



MC/TOR

25 Models in 9 Frames

High reliability from optimum design

Metasol

Meta solution

- Compact design for space saving
- DIN rail and screw mountable
- Directly mountable overload relays provided separately
- Easy to combine with manual motor starters by using adapter and wiring kit
- Finger-proof design
- Broad range of accessories
- World class products conforming to IEC and UL standards

18AF

Contactor

MC-6a, 9a, 12a, 18a

Rated current: 6, 9, 12, 18A
 Rated insulation voltage: 690V
 Type II : 150kA @415V Max.

Overload relay MT-12

Current range: 0.1~18A
 Trip class: Class10, 20



22AF

Contactor

MC-9b, 12b, 18b, 22b

Rated current: 9, 12, 18, 22A
 Rated insulation voltage: 690V
 Type II : 150kA @415V Max.

Overload relay MT-32

Current range: 0.1~40A
 Trip class: Class10, 20



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		A	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
		200~208V	HP	2	2	3	5	2	3	5	7.5
	Three phase	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	1	
Size and weight	AC control	Weight	kg	0.33				0.34			
		Size(W × H × D)	mm	45 × 73.5 × 82				45 × 73.5 × 86			
	DC control	Weight	kg	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			

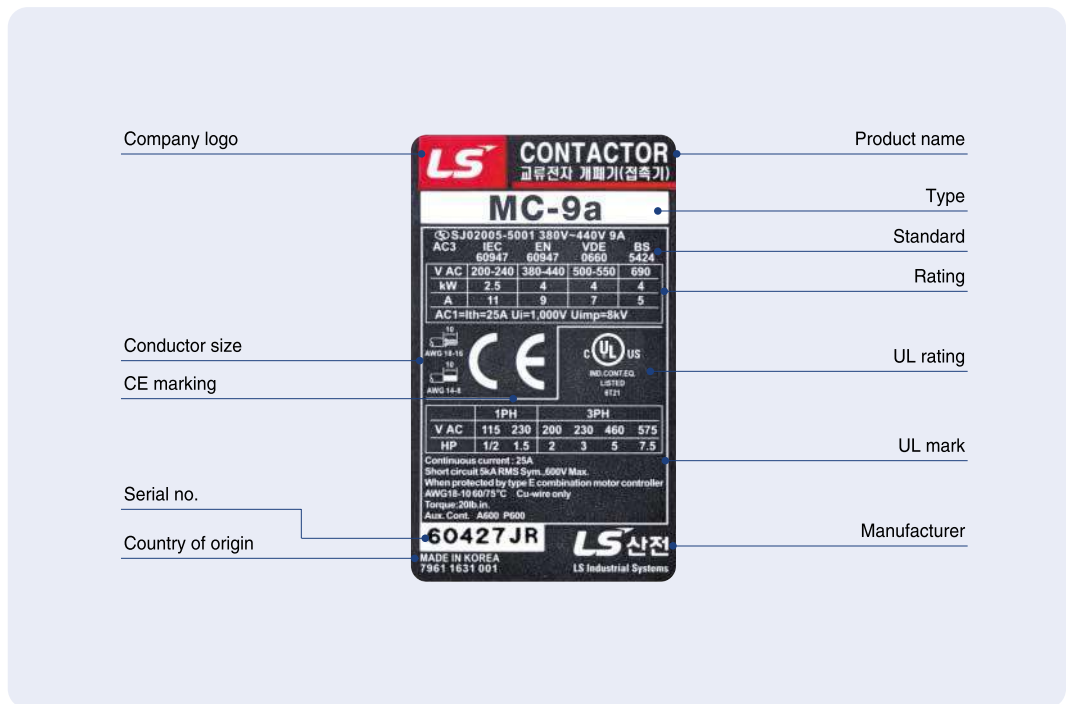
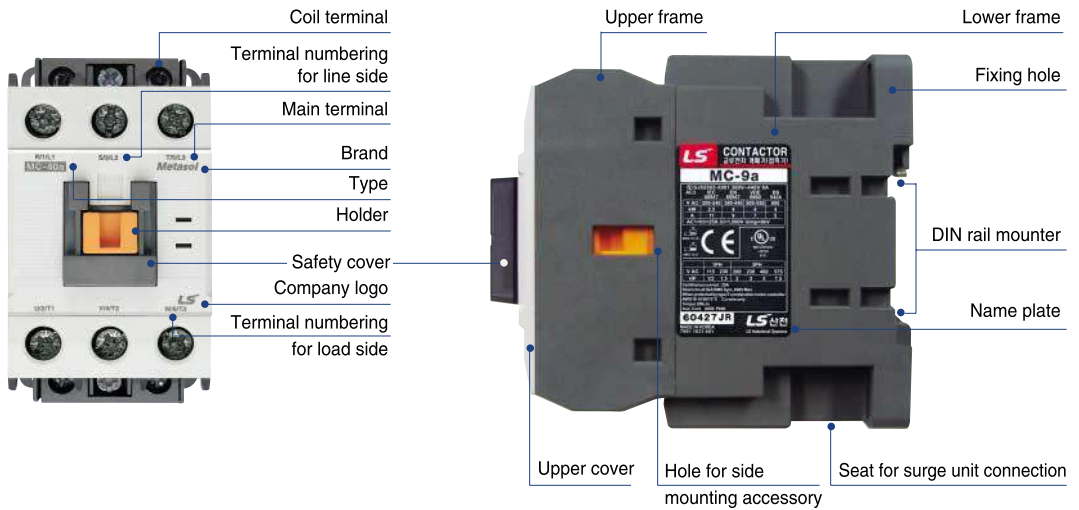
Note) Minimum conduct current of Auxiliary contactor is DC 17V 5mA.

MT type Thermal Overload Relays

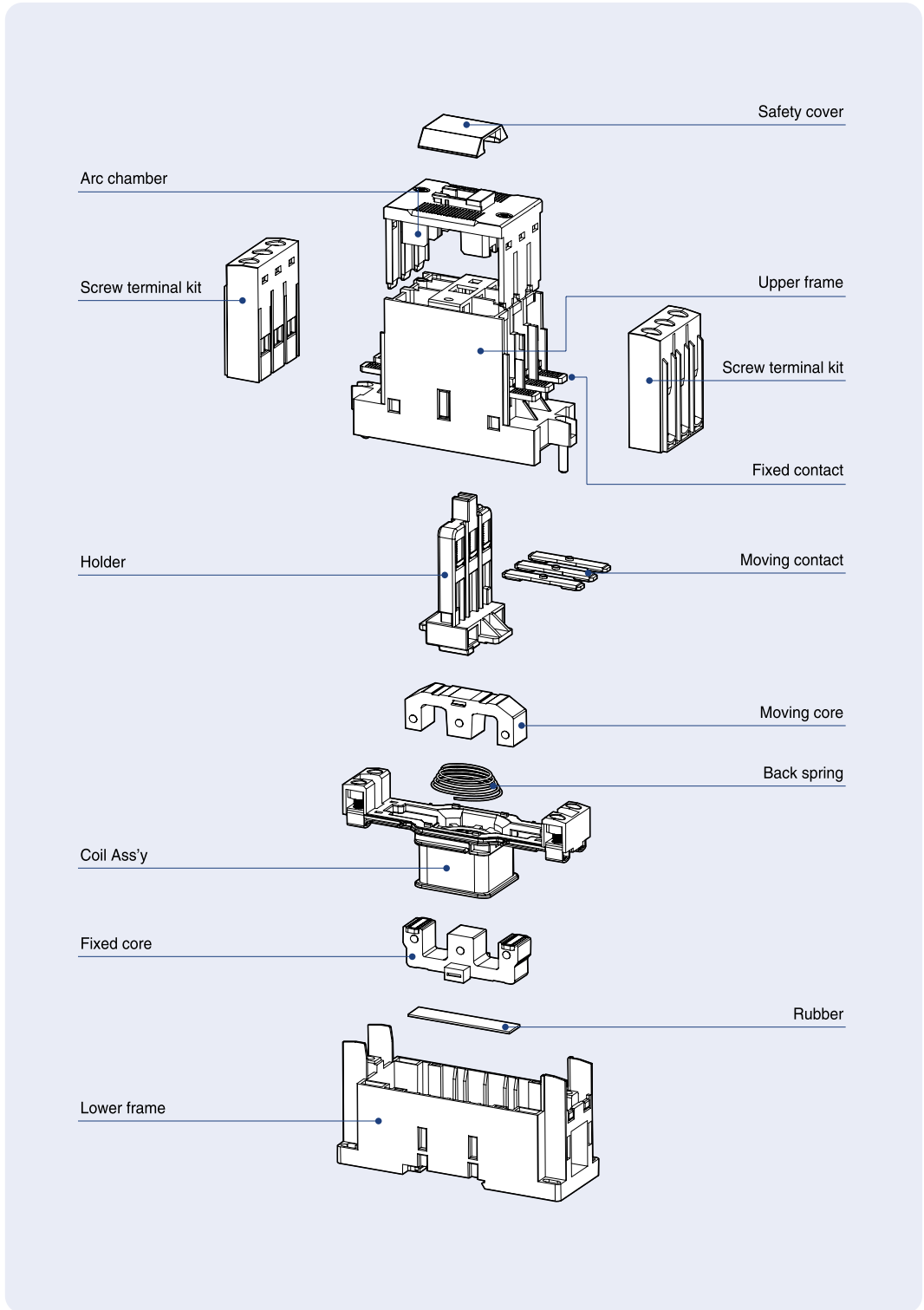


Type	MT-12/□			MT-32/□		
Type	Screws clamp terminals			●		
Rated operational voltage, Ue	690V			690V		
Rated insulation voltage, Ui	690V			690V		
Rated impulse withstand voltage, Uimp	6kV			6kV		
Trip class	10A, 20			10A, 20		
Setting range	0.1~18A			0.1~40A		
Size and weight		Weight	kg	0.1		
		Size(W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

Marking



Internal structure



Contactors (22AF)

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
- 1NO or 1NC Auxiliary contact built-in as standard.

Rating

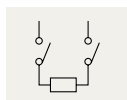


MC-22b

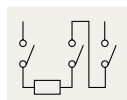
Contactor type			MC-9b		MC-12b		MC-18b		MC-22b		
			kW	A	kW	A	kW	A	kW	A	
AC duty	AC3	200/240V	2.5	11	3.5	13	4.5	18	5.5	22	
		380/440V	4	9	5.5	12	7.5	18	11	22	
		500/550V	4	7	7.5	12	7.5	13	15	20	
		690V	4	5	7.5	9	7.5	9	15	18	
	AC4	200/240V	1.5	8	2.2	11	3.7	16	3.7	18	
		380/440V	2.2	6	4	9	4	11	5.5	13	
AC1			-	25	-	25	-	32	-	40	
DC1 duty (L/R=1ms)	2-pole	24V	-	18	-	18	-	18	-	32	
		in series	48V	-	17	-	17	-	17	-	30
		110V	-	12	-	12	-	12	-	23	
	3-pole	24V	-	20	-	20	-	20	-	32	
		in series	48V	-	20	-	20	-	20	-	32
		110V	-	15	-	15	-	15	-	27	
DC 2,4 duty (L/R=15ms)	2-pole	24V	-	15	-	15	-	15	-	25	
		in series	48V	-	12	-	12	-	12	-	20
		110V	-	8	-	8	-	8	-	15	
	3-pole	24V	-	18	-	18	-	18	-	30	
		in series	48V	-	15	-	15	-	15	-	30
		110V	-	12	-	12		12	-	20	
Directly mountable Overload relay			MT-32								
Conductor size (solid, stranded)		AWG	16~10		16~8		14~8		14~8		
(the max. number of conducts: 2)		mm²	1.5~4		1.5~10		2.5~10		2.5~10		
Conductor type			65/75°C Cu-wire only								



Coil voltage



2-pole in series



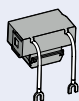
3-pole in series

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	24, 48, 100, 110, 120, 200, 220, 230, 240, 380, 415, 440, 500, 550V
DC	DC	12, 20, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250V

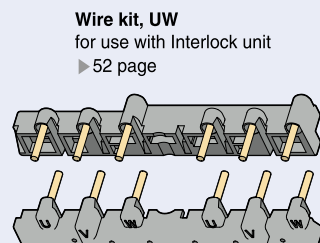
Certification

- CE(IEC)
- UL508

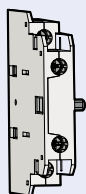
Accessories



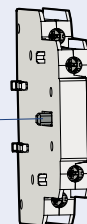
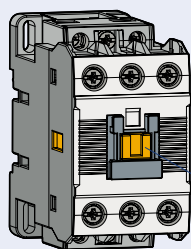
Surge unit, US
connecting to coil terminals
▶ 54 page



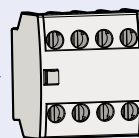
Wire kit, UW
for use with Interlock unit
▶ 52 page



Auxiliary contact unit, UA1
side mount, 1NO+1NC
▶ 48 page



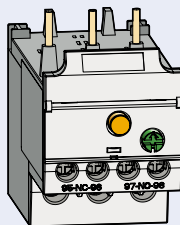
Interlock unit, UR
side mount
▶ 52 page



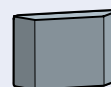
Auxiliary contact unit, AU-4
front mount, 4P
▶ 48 page



Auxiliary contact unit, AU-2
front mount, 2P
▶ 48 page



Overload relay, MT
directly mountable to MC type
contactor
▶ 61 page



Safety cover, A7
▶ 57 page