

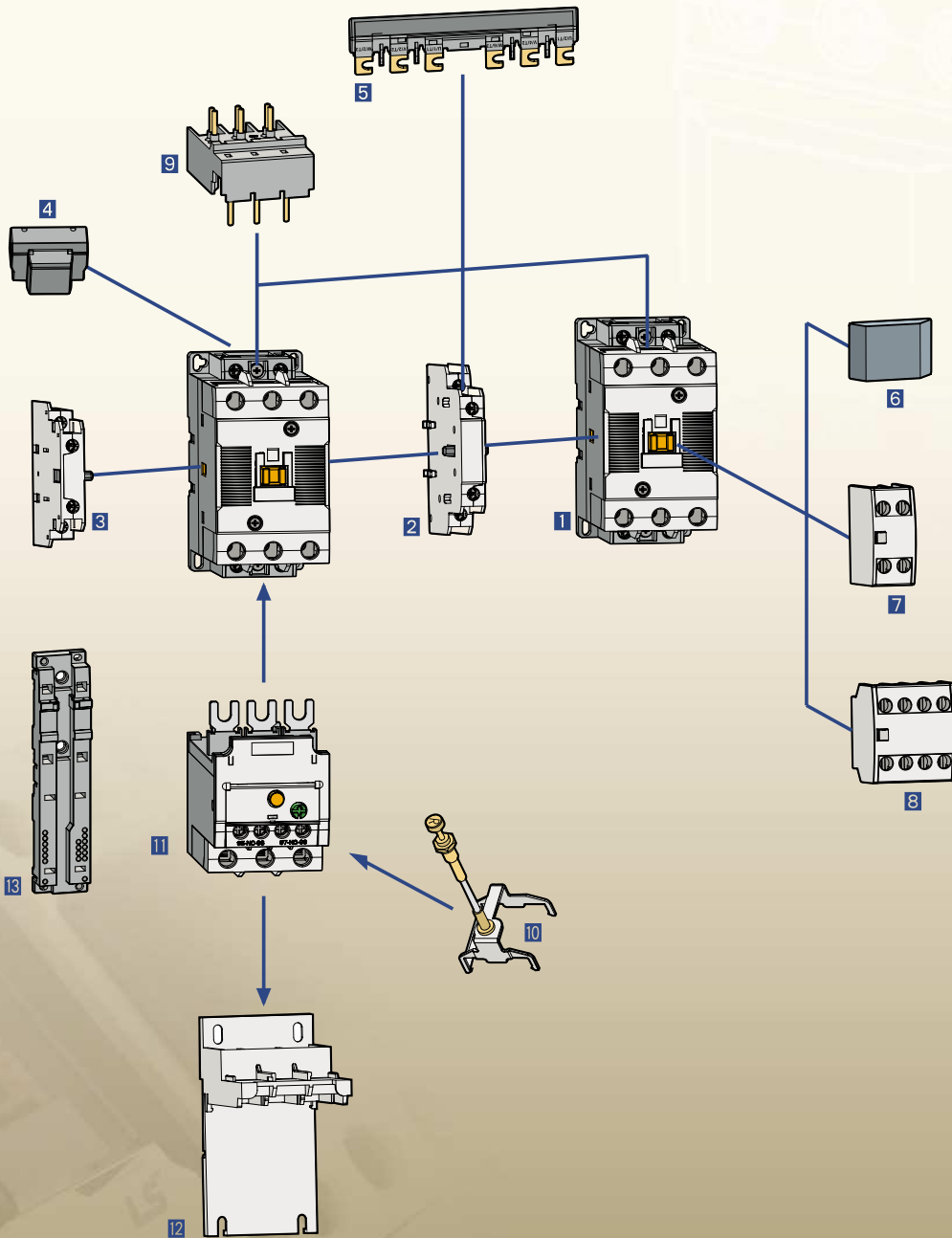


Metasol

Meta Solution

Contactors and Overload relays

Advanced accessories for Metasol contactors



Accessory layout upto 150AF

- | | | |
|---|--|--|
| 1 Contactor | 6 Safety cover (Option) | 10 Remote reset unit |
| 2 Interlock unit | 7 Auxiliary contact unit
- front mount(2p) | 11 Overload relay |
| 3 Auxiliary contact unit
- side mount | 8 Auxiliary contact unit
- front mount(4p) | 12 Separate mounting unit |
| 4 Surge unit | 9 Direct adaptor to MMS | 13 Mounting unit for use with MMS |
| 5 Wire kit | | |

Table of specifications

MC type Magnetic Contactors



Frame size			18AF				22AF				
Type	screws clamp terminals		MC-6a	MC-9a	MC-12a	MC-18a	MC-9b	MC-12b	MC-18b	MC-22b*	
Number of poles			3pole				3pole				
Rated operational voltage, Ue			690V				690V				
Rated insulation voltage, Ui			690V				690V				
Rated frequency			50/60Hz				50/60Hz				
Rated impulse withstand voltage, Uimp			6kV				6kV				
Maximum operating rate in operating cycles per hour(AC3)			1800 operations per hour				1800 operations per hour				
Durability	Mechanical		15 mil. operations				15 mil. operations				
	Electrical		2.5 mil. operations				2.5 mil. operations				
Current and power	AC-1, Thermal current	A	25	25	25	32	25	25	32	40	
		AC-3	200/240V	kW	2.2	2.5	3.5	4.5	2.5	3.5	4.5
			A	9	11	13	18	11	13	18	22
		380/440V	kW	3	4	5.5	7.5	4	5.5	7.5	11
			A	7	9	12	18	9	12	18	22
		500/550V	kW	3	4	7.5	7.5	4	7.5	7.5	15
			A	6	7	12	13	7	12	13	20
	690V	kW	3	4	7.5	7.5	4	7.5	7.5	15	
		A	4	5	9	9	6	9	9	18	
UL rating (50/60Hz)	Continuous current		25	25	25	32	25	25	40	40	
	Single phase	110~120V	HP	0.5	0.5	0.75	1	0.5	0.75	1	2
		220~240V	HP	1.5	1.5	2	3	1.5	2	3	3
	Three phase	200~208V	HP	2	2	3	5	2	3	5	7.5
		220~240V	HP	3	3	5	7.5	3	5	7.5	10
		440~480V	HP	5	5	7.5	10	5	7.5	10	15
	550~600V	HP	7.5	7.5	10	15	7.5	10	15	20	
NEMA size		00	00	0	0	00	00	0	0	1	
Size and weight	AC control	Weight	0.33				0.34				
		Size(W × H × D) mm	45 × 73.5 × 82				45 × 73.5 × 86				
	DC control	Weight	0.5				0.51				
		Size(W × H × D) mm	45 × 83 × 113.7				45 × 73.5 × 117.7				
Auxiliary(standard)			1a or 1b				1a1b				
Auxiliary	Side mount		UA-1				UA-1				
	Front mount		AU-2, AU-4				AU-2, AU-4				

Note) Minimum conduct current of Auxiliary contactor is DC 17V 5mA.

MT type Thermal Overload Relays



Type			MT-12/□	MT-32/□
Screws clamp terminals			●	●
Rated operational voltage, Ue			690V	690V
Rated insulation voltage, Ui			690V	690V
Rated impulse withstand voltage, Uimp			6kV	6kV
Trip class			10A, 20	10A, 20
Setting range			0.1~18A	0.1~40A
Size and weight	Weight	kg	0.1	0.17
		Size(W × H × D) mm	45 × 73.2 × 63.7	45 × 75 × 90

* The safety cover of magnetic contactor and thermal overload relay is optional.



40AF	
MC-32a	MC-40a
●	●
3pole	
690V	
1000V	
50/60Hz	
8kV	
1800 operations per hour	
12 mil. operations	
2 mil. operations	
50	60
7.5	11
32	40
15	18.5
32	40
18.5	22
28	32
18.5	22
20	23
50	60
2	3
5	7.5
7.5	15
10	15
20	30
25	30
1	1
0.55	
69 × 83 × 93	
0.77	
69 × 83 × 120	
UA-1	
AU-2, AU-4	



65AF	
MC-50a	MC-65a
●	●
3pole	
690V	
1000V	
50/60Hz	
8kV	
1800 operations per hour	
12 mil. operations	
2 mil. operations	
70	100
15	18.5
55	65
22	30
50	65
30	33
43	60
30	33
28	35
70	100
3	5
10	15
20	25
25	30
40	50
50	60
2	2
1.05	
79 × 106 × 122	
1.3	
79 × 106 × 149	
UA-1	
AU-2, AU-4	



100AF		
MC-75a	MC-85a	MC-100a
●	●	●
3pole		
690V		
1000V		
50/60Hz		
8kV		
1800 operations per hour		
12 mil. operations		
2 mil. operations		
110	135	160
22	25	30
75	85	105
37	45	55
75	85	105
37	45	55
64	75	85
37	45	45
42	45	65
110	135	160
5	7.5	10
15	15	20
25	30	30
30	40	40
50	60	75
60	75	75
2	3	3
1.93		
94 × 140 × 137		
2.8		
94 × 140 × 174		
UA-1		
AU-2, AU-4		



MT-32/□
●
690V
690V
6kV
10A, 20
0.1~40A
0.17
45 × 75 × 90



MT-63/□
●
690V
690V
6kV
10A, 20
4~65A
0.31/0.33
55 × 81 × 100



MT-95/□
●
690V
690V
6kV
10A, 20
7~100A
0.48/0.5
70 × 97 × 110


















Environment



Standards	IEC/EN 60947-1, IEC/EN 60947-4-1, UL508, K60947
Certifications	CE, UL
Rated insulation voltage (Ui)	1000V
Rated impulse withstand voltage (Uimp)	8kV
Degree of protection	IP20 (Conforming to IEC60529)
Ambient air temperature	Storage: -50° C ~ +80° C
	Operation: -5° C ~ +60° C
Operating altitude	3000m (8900ft)
Operating positions	
Shock resistance (1/2 sine wave =11ms)	Opened: 8G
	Closed: 10G
Vibration resistance (Conforming to IEC68-2-6) (5...300 Hz)	Opened: 2G
	Closed: 4G
Flame resistance	Conforming to UL 94: Vo
	Conforming to IEC 695-2-1: 960° C

Connections

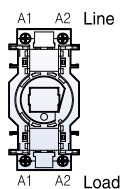
Connections

Frame	Wire type							Torque [Nm][lb-in]
		(mm ² /AWG)						
MC-18AF		1-6/18~10	1-6/18~10	1-6/18~10	1-6/18~10	1-6/18~10	1-10/18~8	up to 1.13/10
MC-22AF		1-6/18~10	1-6/18~10	1-6/18~10	1-6/18~10	1-6/18~10	1-10/18~8	up to 2.25/20
MC-40AF		1-6/18~10	2.5-10/14~8	2.5-10/14~8	2.5-10/14~8	2.5-10/14~8	1-10/18~8	up to 4/35
MC-65AF		-	-	-	-	-	1-25/12~4	up to 4/35
MC-100AF		-	-	-	-	-	1-25/12~4	up to 4/35
MC-150AF		-	-	-	-	-	1-25/12~4	up to 9.8/87
Coil terminal		0.5-2.5/20~14	0.75-25/18~12			0.5-25/20~12		up to 2.25/20
MC-225AF		-	-	-	-	-	2.5-150/8~300	up to 14.7/130
MC-400AF		-	-	-	-	-	2.5-200/8~700	up to 22.6/200
MC-800AF		-	-	-	-	-	80-325/ 2/0-Busbar	up to 26.5/500
Coil terminal		1.25-5.5/16~10	1.25-5.5/16~10			1.25-5.5/16~10		up to 1.75/15

Control coil characteristics



Frame size		18AF	22AF	40AF	65AF	100AF	150AF	
Type		MC-6a	MC-9b	MC-32a	MC-50a	MC-75a	MC-130a	
		MC-9a	MC-12b	MC-40a	MC-65a	MC-85a	MC-150a	
		MC-12a	MC-18b			MC-100a		
		MC-18a	MC-22b					
AC coil								
Control voltage	[Uc]							
	50Hz	24, 32, 36, 42, 48, 80, 100, 110, 220, 230, 240, 380, 400, 415, 440, 500, 550V					24, 48, 110,	
	60Hz	24, 48, 100, 110, 120, 200, 208, 220, 230, 240, 277, 380, 440, 480, 600V					220, 300,	
	50/60Hz	24, 48, 100, 110, 120, 200, 220, 230, 240, 380, 415, 440, 500, 550V					400, 500	
Voltage limit	[Uc]							
	Pick-up	85 ~ 110% (50Hz)						
	Drop-out	85 ~ 110% (60Hz)						
		30 ~ 60%						
Coil consumption at 20°C								
AC 220V	Inrush	58/56	58/56	53/50	110/104	229/216	108/104	
	Holding	9.0/6.0	9.0/6.0	12.0/9.0	13.0/10.0	17.0/13.0	18.0/21.0	
Heat dissipation	[W]	2.1/1.5	2.1/1.5	2.7/2.2	2.8/2.4	5.4/4.7	2.7/3.6	
Operating time								
	Closing	12 ... 22	12 ... 22	12 ... 22	12 ... 22	15 ... 30	20 ... 40	
	Opening	4 ... 19	4 ... 19	4 ... 19	4 ... 19	10 ... 30	60 ... 70	
DC coil								
Control voltage	[Uc]	12, 20, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250					24, 48, 110, 220	
Voltage limit	[Uc]							
	Pick-up	70 ~ 110%						
	Drop-out	10 ~ 30%						
Coil consumption at 20°C								
DC 110V	Inrush	9	9	7	9	18	213	
	Holding	9	9	7	9	18	7.5	
Time constant (L/R)	[ms]	28	28	28	65	75		
Operating time								
	Closing	35 ... 50	35 ... 50	50 ... 65	50 ... 65	100 ... 120	70 ... 80	
	Opening	4 ... 19	4 ... 19	4 ... 19	4 ... 19	10 ... 25	60 ... 70	

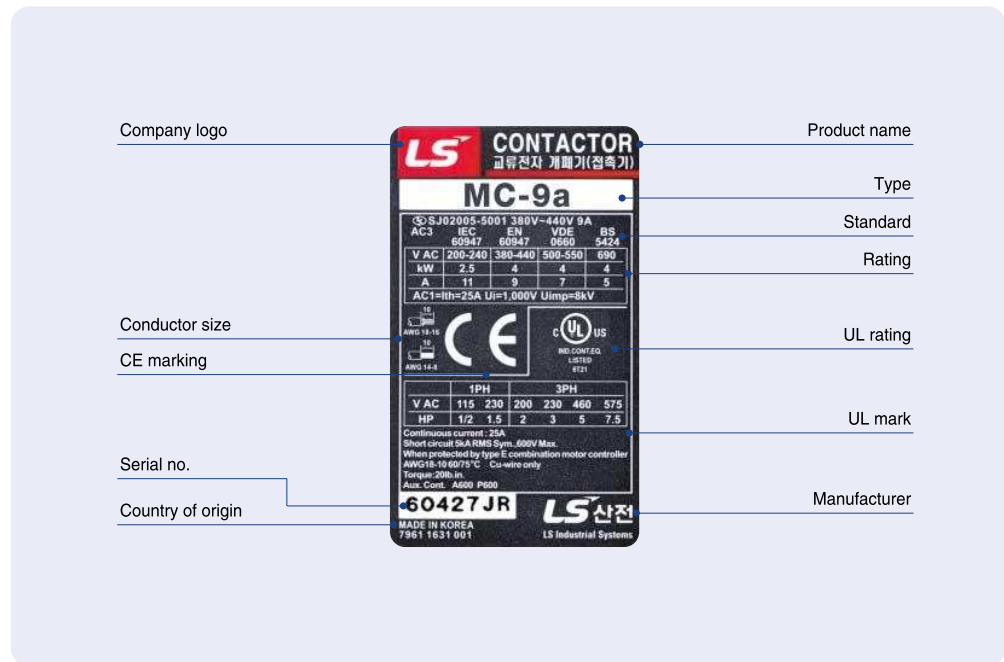
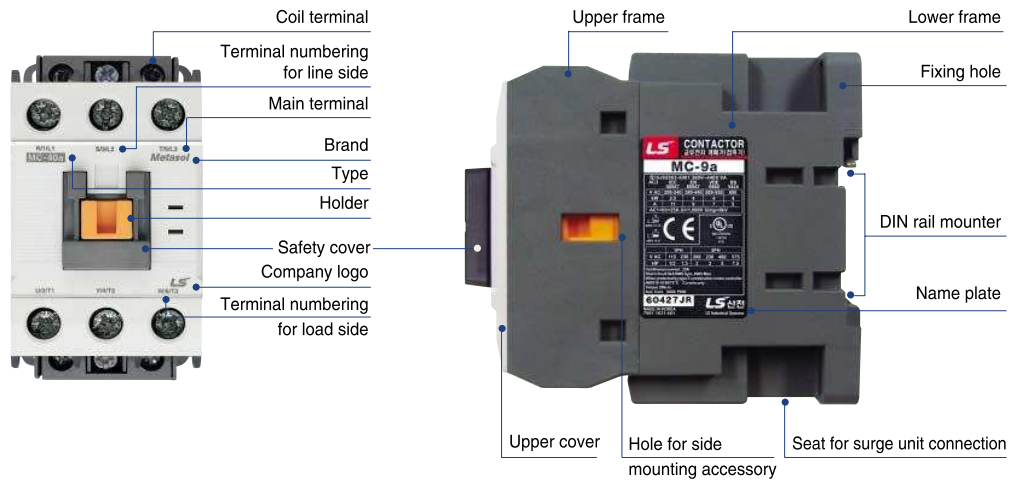


Note) A1(A2) in line side is internally connected to A1(A2) in load side.

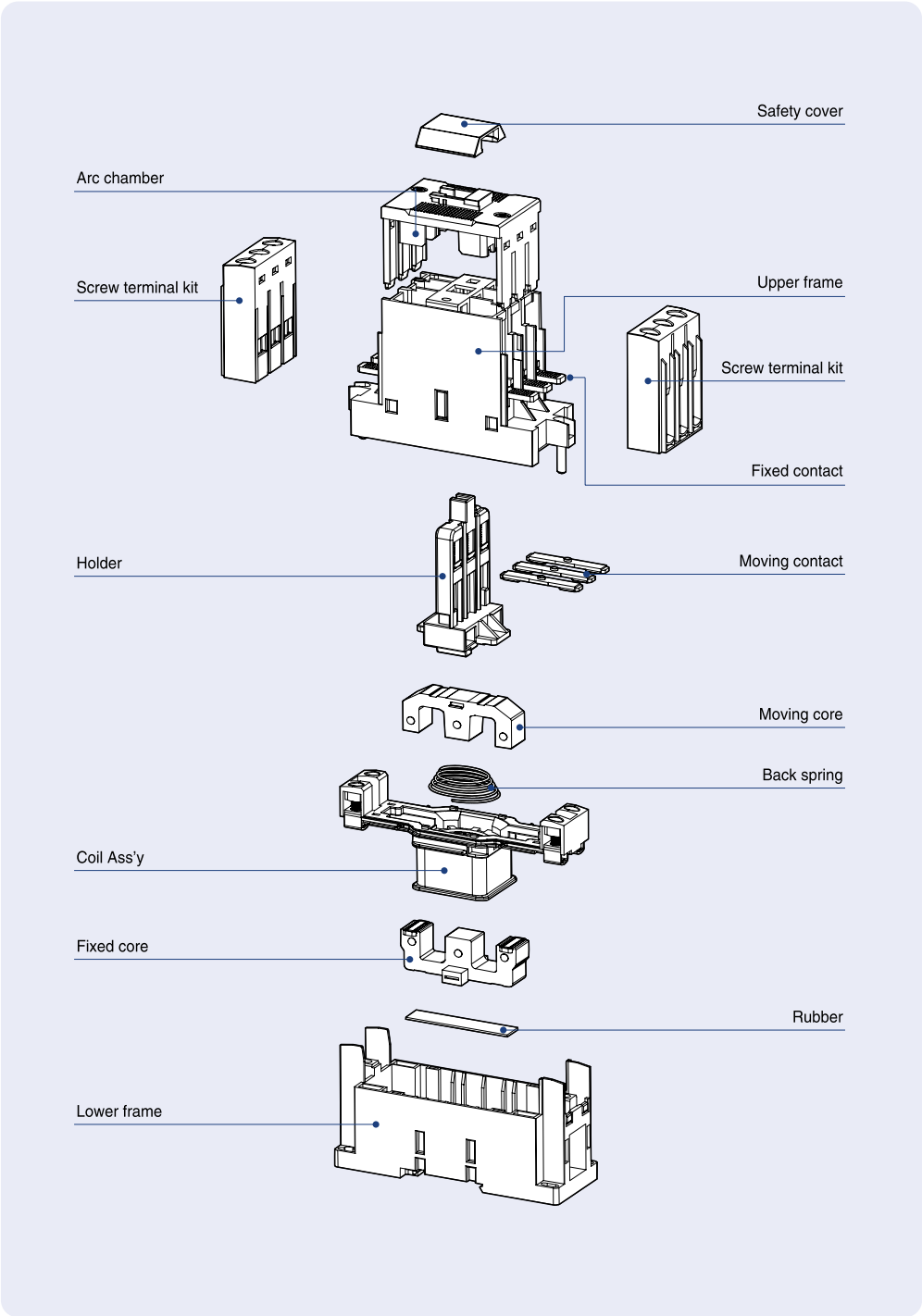


Frame size			225AF	400AF	800AF
Type			MC-185a	MC-265a	MC-500a
			MC-225a	MC-330a MC-400a	MC-630a MC-800a
AC/DC common coil					
Control voltage [Uc]					
	AC/DC		24/24	-	-
	AC/DC		48/48	-	100/100
	AC/DC		100~240/100~220	100~240/100~220	200/200
	AC		300	300	300
	AC		400	400	400
	AC		500	500	500
Voltage limit [Uc]					
	Pick-up			86~110%	
	Drop-out			30~60%	
Coil consumption at 20°C					
AC 220V	Inrush	[VA]	380	571	1000
50/60Hz	Holding	[VA]	11.6	14	29
Heat dissipation		[W]	4.7	5	7.8
Operating time					
	Closing	[ms]	70	55	75
	Opening	[ms]	70	55	75

Marking



Internal structure



Contactors (65AF)

Metasol

Description

- 3-pole(NO) main contact
- Finger proof design
- DIN rail or screw mountable
- AC or DC control in different physical size
- Front/side mountable accessories available
- Direct mountable overload relay available Rating



MC-65a

Rating

Contactor type			MC-50a		MC-65a		
			kW	A	kW	A	
AC duty	AC3	200/240V	15	55	18.5	65	
		380/440V	22	50	30	65	
		500/550V	30	43	33	60	
		690V	30	28	33	35	
	AC4	200/240V	7.5	35	11	50	
		380/440V	15	32	22	47	
AC1		-	70	-	100		
DC1 duty (L/R=1ms)	2-pole	24V	-	70	-	90	
		in series	48V	-	70	-	90
		110V	-	50	-	75	
	3-pole	24V	-	70	-	90	
		in series	48V	-	70	-	90
		110V	-	60	-	80	
DC2, 4 duty (L/R=15ms)	2-pole	24V	-	45	-	55	
		in series	48V	-	40	-	45
		110V	-	25	-	38	
	3-pole	24V	-	55	-	75	
		in series	48V	-	50	-	65
		110V	-	35	-	55	
Directly mountable Overload relay			MT-63				
Conductor size (solid, stranded) (the max. number of conducts: 2)	AWG		10~4		8~3		
	mm ²		6~25		10~35		
Conductor type			65/75°C Cu-wire only				



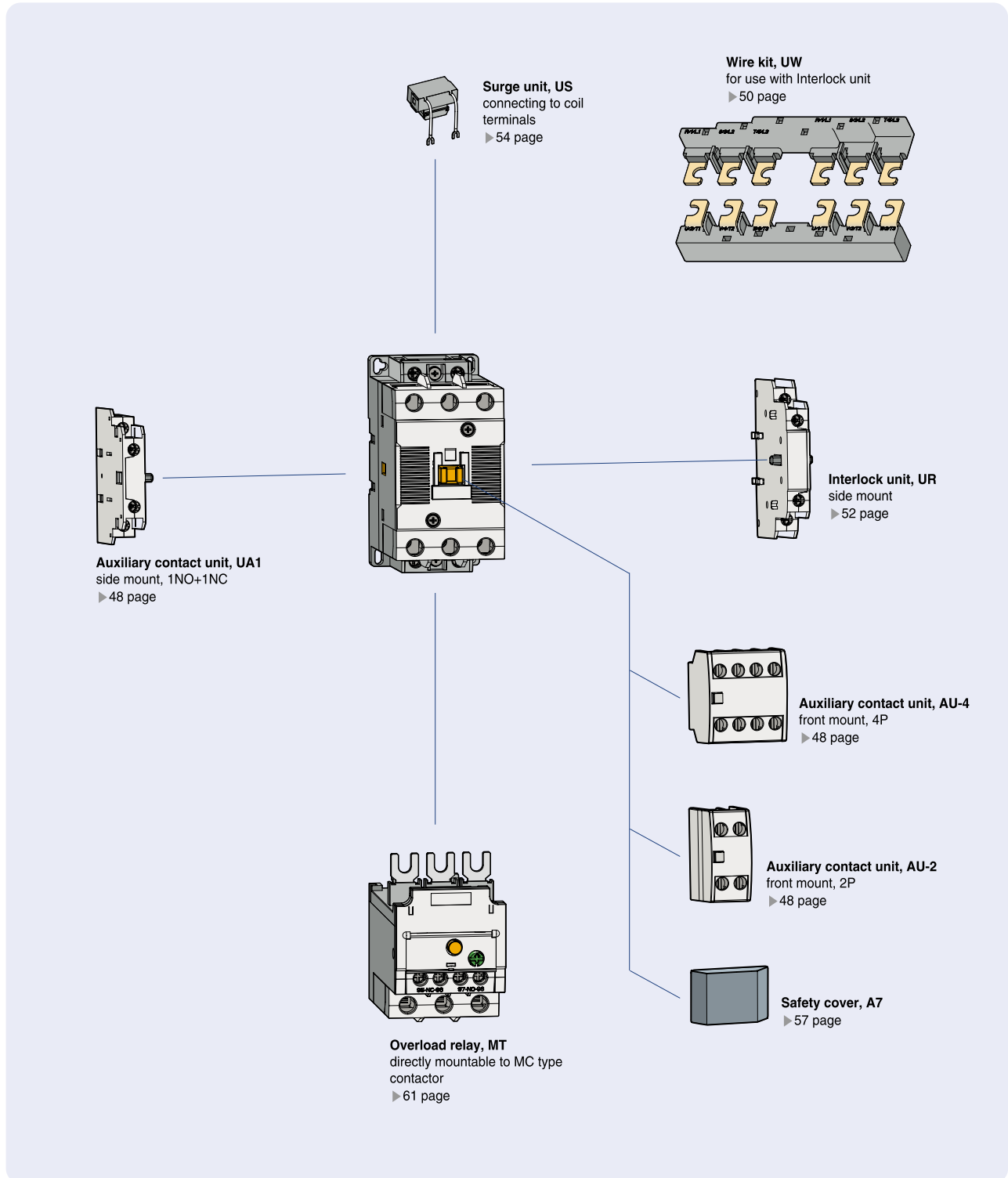
Coil voltage

AC	50Hz	24, 32, 42, 48, 80, 100, 110, 220, 230, 240, 380, 400, 500, 550V
	60Hz	24, 48, 110, 110, 12, 200, 208, 220, 230, 240, 277, 380, 480, 600V
		50/60Hz
DC	DC	12, 20, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250V

Certification

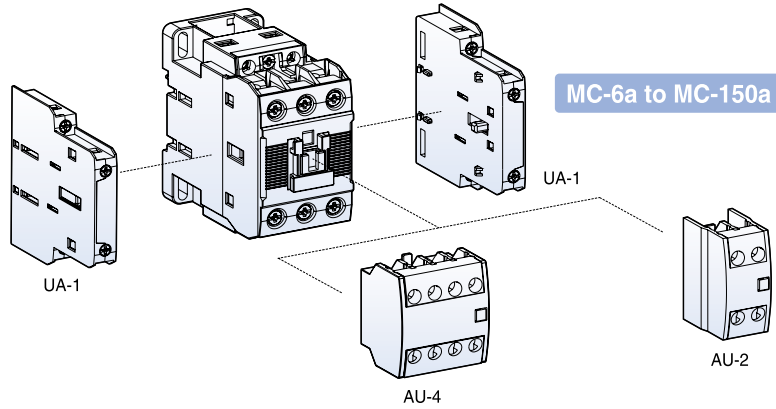
- CE(IEC)
- UL508

Accessories



Auxiliary contact units

- 2 and 4 pole
- Side or front mountable
- Common use for Metasol contactors from MC-6 to MC-150a



Selection

Type	Appearance	Pole	Composition		Contact arrangement	Mount	Weight
			NO	NC			
UA-1		2	1	1	<p>13(43) 21(31) 14(44) 22(32)</p>	Side	53g
AU-2		2	2 1 -	- 1 2	<p>53 63 51 63 51 61 54 64 52 64 52 62</p>	Front	28g
AU-4		4	4 3 2 1 -	- 1 2 3 4	<p>53 63 73 83 53 61 73 83 53 61 71 83 54 64 74 84 54 62 74 84 54 62 72 84</p> <p>51 63 71 81 51 61 71 81 52 64 72 82 52 62 72 82</p>	Front	50g

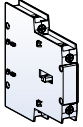
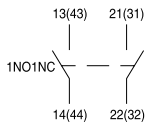
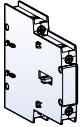
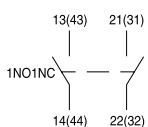
Maximum combination of contact units

For contactors with AC coils	For contactors with DC coils
AU-4(on front)+UA-1 × 4EA (2EA on both sides)	AU-4(on front)+UA-1 × 2EA (1EA on both sides)
AU-2(on front)+UA-1 × 4EA (2EA on both sides)	AU-2(on front)+UA-1 × 2EA (1EA on both sides)

- 2 pole
- Side mountable
- MC MC Common use for Metasol contactors from MC-185a to MC-800a



Selection

Type	Appearance	Pole	Composition		Contact arrangement	Mount	Weight
			NO	NC			
AU-100		2	1	1		Side	53g
AU-100E		2	1	1		Side	53g

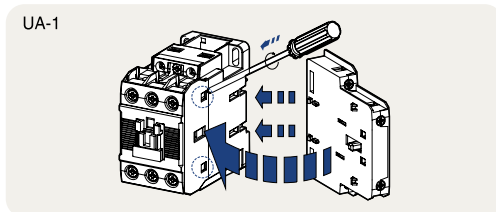
Auxiliary contact units

Rating

Type	UA-1	AU-2, 4	AU-100	AU-100E		
Rated operation voltage (Ue)	600V	600V	600V	60V		
Rated insulation voltage (Ui)	600V	600V	600V	600V		
Rated impulse withstand voltage (Uimp)	6kV	6kV	6kV	6kV		
Rated frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz		
Contact sensibility						
Voltage	DC 17V	DC 24V	DC 24V	DC 7V		
Current	DC 5mA	DC 10mA	DC 10mA	DC 5mA		
Rated thermal current (Ith, AC12 duty)	10A	16A	16A	1A		
Rated operation current						
AC15 duty (A600)	120V 240V 380V 480V 500V 600V	6A 3A 1.9A 1.5A 1.4A 1.2A	6A 3A 1.9A 1.5A 1.4A 1.2A	6A 3A 1.9A 1.5A 1.4A 1.2A	AC/DC 24V 0.1A AC/DC 50V 0.01A	
DC13 duty (P600)	125V 250V 400V 500V 600V	1.1A 0.55A 0.31A 0.27A 0.2A	1.1A 0.55A 0.31A 0.27A 0.2A	1.1A 0.55A 0.31A 0.27A 0.2A		
Electrical lifetime (mil. operations)						
AC15 duty	220V 440V	0.5 0.5	0.5 0.5	0.5 0.5		AC/DC 24V 1A AC/DC 50V 1A
DC13 duty	220V 440V	0.5 0.5	0.5 0.5	0.5 0.5		
Maximum operating cycles per hour		1800	1800	1800		1200
Conductor size (Solid, stranded)	AWG	18~10	18~10	18~10		18~10
(the max. number of conducts: 2)	mm ²	1~2.5	1~2.5	1~2.5		1~2.5

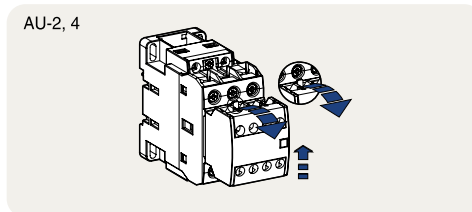
Installation

UA-1



To install side mounting unit remove the indicated part in the fig. first. And then fit each part as shown. To separate push forward and pull.

AU-2, 4



To install front mounting unit fit it on the upper part in the circle in the fig. first. And then fit each part of the front of the contactor and push it down. To separate pull the lever of the unit and push the unit upward.

Delayed opening devices



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	
		Delayed opening device coil	Contactor device coil
MC-185a, 225a (225AF)	AD-100	AC100~110V	DC100/110V
MC-265a, 330a, 400a (400AF)	AD-300	AC200~220V	DC200/220V
MC-500a, 630a, 800a (800AF)	AD-600		

Terminal cover units for contactors



Applying contactors	Type	Remarks
MC-185a, 225a (225AF)	AP-220	
MC-265a, 330a, 400a (400AF)	AP-400	2 pcs included
MC-500a, 630a, 800a (800AF)	AP-800	

Insulation barrier units



Applying contactors	Type	Remarks
MC-185a, 225a (225AF)	AI-180	4 pcs required per contactor
MC-265a, 330a, 400a (400AF)		
MC-500a, 630a, 800a (800AF)	AI-600	

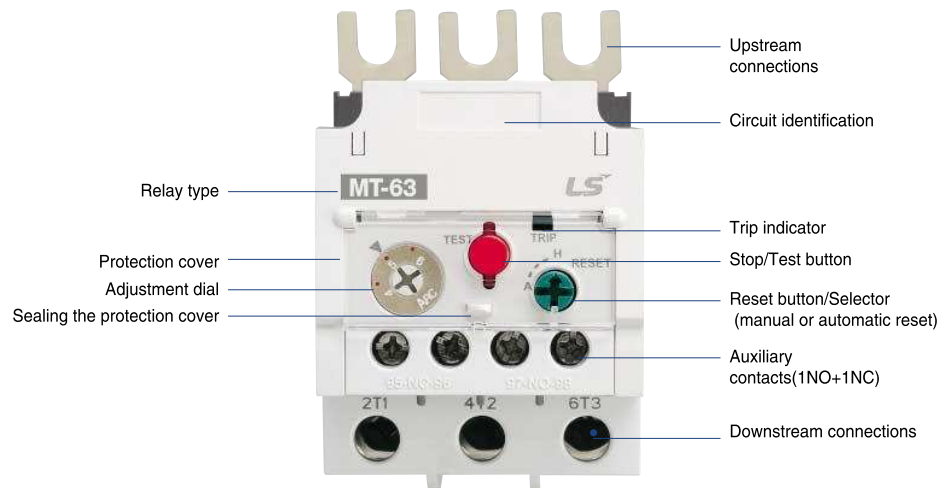
General descriptions

Type MT, bimetal-style, overload relays are designed to protect AC circuits and motors against overloads, phase failure, long starting times and prolonged stalling of the motor.

Four versions are available according to the protection function and trip class as below.

1. Non-differential: 3pole-2bimetal(heater) and trip class 10A
2. Non-differential: 3pole-3bimetal(heater) and trip class 10A
3. Differential: 3pole-3bimetal(heater) and trip class 10A
4. Differential: 3pole-3bimetal(heater) and trip class 20

Configuration of the front



MT-12

MT-32

MT-63

MT-95



Environment and auxiliary circuit

Environment		MT-12~150	MT-225~800
Standards		IEC/EN 60947-1, IEC/EN 60947-4-1	IEC/EN 60947-1, IEC/EN 60947-4-1
Certifications		CE, CSA, UL	CE, CSA, UL
Rated operation voltage		Max. 690V	Max. 690V
Rated insulation voltage		690V	690V
Rated frequency		50/60Hz	50/60Hz
Degree of protection (Conforming to IEC 60 529)		IP 20	IP 20
Ambient air temperature	Storage	-55 ~ +80° C	-55 ~ +80° C
	Operation	-5 ~ +60° C	-5 ~ +60° C
Mounting position		Vertical plane	Vertical plane
Shock resistance (Conforming to IEC 68-2-7)		15gn - 11ms	15gn - 11ms
Vibration resistance (Conforming to IEC68-2-6)		6G	6G
Insulation strength (Conforming to IEC 255-5)		6kV	6kV
Rated impulse withstand voltage (Conforming to IEC 801-5)		6kV	6kV
Auxiliary contacts characteristics			
Composition		1a1b (1NO +1NC)	1NO+1NC
Rated thermal current		5A	5A
Rated operation current		C600, R300	C600, R300
AC15 duty (C600)	120V	1.5A	2.5A
	240V	0.75A	2A
	380V	0.47A	0.47A
	480V	0.375A	0.375A
	500V	0.35A	0.35A
	600V	0.3A	1A
DC13 duty (R300)	120V	0.22A	0.28A
	240V	0.1A	0.14A
Connecting conductor	Size	18AWG /1mm ²	18AWG /1mm ²
Connection to screw clamp terminals	Type	65/75° C Cu-wire	65/75° C Cu-wire



Overload relay specifications

MT type Thermal Overload Relays



MT-12/3K□

Frame size		
Trip class		
Type	Non-differential(3P-2 heater)	
	Non-differential(3P-3 heater)	
	Differential type	
Terminal type		
Number of poles		
Rated operational voltage (Ue)		
Rated insulation voltage (Ui)		
Rated impulse voltage (Uimp)		
Degree of protection (IEC 60 529)		
Temperature compensation (° C)		
Functions	Trip indicating	
	Stop	
	Test	
	Manual/Automatic Reset	
Setting range(A)		
Nominal current rating	Wire size	
	mm ²	AWG
0.14	1	18
0.21		
0.33		
0.52		
0.82		
1.3		
2.1		
3.3		
5		
6.5		
7.5	1~1.5	18~16
8.5		
11	1.5~2.5	16~14
15	2.5	14~12
19	2.5~4	12~10
21.5		
27	4~6	10
30	4~10	10~8
34	6~10	10~8
42	10	8
54		
65	16~25	6~4
74		
83	25~35	4~3
90		
Applied contactors		
Separate mounting unit		

18AF	
10A	20
MT-12/2H□	-
MT-12/3H□	-
MT-12/3K□	MT-12/3D□
Screw clamp	
3	
690V	
Up to 690V	
6kV	
IP 20	
-5~+40°C	
	■
	-
	■
	■
0.1~18A	1~18A
0.1~0.16	
0.16~0.25	
0.25~0.4	
0.4~0.63	
0.63~1	
1~1.6	1~1.6
1.6~2.5	1.6~2.5
2.5~4	2.5~4
4~6	4~6
5~8	5~8
6~9	6~9
7~10	7~10
9~13	9~13
12~18	12~18
MC-6a, 9a, 12a, 18a	
-	



MT-32/3K□

40AF

10A	20
MT-32/2H□	-
MT-32/3H□	-
MT-32/3K□	MT-32/3D□

Screw clamp

3

690V

Up to 690V

6kV

IP 20

-5~+40°C

■

■

■

■

0.1~40A

1~40A

0.1~0.16

0.16~0.25

0.25~0.4

0.4~0.63

0.63~1

1~1.6

1~1.6

1.6~2.5

1.6~2.5

2.5~4

2.5~4

4~6

4~6

5~8

5~8

6~9

6~9

7~10

7~10

9~13

9~13

12~18

12~18

16~22

16~22

18~25

18~25

22~32

22~32

-

-

28~40

28~40

MC-9b, 12b, 18b, 22b, 32a, 40a

UZ-32



MT-63/3K□S

65AF

10A	20
MT-63/2H□S	-
MT-63/3H□S	-
MT-63/3K□S	MT-63/3D□S

Screw clamp

3

690V

Up to 690V

6kV

IP 20

-5~+40°C

■

■

■

■

4~65A

4~6

4~6

5~8

5~8

6~9

6~9

7~10

7~10

9~13

9~13

12~18

12~18

16~22

16~22

18~25

18~25

-

-

24~36

24~36

28~40

28~40

34~50

34~50

45~65

45~65

MC-50a, 65a

UZ-63/S



MT-95/3K□S

100AF

10A	20
MT-95/2H□S	-
MT-95/3H□S	-
MT-95/3K□S	MT-95/3D□S

Screw clamp

3

690V

Up to 690V

6kV

IP 20

-5~+40°C

■

■

■

■

7~100A

7~10

7~10

9~13

9~13

12~18

12~18

16~22

16~22

18~25

18~25

-

-

24~36

24~36

28~40

28~40

34~50

34~50

45~65

45~65

54~75

54~75

63~85

63~85

70~95

70~95

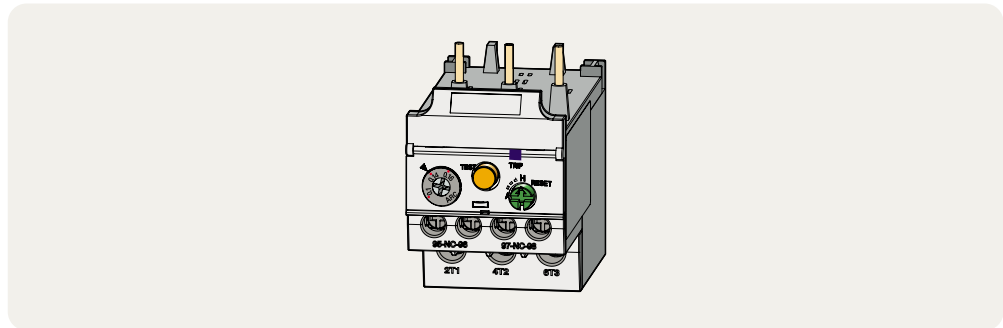
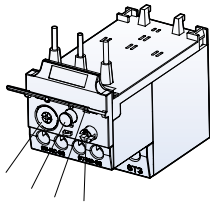
80~100

80~100

MC-75a, 85a, 100a

UZ-95/S

Overload relay operation

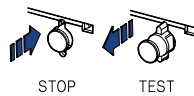


1. Adjustment dial



Before adjusting the dial open the protection cover.
Current setting can be done easily by using (+) or (-) driver.
Do not rotate the dial out of the setting range.

2. Stop/Test button



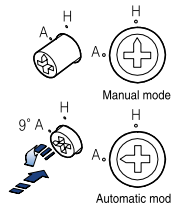
STOP function is executed by pushing the button,
which causes the next sequence.
In case of operation test pull this button.

3. Trip indicator



If relay is tripped it comes out.

4. Reset button/Selector



Using a driver the reset mode can be set.
In case of Manual mode(H) push the button to reset the relay.
To change to Automatic mode(A) from Manual mode push the button and rotate as shown in the fig.

5. Auxiliary contact operation

Terminal no.	Normal	STOP	TEST/TRIP	RESET
NC 95-96				
NO 97-98				

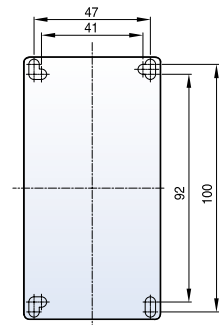
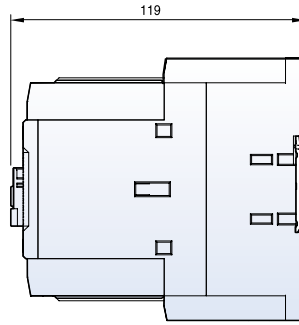
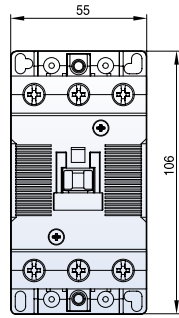
Rated short circuit breaking capacity of installation

Manual Motor Starter	Adjustment Range (A)	Manual Motor Controller Group Installation			Applied Contactor (Susol MC)	Applied Contactor (Metasol MC)	Applied Contactor (Meta-MEC GMC)
		Short Circuit Rating(KAIC)					
		240V	480Y/277V	600Y/347V			
32AF Rotary operation, standard interruption							
MMS-32H-0.16	0.1~0.16	100	65	25	MC-9	MC-6a/MC-9a/MC-9b	GMC-6M/GMC-9
MMS-32H-0.25	0.16~0.25	100	65	25	MC-9	MC-6a/MC-9a/MC-9b	GMC-6M/GMC-9
MMS-32H-0.4	0.25~0.4	100	65	25	MC-9	MC-6a/MC-9a/MC-9b	GMC-6M/GMC-9
MMS-32H-0.63	0.4~0.63	100	65	25	MC-9	MC-6a/MC-9a/MC-9b	GMC-6M/GMC-9
MMS-32H-1	0.63~1	100	65	25	MC-9	MC-6a/MC-9a/MC-9b	GMC-6M/GMC-9
MMS-32H-1.6	1~1.6	100	65	25	MC-9	MC-6a/MC-9a/MC-9b	GMC-9M/GMC-9
MMS-32H-2.5	1.6~2.5	100	65	25	MC-12	MC-12a/MC-12b	GMC-12M/GMC-12
MMS-32H-4	2.5~4	100	65	25	MC-12	MC-12a/MC-12b	GMC-12M/GMC-12
MMS-32H-6	4~6	100	65	25	MC-18	MC-18a/MC-18b	GMC-18
MMS-32H-8	5~8	100	65	10	MC-18	MC-18a/MC-18b	GMC-18
MMS-32H-10	6~10	100	65	10	MC-18	MC-18a/MC-18b	GMC-18
MMS-32H-13	9~13	100	65	10	MC-25	MC-22b/MC-25a	GMC-22
MMS-32H-17	11~17	100	30	10	MC-25	MC-22b/MC-25a	GMC-22
MMS-32H-22	14~22	100	30	10	MC-25	MC-22b/MC-25a	GMC-32
MMS-32H-26	18~26	100	30	10	MC-32	MC-32a	GMC-32
MMS-32H-32	22~32	100	30	10	MC-32	MC-32a	GMC-32
MMS-32H-40	28~40	100	30	10	-	MC-35a/MC-40a	-
63AF Rotary operation, standard interruption							
MMS-63S-10	6~10	100	50	10	MC-35	MC-50a	GMC-32
MMS-63S-13	9~13	100	50	10	MC-35	MC-50a	GMC-32
MMS-63S-17	11~17	100	40	10	MC-35	MC-50a	GMC-32
MMS-63S-22	14~22	100	40	10	MC-35	MC-50a	GMC-32
MMS-63S-26	18~26	100	40	10	MC-35	MC-50a	GMC-32
MMS-63S-32	22~32	100	40	10	MC-35	MC-50a	GMC-32
MMS-63S-40	28~40	100	40	10	MC-40	MC-50a	GMC-40
MMS-63S-50	34~50	100	40	10	MC-50	MC-50a	GMC-50
MMS-63S-63	45~63	100	40	10	MC-63	MC-65a	GMC-65
MMS-63S-65	47~65	100	40	10	-	MC-65a	-
63AF Rotary operation, High interruption							
MMS-63H-10	6~10	100	65	25	MC-35	MC-50a	GMC-32
MMS-63H-13	9~13	100	65	25	MC-35	MC-50a	GMC-32
MMS-63H-17	11~17	100	50	10	MC-35	MC-50a	GMC-32
MMS-63H-22	14~22	100	50	10	MC-35	MC-50a	GMC-32
MMS-63H-26	18~26	100	50	10	MC-35	MC-50a	GMC-32
MMS-63H-32	22~32	100	50	10	MC-35	MC-50a	GMC-32
MMS-63H-40	28~40	100	50	10	MC-40	MC-50a	GMC-40
MMS-63H-50	34~50	100	50	10	MC-50	MC-50a	GMC-50
MMS-63H-63	45~63	100	50	10	MC-63	MC-65a	GMC-65
MMS-63H-65	47~65	100	40	10	-	MC-65a	-
100AF Rotary operation, Standard interruption							
MMS-100S-17	11~17	100	50	10	MC-65	MC-75a	GMC-50
MMS-100S-22	14~22	100	50	10	MC-65	MC-75a	GMC-50
MMS-100S-26	18~26	100	50	10	MC-65	MC-75a	GMC-50
MMS-100S-32	22~32	100	50	10	MC-65	MC-75a	GMC-50
MMS-100S-40	28~40	100	50	10	MC-65	MC-75a	GMC-50
MMS-100S-50	34~50	100	50	10	MC-65	MC-75a	GMC-50
MMS-100S-63	45~63	100	40	10	MC-65	MC-75a	GMC-65
MMS-100S-75	55~75	100	40	10	MC-75	MC-75a	GMC-75
MMS-100S-90	70~90	100	40	10	MC-85	MC-85a	GMC-85
MMS-100S-100	80~100	100	40	10	MC-95	MC-100a	GMC-85
100AF Rotary operation, High interruption							
MMS-100H-17	11~17	100	65	25	MC-65	MC-75a	GMC-50
MMS-100H-22	14~22	100	65	20	MC-65	MC-75a	GMC-50
MMS-100H-26	18~26	100	65	20	MC-65	MC-75a	GMC-50
MMS-100H-32	22~32	100	65	20	MC-65	MC-75a	GMC-50
MMS-100H-40	28~40	100	65	20	MC-65	MC-75a	GMC-50
MMS-100H-50	34~50	100	65	20	MC-65	MC-75a	GMC-50
MMS-100H-63	45~63	100	50	10	MC-65	MC-75a	GMC-65
MMS-100H-75	55~75	100	50	10	MC-75	MC-75a	GMC-75
MMS-100H-90	70~90	100	50	10	MC-85	MC-85a	GMC-85
MMS-100H-100	80~100	100	50	10	MC-95	MC-100a	GMC-85

Contactors (65AF)

Metasol

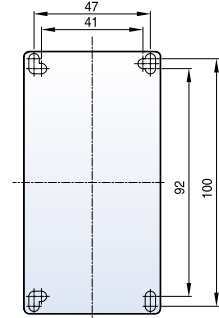
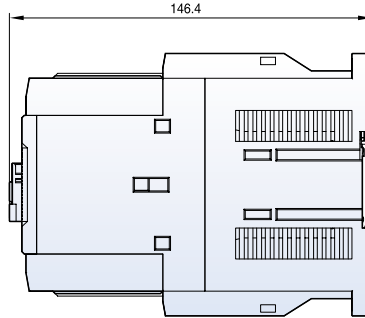
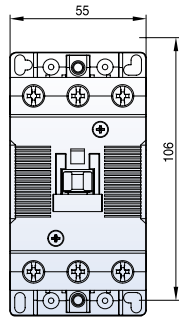
MC-50a~65a AC



[mm]

0.9kg

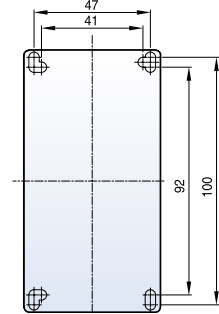
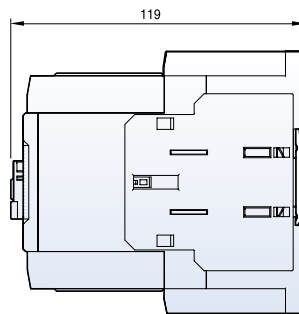
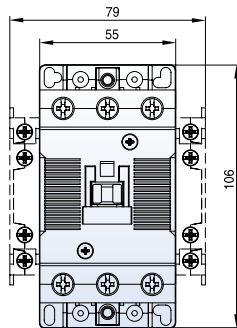
MC-50a~65a DC



1.2kg

MC-50a~65a AC

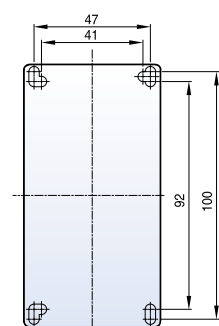
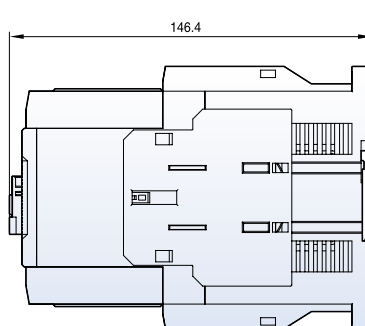
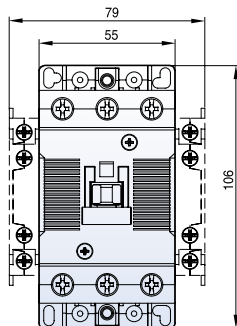
2a2b



1kg

MC-50a~65a DC

2a2b



1.3kg