220V	2a1b	107
3807007400	DMP06-Sza	6A	220V	2a	108
3807007200	DMP06-Ta	6A	110V	2a1b	107
3807008200	DMP06-Ta	6A	220V	2a1b	107
3807008800	DMP06-Tza	6A	110V	1a1b	108
3807008400	DMP06-Tza	6A	110V	2a	108
3807008900	DMP06-Tza	6A	220V	1a1b	108
3807007600	DMP06-Tza	6A	220V	2a	108
3807008000	DMP60-Sa	60A	110V	2a1b	107
3807008100	DMP60-Sa	60A	220V	2a1b	107
3807007500	DMP60-Sza	60A	220V	2a	108
3807007300	DMP60-Ta	60A	110V	2a1b	107
3807008300	DMP60-Ta	60A	220V	2a1b	107
3807009200	DMP60-Tza	60A	110V	1a1b	108
3807008500	DMP60-Tza	60A	110V	2a	108
3807009300	DMP60-Tza	60A	220V	1a1b	108
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83391621003	DELAY OPEN DEVICE	AT-12M	AC/DC24~48V	OFF DELAY	GMC-6M~16M	112
83391621004	DELAY OPEN DEVICE	AT-12M	AC110~220V	OFF DELAY	GMC-6M~16M	112
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83461611004	LATCH UNIT	AL-9	AC100V	50/60Hz	GMC-9~40	117
83461611006	LATCH UNIT	AL-9	AC200V	50/60Hz	GMC-9~40	117
83461611009	LATCH UNIT	AL-9	AC300V	50/60Hz	GMC-9~40	117
83461611011	LATCH UNIT	AL-9	AC400V	50/60Hz	GMC-9~40	117
83461611013	LATCH UNIT	AL-9	AC500V	50/60Hz	GMC-9~40	117
83461611024	LATCH UNIT	AL-9	DC24V		GMC-9~40	117
83461611026	LATCH UNIT	AL-9	DC48V		GMC-9~40	117
83461611016	LATCH UNIT	AL-9	DC100V		GMC-9~40	117
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83461613006	LATCH UNIT	AL-50	AC24V	50/60Hz	GMC-50~85	117
83461613014	LATCH UNIT	AL-50	AC48V	50/60Hz	GMC-50~85	117
83461613003	LATCH UNIT	AL-50	AC100V	50/60Hz	GMC50~85	117
83461613004	LATCH UNIT	AL-50	AC200V	50/60Hz	GMC-50~85	117
83461613008	LATCH UNIT	AL-50	AC300V	50/60Hz	GMC-50~85	117
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83461613012	LATCH UNIT	AL-50	AC500V	50/60Hz	GMC-50~85	117
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64261617001	BASE for LATCH UNIT					
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83611621003	SURGE UNIT	AS-12M	AC200~240V		GMC-6~16M	118
83611621051	SURGE UNIT	AS-12M	AC380~440V		GMC-6~16M	118
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83611611006	SURGE UNIT	AS-2	AC100~125V		GMC(D)-9~85	118
83611611010	SURGE UNIT	AS-3	AC200~240V		GMC(D)-9~85	118
83611611014	SURGE UNIT	AS-4	DC24~48V		GMC(D)-9~85	118
83611611018	SURGE UNIT	AS-5	DC100~125V		GMC(D)-9~85	118
83611611022	SURGE UNIT	AS-6	DC200~220V		GMC(D)-9~85	118
83611611026	SURGE UNIT	AS-11	AC/DC24~48V		GMC(D)-9~85	118
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83361621008	AUX CONTACT UNIT	AU-2M	2NO		GMC-6M,9M,12M,16M	111
83361621016	AUX CONTACT UNIT	AU-2MF	2NO		GMC-6MF,9MF,12MF,16MF	111
83361621042	AUX CONTACT UNIT	AU-2MC	2NO		GMC-6MC,9MC,12MC,16MC	111
83361621010	AUX CONTACT UNIT	AU-2M	2NC		GMC-6M,9M,12M,16M	111
83361621018	AUX CONTACT UNIT	AU-2MF	2NC		GMC-6MF,9MF,12MF,16MF	111
83361621044	AUX CONTACT UNIT	AU-2MC	2NC		GMC-6MC,9MC,12MC,16MC	111
83361621009	AUX CONTACT UNIT	AU-2M	1NO1NC		GMC-6M,9M,12M,16M	111
83361621017	AUX CONTACT UNIT	AU-2MF	1NO1NC		GMC-6MF,9MF,12MF,16MF	111
83361621043	AUX CONTACT UNIT	AU-2MC	1NO1NC		GMC-6MC,9MC,12MC,16MC	111
83361621003	AUX CONTACT UNIT	AU-4M	4NO		GMC-6M,9M,12M,16M	111
83361621011	AUX CONTACT UNIT	AU-4MF	4NO		GMC-6MF,9MF,12MF,16MF	111
83361621037	AUX CONTACT UNIT	AU-4MC	4NO		GMC-6MC,9MC,12MC,16MC	111
83361621004	AUX CONTACT UNIT	AU-4M	3NO1NC		GMC-6M,9M,12M,16M	111
83361621012	AUX CONTACT UNIT	AU-4MF	3NO1NC		GMC-6MF,9MF,12MF,16MF	111
83361621038	AUX CONTACT UNIT	AU-4MC	3NO1NC		GMC-6MC,9MC,12MC,16MC	111
83361621005	AUX CONTACT UNIT	AU-4M	2NO2NC		GMC-6M,9M,12M,16M	111
83361621013	AUX CONTACT UNIT	AU-4MF	2NO2NC		GMC-6MF,9MF,12MF,16MF	111
83361621039	AUX CONTACT UNIT	AU-4MC	2NO2NC		GMC-6MC,9MC,12MC,16MC	111
83361621006	AUX CONTACT UNIT	AU-4M	1NO3NC		GMC-6M,9M,12M,16M	111
83361621014	AUX CONTACT UNIT	AU-4MF	1NO3NC		GMC-6MF,9MF,12MF,16MF	111
83361621040	AUX CONTACT UNIT	AU-4MC	1NO3NC		GMC-6MC,9MC,12MC,16MC	111
83361621007	AUX CONTACT UNIT	AU-4M	4NC		GMC-6M,9M,12M,16M	111
83361621015	AUX CONTACT UNIT	AU-4MF	4NC		GMC-6MF,9MF,12MF,16MF	111
83361621041	AUX CONTACT UNIT	AU-4MC	4NC		GMC-6MC,9MC,12MC,16MC	111
83361611011	AUX CONTACT UNIT	AU-1	1NO1NC		GMC-9-85	115
83361611030	AUX CONTACT UNIT	AU-2	1NO1NC		GMC-9-85	115
83361611028	AUX CONTACT UNIT	AU-2	2NO		GMC-9-85	115
83361611032	AUX CONTACT UNIT	AU-2	2NC		GMC-9-85	115
83361611060	AUX CONTACT UNIT	AU-4	1NO3NC		GMC-9-85	115
83361611058	AUX CONTACT UNIT	AU-4	2NO2NC		GMC-9-85	115
83361611056	AUX CONTACT UNIT	AU-4	3NO1NC		GMC-9-85	115
83361611054	AUX CONTACT UNIT	AU-4	4NO		GMC-9-85	115
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62671616031	TERMINAL	for S phase			GMC-180	
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62671616033	TERMINAL	for R phase			GMC-220	

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62671617024	TERMINAL	for R phase			GMC-300	
62671617026	TERMINAL	for S phase			GMC-300	
62671617027	TERMINAL	for T phase			GMC-300	
62671617028	TERMINAL	for R phase			GMC-400	
62671617030	TERMINAL	for S phase			GMC-400	
62671617031	TERMINAL	for T phase			GMC-400	
62671614002	TERMINAL	for N phase			GMC-100 4P	
62671614003	TERMINAL	for R phase			GMC-100 4P	
62671614004	TERMINAL	for S phase			GMC-100 4P	
62671614005	TERMINAL	for T phase			GMC-100 4P	
62671614006	TERMINAL	for N phase			GMC-125 4P	
62671614007	TERMINAL	for R phase			GMC-125 4P	
62671614008	TERMINAL	for S phase			GMC-125 4P	
62671614009	TERMINAL	for T phase			GMC-125 4P	
62671615001	TERMINAL	for N phase			GMC-150 4P	
62671615002	TERMINAL	for R phase			GMC-150 4P	
62671615003	TERMINAL	for S phase			GMC-150 4P	
62671615004	TERMINAL	for T phase			GMC-150 4P	
62671616036	TERMINAL	for N phase			GMC-180 4P	
62671616037	TERMINAL	for R phase			GMC-180 4P	
62671616038	TERMINAL	for S phase			GMC-180 4P	
62671616039	TERMINAL	for T phase			GMC-180 4P	
62671616001	TERMINAL	for N phase			GMC-220 4P	
62671616002	TERMINAL	for R phase			GMC-220 4P	
62671616003	TERMINAL	for S phase			GMC-220 4P	
62671616004	TERMINAL	for T phase			GMC-220 4P	
62671617032	TERMINAL	for N phase			GMC-300 4P	
62671617033	TERMINAL	for R phase			GMC-300 4P	
62671617034	TERMINAL	for S phase			GMC-300 4P	
62671617035	TERMINAL	for T phase			GMC-300 4P	
62671617036	TERMINAL	for N phase			GMC-400 4P	
62671617037	TERMINAL	for R phase			GMC-400 4P	
62671617038	TERMINAL	for S phase			GMC-400 4P	
62671617039	TERMINAL	for T phase			GMC-400 4P	
70421611004	CONTACT	MOVING	1set = 3pcs		GMC-9	
70421611010	CONTACT	FIXED	1set = 6pcs		GMC-9	
70421611005	CONTACT	MOVING	1set = 3pcs		GMC-12	
70421611010	CONTACT	FIXED	1set = 6pcs		GMC-12	
70421611006	CONTACT	MOVING	1set = 3pcs		GMC-18	
70421611011	CONTACT	FIXED	1set = 6pcs		GMC-18	
70421611007	CONTACT	MOVING	1set = 3pcs		GMC-22	
70421611012	CONTACT	FIXED	1set = 6pcs		GMC-22	
70421612001	CONTACT	MOVING	1set = 3pcs		GMC-32	
70421612003	CONTACT	FIXED	1set = 6pcs		GMC-32	
70421612002	CONTACT	MOVING	1set = 3pcs		GMC-40	
70421612005	CONTACT	FIXED	1set = 6pcs		GMC-40	
70421613001	CONTACT	MOVING	1set = 3pcs		GMC-50	
70421613005	CONTACT	FIXED	1set = 6pcs		GMC-50	
70421613002	CONTACT	MOVING	1set = 3pcs		GMC-65	
70421613007	CONTACT	FIXED	1set = 6pcs		GMC-65	
70421613003	CONTACT	MOVING	1set = 3pcs		GMC-75	

Catalogue No.	Model	Detail specification			Applicable	Page No.
70421613009	CONTACT	FIXED	1set = 6pcs		GMC-75	
70421613004	CONTACT	MOVING	1set = 3pcs		GMC-85	
70421613011	CONTACT	FIXED	1set = 6pcs		GMC-85	
70421614001	CONTACT	MOVING	1set=3pcs		GMC-100	
70421614005	CONTACT	FIXED	R phase (1set=2pcs)		GMC-100	
70421614006	CONTACT	FIXED	S phase(1set=2pcs)		GMC-100	
70421614007	CONTACT	FIXED	T phase(1set=2pcs)		GMC-100	
70421614002	CONTACT	MOVING	1set=3pcs		GMC-125	
70421614008	CONTACT	FIXED	R phase (1set=2pcs)		GMC-125	
70421614009	CONTACT	FIXED	S phase(1set=2pcs)		GMC-125	
70421614010	CONTACT	FIXED	T phase(1set=2pcs)		GMC-125	
70421615017	CONTACT	MOVING	1set=3pcs		GMC-150	
70421615002	CONTACT	FIXED	R phase (1set=2pcs)		GMC-150	
70421615003	CONTACT	FIXED	S phase(1set=2pcs)		GMC-150	
70421615004	CONTACT	FIXED	T phase(1set=2pcs)		GMC-150	
70421616001	CONTACT	MOVING	1set=3pcs		GMC-180	
70421616028	CONTACT	FIXED	1set=6pcs		GMC-180	
70421616003	CONTACT	MOVING	1set=3pcs		GMC-220	
70421616029	CONTACT	FIXED	1set=6pcs		GMC-220	
70421617002	CONTACT	MOVING	1set=3pcs		GMC-300	
70421617021	CONTACT	FIXED	1set=6pcs		GMC-300	
70421617004	CONTACT	MOVING	1set=3pcs		GMC-400	
70421617022	CONTACT	FIXED	1set=6pcs		GMC-400	
70421618001	CONTACT	MOVING	1set=3pcs		GMC-600	
70421618004	CONTACT	FIXED	1set=6pcs		GMC-600	
70421618003	CONTACT	MOVING	1set=3pcs		GMC-800	
70421618006	CONTACT	FIXED	1set=6pcs		GMC-800	
70821614008	LUG TERMINAL	AJ125			GMC-100, 125	119
70821615008	LUG TERMINAL	AJ150			GMC-150	119
70821616008	LUG TERMINAL	AJ220			GMC-180, 220	119
70821617008	LUG TERMINAL	AJ400			GMC-300, 400	119
70821618008	LUG TERMINAL	AJ800			GMC-600,800	119
76512121001	ZCT	LZT-030				120
76512121002	ZCT	LZT-050				120
76512121003	ZCT	LZT-065				120
76512121004	ZCT	LZT-080				120
76012116002	DCT	DCT-150				121
76012116003	DCT	DCT-200				121
76012116004	DCT	DCT-300				121
76012116005	DCT	DCT-400				121
76012116006	SCT	SCT-100				122
76012116007	SCT	SCT-150				122
76012116008	SCT	SCT-200				122
76012116009	SCT	SCT-300				122
76012116010	SCT	SCT-400				122
83631611001	CAPACITOR UNIT		AC-9		GMC-9, 12, 18, 22, 32, 40	76
83631613001	CAPACITOR UNIT		AC-50		GMC-50, 65, 85	76

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## Spare Coil

Catalogue No.	Model	Coil Voltage	Hz	Applicable	Pole	Page No.
77121621501	COIL	AC24V	50/60Hz	GMC-6~16M	3P	
77121621561	COIL	AC32V	50/60Hz	GMC-6~16M	3P	
77121621502	COIL	AC36V	50/60Hz	GMC-6~16M	3P	
77121621562	COIL	AC38V	50/60Hz	GMC-6~16M	3P	
77121621503	COIL	AC42V	50/60Hz	GMC-6~16M	3P	
77121621504	COIL	AC48V	50/60Hz	GMC-6~16M	3P	
77121621563	COIL	AC60V	50/60Hz	GMC-6~16M	3P	
77121621522	COIL	AC100V	50/60Hz	GMC-6~16M	3P	
77121621505	COIL	AC110V	50/60Hz	GMC-6~16M	3P	
77121621506	COIL	AC115V	50/60Hz	GMC-6~16M	3P	
77121621507	COIL	AC120V	50/60Hz	GMC-6~16M	3P	
77121621508	COIL	AC127V	50/60Hz	GMC-6~16M	3P	
77121621564	COIL	AC180V	50/60Hz	GMC-6~16M	3P	
77121621523	COIL	AC200V	50/60Hz	GMC-6~16M	3P	
77121621510	COIL	AC220V	50/60Hz	GMC-6~16M	3P	
77121621526	COIL	AC230V	50/60Hz	GMC-6~16M	3P	
77121621524	COIL	AC240V	50/60Hz	GMC-6~16M	3P	
77121621513	COIL	AC256V	50/60Hz	GMC-6~16M	3P	
77121621514	COIL	AC277V	50/60Hz	GMC-6~16M	3P	
77121621565	COIL	AC345V	50/60Hz	GMC-6~16M	3P	
77121621521	COIL	AC380V	50/60Hz	GMC-6~16M	3P	
77121621516	COIL	AC400V	50/60Hz	GMC-6~16M	3P	
77121621525	COIL	AC415V	50/60Hz	GMC-6~16M	3P	
77121621517	COIL	AC440V	50/60Hz	GMC-6~16M	3P	
77121621518	COIL	AC480V	50/60Hz	GMC-6~16M	3P	
77121621519	COIL	AC500V	50/60Hz	GMC-6~16M	3P	
77121621520	COIL	AC550V	50/60Hz	GMC-6~16M	3P	
77121621021	COIL	AC380V	50/60Hz	GMC-6~16M	3P	
77121611031	COIL	AC24V	60Hz	GMC-9~40	3P	
77121611032	COIL	AC48V	60Hz	GMC-9~40	3P	
77121611096	COIL	AC100V	60Hz	GMC-9~40	3P	
77121611033	COIL	AC110V	60Hz	GMC-9~40	3P	
77121611034	COIL	AC120V	60Hz	GMC-9~40	3P	
77121611095	COIL	AC200V	60Hz	GMC-9~40	3P	
77121611035	COIL	AC208V	60Hz	GMC-9~40	3P	
77121611036	COIL	AC220V	60Hz	GMC-9~40	3P	
77121611093	COIL	AC230V	60Hz	GMC-9~40	3P	
77121611037	COIL	AC240V	60Hz	GMC-9~40	3P	
77121611038	COIL	AC277V	60Hz	GMC-9~40	3P	
77121611039	COIL	AC380V	60Hz	GMC-9~40	3P	
77121611040	COIL	AC440V	60Hz	GMC-9~40	3P	
77121611041	COIL	AC480V	60Hz	GMC-9~40	3P	
77121611042	COIL	AC600V	60Hz	GMC-9~40	3P	
77121611043	COIL	AC24V	50Hz	GMC-9~40	3P	

Catalogue No.	Model	Coil Voltage	Hz	Applicable	Pole	Page No.
77121611111	COIL	AC36V	50Hz	GMC-9~40	3P	
77121611044	COIL	AC42V	50Hz	GMC-9~40	3P	
77121611045	COIL	AC48V	50Hz	GMC-9~40	3P	
77121611068	COIL	AC80V	50Hz	GMC-9~40	3P	
77121611046	COIL	AC100V	50Hz	GMC-9~40	3P	
77121611047	COIL	AC110V	50Hz	GMC-9~40	3P	
77121611048	COIL	AC220V	50Hz	GMC-9~40	3P	
77121611056	COIL	AC230V	50Hz	GMC-9~40	3P	
77121611049	COIL	AC240V	50Hz	GMC-9~40	3P	
77121611050	COIL	AC380V	50Hz	GMC-9~40	3P	
77121611051	COIL	AC400V	50Hz	GMC-9~40	3P	
77121611052	COIL	AC415V	50Hz	GMC-9~40	3P	
77121611053	COIL	AC440V	50Hz	GMC-9~40	3P	
77121611054	COIL	AC500V	50Hz	GMC-9~40	3P	
77121611055	COIL	AC550V	50Hz	GMC-9~40	3P	
77121611107	COIL	AC100V	50/60Hz	GMC-9~40	3P	
77121611108	COIL	AC120V	50/60Hz	GMC-9~40	3P	
77121611104	COIL	AC200V	50/60Hz	GMC-9~40	3P	
77121611094	COIL	AC230V	50/60Hz	GMC-9~40	3P	
77121613009	COIL	AC24V	60Hz	GMC-50~85	3P	
77121613010	COIL	AC48V	60Hz	GMC-50~85	3P	
77121613012	COIL	AC100V	60Hz	GMC-50~85	3P	
77121613011	COIL	AC110V	60Hz	GMC-50~85	3P	
77121613012	COIL	AC120V	60Hz	GMC-50~85	3P	
77121613010	COIL	AC200V	60Hz	GMC-50~85	3P	
77121613013	COIL	AC208V	60Hz	GMC-50~85	3P	
77121613014	COIL	AC220V	60Hz	GMC-50~85	3P	
77121613211	COIL	AC230V	60Hz	GMC-50~85	3P	
77121613015	COIL	AC240V	60Hz	GMC-50~85	3P	
77121613016	COIL	AC277V	60Hz	GMC-50~85	3P	
77121613017	COIL	AC380V	60Hz	GMC-50~85	3P	
77121613018	COIL	AC440V	60Hz	GMC-50~85	3P	
77121613019	COIL	AC480V	60Hz	GMC-50~85	3P	
77121613020	COIL	AC600V	60Hz	GMC-50~85	3P	
77121613021	COIL	AC24V	50Hz	GMC-50~85	3P	
77121613217	COIL	AC36V	50Hz	GMC-50~85	3P	
77121613022	COIL	AC42V	50Hz	GMC-50~85	3P	
77121613023	COIL	AC48V	50Hz	GMC-50~85	3P	
77121613088	COIL	AC80V	50Hz	GMC-50~85	3P	
77121613024	COIL	AC100V	50Hz	GMC-50~85	3P	
77121613025	COIL	AC110V	50Hz	GMC-50~85	3P	
77121613026	COIL	AC220V	50Hz	GMC-50~85	3P	
77121613034	COIL	AC230V	50Hz	GMC-50~85	3P	
77121613027	COIL	AC240V	50Hz	GMC-50~85	3P	



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## Spare Coil









Catalogue No.	Model	Coil Voltage	Hz	Applicable	Pole	Page No.
77121613028	COIL	AC380V	50Hz	GMC-50~85	3P	
77121613029	COIL	AC400V	50Hz	GMC-50~85	3P	
77121613030	COIL	AC415V	50Hz	GMC-50~85	3P	
77121613031	COIL	AC440V	50Hz	GMC-50~85	3P	
77121613032	COIL	AC500V	50Hz	GMC-50~85	3P	
77121613033	COIL	AC550V	50Hz	GMC-50~85	3P	
77121613213	COIL	AC100V	50/60Hz	GMC-50~85	3P	
77121613214	COIL	AC120V	50/60Hz	GMC-50~85	3P	
77121613103	COIL	AC200V	50/60Hz	GMC-50~85	3P	
77121613212	COIL	AC230V	50/60Hz	GMC-50~85	3P	
77121614011	COIL	AC/DC24V	50/60Hz	GMC-100~150	3P	
77121614012	COIL	AC/DC48V	50/60Hz	GMC-100~150	3P	
77121614032	COIL	AC/DC100~240V	50/60Hz	GMC-100~150	3P	
77121614008	COIL	AC300V	50/60Hz	GMC-100~150	3P	
77121614009	COIL	AC400V	50/60Hz	GMC-100~150	3P	
77121614010	COIL	AC500V	50/60Hz	GMC-100~150	3P	
77121616011	COIL	AC24V	50/60Hz	GMC-180/220	3P	
77121616012	COIL	AC48V	50/60Hz	GMC-180/220	3P	
77121616032	COIL	AC100~240V	50/60Hz	GMC-180/220	3P	
77121616008	COIL	AC300V	50/60Hz	GMC-180/220	3P	
77121616009	COIL	AC400V	50/60Hz	GMC-180/220	3P	
77121616010	COIL	AC500V	50/60Hz	GMC-180/220	3P	
77121617032	COIL	AC/DC100~240V	50/60Hz	GMC-300/400	3P	
77121617006	COIL	AC300V	50/60Hz	GMC-300/400	3P	
77121617007	COIL	AC400V	50/60Hz	GMC-300/400	3P	
77121617008	COIL	AC500V	50/60Hz	GMC-300/400	3P	
77121618003	COIL	AC300V		GMC-600/800	3P	
77121618004	COIL	AC400V		GMC-600/800	3P	
77121618005	COIL	AC500V		GMC-600/800	3P	
77121618031	COIL	AC/DC100V		GMC-600/800	3P	
77121618032	COIL	AC/DC200V		GMC-600/800	3P	
77121611019	COIL	DC12V		GMD-9~40	3P	
77121611029	COIL	DC20V		GMD-9~40	3P	
77121611020	COIL	DC24V		GMD-9~40	3P	
77121611021	COIL	DC48V		GMD-9~40	3P	
77121611028	COIL	DC60V		GMD-9~40	3P	
77121611030	COIL	DC80V		GMD-9~40	3P	
77121611022	COIL	DC100V		GMD-9~40	3P	
77121611023	COIL	DC110V		GMD-9~40	3P	
77121611024	COIL	DC125V		GMD-9~40	3P	
77121611025	COIL	DC200V		GMD-9~40	3P	
77121611026	COIL	DC220V		GMD-9~40	3P	
77121611027	COIL	DC250V		GMD-9~40	3P	
77121613036	COIL	DC12V		GMD-50~85	3P	



Catalogue No.	Model	Coil Voltage	Hz	Applicable	Pole	Page No.
77121613038	COIL	DC24V		GMD-50-85	3P	
77121613040	COIL	DC48V		GMD-50-85	3P	
77121613054	COIL	DC60V		GMD-50-85	3P	
77121613058	COIL	DC80V		GMD-50-85	3P	
77121613042	COIL	DC100V		GMD-50-85	3P	
77121613044	COIL	DC110V		GMD-50-85	3P	
77121613046	COIL	DC125V		GMD-50-85	3P	
77121613048	COIL	DC200V		GMD-50-85	3P	
77121613050	COIL	DC220V		GMD-50-85	3P	
77121613052	COIL	DC250V		GMD-50-85	3P	
77121613091	COIL	AC24V	50/60Hz	GMC-50-85	4P	
77121613090	COIL	AC48V	50/60Hz	GMC-50-85	4P	
77121613097	COIL	AC220V	50/60Hz	GMC-50-85	4P	
77121613218	COIL	AC230V	50/60Hz	GMC-50-85	4P	
77121613083	COIL	AC240V	50/60Hz	GMC-85	4P	
77121613092	COIL	AC380V	50/60Hz	GMC-50-85	4P	
77121613093	COIL	AC400V	50/60Hz	GMC-50-85	4P	
77121613098	COIL	AC415V	50/60Hz	GMC-50-85	4P	
77121613094	COIL	AC440V	50/60Hz	GMC-50-85	4P	
77121613095	COIL	AC500V	50/60Hz	GMC-50-85	4P	
77121613096	COIL	AC550V	50/60Hz	GMC-50-85	4P	

## Contactors & Overload relays

### ● Certificate of approvals

A species of certification		Approvals						Certificates	
A species of standard		Safety certificate	IEC	cUL		GB	Gosstandart	IEC	
Mark or certification									
Type		Korea	CE	cUL		CCC	GOST	KEMA	TÜV
			Europe	U.S.A	Canada	China	Russia	Netherlands	Germany
Contactor standard type	GMS-9		●		●			●	
	GMS-12		●		●			●	
	GMS-18		●		●			●	
	GMS-22		●		●			●	
	GMS-32		●		●			●	
	GMS-40		●		●			●	
	GMS-50		●		●			●	
	GMS-65		●		●			●	
	GMS-75		●		●			●	
	GMS-85		●		●			●	
	GMS-100		●						●
	GMS-125		●						●
	GMS-150		●						●
	GMS-180		●						●
	GMS-220		●						●
	GMS-300		●						●
GMS-400		●						●	
GMS-600		●						●	
GMS-800		●						●	
Standard type contactor	GMC(D)-9	●	●		●		●	●	
	GMC(D)-12	●	●		●		●	●	
	GMC(D)-18	●	●		●		●	●	
	GMC(D)-22	●	●		●		●	●	
	GMC(D)-32	●	●		●		●	●	
	GMC(D)-40	●	●		●		●	●	
	GMC(D)-50	●	●		●		●	●	
	GMC(D)-65	●	●		●		●	●	
	GMC(D)-75	●	●		●		●	●	
	GMC(D)-85	●	●		●		●	●	
	GMC-100	●	●		●		●	●	●
	GMC-125	●	●		●		●	●	●
	GMC-150	●	●		●		●	●	●
	GMC-180	●	●		●		●	●	●
	GMC-220	●	●		●		●	●	●
	GMC-300	●	●		●		●	●	●
	GMC-400	●	●		●		●	●	●
	GMC-600	●	●		●		●	●	●
	GMC-800	●	●		●		●	●	●
	GMD-50a	●	●		●		●	●	●
GMD-65a	●	●		●		●	●	●	
GMD-75a	●	●		●		●	●	●	
GMD-85a	●	●		●		●	●	●	
4pole type contactor	GMC(D)-9/4	●	●		●		●	●	
	GMC(D)-12/4	●	●		●		●	●	
	GMC(D)-18/4	●	●		●		●	●	
	GMC(D)-22/4	●	●		●		●	●	
	GMC(D)-32/4	●	●		●		●	●	
	GMC(D)-40/4	●	●		●		●	●	
	GMC(D)-50/4	●	●		●		●	●	
	GMC(D)-65/4	●	●		●		●	●	
	GMC(D)-75/4	●	●		●		●	●	
	GMC(D)-85/4	●	●		●		●	●	
	GMC-100/4	●	●		●		●	●	
	GMC-125/4	●	●		●		●	●	
	GMC-150/4	●	●		●		●	●	
	GMC-180/4	●	●		●		●	●	
	GMC-220/4	●	●		●		●	●	
	GMC-300/4	●	●		●		●	●	
GMC-400/4	●	●		●		●	●		
GMC-600/4	●	●		●		●	●		
GMC-800/4	●	●		●		●	●		
Reversing contactor	GMC-9R		●		●			●	
	GMC-12R		●		●			●	
	GMC-18R		●		●			●	
	GMC-22R		●		●			●	
	GMC-32R		●		●			●	
	GMC-40R		●		●			●	
	GMC-50R		●		●			●	
	GMC-65R		●		●			●	
	GMC-75R		●		●			●	
	GMC-85R		●		●			●	
	GMC-100R		●		●			●	●
	GMC-125R		●		●			●	●
	GMC-150R		●		●			●	●
	GMC-180R		●		●			●	●
	GMC-220R		●		●			●	●
	GMC-300R		●		●			●	●
GMC-400R		●		●		●	●	●	
GMC-600R		●		●				●	
GMC-800R		●		●				●	

※ Remark : ● Completion, ▲ Progressing








## ● Certificate of approvals

A species of certification		Approvals								Certificates		
		KS	Safety certificate	IEC	cUL		GB	Gosstandart	Safety certificate	IEC		
A Species of Standard												
Mark or certification		KS		CE	cUL		CCC	GOST	PSE	KEMA	TÜV Rheinland	
Type		Korea	Korea	Europe	U.S.A	Canada	China	Russia	Japan	Netherlands	Germany	
Latch contactor	GMC-9L			●				●				
	GMC-12L			●				●				
	GMC-18L			●				●				
	GMC-22L			●				●				
	GMC-32L			●				●				
	GMC-40L			●				●				
	GMC-50L			●				●				
	GMC-65L			●				●				
	GMC-75L			●				●				
	GMC-85L			●				●				
	GMC-100L							●				
	GMC-125L							●				
	GMC-150L							●				
	GMC-180L							●				
	GMC-220L							●				
GMC-300L							●					
GMC-400L							●					
Enclosed contactor	GMW-9M(B)	●		●	●							
	GMW-12M(B)	●		●	●							
	GMW-18M(B)	●		●	●							
	GMW-22M(B)	●		●	●				●			
	GMW-9(B)	●		●	●							
	GMW-12(B)	●		●	●							
	GMW-18(B)	●		●	●							
	GMW-22(B)	●		●	●				●			
	GMW-32(B)	●		●	●							
	GMW-40(B)	●		●	●				●			
	GMW-50(B)	●		●	●							
	GMW-65(B)	●		●	●							
	GMW-75(B)	●		●	●							
GMW-85(B)	●		●	●				●				
1P contactor	SMC-20P2		●		●							
	SMC-25P2		●		●							
	SMC-30P2		●		●							
Overload relay	GMR-4(D)			●	●		●	●		●		
	GMR-6(D)			●	●		●	●		●		
	GMR-8(D)			●	●		●	●		●		
Thermal overload relay	Standard	GTH-22		●	●		●	●		●		
		GTH-40		●	●		●	●		●		
		GTH-85		●	●		●	●		●		
		GTH-100		●	●		●	●		●	●	
		GTH-150		●	●		●	●		●	●	
		GTH-220		●	●		●	●		●	●	
		GTH-400		●	●		●	●		●	●	
		GTH-600		●	●		●	●		●	●	
		GTH-85/3										
	Phase loss protection	GTH-100/3						●				
		GTH-150/3						●				
		GTH-220/3						●				
		GTH-400/3						●				
		GTH-600/3						●				
		GTK-22			●	●		●	●		●	
		GTK-40			●	●		●	●		●	
		GTK-85			●	●		●	●		●	
		GTK-100			●	●		●	●		●	●
GTK-150			●	●		●	●		●	●		
GTK-220			●	●		●	●		●	●		
GTK-400			●	●		●	●		●	●		
GTK-600			●	●		●	●		●	●		
Contactor for condenser	GMC(D)-9C				●			●				
	GMC(D)-12C				●			●				
	GMC(D)-18C				●			●				
	GMC(D)-22C				●			●				
	GMC(D)-32C				●			●				
	GMC(D)-40C				●			●				
	GMC(D)-50C				●			●				
	GMC(D)-60C				●			●				
	GMC(D)-75C				●			●				
GMC(D)-85C				●			●					

\* Remark : ● Completion, ▲ Progressing

## Mini contactor

### ● Certificate of approvals








A species of certification		Approvals						Certificates
		Safety certificate	IEC	cUL		GB	Gosstandart	IEC
A species of standard								
Mark or certification			CE	cUL		CCC	GOST	KEMA
Type		Korea	Europe	U.S.A	Canada	China	Russia	Netherlands
Mini contactor	GMC(D)-6M	●	●	●		●	●	●
	GMC(D)-9M	●	●	●		●	●	●
	GMC(D)-12M	●	●	●		●	●	●
	GMC(D)-16M	●	●	●		●	●	●
	GMC(D)-6MF	●	●	●			●	●
	GMC(D)-9MF	●	●	●			●	●
	GMC(D)-12MF	●	●	●			●	●
	GMC(D)-16MF	●	●	●			●	●
	GMC(D)-6MC	●	●	●			●	●
	GMC(D)-9MC	●	●	●			●	●
	GMC(D)-12MC	●	●	●			●	●
	GMC(D)-16MC	●	●	●			●	●
	GMC(D)-6MP	●	●	●			●	●
	GMC(D)-9MP	●	●	●			●	●
GMC(D)-12MP	●	●	●			●	●	
GMC(D)-16MP	●	●	●			●	●	
Mini standard contactor	GMS-6M(D)/3	●	●	●				●
	GMS-9M(D)/3	●	●	●				●
	GMS-12M(D)/3	●	●	●				●
	GMS-16M(D)/3	●	●	●				●
	GMS-6M(D)/K	●	●	●				●
	GMS-9M(D)/K	●	●	●				●
	GMS-16M(D)/K	●	●	●				●
Mini reversing contactor	GMS-6MR(D)/3	●	●	●				●
	GMS-9MR(D)/3	●	●	●				●
	GMS-12MR(D)/3	●	●	●				●
	GMS-16MR(D)/3	●	●	●				●
	GMS-6MR(D)/K	●	●	●				●
	GMS-9MR(D)/K	●	●	●				●
	GMS-16MR(D)/K	●	●	●				●
Mini 4pole contactor	GMC(D)-6M/4	●	●	●		●		●
	GMC(D)-9M/4	●	●	●		●		●
	GMC(D)-12M/4	●	●	●		●		●
	GMC(D)-16M/4	●	●	●		●		●
Mini reversing contactor	GMC(D)-6MR	●	●	●				●
	GMC(D)-9MR	●	●	●				●
	GMC(D)-12MR	●	●	●				●
	GMC(D)-16MR	●	●	●				●
Overload relay	GMR-4M(D)		●	●		●		●
	GMR-6M(D)		●	●		●		●
	GMR-8M(D)		●	●		●		●
Thermal overload relay Phase loss Standard protector	GTH-12M/3		●	●		●		●
	GTH-12MH		●	●		●		●
	GTK-12M		●	●		●		●
	GTK-12MH		●	●		●		●
Accessory	AU-1,2,4M		●	●		●	●	●
	AU-1,2,4MF		●	●		●	●	●
	AU-1,2,4MC		●	●		●	●	●
	AU-1MP		●	●		●	●	●
	AR-12M		●	●				●
	AZ-12M		●	●				●
	AT-12M			●			●	
	AS-12M			●			●	

※ Remark : ●Completion, ▲Progressing

# Contactors/Overload relay/ Thermal overload relay










## ● Marine classification

A species of certification		Approvals							
A species of standard		Marine classification							
Type	Mark or certification								
		KR Korea	LR U.K	BV France	GL Germany	DNV Norway	ABS U.S.A	NK Japan	
Contactors	GMC(D)-9	●	●	●	●	●	●	●	
	GMC(D)-12	●	●	●	●	●	●	●	
	GMC(D)-18	●	●	●	●	●	●	●	
	GMC(D)-22	●	●	●	●	●	●	●	
	GMC(D)-32	●	●	●	●	●	●	●	
	GMC(D)-40	●	●	●	●	●	●	●	
	GMC(D)-50	●	●	●	●	●	●	●	
	GMC(D)-65	●	●	●	●	●	●	●	
	GMC(D)-75	●	●	●	●	●	●	●	
	GMC(D)-85	●	●	●	●	●	●	●	
	GMC-100	●	●	●	●	●	●	●	
	GMC-125	●	●	●	●	●	●	●	
	GMC-150	●	●	●	●	●	●	●	
	GMC-180	●	●	●	●	●	●	●	
	GMC-220	●	●	●	●	●	●	●	
	GMC-300	●	●	●	●	●	●	●	
	GMC-400	●	●	●	●	●	●	●	
	GMC-600	●	●	●	●	●	●	●	
GMC-800	●	●	●	●	●	●	●		
Overload relay	GMR-4(D)		●	●	●	●	●		
	GMR-6(D)		●	●	●	●	●		
	GMR-8(D)		●	●	●	●	●		
Thermal overload relay	Standard	GTH-22	●	●	●	●	●		
		GTH-40	●	●	●	●	●		
		GTH-85	●	●	●	●	●		
		GTH-100	●	●	●	●	●		
		GTH-150	●	●	●	●	●		
		GTH-220	●	●	●	●	●		
		GTH-400	●	●	●	●	●		
		GTH-600	●	●	●	●	●		
		GTH-22/3	●						
	GTH-40/3	●							
	GTH-85/3	●							
	GTH-100/3	●							
	GTH-150/3	●							
	GTH-220/3	●							
	GTH-400/3	●							
	GTH-600/3	●							
	Phase loss protection	GTK-22	●	●	●	●	●	●	
		GTK-40	●	●	●	●	●	●	
GTK-85		●	●	●	●	●	●		
GTK-100		●	●	●	●	●	●		
GTK-150		●	●	●	●	●	●		
GTK-220		●	●	●	●	●	●		
GTK-400		●	●	●	●	●	●		
GTK-600	●	●	●	●	●	●			

※ Remark : ● Completion, ▲ Progressing

## Motor protection circuit breaker

### ● Certificate of approvals

A species of certification		Approvals						Certificates
A species of standard		Safety certificate	IEC	cUL		GB	Gosstandart	IEC
Mark or certification								
Type		Korea	Europe	U.S.A	Canada	China	Russia	Netherlands
MMS	MMS-32S	●	●	●		●	●	●
	MMS-32H	●	●	●		●	●	●
	MMW-32HI	●	●	●		●	●	●
	MMS-63S	●	●	●		●	●	●
	MMS-63H	●	●	●		●	●	●
	MMS-63HI	●	●	●		●	●	●
	MMS-100S	●	●	●		●	●	●
	MMS-100H	●	●	●		●	●	●
	MMS-100HI	●	●	●		●	●	●

※ Remark : ● Completion, ▲ Progressing

## ● Certificate of approvals

A species of certification		Approvals					Certificates		
A species of standard		Safety certificate	IEC	cUL		GB	Gosstandart	IEC	
Type	Mark or certification								
		S-Mark	CE	cUL		CCC	GOST	KEMA	TÜV
		Korea	Europe	U.S.A	Canada	China	Russia	Netherlands	Germany
Electronic motor protection relay	GMP22-2P	●	●	●			●		
	GMP22-2PD	●							
	GMP22-3P	●	●	●		●	●	●	
	GMP22-3PR	●	●	●		●		●	
	GMP40-2P	●	●	●			●		
	GMP40-2PD								
	GMP40-2PA								
	GMP40-3P	●	●	●		●	●	●	
	GMP40-3PR	●	●	●		●	●	●	
	GMP22-2S	●	●	●			●		
	GMP22-3S	●	●	●		●	●	●	
	GMP22-3SR	●	●	●		●	●	●	
	GMP40-2S	●	●	●					
	GMP40-3S	●	●	●		●		●	
	GMP40-3SR	●	●	●		●		●	
	GMP80-2S	●	●	●			●		●
	GMP80-3S	●	●	●			●		●
	GMP80-3SR	●	●	●			●		●
	GMP22-2T	●	●	●			●		
	GMP22-3T	●	●	●		●	●	●	
	GMP22-3TR	●	●	●		●	●	●	
	GMP40-2T	●	●	●					
	GMP40-3T	●	●	●		●		●	
	GMP40-3TR	●	●	●		●		●	
GMP60-T	●	●	●					●	
GMP60-TE	●		●					●	
Digital motor protection relay	DMP06-S	●	●	●		●	●		●
	DMP06-Sa	●	●	●		●			
	DMP06-T	●	●	●		●	●		●
	DMP06-Ta	●	●	●		●			
	DMP60-S	●	●	●		●	●		●
	DMP60-Sa	●	●	●		●			
	DMP60-T	●	●	●		●	●		●
	DMP60-Ta	●	●	●		●			
	DMP06-SZ	●	●	●		●	●		●
	DMP06-Sza	●	●	●		●			
	DMP06-TZ	●	●	●		●	●		●
	DMP06-Tza	●	●	●		●			
	DMP60-SZ	●	●	●		●	●		●
	DMP60-Sza	●	●	●		●			
	DMP60-TZ	●	●	●		●	●		●
	DMP60-Tza	●	●	●		●			
	DMP06-SI	●	●	●		●	●		●
	DMP06-TI	●	●	●		●	●		●
	DMP60-SI	●	●	●		●	●		●
	DMP60-TI	●	●	●		●	●		●

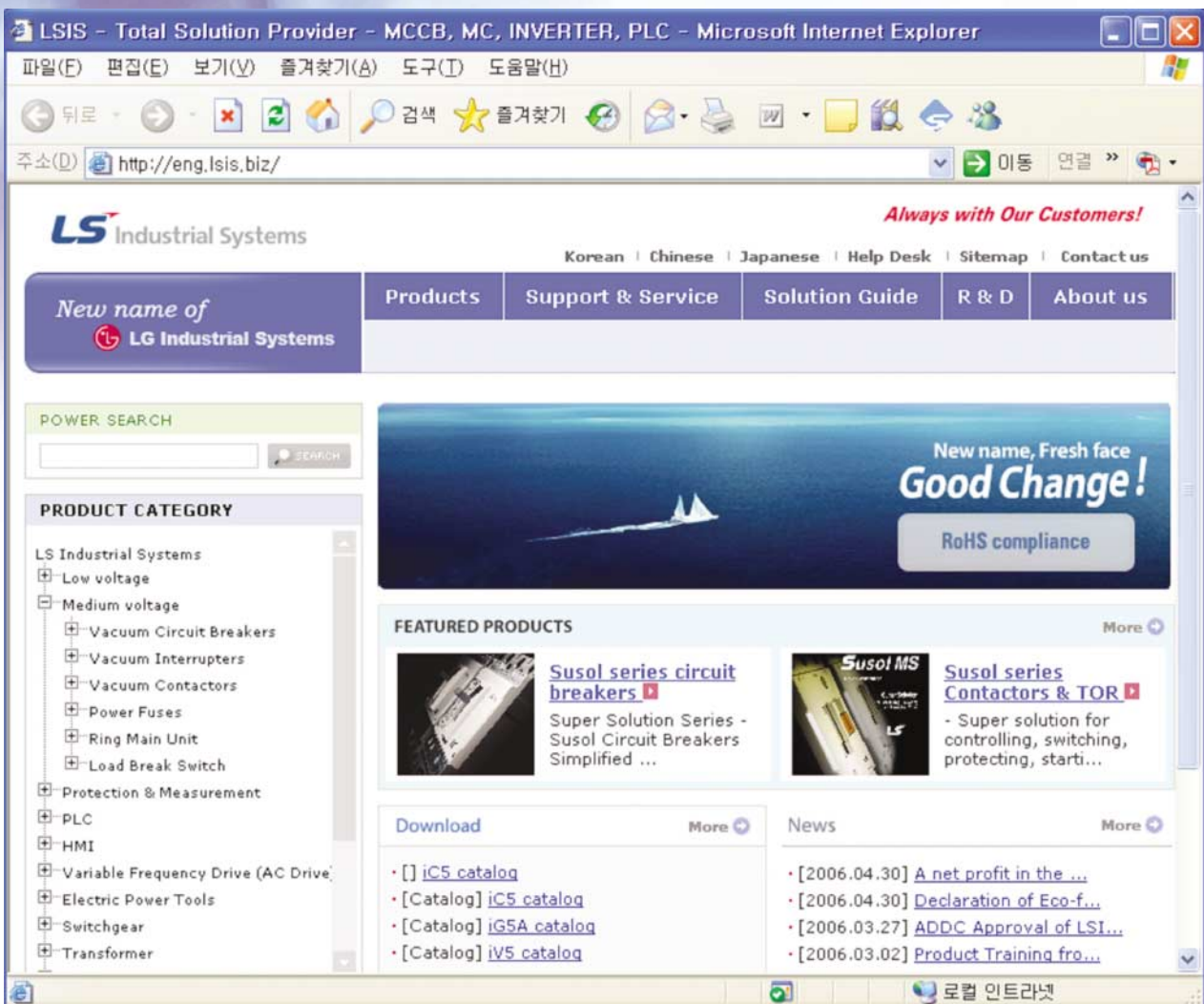
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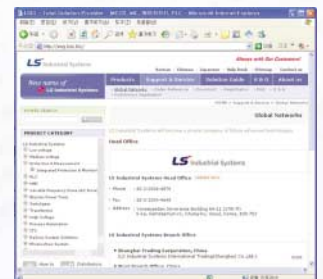
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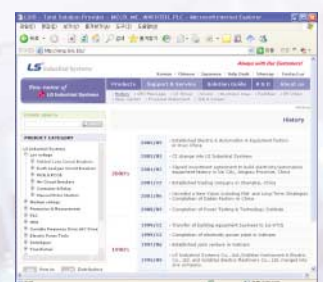
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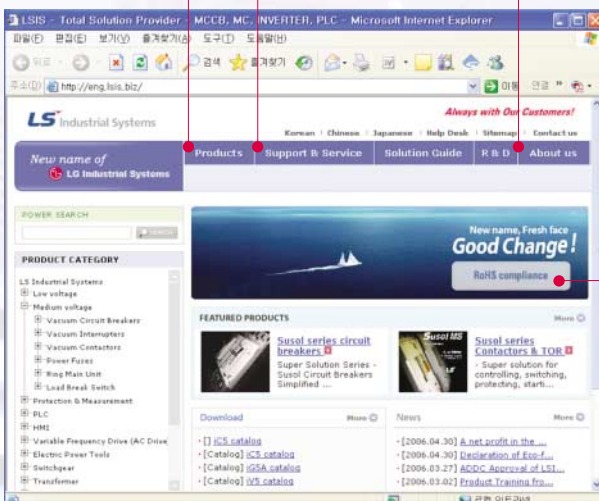
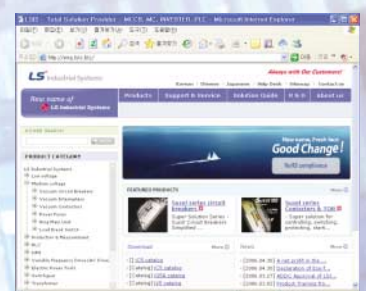
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## RoHS compliment menu

- RoHS : Directive on the Restriction of Hazardous Substances in the Electronic Equipment. (Effective on February 13,2003)



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- For your safety, please read user's manual thoroughly before operating.
- Contact the nearest authorized service facility for examination, repair, or adjustment.
- Please contact qualified service technician when you need maintenance. Do not disassemble or repair by yourself!
- Any maintenance and inspection shall be performed by the personnel having expertise concerned.

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