



Metasol

Meta Solution

Contactors and Overload relays



Metasol Contactors and Overload Relays

*New generation of Contactors
from LS Industrial Systems*

Metasol Contactors

Metasol Contactors

■ Designed to show superior technology: The Metasol series

Soldered stainless fuse improved its safety features so that no air flash is exposed. In order to emphasize its durability as an industrial device, Metasol series adopt simple design form and sophisticated shape applying diamond cut concepts on product surface.



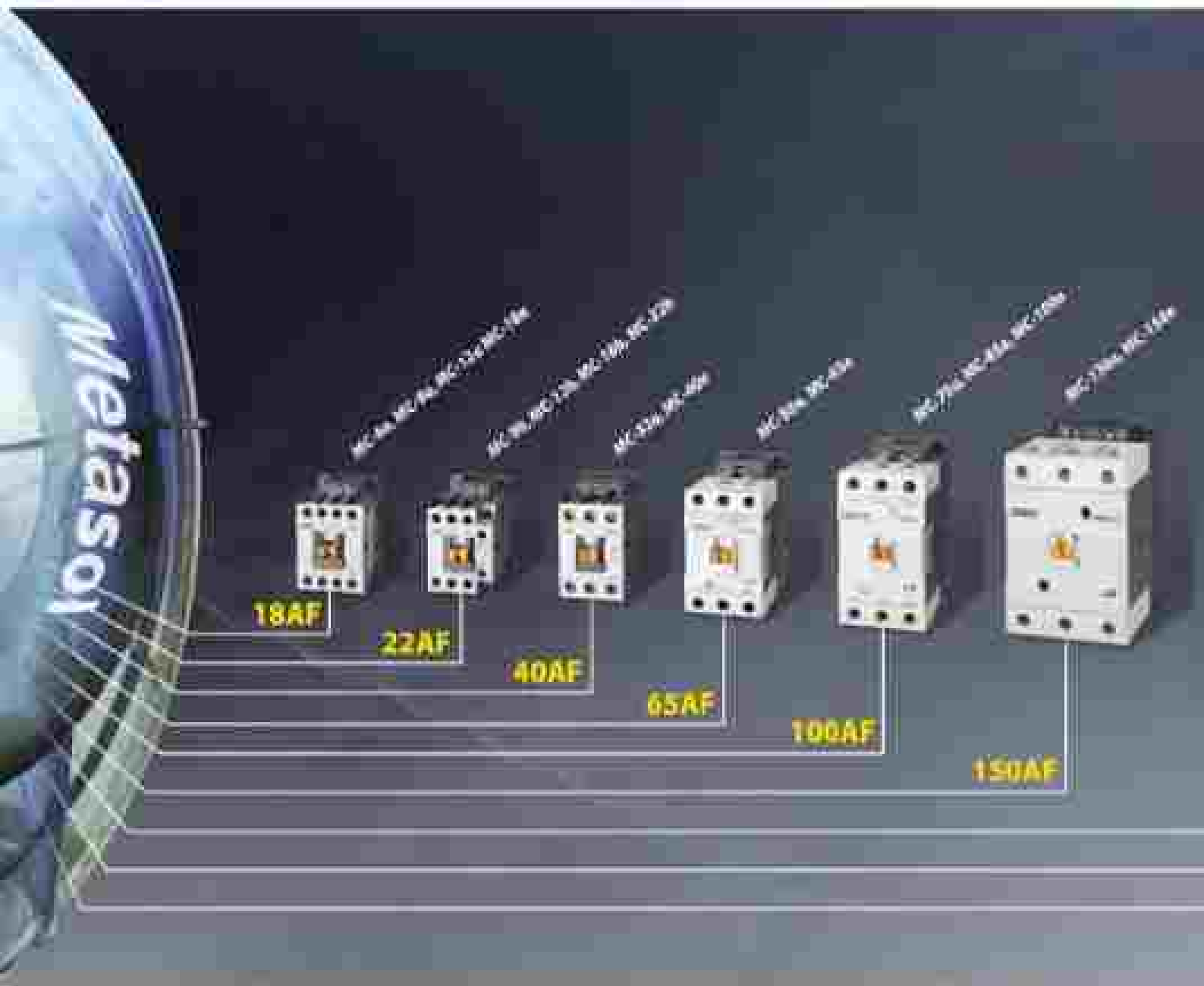
LSIS META SOLUTION CONTACTORS

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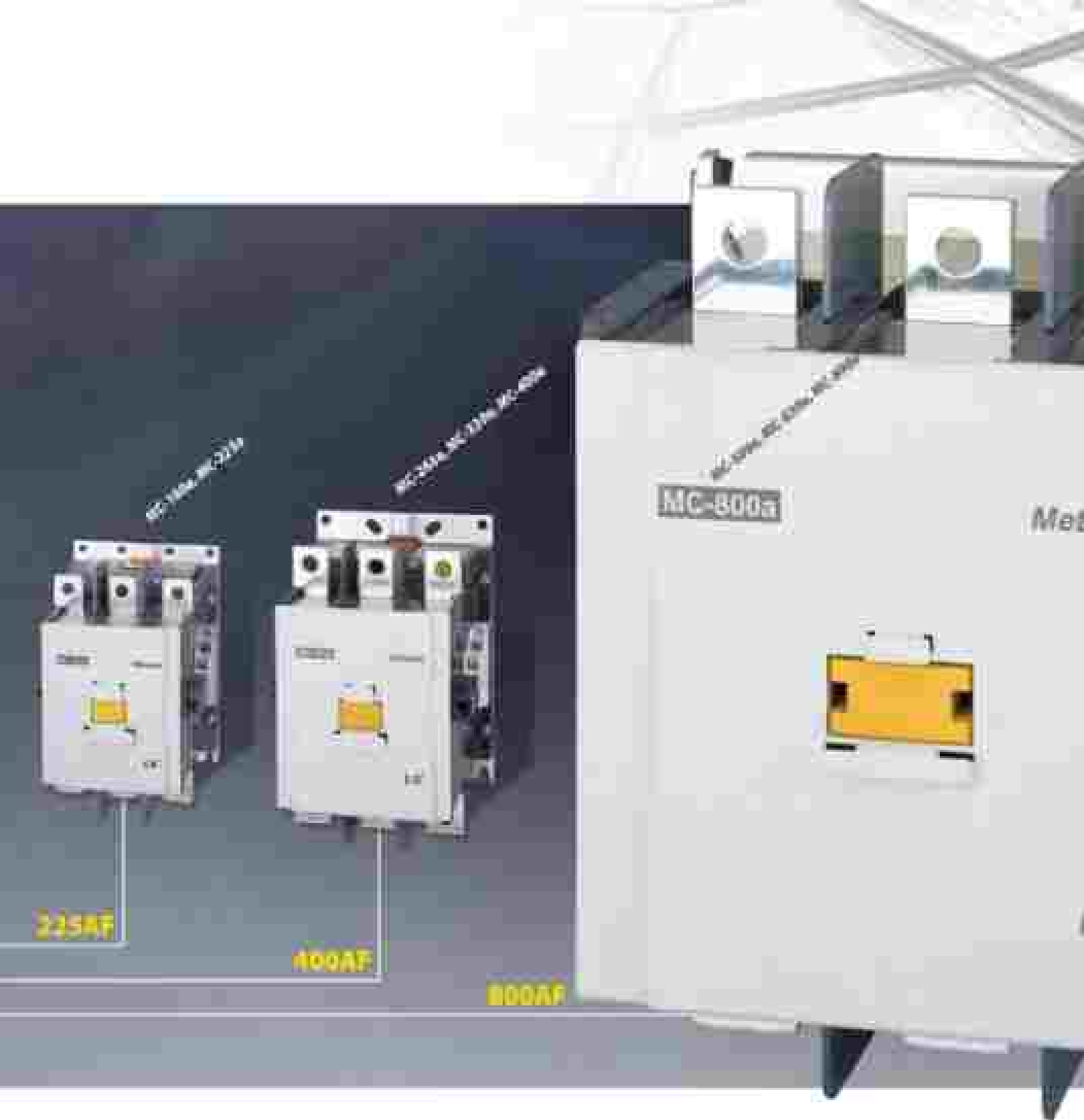
Metasol Series completion



More Safe,
More Valuable



Contactors & Overhead Relays



- *Advanced technology & Expert solution*
- *Offering economical solution with compact size & easy connection*
- *Ensure reliability in the system: Type II Coordination*
- *Perfect system with peripheral devices*
- *Environment friendly product: complies with International environment standard RoHS.*
- *25 Models in 9 Frames*

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 4a, 9a, 12a, 18a
 Rated current 0.4, 0.9, 1.2, 1.8 A
 Rated voltage 230V
 Type 1 - 100% AC-11A

Overload relay MT-12
 Current range 0.4 - 1.8 A
 Type 1 - 100% AC-11A



22AF

Contactor
MC 9a, 12a, 18a, 22a
 Rated current 0.9, 1.2, 1.8, 2.2 A
 Rated voltage 230V
 Type 1 - 100% AC-11A

Overload relay MT-22
 Current range 0.9 - 2.2 A
 Type 1 - 100% AC-11A



800AF

Contactor
MC-500a, 630a, 800a
Rated current: 500, 630, 800 A
Rated voltage: 690V AC
Type 2: 100% duty cycle

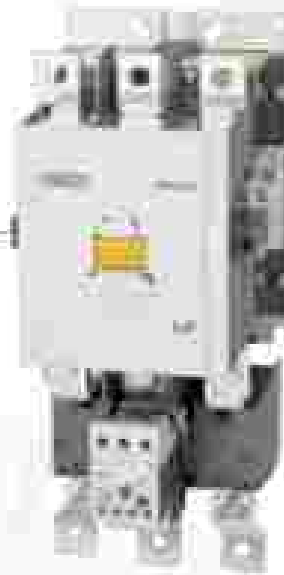
Overload relay MT-800
Current range: 250-800 A
Type 2: 100% duty cycle



400AF

Contactor
MC-265a, 330a, 400a
Rated current: 265, 330, 400 A
Rated voltage: 690V AC
Type 2: 100% duty cycle

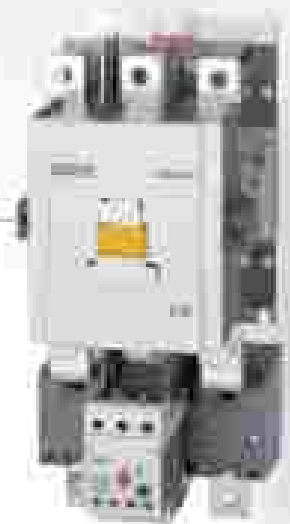
Overload relay MT-400
Current range: 130-400 A
Type 2: 100% duty cycle



225AF

Contactor
MC-105a, 215a
Rated current: 105, 215 A
Rated voltage: 690V AC
Type 2: 100% duty cycle

Overload relay MT-215
Current range: 50-215 A
Type 2: 100% duty cycle



40AF

Contactor
MC-22a, 40a
Rated current: 22, 40 A
Rated voltage: 690V AC
Type 2: 100% duty cycle

Overload relay MT-22
Current range: 11-40 A
Type 2: 100% duty cycle



65AF

Contactor
MC-30a, 65a
Rated current: 30, 65 A
Rated voltage: 690V AC
Type 2: 100% duty cycle

Overload relay MT-65
Current range: 15-65 A
Type 2: 100% duty cycle



100AF

Contactor
MC-25a, 85a, 100a
Rated current: 25, 85, 100 A
Rated voltage: 690V AC
Type 2: 100% duty cycle

Overload relay MT-95
Current range: 12-95 A
Type 2: 100% duty cycle



150AF

Contactor
MC-170a, 150a
Rated current: 170, 150 A
Rated voltage: 690V AC
Type 2: 100% duty cycle

Overload relay MT-150
Current range: 70-150 A
Type 2: 100% duty cycle





MC/TOR Accessories

Perfect combination of peripheral devices and various accessories

Offering economical solution with compact size & easy connection



Perfect system with other devices and accessories

■ One-touch connection

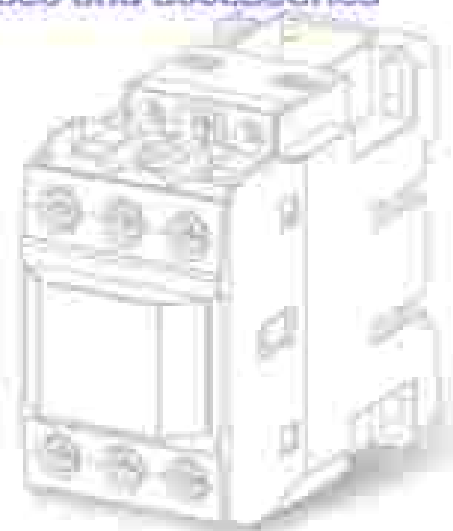
- Pin/Ferrule connection without any special tools
- Exact combine a single unit

■ Simple wiring

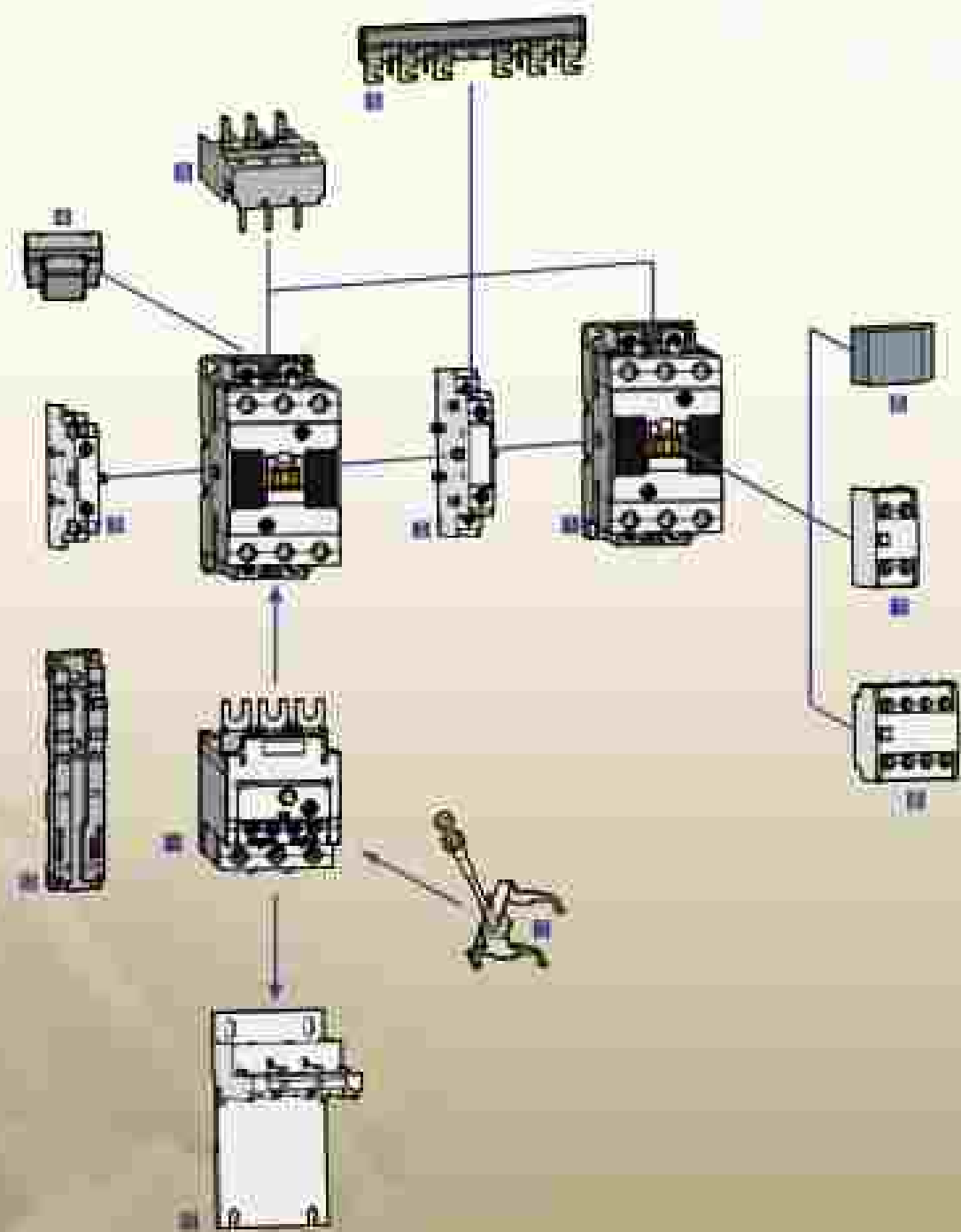
- Mounting unit: Adaptor
- Powering wire set

■ Easy Maintenance

- Terminal type: Easy wiring of operation coil
- Module type of Screw terminal
- Interlock unit with built-in auxiliary contacts (20A/ built-in)



Advanced accessories for Metasol contactors



Accessory layout upto 150AF

- 1 Cover
- 2 Insulated rail
- 3 Auxiliary contact set
- 4 Trip unit
- 5 Motor

- 6 Safety cover (optional)
- 7 Mounting bracket set
- 8 Mounting bracket set
- 9 Mounting bracket set
- 10 Mounting bracket set
- 11 Mounting bracket set

- 12 Terminal rail set
- 13 Diode bridge
- 14 Diode bridge rail
- 15 Mounting plate for diode bridge

Table of specifications

MC type Magnetic Contactors



Frame size			18AF				23AF				
Type	screw clamp terminals		MC-04	MC-06	MC-10	MC-16	MC-04	MC-06	MC-10	MC-16	
Number of poles			3pole				3pole				
Rated operational voltage, U _e			600V				600V				
Rated insulation voltage, U _i			600V				600V				
Rated frequency			50/60Hz				50/60Hz				
Rated impulse withstand voltage, U _{imp}			8kV				8kV				
Maximum operating rate (operating cycles per hour)			1000 operations per hour				1000 operations per hour				
Durability	Mechanical		15 mil. operations				15 mil. operations				
	Electrical		2.5 mil. operations				2.5 mil. operations				
Current	AC-1	Thermal current	A	25	25	25	30	25	25	12	40
and power	AC-3	200/240V	MW	2.2	2.5	3.5	4.5	2.5	3.5	4.5	5.5
			A	9	11	12	16	11	12	16	20
		300/360V	MW	3	4	5.5	7.5	4	5.5	7.5	11
			A	7	9	12	16	9	12	16	20
		500/600V	MW	3	4	7.5	7.5	4	7.5	7.5	15
	A	8	7	12	13	7	12	13	20		
		600V	MW	3	4	7.5	7.5	4	7.5	7.5	15
	A	4	5	9	9	6	9	9	9	18	
U _e rating (JEMPEC)	Continuous current	A	25	25	25	30	25	25	12	40	
pulling (JEMPEC)	Single phase	110-240V	HP	0.5	0.5	0.75	1	0.5	0.75	1	3
		300-360V	HP	1.5	1.5	2	3	1.5	2	3	3
		300-360V	HP	2	2	3	5	2	3	5	7.5
	Three phase	110-240V	HP	3	3	4	7.5	3	4	7.5	10
		300-360V	HP	5	5	7.5	10	5	7.5	10	15
	500-600V	HP	2.5	2.5	10	10	2.5	10	15	20	
	NEMA size		00	00	0	0	00	00	0	0	1
Size and weight	AC	Weight	kg	0.13				0.14			
	terminal	Size(W × H × D) mm		46 × 72.5 × 62				46 × 72.5 × 66			
	DC	Weight	kg	0.6				0.61			
	terminal	Size(W × H × D) mm		41 × 62 × 113.7				46 × 72.5 × 113.7			
Accessory	AC	Weight	kg	0.13				0.14			
	terminal	Size(W × H × D) mm		46 × 72.5 × 62				46 × 72.5 × 66			
	DC	Weight	kg	0.6				0.61			
	terminal	Size(W × H × D) mm		41 × 62 × 113.7				46 × 72.5 × 113.7			
Accessory	AC	Weight	kg	0.13				0.14			
	terminal	Size(W × H × D) mm		46 × 72.5 × 62				46 × 72.5 × 66			
	DC	Weight	kg	0.6				0.61			
	terminal	Size(W × H × D) mm		41 × 62 × 113.7				46 × 72.5 × 113.7			

Body Material: stainless-steel or galvanized-steel (18AF, 23AF)

MT type Thermal Overload Relays



Type			18TR		23TR		
Type	screw clamp terminals						
Rated operational voltage, U _e			600V		600V		
Rated insulation voltage, U _i			600V		600V		
Rated impulse withstand voltage, U _{imp}			8kV		8kV		
Trip class			10A, 30		10A, 30		
Setting range			0.1-10A		0.1-10A		
Size and weight	AC	Weight	kg	0.1		0.11	
	terminal	Size(W × H × D) mm		46 × 74.7 × 63.7		46 × 75 × 67	

(The setting value of trip point, adjustable and thermal locked relay is optional.)



40AF

MC-70A MC-80A

3pole
600V
100kV
5000A
8kV

1000 operations per hour
12 mil. operations
2 mil. operations

50	60
7.5	11
10	16
14	18.5
18	22
22.5	25
28	30
35	35
40	37
45	40
50	42
55	45
60	48
65	50
70	52
75	55
80	58
85	60
90	62
95	65
100	68

0.15
M = 100 x 100
0.77
M = 100 x 120

UA 1

40.7, 50.4



WT 25

60V
60V
6kV
10A, 25
0.1-0.1A

0.15

M = 75 x 90



50AF

MC-50A MC-60A

3pole
600V
100kV
5000A
8kV

1000 operations per hour
12 mil. operations
2 mil. operations

20	150
15	18.5
22	22
28	25
35	28
40	30
45	32
50	35
55	37
60	40
65	42
70	45
75	48
80	50
85	52
90	55
95	58
100	60

1.00
M = 100 x 120
1.3
M = 100 x 140

UA 1

40.7, 50.4

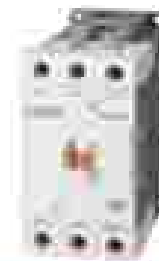


WT 40

60V
60V
6kV
10A, 25
0-50A

0.2A(0.2)

M = 81 x 100



100AF

MC-75A MC-85A MC-100A

3pole
600V
100kV
5000A
8kV

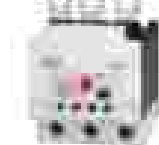
1000 operations per hour
12 mil. operations
2 mil. operations

110	125	140
22	25	28
25	28	30.5
33	35	38
35	38	40.5
37	40	42
44	45	48
47	48	50
50	50	52
55	55	58
60	60	62
65	65	68
70	70	72
75	75	77
80	80	82
85	85	87
90	90	92
95	95	97
100	100	102

1.30
M = 140 x 170
1.5
M = 140 x 174

UA 1

40.7, 50.4



WT 60

60V
60V
6kV
10A, 25
0-100A

0.4A(0.5)

M = 107 x 130

Table of specifications

MC type Magnetic Contactors



Frame size			150AF		225AF		
Type	screws clamp terminals						
Number of poles			3pole		3pole		
Rated operational voltage, Ue			690V		690V		
Rated insulation voltage, Ui			1000V		1000V		
Rated frequency			50/60Hz		50/60Hz		
Rated impulse withstand voltage, Uimp			8kV		8kV		
Maximum operating rate, n, operating cycle, per hour/24h			1200 operations per hour 5 min. operations 1 min. operations		1200 operations per hour 5 min. operations 1 min. operations		
Thrustability	Mechanical						
	Electrical						
Current and power	AC-1	Normal circuit	A	150	210	225	275
	AC-3	300/230V	kW	37	46	50	75
		300/400V	kW	170	150	100	225
		300/400V	kW	60	75	80	100
		400/230V	kW	130	150	165	225
		400/230V	kW	60	70	100	100
600V		kW	60	100	110	200	
UL listing (UL950)	Overload circuit	A	60	60	120	100	
	Single	120-277V	HP	100	210	220	275
	Phase	200-240V	HP	10	15	15	15
		200-200V	HP	20	25	30	40
	Three	200-240V	HP	40	40	60	60
		400-240V	HP	40	50	60	75
	Phase	400-240V	HP	75	100	120	100
		500-600V	HP	75	75	125	100
Size	WMA size		3	4	4	4	
Size and weight	AC	Weight	kg	2.4		4.4	
	control	Size(W x H x D)	mm	95 x 158 x 120		158 x 210 x 100	
	DC	Weight	kg	2.3			
	control	Size(W x H x D)	mm	95 x 158 x 120			
Availability (standard)					Yes		
Assembly	Side mount		UL 1		All IEC (Max. 200V)		
	Front mount		All 2, All 4				

MT type Thermal Overload Relays



Type	screws clamp terminals		MT 150C	MT 225C
Rated operational voltage, Ue			690V	690V
Rated insulation voltage, Ui			690V	690V
Rated impulse withstand voltage, Uimp			8kV	8kV
Temp. class			10A, 20	10A, 20
Setting range			3A-150A	25-240A
Size and weight	Weight	kg	0.67	2.5
	Size(W x H x D)	mm	96 x 100 x 113	167 x 141 x 104

† The setting range of 10A type contactors and thermal overload relays is optional.

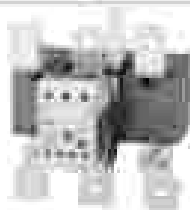


800AF

MC 250a	MC 330a	MC 410a
•	•	•
	30kW	
	60V	
	10xV	
	10000r	
	1kV	
	120 operations per hour	
	6 mil. operations	25 mil. operations
	1 mil. operations	25 mil. operations
80	350	450
80	80	120
375	330	400
147	160	200
365	300	400
147	160	225
325	300	300
180	200	250
185	225	280
300	350	450
-	-	-
75	100	120
100	125	150
200	250	300
200	250	300
5	5	5

11.2
110 x 240 x 128

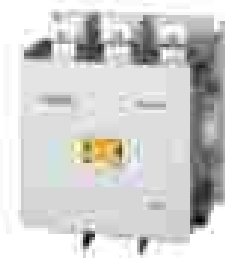
2x20
All 10s (Max 10x10s)



800AF

MC 250a	MC 330a	MC 410a
•	•	•
	30kW	
	60V	
	10xV	
	10000r	
	1kV	
	10A, 20	
	45-80A	
	2.0	
	160 operations per hour	
	6 mil. operations	25 mil. operations
	1 mil. operations	25 mil. operations
80	350	450
80	80	120
375	330	400
147	160	200
365	300	400
147	160	225
325	300	300
180	200	250
185	225	280
300	350	450
-	-	-
75	100	120
100	125	150
200	250	300
200	250	300
5	5	5

16.1
161 x 171 x 158



800AF

MC 500a	MC 600a	MC 800a
•	•	•
	30kW	
	60V	
	10xV	
	10000r	
	1kV	
	120 operations per hour	
	6 mil. operations	25 mil. operations
	1 mil. operations	25 mil. operations
500	650	800
147	180	200
520	630	800
200	250	440
500	600	800
200	250	500
400	600	700
300	400	600
300	400	600
500	650	800
-	-	-
100	200	300
200	300	300
400	500	600
400	500	600
6	6	7

22.4
228 x 312 x 247

2x20
All 10s (Max 10x10s)



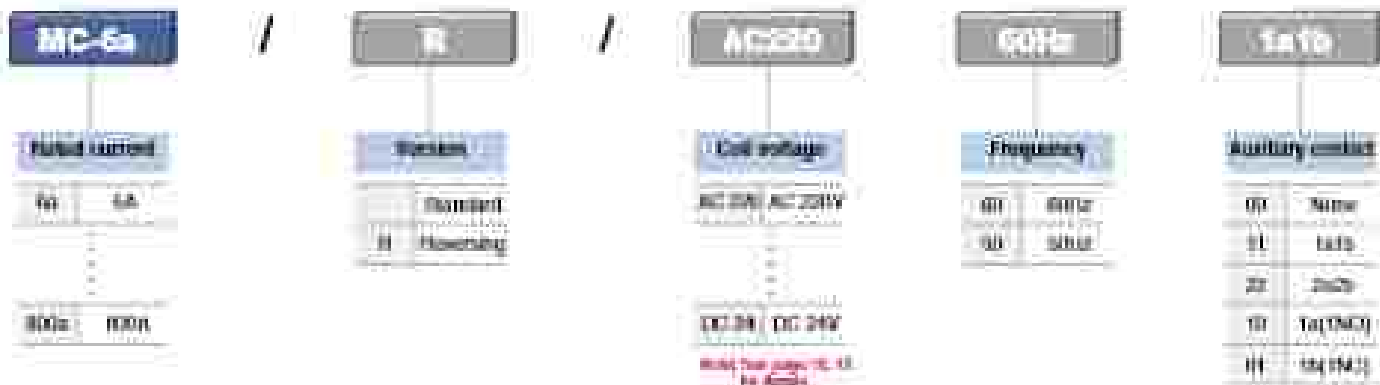
800AF

MC 250a	MC 330a	MC 410a
•	•	•
	30kW	
	60V	
	10xV	
	10000r	
	1kV	
	10A, 20	
	45-80A	
	2.0	
	160 operations per hour	
	6 mil. operations	25 mil. operations
	1 mil. operations	25 mil. operations
80	350	450
80	80	120
375	330	400
147	160	200
365	300	400
147	160	225
325	300	300
180	200	250
185	225	280
300	350	450
-	-	-
75	100	120
100	125	150
200	250	300
200	250	300
5	5	5

34.0
340 x 320 x 210

Type numbering system

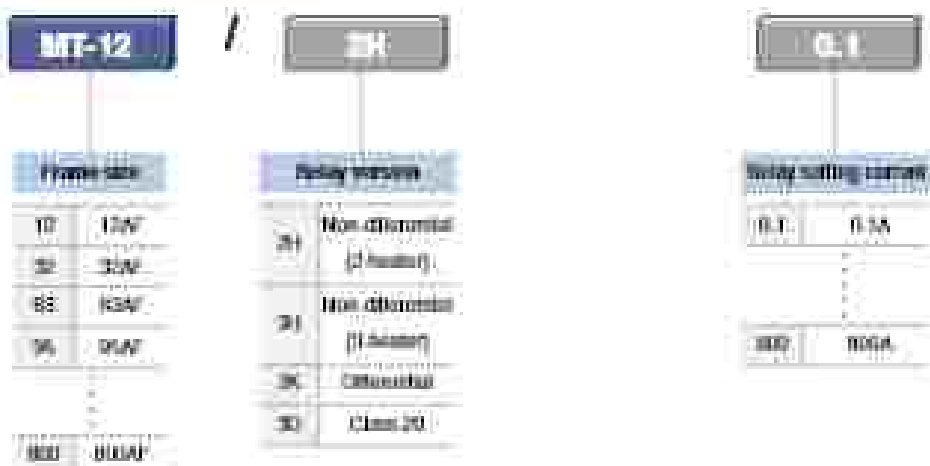
Contactors



Starters



Thermal Overload Relay



Optional Accessories

Auxiliary contact unit

UA-1

U1

Series	
UA-1	Back-mount
UA-2	Front-mount(F)
UA-4	Front-mount(F)

Contact composition	
U1	1NO+1NC
U2	2NO
U2	1NC
U1	4NO
U1	2NO+1NO
U2	2NO+1NC
U2	1NO+1NO
U4	4NC

Surge absorber

US11

Composition and voltage		
1	Varistor+FC	AC/DC 24-40V
2	Varistor+FC	AC/DC 100-125V
3	Varistor+FC	AC/DC 200-240V
4	Varistor+FC	AC 280-400V
5	Varistor+FC	AC 24-40V
6	Varistor+FC	AC 100-125V
11	Varistor	AC 200-240V
12	Varistor	DC 24-40V
13	Varistor	DC 100-125V
14	Varistor	DC 200-240V
20	FC	A) 100-125V

See page 32 for notes

Interlock unit

UR02

Contact composition

UR	2NC
UR	4NO

Wire kit for interlocking

UW32

Frame size

UW	100V
UW	200V
UW	250V
UW	400V
UW	500V

Interlock set (UR-UW)

UR32

Frame size

UR	100V
UR	200V
UR	250V

Separate mounting unit (For relay)

UR32

Frame size

UR	200V
UR	250V
UR	400V
UR	500V

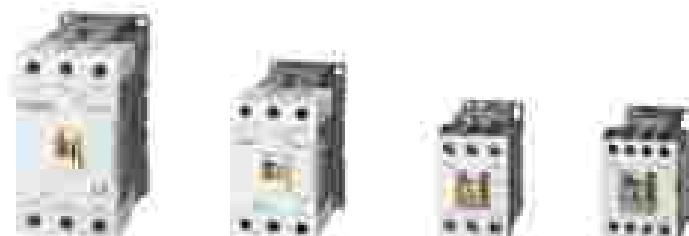
Remote reset unit (For relay)

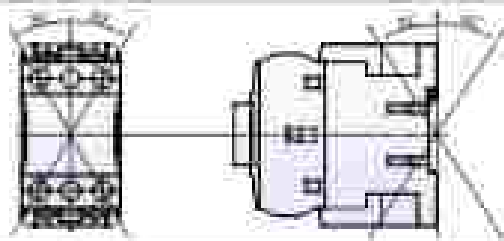
UR

Cable length

UR	400
UR	500
UR	1000

Environment

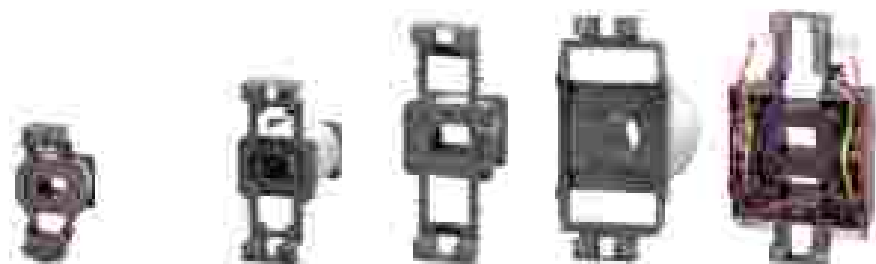


Standards	IEC EN 60898-1, IEC EN 60947-4-1, UL 508, 400M7
Certification	CE, UL
Rated insulation voltage (U _i)	1000V
Rated impulse withstand voltage (U _w)	8kV
Degree of protection	IP20 (Conforming to IEC 60529)
Ambient air temperature	Storage: -40°C – +85°C Operation: -5°C – +40°C
Operating altitude	3000m (9843ft)
Operating position	
Short-circuit capacity (I _{sc} acc. IEC 60898-1)	Open: 80 Closed: 110
Maximum switching capacity (Conforming to IEC 60898-1) (I _{cn} 300 Hz)	Open: 20 Closed: 41
Flame resistance	Conforming to IEC 60332-1, IEC 60332-2 Conforming to IEC 60754-1, IEC 60754-2

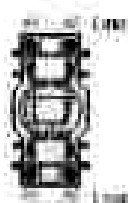
Connections

Model	Weigh type	Weigh type						Capacity
MC 100		1-010-10	1-010-10	1-010-10	1-010-10	1-1010-0	up to 1,000g	
MC 200		1-010-10	1-010-10	1-010-10	1-010-10	1-1010-0	up to 2,000g	
MC 100F		1-010-10	2.5-1010-0	2.5-1010-0	1-1010-0	1-1010-0	up to 1,000g	
MC 105F		-	-	-	-	1-2510-4	up to 1,000g	
MC 1000F		-	-	-	-	1-2510-4	up to 1,000g	
MC 1100F		-	-	-	-	1-2510-4	up to 1,100g	
Call Mettler		0.5-2500-10	0.25-2510-10			0.5-2500-10	up to 2,500g	
MC 225F		-	-	-	-	2.5-1510-200	up to 14,710g	
MC 400F		-	-	-	-	2.5-2010-200	up to 22,000g	
MC 1000F		-	-	-	-	10-2010-200 30-2010-200	up to 22,000g	
Call Mettler		1.25-3.510-10	1.25-3.510-10			1.25-3.510-10	up to 3,500g	

Control coil characteristics



From coil			18AF	22AF	30AF	35AF	100AF	150AF
Type			MC-8a	MC-10	MC-30a	MC-30b	MC-70a	MC-100a
			MC-9a	MC-10b	MC-30c	MC-35a	MC-70b	MC-100b
			MC-12a	MC-10c			MC-100c	
			MC-10a	MC-20b				
AC coil								
Control voltage	[Vc]		24, 32, 36, 42, 48, 60, 72, 110, 120, 130, 150, 165, 180, 190, 210, 240, 277, 280, 440, 480, 500, 550V					
	[V]		24, 48, 110, 110, 120, 200, 210, 270, 330, 240, 277, 280, 440, 480, 500V					
	[V]		24, 48, 100, 110, 120, 200, 220, 230, 240, 280, 415, 440, 500, 550V					
Voltage test	[Vc]		85 - 110% (30W) 85 - 110% (40W) 90 - 90%					
Coil consumption at 20°C	AC 200V	Watt	5656	5656	5350	110104	229218	100104
	Watt-h	Watt	6.667	6.667	6.268	13.050	17.013	28.076
	Heat dissipation	[W]	2.113	2.113	2.227	2.804	3.687	2.708
Operating time	Closing	[ms]	17 ... 27	17 ... 27	17 ... 27	17 ... 27	15 ... 30	30 ... 40
	Opening	[ms]	4 ... 15	4 ... 15	4 ... 15	4 ... 15	10 ... 30	40 ... 70
DC coil								
Control voltage	[Vc]		12, 24, 36, 48, 60, 80, 100, 110, 125, 200, 250, 250					
Voltage test	[Vc]		80 - 110% 90 - 90%					
Coil consumption at 20°C	DC 110V	Watt	9	9	7	9	19	115
	Watt-h	[W]	9	9	7	9	19	7.5
Time constant (L/R)	[ms]		28	28	28	28	25	
Operating time	Closing	[ms]	15 ... 40	15 ... 40	12 ... 45	12 ... 45	150 ... 120	15 ... 40
	Opening	[ms]	4 ... 15	4 ... 15	4 ... 15	4 ... 15	10 ... 25	40 ... 70

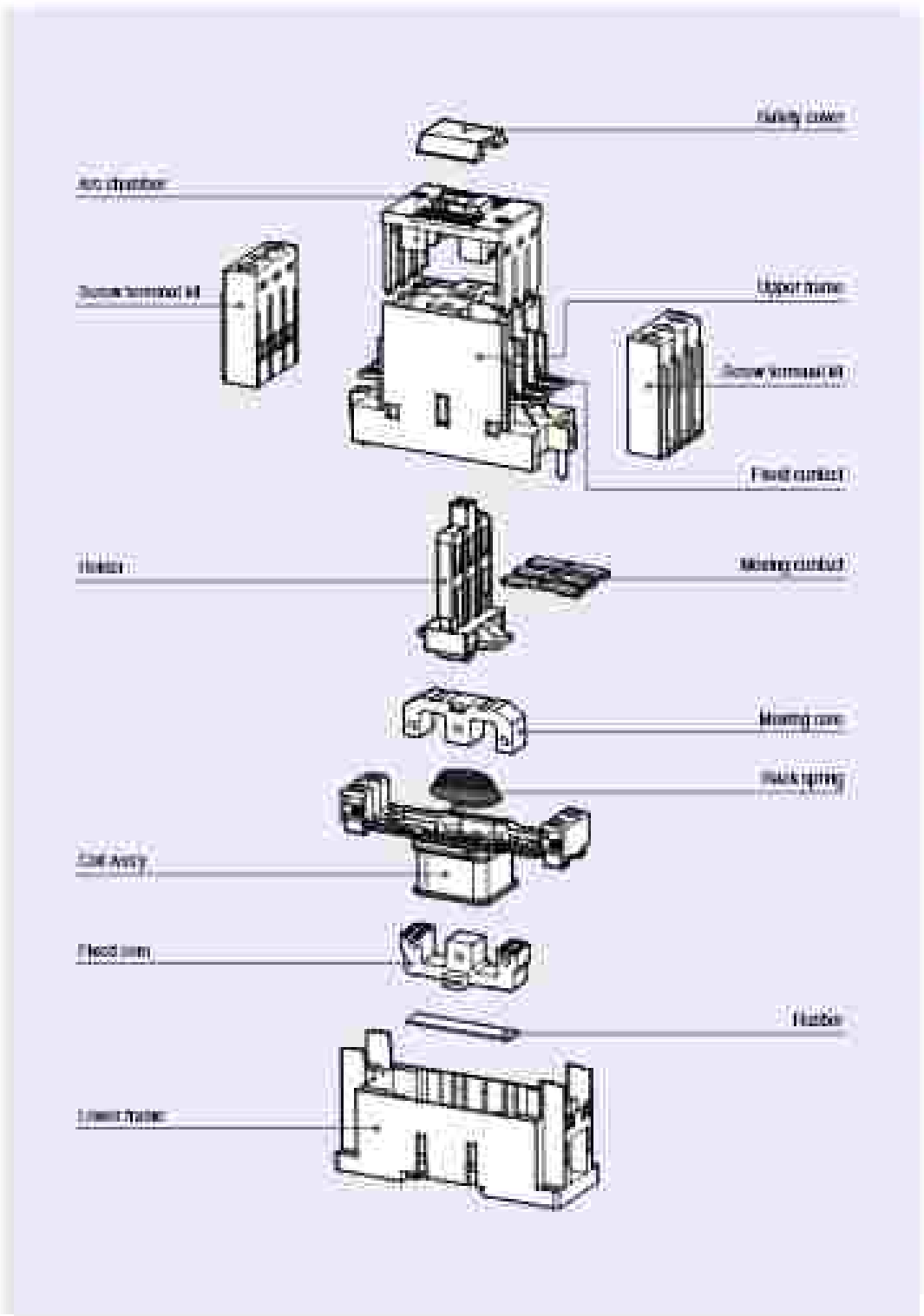


Metasol reserves the right to change specifications without notice.



Power line			225AF	220AF	100AF
Type			MC-1154 MC-2254	MC-2204 MC-2204 MC-1004	MC-6204 MC-6204 MC-6204
	AC/DC sensitive switch				
Control voltage		[A]			
	AC/DC		24V	-	-
	AC/DC		48V	-	100V/100
	AC/DC		100-240V/100-220	100-240V/100-220	200V/200
	AC		500	500	500
	AC		600	600	600
	AC		600	600	600
Voltage limit		[A]			
	Peak			80-110%	
	Drop-out			90-95%	
Coil consumption at 25°C					
AC 200V	Insert	[VA]	300	571	1000
Stable	Ready	[VA]	11.8	14	26
Coil resistance		[Ω]	4.7	5	10
Operating time		[ms]			
	Closing		70	50	75
	Opening		70	50	75

Internal structure



Contactors (18AF)

Description

- 3-pole(NC) main contact
- Finger proof design
- DIN rail or screw mountable
- AC or DC control in different physical size
- Frontside mounting accessories available
- Direct mountable overload relay (available Rating)
- LNO or 1NC Auxiliary contact built in as standard



MC11a

Rating

Contactor type			NC-1a		NC-1a		NC-12a		NC-11a	
			kVA	A	kVA	A	kVA	A	kVA	A
AC only	AC3	20000V	2.2	9	2.5	11	2.5	11	4.3	18
		25000V	2	7	4	9	3.5	12	7.5	33
		50000V	3	9	6	7	2.5	10	7.5	33
		600V	3	4	6	5	7.5	6	7.5	9
	AC4	20000V	1.5	7	1.5	8	2.2	11	2.2	16
		25000V	2.2	5	2.2	8	4	9	4	11
	AC1	-	25	-	25	-	25	-	25	
DC only (0.05-1mm)	2-pole	21V	-	10	-	10	-	10	-	10
		48V	-	17	-	17	-	17	-	17
		120V	-	12	-	12	-	12	-	12
	3-pole	21V	-	20	-	20	-	20	-	20
		48V	-	20	-	20	-	20	-	20
		120V	-	15	-	15	-	15	-	15
DC 4-pole (0.05-1mm)	2-pole	21V	-	15	-	15	-	15	-	15
		48V	-	12	-	12	-	12	-	12
		120V	-	8	-	8	-	8	-	8
	3-pole	21V	-	10	-	10	-	10	-	10
		48V	-	15	-	15	-	15	-	15
		120V	-	12	-	12	-	12	-	12
Directly mountable Overload relay			M1-12							
Conductor size (pole, standard)			AWG		18-19		18-19		18-11	
(No. wire, number of conductors)			mm ²		1-4		1.5-4		1.5-10	
Conductor type			BYPG Cu wire only							



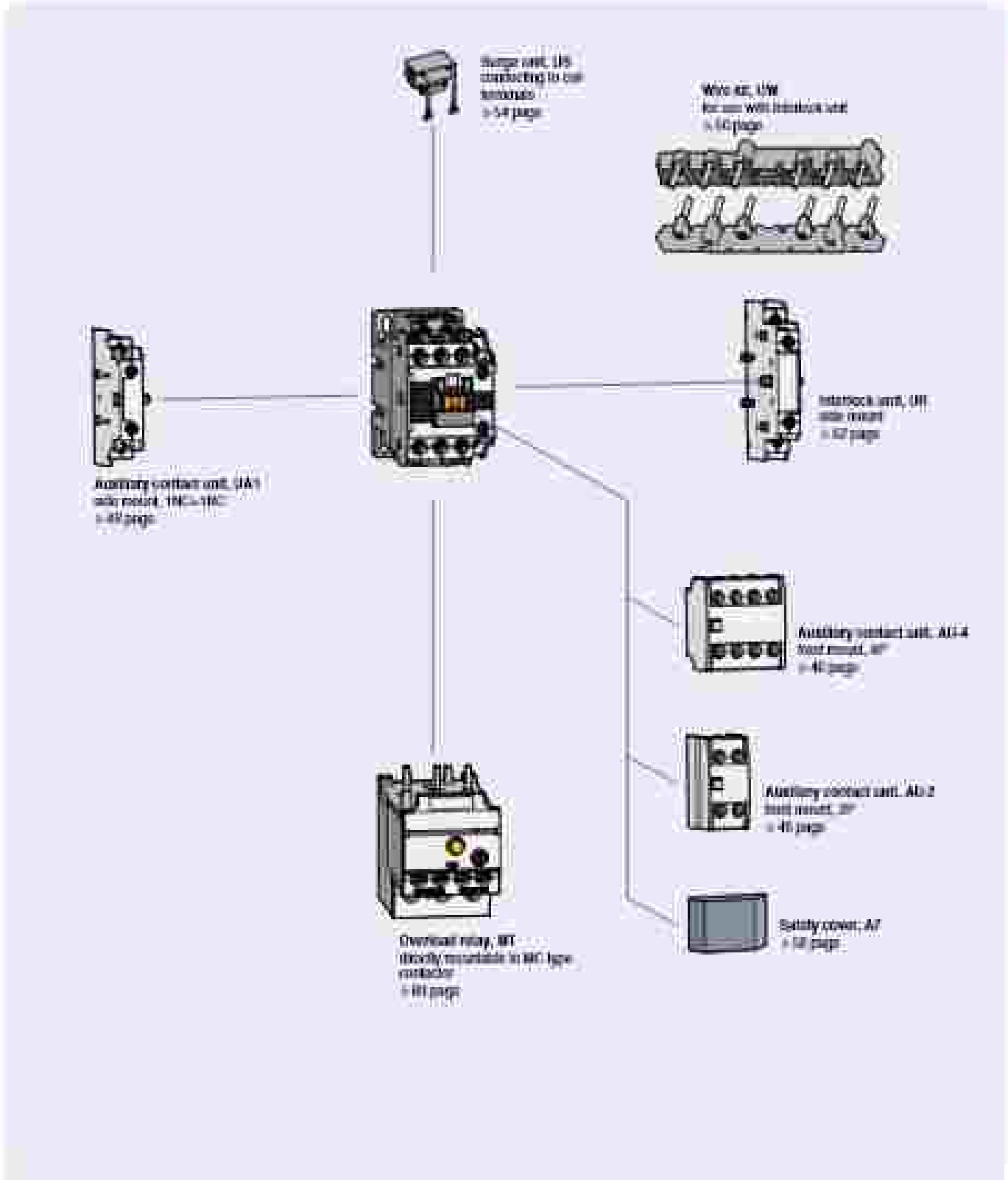
Coil voltage

50Hz	24, 30, 40, 48, 60, 100, 110, 220, 230, 240, 280, 400, 500, 600V	
AC	60Hz	24, 48, 110, 110, 12, 250, 200, 220, 230, 240, 277, 280, 480, 600V
	400Hz	24, 48, 100, 110, 120, 200, 220, 230, 240, 280, 410, 440, 500, 550V
	DC / DC	12, 20, 36, 48, 60, 80, 100, 110, 120, 200, 220, 240V

Certification

- CE (RoHS)
- UL508

Accessories



Contactors (22AF)

Description

- 3-pole(NC) main contact
- Finger proof design
- DIN rail or screw mountable
- AC or DC control in different physical size
- Frontside mountable accessories available
- Direct mountable overload relay available (Rating)
- LNO or 1NC Auxiliary contact built in as standard

Rating



MC-22A

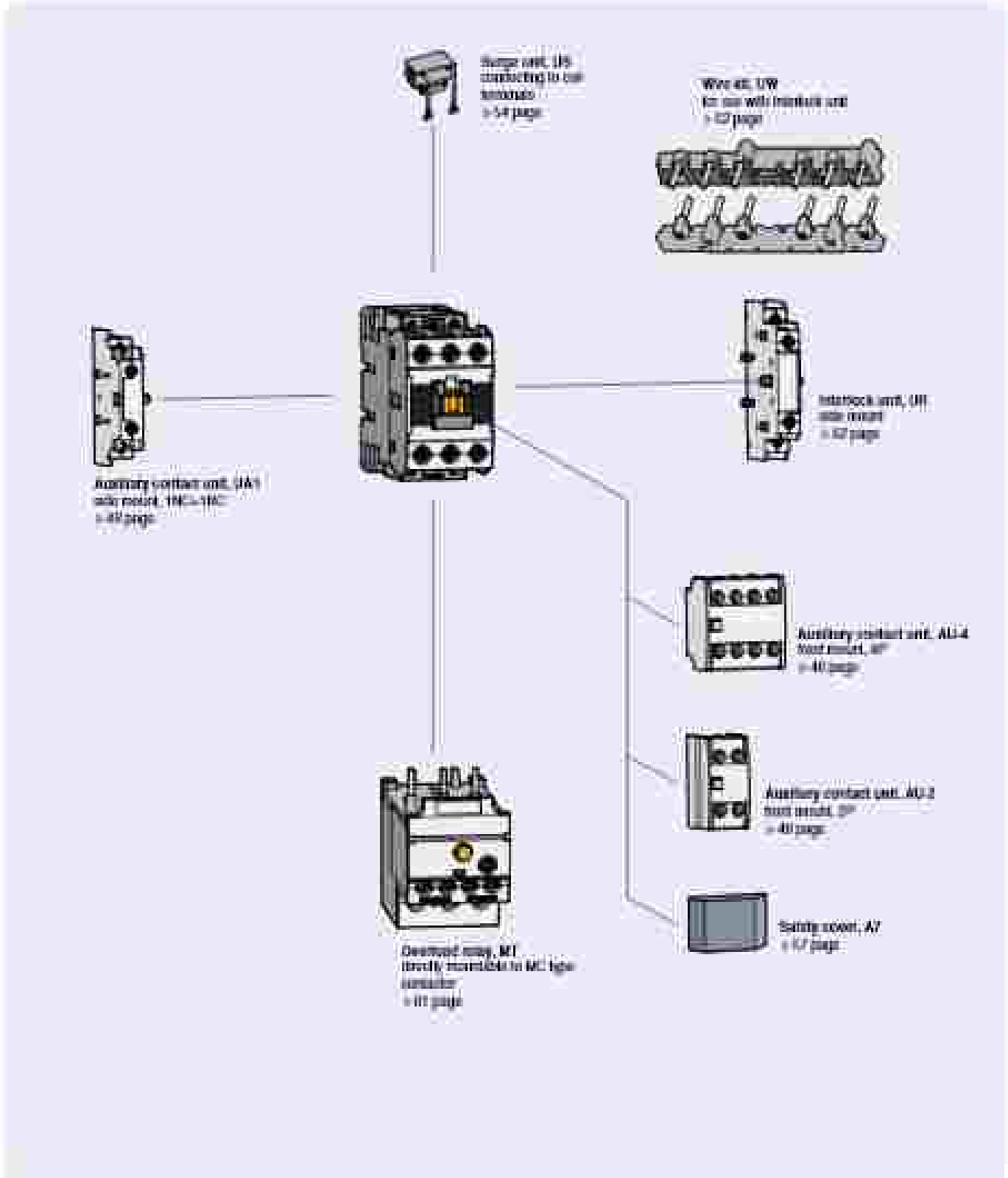
Contact type			NC-11		NC-12		NC-13		NC-22	
			kW	A	kW	A	kW	A	kW	A
AC only	AC3	2000A0V	2.5	11	3.5	13	4.5	16	5.5	20
		2000A0V	4	3	5.5	12	7.5	18	11	22
		2000A2P	4	7	7.5	12	11.5	13	16	18
	AC4	400V	4	5	7.5	8	7.5	8	15	18
		2000A0V	1.5	8	2.2	11	3.7	16	3.7	18
		2000A0V	2.2	8	4	8	4	11	5.5	13
AC1			-	25	-	25	-	30	-	40
DC1 only (0.05-1mm)	2 pole	24V	-	18	-	18	-	18	-	20
		48V	-	17	-	17	-	17	-	20
		110V	-	12	-	12	-	12	-	20
	4 pole	24V	-	20	-	20	-	20	-	22
		48V	-	20	-	20	-	20	-	22
		110V	-	15	-	15	-	15	-	17
DC 2,4 only (0.05-1mm)	2 pole	24V	-	15	-	15	-	15	-	20
		48V	-	12	-	12	-	12	-	18
		110V	-	8	-	8	-	8	-	15
	4 pole	24V	-	18	-	18	-	18	-	22
		48V	-	15	-	15	-	15	-	20
		110V	-	12	-	12	-	12	-	18
Directly mounted Overload rating			MT-10							
Contact size (pole, standard)			AWL	10-13	10-8	14-11	14-8			
[no. max. number of conductors]			mm ²	15-4	15-11	25-10	25-10			
Contact type			MC-22A (22AF) only							



None	24, 30, 42, 48, 60, 108, 110, 200, 250, 240, 380, 480, 500, 600V
AC	60Hz: 24, 48, 110, 110, 12, 200, 250, 250, 250, 380, 272, 380, 480, 600V
	50Hz/60: 24, 48, 100, 110, 120, 200, 250, 250, 240, 380, 280, 480, 480, 600V
DC	DC: 12, 24, 36, 48, 60, 90, 100, 110, 125, 100, 200, 250V

Certification
- CE (UL)
- UL100

Accessories



Contactors (40AF)

Description

- 3-pole(NC) main contact
- Finger proof design
- DIN rail or screw mountable
- AC or DC control in different physical size
- Frontside mountable accessories available
- Direct mountable overload relay available Rating



MC-32a

Rating

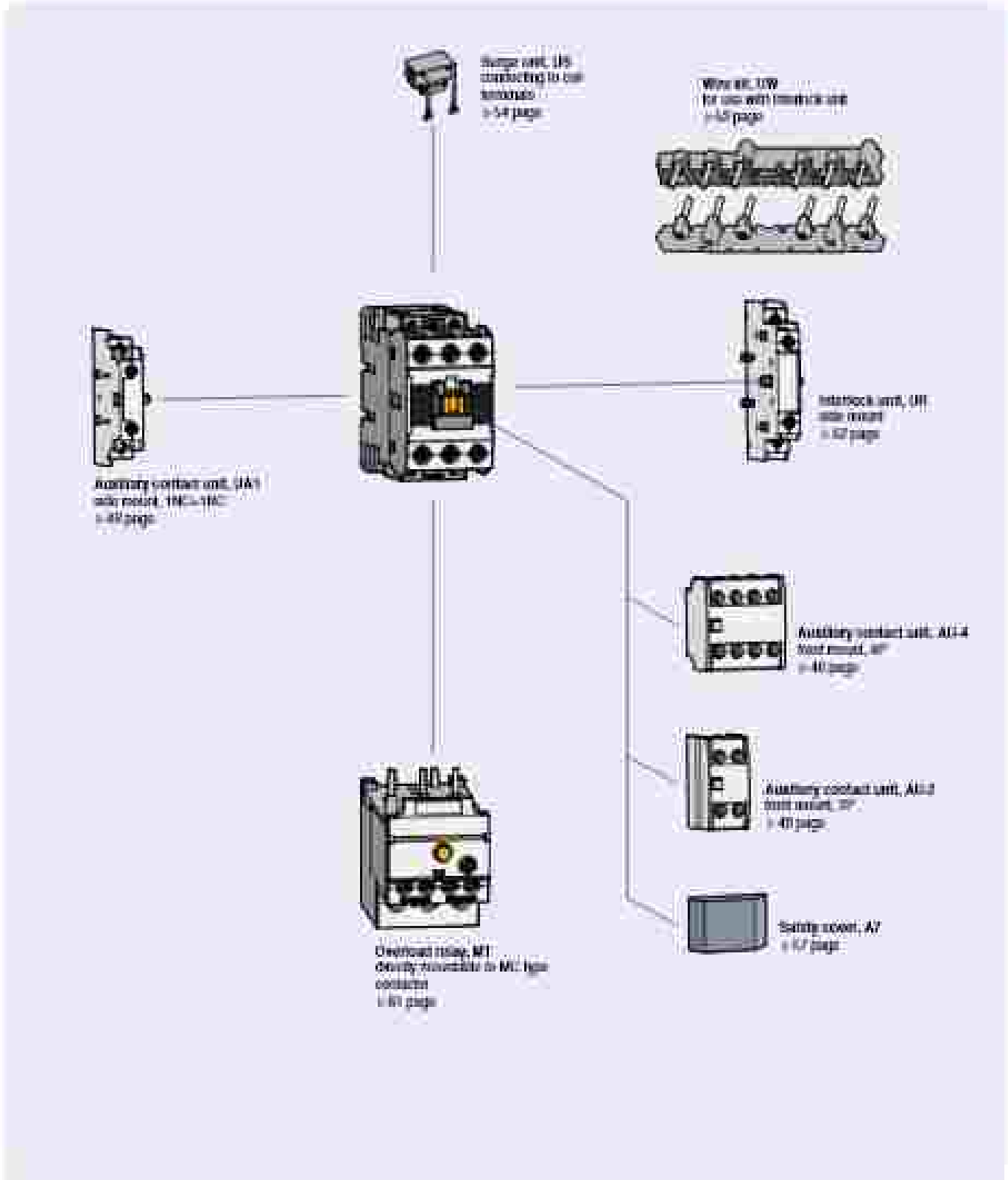
Contact/ctrl type			MC-32a		MC-32H		
			3P	A	3P	A	
AC (4W)	AC3	20000W	7.5	32	11	40	
		25000W	7.5	32	11.5	40	
		30000W	10.5	32	12	32	
	AC4	20000W	4.5	20	3.5	25	
		25000W	7.5	17	11	24	
		AC1	-	-	10	-	30
DC1 (L/FV-100)	2-pole	24V	-	32	-	32	
		48V	-	30	-	15	
	3-pole	24V	-	28	-	15	
		48V	-	27	-	15	
	DC2/A (L/FV-100)	2-pole	24V	-	25	-	20
			48V	-	20	-	25
3-pole		24V	-	20	-	15	
		48V	-	20	-	15	
Directly mountable Overload relay			MLOD				
Contacts size (pole, standard)		7W5	12-11		10-8		
pole size, number of contacts (3)		10x7	23-11		4-15		
Contacts type			SPST/NO - Co-axial only				

Cold voltage

AC 100V	24, 32, 42, 48, 60, 100, 110, 220, 230, 240, 280, 440, 500, 600V
AC 50/60Hz	24, 48, 110, 110, 12, 200, 200, 200, 200, 272, 380, 410, 600V
DC 24V	24, 48, 100, 110, 120, 200, 270, 270, 240, 280, 410, 440, 500, 600V
DC 24V	12, 24, 36, 48, 60, 90, 100, 110, 125, 100, 200, 240V

Certification
- CE (EN 60947)
- UL508

Accessories



Contactors (65AF)

Description

- 3-pole(NC) main contact
- Finger proof design
- DIN rail or screw mountable
- AC or DC control in different physical size
- Frontside mountable accessories available
- Direct mountable overload relay available (Rating)



Rating

Contactor type			MC-65a		MC-65H	
			3P	A	3P	A
AC duty	AC3	20000V	16	66	10.5	65
		25000V	20	80	30	65
		30000V	30	40	33	60
		400V	30	28	33	35
	AC4	20000V	7.5	25	11	40
		30000V	15	30	22	47
DC1 duty (5.75-100)	2 pole	24V	-	70	-	100
		48V	-	30	-	30
	3 pole	24V	-	30	-	75
		48V	-	15	-	30
	3 pole	24V	-	60	-	60
		48V	-	30	-	30
DC2, 4 duty (5.75-100)	2 pole	24V	-	45	-	60
		48V	-	45	-	45
		110V	-	25	-	30
	3 pole	24V	-	45	-	75
		48V	-	30	-	45
		110V	-	30	-	30
Directly mounted Certified type			M1 all			
Contacts size (pole, standard)		JWC	10-4		6-3	
pole size, number of contacts (3)		mm ²	6-25		10-35	
Contactor type			BU/ST; DC-duty only			



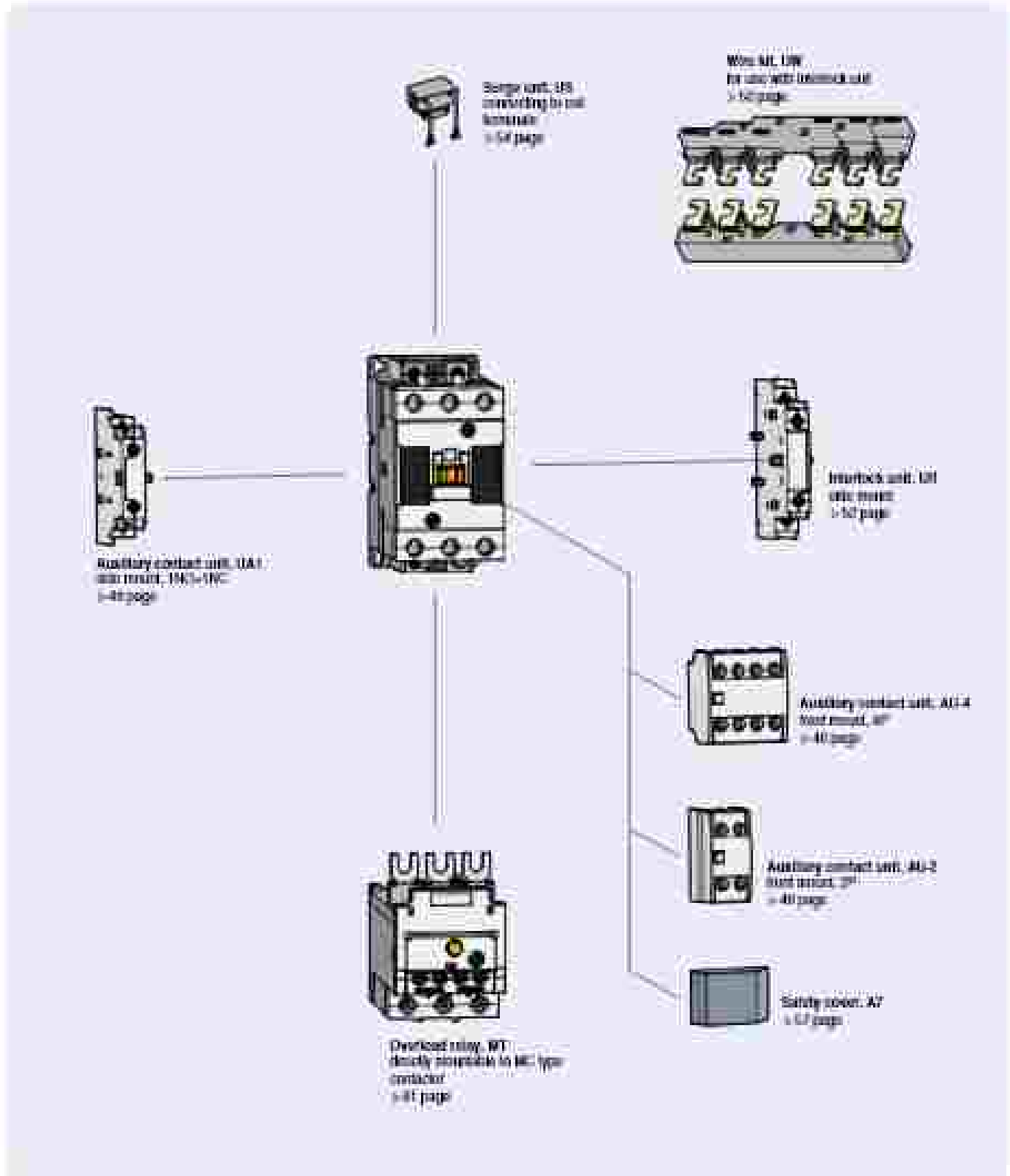
Coil voltage

AC	50/60	24, 32, 42, 48, 60, 100, 110, 220, 230, 240, 240, 415, 500, 600V
AC	50/60	24, 48, 110, 110, 12, 200, 200, 220, 240, 240, 272, 280, 415, 600V
AC	50/60	24, 48, 100, 110, 120, 200, 200, 220, 240, 280, 415, 440, 500, 600V
DC	DC	12, 24, 24, 48, 60, 60, 110, 110, 120, 200, 220, 240V

Certification

- CE (EU)
- UL (USA)

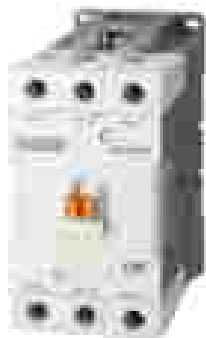
Accessories



Contactors (100AF)

Description

- 3-pole(NC) main contact
- Finger proof design
- DIN rail or screw mountable
- AC or DC control in different physical size
- Frontside mountable accessories available
- Direct mountable overload relay available (Rating)



MC-100A

Rating

AC duty	Contact type	Voltage	MC-100		MC-100A		MC-100B		
			kW	A	kW	A	kW	A	
AC-1	3-pole(NC)	200/240V	25	75	25	85	25	105	
		220/240V	37	75	45	85	55	105	
		200/230 V	37	64	45	75	55	85	
	AC-1	480V	37	42	45	45	45	60	
		AC-1	200/240V	15	55	15	65	15	80
		220/240V	25	52	25	62	27	75	
DC-1 duty (U ₁₀ -15ms)	3-pole	24V	—	80	—	100	—	100	
		48V	—	60	—	80	—	100	
		110V	—	75	—	90	—	80	
	R-solenoid	24V	—	80	—	100	—	100	
		48V	—	60	—	80	—	100	
		110V	—	80	—	95	—	85	
DC-1 A duty (U ₁₀ -15ms)	3-pole	24V	—	55	—	60	—	60	
		48V	—	45	—	50	—	50	
		110V	—	38	—	40	—	40	
	R-solenoid	24V	—	75	—	80	—	80	
		48V	—	65	—	70	—	70	
		110V	—	55	—	60	—	60	
Directly mountable Certified relay			MT 100						
Contactor size (width, standard)		AWG	8-2		8-20		8-8		
(No max. number of conductors 2)		mm ²	10-25		10-50		10-70		
Contactor type			65/70% (Cu wire only)						



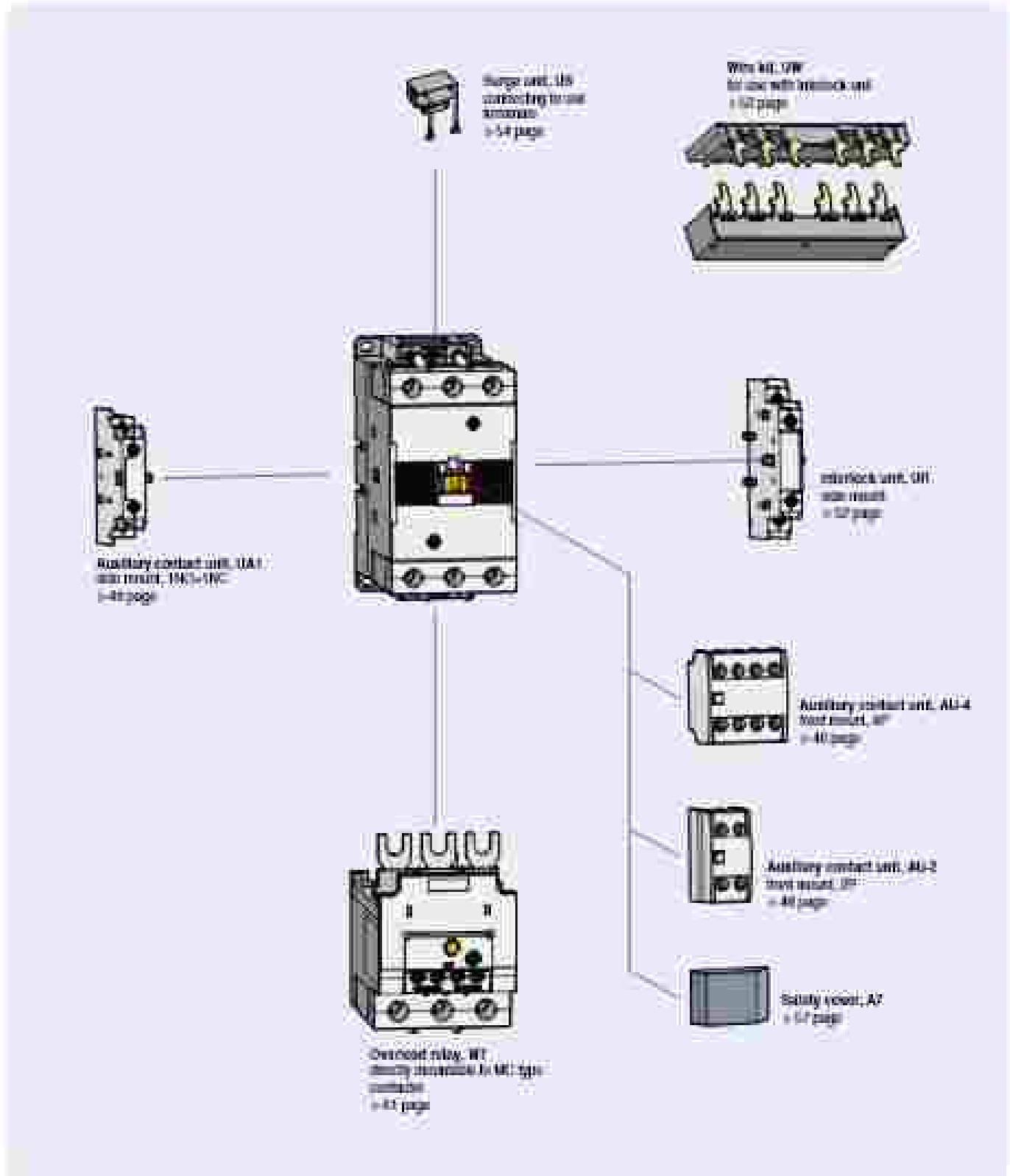
Coil voltage

50Hz	24, 30, 40, 48, 60, 100, 110, 220, 230, 240, 280, 400, 500, 600V
AC 60Hz	24, 48, 110, 110, 12, 200, 208, 220, 238, 240, 277, 380, 480, 600V
	50/60Hz
DC / DC	12, 24, 36, 48, 60, 80, 100, 110, 125, 240, 250, 250V

Certification

- CE (TFC)
- IEC60947

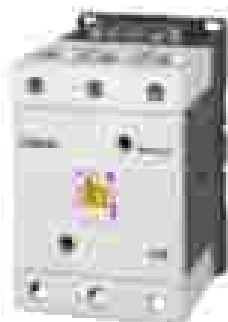
Accessories



Contactors (150AF)

Description

- 3-pole(NC) main contact
- Finger proof design
- DIN rail or screw mountable
- AC or DC control in the same physical size
- Frontside mountable accessories available
- Direct mountable overload relay available



MC-150

Rating

Contactor type			MC-150A		MC-150B	
			3P	A	3P	A
AC duty	ACB	30/30kV	37	138	45	150
		30/40kV	40	138	75	150
		30/50kV	40	95	70	150
		30/60V	33	90	65	90
	ACA	30/40kV	33	90	30	120
		30/50kV	45	90	65	110
DC1 duty (5.75-150)	2-pole	24V	-	100	-	100
		48V	-	100	-	100
		110V	-	80	-	100
	3-pole	24V	-	100	-	100
		48V	-	100	-	100
		110V	-	100	-	100
DC2 duty (5.75-150)	2-pole	24V	-	100	-	100
		48V	-	80	-	100
		110V	-	80	-	80
	3-pole	24V	-	100	-	100
		48V	-	80	-	100
		110V	-	80	-	100
Directly mounted/ Certified type			MT-150			
Contacts size (pole, standard)		1/10	3-01		3-01	
pole size, number of contacts (3)		mm ²	05-10		05-05	
Contactor type			05/10/15 Co-act only			



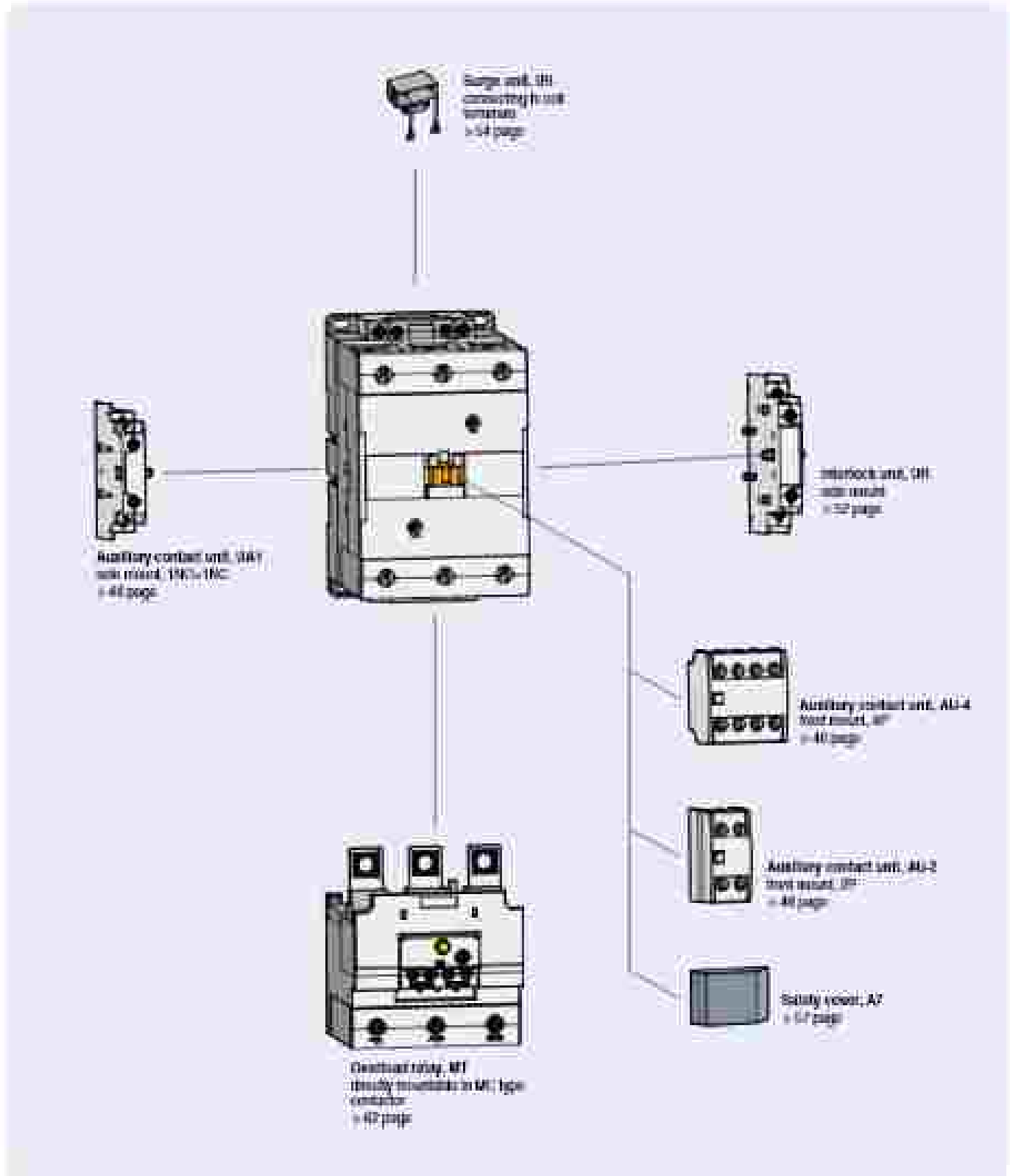
Coil voltage

AC	110/230V	24, 48, 110, 200, 300, 400, 500V
DC	24	24, 48, 110, 230V

Certification

- CE/UL
- UL/CSA

Accessories



Contactors (225AF)

Description

- 3-pole main contact
- AC/DC common use coil built
- Wide coil operation voltage
- Screw mountable
- 2NC+2NC Auxiliary contacts built in as standard
- Top-hat mountable accessories available
- Direct mountable overhead trays available



MC 225A

Rating

Contactor type			MC 185A		MC 225A	
			IN	Δ	IN	Δ
AC duty	AC3	30000V	45	100	75	225
		20000V	30	75	50	150
		10000V	15	30	25	75
	AC4	400V	110	100	140	150
		60000V	37	150	45	180
		38000V	26	150	40	180
DC duty (0.75-110s)	2-pole	24V	-	100	-	225
		48V	-	100	-	180
		110V	-	100	-	150
	3-pole	24V	-	100	-	225
		48V	-	100	-	225
		110V	-	100	-	225
DC, 4-duty (0.75-110s)	2-pole	24V	-	50	-	225
		48V	-	150	-	180
		110V	-	100	-	120
	3-pole	24V	-	100	-	225
		48V	-	100	-	225
		110V	-	100	-	180
Directly mountable Overhead only			MT 225			
Contactor size (pole, standard)		4W1	1-410		110-220	
pole max. number of conductors (2)		10W1	50-65		80-120	
Contactor type			FPC Co standard wire			



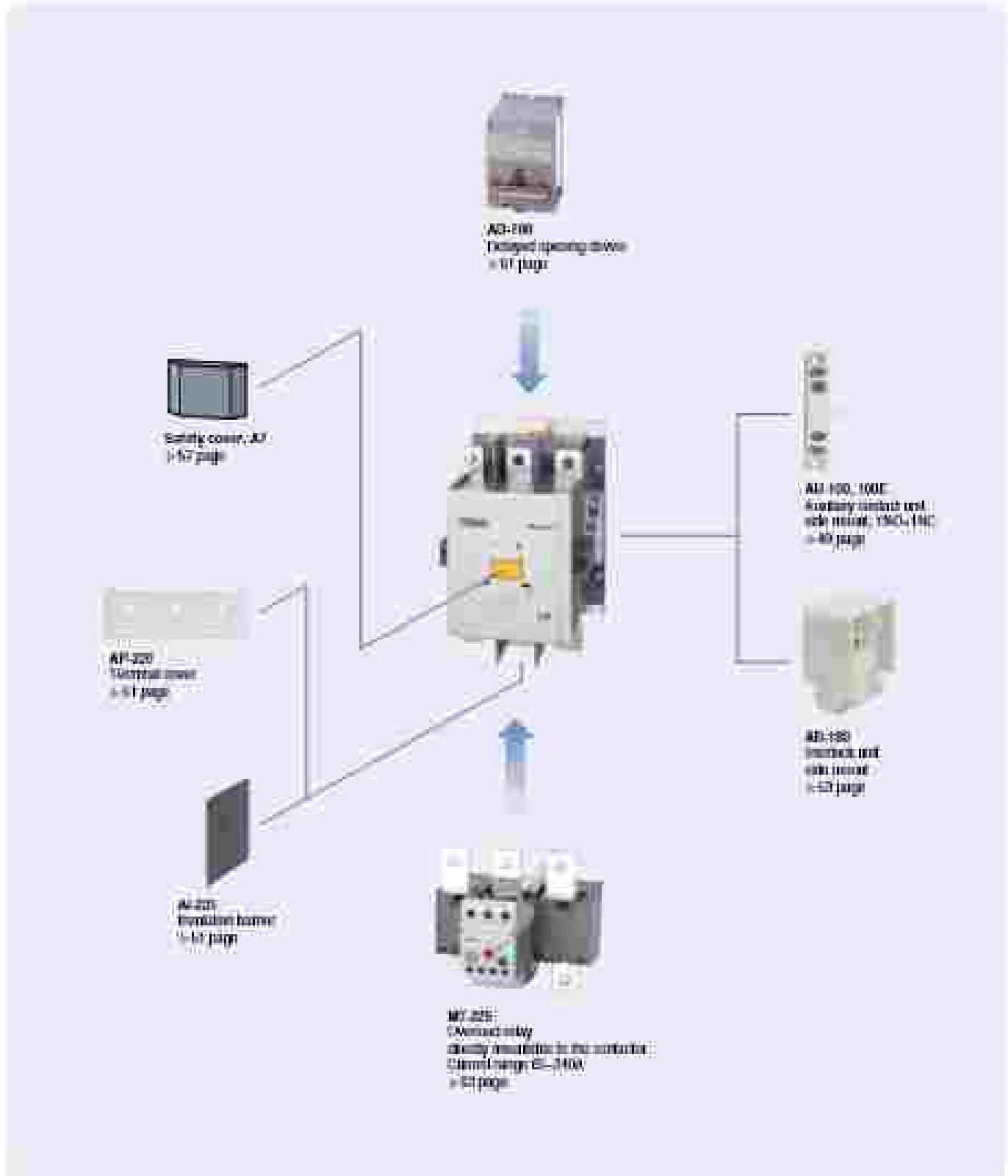
Coil voltage, AC/DC common

Normal operating voltage	AC (V/Hz)	DC
24V	24 / 50	24V
48V	48 / 50	48V
110/220V	110 / 50V	110 / 220V
240V	240 / 50V	-
480V	480 / 50V	-
600V	600 / 50V	-

Certification

- CE (R/C)
- ILS01

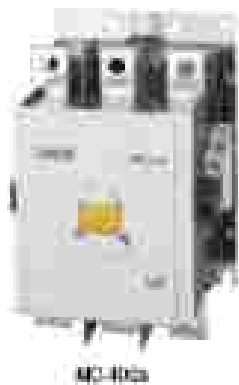
Accessories



Contactors (400AF)

Description

- 3-pole main contact
- AC/DC common use coil built
- Wide coil operation voltage
- Screw mountable
- 2NC+2NC Auxiliary contacts built in as standard
- Top-hat mountable accessories available
- Direct mountable overhead trays available



MC-400

Rating

Contactor type			MC-200a		MC-200		MC-400		
			kVA	A	kVA	A	kVA	A	
AC only	AC3	2000kV	80	200	50	300	125	400	
		380kV	147	365	100	300	250	400	
		500kV	147	225	100	200	225	350	
	AC4	2000kV	50	200	30	200	75	300	
		380kV	50	300	110	225	150	300	
		AC1		40	-	300	-	400	
	DC only (2.0A-trip)	3-pole	24V	-	200	-	300	-	400
			48V	-	100	-	150	-	200
			110V	-	100	-	200	-	300
2-pole		24V	-	200	-	300	-	400	
		48V	-	200	-	300	-	400	
		110V	-	200	-	300	-	400	
DC, 4-pole (1.0A-10ms)		3-pole	24V	-	200	-	300	-	400
			48V	-	100	-	200	-	300
			110V	-	100	-	150	-	150
	2-pole	24V	-	200	-	300	-	400	
		48V	-	200	-	300	-	300	
		110V	-	100	-	200	-	300	
	Direct mountable Overhead tray			M1-400					
	Conductor size (bare, stranded)		AWG	210-400		416-500		590-710	
	(No max. number of conductors 2)		mm ²	60-260		95-240		116-310	
Conductor type:			I/V Co. stranded wire						



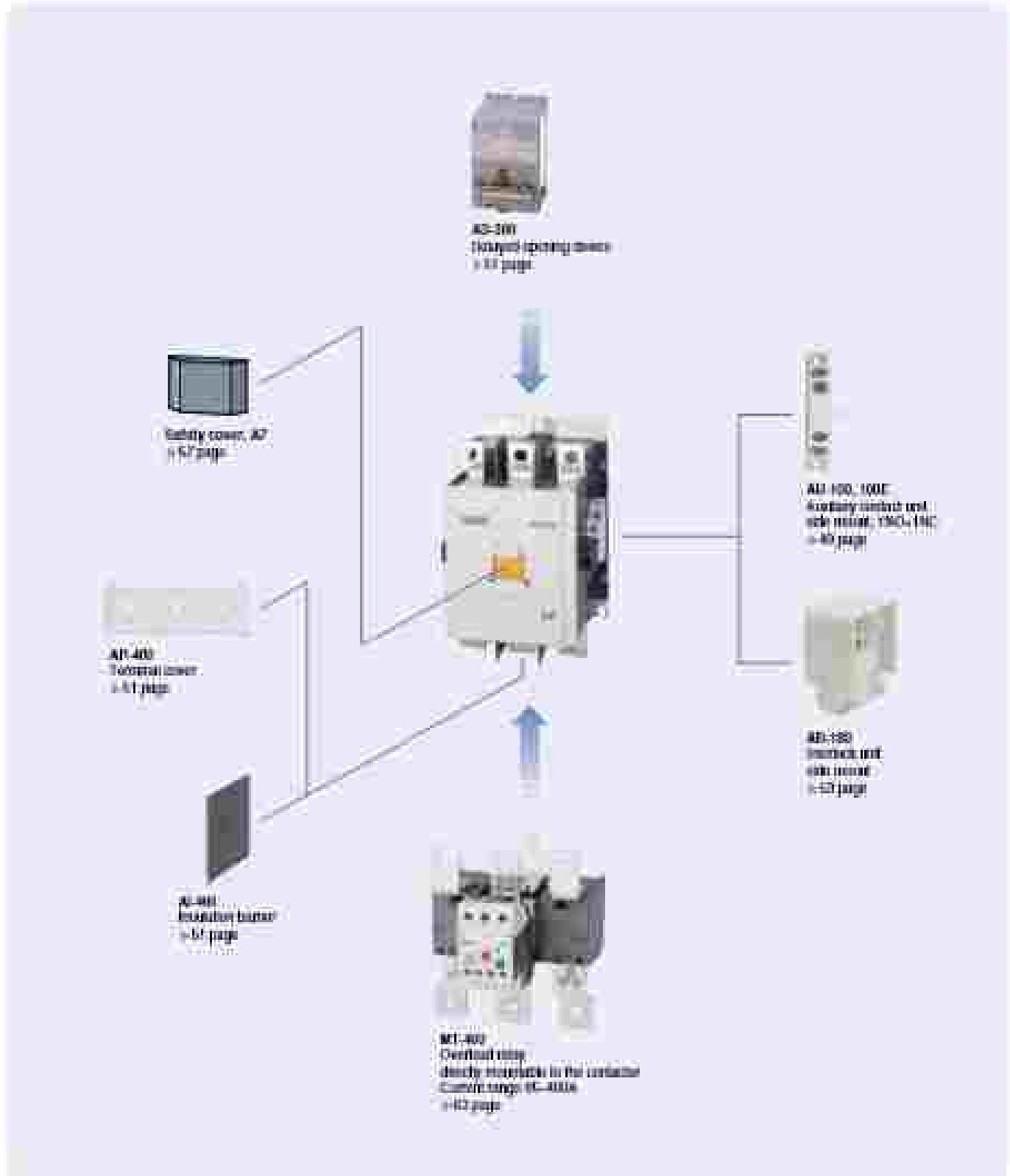
Coil voltage, AC/DC common

Recommended voltage	AC (kVA)	DC
110kV	100 - 240V	100 - 200V
200V	200 - 340V	-
380V	300 - 450V	-
500V	440 - 620V	-

Certification

- CE (RoHS)
- UL508

Accessories



Contactors (800AF)

Description

- 3-pole main contact
- AC/DC common use coil built
- Wide coil operating voltage
- Screw mountable
- 2NC+2NC Auxiliary contacts built in as standard
- Top-hat mountable accessories available
- Overload relays available



Rating

Contactor type			MC 010A		MC 020A		MC 030A	
			kW	A	kW	A	kW	A
AC 1-pole	ACB	300/240V	142	510	100	350	200	700
		200/160V	205	670	200	690	440	1500
		160/120V	280	900	320	900	500	2000
	ACB	400V	300	1000	400	1200	500	1500
		200/160V	80	280	110	400	140	450
		300/240V	170	550	200	680	240	800
ACB			140		480		1500	
DC 1-pole (L/11-110)	3-pole	24V		400		550		800
		48V		280		380		500
		110V		200		280		350
	4-terminal	24V		400		550		800
		48V		280		380		500
		110V		200		280		350
DC 4-pole (L/11-110)	3-pole	24V		400		550		800
		48V		280		380		500
		110V		200		280		350
	4-terminal	24V		400		550		800
		48V		280		380		500
		110V		200		280		350
Directly mountable Overload relay			MT 000					
Contactor size (peak, standard)		AW1	35L-400		40L-2000		175C-5000	
Contactor size (see max. number of contacts 3)		200	100-400					
Contactor type			70% Co-terminated wire					



Coil voltage, AC/DC common

Operating voltage	AC 50/60Hz	DC
100V	100 - 177V	100 - 110V
200V	200 - 340V	200 - 220V
300V	300 - 517V	-
400V	400 - 690V	-
500V	440 - 770V	-

Certification

- CE (EMC)
- IEC60947

Motor starters

Description

- Opened direct motor starter
- 3 pole(MC) main contact
- Finger proof design
- DIN rail or screw mountable
- AC or DC control contactor available
- Front/side mountable accessories available
- Overload relay is directly mounted to the contactor



Rating

Starter type	110V				230V			
	MC-20	MC-25	MC-30	MC-40	MC-50	MC-60	MC-80	MC-100
Number of poles	3				3			
Rated operational voltage (U _N)	Up to 500V				Up to 690V			
Degree of pollution (AC-23A25)	3				3			
Rated operational current (I _N @ 40°C)	A				A			
AC-1 Up to max 550V	25	25	25	10	25	25	30	40
AC-3 200/240V	0	11	15	10	11	17	18	22
250/300V	7	9	12	10	9	12	18	22
415V	7	9	12	10	9	12	18	22
500V	7	9	12	10	9	12	18	22
600V	6	7	10	10	7	10	12	20
690V	6	6	6	0	6	9	9	18
Rated operational power (P _N @ 40°C)	kW				kW			
AC-3 200/240V	0.2	2.5	3.5	4.5	2.5	3.5	4.5	6.5
250/300V	3	4	5.5	7.5	4	5.5	7.5	11
415V	3	4	5.5	7.5	4	5.5	7.5	11
500V	3	4	5.5	7.5	4	5.5	7.5	11
600V	3	4	7.5	7.5	4	5.5	7.5	11
690V	3	4	7.5	7.5	4	5.5	7.5	11
Mounting: ECONOC 4.1								
Rated making capacity AC-3	25	40	50	100	50	120	100	200
Rated breaking capacity AC-3	10	20	30	100	20	60	100	170
Electrical life for 50AC 3 Max. in millions of operating cycles	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Maximum operating rate in operating cycles per hour	1000	1000	1000	1000	1000	1000	1000	1000

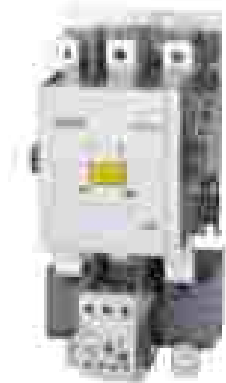
Devices usable in the starter combination

Contactors		MC-20	MC-25	MC-30	MC-40	MC-50	MC-60	MC-80	MC-100
with AC or DC control coil									
with coil in common use for AC and DC									
Thermal Overload Relays									
Class 10	Differential type			MT 100K				MT 100K	
	Non-differential type			MT 100H				MT 100H	
	Non-differential type(2 stages)			MT 100H				MT 100H	
Class 20	Differential type			MT 100K				MT 100K	
Setting range				0.1-100				0.1-400	

Motor starters

Description

- Opened direct motor starter
- 3 pole(NC) main contacts
- Screw mountable
- AC/DC common use control contactor used (from 225AT)
- Additional accessories available
- Overload relay is directly mounted to the contactor



Rating

Motor type			1500V		230V	
			MC 100a	MC 100a	MC 100a	MC 200a
Number of poles			3		3	
Rated operational voltage (U _N)			Up to 690V		Up to 690V	
Degree of pollution (IP20/IP30)			IP20		IP20	
Rated operational current I _N (p = 40°C)						
AC-1	Up to 90kW	A	50	210	200	275
AC-3	200/240V	A	100	400	100	225
	380/480V	A	100	470	100	225
	415V	A	50	150	50	225
	440V	A	100	350	100	225
	500V	A	50	100	100	200
	600V	A	50	50	120	100
Rated operational power (p = 40°C)						
AC-3	200/240V	kW	37	45	35	75
	380/480V	kW	50	75	50	110
	415V	kW	50	75	50	110
	440V	kW	50	75	50	110
	500V	kW	50	75	110	110
	600V	kW	50	50	110	140
According to IEC60947-4-1						
Rated making capacity AC-3			1200	1100	1400	2050
Rated breaking capacity AC-3			360	1200	1400	1800
Electrical life for AC-3 Motor						
in millions of operating cycles			1	1	1	1
Maximum operating rate						
in operating cycles per hour			100	100	100	100

Devices usable in the starter combination

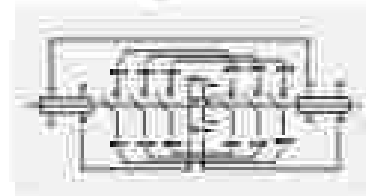
Contacts		1500V		230V	
		MC 100a	MC 100a	MC 100a	MC 200a
with AC or DC control coil					
with coil in common use for AC and DC					
Thermal Overload Relays					
Class 10A	integrated type		MT 1500A		MT 230A
	non-integrated type		MT 1100A		MT 2000A
	non-integrated type (2 heater)		MT 1100A		MT 2000A
Class 20	integrated type		MT 1500A		MT 2000A
			DL-150A		ES-200A

Reversing contactors

Description

- Two AC or DC control contactors are interlocked mechanically and electrically
- 3 pole(N/C) main contact in each contactor
- Finger proof design
- DIN rail or screw mountable
- Terminal mountable accessories available
- Overload relay can be directly mounted to the contactor if necessary

Circuit diagram

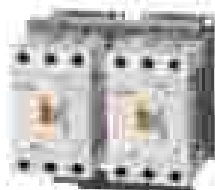


Rating

Type	AC-3 duty						Control (AC)	Weight (AC control)
	200- 230V kW	280- 300V kW	415V kW	480V kW	500V kW	600V kW		
MC 0401	0.2	3	3	3	3	3	7	550g
MC 0601	0.5	4	4	4	4	4	8	650g
MC 1001	0.5	5.5	5.5	5.5	7.5	7.5	12	850g
MC 1601	0.5	7.5	7.5	7.5	7.5	7.5	16	1.05kg
MC 2001	0.5	4	4	4	4	4	3	0.75kg
MC 2501	0.5	5.5	5.5	5.5	7.5	7.5	12	0.75kg
MC 3001	4.5	7.5	7.5	7.5	7.5	7.5	18	0.75kg
MC 4001	5.5	11	11	11	15	15	25	0.75kg
MC 5001	11	16.5	16.5	16.5	22	22	32	0.95kg
MC 6301	11	16.5	16.5	16.5	22	22	40	0.95kg
MC 8001	11	22	22	22	30	30	50	1.1kg
MC 1001	16.5	22	22	22	30	30	63	1.1kg
MC 1201	22	27	27	27	37	37	75	1.3kg
MC 1601	22	45	45	45	45	45	90	1.3kg
MC 2001	37	55	55	55	65	65	100	1.3kg



MC 0401



MC 0601



MC 1001



Cell voltage

500V	24, 32, 42, 48, 60, 100, 110, 220, 230, 240, 300, 400, 500, 600V
AC 600V	24, 48, 110, 110, 12, 200, 200, 220, 230, 240, 277, 280, 480, 600V
500V DC	24, 48, 100, 110, 120, 200, 220, 230, 240, 280, 400, 480, 500, 600V
DC DC	6, 20, 24, 48, 60, 80, 100, 110, 120, 100, 200, 250V

Certification

- CE (EN 60947)
- UL508

Description

- 3-pole main contact
- Mechanically interlocked
- ACDC common use coil built (from MC-185uR)
- Wide coil operation voltage
- Screw mountable
- DNO (DNC Auxiliary contacts built in as standard)
- Topside mountable accessories available

Rating



Type	AC-3 duty						Current (AC/DC)	Weight (AC control)
	220 - 240V	240 - 250V	415V	480V	550 - 575V	690V		
	kW	kW	kW	kW	kW	kW	A	
MC-100uR	17	40	50	60	80	11	170	4.2kg
MC-150uR	40	75	75	75	75	50	150	4.3kg
MC-185uR	66	90	90	90	110	110	180	12kg
MC-250uR	75	132	132	132	132	140	225	17kg
MC-350uR	40	147	147	147	147	160	250	21.6kg
MC-450uR	90	180	180	180	180	200	300	21.6kg
MC-600uR	125	200	200	200	220	250	400	21.6kg
MC-800uR	147	250	250	250	280	300	500	40kg
MC-1000uR	180	330	330	330	330	400	600	60kg
MC-1500uR	300	440	440	440	440	500	800	80kg



Coil voltage

For MC-100R and MC-150uR:

AC	180V±	24, 48, 110, 200, 300, 480, 600V
DC	DC	24, 48, 110, 200V

For MC-185uR and up:

24, 48, 100, 200, 300, 480, 600V for types MC-185uR, 250uR
100, 200, 300, 480, 600V for types MC-350uR, 450uR, 600uR
100, 200, 300, 480, 600V for types MC-800uR, 1000uR, 1500uR

Rated operating voltage	AC-3000uR	DC
24V	24, 20V	24V
48V	48, 50V	48V
100V	100, 125V	100, 110V
200V	200, 240V	200, 220V
1000V	100, 240V	100, 220V
300V	300, 345V	-
480V	500, 600V	-
600V	480, 575V	-

Capacitive contactors

Description

Capacitor unit(Pre-loading resistor) is connected to the terminals of the contactor to reduce the high inrush current exceeding 20 x In.

- AC or DC control coil on selection
- 3-pole(NC) main contact
- Finger proof design
- DIN rail or screw mounting

Rating

Type	Maximum operating power (Watt)			Rated current (A)	Capacitor unit type
	220 - 240V	380 - 440V	500 - 520V		
AC-100000	5	8.7	14	14	AC-0
AC-1000000	6.7	10.5	18	18	AC-0
AC-10000000	9.0	16.7	24	24	AC-0
AC-100000000	10	18	26	26	AC-0
AC-1000000000	15	25	38	38	AC-0
AC-10000000000	20	33.3	56	56	AC-0
AC-100000000000	30	48	80	80	AC-50
AC-1000000000000	35	56.2	95	95	AC-50
AC-10000000000000	50.7	74	128	128	AC-60
AC-100000000000000	65	95	160	160	AC-60
AC-1000000000000000	97	142	240	240	AC-60

Note: When the capacitor unit is connected to the contactor, the maximum voltage of the capacitor unit is limited to 100V (AC) and 150V (DC).



Coil voltage

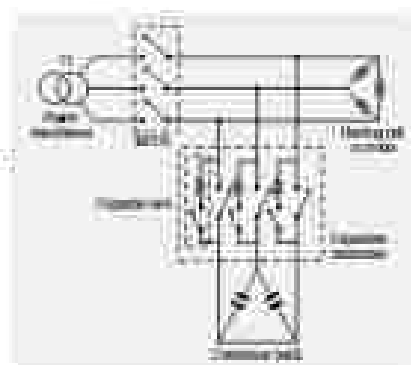
AC	24, 32, 40, 48, 60, 120, 110, 220, 230, 240, 260, 400, 525, 525V
AC	24, 48, 110, 110, 110, 110, 220, 230, 230, 230, 240, 277, 280, 480, 600V
AC	24, 48, 100, 110, 120, 270, 270, 270, 240, 280, 475, 480, 525, 525V
DC / DC	0, 24, 36, 48, 60, 60, 100, 110, 120, 100, 220, 230V

These capacitive contactors are suitable for switching single-step or multiple-step condenser bank.

It is standardized by IEC (60047-4941), UL and CSA.

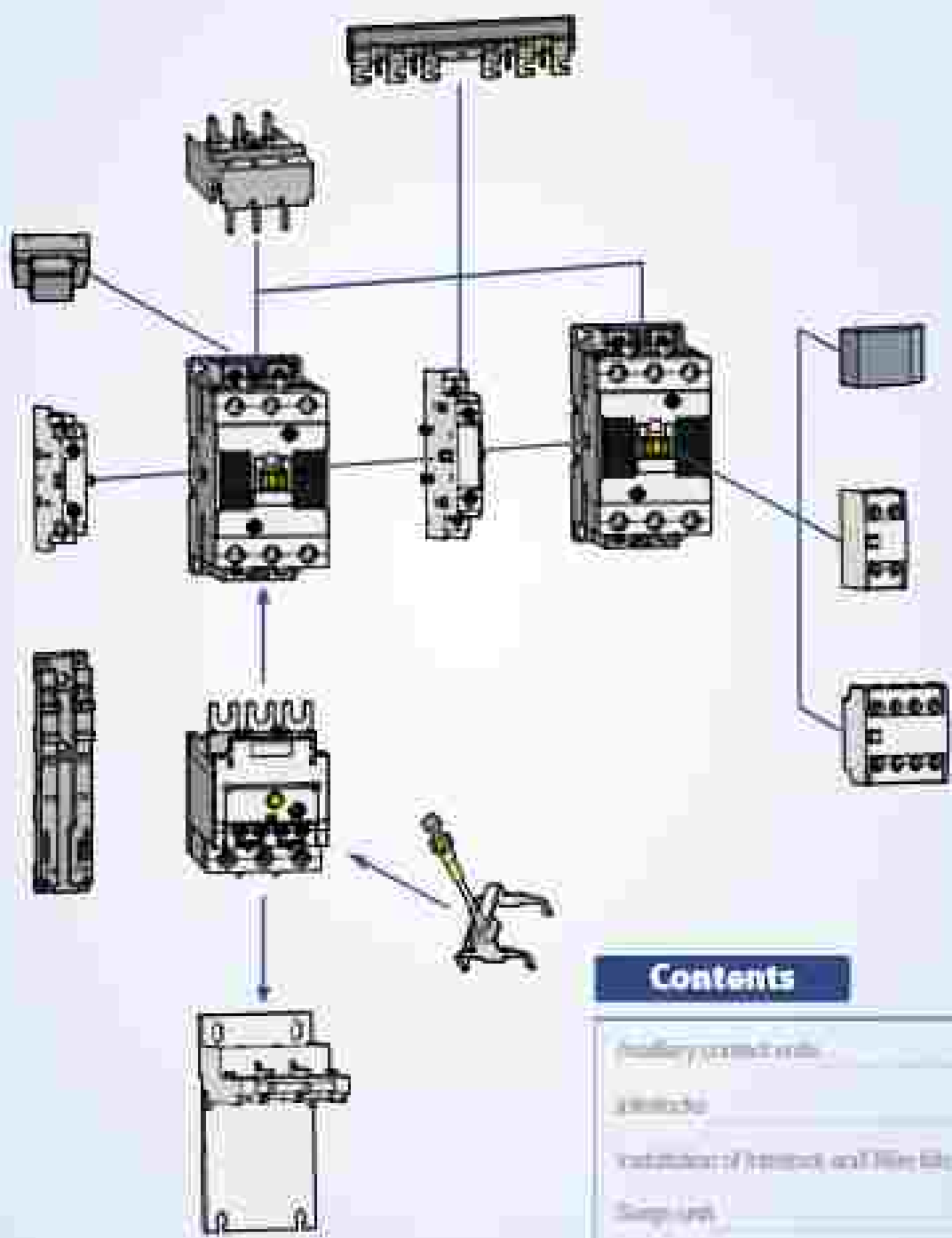
Features of capacitor unit(Pre-loading resistor)

- Damping resistor that can limit the inrush current upto 60 x In is connected to the mechanism that closed earlier than the main contact of the contactor.
- No total loss by the serial resistor.
- Eliminate the switching surge.
- Improving the performance of the capacitor system.



Example

Metasol Accessories

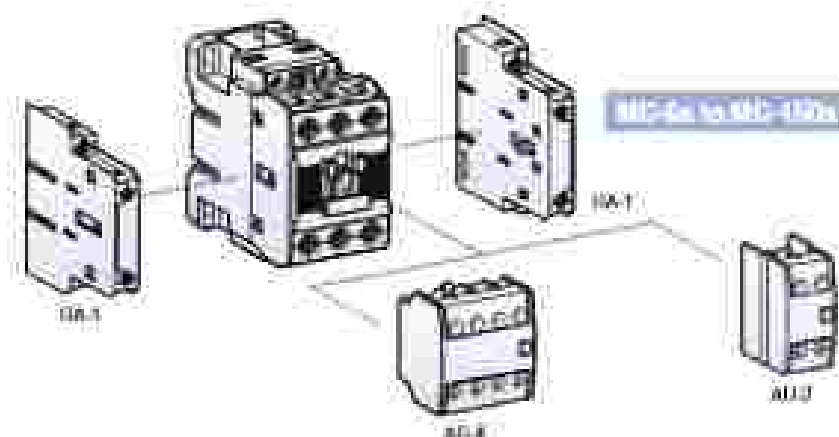


Contents

Terminal blocks	10
Relays	10
Validation of terminal and file file	12
Single unit	16
Double unit	17
Replacement coils	18
Delivery notes (Order)	17

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	Completion:		Contact arrangement	Mount	Weight
			NO	NC			
UA-1		2	1	1		Side	1kg
UA-2		2	2	2		Front	20g
UA-4		4	2, 3, 4	1, 2, 3, 4		Front	1kg

Maximum combination of contact units

For contactors with AC coils	For contactors with DC coils
UA-4 (on front) + UA-1 > 4 A (2 A on both sides)	UA-4 (on front) + UA-1 < 25 A (12 A on both sides)
UA-2 (on front) + UA-1 > 4 A (2 A on both sides)	UA-2 (on front) + UA-1 < 25 A (12 A on both sides)

- 2 pole
- Side mountable
- MC MC Contact used for Motronic controllers from MC-100A to MC-200A



Selection

Type	Appearance	Pole	Composition		Contact arrangement	Mount	Weight
			NO	NC			
MC-100		2	1	1		Side	52g
MC-100E		2	1	1		Side	53g

Auxiliary contact units

Rating

Type		DA 1	AD 2, 4	AD 100	AD 100E
Rated operating voltage (U _o)		230V	230V	230V	230V
Rated maximum voltage (U _m)		690V	690V	690V	690V
Rated impulse withstand voltage (U _{imp})		10kV	10kV	10kV	10kV
Rated frequency		50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Contact sensitivity					
Voltage		DC 17V	DC 24V	DC 24V	DC 7V
Current		DC 5mA	DC 10mA	DC 10mA	DC 5mA
Rated thermal current (I _{th} , AC 120 duty)		10A	10A	10A	1A
Rated operating current					
AC15-duty (A003)	120V	5A	5A	5A	ACDC 24V 0.1A ACDC 10V 0.15A
	240V	3A	3A	3A	
	380V	1.5A	1.5A	1.5A	
	480V	1.2A	1.2A	1.2A	
	100V	1.5A	1.6A	1.6A	
	60V	1.2A	1.2A	1.2A	
DC13-duty (P003)	120V	1.1A	1.1A	1.1A	
	240V	0.55A	0.55A	0.55A	
	480V	0.27A	0.27A	0.27A	
	600V	0.27A	0.27A	0.27A	
Electromechanical part operation					
AC15-duty	200V	0.5	0.5	0.5	ACDC 24V 1A
	440V	0.5	0.5	0.5	
DC13-duty	200V	0.5	0.5	0.5	ACDC 6V 1A
	440V	0.5	0.5	0.5	
Maximum operating cycles per hour		1000	1000	1000	1000
Contact size (gold plated)	AWG	18-10	18-10	18-10	18-10
Max. number of contacts (C)	mm	1-25	1-25	1-25	1-25

Installation

DA 1



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

AD 2, 4



To install front mounting unit fit it on the upper part of the front of the contactor and push it down. To separate pull the lower of the unit and push the unit upward.

Delayed opening devices



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

Applying contactors	Type	Control voltage		
MC-100A, 200A [E20A]	AD-100	Delayed opening device (sec)	Contactor (rated amp)	
MC-200A, 250A, 400A [E20A]	AD-200		AC100-110V	DC10V/10V
MC-400A, 500A, 600A [E20A]	AD-400		AC200-200V	DC200/200V

Terminal cover units for contactors



Applying contactors	Type	Remarks
MC-100A, 200A [E20A]	AT-200	2 pins terminal
MC-200A, 250A, 400A [E20A]	AT-400	
MC-400A, 500A, 600A [E20A]	AT-600	

Insulation barrier units



Applying contactors	Type	Remarks
MC-100A, 200A [E20A]	AI-100	4 pins required per terminal
MC-200A, 250A, 400A [E20A]		
MC-400A, 500A, 600A [E20A]	AI-600	

Interlocks

Component parts for assembling by customer

Interlock unit, UI-02

UI-02 is a mechanical interlock unit and provides 2NC contacts for use in electrical interlocking

Wiring kit, LW

LW is used for making reversing circuit between two contactors.



UI-02

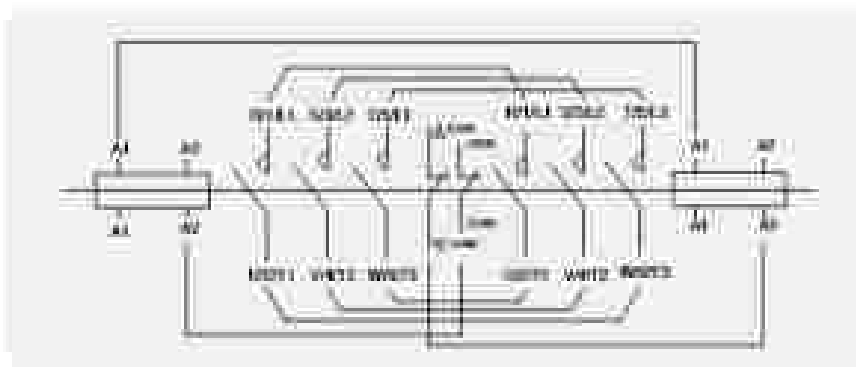


LW kit

Contactor	Wiring kit		Interlock unit	
	Type	Weight	Type	Weight
MC 63-114	LW 11	11.05kg	UI-02	6.05kg
MC 114-228	LW 21	11.04kg		
MC 228-456	LW 31	8.05kg		
MC 456-912	LW 41	11.11kg		
MC 912-1824	LW 41	11.20kg		

Rating of the contacts in the interlocks

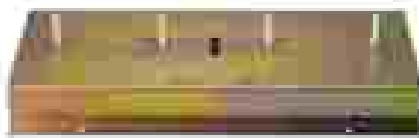
Rated operating voltage		600V
Rated insulator voltage		600V
Rated frequency		50/60Hz
Rated thermal current		10A
Rated operating current		
AC duty	120V	5A
(R22)	240V	3A
	360V	1.5A
	480V	1.5A
	600V	1.5A
	600V	1.5A
DC duty	125V	0.05A
(R22)	250V	0.02A



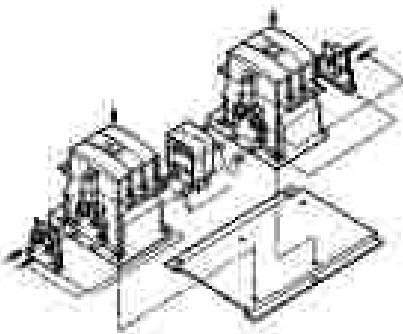
Typical circuit diagram for reversing motor



AR-100



AR-400

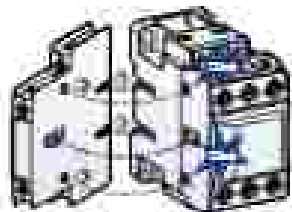


Interlock unit, AR-100 and AR-400

AR-100 and AR-400 are mechanical interlock units in which electrical contacts for use in electrical interlocking are not included. Please use the auxiliary contacts on the sides of the contactors for that purpose.

Contactors	Interlock unit	
	Type	Weight
MCC-100A MCC-200A MCC-300A MCC-300B MCC-400A MCC-500A MCC-600A	AR-100	0.005kg
MCC-600B MCC-800A MCC-800B	AR-400	0.010kg

Installation of Interlock and Wire kits



Install the interlock unit on the side of a contactor first. Fit each part as indicated in the fig.



And then install the other contactor on the other side of the interlock unit as shown.

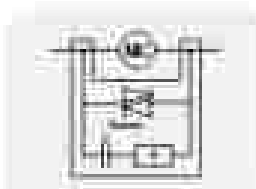


After installing interlock unit wiring kit can be assembled.
Wiring kit consists two marked wires – one for stop side and the other for load side.

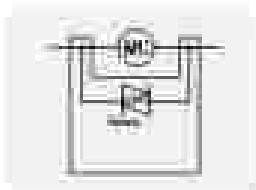
Surge unit

It absorbs the surge energy out of the coil of the contactor.
It can be installed simply to the contactor.

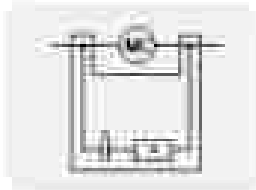
- Rated operation voltage (Uv): AC 24 ~ 410V
DC 24 ~ 120V
- Rated insulation voltage (Ui): 1000V
- Rated impulse withstand voltage (Uimp): 6kV
- Degree of protection: IP20



US-1-3



US-4-6



US-11-14

Surge unit		Rated voltage	Normal climate spec.			Weight	
Type	Composition		V	I	C		
US-1	Variator ITC	AC	24-40V	100V	100V	0.1μF	27g
US-2	Variator ITC		100-120V	200V	100V	0.1μF	
US-3	Variator ITC		200-240V	400V	100V	0.1μF	
US-4	Variator ITC	DC	24-40V	120V	100V	0.47μF	
US-5	Variator ITC		100-120V	200V	100V	0.47μF	
US-6	Variator ITC		200-240V	400V	100V	0.47μF	
US-11	Variator	AC/DC	24-40V	120V	-	-	
US-12	Variator		100-120V	200V	-	-	
US-13	Variator		200-240V	400V	-	-	
US-14	Variator	AC	380-440V	1000V	-	-	
US-20	IC		100-120V	-	50V	1μF	

Installation



Connect the main wire to the coil terminals of the contactor first.
And then insert the tray into the space of the contactor as shown above.

Capacitor unit

Capacitor unit is connected in the terminals of the contactor to reduce the high inrush current.



Type	Contactor	Maximum operating power (Watt)			Rated current (A)
		200V	400V	500V	
AC-B	MC-1000(C)	5	9.7	14	14
	MC-1000(D)	8.7	12.5	18	18
	MC-1000(E)	14	19.7	28	24
	MC-1000(F)	18	25	36	26
	MC-1000(G)	25	35.7	50	36
	MC-1000(H)	30	42.4	60	40
AC-30	MC-1500(I)	20	40	54	32
	MC-1500(J)	26	49.7	68	40
	MC-1500(K)	30.7	54	75	46
	MC-1500(L)	36	60	82	52
	MC-1500(M)	42	68	94	60

Note) When the model is listed, treatment used for the rated current is applied. (Maximum contact voltage is 660V AC, 50/60Hz)
 (1) pole for maximum (2) type for rated for 1.5/2.5 times rated current

Features of capacitor unit (Pre-loading resistor)

- Damping resistor that can limit the inrush current (up to 40%) is connected in the mechanism that closed earlier than the main contact of the contactor
- For least loss by the serial resistor
- Eliminate the switching surge
- Improving the performance of the capacitor system

Operation sequence



Note) Closing sequence: Fig. 1 → Fig. 2 → Fig. 3
 Opening sequence: Fig. 3 → Fig. 1

Replacement coils

To replace the existing coil to change voltage or repair.

Contactor	Coil voltage							
	AC coil				DC coil			
	AC 50Hz (V)		AC 60Hz (V)		AC 50/60Hz (V)		DC (V)	
AC 3A RC 3A RC 7A RC 10A	24	230	24	230	24	240	12	110
	48	240	36	240	48	240	24	125
	100	277	60	380	100	415	24	200
	110	330	48	400	110	440	48	300
	120	440	60	415	120	500	60	240
	200	480	100	440	200	540	80	
300	600	110	500	200		100		
300		200	550	200				
AC 6A RC 10A RC 15A RC 20A	24	230	24	230	24	240	12	110
	48	240	36	240	48	240	24	125
	100	277	60	380	100	415	24	200
	110	330	48	400	110	440	48	300
	120	440	60	415	120	500	60	240
	200	480	100	440	200	540	80	
300	600	110	500	200		100		
300		200	550	200				
RC 20A RC 40A	24	230	24	230	24	240	12	110
	48	240	36	240	48	240	24	125
	100	277	60	380	100	415	24	200
	110	330	48	400	110	440	48	300
	120	440	60	415	120	500	60	240
	200	480	100	440	200	540	80	
300	600	110	500	200		100		
300		200	550	200				
RC 50A RC 60A	24	230	24	230	24	240	12	110
	48	240	36	240	48	240	24	125
	100	277	60	380	100	415	24	200
	110	330	48	400	110	440	48	300
	120	440	60	415	120	500	60	240
	200	480	100	440	200	540	80	
300	600	110	500	200		100		
300		200	550	200				
RC 70A RC 80A RC 100A	24	230	24	230	24	240	12	110
	48	240	36	240	48	240	24	125
	100	277	60	380	100	415	24	200
	110	330	48	400	110	440	48	300
	120	440	60	415	120	500	60	240
	200	480	100	440	200	540	80	
300	600	110	500	200		100		
300		200	550	200				
AC 150A RC 150A					24	240	24	110
					48	240	48	200
					110	500		
				200				

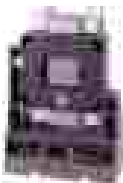


Replacement process



To replace the existing unit to change voltage or type

Contactor	Circuit voltage	
	ACDC (nominal use)	AC volt
AC-110a AC-170a	24 48 110-240/110-220	100 400 500
AC-220a AC-330a AC-470a	110-240/110-220	100 400 500
AC-330b AC-470b AC-670b	100/110 200/220	100 400 500



Safety cover (Option)

- To prevent arc from coming out from the contactor
- To protect from unintended manual operation
- To prevent hand from entering into the inside of the contactor



Type	Contactor
AC-C	AC type



General descriptions

Type M1 thermal-style, window 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, 3-pole-3-terminal(heater) and trip class 10A
2. Non-differential, 3-pole-3-terminal(heater) and trip class 10A
3. Differential, 3-pole-3-terminal(heater) and trip class 10A
4. Differential, 3-pole-3-terminal(heater) and trip class 20

Configuration of the front

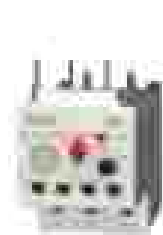
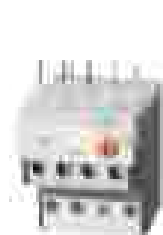


MT-10

MT-20

MT-42

MT-20



Environment and auxiliary circuit

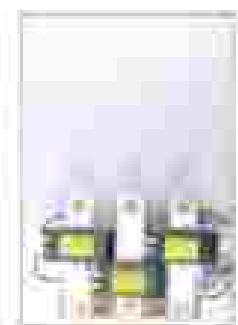
Environment		MT-10-150	MT-250-300		
Standards		IEC/EN 60947-1, IEC/EN 60947-4-1	IEC/EN 60947-1, IEC/EN 60947-4-1		
Certification		UL, CSA, UL	UL, CSA, UL		
Rated operating voltage		Max 480V	Max 690V		
Rated insulation voltage		690V	690V		
Rated frequency		50/60Hz	50/60Hz		
Degree of protection (Conforming to IEC 60 529)		IP20	IP20		
Ambient air temperature	Storage	-25 ~ +80°C	-40 ~ +80°C		
	Operation	-5 ~ +40°C	-5 ~ +40°C		
Mounting position		Vertical plane	Vertical plane		
Mounting distance (Conforming to IEC 60 37)		15g - 1mm	15g - 1mm		
Minimum resistance (Conforming to IEC 60 34)		80	80		
Insulation strength (Conforming to IEC 255-3)		8kV	8kV		
Data matrix without voltage (Conforming to IEC 61 10)		8kV	8kV		
Auxiliary contacts characteristics					
Configuration		1NO (NO + NOC)	1NO+1NC		
Rated thermal current		1A	1A		
Rated operating current	AC15 duty (C60)	120V	1.5A	2.0A	
		240V	0.75A	0A	
		380V	0.47A	0.40A	
		480V	0.375A	0.375A	
		500V	0.35A	0.35A	
		600V	0.3A	1A	
	DC13 duty (C60)	120V	0.02A	0.2A	
		240V	0.1A	0.14A	
		Contacting condition		18AWG (1.4)	18AWG (1.4)
		Condition to avoid damage to contacts		Type	65/75°C Cu wire

MT-10

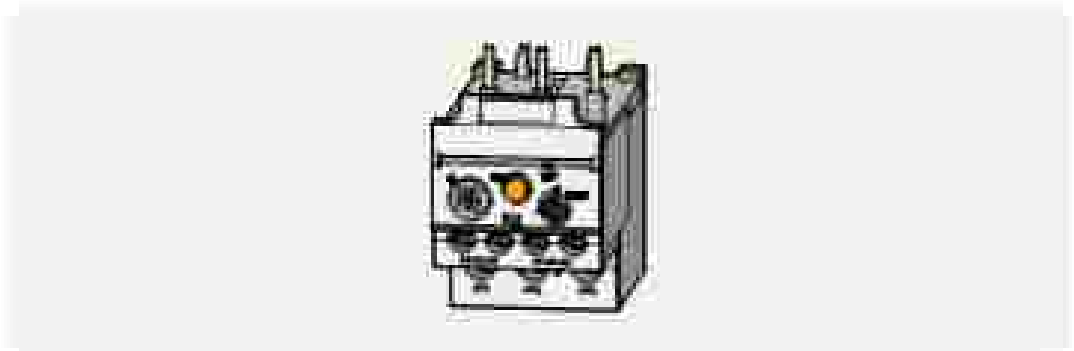
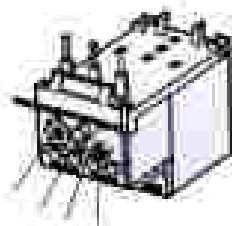
MT-25

MT-10

MT-300



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



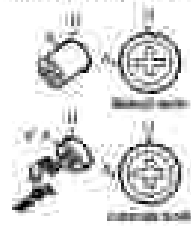
STMP function is executed by pushing the button, which causes the reset sequence.
In case of operation test pull this button.

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(M) 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.

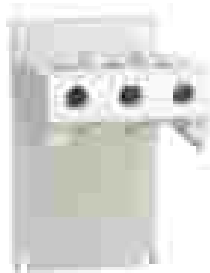
5. Auxiliary contact operation

Terminal No.	Normal	STOP	TEST/STMP	RESET
NC/NO/NO				
NC/NO/NO				

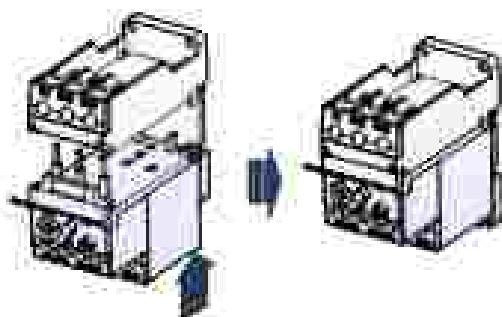
Accessories for overload relay

Separate mounting units

These accessories are used to mount the relays separately from conductors. If a relay is combined with a unit, it can be mounted on DIN rail or panel by using screws.



Relay	Unit	
	Type	Weight
MT 20011 () MT 20011 () MT 20010 () MT 20011 ()	U2-01	28g
MT 20011 (S) MT 20011 (S) MT 20010 (S) MT 20011 (S)	U2-01S	33g
MT 20011 (S) MT 20010 (S) MT 20011 (S)	U2-01S	28g
MT 180311 () MT 180311 () MT 180310 () MT 180311 ()	U2-1000	28g



Terminal cover units for overload relays



Relay	Unit type	Remarks
MT 1005	MTT 1005	3 pcs included
MT 1006	MTT 1006	
MT 1010	MTT 1010	

Accessories for overload relay

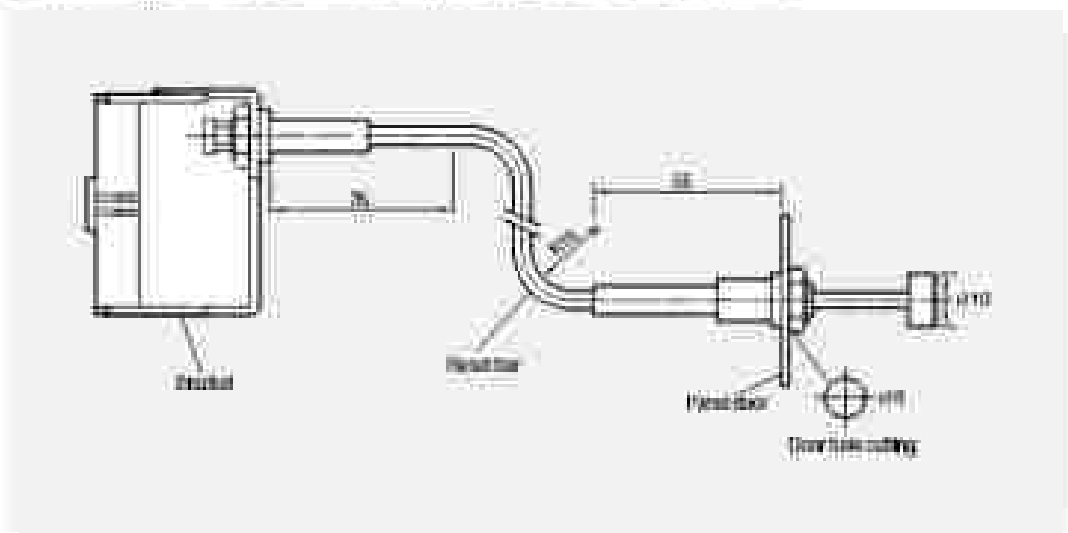
Remote reset units

These accessories are used to reset the relay via the panel door.



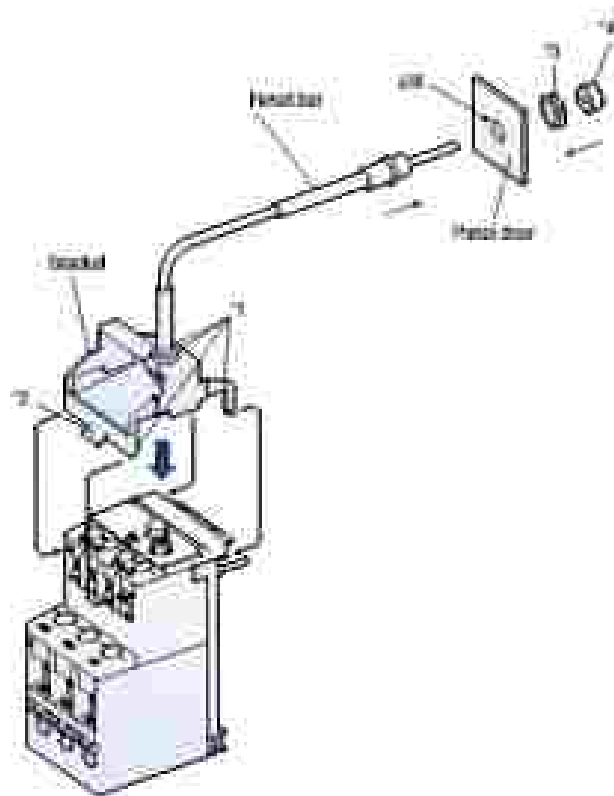
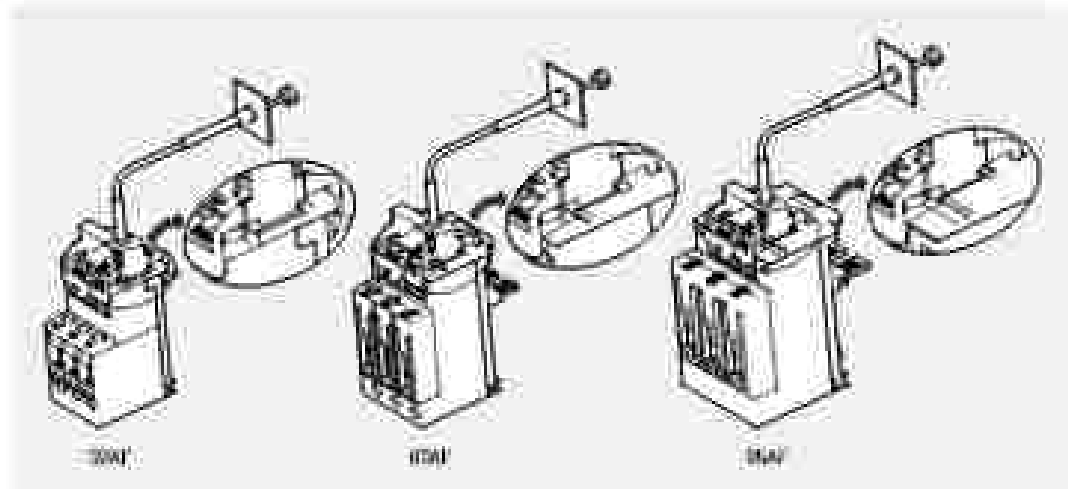
Type	Clear height:
UM-60	600 mm
UM-80	800 mm
UM-100	1000 mm

1. Make the reset bar straight at least 50mm from the panel door and 20mm from the bracket.
2. The bending radius of the flexible reset bar should not be less than 150mm.



Installation

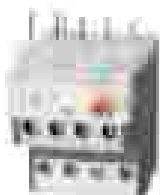
1. Fit the bracket with the relay as indicated in 1) below.
2. Separate Nut (3) and fixed cap (4) from the reset bar first.
Insert the reset bar into the panel hole and then fix it with the Nut and fixed cap.
3. To separate the bracket from the relay fit the 2 part as shown in the fig.



Overload relay ordering types

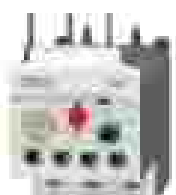
Trip class 10A

Direct mounting type



MT 10A

Setting range (A)	Ordering type			Contact	Separate mounting unit
	Non-differential (IP-2 heater)	Non-differential (IP-3 heater)	Differential		
0.1-0.16	MT 1009014	MT 1009014	MT 1009014	MC 49 MC 50 MC 104 MC 106	
0.16-0.25	MT 1009021	MT 1009021	MT 1009021		
0.25-0.4	MT 1009033	MT 1009033	MT 1009033		
0.4-0.63	MT 1009042	MT 1009042	MT 1009042		
0.63-1	MT 1009080	MT 1009080	MT 1009080		
1-1.6	MT 1009113	MT 1009113	MT 1009113		
1.6-2.5	MT 1009121	MT 1009121	MT 1009121		
2.5-4	MT 1009133	MT 1009133	MT 1009133		
4-6	MT 100915	MT 100915	MT 100915		
6-8	MT 1009165	MT 1009165	MT 1009165		
8-10	MT 1009175	MT 1009175	MT 1009175		
7-10	MT 1009185	MT 1009185	MT 1009185		
9-12	MT 1009111	MT 1009111	MT 1009111		
12-18	MT 1009115	MT 1009115	MT 1009115		



MT 20A

Setting range (A)	Ordering type			Contact	Separate mounting unit
	Non-differential (IP-2 heater)	Non-differential (IP-3 heater)	Differential		
0.1-0.16	MT 2009014	MT 2009014	MT 2009014	MC 10 MC 105 MC 106 MC 109 MC 206 MC 406	
0.16-0.25	MT 2009021	MT 2009021	MT 2009021		
0.25-0.4	MT 2009033	MT 2009033	MT 2009033		
0.4-0.63	MT 2009042	MT 2009042	MT 2009042		
0.63-1	MT 2009080	MT 2009080	MT 2009080		
1-1.6	MT 2009113	MT 2009113	MT 2009113		
1.6-2.5	MT 2009121	MT 2009121	MT 2009121		
2.5-4	MT 2009133	MT 2009133	MT 2009133		
4-6	MT 200915	MT 200915	MT 200915		
6-8	MT 2009165	MT 2009165	MT 2009165		
8-10	MT 2009175	MT 2009175	MT 2009175		
7-10	MT 2009185	MT 2009185	MT 2009185		
9-12	MT 2009111	MT 2009111	MT 2009111		
12-18	MT 2009115	MT 2009115	MT 2009115		
18-27	MT 2009119	MT 2009119	MT 2009119		
18-28	MT 2009111.5	MT 2009111.5	MT 2009111.5		
27-37	MT 2009157	MT 2009157	MT 2009157		
37-47	MT 2009159	MT 2009159	MT 2009159		

Trip class 10A

Direct mounting type



MT 60A

Setting range (A)	Ordering type			Circuit breaker	Special mounting unit
	Non-differential (SP-2 heater)	Non-differential (SP-2 heater)	Differential		
1-6	MT 602H02	MT 602H02	MT 602K02	MC-60A MC-60A	117-6001
1-8	MT 602H03N	MT 602H03S	MT 602K03S		
6-8	MT 602H03S	MT 602H03S	MT 602K03S		
1-10	MT 602H05S	MT 602H05S	MT 602K05S		
6-12	MT 602H11S	MT 602H11S	MT 602K11S		
12-12	MT 602H10S	MT 602H10S	MT 602K10S		
6-20	MT 602H06S	MT 602H06S	MT 602K06S		
18-25	MT 602H01.5S	MT 602H01.5S	MT 602K01.5S		
24-36	MT 602H09S	MT 602H09S	MT 602K09S		
28-40	MT 602H04S	MT 602H04S	MT 602K04S		
34-50	MT 602H07S	MT 602H07S	MT 602K07S		
45-60	MT 602H05S	MT 602H05S	MT 602K05S		



MT 65A

Setting range (A)	Ordering type			Circuit breaker	Special mounting unit
	Non-differential (SP-2 heater)	Non-differential (SP-2 heater)	Differential		
1-10	MT 652H05S	MT 652H05S	MT 652K05S	MC-75A MC-85A DC-100A	117-6001
6-12	MT 652H11S	MT 652H11S	MT 652K11S		
12-18	MT 652H16S	MT 652H16S	MT 652K16S		
18-22	MT 652H10S	MT 652H10S	MT 652K10S		
18-25	MT 652H01.5S	MT 652H01.5S	MT 652K01.5S		
24-36	MT 652H09S	MT 652H09S	MT 652K09S		
28-40	MT 652H04S	MT 652H04S	MT 652K04S		
34-50	MT 652H07S	MT 652H07S	MT 652K07S		
45-60	MT 652H05S	MT 652H05S	MT 652K05S		
54-75	MT 652H02S	MT 652H02S	MT 652K02S		
63-85	MT 652H03S	MT 652H03S	MT 652K03S		
75-95	MT 652H02S	MT 652H02S	MT 652K02S		
85-100	MT 652H02S	MT 652H02S	MT 652K02S		

Overload relay ordering types

Trip class 10A



MT-100



MT-100 L

Setting range (A)	Ordering type			Contacts	Special mounting unit
	Non-differential		Differential		
	(IP-2 housing)	(IP-3 housing)			
34-40	MT-100N140	MT-100D140	MT-100N142	MC-100a MC-100b	Lit. 15005
41-45	MT-100N155	MT-100D155	MT-100N156		
54-75	MT-100N185	MT-100D185	MT-100N186		
63-85	MT-100N174	MT-100D174	MT-100N174		
80-105	MT-100N163	MT-100D163	MT-100N163		
115-139	MT-100N1113	MT-100D1113	MT-100N1113		
110-160	MT-100N1130	MT-100D1130	MT-100N1130		

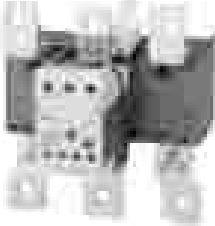
MT-225



MT-225 L

Setting range (A)	Ordering type			Contacts	Remarks
	Non-differential		Differential		
	(IP-2 housing)	(IP-3 housing)			
85-100	MT-225N180	MT-225D180	MT-225D180	MC-100a MC-100b	
85-125	MT-225N1107	MT-225D1107	MT-225D1107		
100-110	MT-225N1130	MT-225D1130	MT-225D1130		
120-135	MT-225N1153	MT-225D1153	MT-225D1153		
100-240	MT-225N1200	MT-225D1200	MT-225D1200		

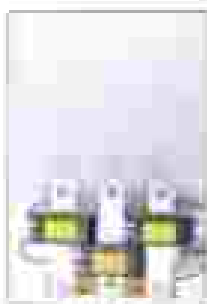
MT-400



MT-400 L

Setting range (A)	Ordering type			Contacts	Remarks
	Non-differential		Differential		
	(IP-2 housing)	(IP-3 housing)			
85-125	MT-400N1107	MT-400D1107	MT-400D1107	MC-200a MC-200b MC-400a	
100-110	MT-400N1130	MT-400D1130	MT-400D1130		
120-135	MT-400N1153	MT-400D1153	MT-400D1153		
100-300	MT-400N1200	MT-400D1200	MT-400D1200		
200-300	MT-400N1200	MT-400D1200	MT-400D1200		

MT-800



MT-800 L

Setting range (A)	Ordering type			Contacts	Remarks
	Non-differential		Differential		
	(IP-2 housing)	(IP-3 housing)			
200-300	MT-800N1200	MT-800D1200	MT-800D1200	MC-100a MC-100b MC-800a	
200-400	MT-800N1250	MT-800D1250	MT-800D1250		
400-630	MT-800N1515	MT-800D1515	MT-800D1515		
500-800	MT-800N1600	MT-800D1600	MT-800D1600		

Trip class 20
Direct mounting type



MT 2000 V

Setting range (A)	Ordering type	Contacts	Separate mounting unit
	Differential		
1-10	MT 2000 1	MC 40 MC 50 MC 70a MC 70c	
10-25	MT 2000 2		
25-4	MT 2000 3		
6-8	MT 2000 4		
8-8	MT 2000 5		
0-6	MT 2000 7.5		
7-10	MT 2000 5		
8-10	MT 2000 1		
10-15	MT 2000 7.5		



MT 2000 V

Setting range (A)	Ordering type	Contacts	Separate mounting unit
	Differential		
1-10	MT 2000 1	MC 40 MC 50 MC 70a MC 70b MC 80a MC 80c	
10-25	MT 2000 2		
25-4	MT 2000 3		
6-8	MT 2000 4		
8-8	MT 2000 5		
0-6	MT 2000 7.5		
7-10	MT 2000 5		
8-10	MT 2000 1		
10-15	MT 2000 1		
10-20	MT 2000 1		
10-25	MT 2000 1.5		
20-30	MT 2000 7		
20-40	MT 2000 4		

MT 2000(A)

Overload relay ordering types

Trip class 20 Direct mounting type



MT 6000 A

Setting range (A)	Ordering type	Cable	Separate mounting unit
	Differential		
4-8	MT 6000A5	MC 80a MC 80a	U2 80a
5-8	MT 6000A5H		
6-8	MT 6000A5L		
7-10	MT 6000A5H		
8-10	MT 6000A5L		
10-15	MT 6000A5E		
10-20	MT 6000A5E		
10-25	MT 6000A5E		
24-30	MT 6000A5E		
20-40	MT 6000A5E		
24-30	MT 6000A5E		
40-60	MT 6000A5E		



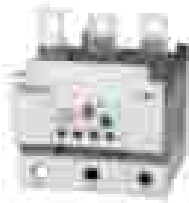
MT 6000 B

Setting range (A)	Ordering type	Cable	Separate mounting unit
	Differential		
7-10	MT 6000B5	MC 75a MC 80a MC 100a	U2 80a
8-10	MT 6000B5E		
10-15	MT 6000B5E		
10-20	MC 6000B5		
10-25	MT 6000B5E		
24-30	MT 6000B5E		
20-40	MT 6000B5E		
24-30	MT 6000B5E		
40-60	MT 6000B5E		
54-75	MT 6000B5E		
60-80	MT 6000B5E		
70-100	MT 6000B5E		
80-100	MT 6000B5E		

Trip class 20



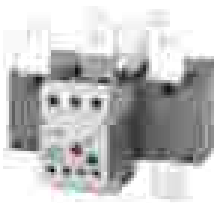
MT-150



MT-150(D)

Setting range (A)	Ordering type	Conductor	Special mounting unit
	Differential		
25-30	MT-150D010	MC-150a MC-150b	CZ-1500
40-55	MT-150D020		
64-75	MT-150D025		
85-115	MT-150D034		
95-115	MT-150D030		
130-150	MT-150D040		

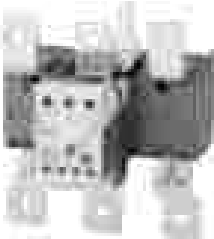
MT-225



MT-225(D)

Setting range (A)	Ordering type	Conductor	Remarks
	Differential		
65-100	MT-225D080	MC-160a MC-225b	△
95-125	MT-225D100		
100-150	MT-225D100		
130-150	MT-225D150		
160-200	MT-225D200		

MT-400



MT-400(D)

Setting range (A)	Ordering type	Conductor	Remarks
	Differential		
65-115	MT-400D100	MC-200a MC-400b MC-400c	△
100-140	MT-400D130		
120-165	MT-400D160		
160-240	MT-400D200		
300-330	MT-400D300		
360-400	MT-400D360		

MT-600



MT-600(D)

Setting range (A)	Ordering type	Conductor	Remarks
	Differential		
300-330	MT-600D300	MC-600a MC-600b MC-600c	△
360-400	MT-600D360		
400-430	MT-600D400		
430-480	MT-600D480		

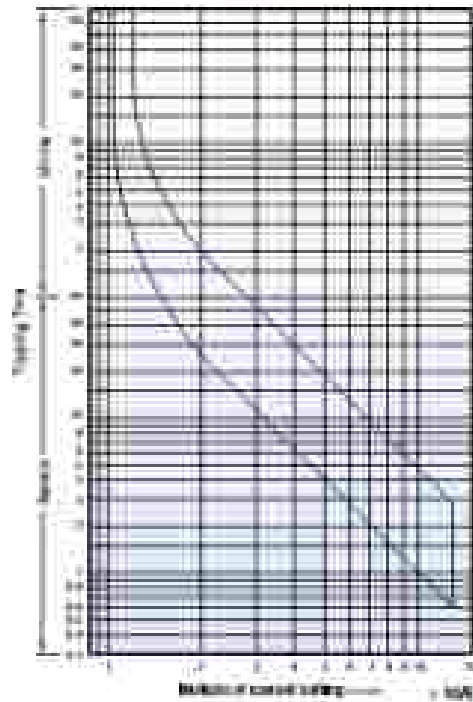
Overload relay trip curves

Metasol

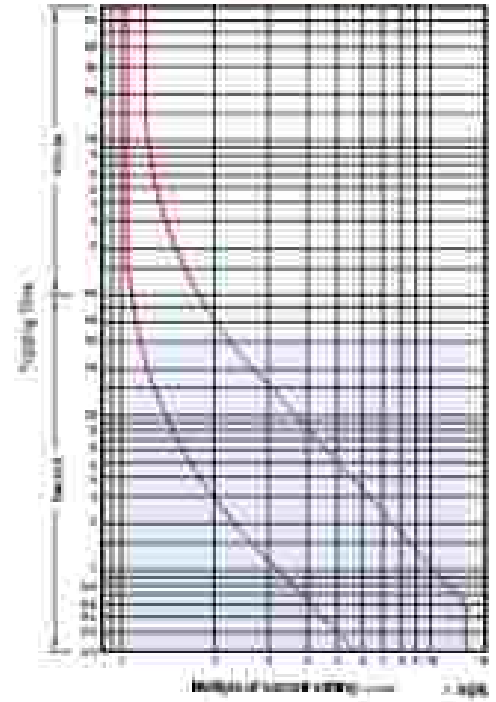
Class 10A, 18AF

- 1. 10A
- 2. 18AF
- 3. 20

Cold starting



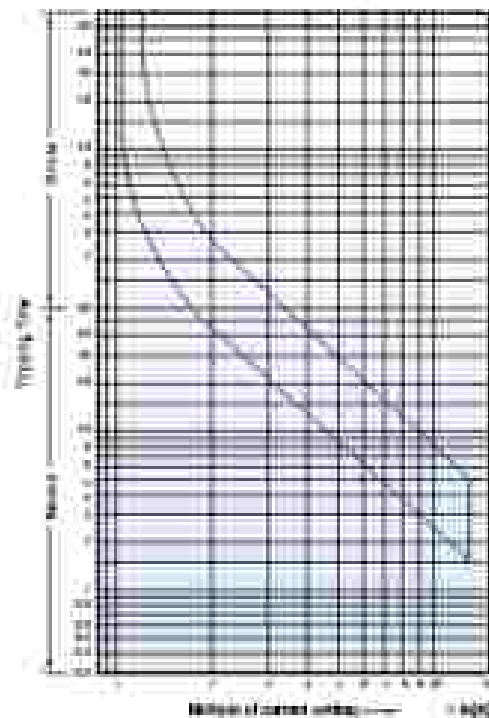
Hot starting



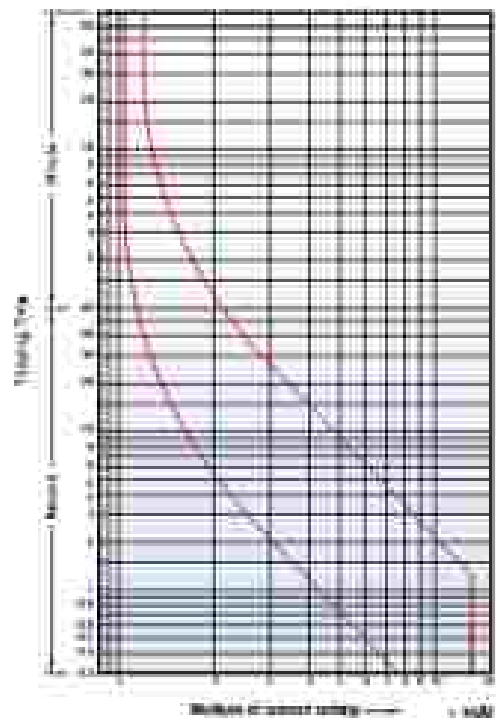
Class 20, 18AF

- 1. 10A
- 2. 18AF
- 3. 20

Cold starting



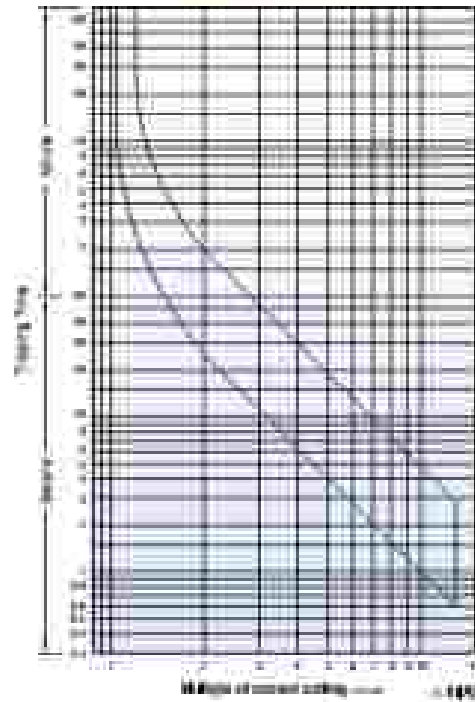
Hot starting



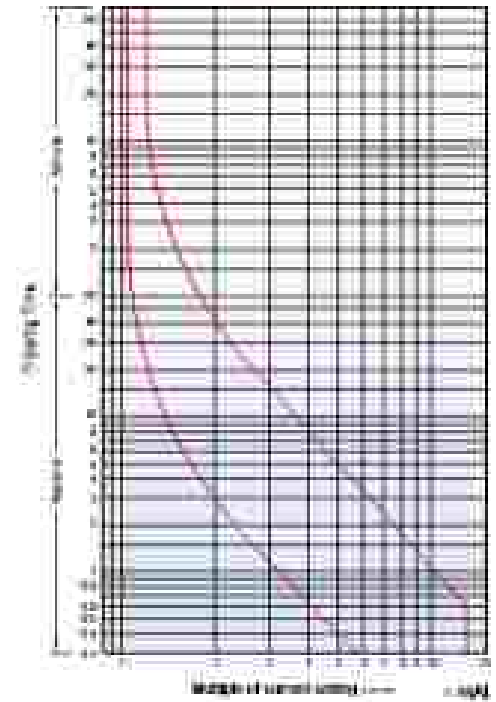
Class 10A, 40AF



Cold starting



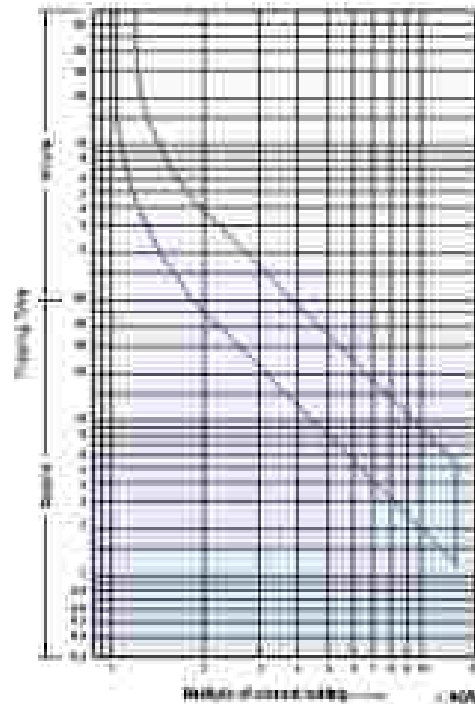
Hot starting



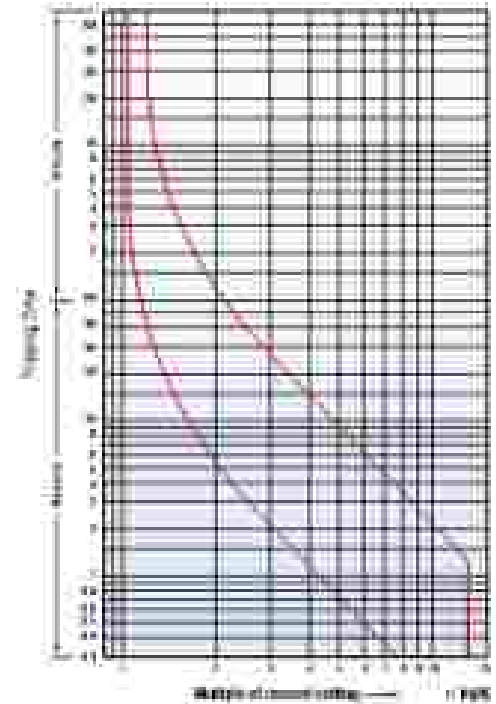
Class 20, 40AF



Cold starting



Hot starting



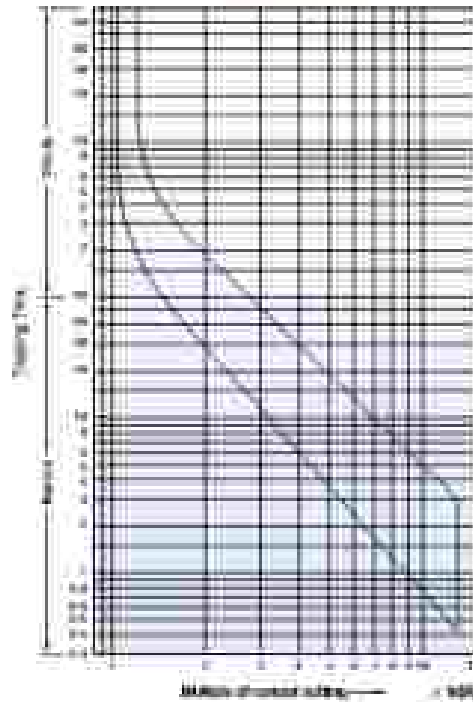
Overload relay trip curves

Metasol

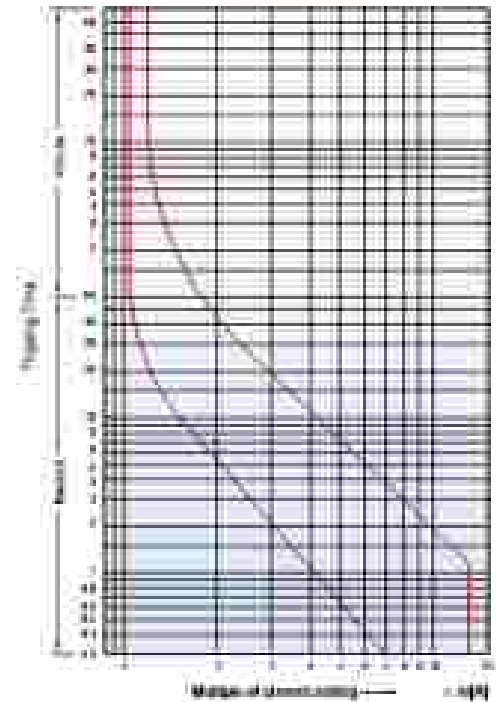
Class 10A, 65AF

- 10A
- 65AF
- 10AF

Cold starting



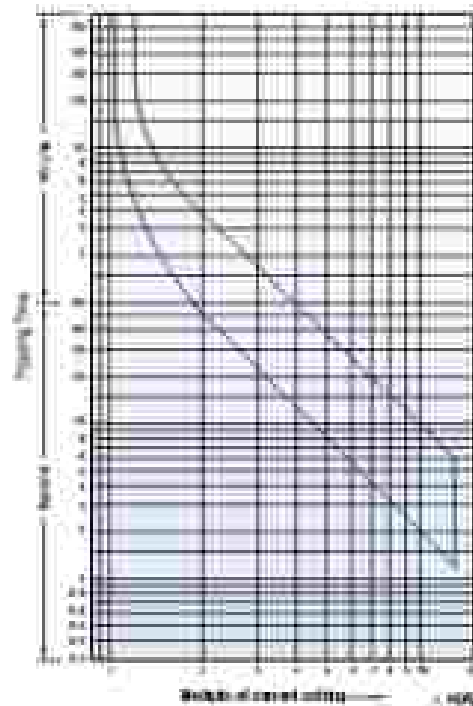
Hot starting



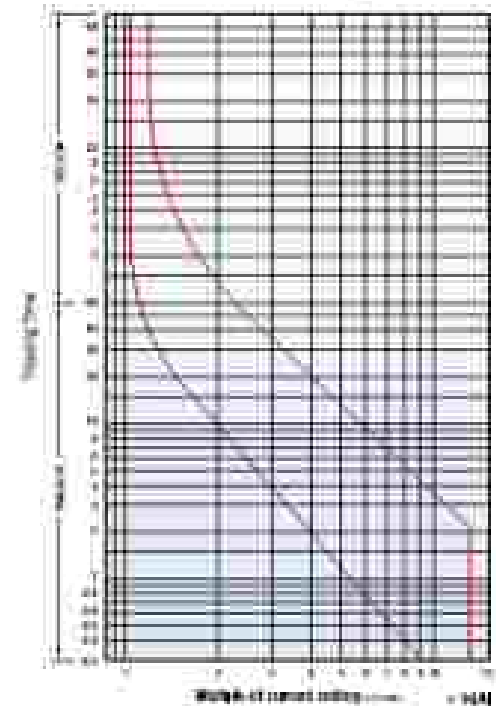
Class 20, 65AF

- 20
- 65AF

Cold starting



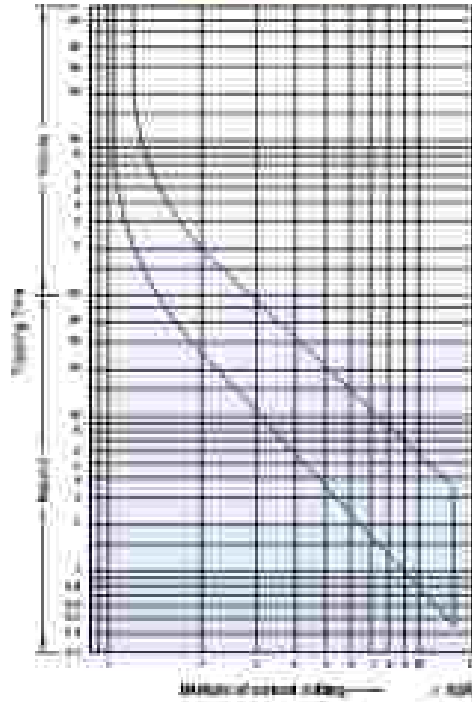
Hot starting



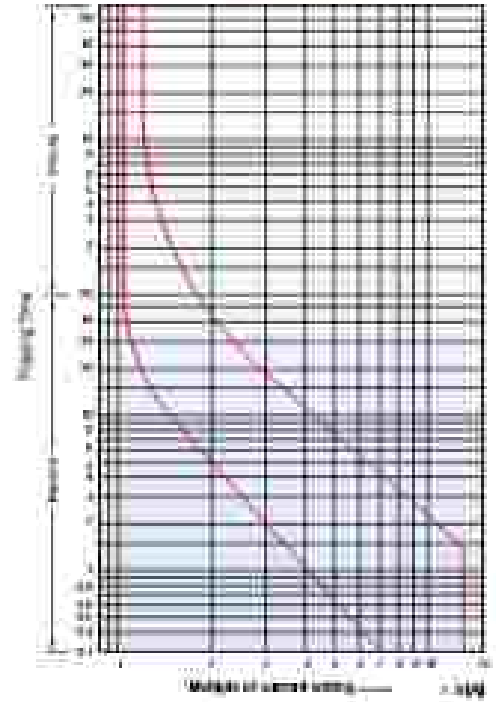
Class 10A, 100AF

- III 2001
- III 2002
- III 2003

Cold starting



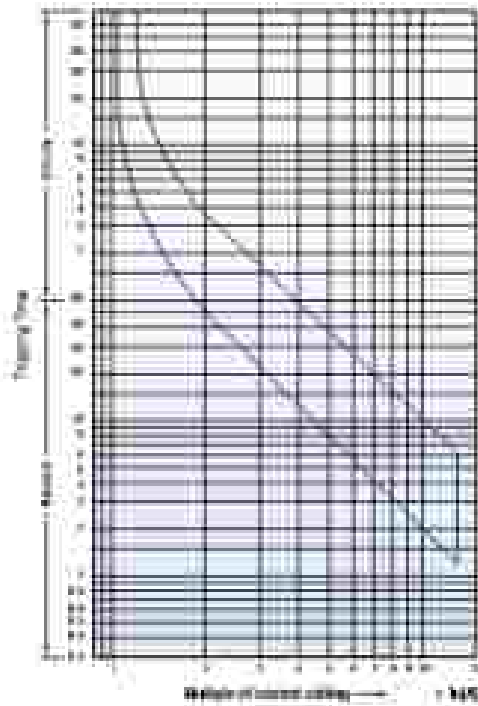
Hot starting



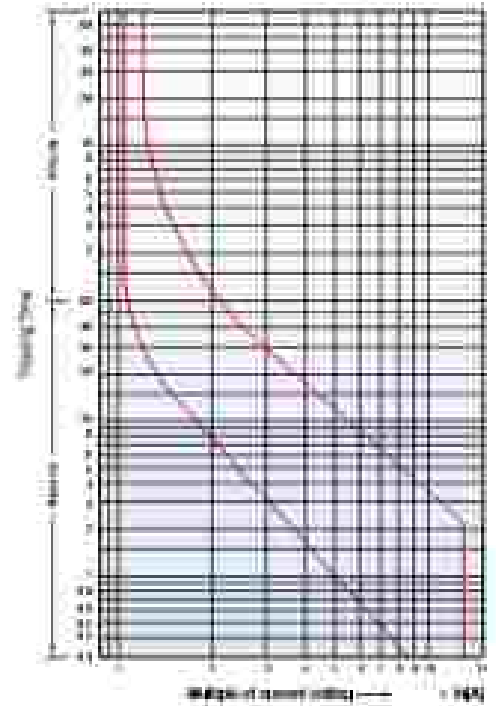
Class 20, 100AF

- III 2001

Cold starting



Hot starting



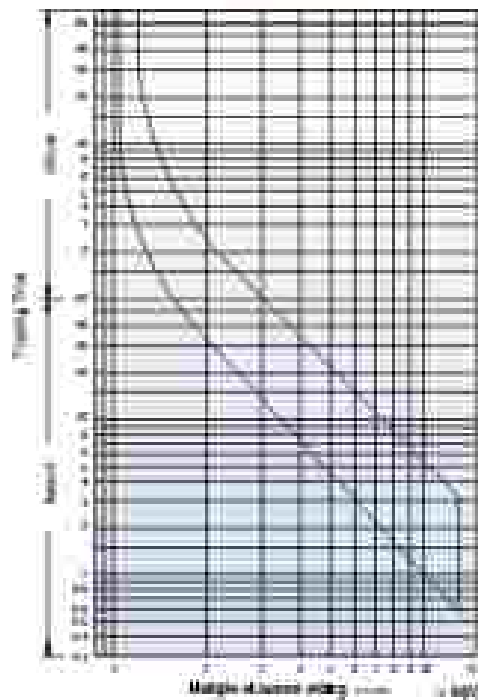
Overload relay trip curves

Metasol

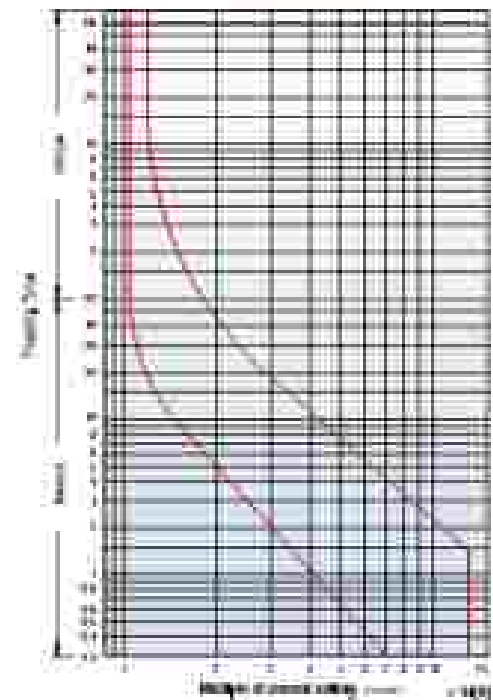
Class 10A, 150AF

- 100% I_N
- 110% I_N
- 120% I_N

Cold starting



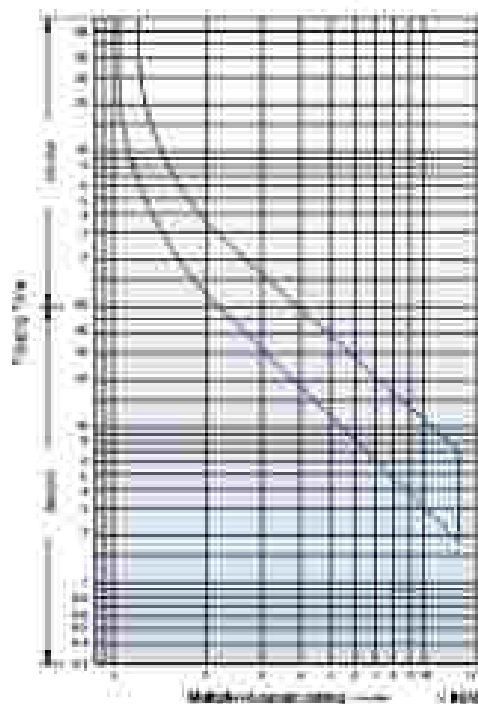
Hot starting



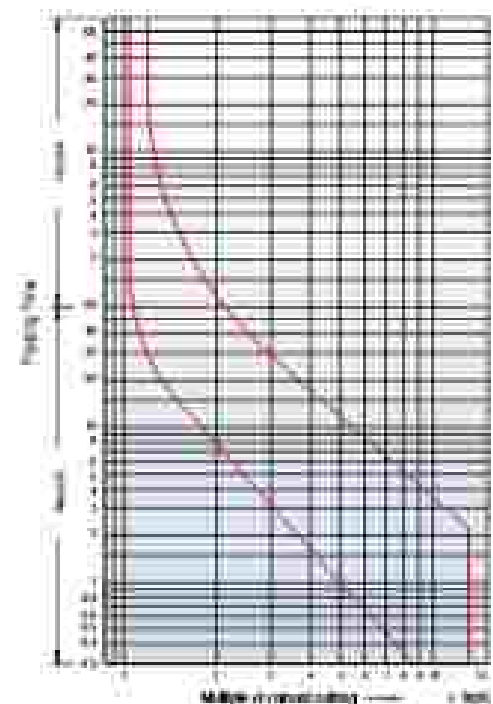
Class 20, 150AF

- 100% I_N

Cold starting



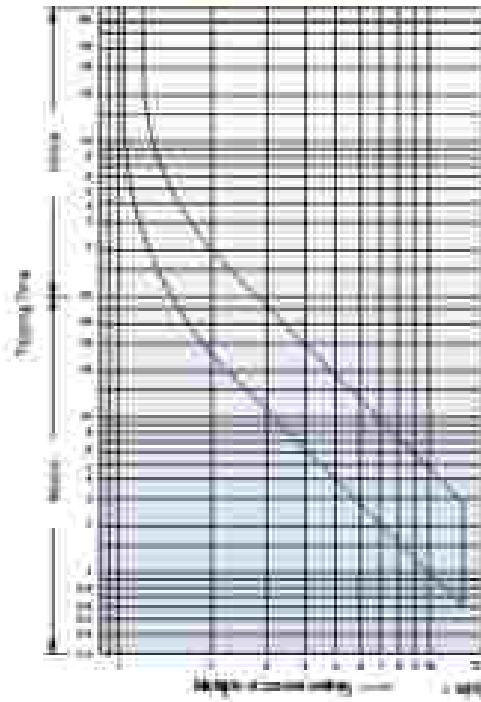
Hot starting



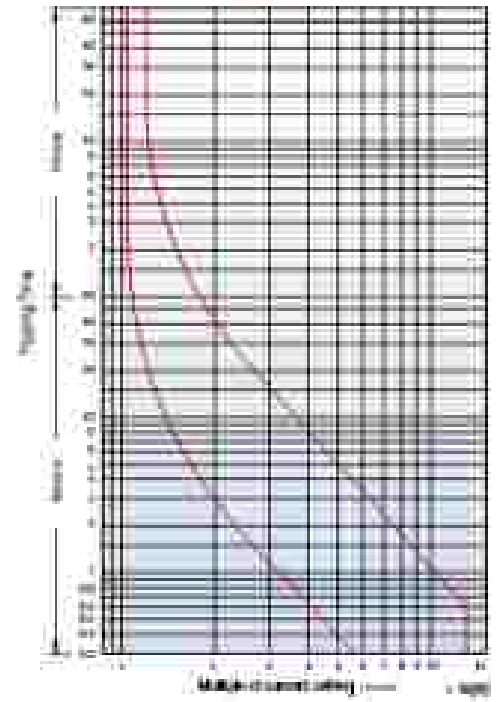
Class 10A, 225AF

- Oil level
- Oil filter
- Oil pump

Cold starting



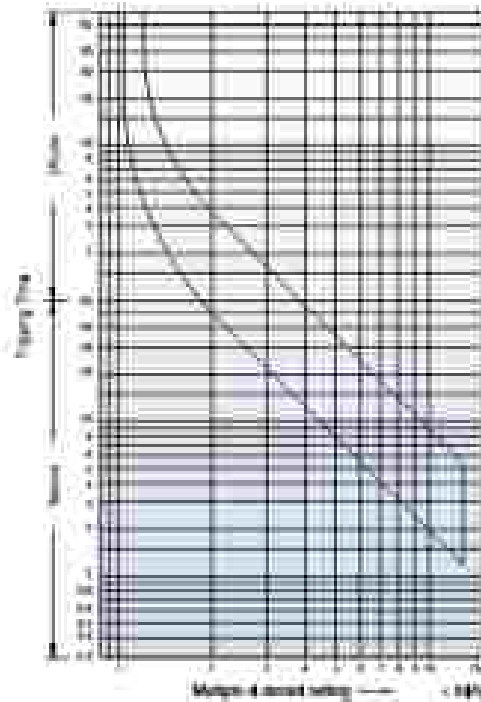
Hot starting



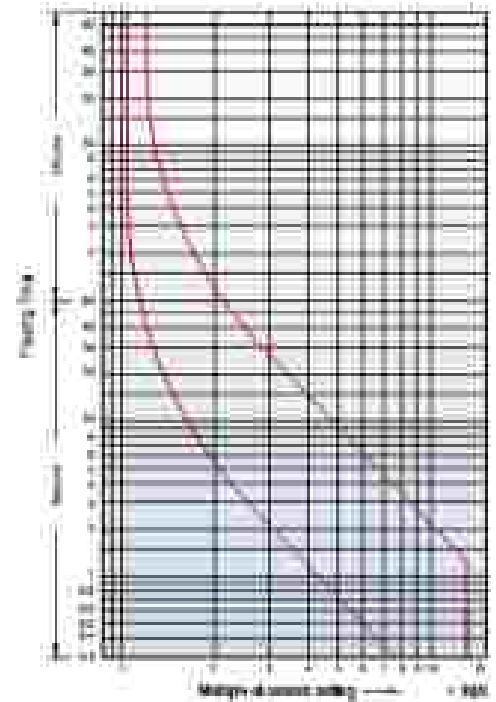
Class 20, 225AF

- Oil level

Cold starting



Hot starting

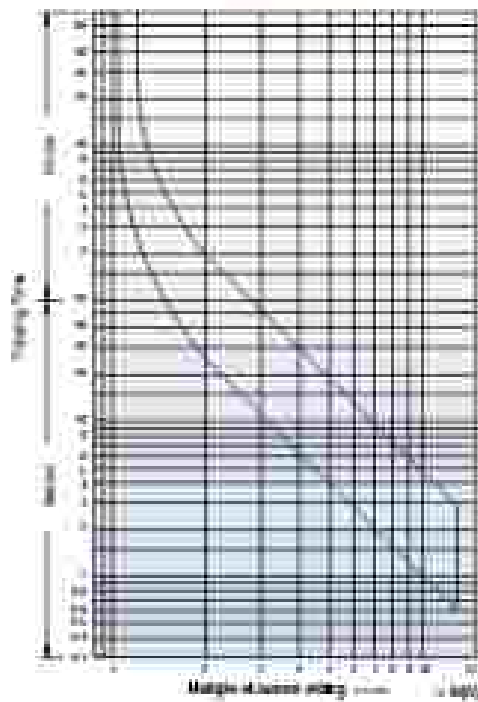


Overload relay trip curves

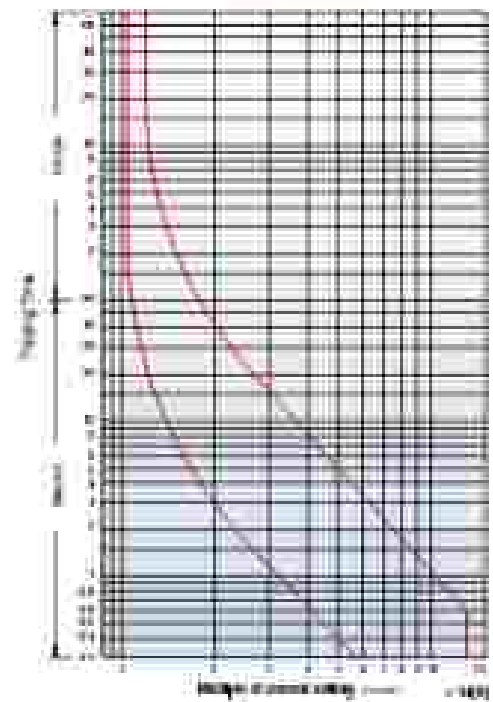
Class 10A, 400AF

- 100% 400AF
- 150% 400AF
- 200% 400AF

Cold starting



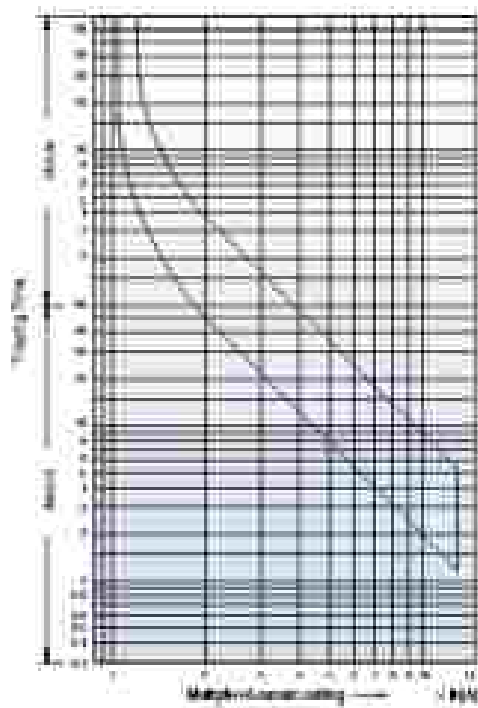
Hot starting



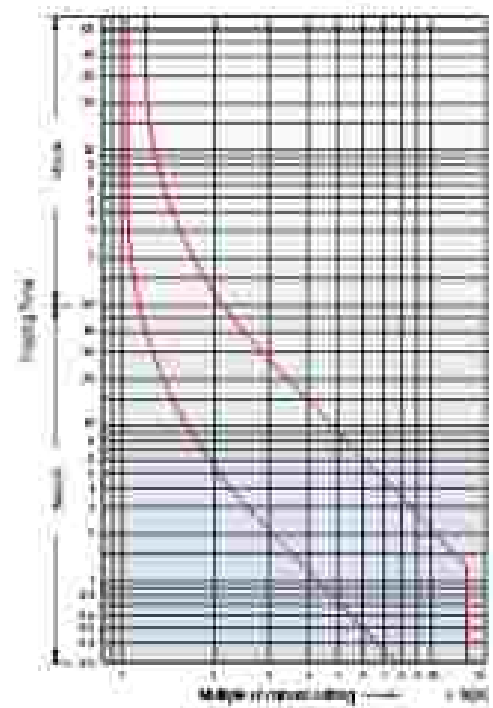
Class 20, 400AF

- 100% 400AF

Cold starting



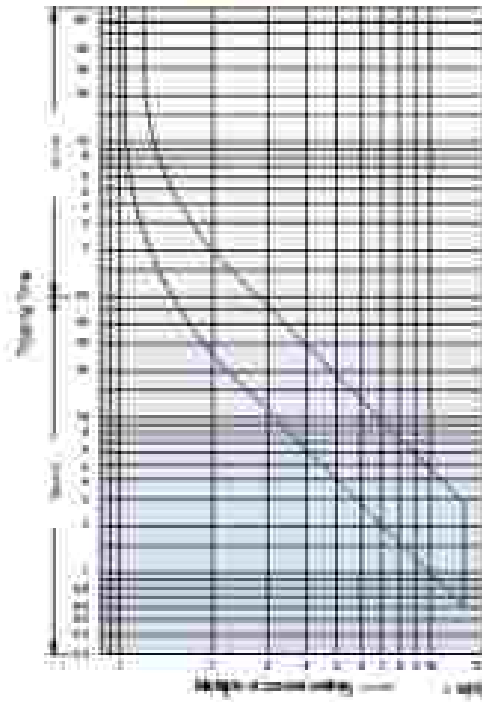
Hot starting



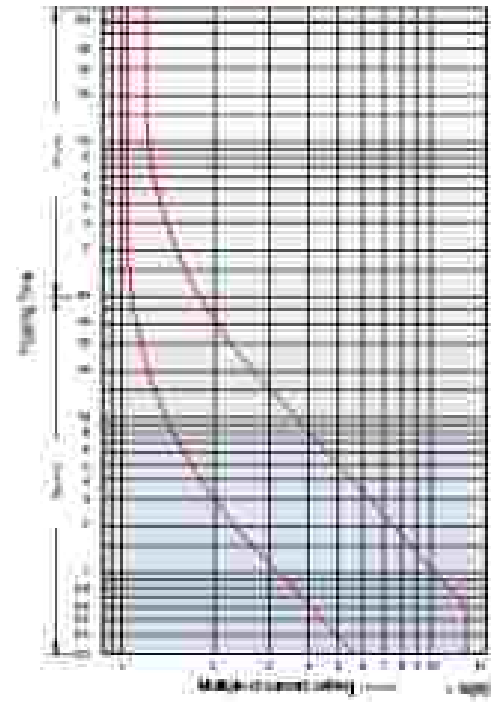
Class 10A, 800AF

- Oil level
- Oil temp
- Water level

Cold starting



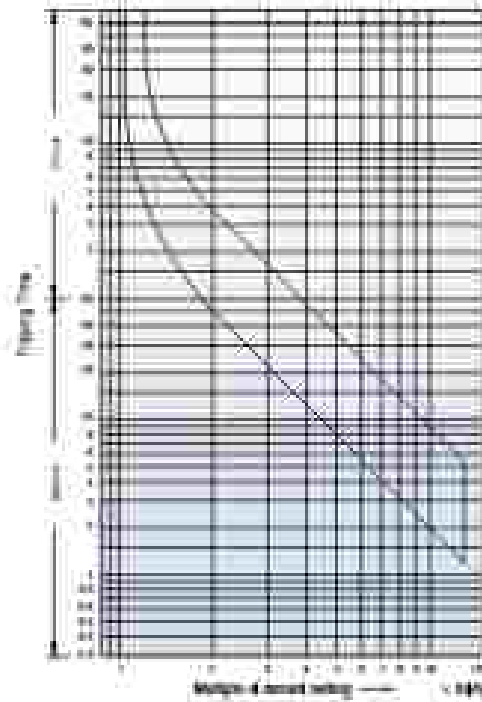
Hot starting



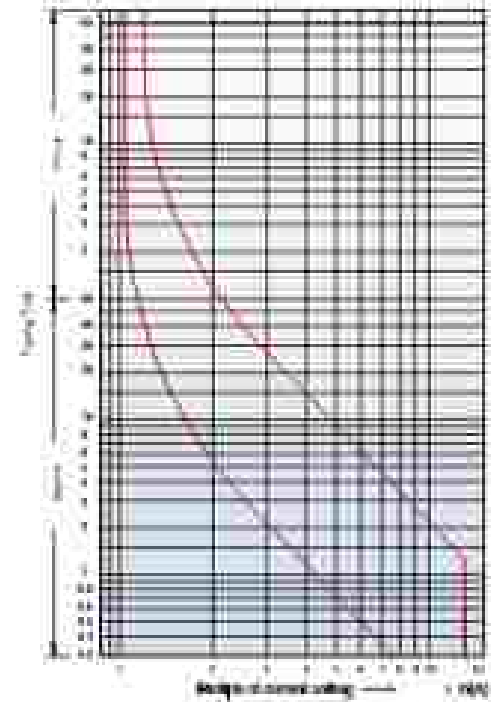
Class 20, 800AF

- Oil level

Cold starting



Hot starting



Type 2 Coordination (380/415V)

415V

HI type MMS + Suroel MCCB

kV	Rated Operational Power			Circuit Breaker		Contactor	Thermal Overload Relay		Short Circuit	
	20kV	Current (A)	415V	Type	Rating (A)	Type	Type	Setting Range (A)	I _{sc} (kA)	I _{sc} (kA)
0.05	0.31	0.31	0.10	MMS-38H	0.25	MC-6A	MT-12	0.14-0.25	1	10
0.05	0.02	0.30	0.20	MMS-38H	0.4	MC-6A	MT-12	0.25-0.4	1	50
0.10	0.60	0.44	0.42	MMS-38H	0.63	MC-6A	MT-12	0.4-0.63	1	10
0.10	0.60	0.65	0.58	MMS-38H	0.63	MC-6A	MT-12	0.4-0.63	1	50
0.25	0.80	0.85	0.82	MMS-38H	1	MC-6A	MT-12	0.63-1	1	10
0.07	1.10	1.10	1.05	MMS-38H	1.6	MC-12A, 12B	MT-12	1-1.6	1	60
0.05	1.8	1.5	1.4	MMS-38H	1.6	MC-12A, 12B	MT-12	1-1.6	1	10
0.25	2.5	1.9	1.8	MMS-38H	2.5	MC-12A, 12B	MT-12	1.6-2.5	1	10
1.1	2.8	2.7	2.6	MMS-38H	4	MC-25	MT-32	2.5-4	1	60
1.1	2.8	2.8	2.6	MMS-38H	4	MC-25	MT-32	2.5-4	1	10
2.2	5.2	4.9	4.7	MMS-38H	6	MC-25	MT-32	4-6	1	60
2.0	6.3	6.3	6.0	MMS-38H	8	MC-40	MT-32	5-8	1	10
4.0	6.0	6.5	6.0	MMS-38H	10	MC-40	MT-32	6-8	1	60
6.6	11.1	11.5	11.1	MMS-38H	13	MC-60	MT-32	9-13	3	50
7.5	11.2	12.5	14.0	MMS-38H	17	MC-60	MT-32	10-18	3	10
11.0	21.2	22.0	21.2	TD100	25	MC-80	MT-43	18-25	3	75
15.0	31	24	28	TD100	32	MC-80	MT-43	24-32	3	75
16.5	37	28	34	TD100	40	MC-80	MT-43	28-40	3	75
20	43	41	40	TD100	50	MC-80	MT-43	34-50	3	75
30	52	52	50	TD100	63	MC-80	MT-43	45-63	3	75
30	63	60	64	TD100	80	MC-70	MT-06	54-75	5	75
45	84	81	77	TD100	100	MC-85	MT-06	63-85	5	75
66	-	-	85	TD100	160	MC-100	MT-06	78-105	5	75

415V

H type MMS + Suroi MCCB

AW	Rated Operational Power			Circuit Breaker		Cable Size	Thermal Overload Relay		Short Circuit Breaking Capacity	
	380V	400V	415V	Type	Rating (A)		Type	Setting Range (A)	I _n (kA)	I _{sc} (kA)
0.10	0.21	0.20	0.10	MMS-204	0.10	MC-40			1	50
0.08	0.02	0.20	0.20	MMS-204	0.4	MC-60			1	50
0.12	0.40	0.40	0.40	MMS-204	0.60	MC-40			1	50
0.18	0.60	0.60	0.50	MMS-204	0.60	MC-60			1	50
0.25	0.80	0.80	0.80	MMS-204	1	MC-40			1	50
0.37	1.10	1.00	1.00	MMS-204	1.6	MC-100,120			1	50
0.55	1.6	1.5	1.5	MMS-204	1.6	MC-100,120			1	50
0.75	2.0	1.8	1.8	MMS-204	2.5	MC-100,120			1	50
1.1	2.8	2.7	2.5	MMS-204	4	MC-200			1	50
1.5	3.8	3.6	3.3	MMS-204	4	MC-200			1	50
2.2	5.2	4.8	4.7	MMS-204	6	MC-200			1	50
3.0	6.8	6.5	6.0	MMS-204	6	MC-400			1	50
4.0	9.0	8.5	8.0	MMS-204	10	MC-400			1	50
5.0	10.1	11.5	11.1	MMS-204	10	MC-400			0	50
7.5	16.3	15.5	14.0	MMS-204	17	MC-400			0	50
11.0	23.2	22.0	21.2	T0100	25	MC-500	MT-03	18-25	0	70
15.0	31	29	28	T0100	32	MC-500	MT-03	24-36	0	70
18.5	37	35	34	T0100	40	MC-500	MT-03	28-40	0	70
22	43	41	40	T0100	50	MC-500	MT-03	34-50	0	70
30	58	55	52	T0100	63	MC-600	MT-03	40-60	0	70
37	62	60	54	T0100	80	MC-700	MT-05	64-75	5	70
45	84	80	77	T0100	100	MC-800	MT-06	83-85	5	70
55	-	-	53	T0100	120	MC-1000	MT-06	79-85	5	70

Type 2 Coordination (380/415V)

415V

Single MCCB

kV	Rated Operational Power			Circuit Breaker		Contactor	Thermal Overload Relay		Short Circuit	
	20kV	40kV	415V	Type	Rating (kA)	Type	Type	Setting Range (kA)	I _{sc} (kA)	I _{sc} (kA)
0.05	0.31	0.31	0.10	TSMB (T)	1.0	MC-04	MT-12	0.10-0.25	1	10
0.05	0.02	0.30	0.20	TSMB (T)	1.0	MC-04	MT-12	0.25-0.4	1	50
0.10	0.60	0.44	0.42	TSMB (T)	1.0	MC-04	MT-12	0.4-0.83	1	10
0.10	0.03	0.65	0.58	TSMB (T)	1.0	MC-04	MT-12	0.4-0.83	1	50
0.25	0.80	0.85	0.82	TSMB (T)	1.0	MC-04	MT-12	0.83-1	1	10
0.07	1.10	1.10	1.05	TSMB (T)	1.0	MC-10,12B	MT-12	1-1.0	1	60
0.25	1.0	1.5	1.4	TSMB (T)	1.0	MC-10,12B	MT-12	1-1.0	1	10
0.25	2.5	1.9	1.8	TSMB (T)	1.0	MC-10,12B	MT-12	1.5-2.5	1	10
1.1	2.8	2.7	2.6	TSMB (T)	32	MC-25	MT-32	2.5-4	1	60
1.1	0.8	0.8	0.8	TSMB (T)	32	MC-25	MT-32	2.5-4	1	10
2.2	6.2	4.9	4.7	TSMB (T)	32	MC-25	MT-32	4-6	1	60
2.2	0.8	0.8	0.8	TSMB (T)	32	MC-40	MT-32	5-8	1	10
4.0	6.0	6.5	6.0	TSMB (T)	63	MC-40	MT-32	6-8	1	60
6.6	11.1	11.5	11.1	TSMB (T)	12	MC-60	MT-32	9-10	3	50
7.5	10.2	10.5	10.0	TSMB (T)	17	MC-60	MT-32	10-10	3	10
11.0	21.2	20.0	21.2	TSMB	25	MC-60	MT-43	10-25	3	75
15.0	21	21	20	TD100	32	MC-50	MT-63	20-30	3	75
16.5	27	26	24	TD100	40	MC-50	MT-63	20-40	3	75
20	40	41	40	TD100	60	MC-50	MT-63	20-60	3	75
30	52	53	50	TD100	80	MC-60	MT-63	40-60	3	75
30	60	60	64	TD100	100	MC-70	MT-66	50-75	3	75
45	84	81	77	TD100	100	MC-80	MT-66	60-80	3	75
66	-	-	80	TD100	100	MC-100	MT-66	70-80	3	75

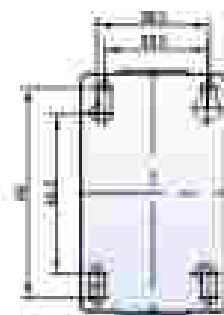
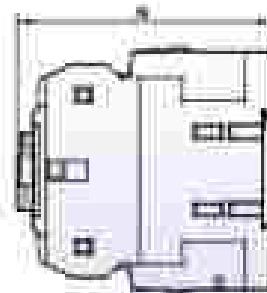
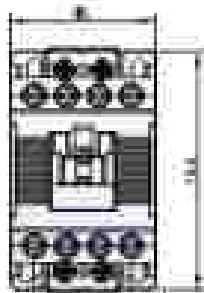
Note: (T) indicates that the circuit breaker is Type 2 (T) according to IEC 60947-2.

Rated short circuit breaking capacity of installation

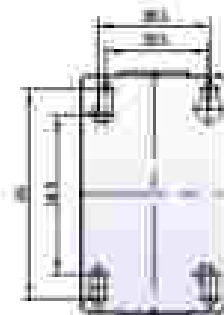
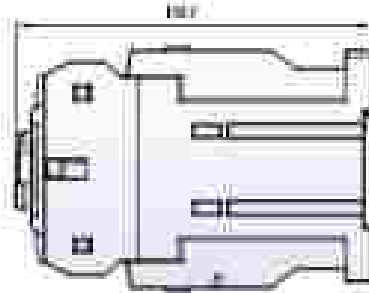
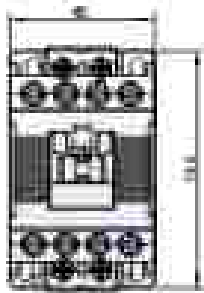
Manual Motor Starter	Adjustment Range (A)	Manual Motor Controller Group Installation (Short Circuit Rating (kAIC))			Applied Contactor (Main MC)	Applied Contactor (Main MC)	Applied Contactor (Main MC - GNC)
		240V	400/230V	600/330V			
30AF Rotary operation, standard interruption							
MMS-2011-01	0.1-0.18	100	85	25	MC-8	MC-25kA/IC-25kA	GNC-25kA/IC-25kA
MMS-2011-02E	0.18-0.25	100	85	25	MC-8	MC-25kA/IC-25kA	GNC-25kA/IC-25kA
MMS-2011-04	0.25-0.4	100	85	25	MC-8	MC-25kA/IC-25kA	GNC-25kA/IC-25kA
MMS-2011-02E	0.4-0.65	100	85	25	MC-8	MC-25kA/IC-25kA	GNC-25kA/IC-25kA
MMS-2011-1	0.65-1	100	85	25	MC-8	MC-25kA/IC-25kA	GNC-25kA/IC-25kA
MMS-2011-06	1-1.6	100	85	25	MC-8	MC-25kA/IC-25kA	GNC-25kA/IC-25kA
MMS-2011-2.5	1.6-2.5	100	85	25	MC-10	MC-30kA/IC-30kA	GNC-30kA/IC-30kA
MMS-2011-4	2.5-4	100	85	25	MC-10	MC-30kA/IC-30kA	GNC-30kA/IC-30kA
MMS-2011-8	4-8	100	85	25	MC-18	MC-50kA/IC-50kA	GNC-50kA
MMS-2011-8	5-8	100	85	10	MC-18	MC-50kA/IC-50kA	GNC-50kA
MMS-2011-10	8-15	100	85	10	MC-18	MC-50kA/IC-50kA	GNC-50kA
MMS-2011-20	14-22	100	30	10	MC-25	MC-25kA/IC-25kA	GNC-25kA
MMS-2011-17	11-17	100	30	10	MC-25	MC-25kA/IC-25kA	GNC-25kA
MMS-2011-20	14-22	100	30	10	MC-25	MC-25kA/IC-25kA	GNC-25kA
MMS-2011-26	18-26	100	30	10	MC-30	MC-30kA	GNC-30kA
MMS-2011-30	22-30	100	30	10	MC-30	MC-30kA	GNC-30kA
MMS-2011-40	28-40	100	30	10	-	MC-35kA/IC-35kA	-
30AF Rotary operation, standard interruption							
MMS-035-10	6-10	100	50	10	MC-20	MC-30kA	GNC-30kA
MMS-035-10	6-12	100	50	10	MC-20	MC-30kA	GNC-30kA
MMS-035-17	11-17	100	60	10	MC-20	MC-30kA	GNC-30kA
MMS-035-20	14-20	100	60	10	MC-20	MC-30kA	GNC-30kA
MMS-035-20	18-26	100	60	10	MC-20	MC-30kA	GNC-30kA
MMS-035-20	22-30	100	60	10	MC-20	MC-30kA	GNC-30kA
MMS-035-40	28-40	100	60	10	MC-40	MC-50kA	GNC-50kA
MMS-035-50	34-50	100	60	10	MC-50	MC-50kA	GNC-50kA
MMS-035-60	40-60	100	60	10	MC-60	MC-60kA	GNC-60kA
MMS-035-65	47-65	100	60	10	-	MC-65kA	-
30AF Rotary operation, high interruption							
MMS-034-10	6-10	100	85	25	MC-20	MC-30kA	GNC-30kA
MMS-034-10	6-12	100	85	25	MC-20	MC-30kA	GNC-30kA
MMS-034-17	11-17	100	50	10	MC-20	MC-30kA	GNC-30kA
MMS-034-20	14-20	100	50	10	MC-20	MC-30kA	GNC-30kA
MMS-034-20	18-26	100	50	10	MC-20	MC-30kA	GNC-30kA
MMS-034-20	22-30	100	50	10	MC-20	MC-30kA	GNC-30kA
MMS-034-40	28-40	100	50	10	MC-40	MC-50kA	GNC-50kA
MMS-034-50	34-50	100	50	10	MC-50	MC-50kA	GNC-50kA
MMS-034-60	40-60	100	50	10	MC-60	MC-60kA	GNC-60kA
MMS-034-65	47-65	100	60	10	-	MC-65kA	-
30AF Rotary operation, standard interruption							
MMS-1001-17	11-17	100	50	10	MC-20	MC-70kA	GNC-50kA
MMS-1001-20	14-20	100	50	10	MC-20	MC-70kA	GNC-50kA
MMS-1001-26	18-26	100	50	10	MC-20	MC-70kA	GNC-50kA
MMS-1001-30	22-30	100	50	10	MC-20	MC-70kA	GNC-50kA
MMS-1001-40	28-40	100	50	10	MC-20	MC-70kA	GNC-50kA
MMS-1001-50	34-50	100	50	10	MC-20	MC-70kA	GNC-50kA
MMS-1001-60	40-60	100	60	10	MC-20	MC-70kA	GNC-50kA
MMS-1001-75	05-75	100	60	10	MC-20	MC-70kA	GNC-75kA
MMS-1001-90	70-90	100	60	10	MC-20	MC-80kA	GNC-85kA
MMS-1001-100	80-100	100	60	10	MC-20	MC-100kA	GNC-85kA
30AF Rotary operation, high interruption							
MMS-1001-17	11-17	100	85	25	MC-20	MC-70kA	GNC-50kA
MMS-1001-20	14-20	100	85	25	MC-20	MC-70kA	GNC-50kA
MMS-1001-26	18-26	100	85	25	MC-20	MC-70kA	GNC-50kA
MMS-1001-30	22-30	100	85	25	MC-20	MC-70kA	GNC-50kA
MMS-1001-40	28-40	100	85	25	MC-20	MC-70kA	GNC-50kA
MMS-1001-50	34-50	100	85	25	MC-20	MC-70kA	GNC-50kA
MMS-1001-60	40-60	100	85	10	MC-20	MC-70kA	GNC-65kA
MMS-1001-75	05-75	100	50	10	MC-20	MC-70kA	GNC-75kA
MMS-1001-90	70-90	100	50	10	MC-20	MC-80kA	GNC-85kA
MMS-1001-100	80-100	100	60	10	MC-20	MC-100kA	GNC-85kA

Contactors (18AF/22AF)

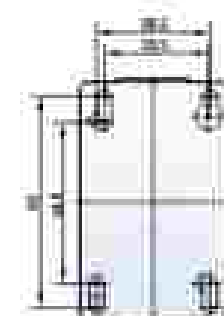
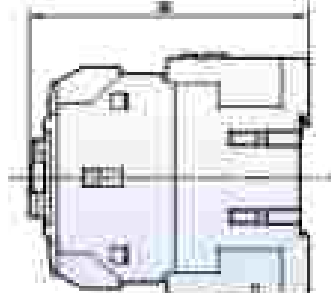
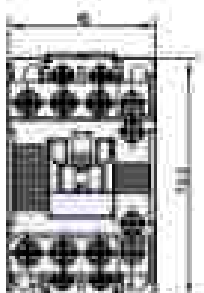
Metasol



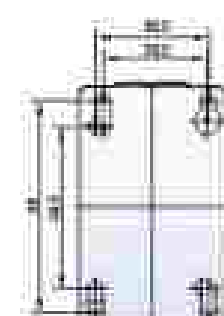
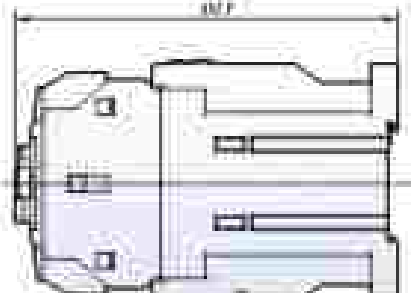
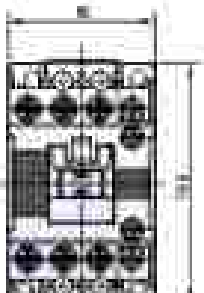
1



2



3

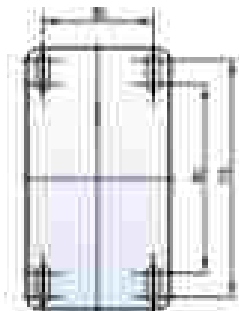
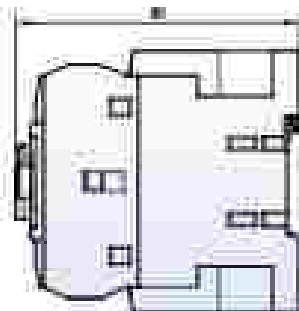
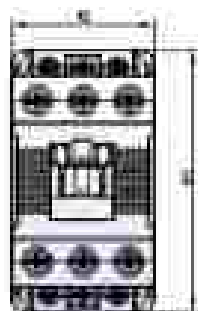


4

5

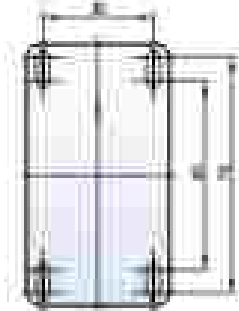
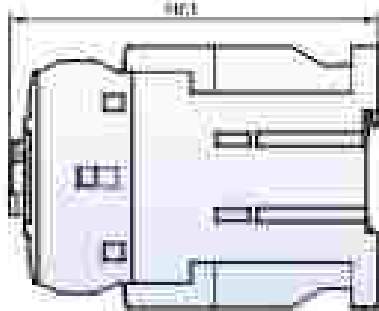
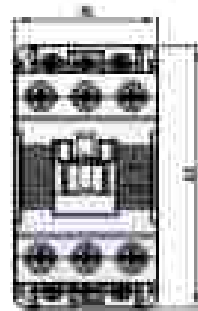
Contactors (40AF)

40AF11



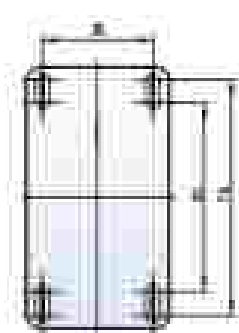
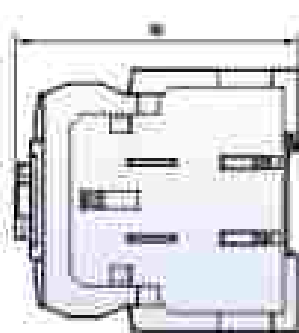
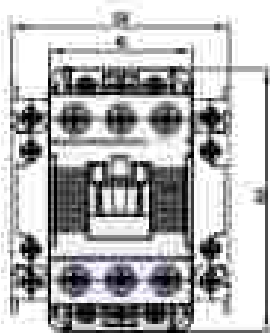
110
110

40AF12



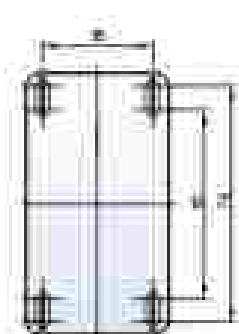
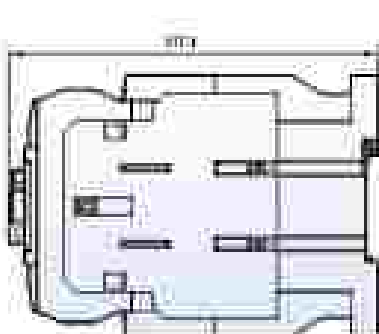
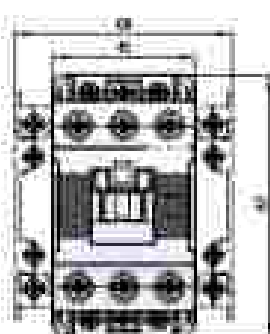
110
110

40AF13



110
110

40AF14

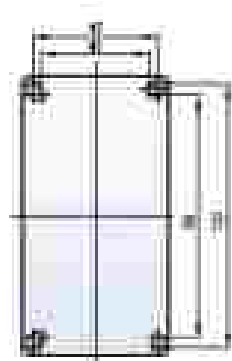
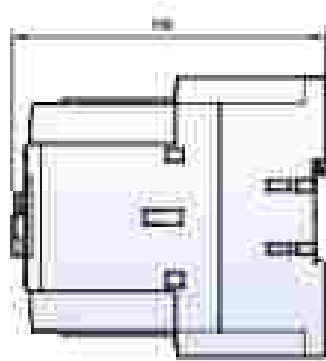
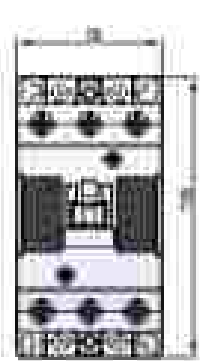


110
110

Contactors (65AF)

Metasol

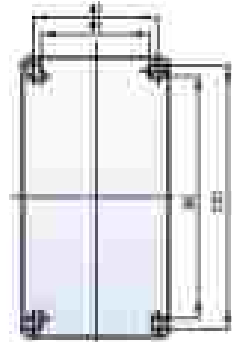
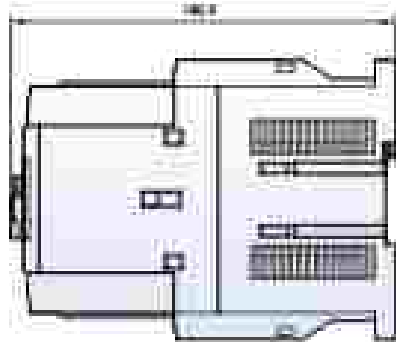
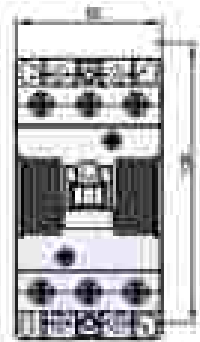
2000000000



1

11kg

2000000000

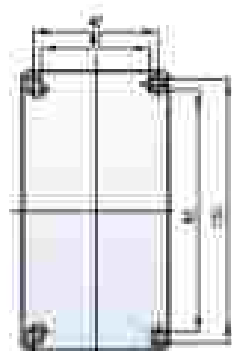
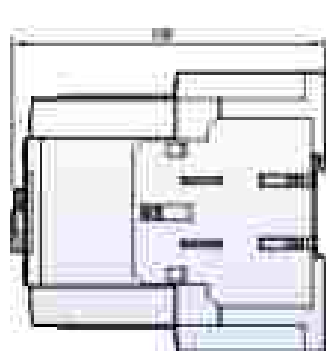
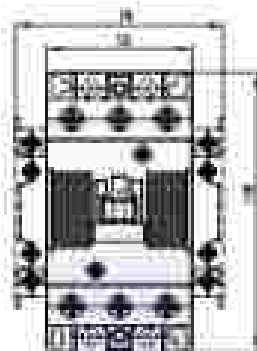


1

12kg

2000000000

750

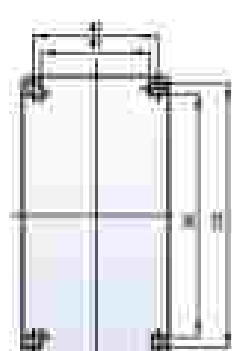
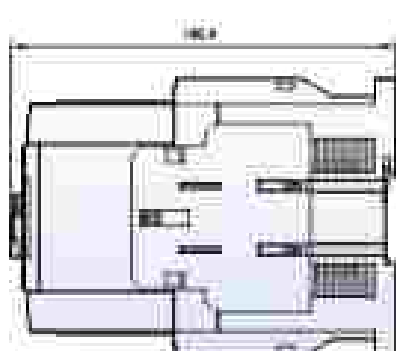
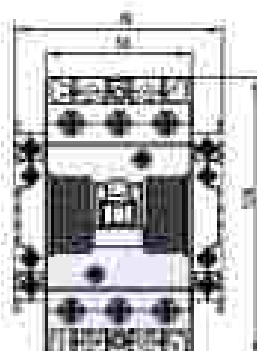


1

14kg

2000000000

750

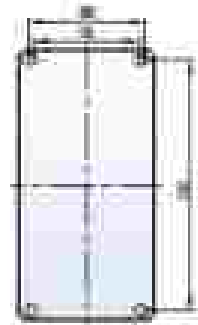
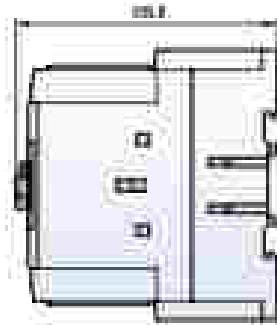
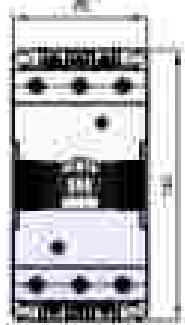


1

14kg

Contactors (100AF)

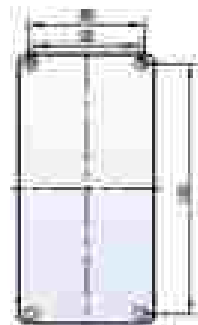
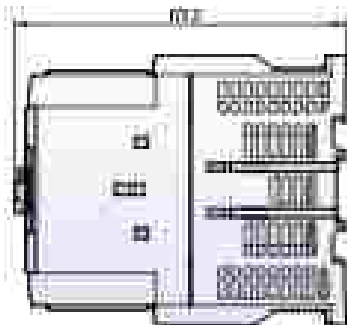
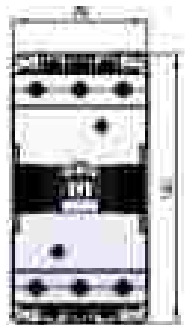
100AF 100A 3P



114

100g

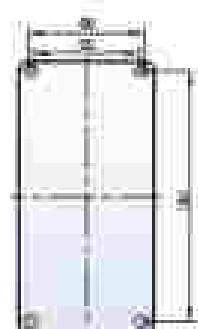
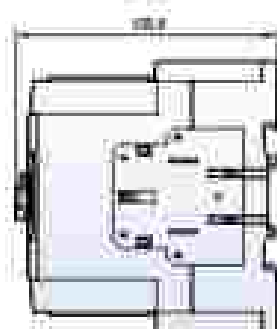
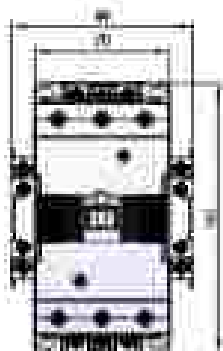
100AF 100A 3P



120g

100AF 100A 3P

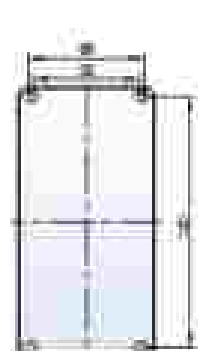
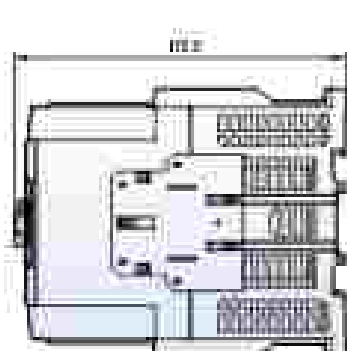
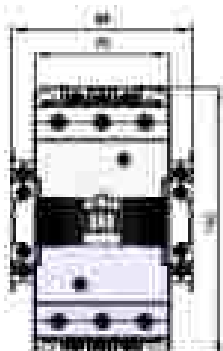
340



100g

100AF 100A 3P

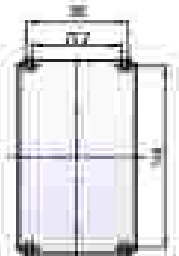
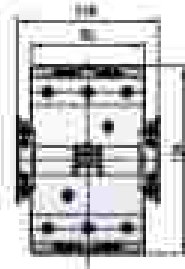
340



100g

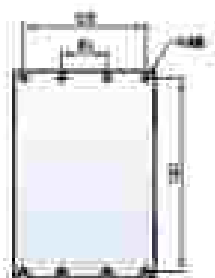
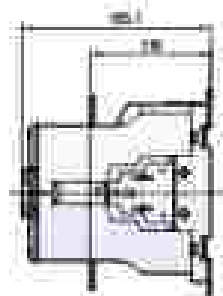
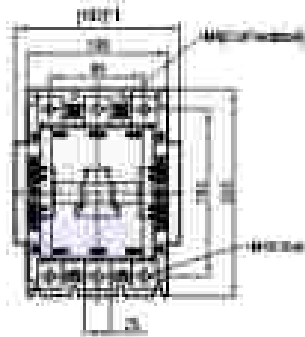
Contactors (150AF-800AF)

Metasol

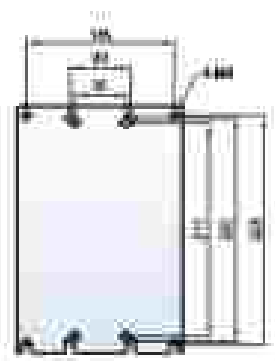
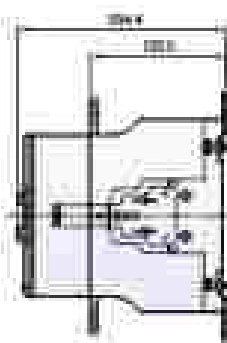
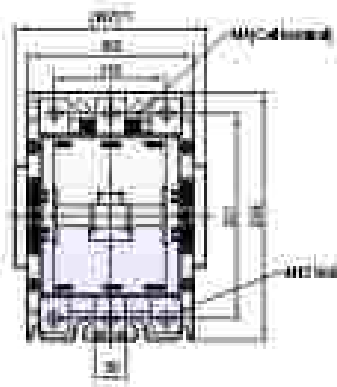


1

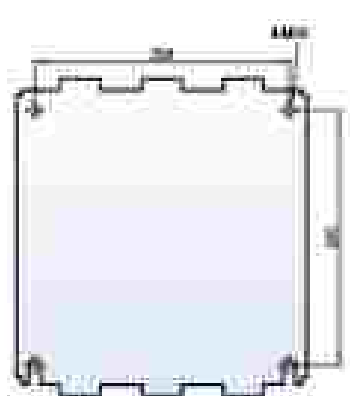
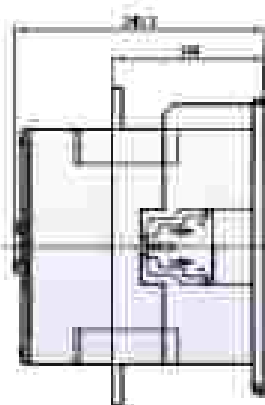
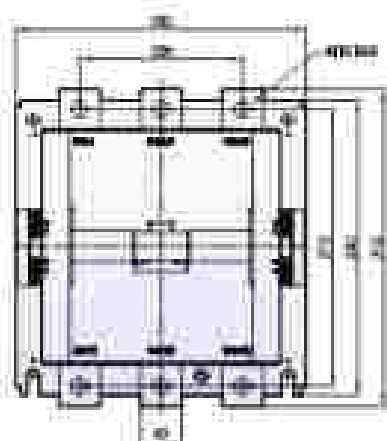
1.4p



1.4p



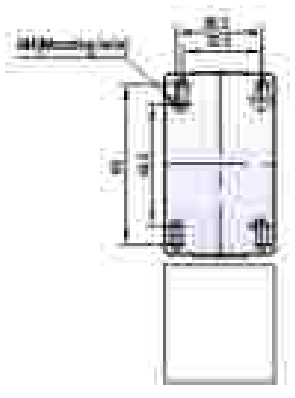
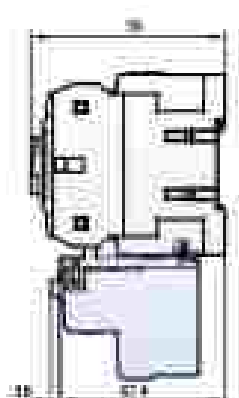
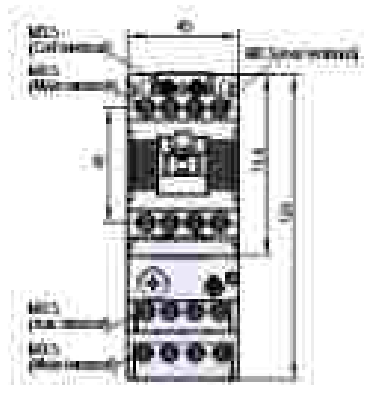
1.4p



1.4p

Motor starters (18AF-40AF)

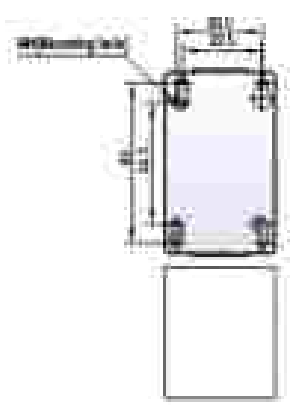
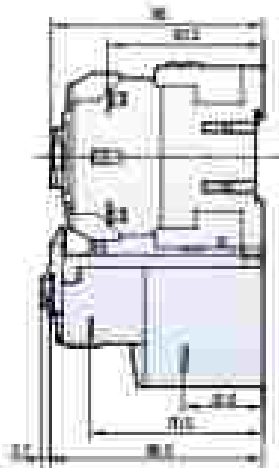
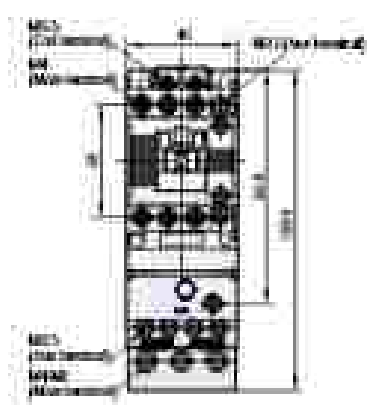
18AF



18AF

18AF

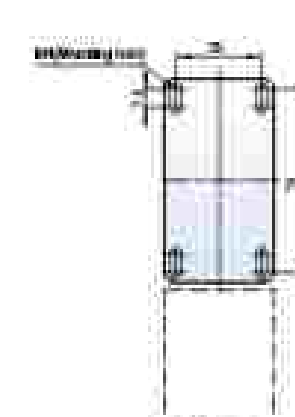
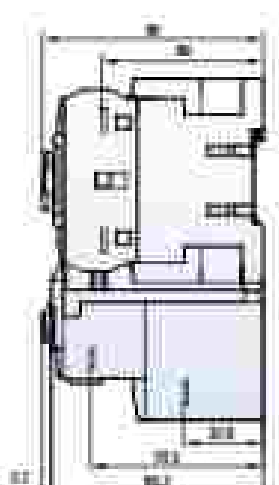
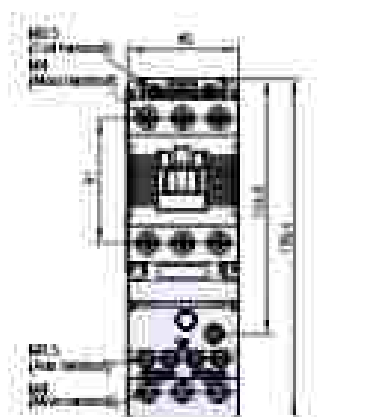
25AF



25AF

25AF

40AF



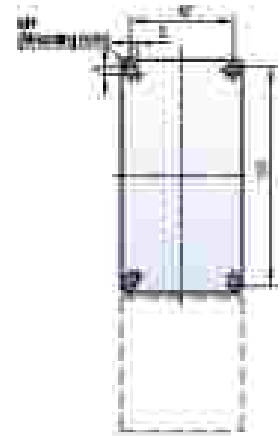
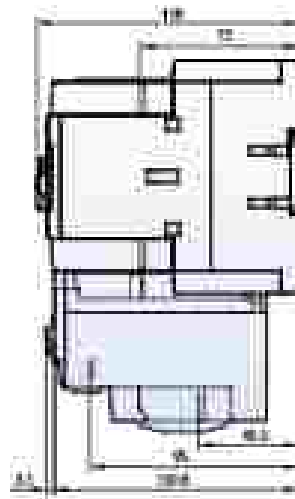
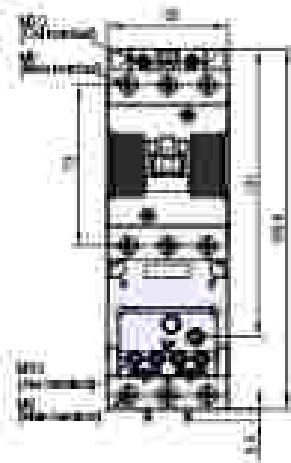
40AF

40AF

Motor starters (65AF-150AF)

Metasol

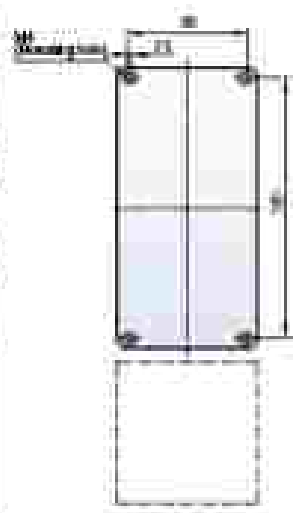
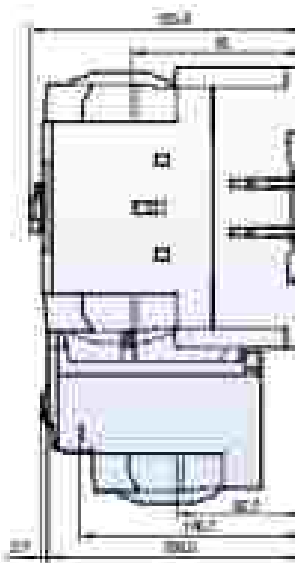
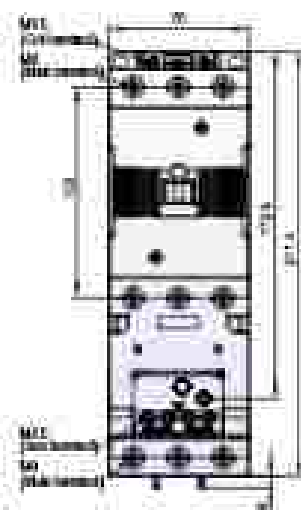
65AF



1.1

1.2

100AF

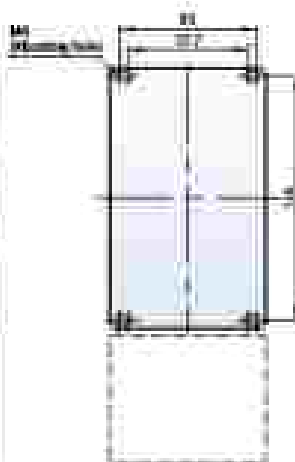
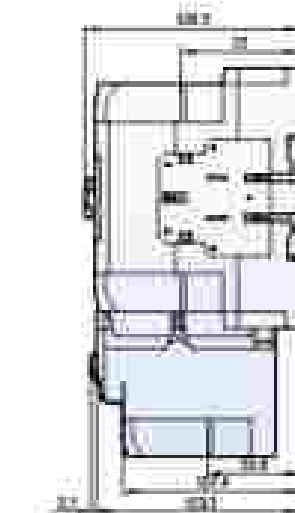
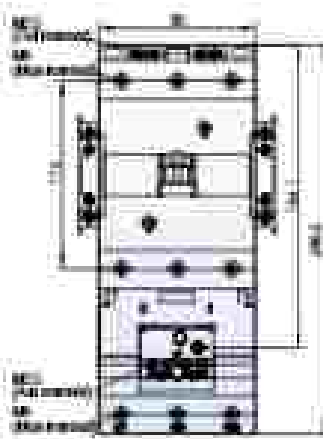


1.1

1.2

150AF

150AF

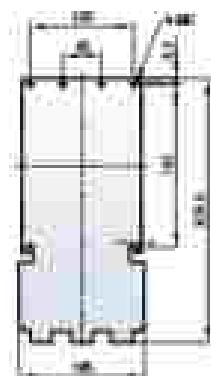
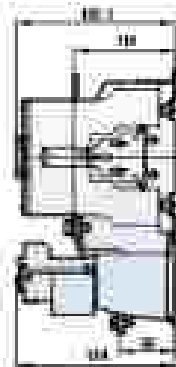
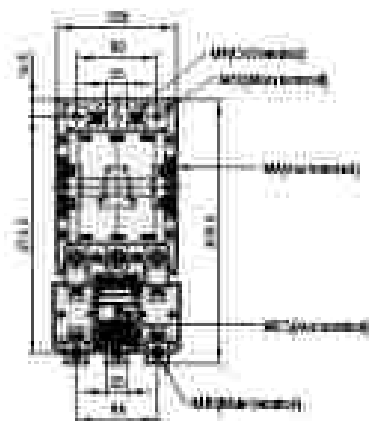


1.1

1.2

Motor starters (185AF-800AF)

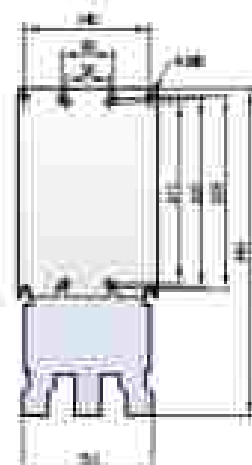
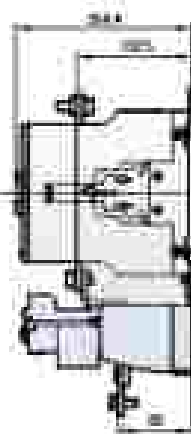
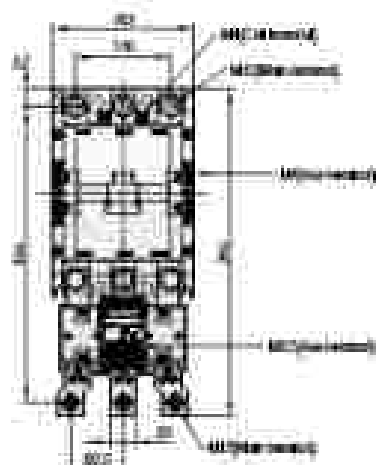
- 185 AF
- 225 AF



185

225

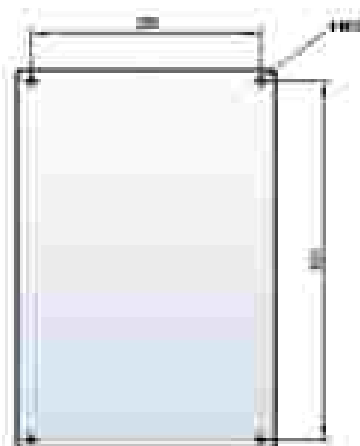
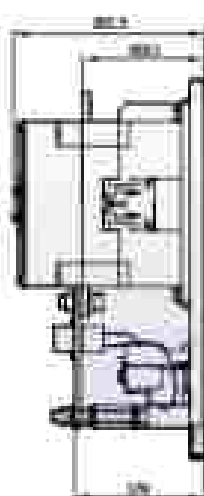
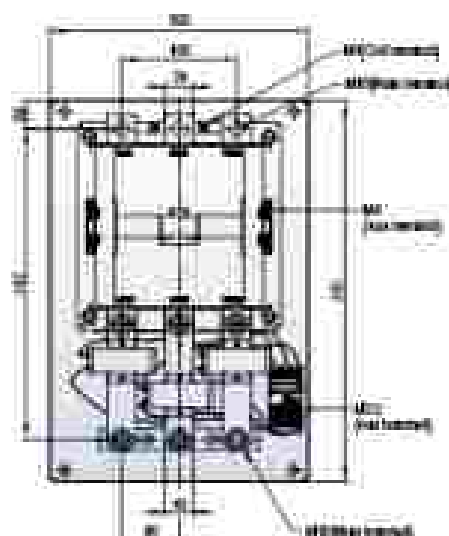
- 300 AF
- 375 AF
- 450 AF



300

375

- 500 AF
- 630 AF
- 800 AF



500

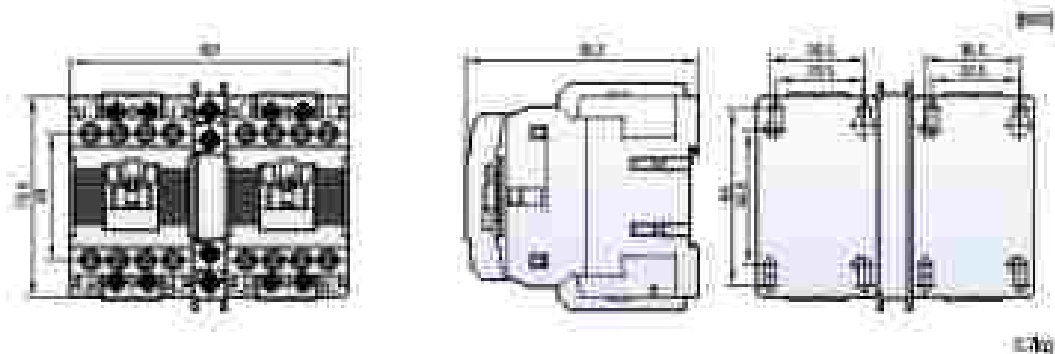
630

800

Reversing contactors and starters (18AF)

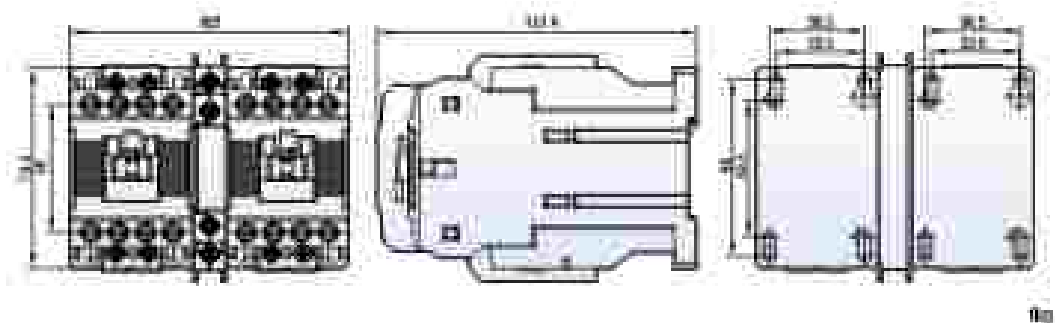
Metasol

18AF 1000



1000

18AF 1250



1250

18AF 1600



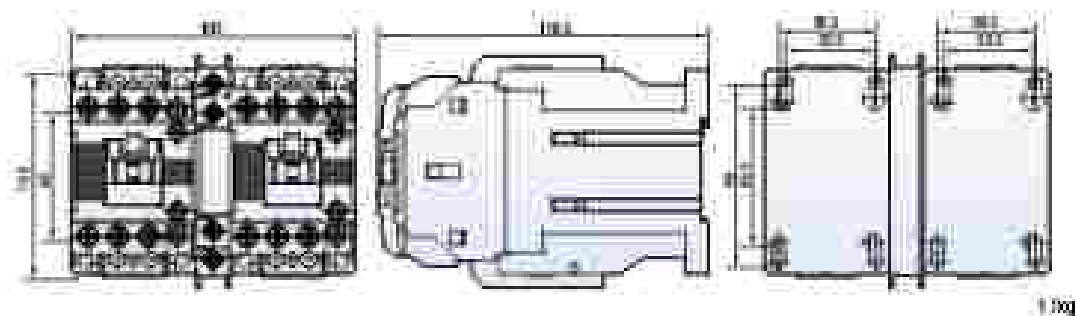
1600

Reversing contactors and starters (22AF)

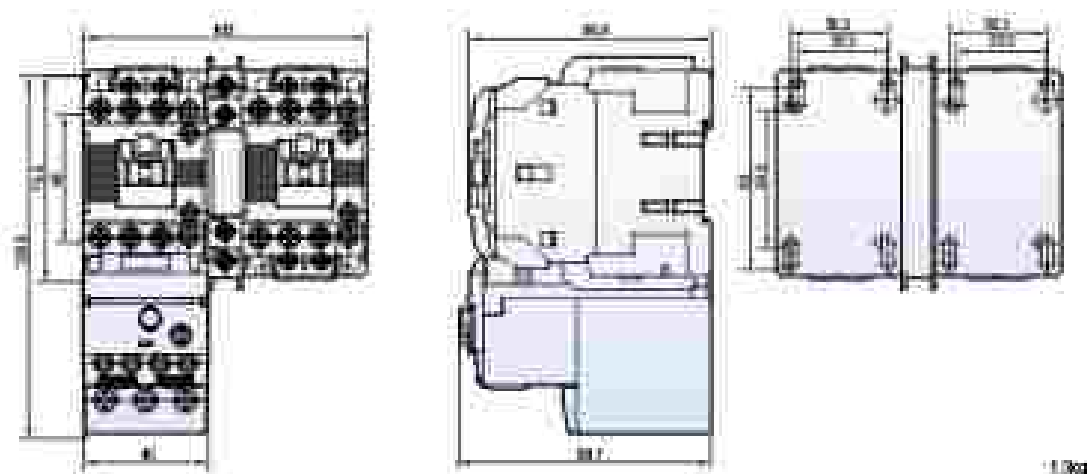
22AF 125



22AF 160



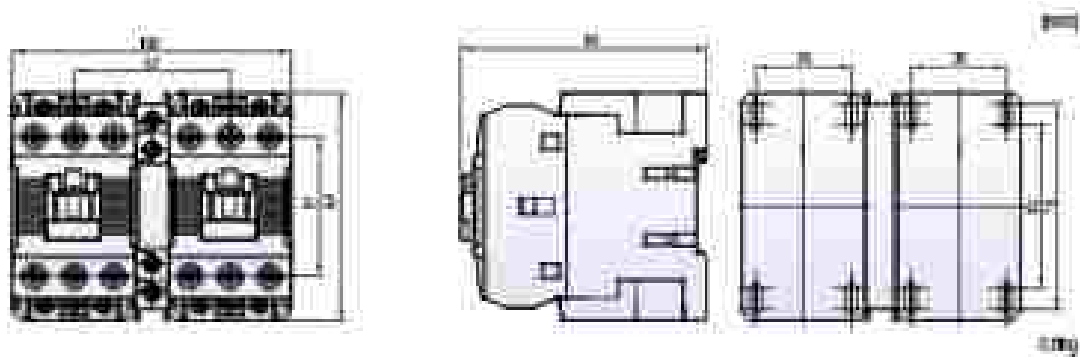
22AF 250



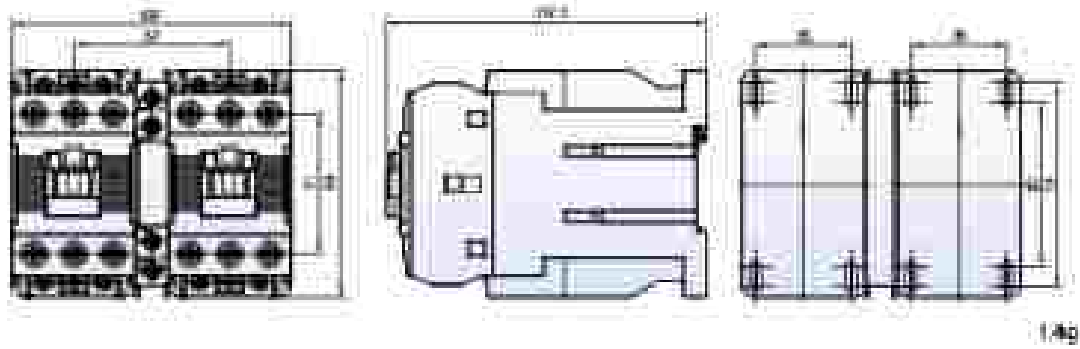
Reversing contactors and starters (40AF)

Metasol

1. 40AF 12



2. 40AF 16

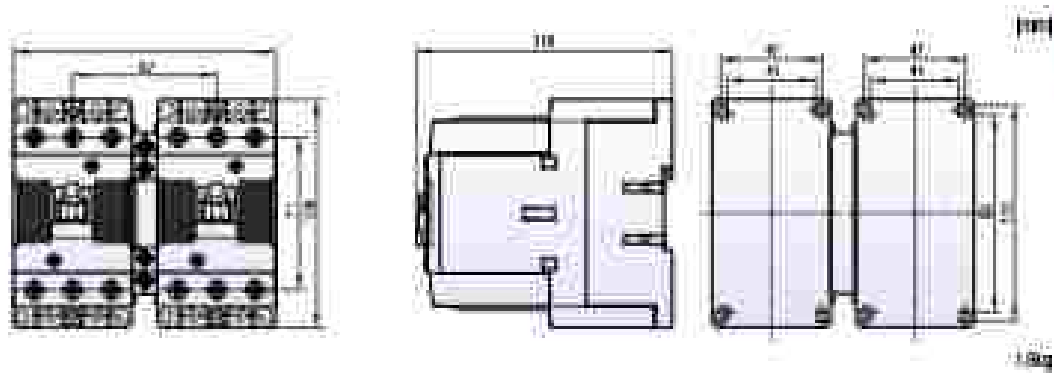


3. 40AF 25

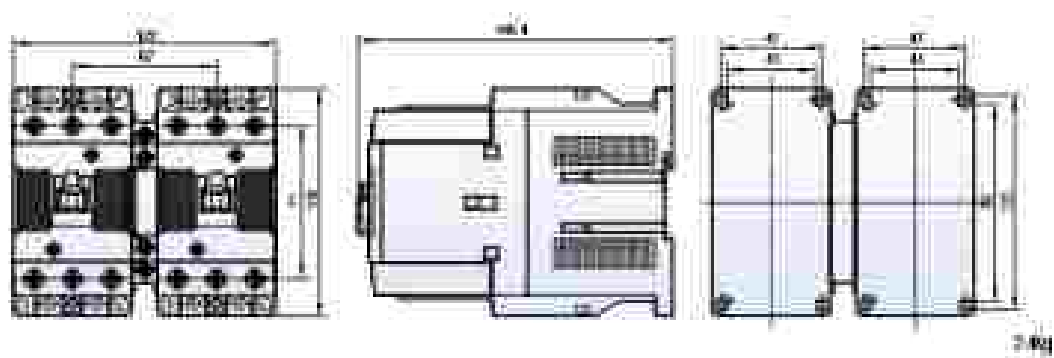


Reversing contactors and starters (65AF)

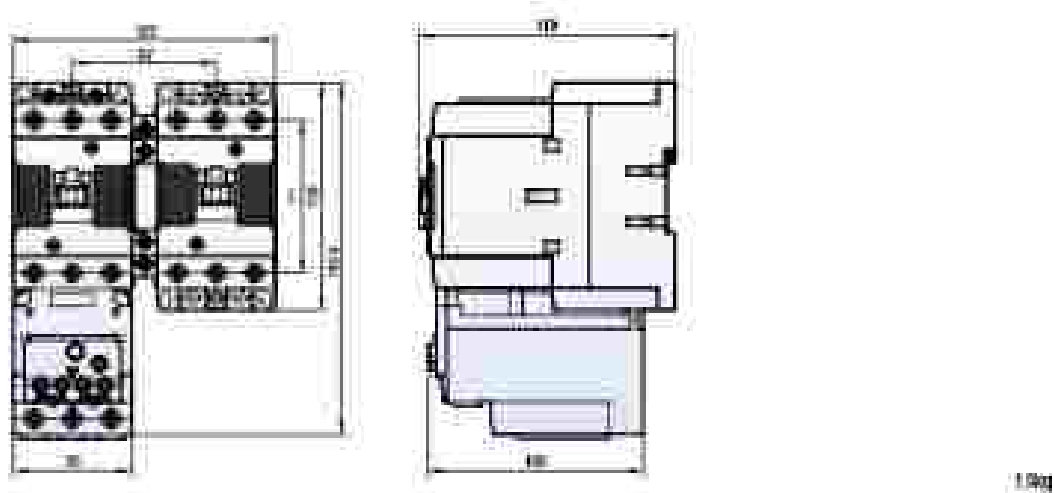
65AF 100



65AF 125



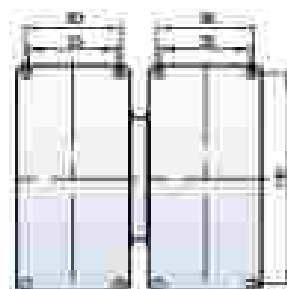
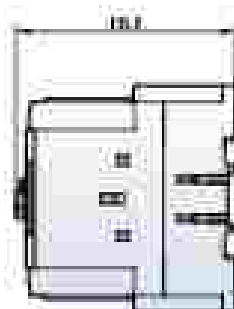
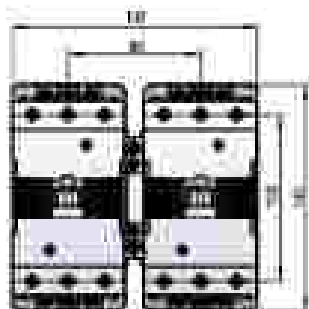
65AF 160



Reversing contactors and starters (100AF)

Metasol

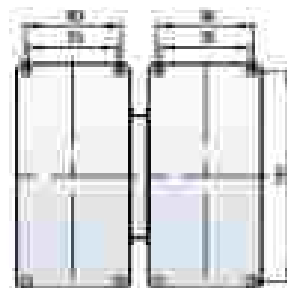
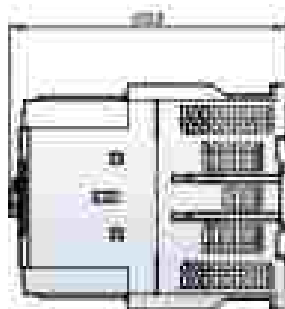
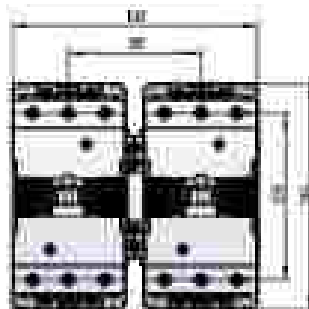
100AF-100-100-100



100

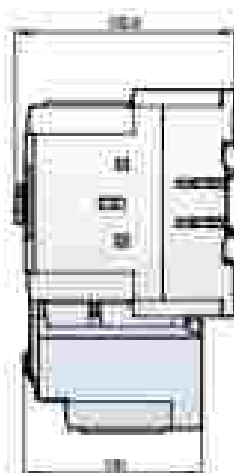
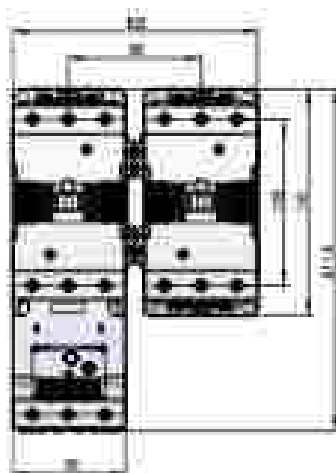
1.0kg

100AF-100-100-100



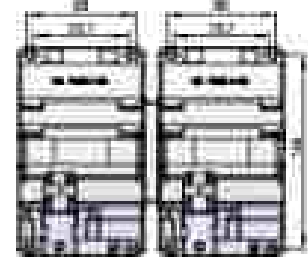
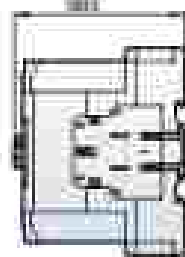
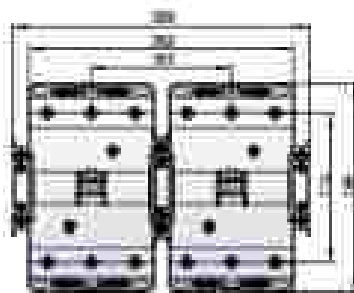
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100AF-100-100-100



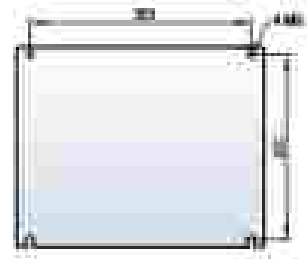
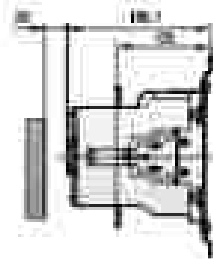
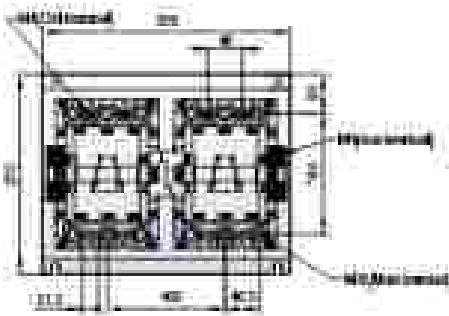
1.0kg

Reversing contactors and starters (150-800AF)

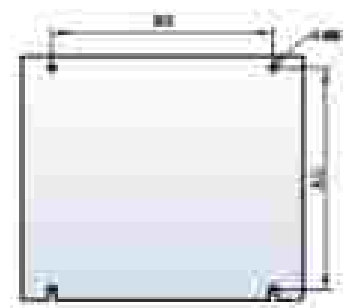
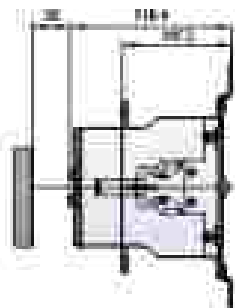
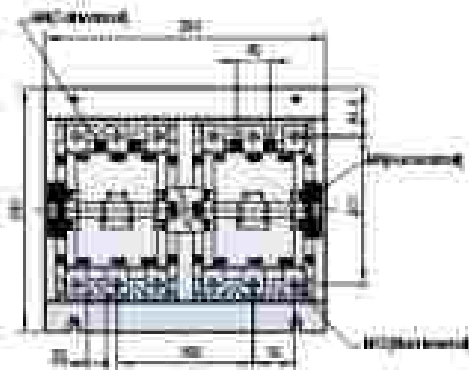


100

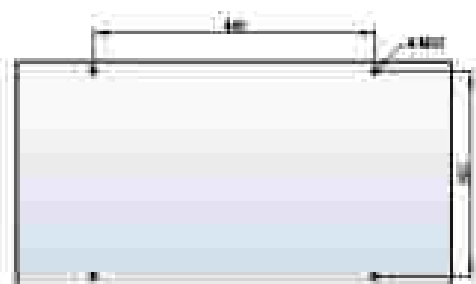
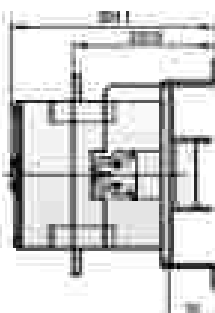
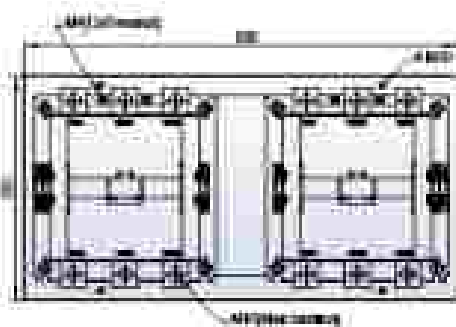
4.3kg



100kg



11.4kg

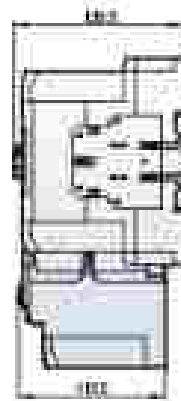
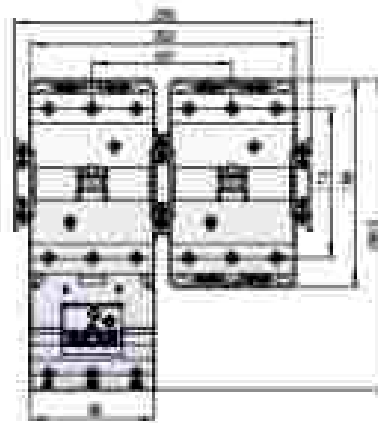


10kg

Reversing contactors and starters (150-400AF)

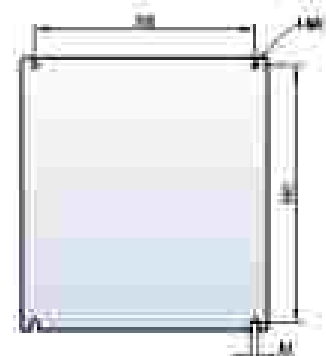
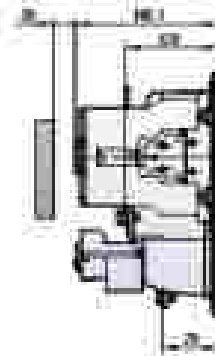
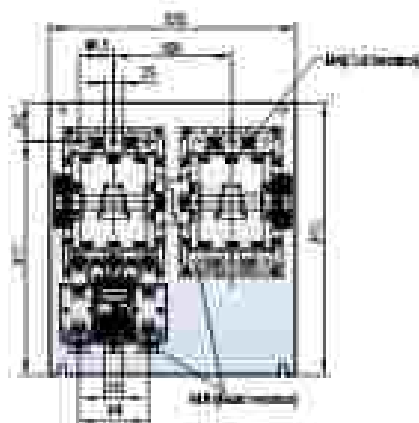
Metasol

150AF
150AF



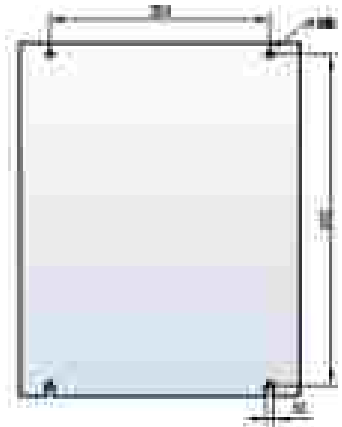
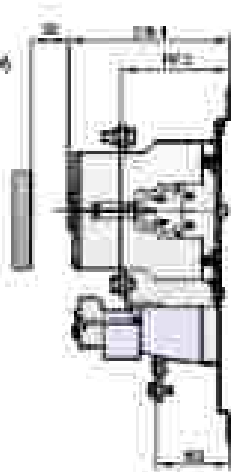
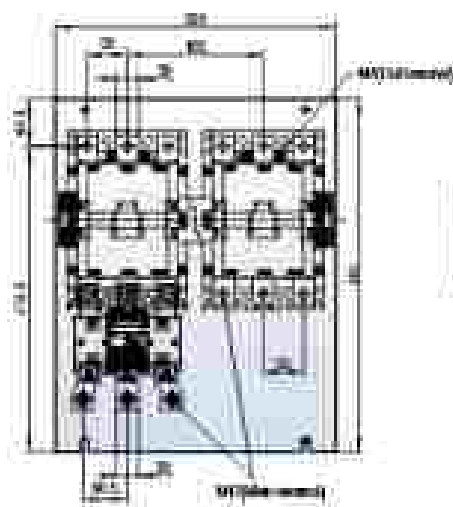
11.5kg

200AF
200AF



11.5kg

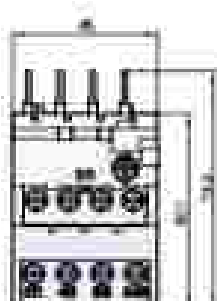
250AF
250AF
250AF



17kg

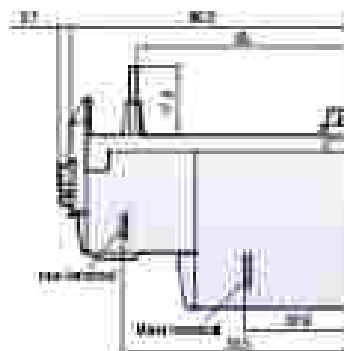
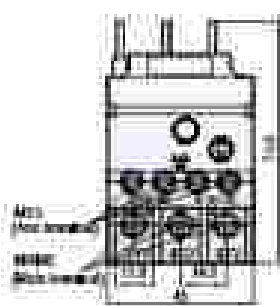
Overload relays

MR 2



100

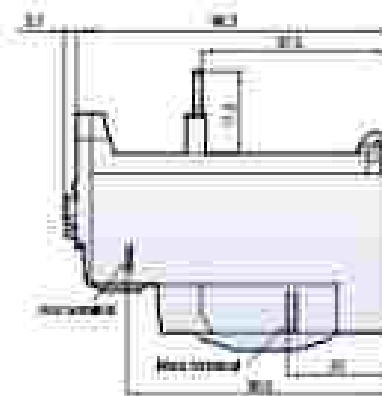
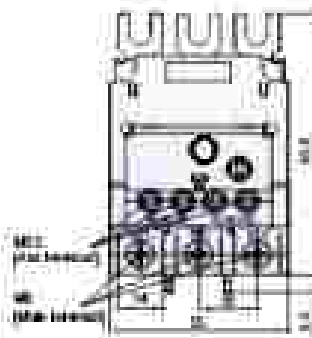
MR 3



100

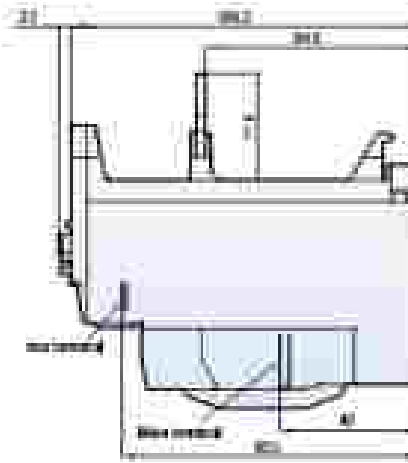
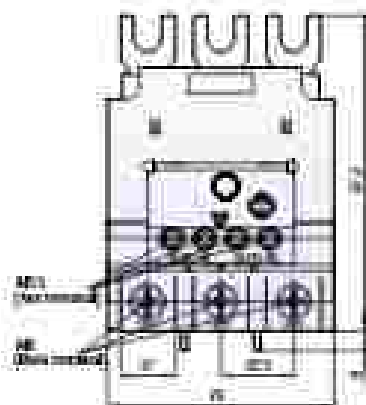
160g

MR 4



160g

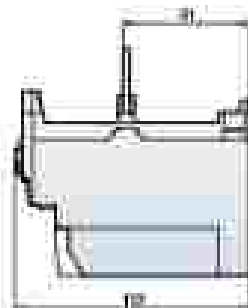
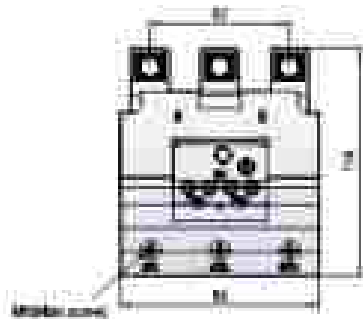
MR 5



160g

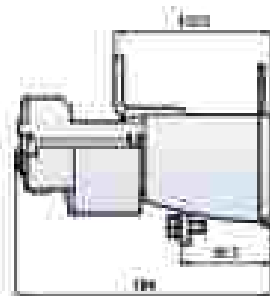
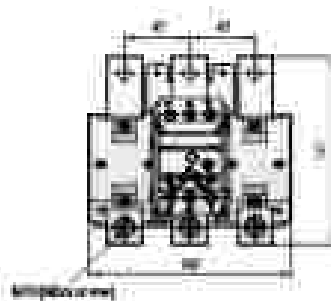
Overload relays

Metasol

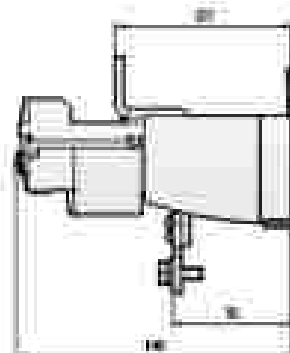
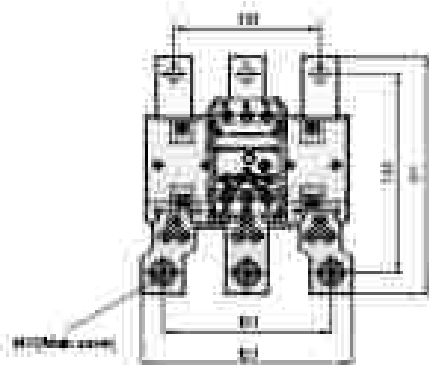


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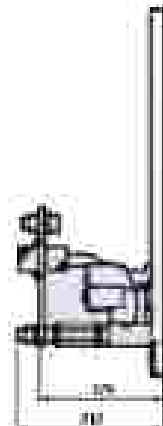
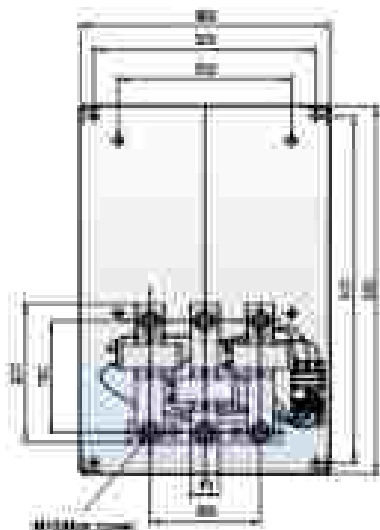
0.3kg



0.4kg



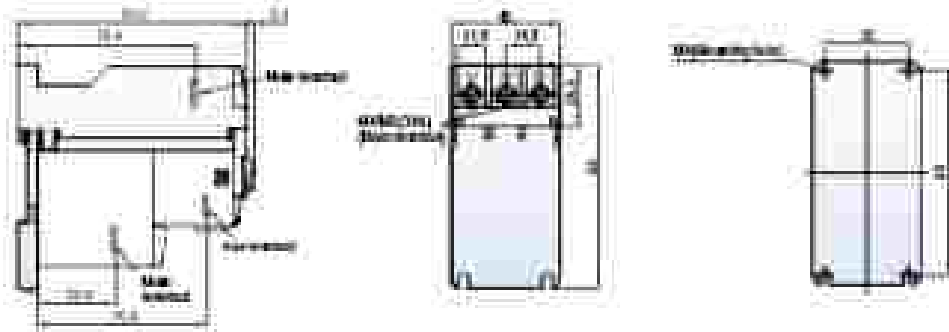
0.5kg



1.9kg

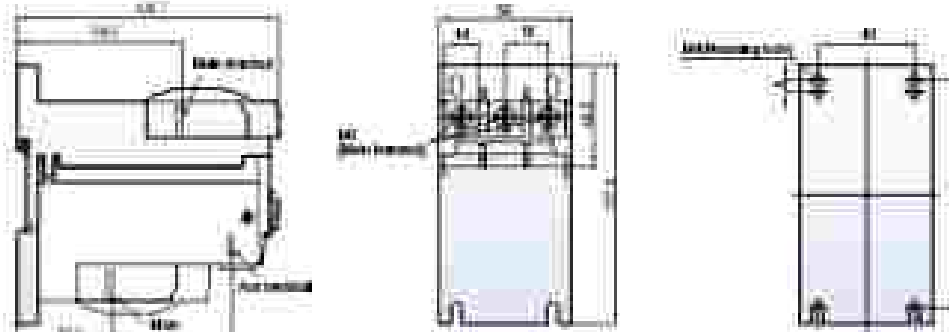
Overload relays (Separate mount)

1000



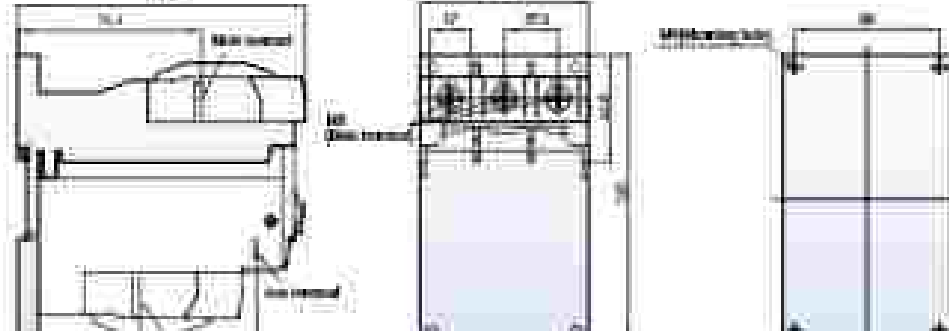
1000

1000



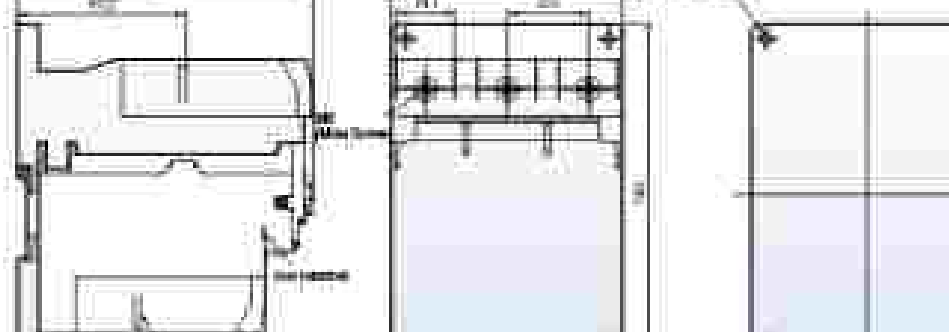
1000

1000



1000

1000

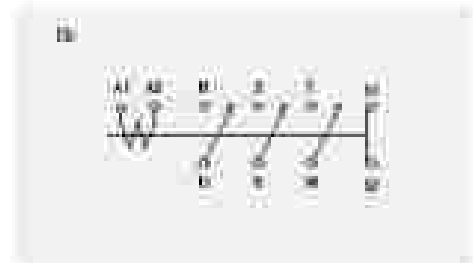


1000

1000

Contactor

MC-03-13a



MC-03-23b

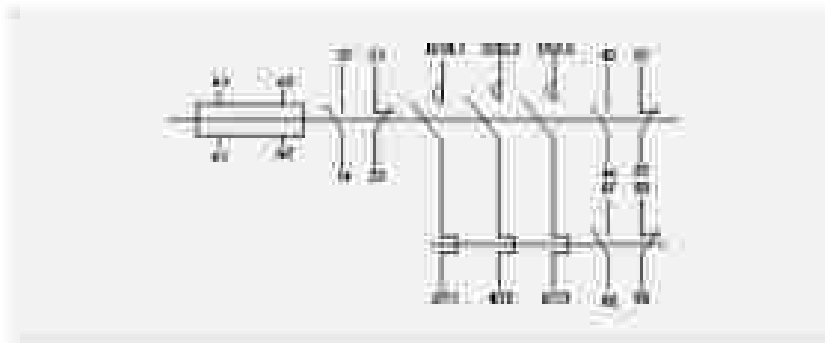
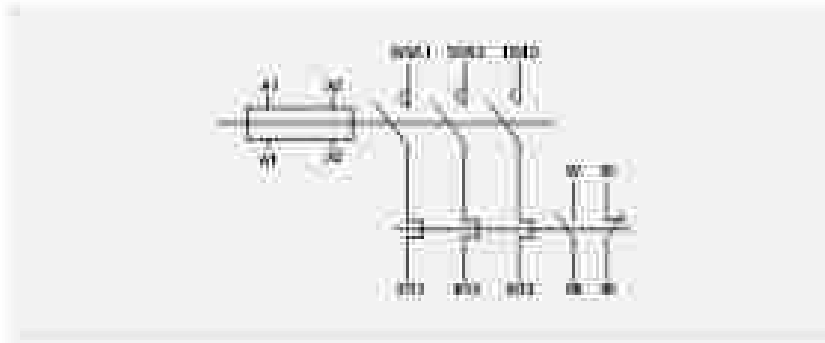


MC-22a-150a

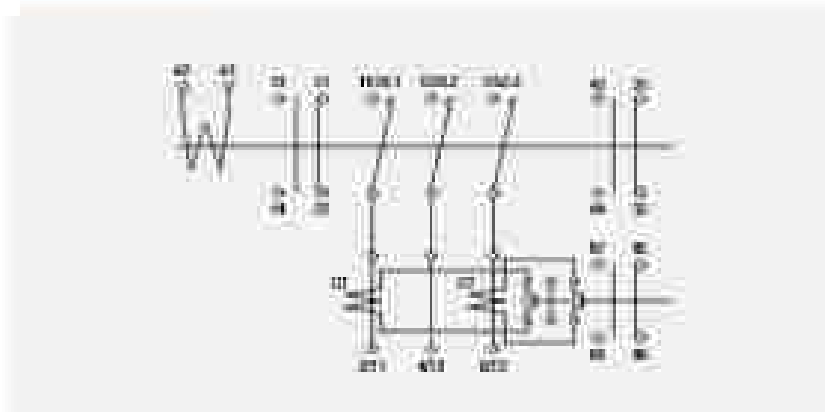


Motor starters

MS-6a-150a

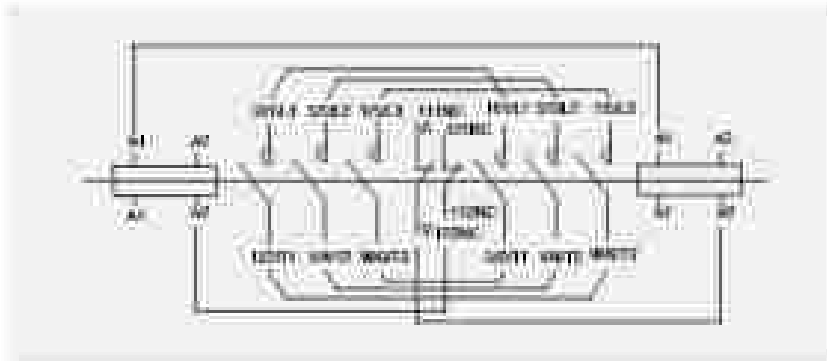


MS-180a-000a

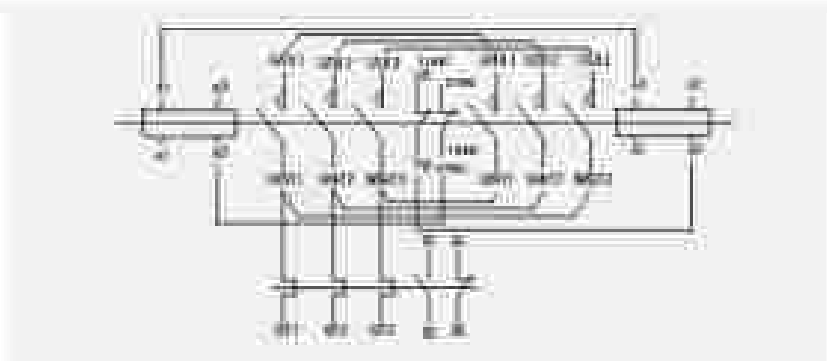


Reversing contactors

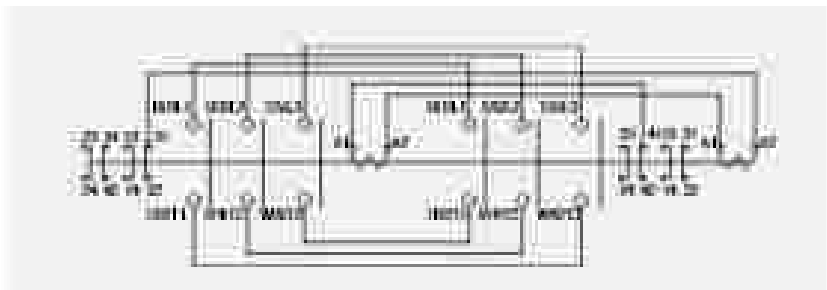
MC-63R-150A



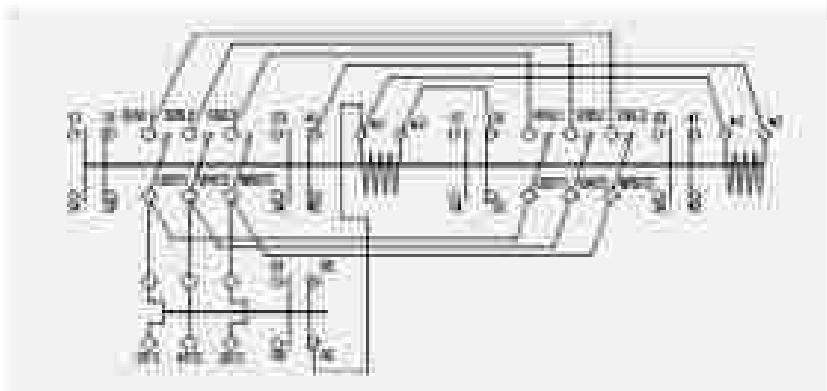
MS-63R-150A



MC-180R-600A



MS-180R-600A





Mini Contactor



Contents :

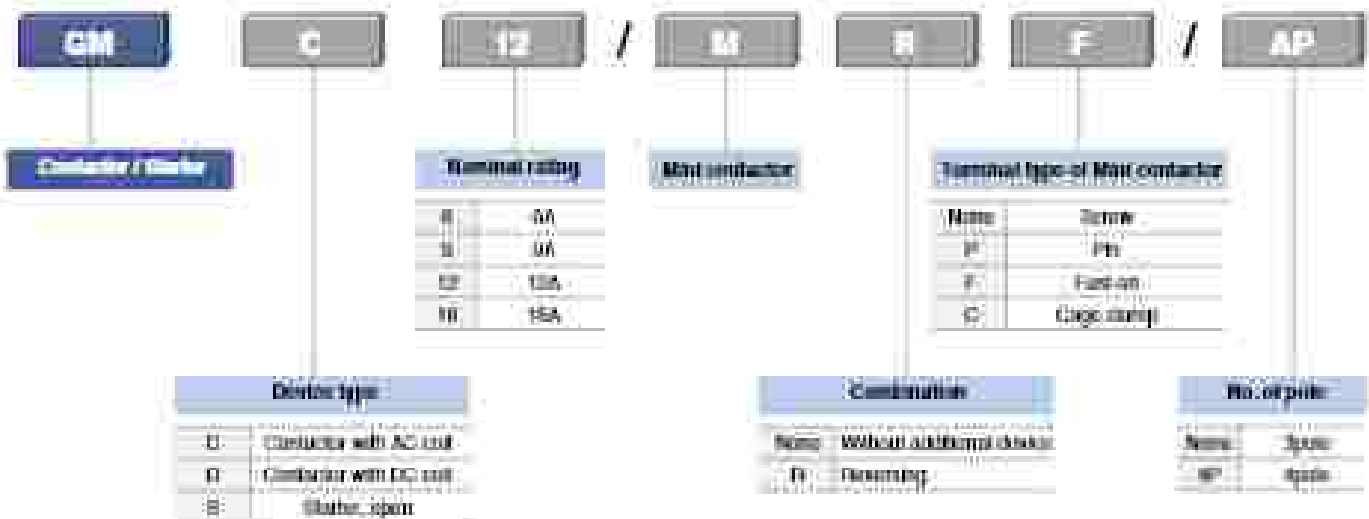
Mini Contactor & Thermal Overload Relay

Cable marking system	108
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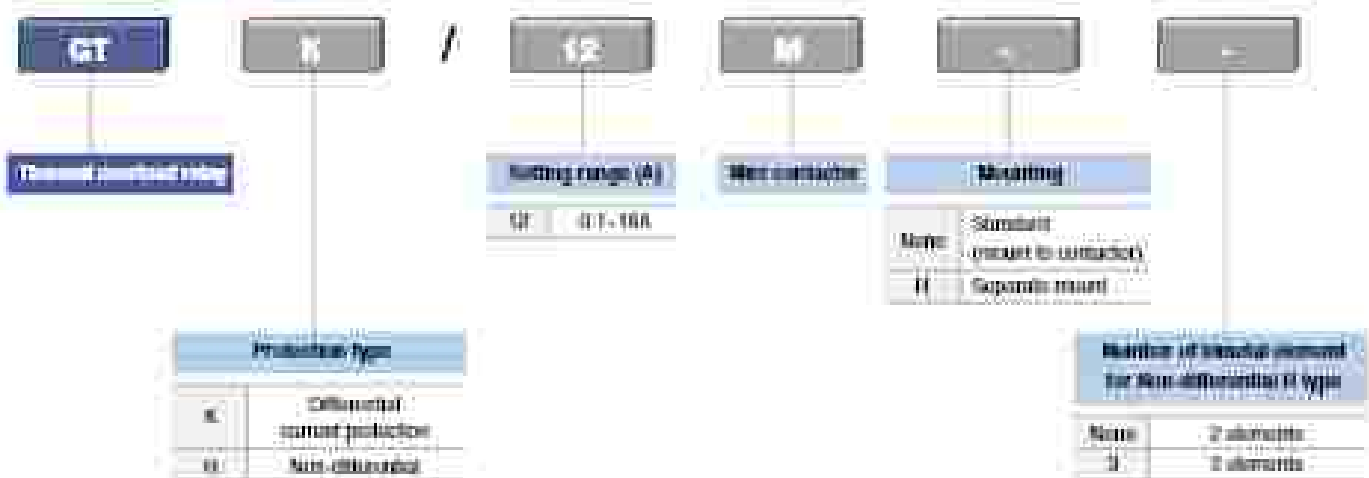


Catalog numbering system

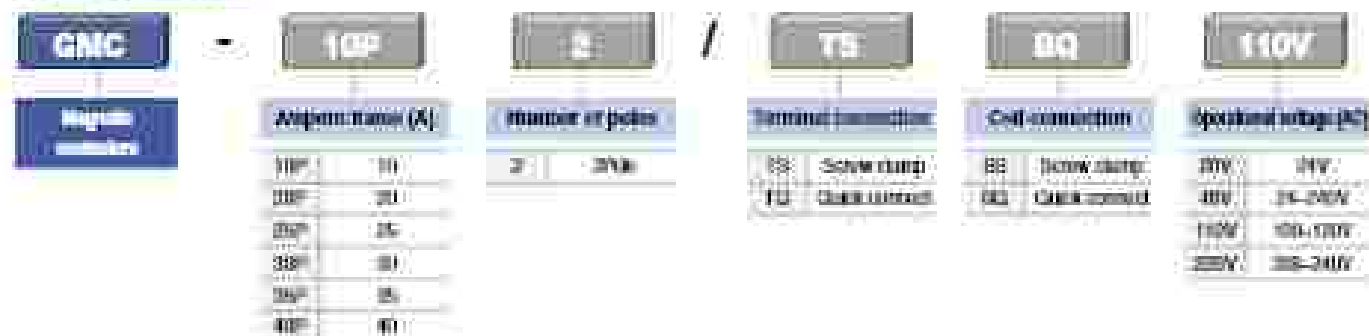
Contactors & Starters



Thermal overload relay



2-pole Contactors



Quick selection table

Mini contactors

3NO main contacts
1 auxiliary contacts



Screw clamp type



Push-on type



Cage clamp type



Solder pin type

Form factor		1A	2A	3A	5A				
Screw clamp type	AC coil	CMC-10A	CMC-20A	CMC-30A	CMC-100A				
	DC coil	CMC-10M	CMC-20M	CMC-30M	CMC-100M				
Push-on type	AC coil	CMC-10E	CMC-20E	CMC-30E	CMC-100E				
	DC coil	CMC-10F	CMC-20F	CMC-30F	CMC-100F				
Cage clamp type	AC coil	CMC-10C	CMC-20C	CMC-30C	CMC-100C				
	DC coil	CMC-10MC	CMC-20MC	CMC-30MC	CMC-100MC				
Solder pin type	AC coil	CMC-10P	CMC-20P	CMC-30P	CMC-100P				
	DC coil	CMC-10MP	CMC-20MP	CMC-30MP	CMC-100MP				
Rated IEC 60947-4		kW	A	kW	A	kW	A	kW	A
AC1	200/240V	1.5	7	2.2	9	3	12	4	15
	200/240V	2.2	8	4	9	5.5	12	7.5	18
	200/240V	2	5	2.7	9	4	7	5.5	8
	200V	2	4	4	7	4	5	4	5
Rated I UL 508		hp	A	hp	A	hp	A	hp	A
continuous current		In = 25A (maximum for cage clamp type is 10A)							
single phase	240V	10	—	10	—	1*	—	—	—
	200/240V	1	—	1.5	—	2**	—	—	—
three phase	240V	1.5	—	3	—	3	—	—	—
	480V	1	—	5	—	7.5***	—	—	—
	600V	1	—	5	—	2.5	—	—	—
* Wire range: Copper, PVC, Standard 10-12AWG									

NEMA size	10	15	20	30
Additional auxiliary contacts	Screw clamp type	Push-on type	Cage clamp type	Solder pin type
2 pins, front mount	AU-2M	AU-2E	AU-2C	AU-2P
4 pins, front mount	AU-4M	AU-4E	AU-4C	AU-4P
2 pins, side mount	AU-1M	AU-1E	AU-1C	AU-1P

* 100% duty for cage clamp type, ** 50% duty for cage clamp type, *** 25% duty for cage clamp type (max. temperature 60°C)

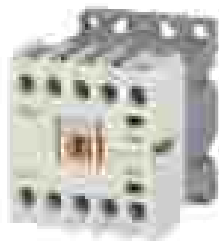
Overload Relays

Dimotastic style Type G1 Class 10A	<p>G1-10M</p>	Setting range (A) 0.1-0.15 0.2-0.25 0.3-0.4 0.5-0.6 0.8-1 1.5-2 3-4	4-8 8-12 16-20 25-30 40-50 60-80	<p>Use in separate mount</p>
Differential	G1D-10M			
Non-differential (3-fuse)	G1N-10M/3			
Non-differential (2-fuse)	G1H-10M			

Contactors

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

Circuit diagram



Screw clamp connection types

Frame size	ACB ratings (IEC60947-4)				ACB rating (A)	Auxiliary contact (standard)	Type
	220 - 240V	380 - 400V	500 - 520V	690V			
6A	1.5kW 7A	2.2kW 9A	3kW 6A	3kW 6A	20A	1NO or 1NC	GMC-6M
9A	2.2kW 10A	4kW 16A	5.7kW 8A	6kW 8A	20A	1NO or 1NC	GMC-9M
12A	3kW 12A	5.5kW 12A	6kW 7A	6kW 5A	20A	1NO or 1NC	GMC-12M
15A	4kW 15A	7.5kW 16A	8.5kW 8A	6kW 5A	20A	1NO or 1NC	GMC-15M



Fast-on connection types

Frame size	ACB ratings (IEC60947-4)				ACB rating (A)	Auxiliary contact (standard)	Type
	220 - 240V	380 - 400V	500 - 520V	690V			
6A	1.5kW 7A	2.2kW 9A	3kW 6A	3kW 6A	20A	1NO or 1NC	GMC-6MF
9A	2.2kW 10A	4kW 16A	5.7kW 8A	6kW 8A	20A	1NO or 1NC	GMC-9MF
12A	3kW 12A	5.5kW 12A	6kW 7A	6kW 5A	20A	1NO or 1NC	GMC-12MF
15A	4kW 15A	7.5kW 16A	8.5kW 8A	6kW 5A	20A	1NO or 1NC	GMC-15MF

Coil voltage : AC 50/60Hz
 24, 26, 40, 48, 110, 115, 120, 127, 200+208, 220, 220/230, 230 / 240, 250, 277, 300 / 400
 400, 440, 480, 500, 550V AC

Performance (at 40VAC)

Frame size	6A	9A	12A	15A
Operation current	6A	9A	12A	15A
Making current	22A	110A	140A	150A
Breaking current	60A	50A	20A	100A
Operation cycle	1000 operations/year			
Endurance	- Electrical : 1 mil. operations		- Mechanical : 10 mil. operations	

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Coil characteristic

Coil voltage	AC	
Coil consumption (W)	3	
Inrush (A)	30VA	
Scrub (A)	0.8A	
Closing voltage (%)	95-110	
Opening voltage (%)	20-40	
Closing time (ms)	10-20	
Opening time (ms)	25-40	

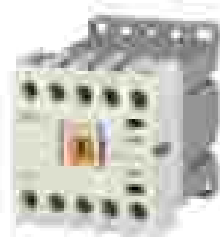
Contactors

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

Circuit diagram



Screw clamp connection types



Frame size	ACB ratings (ECEN47-1)				ACB rating (In)	Auxiliary contact (standard)	Type
	230 - 240V	380 - 400V	500 - 550V	690V			
6A	1.5kW 7A	2.2kW 8A	3kW 9A	3kW 8A	20A	1NO or 1NC	CMD-6A
8A	2.2kW 9A	3kW 10A	3.7kW 11A	4kW 9A	20A	1NO or 1NC	CMD-8A
12A	3kW 12A	5.5kW 12A	6kW 7A	6kW 6A	20A	1NO or 1NC	CMD-12A
16A	4kW 16A	7.5kW 16A	11.5kW 9A	8kW 5A	20A	1NO or 1NC	CMD-16A

Fast-on connection types



Frame size	ACB ratings (ECEN47-1)				ACB rating (In)	Auxiliary contact (standard)	Type
	230 - 240V	380 - 400V	500 - 550V	690V			
6A	1.5kW 7A	2.2kW 8A	3kW 9A	3kW 8A	20A	1NO or 1NC	CMD-6AF
8A	2.2kW 9A	3kW 10A	3.7kW 11A	4kW 9A	20A	1NO or 1NC	CMD-8AF
12A	3kW 12A	5.5kW 12A	6kW 7A	6kW 5A	20A	1NO or 1NC	CMD-12AF
16A	4kW 16A	7.5kW 16A	11.5kW 9A	8kW 5A	20A	1NO or 1NC	CMD-16AF

Coil voltage : DC

① Standard type : 12, 24, 36, 48, 60, 72, 110, 120, 220, 240, 340V DC

② Low consumption type : 12, 24, 36, 48, 72, 110, 120V DC (Low)

③ Wide Voltage : 12, 24, 36, 48, 72, 110, 120V 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	3
Inrush	10W	1.2W	2W
Steady	3W	1.2W	2W
Closing voltage (%)	85-110	80-120	75-105
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

Contactor

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

Circuit diagram



Cage clamp connection types



Frame size	ACB ratings (C-60947-4)				ACB rating (A)	Auxiliary contact (standard)	Type
	220 - 240V	380 - 400V	500 - 550V	600V			
6A	1.5kW	2.2kW	3kW	3kW	20A	1NC/1N	CMD-6MC
	7A	9A	9A	4A		1NC	
9A	2.2kW	3kW	3.7kW	4kW	20A	1NC/1N	CMD-9MC
	9A	9A	6A	6A		1NC	
12A	3kW	4.5kW	6kW	6kW	20A	1NC/1N	CMD-12MC
	12A	12A	7A	6A		1NC	
16A	4kW	7.5kW	11.5kW	8kW	20A	1NC/1N	CMD-16MC
	15A	16A	9A	6A		1NC	

Solder pin connection types



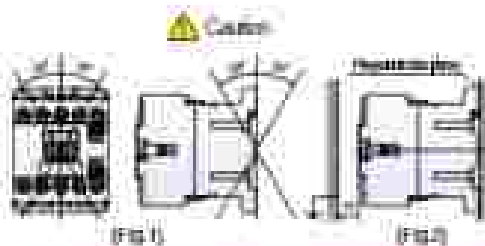
Frame size	ACB ratings (C-60947-4)				ACB rating (A)	Auxiliary contact (standard)	Type
	220 - 240V	380 - 400V	500 - 550V	600V			
6A	1.5kW	2.2kW	3kW	3kW	20A	1NC/1N	CMD-6MP
	7A	9A	9A	4A		1NC	
9A	2.2kW	3kW	3.7kW	4kW	20A	1NC/1N	CMD-9MP
	9A	9A	6A	6A		1NC	
12A	3kW	4.5kW	6kW	6kW	20A	1NC/1N	CMD-12MP
	12A	12A	7A	6A		1NC	
16A	4kW	7.5kW	11.5kW	8kW	20A	1NC/1N	CMD-16MP
	15A	16A	9A	6A		1NC	

Coil voltage : DC

- (1) Standard type : 12, 24, 36, 48, 60, 72, 110, 120, 126, 200, 240, 250V (DC)
- (2) Low consumption type : 12, 24, 36, 48, 72, 110, 120V (DC/low)
- (3) Wide Voltage : 12, 24, 36, 72, 110, 120V (DC-Wide)

Ordering information

Type, Auxiliary contact and Coil voltage



Some auxiliary contacts below the direction of Fig.1 is prohibited.
 (1) In the direction of the "1".
 (2) Keep the dimensions from "1" with the contact shown Fig.1

Code
 CC-12,13

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		AC ratings (EC/EN/IEC/A)				Auxiliary contacts	Starters Type
Contactors (AC coil)	Overload (differential)	220-240V	380-415V	500-525V	690V		
GMC-4M	GTR-12M	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	1NO/1C 1NC	GMS-3M/4M
GMC-6M	GTR-12M	2.2kW 6A	4kW 6A	3.7kW 5A	4kW 5A	1NO/1C 1NC	GMS-5M/6M
GMC-12M	GTR-12M	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	1NO/1C 1NC	GMS-12M/9M
GMC-18M	GTR-12M	4kW 15A	7.5kW 15A	5.5kW 6A	4kW 5A	1NO/1C 1NC	GMS-18M/15M



AC coil contactor + Non-differential type overload relay

Devices combined		AC ratings (EC/EN/IEC/A)				Auxiliary contacts	Starters Type
Contactors (AC coil)	Overload (non-differential)	220-240V	380-415V	500-525V	690V		
GMC-4M	GTR-12M/5	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	1NO/1C 1NC	GMS-4M
GMC-6M	GTR-12M/5	2.2kW 6A	4kW 6A	3.7kW 5A	4kW 5A	1NO/1C 1NC	GMS-6M
GMC-12M	GTR-12M/5	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	1NO/1C 1NC	GMS-12M
GMC-18M	GTR-12M/5	4kW 15A	7.5kW 15A	5.5kW 6A	4kW 5A	1NO/1C 1NC	GMS-18M

Coil voltage : AC 50/60Hz

24, 26, 42, 48, 110, 115, 120, 127, 200, 208, 220, 220/230, 230/240, 252, 277, 300/340, 400, 480, 480, 525V AC

Ordering information

Type, Auxiliary contacts over Coil voltage

Contact relay setting range

Low Voltage
Circuit

Reversing contactors

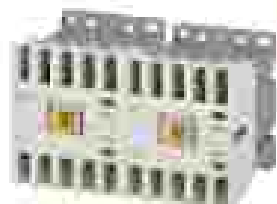
- For motor control
- Mechanically interlocked
- Coil voltage - AC

Screw clamp connection types



Frame size	AC1 ratings (GCR94AT-4)				AC1 rating (In)	Auxiliary contact (standard)	Type
	220 - 230V	380 - 400V	500 - 550V	690V			
6A	1.5kW 7A	2.2kW 8A	3kW 9A	3kW 4A	20A	1NO or 1NC	GMC-6MR
9A	2.2kW 8A	4kW 9A	3.7kW 6A	4kW 6A	20A	1NO or 1NC	GMC-9MR
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 6A	20A	1NO or 1NC	GMC-12MR
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 6A	20A	1NO or 1NC	GMC-16MR

Fast-on connection types



Frame size	AC1 ratings (GCR94AT-4)				AC1 rating (In)	Auxiliary contact (standard)	Type
	220 - 230V	380 - 400V	500 - 550V	690V			
6A	1.5kW 7A	2.2kW 8A	3kW 9A	3kW 4A	20A	1NO or 1NC	GMC-6MRF
9A	2.2kW 8A	4kW 9A	3.7kW 6A	4kW 6A	20A	1NO or 1NC	GMC-9MRF
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 6A	20A	1NO or 1NC	GMC-12MRF
16A	4kW 15A	7.5kW 16A	5.5kW 9A	4kW 6A	20A	1NO or 1NC	GMC-16MRF

Coil voltage: AC 50/60Hz
 24, 36, 42, 48, 110, 115, 120, 127, 200, 208, 220, 220/230, 220, 240, 240, 277, 380 / 400
 400, 440, 480, 480, 500, 550V AC

Ordering information
 Type / Auxiliary contact and Coil voltage

Capitex
 02, 15, 21

Reversing contactors

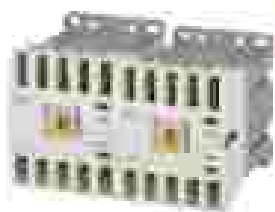
- For motor control
- Mechanically interlocked
- Coil voltage : DC

Screw clamp connection types



Frame size	AC1 ratings (C-60341-4)				AC1 rating (A)	Auxiliary contact (standard)	Type
	220 - 230V	380 - 400V	500 - 550V	690V			
6A	1.5kW 5A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	CMD-6M1
9A	2.2kW 6A	4kW 8A	3.7kW 6A	4kW 6A	20A	1NO or 1NC	CMD-9M1
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 6A	20A	1NO or 1NC	CMD-12M1
16A	4kW 16A	7.5kW 16A	5.5kW 8A	4kW 6A	20A	1NO or 1NC	CMD-16M1

Fast-on connection types



Frame size	AC1 ratings (C-60341-4)				AC1 rating (A)	Auxiliary contact (standard)	Type
	220 - 230V	380 - 400V	500 - 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	CMD-6M1F
9A	2.2kW 6A	4kW 8A	3.7kW 6A	4kW 6A	20A	1NO or 1NC	CMD-9M1F
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 6A	20A	1NO or 1NC	CMD-12M1F
16A	4kW 16A	7.5kW 16A	5.5kW 8A	4kW 6A	20A	1NO or 1NC	CMD-16M1F

Coil voltage : DC

(i) Standard type : 12, 24, 36, 48, 60, 85, 75, 110, 125, 150, 200, 240, 250V DC

(ii) Low consumption type : 60, 80, 94, 48, 70, 110, 125V DC (max)

(iii) Wide Voltage : 12, 24, 34, 48, 75, 110, 125V DC (max)

Ordering information

Type, Auxiliary contact and Coil voltage

Capteur
C-1111

Reversing contactors

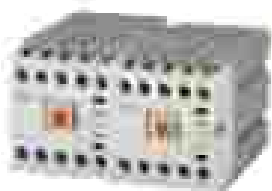
- For motor control
- Mechanically interlocked
- Coil voltage : DC

Cage clamp connection types



Frame size	AC1 ratings (GCR/IRMT 4)				AC1 rating (In)	Auxiliary contact (standard)	Type
	250 - 240V	380 - 400V	500 - 520V	690V			
6A	1.5kW 7A	2.2kW 8A	3kW 8A	3kW 4A	20A	1NO or 1NC	GMD-6MCR
8A	2.2kW 8A	4kW 10A	5.5kW 10A	6kW 5A	30A	1NO or 1NC	GMD-8MCR
12A	3kW 12A	5.5kW 12A	8kW 7A	8kW 5A	30A	1NO or 1NC	GMD-12MCR
16A	4kW 16A	7.5kW 16A	11kW 8A	8kW 5A	30A	1NO or 1NC	GMD-16MCR

Solder pin connection types



Frame size	AC1 ratings (GCR/IRMT 4)				AC1 rating (In)	Auxiliary contact (standard)	Type
	250 - 240V	380 - 400V	500 - 520V	690V			
6A	1.5kW 7A	2.2kW 8A	3kW 8A	3kW 4A	30A	1NO or 1NC	GMD-6MSR
8A	2.2kW 8A	4kW 10A	5.5kW 10A	6kW 5A	30A	1NO or 1NC	GMD-8MSR
12A	3kW 12A	5.5kW 12A	8kW 7A	8kW 5A	30A	1NO or 1NC	GMD-12MSR
16A	4kW 16A	7.5kW 16A	11kW 8A	8kW 5A	30A	1NO or 1NC	GMD-16MSR

Coil voltage : DC

① Standard type : 6V, 24, 36, 48, 60, 72, 110, 120, 125, 240, 240V DC

② Low consumption type : 12, 24, 36, 48, 72, 110, 120V DC (Low)

③ Wide Voltage : 12, 24, 36, 48, 72, 110, 120V DC (Wide)

Ordering Information

Type, Auxiliary contact and Coil Voltage

Low
consumption

Bimetallic style

Description



GT-12M

- Direct mount on the main 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-229.
- Great 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 G311 types are available for the economical solution.
- Ambient compensated : -5 to 40 °C.
- Manual/Automatic reset convertible.
- Remote reset is optional.
- Trip free designed.



Catalog No.

Setting (amp(A))	Differential type			
	3-phase		2-phase	
0.15	0.16	GTK-12M - 0.16	GT11-12M03 - 0.16	GT11-12M - 0.16
0.10	0.25	GTK-12M - 0.21	GT11-12M03 - 0.21	GT11-12M - 0.21
0.25	0.4	GTK-12M - 0.39	GT11-12M03 - 0.39	GT11-12M - 0.39
0.4	0.63	GTK-12M - 0.62	GT11-12M03 - 0.62	GT11-12M - 0.62
0.63	1	GTK-12M - 0.82	GT11-12M03 - 0.82	GT11-12M - 0.82
1	1.6	GTK-12M - 1.3	GT11-12M03 - 1.3	GT11-12M - 1.3
1.6	2.5	GTK-12M - 2.1	GT11-12M03 - 2.1	GT11-12M - 2.1
2.5	4	GTK-12M - 3.3	GT11-12M03 - 3.3	GT11-12M - 3.3
4	6	GTK-12M - 5	GT11-12M03 - 5	GT11-12M - 5
6	8	GTK-12M - 6.5	GT11-12M03 - 6.5	GT11-12M - 6.5
8	8	GTK-12M - 7.5	GT11-12M03 - 7.5	GT11-12M - 7.5
7	10	GTK-12M - 8.5	GT11-12M03 - 8.5	GT11-12M - 8.5
9	13	GTK-12M - 12	GT11-12M03 - 12	GT11-12M - 12
10	16	GTK-12M - 14	GT11-12M03 - 14	GT11-12M - 14

Auxiliary (Trip) contact rating

AC (50/60 Hz)			DC (24V/48V)	
110V	220V	240V	110V	220V
3.00/3A	3.0/3A	10/3A	0.25A	0.14A

(*) For the voltage of 110V, contact make and break capacity.



2-pole DC Contactors

Description

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

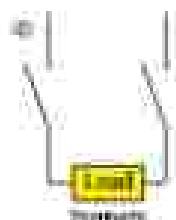
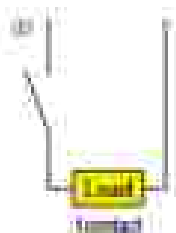
Selection

AC coil	Type		Number of contacts in series	DC ratings			Continuous current (In)	Auxiliary contacts
	AC coil	DC coil		110V	220V	440V		
SMM-30P	SMM-30DP		1 (I)	2.2kW 20A	2.2kW 20A	2.2kW 2.5A	50A	2NO/2NC
			2 (II)	1.7kW 40A	1.7kW 30A	2.5kW 20A		
SMM-47P	SMM-47DP		1	6.1kW 40A	7.5kW 40A	1.5kW 11A	50A	2NO/2NC
			2	7.5kW 80A	11kW 60A	1.5kW 40A		
SMM-100P	SMM-100DP		1	7.5kW 100A	11kW 60A	3.0kW 20A	100A	2NO/2NC
			2	1.5kW 100A	10.5kW 100A	2.0kW 30A		



Ratings of auxiliary contacts

		AC duty			DC duty		
		110V	220V	440V	40V	110V	220V
Rated currents	Inductive load	5A	5A	3A	3A	1.2A	0.5A
	Resistive load	10A	10A	6A	2.5A	1A	
Continuous current, In		5A					



Performance

Circuit type	Number of contacts in series	Breaking current			Making current	Estimate
		DC110V	DC220V	DC440V		
SMM-30P	1	100A	60A	20A	100A	Mechanical lifetime (2.5 mil. operations)
SMM-47P	2	100A	50A	20A		Electrical lifetime (0.5 mil. operations)
SMM-100P	1	200A	100A	60A	200A	Operation cycle (1000 operations/year)
SMM-400P	2	300A	200A	100A		
SMM-100P	1	400A	200A	60A	400A	
SMM-100DP	2	400A	400A	200A		

Control coil voltage, AC 50/60Hz

48, 100V/50-110, 110, 120V/50-125, 200V/50-220, 220, 240V/50/60Hz, 240, 250, 415V/50-60Hz

Coil voltage, DC

24, 48, 100, 110, 200, 250V

Ordering information

Specify type and coil voltage

Example: SMM-30P, AC110V/50Hz

2-pole AC Contactors, Definite purpose

Features and specifications



The single pole contactor is small, light and economical. It is suitable for use in equipment of lower switching frequency such as heaters, lighting equipment and in motor control of air conditioners, refrigerators, airfans, pumps, compressors, industrial cleaner and etc.

- Space-Saving small and light Design
- Extended Range in same size enables its use in a wide range of application areas
- Boxed structure which improves Noise
- Equipped with Operation Status display unit
- Rated current: 10, 20, 25, 30, 35, 40A (AC 220V Standard)



Type and rating

			GMC-10P2	GMC-20P2	GMC-25P2	GMC-30P2	GMC-35P2	GMC-40P2	
			10A	20A	25A	30A	35A	40A	
Number of poles			2	2	2	2	2	2	
Main contact			2a	2a	2a	2a	2a	2a	
Rated insulation voltage, U _i		AC	600						
		DC	250						
Rating	ACB ratings	Rated current (A)	20S-220V	10	20	25	30	35	40
			380-440V	5	17	21	23	24	27
			525-550V	5	14	17	21	23	26
AC (1/1h) (A)			30	30	30	40	40	40	

Coil characteristics

Voltage (AC)	Input (VA)		Thermal stability (°C)	Operation voltage (V)		Coil current (mA)	Operation time (ms)	
	Inrush	Sustained		Pick-up	Drop-out		Closing	Opening
24V standard	35	6.0	2	18-20	10-15	263	40	30
48V standard	35	6.0	2	36-40	18-22	131	40	30
100V standard	35	6.0	2	74-81	36-52	63	40	30
110V standard	35	6.0	2	78-86	50-64	57	40	30
120V standard	35	6.0	2	80-90	52-66	53	40	30
200V standard	35	6.0	2	155-166	80-111	37	40	30
220V standard	35	6.0	2	160-175	86-120	35	40	30
230V standard	35	6.0	2	165-180	110-130	27	40	30
240V standard	35	6.0	2	168-185	110-135	26	40	30

Note 1. Input VA is approximate.

2. The data above depends on coil heating at 100% (20) 100% loading.

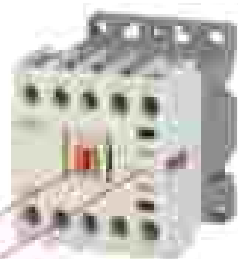
3. The voltage will operate between 95% and 110% of rated voltage. The value concerning 100%, the voltage should never will be used voltage.



Timer unit, AT-12M

- Electronic type
- ON/OFF time delay
- Four terminal

Timer unit



Surge absorber unit



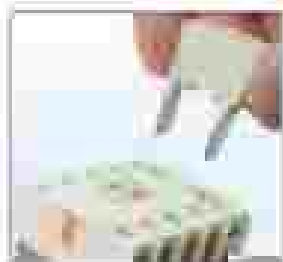
Electronic Timer

Type	Control voltage	Delay	Time	Applied contactors
AT-12M/1H	ACDC 24-48V	ON	0.1-30s	CNC 0M-10M CNC 0M-10M
AT-12M/1F	ACDC 24-48V	OFF	0.1-30s	CNC 0M-10M CNC 0M-10M
AT-12M/2H	AC 100-250V	ON	0.1-30s	CNC 0M-10M CNC 0M-10M
AT-12M/2F	AC 100-250V	OFF	0.1-30s	CNC 0M-10M CNC 0M-10M

Surge absorber unit, AS-12M

- Coil surge suppressor

Surge absorber unit



Type	Internal element	Operational voltage	Applied contactors
AS-12M/1	Magnet	AC24-48V	CNC 0M-10M
AS-12M/2		AC200-250V	
AS-12M/3		AC200-250V	
AS-12M/4		DC12-24V	
AS-12M/5		DC24-72V	CNC 0M-10M
AS-12M/6		DC 100-107V	
AS-12M/7		DC200-250V	

Separate mounting unit, AZ-12MH

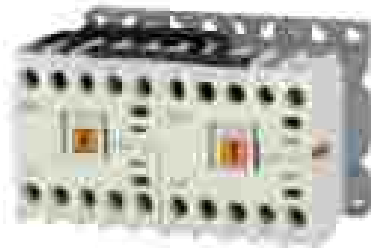
- To mount a relay separately from a contactor
- Mountable on DIN rail or by screw fixing



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 collectors and auxiliary contact blocks



Dimensions

Mini contactors with Screw clamp type

- 1.5-2.5
- 2.5-4
- 4-6
- 6-10
- 10-16
- 16-25
- 25-40
- 40-63
- 63-100
- 100-160
- 160-250
- 250-400
- 400-630
- 630-1000

- 1.5-2.5
- 2.5-4
- 4-6
- 6-10
- 10-16
- 16-25
- 25-40
- 40-63
- 63-100
- 100-160
- 160-250
- 250-400
- 400-630
- 630-1000



1.17g

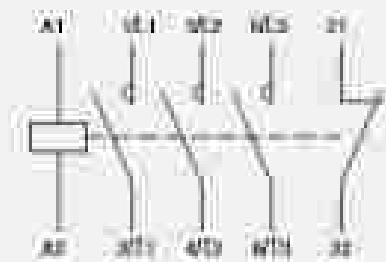
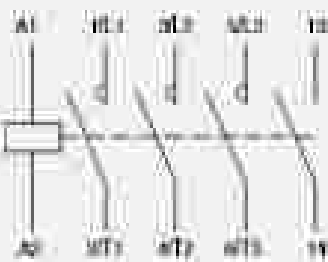


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Circuit diagram

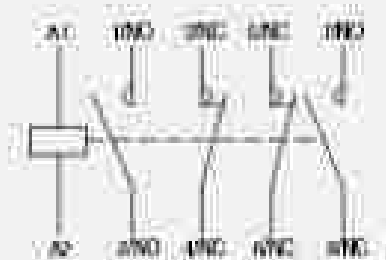
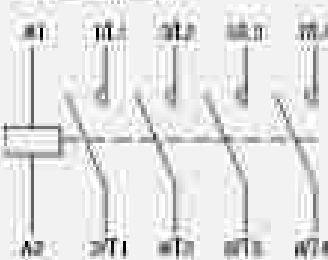
GMC 3N-10M, GMD 4M-10M

3-Pole contactors

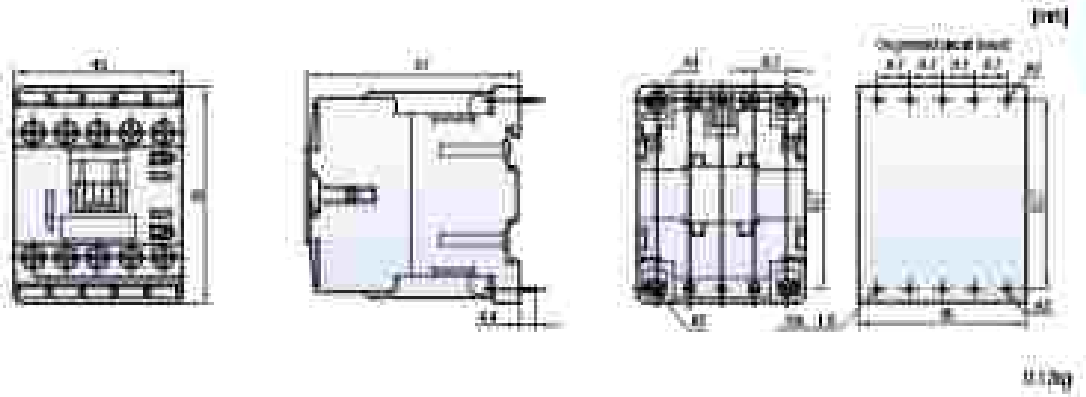


GMC 4M-10M4, GMD 4M4-10M4

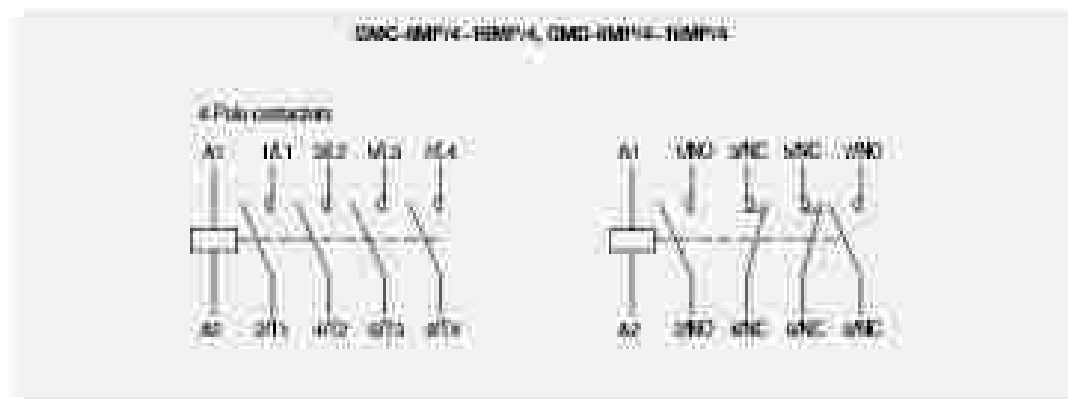
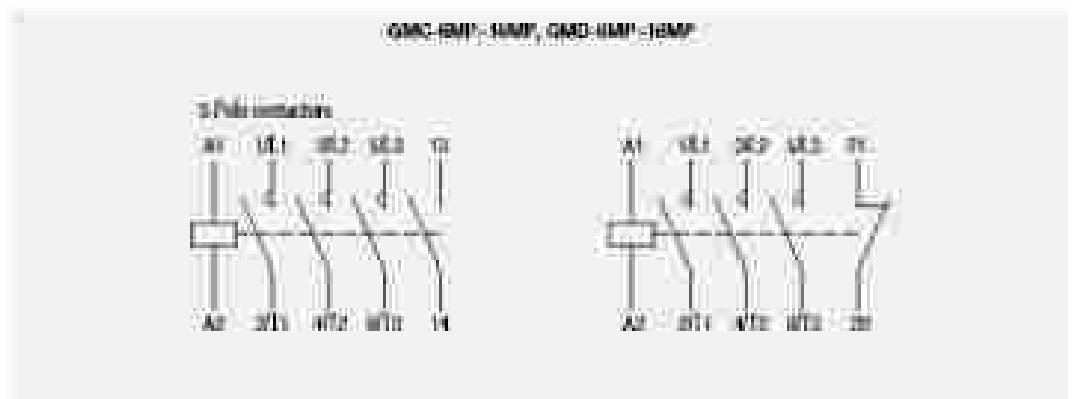
4-Pole contactors



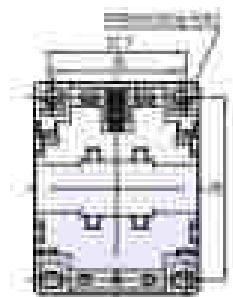
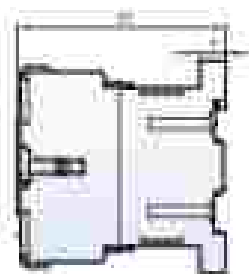
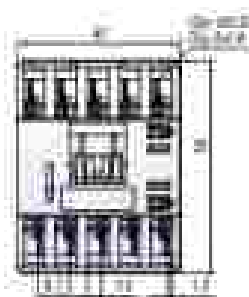
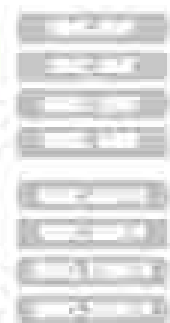
Mini contactors with Solder pin type



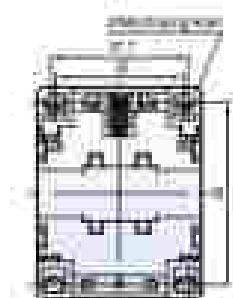
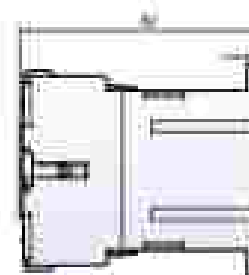
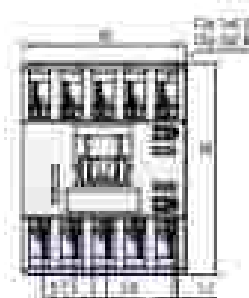
Circuit diagram



Mini contactors with Fast-on type



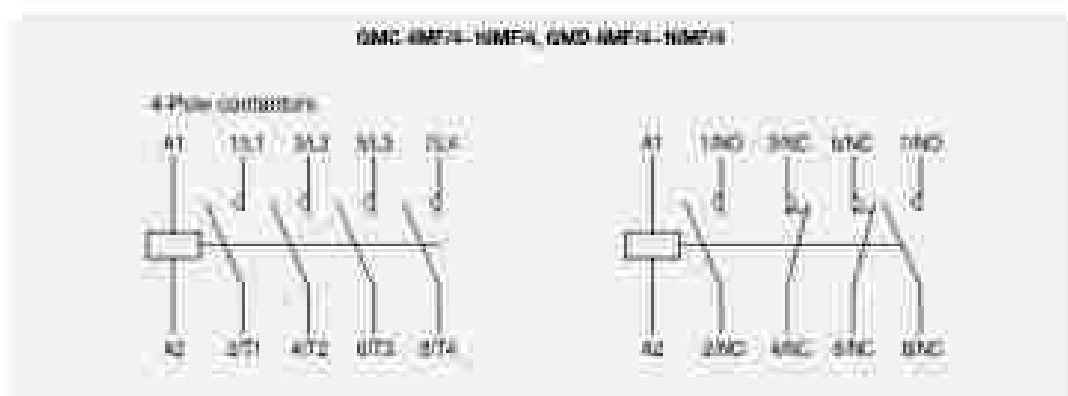
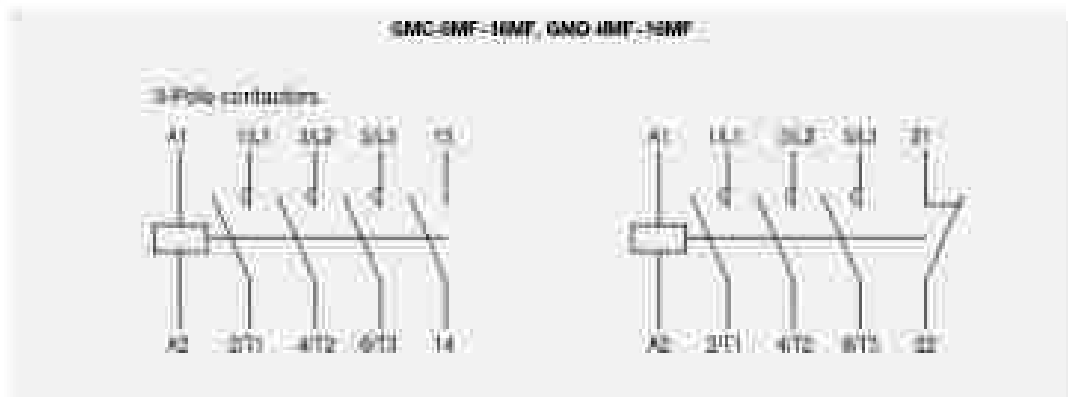
100A



110A

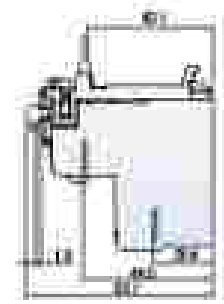
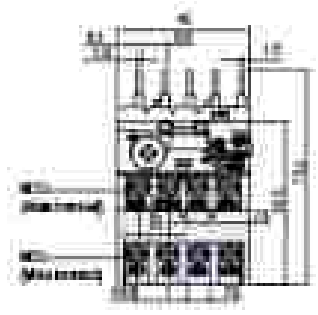
120A

Circuit diagram



Thermal overload relays for Mini contactors

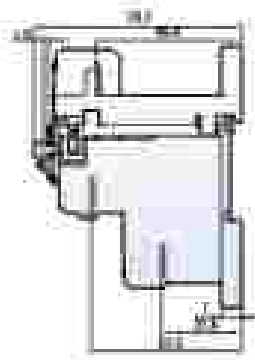
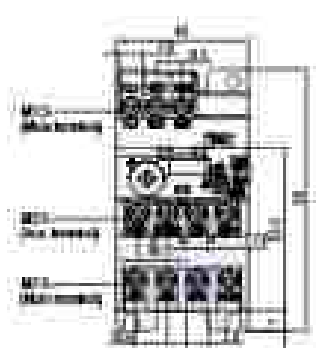
MR100-10



(mm)

(0.8g)

MR100-15



(0.8g)

Mini motor starters, open

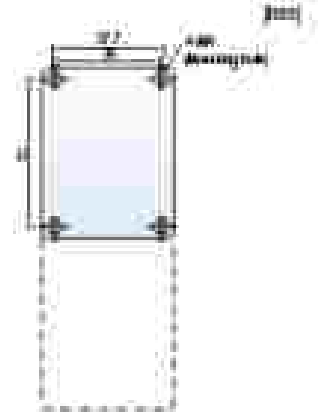
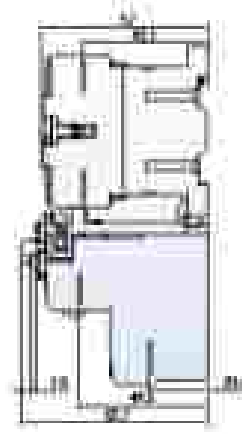


Fig. 1

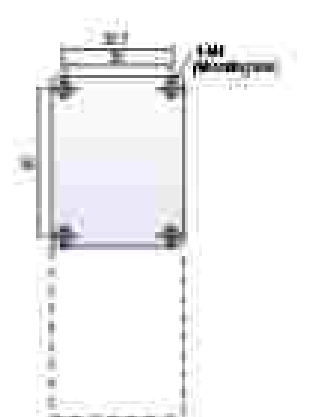
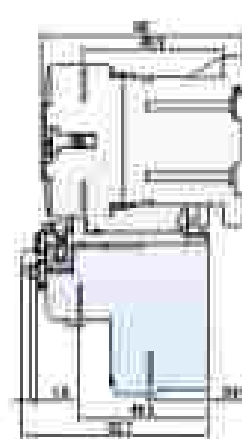
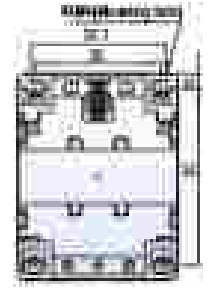
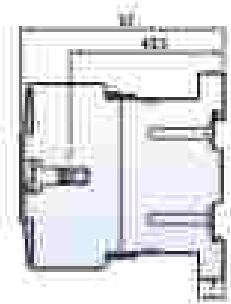
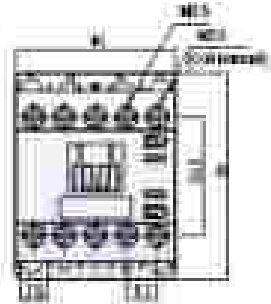


Fig. 2

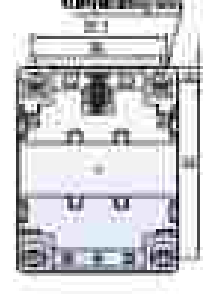
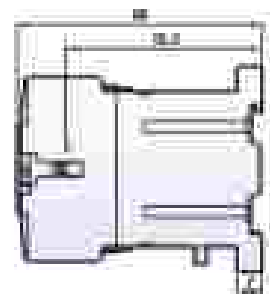
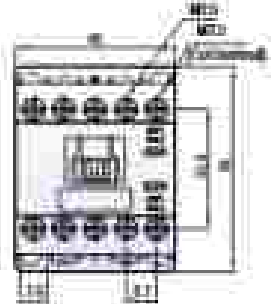
Mini contactor relays

12V/20A



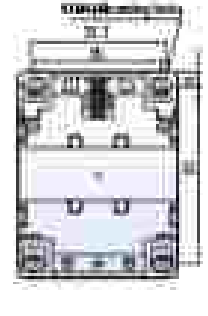
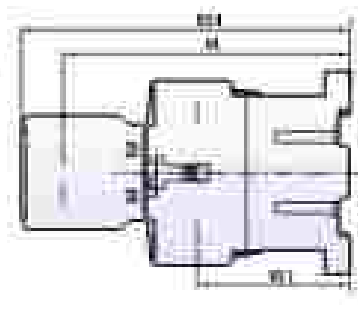
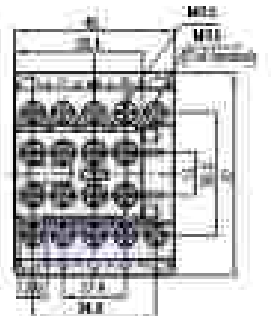
0/1kg

12V/30A



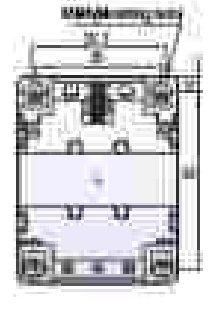
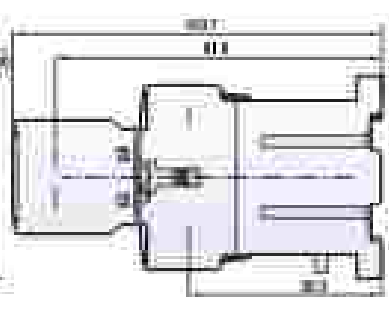
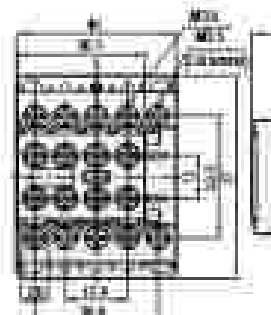
0/1kg

12V/40A



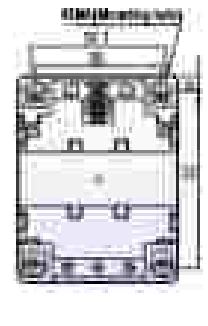
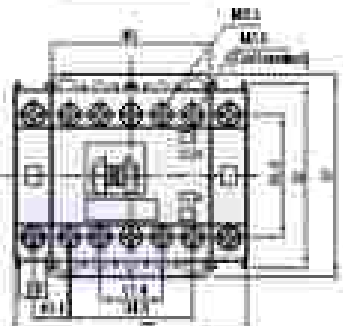
0/1kg

12V/50A



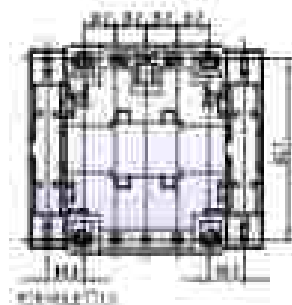
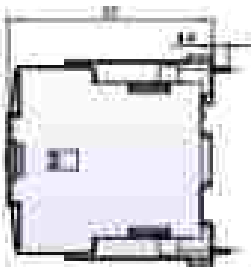
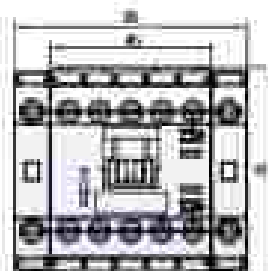
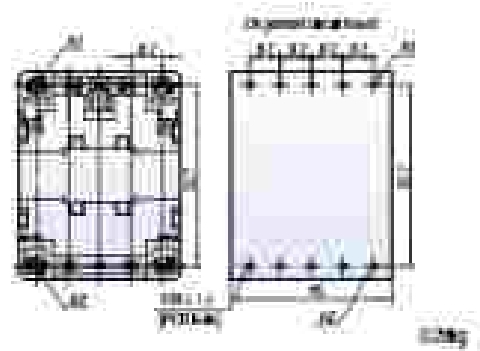
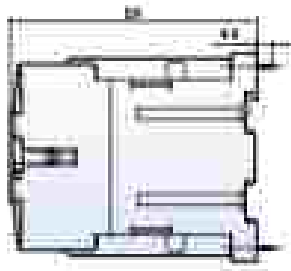
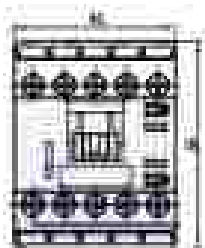
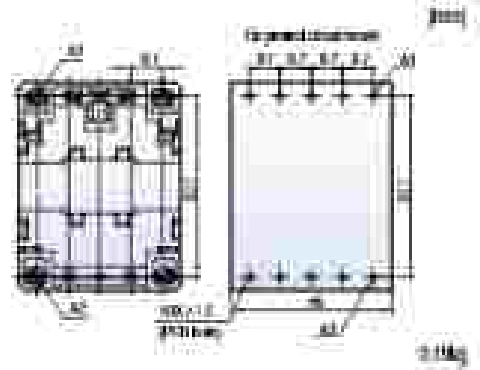
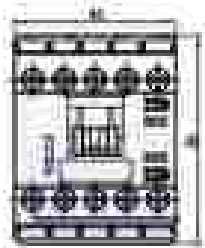
0/1kg

12V/60A



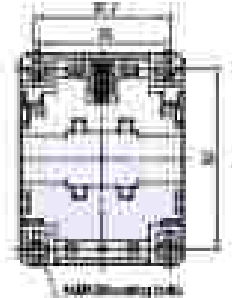
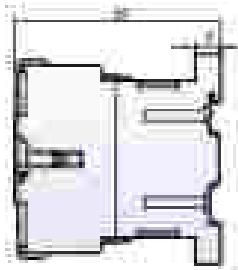
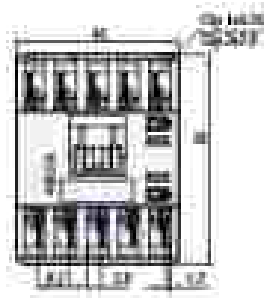
0/1kg

Mini contactor relays



Mini contactor relays

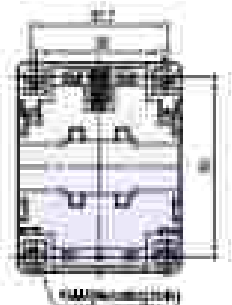
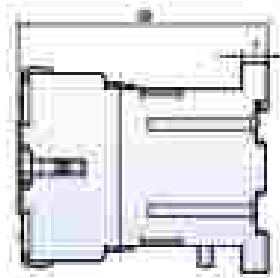
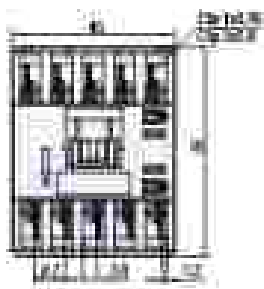
12V/10A



(mm)

0.07kg

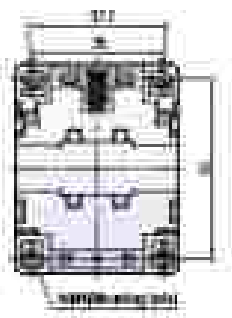
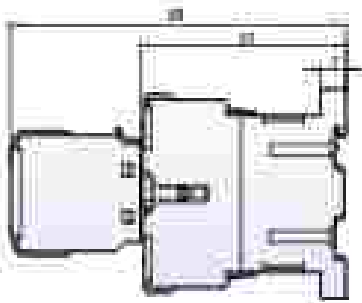
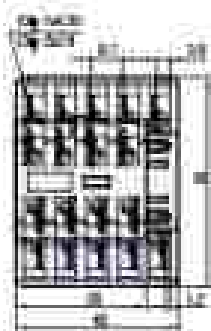
12V/15A



0.07kg

12V/20A

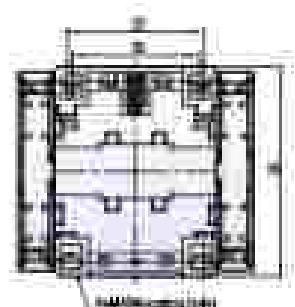
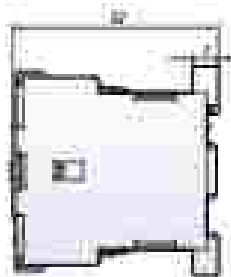
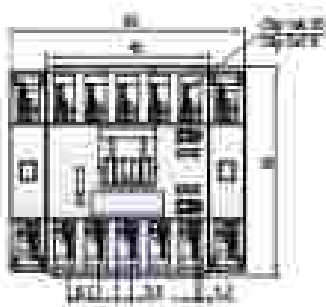
12V/25A



0.07kg

12V/30A

12V/40A

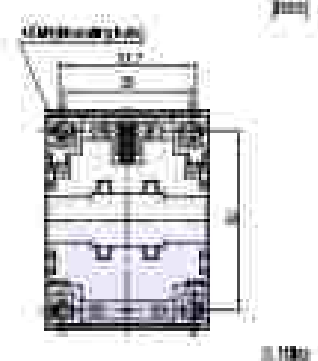
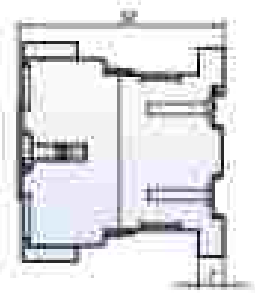
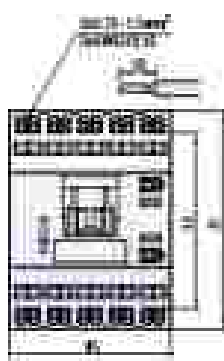


0.07kg

Dimensions

Metasol

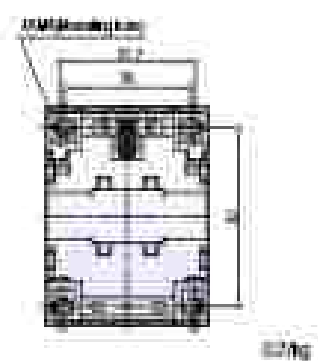
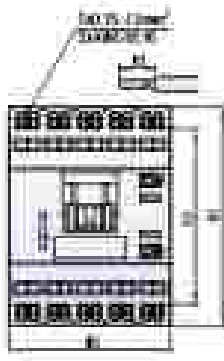
1000 x 1000



1000

1000

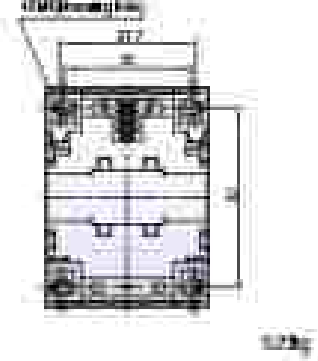
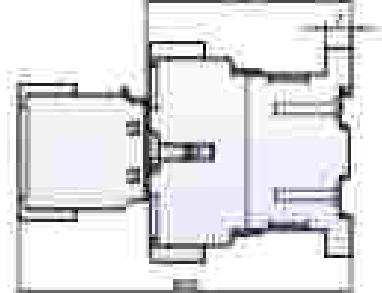
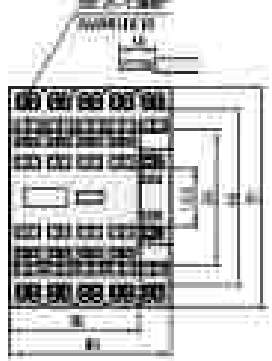
1000 x 1200



1000

1200

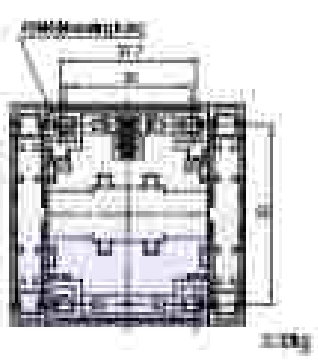
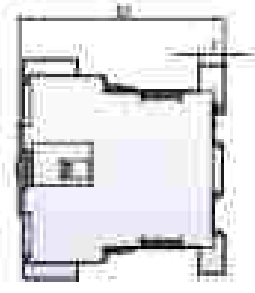
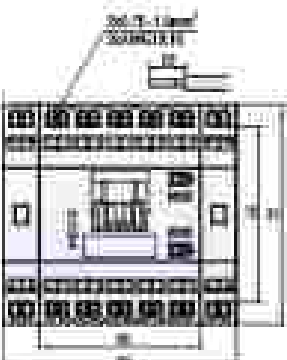
1200 x 1000



1200

1000

1200 x 1200

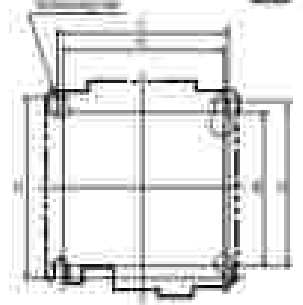
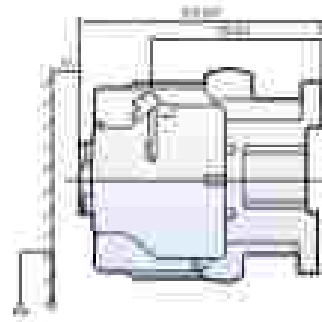
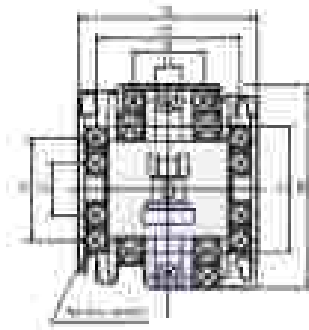


1200

1200

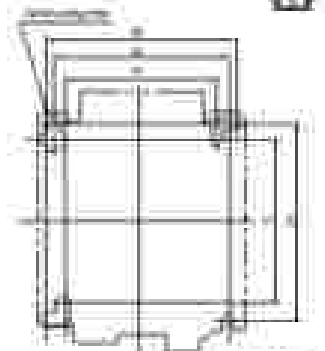
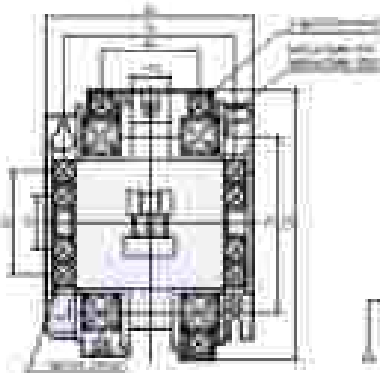
2-pole DC Contactors

100 A
125 A



100 A

150 A
200 A



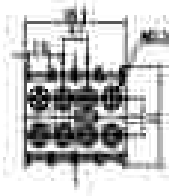
150 A

100 A
125 A

150 A
200 A

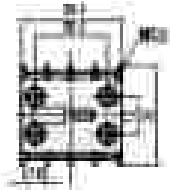
Accessories for Mini contactors

1000



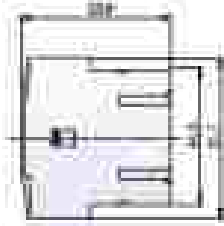
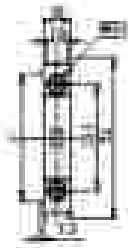
1000g

1000



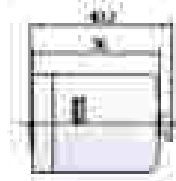
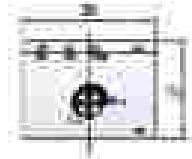
1000g

1000



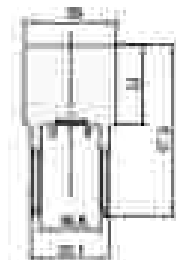
1000g

1000



1000g

1000



1000g



EMPR



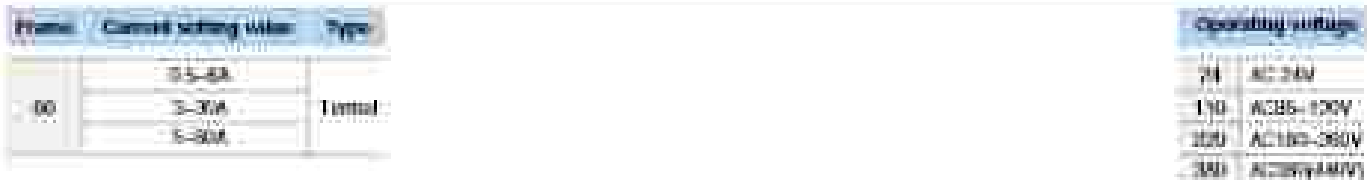
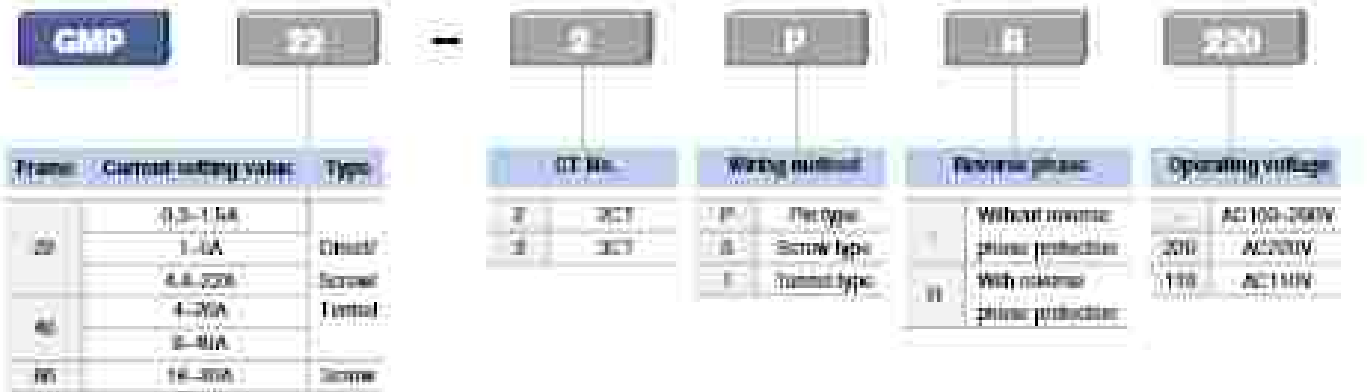
Electronic overload relays / Digital motor protection relays

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Digital motor protection relay	151

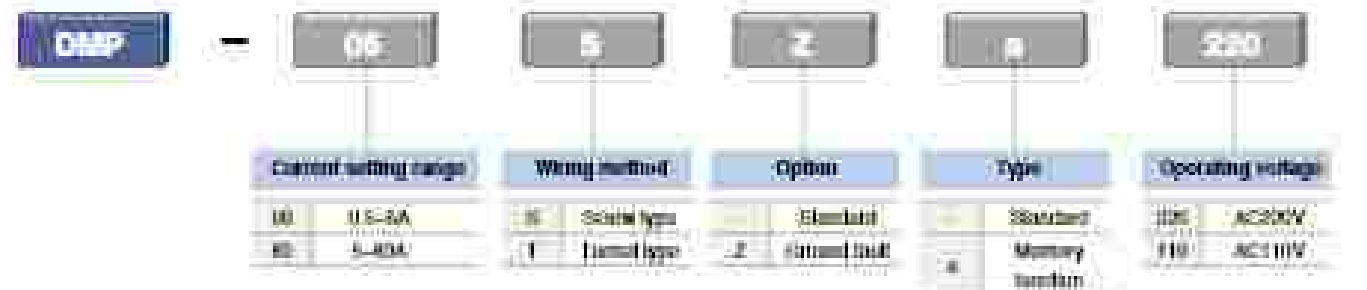


Catalog numbering system

Electronic motor protection relay



Digital motor protection relay (GMP 06-SZ 220)



* The standard length of a extension cable is 1.5m, 2m, 4m-cable is optional

* For ground fault protection, 2CT (20A, 50A, 65A, 80A) made by LS is optionally required

* Type "M" it has additional functions like as setting operation time by month or by hour, checking & storing operating time

Specification

Electronic overload relays

Ratings



Model		GMPS2-2P	GMPS2-2P/1A/1B (GMPS2-2P/1P/1B)		GMPS2-2S	GMPS2-2S/2S/2R	GMPS2-2T	GMPS2-2T/2TE
		Pin type			Socket type		Terminal type	
Type		2CT	2CT	3CT	2CT	2CT	2CT	2CT
Protection	Overcurrent	●	●	●	●	●	●	●
	Phase failure	● (100%)	●	●	●	●	●	●
	IGBT	●	●	●	●	●	●	●
	Asymmetry	—	—	●	—	●	—	●
	Reverse phase	—	—	● (PTT)	—	● (2SR)	—	● (PTT)
Current rating range (A)		11.5-15 1-0						
Opening time characteristic		Inverse time characteristic (GMPS2-2P). Constant time characteristic.						
Trip setting	Inverse time	0-30 sec						
	Control D time	0.2-40 sec for GMPS2-2P						
Tripping	Q time	Scale (f) sec for GMPS2-2P						
	Current	1.3%						
Time		1.5 (Min) x 0.5 (Max)						
	Voltage	AC 110V/230V (-10%)		AC 100-250V				
Power	Frequency	50/60Hz						
	Contact	1SP1T (to 100V)		2SP1T (When power supply, 1st)				
Auk. contact	Rating	1A/250VAC (Resistor load)		2A/250VAC (Resistor load)				
	Operate	1R (at 100V)		2R (at 250V)				
				1R (at 250V)				
Intuitive resistance	Min 100Ω, at 100Vdc							
Surge withstand (IEC 1000-4-4)		1.2 x 10 ⁴ A/kV. Apply the standard wave						
Fall current limit (IEC 1000-4-4)		2.0A/10ms						
Environment	Control	2S-10%						
	Storage	30-60%						
Trip indicator	Resistor loading	30-400W (10A tripping)						
	Fluor LED	Fluor LED	Fluor/Green LED	Fluor LED	Red/Green LED	Fluor LED	Red/Green LED	
Dimensions (mm)	W x H x D	44 x 71 x 78	52 x 77.5 x 82.5	52 x 80 x 87.5	52 x 80 x 87.5			
Mounting type		Panel mount with a MC			Separate mount (2-row or 3-row) 100%			
Applicable		CMC 11, CMC 12, CMC 13, CMC 20						
Construction		UL, UL, CE						

Note 1 100% with ICI (with only the phase protection is available)
2 100% with switch option on GMPS2-2P model
3 The maximum current value is 10A.

Specification

Electronic overload relays

Settings



Model		CMPR-01000	CMPR-02000	CMPR-03000	CMPR-20000	CMPR-20000	CMPR-30000	CMPR-30000
Type		Hs type		Screw type		Panel type		Screw type
No. of CI		2CI	2CI	2CI	2CI	2CI	2CI	2CI
Protection	Overcurrent	•	•	•	•	•	•	•
	Phase failure	•	•	•	•	•	•	•
	Short	•	•	•	•	•	•	•
	Asymmetry	—	•	—	—	•	—	•
	Reverse power	—	• (R1)	—	• (R2)	—	• (R1)	• (R2)
Reset setting range(A)		0-80		0-80		0-80		00-80
Operating time characteristics		Inverse time characteristics						
Time	Inverse time	0-30 sec						
Setting	Reset time	Manual reset (Pump)						
Reset		Reset after 1 Min (Optional)						
Sensitivity	Current	1.5%						
	Time	1.5A/hr (0 hour)						
Current	Voltage	AC 100-200V						
power	Frequency	50/60Hz						
Aux contact	Contact	250V/1A (When power applied, latching)						
	Rating	250V/1A0 (Relative load)						
	Capacity	250V 10 (20W)		(250V 10 (20W))				
Insulation resistance: Min 100MΩ at 500VDC								
Surge resistance (IEC 1000-4-3)		1.2 × 50μs Rise Apply the standard wave						
Surge impedance (IEC 1000-4-4)		2.4kΩ/50μs						
Environment Operation		25-70°C						
Temperature Storage		-20-80°C						
	Relative humidity	35-95%RH (No condensing)						
Trip indicator		FluoLED	FluoGreenLED	FluoLED	FluoGreenLED	FluoLED	FluoGreenLED	FluoLED
Dimensions(mm)		W × H × D		83 × 77.5 × 87.5		83 × 60 × 87.5		83 × 30 × 87.5
Mounting type		Direct mount onto a MC		Separate mount (Screw or Din-rail)				FluoLED separate mount (Screw or Din-rail)
Applied MC		CMC-30, CMC-40						CMC-50, CMC-65, CMC-70, CMC-80
Construction		UL, CE, CE						

Digital motor protection relays



DMPE-30 & DMPE-30a

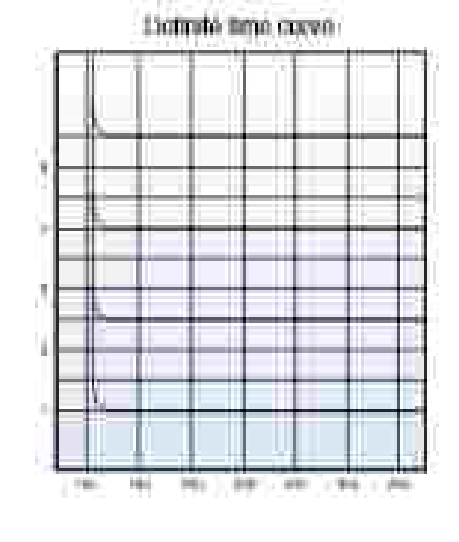
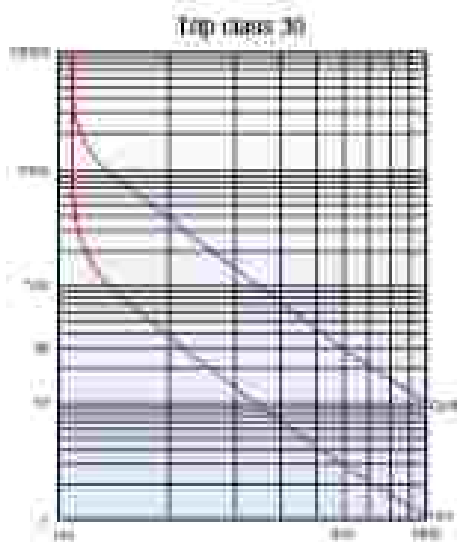
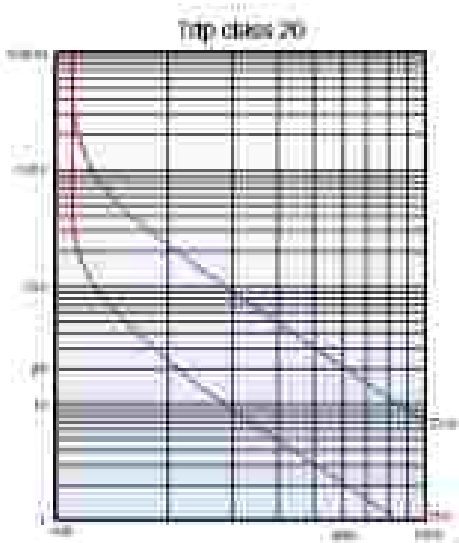
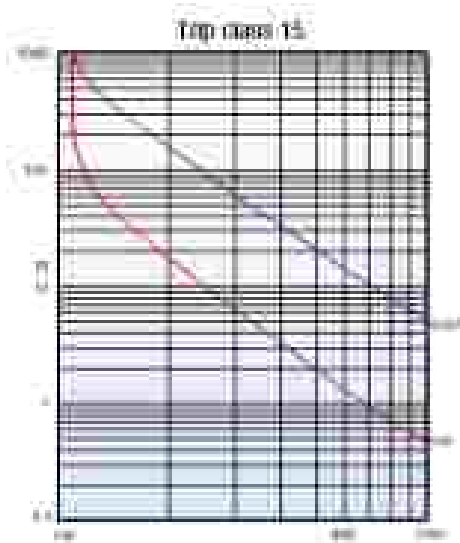
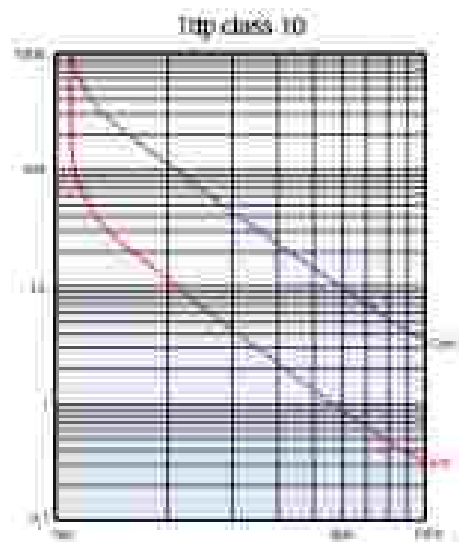
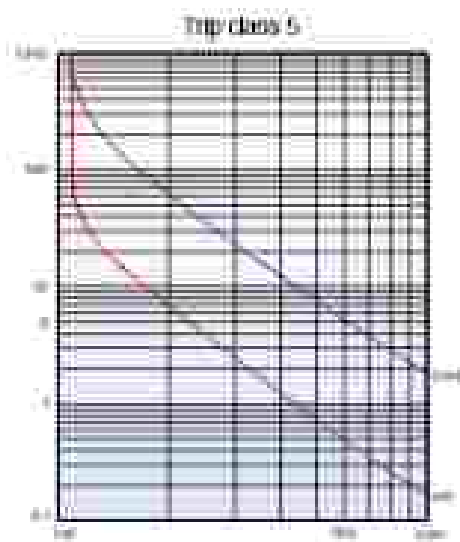


DMPE-70 & DMPE-70a

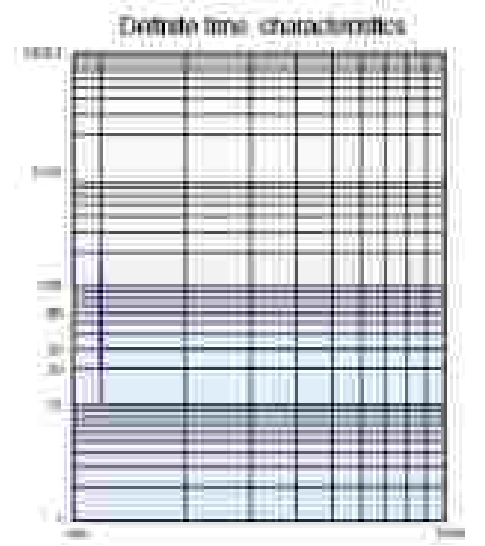
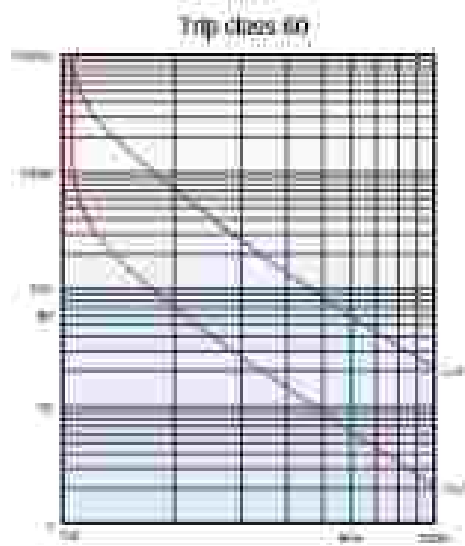
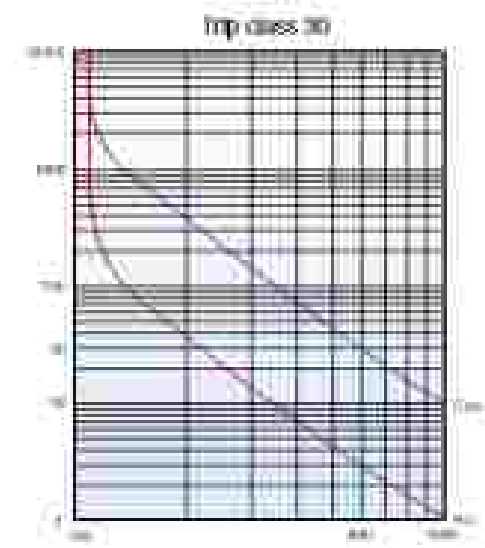
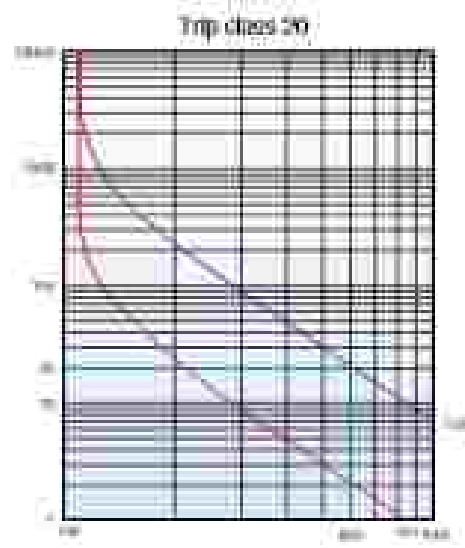
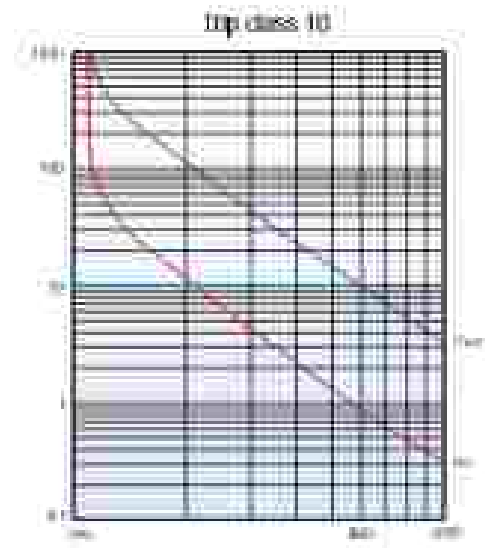
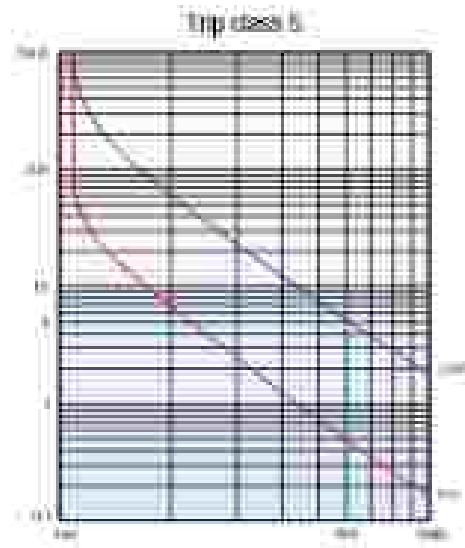
Model		DMPE-30a	DMPE-50a	DMPE-70a	DMPE-170a	
Wiring		Screw type			Terminal type	
Pole count		1M1 or 2-Minimum None (1)				
Operation time		Select either reverse time characteristics or definite time characteristics				
Protection		According to the setting time				
	Over current	1 sec				
	Phase failure	With 0.1 sec				
	Reverse phase	1 sec				
	Asymmetry	1 sec				
	Lock	1 sec				
	Lock	With 0.5 sec				
	Under current	0 sec				
	Ground fault	With 0.05-1 sec (Selectable (0.05-1) time)				
	Short circuit None	With 50ms				
Alarm		Variable (00-100% of the setting current)				
Current setting range (A)		0.5-8	5-40	0.5-8	5-40	
Motor capacity (kW)		0.25-0.75	1.1-11	0.25-0.75	1.1-11	
Line voltage (V)		200-240V	220-230V	200-240V	220-230V	
Inrush current (A)		0.12-1.0				
Time (sec)		0.02-0.2				
Time (min)		0.1-10				
Time (hr)		Minimum time				
Tolerance		± 5%				
Operating power None		± 5% per 1.0 Sec				
Voltage		AC 100-250V				
Frequency		50Hz (60Hz)				
Aux contact		2-SPST (Resistive load)				
1A		1N/250V (Resistive load)				
A1		1N/250V (Resistive load)				
Insulation resistance		Over 100MΩ (1min)				
Input voltage (DC 100V-4.5)		1.2-50V (Apply standard wave form)				
Foot bracket (standard 1000-4.5)		2.5kV (1min)				
Environment		Temperature				
	Operation	-25-70°C				
	Storage	-30-80°C				
	Humidity	30-90% RH (no freezing)				
Display		7 segment				
	Over current	0 phase current, zero of a fault				
	Over current	60-100% of rated load current				
Mounting type		DIN rail (35mm)				

Notes: 1. For screw type, the digital relays are equipped with terminal for display panel and main body. 2. Please contact us to confirm the display panel and main body. 3. Available only when the operation is stopped. 4. Operating voltage of AC 100V and 200V is shown.

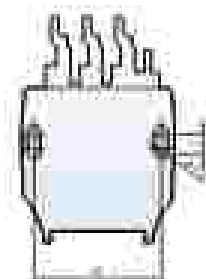
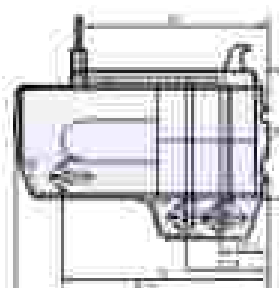
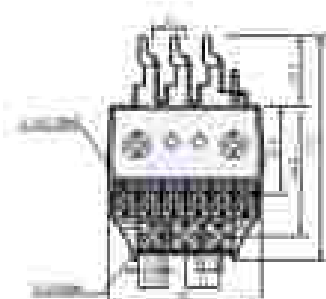
Electronic overload relays



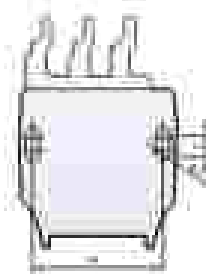
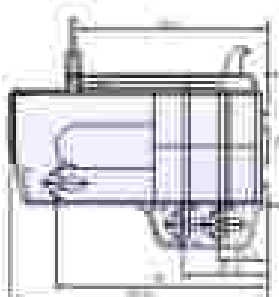
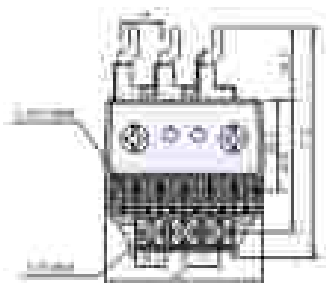
Digital motor protection relays



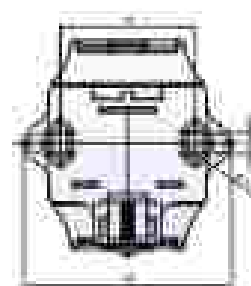
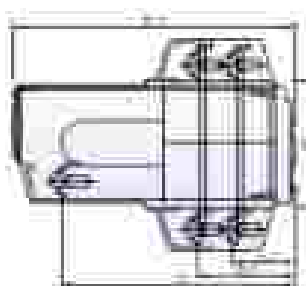
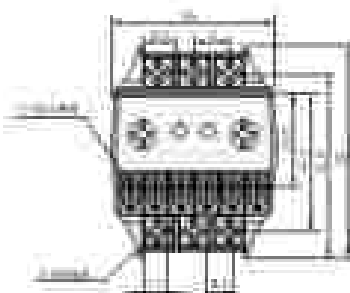
Electronic overload relays



0.1 kg

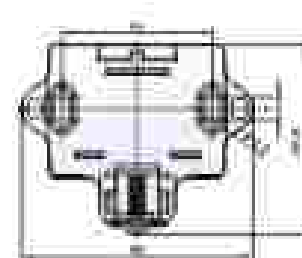
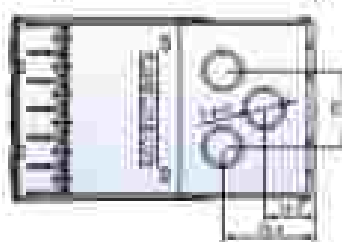
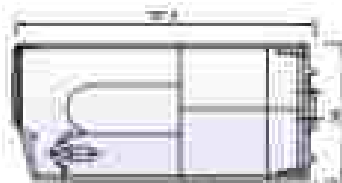
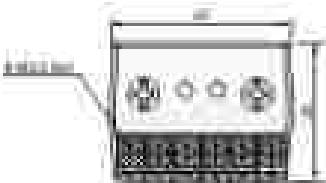


0.1 kg



(Mounting adapter)

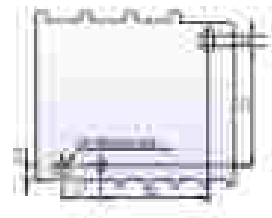
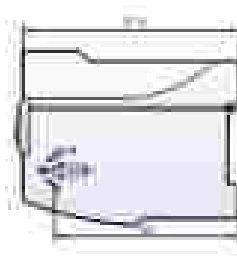
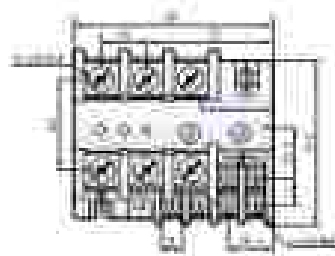
0.1 kg



(Mounting adapter)

0.1 kg

- 1.1
- 1.2
- 1.3



© Oprea 188g

Terminal configuration

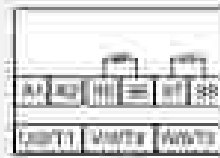


Fig. 1



Fig. 2

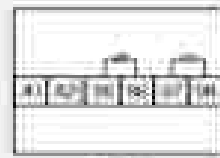
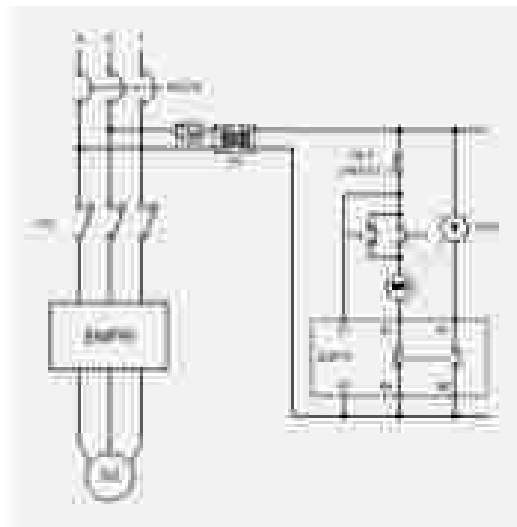
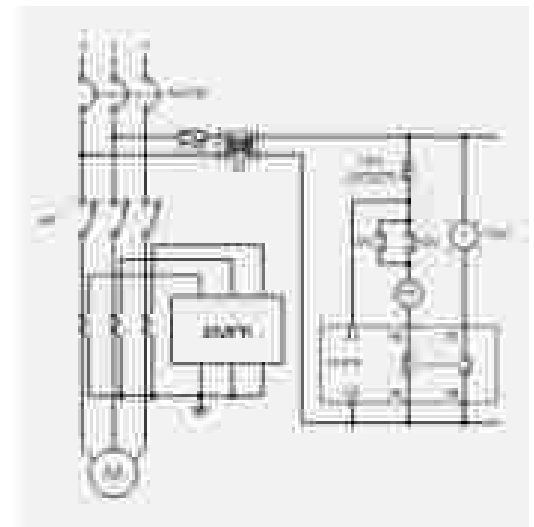


Fig. 3

Circuit diagram

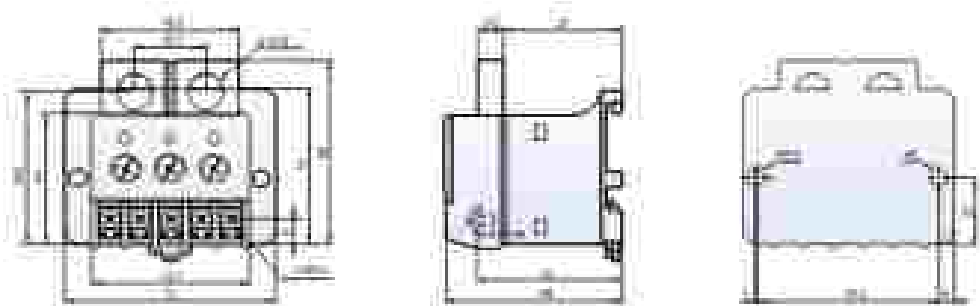


When added (7)



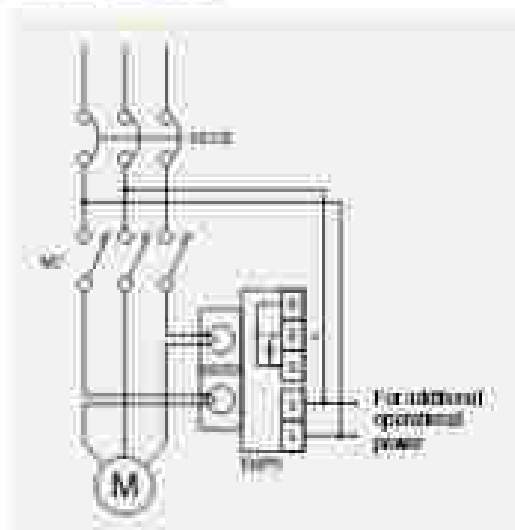
In case of using additional (7)

Electronic overload relays



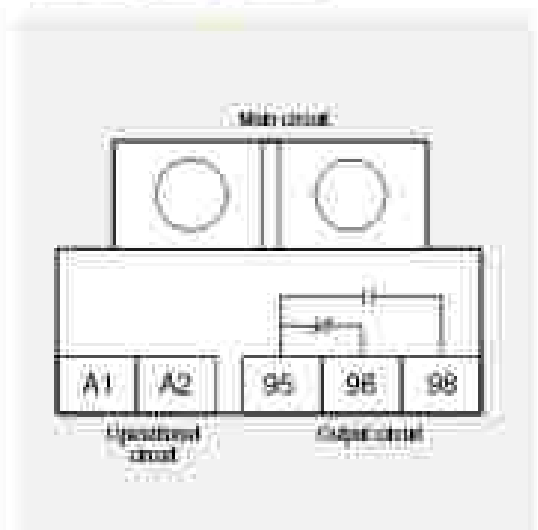
0.1759 (10g)

Circuit diagram



Without additional C.T.s

Terminal configuration



In case of using additional C.T.s

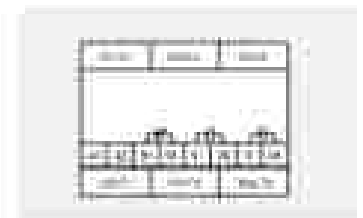
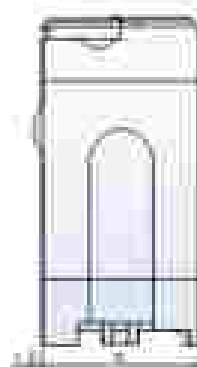
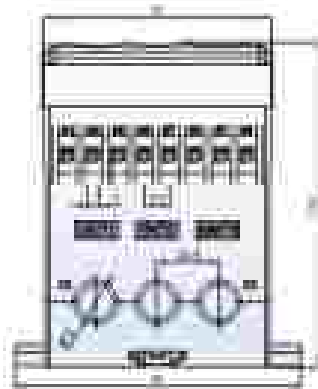
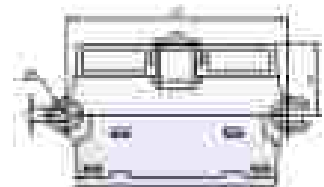
Digital motor protection relay

- ▶ 100 A
- ▶ 160 A
- ▶ 250 A
- ▶ 400 A



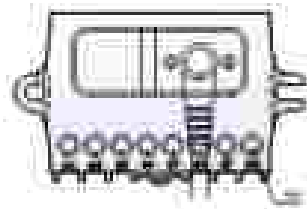
▶ Wire size in parentheses is CT
current (max)

Mounting dimensions

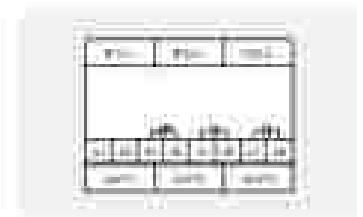
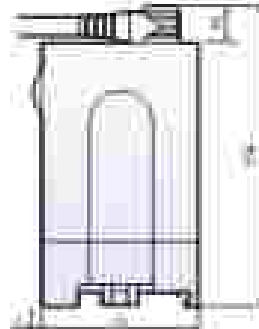
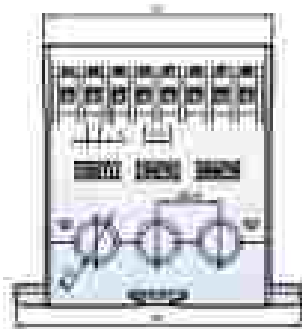
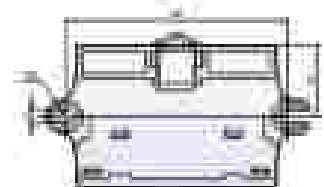


115kg

- ▶ 630 A
- ▶ 800 A
- ▶ 1000 A
- ▶ 1250 A

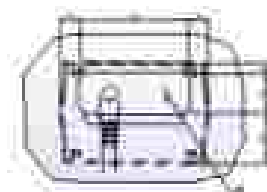
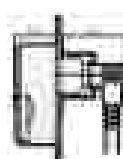
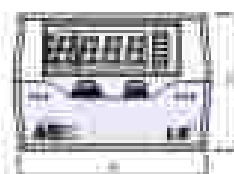


Mounting dimensions



114kg

Panel mounting



Panel cutting size

Note 1: In outdoor type, the digital DMPM is equipped with a weatherproof display and terminal box. In general, the outdoor CT includes the display unit and terminals with different size. **Note 2:** The CT-28 is suitable for the CT type terminal of Digital DMPM with ground fault monitoring.



Manual Motor Starters

Manual Motor Starters

Specifications	154
Selection guide	158
Accessories	161
Dimensions	166

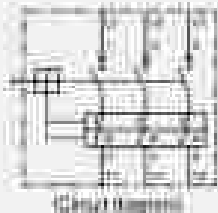
LEA Multi-MCC Manual Motor Starters provide complete ranges up to 16DA.



Selection guide

Standard type

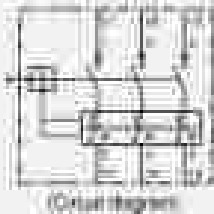
- Adjustable thermal release
- Magnetic release: 10 Ia max.
- Trip class 10
- Ambient temperature compensation
- Protective function:
 - phase failure
 - short circuit
 - overload



Type	Rated operating current In [A]	Thermal release adjustment range [A]	Magnetic release operating current I _m	Switching of 3 phase AC motors, AC-L AC-3						ACB212	
				3-phase [kW] (cosφ)			3-phase [HP] (cosφ)			In [A]	I _n [A]
				200V	400V	600V	200V	400V	670V		
MM1-20	0.14	0.1-0.16	2.1	-	0.02	-	-	-	-	100	100
	0.25	0.25-0.35	2.3	0.03	0.06	-	-	-	-	100	150
	0.4	0.25-0.4	3.2	0.06	0.09	-	-	-	-	100	150
	0.63	0.4-0.63	4.2	0.09	0.12	0.21	-	-	-	100	100
	1	0.63-1.0	5.2	0.12	0.25	0.34	-	5.0	5.0	100	100
	1.6	1.0-1.6	9.0	0.25	0.25	1.1	10	10	1	100	150
	2.5	1.6-2.5	12.5	0.37	0.25	1.5	10	15	1.5	100	100
	4	2.5-4.0	18	0.75	1.5	3	1	3	3	100	100
	6	4-6	26	1.5	2.2	4	1.5	5	5	100	100
	8	5-8	34	1.5	3	5.5	2	5	5	100	100
	10	6-10	39	3	4	7.5	3	7.5	10	50	38
	13	8-13	46	3	5.5	11	3	7.5	10	50	38
	17	11-17	59	4	7.5	13	5	10	10	30	15
	20	14-20	69	4	7.5	16	7.5	15	20	15	11
25	16-25	88	5.5	11	18.4	11	15	20	15	11	
32	20-32	110	7.5	15	22	10	20	30	15	11	
40	25-40	139	7.5	18.5	30	10	30	40	10	9	
MM1-30	10	6-10	130	3	4	7.5	3	7.5	10	100	100
	13	6-13	162	3	5.5	11	3	7.5	10	50	38
	17	11-17	201	4	7.5	13	5	10	10	25	15
	20	14-20	238	4	7.5	16	7.5	15	20	25	16
	25	16-25	296	5.5	11	18.5	10	20	25	25	19
	32	20-32	416	7.5	15	22	10	25	30	25	15
	40	25-40	529	7.5	18.5	30	10	30	40	25	19
	50	34-50	660	11	22	35	10	40	50	25	19
MM1-100	17	11-17	201	4	7.5	13	5	10	10	50	38
	20	14-20	238	4	7.5	16	7.5	15	20	50	38
	25	16-25	296	5.5	11	18.5	10	20	25	50	38
	32	20-32	416	7.5	15	22	10	25	30	50	38
	40	25-40	529	7.5	18.5	30	10	30	40	50	38
	50	34-50	660	11	22	35	10	40	50	50	38
	63	45-63	819	15	30	45	20	50	60	50	38
	75	55-75	975	20	37	53	25	60	75	50	38
100	75-100	1320	30	48	75	30	75	100	50	38	
100	100-100	1320	30	45	60	40	75	100	50	38	

High breaking type

- Adjustable thermal release
- Magnets: release 13 in total
- Trip class 10
- Ambient temperature compensation
- Protective function:
 - phase failure
 - short circuit
 - overload



(Circuit diagram)



MMS-321

MMS-631

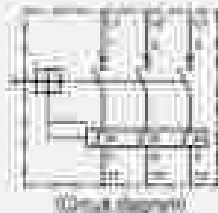
MMS-1101

Type	Rated operational current In [A]	Thermal release adjustment range [A]	Magnetic release operating current [A]	Switching of 3 phase AC motors, AC-3, AC-3						400V/50	
				3-phase (kW) (cosφ=)			3-phase (HP) (cosφ=)			In [kA]	Ics [kA]
				230V	400V	600V	230V	400V	670V		
MMS-321	0.10	0.1, 0.10	2.1	-	0.02	-	-	-	-	100	100
	0.25	0.10, 0.25	2.2	0.02	0.06	-	-	-	-	100	100
	0.4	0.25, 0.4	2.3	0.06	0.08	-	-	-	-	100	100
	0.63	0.4, 0.63	2.7	0.08	0.07	0.25	-	-	-	100	100
	1	0.63, 1.0	3.0	0.10	0.25	0.16	-	1.0	1.0	100	100
	1.6	1.0, 1.6	20.0	0.25	0.22	1.1	1.0	2.0	1	100	100
	2.5	1.6, 2.5	20.5	0.30	0.25	1.5	1.0	1.5	1.5	100	100
	4	2.5, 4.0	32	0.75	1.5	3	1	2	2	100	100
	6	4, 6	70	1.5	2.2	4	1.5	5	5	100	100
	8	6, 8	100	1.5	3	5.5	2	5	5	100	100
	10	8, 10	120	3	4	7.5	2	7.5	10	100	100
	13	8, 13	160	3	6.5	11	2	7.5	10	100	100
	17	11, 17	201	4	7.5	11	5	10	15	50	38
	22	14, 22	280	4	7.5	15	7.5	15	20	50	38
28	18, 28	301	5.5	11	18.5	7.5	15	20	50	38	
32	20, 32	411	7.5	15	22	10	20	30	50	38	
40	25, 40	520	7.5	15.5	30	15	30	40	40	35	
MMS-631	10	6-10	100	3	4	7.5	2	7.5	10	100	100
	13	9-13	160	3	6.5	11	2	7.5	10	100	100
	17	11-17	201	4	7.5	11	5	10	15	50	38
	22	14-22	280	4	7.5	15	7.5	15	20	50	38
	28	18-28	301	5.5	11	18.5	10	20	25	50	38
	32	20-32	411	7.5	15	22	10	25	30	50	38
	40	25-40	520	7.5	15.5	30	15	30	40	50	38
	50	34-50	650	11	20	40	15	40	50	50	50
	63	45-63	810	15	30	55	20	50	60	60	60
	80	60-80	950	15	30	55	20	50	60	60	60
MMS-1101	17	11-17	201	4	7.5	11	5	10	15	100	100
	22	14-22	280	4	7.5	15	7.5	15	20	100	100
	28	18-28	301	5.5	11	18.5	10	20	25	100	100
	32	20-32	411	7.5	15	22	10	25	30	100	100
	40	25-40	520	7.5	15.5	30	15	30	40	100	100
	50	34-50	650	11	20	40	15	40	50	100	100
	63	45-63	810	15	30	55	20	50	60	100	100
	75	50-75	970	20	37	60	25	60	75	75	60
	100	70-100	1170	30	45	75	30	75	100	75	60
	125	80-125	1380	30	45	90	40	75	100	75	60

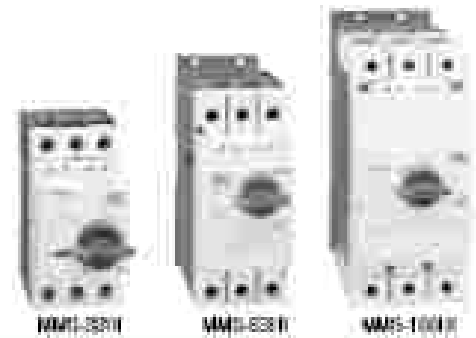
Selection guide

Instantaneous type

- Without thermal releases
- Magnetic release: 13 In max.
- Protective function: short circuit



(Cross diagram)





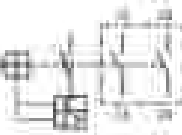


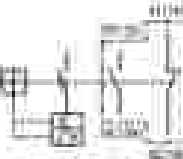

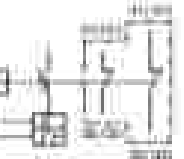

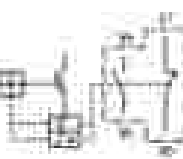
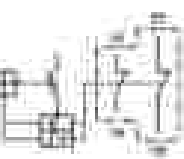

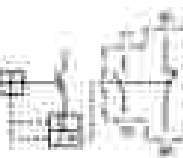
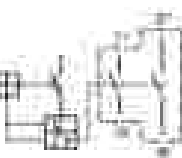

MMS-32H

MMS-63H


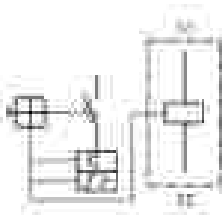

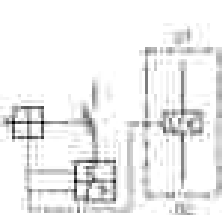

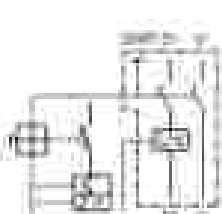
MMS-100H

Type	Rated operating current In (A)	Thermal release adjustment range (A)	Magnetic release operating current (A)	Switching of 3-phase AC motors, AC-L AC-3						MMS15	
				3-phase (kW) (cosφ=0.8)			3-phase (HP) (cosφ=0.8)			In (A)	Im (A)
				200V	400V	600V	200V	400V	670V		
MMS-32H	0.14	—	2.1	—	0.02	—	—	—	—	100	100
	0.25	—	2.3	0.02	0.06	—	—	—	—	100	100
	0.4	—	3.2	0.04	0.09	—	—	—	—	100	100
	0.63	—	4.2	0.06	0.12	0.20	—	—	—	100	100
	1	—	5	0.12	0.25	0.55	—	50	30	100	100
	1.6	—	7.0	0.25	0.45	1.1	10	100	1	100	100
	2.5	—	10.0	0.37	0.75	1.6	10	150	15	100	100
	4	—	15	0.75	1.5	3	5	3	3	100	100
	6	—	20	1.5	2.7	4	15	5	5	100	100
	8	—	30.4	1.5	3	5.5	2	5	5	100	100
	10	—	37	3	4	7.5	2	7.5	10	100	100
	16	—	50	3	6.5	11	2	7.5	10	100	100
	25	—	70	4	7.5	13	5	10	15	50	38
	32	—	100	4	7.5	16	7.5	15	20	50	38
40	20-40	138	5.5	11	18.4	7.5	15	20	50	38	
50	—	170	7.5	15	22	10	20	20	50	38	
63	—	210	7.5	18.5	30	10	20	30	50	38	
MMS-63H	10	—	10	3	4	7.5	2	7.5	10	100	100
	16	—	16.5	3	5.5	11	2	7.5	10	100	100
	25	—	25	4	7.5	11	5	10	15	50	50
	32	—	38.8	4	7.5	16	7.5	15	20	50	50
	40	—	50	5.5	11	18.5	10	20	25	50	50
	50	—	63	7.5	15	22	10	25	20	50	50
	63	—	80	7.5	18.5	30	10	30	30	50	50
	80	—	100	11	22	35	15	40	35	50	50
	100	40-100	125	15	30	45	20	50	50	50	50
MMS-100H	16	—	20	4	7.5	11	5	10	15	100	100
	25	—	30	4	7.5	16	7.5	15	20	100	50
	32	—	40	5.5	11	18.5	10	20	25	100	50
	40	—	50	7.5	15	22	10	25	20	100	50
	50	—	63	7.5	18.5	30	10	30	30	100	50
	63	—	80	11	22	35	15	40	35	100	50
	80	—	100	15	30	45	20	50	50	100	50
	100	—	125	20	37	53	25	60	35	75	50
	125	—	150	30	48	75	30	75	100	75	50
	160	—	200	30	65	90	40	75	100	75	50

Auxiliaries

Type	Description	Connection diagram		
<p>FX</p> 	<p>Auxiliary Switch</p> <ul style="list-style-type: none"> - Front mounting - 2 pole - One front mounting module per circuit breaker 	<p>INC/NO</p> 	<p>NO</p> 	<p>NC</p> 
<p>LK</p> 	<p>Auxiliary Switch</p> <ul style="list-style-type: none"> - Side mounting on the unit - 2 pole - One side mounting module per circuit breaker 	<p>INC/NO</p> 	<p>NO</p> 	<p>NC</p> 
<p>LA</p> 	<p>Key Trip Alarm Switch</p> <ul style="list-style-type: none"> - Operates in case of trip - Side mounting on the unit - 2 pole - Not LA first in case of using LK together (MMS-50 cannot accept LK and LA together) 	<p>INC/NO</p> 	<p>NC</p> 	
<p>LAM</p> 	<p>Magnetic Trip Alarm Switch</p> <ul style="list-style-type: none"> - Operates in case of instantaneous trip - Side mounting on the unit - 2 pole - Not LAM first in case of using LK together 	<p>INC/NO</p> 	<p>NO</p> 	<p>NC</p> 

Auxiliaries

Type	Description	Connection diagram
<p>RL</p> 	<p>Reset release</p> <ul style="list-style-type: none"> • Side mounting on the right • One side mounting module per circuit breaker • Control line with RL or RL2 	 <p> 24V 50Hz / 24V 50Hz 110V 50Hz / 120V 60Hz 200V 50Hz / 200-220V 60Hz 220-230V 50Hz / 240-260V 60Hz 240V 50Hz / 277V 60Hz 380-400V 50Hz / 440-480V 60Hz 415-480V 50Hz / 480-480V 60Hz </p>
<p>RL1</p> 	<p>Undervoltage release</p> <ul style="list-style-type: none"> • Side mounting on the right • One side mounting module per circuit breaker • Control line with RL1 or RL12 	 <p> 24V 50Hz / 24V 50Hz 110V 50Hz / 120V 60Hz 200V 50Hz / 200-220V 60Hz 220-230V 50Hz / 240-260V 60Hz 240V 50Hz / 277V 60Hz 380-400V 50Hz / 440-480V 60Hz 415-480V 50Hz / 480-480V 60Hz </p>
<p>RL12</p> 	<p>Undervoltage release with Switch</p> <ul style="list-style-type: none"> • Side mounting on the right • Includes 2NO Auxiliary contact • One side mounting module per circuit breaker • Control line with RL1 or RL12 • Control return to MMS-325 	 <p> 24V 50Hz / 24V 50Hz 110V 50Hz / 120V 60Hz 200V 50Hz / 200-220V 60Hz 220-230V 50Hz / 240-260V 60Hz 240V 50Hz / 277V 60Hz 380-400V 50Hz / 440-480V 60Hz 415-480V 50Hz / 480-480V 60Hz </p>

Auxiliaries

E-Handle (Rotary-type)

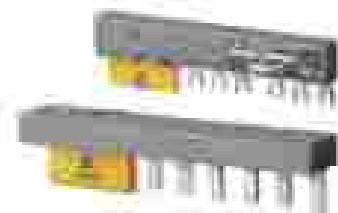


MMS E-Handle is a Rotary-type Handle accessory which can be attached to the front to control and verify the ON, TRIP, OFF condition of Manual Motor Starters under the situation of closing panel.

- Application Model : MMS-3211 (L)MMS-4254 (1)E, MMS-10051 (1)E
- Operation temp. : -20 ~ +60°C
- CE and UL certified
- Degree of protection : IP65
- Locking device : Lockable in every position
- Material of treatment : Plasti(PA66)

Type	Application MMS	Remarks
MMS-321	MMS-3211 (L), 3214	Length of shaft : 115 or 225mm
MMS-425	MMS-4251, 4251 (1), 4251 (2)	
MMS-1005	MMS-10051, 10051 (1), 10051 (2)	

Phase Bus

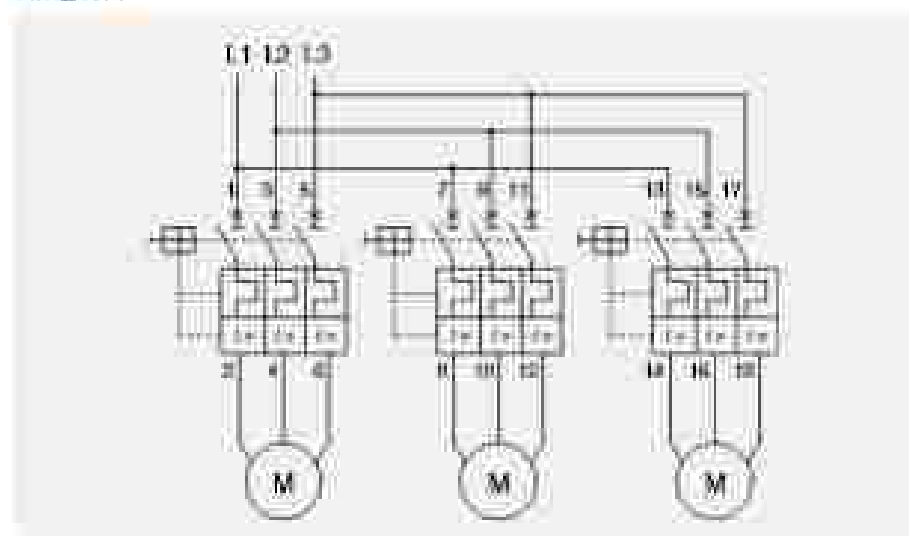
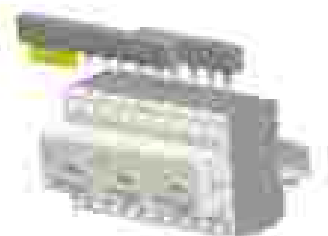


It is a device for a parallel connection with power terminals in the circuit fixed up by MMS, and it can provide the solution "Single wiring" and "Compact wiring space".

- Application Model : MMS-321, 425
- CE and UL certified
- Safety Cover built in
- RoHS compliance

Type	Application MMS	Number of Terminals	Rated current	Safety cover attached
PH-321	MMS-3211, 3211 (1), 3211 (2)	3	60A	PHPC-32 (21 or 3, 11)
PH-425	MMS-4251, 4251 (1), 4251 (2)	3	100A	PHPC-42

Diagram





Auxiliaries

Enclosure

Case cover of MMS enclosure is specifically designed with dust-proof and corrosive-proof structure.

Therefore, it is the optimum product to use in dusty areas such as cement plants, cotton mills as well as in the presence of corrosive gas or liquid (acid, alkaline, flammable gas) such as fertilizer, refinery, and painting plant.

- Application Model: MMS-32H, 32H-E
- Operation temp. : -20~+60℃
- CE and UL certified
- Degree of protection : IP65
- Material of insulation : Plastic(ABS)

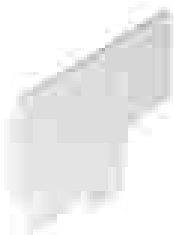
Type	Application MMS	Remarks
32H, 32H-E	MMS-32H, 32H-E	Surface mount



Dial Cover

Dial cover is used to protect the set value from the operation that is not intended. It is supplied as standard for all MMS.

- Application Model : MMS-32, 63, 100 (All types)

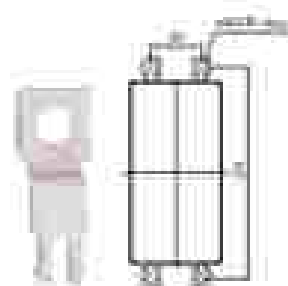


Insulation Barrier

Insulation barrier is used to enlarge the creepage distance and clearance to meet the requirement of UL.

- Application Model : MMS-100

Type	Application MMS
100H	MMS-100S, 100H, 100H-E



Screw mounting holder

22AF MMS is only for DIN rail installation by itself. Screw mounting holder is used to mount MMS on a panel by screws.

- Application Model : MMS-32

Type	Application MMS	Remarks
32H-E	MMS-32S, 32H, 32H-E	1 or M screw

Auxiliaries

Direct adaptor and Mounting unit

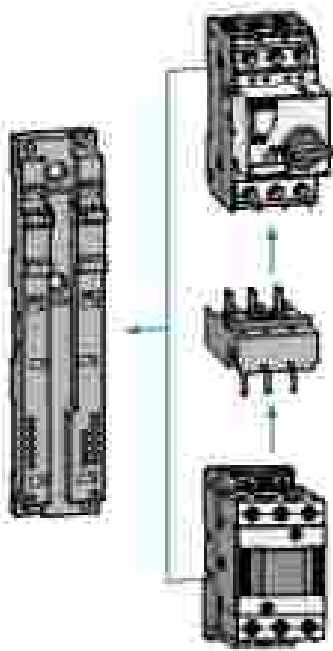
Direct adaptor, DA

Direct adaptor is used to connect MMS directly with a contactor

Mounting unit, MU

This device is attached module to contact fitted MMS with a contactor

- Application Model: MMS + Metasol(MC 6-10), Sarel(MC 9-9), MUI contactor



Type		Contact device	
Direct adaptor	Mounting unit	MMS	MC
DA 100A	MU 16	MMS 300	MUI MC 09C 6M-16M
DA 150A		MMS 300	MUI MC 09C 6M-16M
DA 180A		MMS 300 / 350	MUI MC 09C 6M-16M
DA 100E		MMS 300 / 350	MUI MC 09C 6M-16M
DA 150E		MMS 300	MC 06-15A AC
DA 180E		MMS 300	MC 06-15A DC
DA 100D		MMS 300 / 350	MC 06-15A AC
DA 150D		MMS 300	MC 06-15A DC
DA 180D		MMS 300 / 350	MC 06-15A DC
DA 200D		MMS 300 / 350	MC 06-20A DC
DA 250D		MMS 300 / 350	MC 06-20A DC
DA 300D		MMS 300 / 350	MC 06-20A DC
DA 350A		MMS 300	MC 06-40A AC, MC 0-32 AC
DA 350E		MMS 300	MC 06-40A DC, MC 0-32 DC
DA 350A		MMS 300 / 350	MC 06-40A AC, MC 0-32 AC
DA 350E		MMS 300 / 350	MC 06-40A DC, MC 0-32 DC
DA 400E	MU 20	MMS 400, 500, 600	MC 06-150A AC Lug, MC 06-01 AC Lug
DA 500E		MMS 400, 500, 600	MC 06-150A DC Lug, MC 06-01 DC Lug
DA 600E	MU 20	MMS 1000, 1000L, 1000H	MC 250-1100A AC Lug, MC 06-05 AC Lug
DA 800E		MMS 1000, 1000L, 1000H	MC 250-1100A DC Lug, MC 06-05 DC Lug

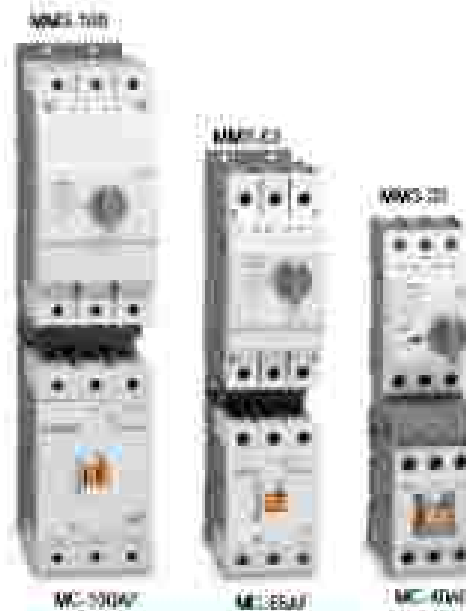
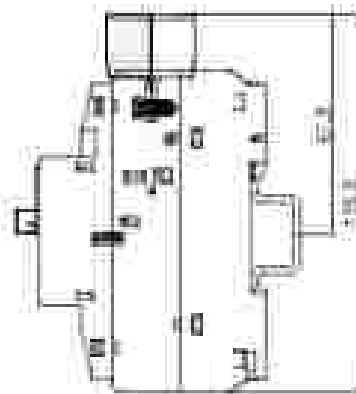
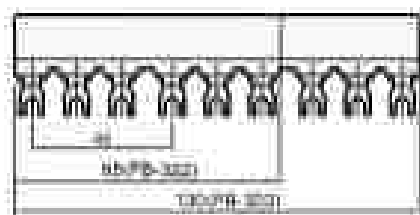
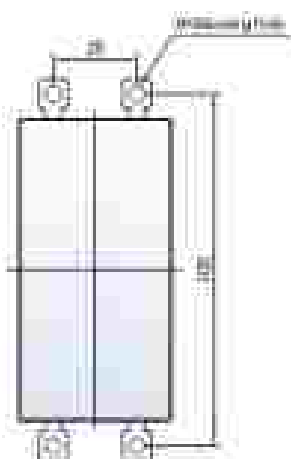
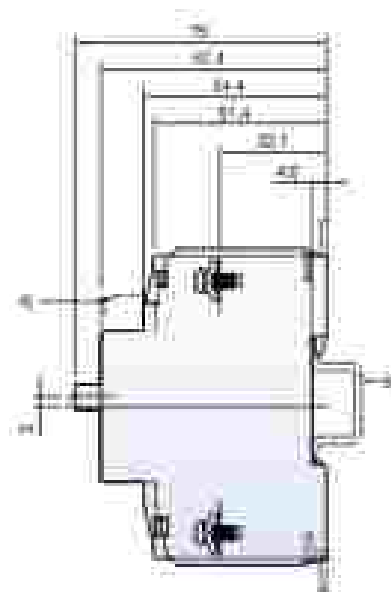
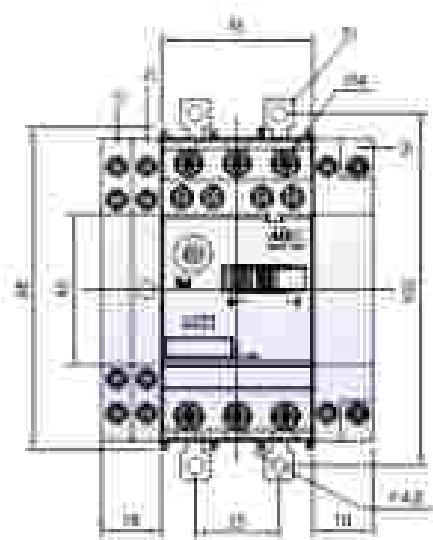


Fig. MMS and Contactors connection diagram

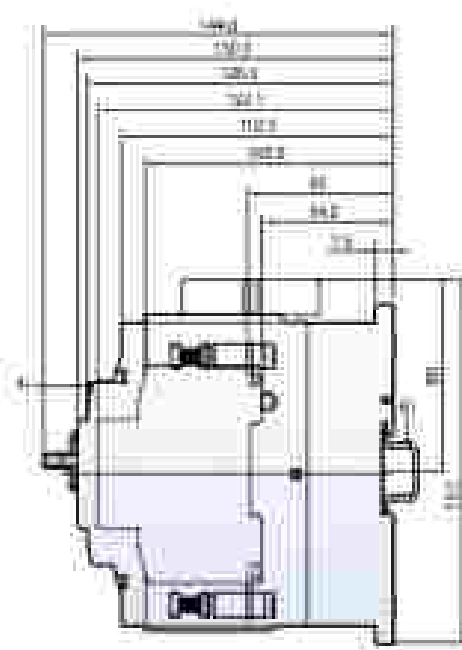
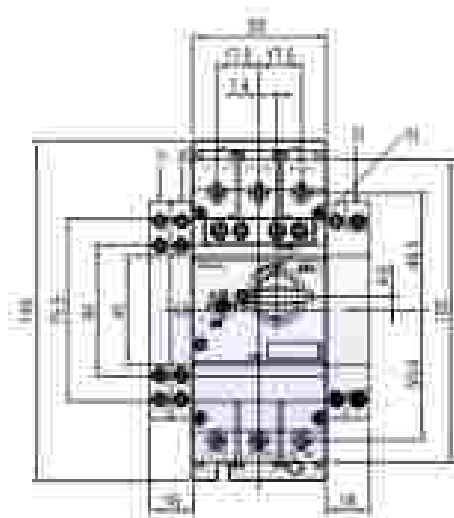
Manual motor starters



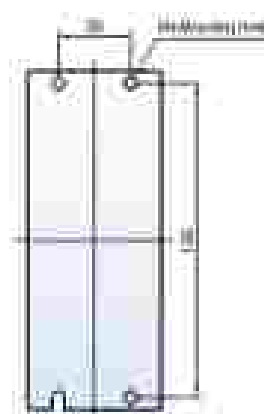
- 1) Side auxiliary switch
- 2) Back magnetic stop arm switch
- 3) Back magnetic stop arm switch - advantage number
- 4) Front auxiliary switch
- 5) Front magnetic stop arm switch
- 6) Motor standard mounting feet (acc. to EN60 529)

Manual motor starters

1000
1000
1000



1000

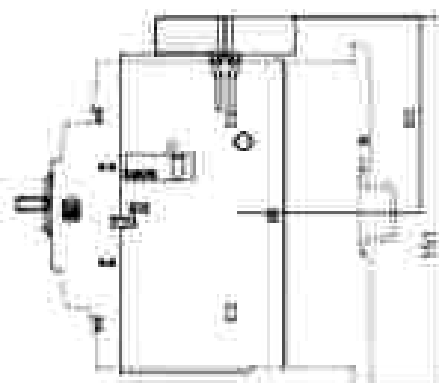


1000

- 1) 380V auxiliary switch
- 2) 380V magnetic top start switch
- 3) 380V short release of fuse under-voltage release
- 4) 110V auxiliary switch
- 5) Handle lock in OFF position (ø 5mm)
- 6) 25mm standard mounting rail acc. to DIN 50 022

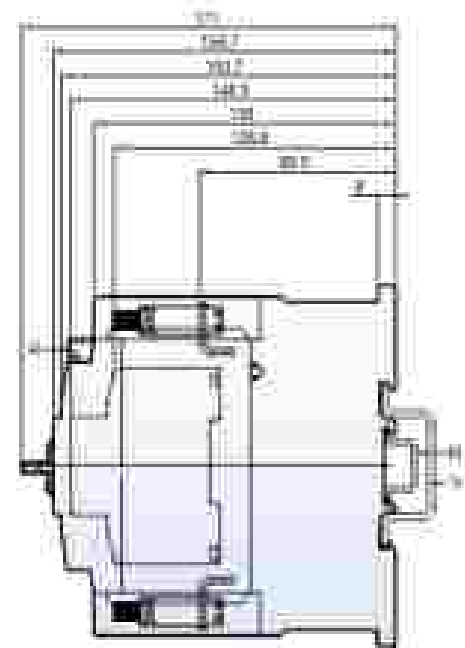


MM1-020/040 (10-02 20.00)
 100-022 (01), 100-023 (01)



Manual motor starters

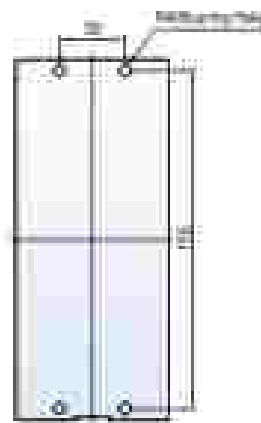
1	2	3	4	5	6	7	8
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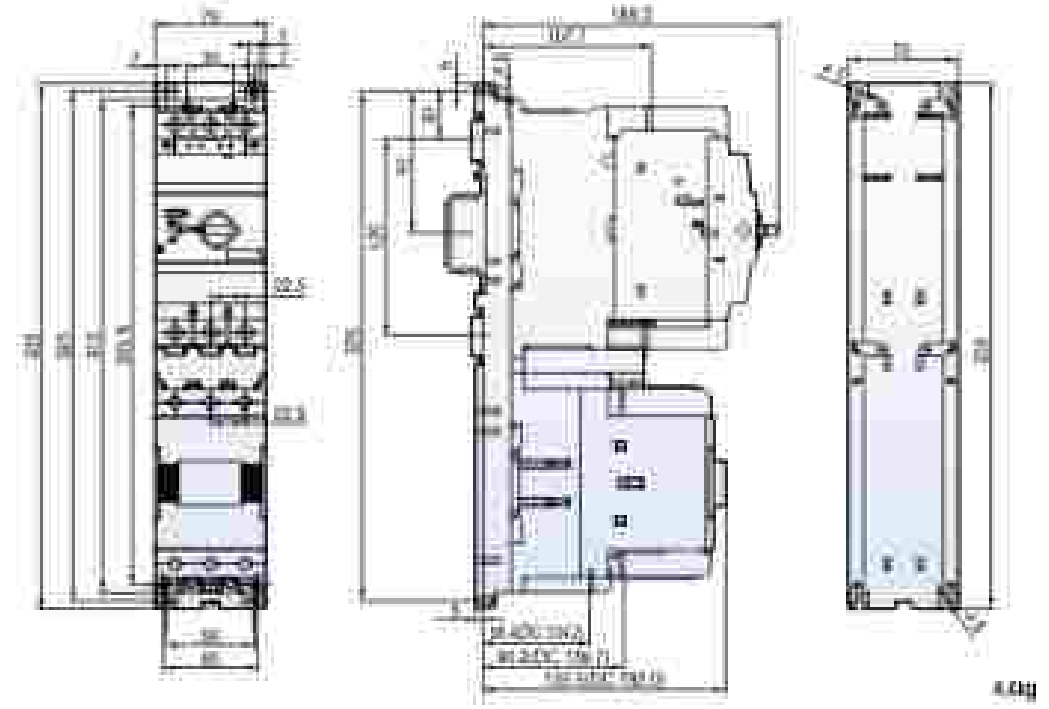
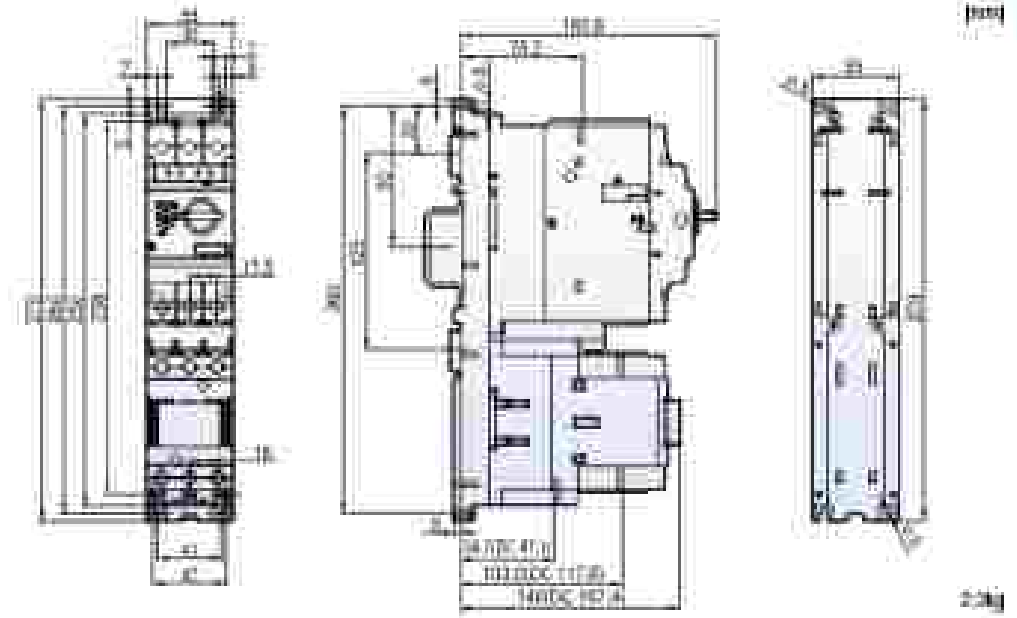
100

100

- 1) Side locking switch
- 2) Side magnetic trip alarm switch
- 3) Side shaft release or lock
- 4) Under-voltage release
- 5) 6 mm auxiliary switch
- 6) Handle lock in ODT position (10 mm)
- 7) 30 mm standard mounting rail acc. to IEC 60 722
- 8) 75 mm standard mounting rail acc. to IEC 60 722
- 9) 40 mm standard mounting rail

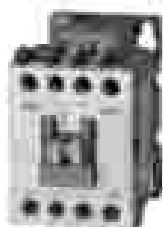


Combination Manual motor starters and contactors



Contactors

MC-6a screw only type



10AF

Model	Terminal type	Coil Voltage	Frequency	Acc. Contact	Code
	Screw	AC24V	50/60Hz	1a	1327000100
	Screw	AC48V	50/60Hz	1a	1327000200
	Screw	AC100V	50/60Hz	1a	1327000300
	Screw	AC110V	50/60Hz	1a	1327000400
	Screw	AC120V	50/60Hz	1a	1327000500
	Screw	AC200V	50/60Hz	1a	1327000600
	Screw	AC220V	50/60Hz	1a	1327000700
	Screw	AC230V	50/60Hz	1a	1327000800
	Screw	AC240V	50/60Hz	1a	1327000900
	Screw	AC280V	50/60Hz	1a	1327001000
	Screw	AC300V	50/60Hz	1a	1327001100
	Screw	AC350V	50/60Hz	1a	1327001200
	Screw	AC440V	50/60Hz	1a	1327001300
	Screw	AC480V	50/60Hz	1a	1327001400
	Screw	AC500V	50/60Hz	1a	1327001500
	Screw	AC24V	50Hz	1a	1327001600
	Screw	AC36V	50Hz	1a	1327001700
	Screw	AC42V	50Hz	1a	1327001800
	Screw	AC48V	50Hz	1a	1327001900
	Screw	AC60V	50Hz	1a	1327002000
	Screw	AC100V	50Hz	1a	1327002100
	Screw	AC110V	50Hz	1a	1327002200
	Screw	AC200V	50Hz	1a	1327002300
	Screw	AC220V	50Hz	1a	1327002400
	Screw	AC240V	50Hz	1a	1327002500
	Screw	AC280V	50Hz	1a	1327002600
	Screw	AC300V	50Hz	1a	1327002700
	Screw	AC350V	50Hz	1a	1327002800
	Screw	AC440V	50Hz	1a	1327002900
	Screw	AC480V	50Hz	1a	1327003000
	Screw	AC500V	50Hz	1a	1327003100
	Screw	AC24V	50Hz	1a	1327003200
	Screw	AC36V	50Hz	1a	1327003300
	Screw	AC42V	50Hz	1a	1327003400
	Screw	AC48V	50Hz	1a	1327003500
	Screw	AC60V	50Hz	1a	1327003600
	Screw	AC100V	50Hz	1a	1327003700
	Screw	AC110V	50Hz	1a	1327003800
	Screw	AC120V	50Hz	1a	1327003900
	Screw	AC180V	50Hz	1a	1327004000
	Screw	AC200V	50Hz	1a	1327004100
	Screw	AC220V	50Hz	1a	1327004200
	Screw	AC240V	50Hz	1a	1327004300
	Screw	AC280V	50Hz	1a	1327004400
	Screw	AC300V	50Hz	1a	1327004500
	Screw	AC350V	50Hz	1a	1327004600
	Screw	AC100V, 110V	50Hz, 60Hz	1a	1327004700
	Screw	AC110V, 120V	60Hz, 60Hz	1a	1327004800
	Screw	AC200V, 220V	60Hz, 60Hz	1a	1327004900
	Screw	AC280V, 277V	60Hz, 60Hz	1a	1327005000
	Screw	DC24V	-	1a	1327005100
	Screw	DC36V	-	1a	1327005200
	Screw	DC48V	-	1a	1327005300
	Screw	DC60V	-	1a	1327005400
	Screw	DC80V	-	1a	1327005500
	Screw	DC100V	-	1a	1327005600
	Screw	DC120V	-	1a	1327005700
	Screw	DC110V	-	1a	1327005800
	Screw	DC125V	-	1a	1327005900
	Screw	DC200V	-	1a	1327006000
	Screw	DC250V	-	1a	1327006100
	Screw	DC300V	-	1a	1327006200

MC-6a

Contactors

MC-6a screw only type



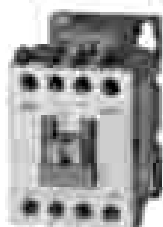
10A2

Model	Terminal type	Rated Voltage	Frequency	App. Contact	Code
	Screw	AC24V	50/60Hz	1b	1327006200
	Screw	AC48V	50/60Hz	1b	1327006400
	Screw	AC100V	50/60Hz	1b	1327006600
	Screw	AC110V	50/60Hz	1b	1327006800
	Screw	AC120V	50/60Hz	1b	1327007000
	Screw	AC200V	50/60Hz	1b	1327008000
	Screw	AC220V	50/60Hz	1b	1327008200
	Screw	AC230V	50/60Hz	1b	1327007500
	Screw	AC380V	50/60Hz	1b	1327007100
	Screw	AC380V	50/60Hz	1b	1327007200
	Screw	AC400V	50/60Hz	1b	1327007300
	Screw	AC415V	50/60Hz	1b	1327007400
	Screw	AC440V	50/60Hz	1b	1327007500
	Screw	AC500V	50/60Hz	1b	1327007600
	Screw	AC60V	50Hz	1b	1327007900
	Screw	AC36V	50Hz	1b	1327007900
	Screw	AC42V	50Hz	1b	1327008000
	Screw	AC48V	50Hz	1b	1327008100
	Screw	AC54V	50Hz	1b	1327008200
	Screw	AC100V	50Hz	1b	1327008300
	Screw	AC110V	50Hz	1b	1327008400
	Screw	AC220V	50Hz	1b	1327008500
	Screw	AC230V	50Hz	1b	1327008600
	Screw	AC380V	50Hz	1b	1327008700
	Screw	AC380V	50Hz	1b	1327008800
	Screw	AC415V	50Hz	1b	1327008900
	Screw	AC440V	50Hz	1b	1327009100
	Screw	AC500V	50Hz	1b	1327009200
	Screw	AC550V	50Hz	1b	1327009300
	Screw	AC60V	50Hz	1b	1327009400
	Screw	AC60V	50Hz	1b	1327009500
	Screw	AC100V	50Hz	1b	1327009600
	Screw	AC110V	50Hz	1b	1327009700
	Screw	AC120V	50Hz	1b	1327009800
	Screw	AC180V	50Hz	1b	1327009900
	Screw	AC200V	50Hz	1b	1327010000
	Screw	AC220V	50Hz	1b	1327010100
	Screw	AC230V	50Hz	1b	1327010200
	Screw	AC380V	50Hz	1b	1327010300
	Screw	AC380V	50Hz	1b	1327010400
	Screw	AC415V	50Hz	1b	1327010500
	Screw	AC440V	50Hz	1b	1327010600
	Screw	AC500V	50Hz	1b	1327010700
	Screw	AC500V	50Hz	1b	1327010800
	Screw	AC100V, 110V	50Hz, 60Hz	1b	1327010900
	Screw	AC110V, 120V	50Hz, 60Hz	1b	1327011000
	Screw	AC200V, 220V	50Hz, 60Hz	1b	1327011100
	Screw	AC380V, 415V	50Hz, 60Hz	1b	1327011200
	Screw	DC12V	-	1b	1327011300
	Screw	DC24V	-	1b	1327011400
	Screw	DC48V	-	1b	1327011500
	Screw	DC60V	-	1b	1327011600
	Screw	DC72V	-	1b	1327011700
	Screw	DC96V	-	1b	1327011800
	Screw	DC100V	-	1b	1327011900
	Screw	DC110V	-	1b	1327012000
	Screw	DC125V	-	1b	1327012100
	Screw	DC200V	-	1b	1327012200
	Screw	DC250V	-	1b	1327012300
	Screw	DC320V	-	1b	1327012400

MC-6a

Contactors

MC-9a screw only type



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Model	Terminal type	Coil Voltage	Frequency	Act. Contact	Code
	Screw	AC24V	50/60Hz	1a	1318000100
	Screw	AC48V	50/60Hz	1a	1318000200
	Screw	AC100V	50/60Hz	1a	1318000300
	Screw	AC110V	50/60Hz	1a	1318000400
	Screw	AC120V	50/60Hz	1a	1318000500
	Screw	AC200V	50/60Hz	1a	1318000600
	Screw	AC220V	50/60Hz	1a	1318000700
	Screw	AC230V	50/60Hz	1a	1318000800
	Screw	AC240V	50/60Hz	1a	1318000900
	Screw	AC250V	50/60Hz	1a	1318001000
	Screw	AC280V	50/60Hz	1a	1318001100
	Screw	AC300V	50/60Hz	1a	1318001200
	Screw	AC380V	50/60Hz	1a	1318001300
	Screw	AC400V	50/60Hz	1a	1318001400
	Screw	AC415V	50/60Hz	1a	1318001500
	Screw	AC440V	50/60Hz	1a	1318001600
	Screw	AC56V	50Hz	1a	1318001700
	Screw	AC60V	50Hz	1a	1318001800
	Screw	AC65V	50Hz	1a	1318001900
	Screw	AC70V	50Hz	1a	1318002000
	Screw	AC75V	50Hz	1a	1318002100
	Screw	AC80V	50Hz	1a	1318002200
	Screw	AC90V	50Hz	1a	1318002300
	Screw	AC100V	50Hz	1a	1318002400
	Screw	AC120V	50Hz	1a	1318002500
	Screw	AC150V	50Hz	1a	1318002600
	Screw	AC180V	50Hz	1a	1318002700
	Screw	AC200V	50Hz	1a	1318002800
	Screw	AC220V	50Hz	1a	1318002900
	Screw	AC230V	50Hz	1a	1318003000
	Screw	AC240V	50Hz	1a	1318003100
	Screw	AC250V	50Hz	1a	1318003200
	Screw	AC280V	50Hz	1a	1318003300
	Screw	AC300V	50Hz	1a	1318003400
	Screw	AC380V	50Hz	1a	1318003500
	Screw	AC400V	50Hz	1a	1318003600
	Screw	AC415V	50Hz	1a	1318003700
	Screw	AC440V	50Hz	1a	1318003800
	Screw	AC56V	50Hz	1a	1318003900
	Screw	AC60V	50Hz	1a	1318004000
	Screw	AC65V	50Hz	1a	1318004100
	Screw	AC70V	50Hz	1a	1318004200
	Screw	AC75V	50Hz	1a	1318004300
	Screw	AC80V	50Hz	1a	1318004400
	Screw	AC100V	50Hz	1a	1318004500
	Screw	AC120V	50Hz	1a	1318004600
	Screw	AC150V	50Hz	1a	1318004700
	Screw	AC180V	50Hz	1a	1318004800
	Screw	AC200V	50Hz	1a	1318004900
	Screw	AC220V	50Hz	1a	1318005000
	Screw	AC230V	50Hz	1a	1318005100
	Screw	AC240V	50Hz	1a	1318005200
	Screw	AC250V	50Hz	1a	1318005300
	Screw	AC280V	50Hz	1a	1318005400
	Screw	AC300V	50Hz	1a	1318005500
	Screw	DC24V	-	1a	1318005600
	Screw	DC36V	-	1a	1318005700
	Screw	DC48V	-	1a	1318005800
	Screw	DC60V	-	1a	1318005900
	Screw	DC72V	-	1a	1318006000
	Screw	DC96V	-	1a	1318006100
	Screw	DC120V	-	1a	1318006200
	Screw	DC150V	-	1a	1318006300
	Screw	DC180V	-	1a	1318006400
	Screw	DC200V	-	1a	1318006500
	Screw	DC250V	-	1a	1318006600
	Screw	DC300V	-	1a	1318006700

MC-9a

Contactors

MC-9a screw only type



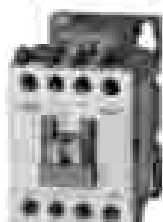
10AF

Model	Terminal type	Rated Voltage	Frequency	App. Contact	Code
	Screw	AC24V	50/60Hz	1b	1310101100
	Screw	AC48V	50/60Hz	1b	1310101200
	Screw	AC100V	50/60Hz	1b	1310101300
	Screw	AC110V	50/60Hz	1b	1310101400
	Screw	AC120V	50/60Hz	1b	1310101500
	Screw	AC220V	50/60Hz	1b	1310101600
	Screw	AC230V	50/60Hz	1b	1310101700
	Screw	AC240V	50/60Hz	1b	1310101800
	Screw	AC280V	50/60Hz	1b	1310101900
	Screw	AC400V	50/60Hz	1b	1310102000
	Screw	AC415V	50/60Hz	1b	1310102100
	Screw	AC440V	50/60Hz	1b	1310102200
	Screw	AC500V	50/60Hz	1b	1310102300
	Screw	AC550V	50/60Hz	1b	1310102400
	Screw	AC6V	50Hz	1b	1310102500
	Screw	AC8V	50Hz	1b	1310102600
	Screw	AC12V	50Hz	1b	1310102700
	Screw	AC16V	50Hz	1b	1310102800
	Screw	AC20V	50Hz	1b	1310102900
	Screw	AC24V	50Hz	1b	1310103000
	Screw	AC28V	50Hz	1b	1310103100
	Screw	AC32V	50Hz	1b	1310103200
	Screw	AC36V	50Hz	1b	1310103300
	Screw	AC40V	50Hz	1b	1310103400
	Screw	AC44V	50Hz	1b	1310103500
	Screw	AC48V	50Hz	1b	1310103600
	Screw	AC52V	50Hz	1b	1310103700
	Screw	AC56V	50Hz	1b	1310103800
	Screw	AC60V	50Hz	1b	1310103900
	Screw	AC64V	50Hz	1b	1310104000
	Screw	AC68V	50Hz	1b	1310104100
	Screw	AC72V	50Hz	1b	1310104200
	Screw	AC76V	50Hz	1b	1310104300
	Screw	AC80V	50Hz	1b	1310104400
	Screw	AC84V	50Hz	1b	1310104500
	Screw	AC88V	50Hz	1b	1310104600
	Screw	AC92V	50Hz	1b	1310104700
	Screw	AC96V	50Hz	1b	1310104800
	Screw	AC100V	50Hz	1b	1310104900
	Screw	AC110V	50Hz	1b	1310105000
	Screw	AC120V	50Hz	1b	1310105100
	Screw	AC130V	50Hz	1b	1310105200
	Screw	AC140V	50Hz	1b	1310105300
	Screw	AC150V	50Hz	1b	1310105400
	Screw	AC160V	50Hz	1b	1310105500
	Screw	AC170V	50Hz	1b	1310105600
	Screw	AC180V	50Hz	1b	1310105700
	Screw	AC190V	50Hz	1b	1310105800
	Screw	AC200V	50Hz	1b	1310105900
	Screw	AC210V	50Hz	1b	1310106000
	Screw	DC12V	-	1b	1310106100
	Screw	DC24V	-	1b	1310106200
	Screw	DC48V	-	1b	1310106300
	Screw	DC60V	-	1b	1310106400
	Screw	DC72V	-	1b	1310106500
	Screw	DC84V	-	1b	1310106600
	Screw	DC96V	-	1b	1310106700
	Screw	DC108V	-	1b	1310106800
	Screw	DC120V	-	1b	1310106900
	Screw	DC132V	-	1b	1310107000
	Screw	DC144V	-	1b	1310107100
	Screw	DC156V	-	1b	1310107200
	Screw	DC168V	-	1b	1310107300
	Screw	DC180V	-	1b	1310107400
	Screw	DC192V	-	1b	1310107500
	Screw	DC204V	-	1b	1310107600
	Screw	DC216V	-	1b	1310107700
	Screw	DC228V	-	1b	1310107800
	Screw	DC240V	-	1b	1310107900

MC-9a

Contactors

MC-12a screw only type



10AF

Model	Terminal type	Coil Voltage	Frequency	Act. Contact	Code
	Screw	AC24V	50/60Hz	1a	1317000100
	Screw	AC48V	50/60Hz	1a	1317000200
	Screw	AC100V	50/60Hz	1a	1317000300
	Screw	AC110V	50/60Hz	1a	1317000400
	Screw	AC120V	50/60Hz	1a	1317000500
	Screw	AC200V	50/60Hz	1a	1317000600
	Screw	AC220V	50/60Hz	1a	1317000700
	Screw	AC230V	50/60Hz	1a	1317000800
	Screw	AC240V	50/60Hz	1a	1317000900
	Screw	AC280V	50/60Hz	1a	1317001000
	Screw	AC300V	50/60Hz	1a	1317001100
	Screw	AC350V	50/60Hz	1a	1317001200
	Screw	AC440V	50/60Hz	1a	1317001300
	Screw	AC500V	50/60Hz	1a	1317001400
	Screw	AC550V	50/60Hz	1a	1317001500
	Screw	AC24V	50Hz	1a	1317001600
	Screw	AC36V	50Hz	1a	1317001700
	Screw	AC42V	50Hz	1a	1317001800
	Screw	AC48V	50Hz	1a	1317001900
	Screw	AC60V	50Hz	1a	1317002000
	Screw	AC100V	50Hz	1a	1317002100
	Screw	AC110V	50Hz	1a	1317002200
	Screw	AC200V	50Hz	1a	1317002300
	Screw	AC220V	50Hz	1a	1317002400
	Screw	AC240V	50Hz	1a	1317002500
	Screw	AC300V	50Hz	1a	1317002600
	Screw	AC400V	50Hz	1a	1317002700
	Screw	AC415V	50Hz	1a	1317002800
	Screw	AC440V	50Hz	1a	1317002900
	Screw	AC500V	50Hz	1a	1317003000
	Screw	AC24V	50Hz	1a	1317003100
	Screw	AC36V	50Hz	1a	1317003200
	Screw	AC42V	50Hz	1a	1317003300
	Screw	AC100V	50Hz	1a	1317003400
	Screw	AC110V	50Hz	1a	1317003500
	Screw	AC120V	50Hz	1a	1317003600
	Screw	AC180V	50Hz	1a	1317003700
	Screw	AC200V	50Hz	1a	1317003800
	Screw	AC220V	50Hz	1a	1317003900
	Screw	AC230V	50Hz	1a	1317004000
	Screw	AC240V	50Hz	1a	1317004100
	Screw	AC277V	50Hz	1a	1317004200
	Screw	AC380V	50Hz	1a	1317004300
	Screw	AC440V	50Hz	1a	1317004400
	Screw	AC480V	50Hz	1a	1317004500
	Screw	AC600V	50Hz	1a	1317004600
	Screw	AC100V, 110V	50Hz, 60Hz	1a	1317004700
	Screw	AC110V, 120V	50Hz, 60Hz	1a	1317004800
	Screw	AC200V, 220V	50Hz, 60Hz	1a	1317004900
	Screw	AC380V, 377V	50Hz, 60Hz	1a	1317005000
	Screw	DC24V	-	1a	1317005100
	Screw	DC36V	-	1a	1317005200
	Screw	DC48V	-	1a	1317005300
	Screw	DC60V	-	1a	1317005400
	Screw	DC80V	-	1a	1317005500
	Screw	DC100V	-	1a	1317005600
	Screw	DC110V	-	1a	1317005700
	Screw	DC120V	-	1a	1317005800
	Screw	DC180V	-	1a	1317005900
	Screw	DC200V	-	1a	1317006000
	Screw	DC250V	-	1a	1317006100
	Screw	DC300V	-	1a	1317006200

MC-12a

Contactors

MC-12a screw only type



10A2

Model	Terminal type	Rated Voltage	Frequency	App. Contact	Code
	Screw	AC24V	50/60Hz	1b	1317100100
	Screw	AC48V	50/60Hz	1b	1317100200
	Screw	AC100V	50/60Hz	1b	1317100300
	Screw	AC110V	50/60Hz	1b	1317100400
	Screw	AC120V	50/60Hz	1b	1317100500
	Screw	AC120V	50/60Hz	1b	1317100600
	Screw	AC220V	50/60Hz	1b	1317100700
	Screw	AC230V	50/60Hz	1b	1317100800
	Screw	AC240V	50/60Hz	1b	1317100900
	Screw	AC280V	50/60Hz	1b	1317101000
	Screw	AC400V	50/60Hz	1b	1317101100
	Screw	AC415V	50/60Hz	1b	1317101200
	Screw	AC440V	50/60Hz	1b	1317101300
	Screw	AC500V	50/60Hz	1b	1317101400
	Screw	AC550V	50/60Hz	1b	1317101500
	Screw	AC6V	50Hz	1b	1317101600
	Screw	AC24V	50Hz	1b	1317101700
	Screw	AC48V	50Hz	1b	1317101800
	Screw	AC100V	50Hz	1b	1317101900
	Screw	AC110V	50Hz	1b	1317102000
	Screw	AC220V	50Hz	1b	1317102100
	Screw	AC230V	50Hz	1b	1317102200
	Screw	AC240V	50Hz	1b	1317102300
	Screw	AC280V	50Hz	1b	1317102400
	Screw	AC400V	50Hz	1b	1317102500
	Screw	AC415V	50Hz	1b	1317102600
	Screw	AC440V	50Hz	1b	1317102700
	Screw	AC500V	50Hz	1b	1317102800
	Screw	AC550V	50Hz	1b	1317102900
	Screw	AC6V	50Hz	1b	1317103000
	Screw	AC24V	50Hz	1b	1317103100
	Screw	AC48V	50Hz	1b	1317103200
	Screw	AC100V	50Hz	1b	1317103300
	Screw	AC110V	50Hz	1b	1317103400
	Screw	AC120V	50Hz	1b	1317103500
	Screw	AC120V	50Hz	1b	1317103600
	Screw	AC220V	50Hz	1b	1317103700
	Screw	AC230V	50Hz	1b	1317103800
	Screw	AC240V	50Hz	1b	1317103900
	Screw	AC280V	50Hz	1b	1317104000
	Screw	AC400V	50Hz	1b	1317104100
	Screw	AC415V	50Hz	1b	1317104200
	Screw	AC500V	50Hz	1b	1317104300
	Screw	AC550V	50Hz	1b	1317104400
	Screw	AC6V	50Hz	1b	1317104500
	Screw	AC24V	50Hz	1b	1317104600
	Screw	AC48V	50Hz	1b	1317104700
	Screw	AC100V, 110V	50Hz, 60Hz	1b	1317104800
	Screw	AC110V, 120V	50Hz, 60Hz	1b	1317104900
	Screw	AC200V, 220V	50Hz, 60Hz	1b	1317105000
	Screw	AC240V, 277V	50Hz, 60Hz	1b	1317105100
	Screw	DC12V	-	1b	1317105200
	Screw	DC24V	-	1b	1317105300
	Screw	DC48V	-	1b	1317105400
	Screw	DC60V	-	1b	1317105500
	Screw	DC75V	-	1b	1317105600
	Screw	DC100V	-	1b	1317105700
	Screw	DC110V	-	1b	1317105800
	Screw	DC125V	-	1b	1317105900
	Screw	DC200V	-	1b	1317106000
	Screw	DC250V	-	1b	1317106100
	Screw	DC300V	-	1b	1317106200

MC-12a

Contactors

MC-18a screw only type



10AF

Model	Terminal type	Cat. Voltage	Frequency	Act. Contact	Code
	Screw	AC24V	50/60Hz	1a	13280001100
	Screw	AC48V	50/60Hz	1a	13280002100
	Screw	AC100V	50/60Hz	1a	13280003100
	Screw	AC110V	50/60Hz	1a	13280004100
	Screw	AC120V	50/60Hz	1a	13280005100
	Screw	AC200V	50/60Hz	1a	13280006100
	Screw	AC220V	50/60Hz	1a	13280007100
	Screw	AC230V	50/60Hz	1a	13280008100
	Screw	AC240V	50/60Hz	1a	13280009100
	Screw	AC250V	50/60Hz	1a	13280010100
	Screw	AC280V	50/60Hz	1a	13280011100
	Screw	AC300V	50/60Hz	1a	13280012100
	Screw	AC440V	50/60Hz	1a	13280013100
	Screw	AC480V	50/60Hz	1a	13280014100
	Screw	AC500V	50/60Hz	1a	13280015100
	Screw	AC24V	50Hz	1a	13280016100
	Screw	AC36V	50Hz	1a	13280017100
	Screw	AC42V	50Hz	1a	13280018100
	Screw	AC48V	50Hz	1a	13280019100
	Screw	AC60V	50Hz	1a	13280020100
	Screw	AC100V	50Hz	1a	13280021100
	Screw	AC110V	50Hz	1a	13280022100
	Screw	AC200V	50Hz	1a	13280023100
	Screw	AC220V	50Hz	1a	13280024100
	Screw	AC240V	50Hz	1a	13280025100
	Screw	AC250V	50Hz	1a	13280026100
	Screw	AC300V	50Hz	1a	13280027100
	Screw	AC415V	50Hz	1a	13280028100
	Screw	AC440V	50Hz	1a	13280029100
	Screw	AC500V	50Hz	1a	13280030100
	Screw	AC100V	50Hz	1a	13280031100
	Screw	AC110V	50Hz	1a	13280032100
	Screw	AC100V	50Hz	1a	13280033100
	Screw	AC100V	50Hz	1a	13280034100
	Screw	AC110V	50Hz	1a	13280035100
	Screw	AC120V	50Hz	1a	13280036100
	Screw	AC130V	50Hz	1a	13280037100
	Screw	AC150V	50Hz	1a	13280038100
	Screw	AC200V	50Hz	1a	13280039100
	Screw	AC220V	50Hz	1a	13280040100
	Screw	AC240V	50Hz	1a	13280041100
	Screw	AC250V	50Hz	1a	13280042100
	Screw	AC277V	50Hz	1a	13280043100
	Screw	AC380V	50Hz	1a	13280044100
	Screw	AC440V	50Hz	1a	13280045100
	Screw	AC500V	50Hz	1a	13280046100
	Screw	AC100V, 110V	50Hz, 60Hz	1a	13280047100
	Screw	AC110V, 120V	50Hz, 60Hz	1a	13280048100
	Screw	AC200V, 220V	50Hz, 60Hz	1a	13280049100
	Screw	AC380V, 377V	50Hz, 60Hz	1a	13280050100
	Screw	DC12V	-	1a	13280051100
	Screw	DC24V	-	1a	13280052100
	Screw	DC48V	-	1a	13280053100
	Screw	DC60V	-	1a	13280054100
	Screw	DC80V	-	1a	13280055100
	Screw	DC100V	-	1a	13280056100
	Screw	DC110V	-	1a	13280057100
	Screw	DC125V	-	1a	13280058100
	Screw	DC150V	-	1a	13280059100
	Screw	DC200V	-	1a	13280060100
	Screw	DC250V	-	1a	13280061100
	Screw	DC300V	-	1a	13280062100

MC-18a

Contactors

MC-18a screw only type

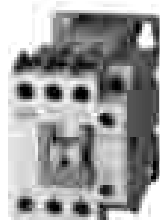


18AF

Model	Terminal type	Rated Voltage	Frequency	App. Contact	Code
MC-18a	Screw	AC24V	50/60Hz	1b	13280002300
MC-18a	Screw	AC48V	50/60Hz	1b	13280004400
MC-18a	Screw	AC100V	50/60Hz	1b	13280006500
MC-18a	Screw	AC110V	50/60Hz	1b	13280008600
MC-18a	Screw	AC120V	50/60Hz	1b	13280010700
MC-18a	Screw	AC120V	50/60Hz	1b	13280012800
MC-18a	Screw	AC220V	50/60Hz	1b	13280014900
MC-18a	Screw	AC230V	50/60Hz	1b	13280017000
MC-18a	Screw	AC240V	50/60Hz	1b	13280019100
MC-18a	Screw	AC280V	50/60Hz	1b	13280021200
MC-18a	Screw	AC400V	50/60Hz	1b	13280023300
MC-18a	Screw	AC415V	50/60Hz	1b	13280025400
MC-18a	Screw	AC440V	50/60Hz	1b	13280027500
MC-18a	Screw	AC500V	50/60Hz	1b	13280029600
MC-18a	Screw	AC24V	50Hz	1b	13280031700
MC-18a	Screw	AC24V	60Hz	1b	13280033800
MC-18a	Screw	AC48V	50Hz	1b	13280035900
MC-18a	Screw	AC48V	60Hz	1b	13280038000
MC-18a	Screw	AC100V	50Hz	1b	13280040100
MC-18a	Screw	AC100V	60Hz	1b	13280042200
MC-18a	Screw	AC110V	50Hz	1b	13280044300
MC-18a	Screw	AC110V	60Hz	1b	13280046400
MC-18a	Screw	AC120V	50Hz	1b	13280048500
MC-18a	Screw	AC120V	60Hz	1b	13280050600
MC-18a	Screw	AC220V	50Hz	1b	13280052700
MC-18a	Screw	AC230V	50Hz	1b	13280054800
MC-18a	Screw	AC240V	50Hz	1b	13280056900
MC-18a	Screw	AC240V	60Hz	1b	13280059000
MC-18a	Screw	AC280V	50Hz	1b	13280061100
MC-18a	Screw	AC400V	50Hz	1b	13280063200
MC-18a	Screw	AC415V	50Hz	1b	13280065300
MC-18a	Screw	AC440V	50Hz	1b	13280067400
MC-18a	Screw	AC500V	50Hz	1b	13280069500
MC-18a	Screw	AC100V, 110V	50Hz, 60Hz	1b	13280101600
MC-18a	Screw	AC110V, 120V	50Hz, 60Hz	1b	13280103700
MC-18a	Screw	AC200V, 220V	50Hz, 60Hz	1b	13280105800
MC-18a	Screw	AC240V, 277V	50Hz, 60Hz	1b	13280107900
MC-18a	Screw	DC12V	-	1b	13280110000
MC-18a	Screw	DC24V	-	1b	13280112100
MC-18a	Screw	DC48V	-	1b	13280114200
MC-18a	Screw	DC60V	-	1b	13280116300
MC-18a	Screw	DC72V	-	1b	13280118400
MC-18a	Screw	DC96V	-	1b	13280120500
MC-18a	Screw	DC100V	-	1b	13280122600
MC-18a	Screw	DC110V	-	1b	13280124700
MC-18a	Screw	DC125V	-	1b	13280126800
MC-18a	Screw	DC250V	-	1b	13280128900
MC-18a	Screw	DC300V	-	1b	13280131000

Contactors

MC-9h screw only type



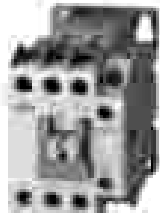
10AF

Model	Terminal type	Cat. Voltage	Frequency	Act. Contact	Cat. No.
	Screw	AC24V	50/60Hz	1a1b	1344000100
	Screw	AC48V	50/60Hz	1a1b	1344000200
	Screw	AC100V	50/60Hz	1a1b	1344000300
	Screw	AC110V	50/60Hz	1a1b	1344000400
	Screw	AC120V	50/60Hz	1a1b	1344000500
	Screw	AC200V	50/60Hz	1a1b	1344000600
	Screw	AC220V	50/60Hz	1a1b	1344000700
	Screw	AC230V	50/60Hz	1a1b	1344000800
	Screw	AC240V	50/60Hz	1a1b	1344000900
	Screw	AC280V	50/60Hz	1a1b	1344001000
	Screw	AC400V	50/60Hz	1a1b	1344001100
	Screw	AC415V	50/60Hz	1a1b	1344001200
	Screw	AC440V	50/60Hz	1a1b	1344001300
	Screw	AC500V	50/60Hz	1a1b	1344001400
	Screw	AC550V	50/60Hz	1a1b	1344001500
	Screw	AC24V	50Hz	1a1b	1344001600
	Screw	AC36V	50Hz	1a1b	1344001700
	Screw	AC42V	50Hz	1a1b	1344001800
	Screw	AC48V	50Hz	1a1b	1344001900
	Screw	AC60V	50Hz	1a1b	1344002000
	Screw	AC70V	50Hz	1a1b	1344002100
	Screw	AC110V	50Hz	1a1b	1344002200
	Screw	AC200V	50Hz	1a1b	1344002300
	Screw	AC220V	50Hz	1a1b	1344002400
	Screw	AC240V	50Hz	1a1b	1344002500
	Screw	AC280V	50Hz	1a1b	1344002600
	Screw	AC400V	50Hz	1a1b	1344002700
	Screw	AC415V	50Hz	1a1b	1344002800
	Screw	AC440V	50Hz	1a1b	1344002900
	Screw	AC500V	50Hz	1a1b	1344003000
	Screw	AC550V	50Hz	1a1b	1344003100
	Screw	AC24V	50Hz	1a1b	1344003200
	Screw	AC36V	50Hz	1a1b	1344003300
	Screw	AC42V	50Hz	1a1b	1344003400
	Screw	AC48V	50Hz	1a1b	1344003500
	Screw	AC60V	50Hz	1a1b	1344003600
	Screw	AC70V	50Hz	1a1b	1344003700
	Screw	AC110V	50Hz	1a1b	1344003800
	Screw	AC120V	50Hz	1a1b	1344003900
	Screw	AC180V	50Hz	1a1b	1344004000
	Screw	AC200V	50Hz	1a1b	1344004100
	Screw	AC220V	50Hz	1a1b	1344004200
	Screw	AC230V	50Hz	1a1b	1344004300
	Screw	AC240V	50Hz	1a1b	1344004400
	Screw	AC280V	50Hz	1a1b	1344004500
	Screw	AC300V	50Hz	1a1b	1344004600
	Screw	AC100V, 110V	50Hz, 60Hz	1a1b	1344004700
	Screw	AC110V, 120V	50Hz, 60Hz	1a1b	1344004800
	Screw	AC200V, 220V	50Hz, 60Hz	1a1b	1344004900
	Screw	AC240V, 277V	50Hz, 60Hz	1a1b	1344005000
	Screw	DC12V	-	1a1b	1344005100
	Screw	DC24V	-	1a1b	1344005200
	Screw	DC36V	-	1a1b	1344005300
	Screw	DC48V	-	1a1b	1344005400
	Screw	DC60V	-	1a1b	1344005500
	Screw	DC70V	-	1a1b	1344005600
	Screw	DC100V	-	1a1b	1344005700
	Screw	DC110V	-	1a1b	1344005800
	Screw	DC120V	-	1a1b	1344005900
	Screw	DC200V	-	1a1b	1344006000
	Screw	DC250V	-	1a1b	1344006100
	Screw	DC300V	-	1a1b	1344006200

MC-9h

Contactors

MC-9b screw only type



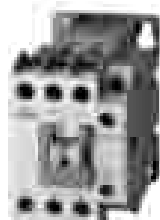
10&F

Model	Terminal type	Rated Voltage	Frequency	App. Contact	Code
MC-12b	Screw	AC24V	50/60Hz	1a/b	1540001100
	Screw	AC48V	50/60Hz	1a/b	1540001100
	Screw	AC100V	50/60Hz	1a/b	1540001000
	Screw	AC110V	50/60Hz	1a/b	1540001000
	Screw	AC120V	50/60Hz	1a/b	1540001000
	Screw	AC200V	50/60Hz	1a/b	1540001000
	Screw	AC220V	50/60Hz	1a/b	1540001700
	Screw	AC230V	50/60Hz	1a/b	1540001800
	Screw	AC240V	50/60Hz	1a/b	1540001000
	Screw	AC280V	50/60Hz	1a/b	1540001000
	Screw	AC400V	50/60Hz	1a/b	1540001100
	Screw	AC415V	50/60Hz	1a/b	1540001200
	Screw	AC440V	50/60Hz	1a/b	1540001200
	Screw	AC500V	50/60Hz	1a/b	1540001400
	Screw	AC550V	50/60Hz	1a/b	1540001500
	Screw	AC6V	50Hz	1a/b	1540001700
	Screw	AC24V	50Hz	1a/b	1540001700
	Screw	AC48V	50Hz	1a/b	1540001800
	Screw	AC100V	50Hz	1a/b	1540001900
	Screw	AC110V	50Hz	1a/b	1540002000
	Screw	AC220V	50Hz	1a/b	1540002300
	Screw	AC230V	50Hz	1a/b	1540002400
	Screw	AC240V	50Hz	1a/b	1540002500
	Screw	AC280V	50Hz	1a/b	1540002600
	Screw	AC400V	50Hz	1a/b	1540002700
Screw	AC415V	50Hz	1a/b	1540002800	
Screw	AC440V	50Hz	1a/b	1540002800	
Screw	AC500V	50Hz	1a/b	1540003000	
Screw	AC550V	50Hz	1a/b	1540003100	
Screw	AC6V	50Hz	1a/b	1540003200	
Screw	AC100V	50Hz	1a/b	1540003400	
Screw	AC110V	50Hz	1a/b	1540003500	
Screw	AC120V	50Hz	1a/b	1540003600	
Screw	AC180V	50Hz	1a/b	1540003700	
Screw	AC200V	50Hz	1a/b	1540003800	
Screw	AC220V	50Hz	1a/b	1540003800	
Screw	AC230V	50Hz	1a/b	1540003900	
Screw	AC240V	50Hz	1a/b	1540004100	
Screw	AC277V	50Hz	1a/b	1540004200	
Screw	AC380V	50Hz	1a/b	1540004300	
Screw	AC440V	50Hz	1a/b	1540004400	
Screw	AC500V	50Hz	1a/b	1540004500	
Screw	AC550V	50Hz	1a/b	1540004600	
Screw	AC100V, 110V	50Hz, 60Hz	1a/b	1540004700	
Screw	AC110V, 120V	50Hz, 60Hz	1a/b	1540004800	
Screw	AC200V, 220V	50Hz, 60Hz	1a/b	1540004900	
Screw	AC240V, 277V	50Hz, 60Hz	1a/b	1540005000	
Screw	DC12V	-	1a/b	1540005100	
Screw	DC24V	-	1a/b	1540005200	
Screw	DC48V	-	1a/b	1540005300	
Screw	DC60V	-	1a/b	1540005400	
Screw	DC75V	-	1a/b	1540005500	
Screw	DC100V	-	1a/b	1540005700	
Screw	DC110V	-	1a/b	1540005800	
Screw	DC125V	-	1a/b	1540005900	
Screw	DC200V	-	1a/b	1540006100	
Screw	DC250V	-	1a/b	1540006200	

MC-16

Contactors

MC-18b screw only type



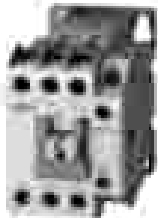
22AF

Model	Terminal type	Cat. Voltage	Frequency	Act. Contact	Code
	Screw	AC24V	50/60Hz	1x1b	1346000100
	Screw	AC48V	50/60Hz	1x1b	1346000200
	Screw	AC100V	50/60Hz	1x1b	1346000300
	Screw	AC110V	50/60Hz	1x1b	1346000400
	Screw	AC120V	50/60Hz	1x1b	1346000500
	Screw	AC200V	50/60Hz	1x1b	1346000600
	Screw	AC220V	50/60Hz	1x1b	1346000700
	Screw	AC230V	50/60Hz	1x1b	1346000800
	Screw	AC240V	50/60Hz	1x1b	1346000900
	Screw	AC280V	50/60Hz	1x1b	1346001000
	Screw	AC400V	50/60Hz	1x1b	1346001100
	Screw	AC415V	50/60Hz	1x1b	1346001200
	Screw	AC440V	50/60Hz	1x1b	1346001300
	Screw	AC500V	50/60Hz	1x1b	1346001400
	Screw	AC120V	50/60Hz	1x1b	1346001500
	Screw	AC24V	50Hz	1x1b	1346001600
	Screw	AC36V	50Hz	1x1b	1346001700
	Screw	AC48V	50Hz	1x1b	1346001800
	Screw	AC60V	50Hz	1x1b	1346001900
	Screw	AC72V	50Hz	1x1b	1346002000
	Screw	AC96V	50Hz	1x1b	1346002100
	Screw	AC110V	50Hz	1x1b	1346002200
	Screw	AC220V	50Hz	1x1b	1346002300
	Screw	AC230V	50Hz	1x1b	1346002400
	Screw	AC240V	50Hz	1x1b	1346002500
	Screw	AC280V	50Hz	1x1b	1346002600
	Screw	AC300V	50Hz	1x1b	1346002700
	Screw	AC415V	50Hz	1x1b	1346002800
	Screw	AC440V	50Hz	1x1b	1346002900
	Screw	AC500V	50Hz	1x1b	1346003000
	Screw	AC120V	50Hz	1x1b	1346003100
	Screw	AC24V	50Hz	1x1b	1346003200
	Screw	AC36V	50Hz	1x1b	1346003300
	Screw	AC48V	50Hz	1x1b	1346003400
	Screw	AC60V	50Hz	1x1b	1346003500
	Screw	AC72V	50Hz	1x1b	1346003600
	Screw	AC96V	50Hz	1x1b	1346003700
	Screw	AC110V	50Hz	1x1b	1346003800
	Screw	AC120V	50Hz	1x1b	1346003900
	Screw	AC180V	50Hz	1x1b	1346004000
	Screw	AC200V	50Hz	1x1b	1346004100
	Screw	AC220V	50Hz	1x1b	1346004200
	Screw	AC230V	50Hz	1x1b	1346004300
	Screw	AC240V	50Hz	1x1b	1346004400
	Screw	AC280V	50Hz	1x1b	1346004500
	Screw	AC300V	50Hz	1x1b	1346004600
	Screw	AC100V, 110V	50Hz, 60Hz	1x1b	1346004700
	Screw	AC110V, 120V	50Hz, 60Hz	1x1b	1346004800
	Screw	AC200V, 220V	50Hz, 60Hz	1x1b	1346004900
	Screw	AC240V, 277V	50Hz, 60Hz	1x1b	1346005000
	Screw	DC12V	-	1x1b	1346005100
	Screw	DC24V	-	1x1b	1346005200
	Screw	DC36V	-	1x1b	1346005300
	Screw	DC48V	-	1x1b	1346005400
	Screw	DC60V	-	1x1b	1346005500
	Screw	DC72V	-	1x1b	1346005600
	Screw	DC96V	-	1x1b	1346005700
	Screw	DC110V	-	1x1b	1346005800
	Screw	DC120V	-	1x1b	1346005900
	Screw	DC200V	-	1x1b	1346006000
	Screw	DC250V	-	1x1b	1346006100
	Screw	DC300V	-	1x1b	1346006200

MC-18b

Contactors

MC-22b screw only type



22AF

Model	Terminal type	Rated Voltage	Frequency	App. Contact	Code
	Screw	AC24V	50/60Hz	14b	1347000100
	Screw	AC48V	50/60Hz	14b	1347000100
	Screw	AC100V	50/60Hz	14b	1347000100
	Screw	AC110V	50/60Hz	14b	1347000100
	Screw	AC120V	50/60Hz	14b	1347000100
	Screw	AC220V	50/60Hz	14b	1347000100
	Screw	AC230V	50/60Hz	14b	1347000100
	Screw	AC240V	50/60Hz	14b	1347000100
	Screw	AC280V	50/60Hz	14b	1347000100
	Screw	AC400V	50/60Hz	14b	1347000100
	Screw	AC415V	50/60Hz	14b	1347000100
	Screw	AC440V	50/60Hz	14b	1347000100
	Screw	AC500V	50/60Hz	14b	1347000100
	Screw	AC60V	50Hz	14b	1347000100
	Screw	AC36V	50Hz	14b	1347000100
	Screw	AC42V	50Hz	14b	1347000100
	Screw	AC48V	50Hz	14b	1347000100
	Screw	AC24V	50Hz	14b	1347000100
	Screw	AC36V	50Hz	14b	1347000100
	Screw	AC42V	50Hz	14b	1347000100
	Screw	AC48V	50Hz	14b	1347000100
	Screw	AC100V	50Hz	14b	1347000100
	Screw	AC110V	50Hz	14b	1347000100
	Screw	AC220V	50Hz	14b	1347000100
	Screw	AC230V	50Hz	14b	1347000100
	Screw	AC240V	50Hz	14b	1347000100
	Screw	AC280V	50Hz	14b	1347000100
	Screw	AC400V	50Hz	14b	1347000100
	Screw	AC415V	50Hz	14b	1347000100
	Screw	AC440V	50Hz	14b	1347000100
	Screw	AC500V	50Hz	14b	1347000100
	Screw	AC60V	50Hz	14b	1347000100
	Screw	AC36V	50Hz	14b	1347000100
	Screw	AC42V	50Hz	14b	1347000100
	Screw	AC48V	50Hz	14b	1347000100
	Screw	AC100V	50Hz	14b	1347000100
	Screw	AC110V	50Hz	14b	1347000100
	Screw	AC120V	50Hz	14b	1347000100
	Screw	AC180V	50Hz	14b	1347000100
	Screw	AC200V	50Hz	14b	1347000100
	Screw	AC220V	50Hz	14b	1347000100
	Screw	AC230V	50Hz	14b	1347000100
	Screw	AC240V	50Hz	14b	1347000100
	Screw	AC280V	50Hz	14b	1347000100
	Screw	AC400V	50Hz	14b	1347000100
	Screw	AC415V	50Hz	14b	1347000100
	Screw	AC440V	50Hz	14b	1347000100
	Screw	AC500V	50Hz	14b	1347000100
	Screw	AC100V, 110V	50Hz, 60Hz	14b	1347000100
	Screw	AC110V, 120V	50Hz, 60Hz	14b	1347000100
	Screw	AC200V, 220V	50Hz, 60Hz	14b	1347000100
	Screw	AC240V, 277V	50Hz, 60Hz	14b	1347000100
	Screw	DC12V	-	14b	1347000100
	Screw	DC24V	-	14b	1347000100
	Screw	DC48V	-	14b	1347000100
	Screw	DC60V	-	14b	1347000100
	Screw	DC72V	-	14b	1347000100
	Screw	DC96V	-	14b	1347000100
	Screw	DC100V	-	14b	1347000100
	Screw	DC110V	-	14b	1347000100
	Screw	DC125V	-	14b	1347000100
	Screw	DC200V	-	14b	1347000100
	Screw	DC250V	-	14b	1347000100
	Screw	DC300V	-	14b	1347000100

MC-22b

Contactors

MC-32a screw only type



40AF

Model	Terminal type	Coil Voltage	Frequency	Aux. Contact	Code
	Screw	AC24V	50/60Hz	-	1338000100
	Screw	AC48V	50/60Hz	-	1338000200
	Screw	AC100V	50/60Hz	-	1338000300
	Screw	AC110V	50/60Hz	-	1338000400
	Screw	AC120V	50/60Hz	-	1338000500
	Screw	AC200V	50/60Hz	-	1338000600
	Screw	AC220V	50/60Hz	-	1338000700
	Screw	AC230V	50/60Hz	-	1338000800
	Screw	AC240V	50/60Hz	-	1338000900
	Screw	AC280V	50/60Hz	-	1338001000
	Screw	AC400V	50/60Hz	-	1338001100
	Screw	AC415V	50/60Hz	-	1338001200
	Screw	AC440V	50/60Hz	-	1338001300
	Screw	AC500V	50/60Hz	-	1338001400
	Screw	AC120V	50/60Hz	-	1338001500
	Screw	AC24V	50Hz	-	1338001600
	Screw	AC36V	50Hz	-	1338001700
	Screw	AC48V	50Hz	-	1338001800
	Screw	AC60V	50Hz	-	1338001900
	Screw	AC80V	50Hz	-	1338002000
	Screw	AC100V	50Hz	-	1338002100
	Screw	AC110V	50Hz	-	1338002200
	Screw	AC200V	50Hz	-	1338002300
	Screw	AC220V	50Hz	-	1338002400
	Screw	AC240V	50Hz	-	1338002500
	Screw	AC280V	50Hz	-	1338002600
	Screw	AC400V	50Hz	-	1338002700
	Screw	AC415V	50Hz	-	1338002800
	Screw	AC440V	50Hz	-	1338002900
	Screw	AC500V	50Hz	-	1338003000
	Screw	AC120V	50Hz	-	1338003100
	Screw	AC24V	50Hz	-	1338003200
	Screw	AC36V	50Hz	-	1338003300
	Screw	AC48V	50Hz	-	1338003400
	Screw	AC60V	50Hz	-	1338003500
	Screw	AC80V	50Hz	-	1338003600
	Screw	AC100V	50Hz	-	1338003700
	Screw	AC110V	50Hz	-	1338003800
	Screw	AC120V	50Hz	-	1338003900
	Screw	AC180V	50Hz	-	1338004000
	Screw	AC200V	50Hz	-	1338004100
	Screw	AC220V	50Hz	-	1338004200
	Screw	AC240V	50Hz	-	1338004300
	Screw	AC280V	50Hz	-	1338004400
	Screw	AC400V	50Hz	-	1338004500
	Screw	AC415V	50Hz	-	1338004600
	Screw	AC500V	50Hz	-	1338004700
	Screw	AC100V, 110V	50Hz, 60Hz	-	1338004800
	Screw	AC110V, 120V	60Hz, 60Hz	-	1338004900
	Screw	AC200V, 220V	60Hz, 60Hz	-	1338005000
	Screw	AC380V, 377V	60Hz, 60Hz	-	1338005100
	Screw	DC12V	-	-	1338005200
	Screw	DC24V	-	-	1338005300
	Screw	DC48V	-	-	1338005400
	Screw	DC60V	-	-	1338005500
	Screw	DC80V	-	-	1338005600
	Screw	DC100V	-	-	1338005700
	Screw	DC110V	-	-	1338005800
	Screw	DC120V	-	-	1338005900
	Screw	DC200V	-	-	1338006000
	Screw	DC250V	-	-	1338006100
	Screw	DC300V	-	-	1338006200

MC-32a

Contactors

MC-32a screw only type



40AF

Model	Terminal type	Rated Voltage	Frequency	App. Contact	Code
	Screw	AC24V	50/60Hz	1x1x1	1036006300
	Screw	AC48V	50/60Hz	1x1x1	1036006400
	Screw	AC100V	50/60Hz	1x1x1	1036006500
	Screw	AC110V	50/60Hz	1x1x1	1036006600
	Screw	AC120V	50/60Hz	1x1x1	1036006700
	Screw	AC200V	50/60Hz	1x1x1	1036006800
	Screw	AC220V	50/60Hz	1x1x1	1036006900
	Screw	AC230V	50/60Hz	1x1x1	1036007000
	Screw	AC240V	50/60Hz	1x1x1	1036007100
	Screw	AC280V	50/60Hz	1x1x1	1036007200
	Screw	AC400V	50/60Hz	1x1x1	1036007300
	Screw	AC415V	50/60Hz	1x1x1	1036007400
	Screw	AC440V	50/60Hz	1x1x1	1036007500
	Screw	AC500V	50/60Hz	1x1x1	1036007600
	Screw	AC60V	50Hz	1x1x1	1036007900
	Screw	AC36V	50Hz	1x1x1	1036007000
	Screw	AC42V	50Hz	1x1x1	1036008000
	Screw	AC44V	50Hz	1x1x1	1036008100
	Screw	AC50V	50Hz	1x1x1	1036008200
	Screw	AC100V	50Hz	1x1x1	1036008300
	Screw	AC110V	50Hz	1x1x1	1036008400
	Screw	AC220V	50Hz	1x1x1	1036008500
	Screw	AC230V	50Hz	1x1x1	1036008600
	Screw	AC240V	50Hz	1x1x1	1036008700
	Screw	AC280V	50Hz	1x1x1	1036008800
	Screw	AC400V	50Hz	1x1x1	1036008900
	Screw	AC415V	50Hz	1x1x1	1036009000
	Screw	AC440V	50Hz	1x1x1	1036009100
	Screw	AC500V	50Hz	1x1x1	1036009200
	Screw	AC60V	50Hz	1x1x1	1036009300
	Screw	AC36V	50Hz	1x1x1	1036009400
	Screw	AC100V	60Hz	1x1x1	1036009600
	Screw	AC110V	60Hz	1x1x1	1036009700
	Screw	AC120V	60Hz	1x1x1	1036009800
	Screw	AC180V	60Hz	1x1x1	1036009900
	Screw	AC200V	60Hz	1x1x1	1036010000
	Screw	AC220V	60Hz	1x1x1	1036010100
	Screw	AC230V	60Hz	1x1x1	1036010200
	Screw	AC240V	60Hz	1x1x1	1036010300
	Screw	AC277V	60Hz	1x1x1	1036010400
	Screw	AC380V	60Hz	1x1x1	1036010500
	Screw	AC480V	60Hz	1x1x1	1036010600
	Screw	AC500V	60Hz	1x1x1	1036010700
	Screw	AC500V	60Hz	1x1x1	1036010800
	Screw	AC100V, 110V	50Hz, 60Hz	1x1x1	1036010900
	Screw	AC110V, 120V	50Hz, 60Hz	1x1x1	1036011000
	Screw	AC200V, 220V	50Hz, 60Hz	1x1x1	1036011100
	Screw	AC200V, 277V	50Hz, 60Hz	1x1x1	1036011200
	Screw	DC12V	-	1x1x1	1036011300
	Screw	DC24V	-	1x1x1	1036011400
	Screw	DC48V	-	1x1x1	1036011500
	Screw	DC60V	-	1x1x1	1036011600
	Screw	DC75V	-	1x1x1	1036011700
	Screw	DC100V	-	1x1x1	1036011800
	Screw	DC110V	-	1x1x1	1036011900
	Screw	DC125V	-	1x1x1	1036012000
	Screw	DC150V	-	1x1x1	1036012100
	Screw	DC200V	-	1x1x1	1036012200
	Screw	DC250V	-	1x1x1	1036012300
	Screw	DC350V	-	1x1x1	1036012400

MC-32a

Contactors

MC-32a screw only type



40AF

Model	Terminal type	Coil Voltage	Frequency	Aux. Contact	Code
	Screw	AC24V	50/60Hz	2x2b	1338012500
	Screw	AC48V	50/60Hz	2x2b	1338012600
	Screw	AC100V	50/60Hz	2x2b	1338012700
	Screw	AC110V	50/60Hz	2x2b	1338012800
	Screw	AC120V	50/60Hz	2x2b	1338012900
	Screw	AC200V	50/60Hz	2x2b	1338013000
	Screw	AC220V	50/60Hz	2x2b	1338013100
	Screw	AC230V	50/60Hz	2x2b	1338013200
	Screw	AC240V	50/60Hz	2x2b	1338013300
	Screw	AC280V	50/60Hz	2x2b	1338013400
	Screw	AC400V	50/60Hz	2x2b	1338013500
	Screw	AC415V	50/60Hz	2x2b	1338013600
	Screw	AC440V	50/60Hz	2x2b	1338013700
	Screw	AC500V	50/60Hz	2x2b	1338013800
	Screw	AC550V	50Hz	2x2b	1338014000
	Screw	AC56V	50Hz	2x2b	1338014100
	Screw	AC42V	50Hz	2x2b	1338014200
	Screw	AC48V	50Hz	2x2b	1338014300
	Screw	AC60V	50Hz	2x2b	1338014400
	Screw	AC100V	50Hz	2x2b	1338014500
	Screw	AC110V	50Hz	2x2b	1338014600
	Screw	AC200V	50Hz	2x2b	1338014700
	Screw	AC220V	50Hz	2x2b	1338014800
	Screw	AC240V	50Hz	2x2b	1338014900
	Screw	AC280V	50Hz	2x2b	1338015000
	Screw	AC400V	50Hz	2x2b	1338015100
	Screw	AC415V	50Hz	2x2b	1338015200
	Screw	AC440V	50Hz	2x2b	1338015300
	Screw	AC500V	50Hz	2x2b	1338015400
	Screw	AC550V	50Hz	2x2b	1338015500
	Screw	AC56V	50Hz	2x2b	1338015600
	Screw	AC42V	50Hz	2x2b	1338015700
	Screw	AC48V	50Hz	2x2b	1338015800
	Screw	AC60V	50Hz	2x2b	1338015900
	Screw	AC100V	50Hz	2x2b	1338016000
	Screw	AC110V	50Hz	2x2b	1338016100
	Screw	AC120V	50Hz	2x2b	1338016200
	Screw	AC200V	50Hz	2x2b	1338016300
	Screw	AC220V	50Hz	2x2b	1338016400
	Screw	AC240V	50Hz	2x2b	1338016500
	Screw	AC277V	50Hz	2x2b	1338016600
	Screw	AC380V	50Hz	2x2b	1338016700
	Screw	AC440V	50Hz	2x2b	1338016800
	Screw	AC100V	50Hz	2x2b	1338016900
	Screw	AC500V	50Hz	2x2b	1338017000
	Screw	AC100V, 110V	50Hz, 60Hz	2x2b	1338017100
	Screw	AC110V, 120V	50Hz, 60Hz	2x2b	1338017200
	Screw	AC200V, 220V	50Hz, 60Hz	2x2b	1338017300
	Screw	AC280V, 277V	50Hz, 60Hz	2x2b	1338017400
	Screw	DC12V	-	2x2b	1338017500
	Screw	DC24V	-	2x2b	1338017600
	Screw	DC48V	-	2x2b	1338017700
	Screw	DC60V	-	2x2b	1338017800
	Screw	DC80V	-	2x2b	1338017900
	Screw	DC100V	-	2x2b	1338018000
	Screw	DC110V	-	2x2b	1338018100
	Screw	DC120V	-	2x2b	1338018200
	Screw	DC200V	-	2x2b	1338018300
	Screw	DC220V	-	2x2b	1338018400
	Screw	DC240V	-	2x2b	1338018500
	Screw	DC251V	-	2x2b	1338018600

MC-32a

Contactors

MC-40a screw only type



40AF

Model	Terminal type	Rated Voltage	Frequency	App. Contact	Code
MC-40a	Screw	AC24V	50/60Hz	—	1337000100
	Screw	AC36V	50/60Hz	—	1337000200
	Screw	AC100V	50/60Hz	—	1337000300
	Screw	AC110V	50/60Hz	—	1337000400
	Screw	AC120V	50/60Hz	—	1337000500
	Screw	AC180V	50/60Hz	—	1337000600
	Screw	AC200V	50/60Hz	—	1337000700
	Screw	AC220V	50/60Hz	—	1337000800
	Screw	AC240V	50/60Hz	—	1337000900
	Screw	AC260V	50/60Hz	—	1337001000
	Screw	AC300V	50/60Hz	—	1337001100
	Screw	AC310V	50/60Hz	—	1337001200
	Screw	AC440V	50/60Hz	—	1337001300
	Screw	AC500V	50/60Hz	—	1337001400
	Screw	AC550V	50/60Hz	—	1337001500
	Screw	AC6V	60Hz	—	1337001600
	Screw	AC12V	60Hz	—	1337001700
	Screw	AC24V	60Hz	—	1337001800
	Screw	AC36V	60Hz	—	1337001900
	Screw	AC40V	60Hz	—	1337002000
	Screw	AC50V	60Hz	—	1337002100
	Screw	AC60V	60Hz	—	1337002200
	Screw	AC70V	60Hz	—	1337002300
	Screw	AC80V	60Hz	—	1337002400
	Screw	AC90V	60Hz	—	1337002500
	Screw	AC100V	60Hz	—	1337002600
	Screw	AC110V	60Hz	—	1337002700
	Screw	AC120V	60Hz	—	1337002800
	Screw	AC130V	60Hz	—	1337002900
	Screw	AC140V	60Hz	—	1337003000
	Screw	AC150V	60Hz	—	1337003100
	Screw	AC160V	60Hz	—	1337003200
	Screw	AC180V	60Hz	—	1337003300
	Screw	AC200V	60Hz	—	1337003400
	Screw	AC220V	60Hz	—	1337003500
	Screw	AC240V	60Hz	—	1337003600
	Screw	AC260V	60Hz	—	1337003700
	Screw	AC280V	60Hz	—	1337003800
	Screw	AC300V	60Hz	—	1337003900
	Screw	AC320V	60Hz	—	1337004000
Screw	AC340V	60Hz	—	1337004100	
Screw	AC370V	60Hz	—	1337004200	
Screw	AC400V	60Hz	—	1337004300	
Screw	AC450V	60Hz	—	1337004400	
Screw	AC500V	60Hz	—	1337004500	
Screw	AC100V, 110V	50Hz, 60Hz	—	1337004700	
Screw	AC110V, 120V	50Hz, 60Hz	—	1337004800	
Screw	AC200V, 220V	50Hz, 60Hz	—	1337004900	
Screw	AC300V, 370V	50Hz, 60Hz	—	1337005000	
Screw	DC12V	—	—	1337005100	
Screw	DC24V	—	—	1337005200	
Screw	DC36V	—	—	1337005300	
Screw	DC48V	—	—	1337005400	
Screw	DC60V	—	—	1337005500	
Screw	DC70V	—	—	1337005600	
Screw	DC80V	—	—	1337005700	
Screw	DC100V	—	—	1337005800	
Screw	DC110V	—	—	1337005900	
Screw	DC120V	—	—	1337006000	
Screw	DC150V	—	—	1337006100	
Screw	DC180V	—	—	1337006200	
Screw	DC200V	—	—	1337006300	
Screw	DC250V	—	—	1337006400	
Screw	DC300V	—	—	1337006500	
Screw	DC350V	—	—	1337006600	

Contactors

MC-40a screw only type



40AF

Model	Terminal type	Coil Voltage	Frequency	Act. Contact	Code
MC-40a	Screw	AC24V	50/60Hz	1a1b	1307006300
	Screw	AC48V	50/60Hz	1a1b	1307006400
	Screw	AC100V	50/60Hz	1a1b	1307006500
	Screw	AC110V	50/60Hz	1a1b	1307006600
	Screw	AC120V	50/60Hz	1a1b	1307006700
	Screw	AC180V	50/60Hz	1a1b	1307006800
	Screw	AC220V	50/60Hz	1a1b	1307006900
	Screw	AC230V	50/60Hz	1a1b	1307007000
	Screw	AC240V	50/60Hz	1a1b	1307007100
	Screw	AC280V	50/60Hz	1a1b	1307007200
	Screw	AC300V	50/60Hz	1a1b	1307007300
	Screw	AC400V	50/60Hz	1a1b	1307007400
	Screw	AC440V	50/60Hz	1a1b	1307007500
	Screw	AC500V	50/60Hz	1a1b	1307007600
	Screw	AC550V	50/60Hz	1a1b	1307007700
	Screw	AC6V	50Hz	1a1b	1307007800
	Screw	AC12V	50Hz	1a1b	13070078800
	Screw	AC36V	50Hz	1a1b	1307007900
	Screw	AC42V	50Hz	1a1b	1307008000
	Screw	AC48V	50Hz	1a1b	1307008100
	Screw	AC60V	50Hz	1a1b	1307008200
	Screw	AC100V	50Hz	1a1b	1307008300
	Screw	AC110V	50Hz	1a1b	1307008400
	Screw	AC200V	50Hz	1a1b	1307008500
	Screw	AC220V	50Hz	1a1b	1307008600
	Screw	AC240V	50Hz	1a1b	1307008700
	Screw	AC280V	50Hz	1a1b	1307008800
	Screw	AC300V	50Hz	1a1b	1307008900
	Screw	AC400V	50Hz	1a1b	1307009000
	Screw	AC415V	50Hz	1a1b	1307009100
	Screw	AC440V	50Hz	1a1b	1307009200
	Screw	AC500V	50Hz	1a1b	1307009300
	Screw	AC24V	50Hz	1a1b	1307009400
	Screw	AC48V	60Hz	1a1b	1307009500
	Screw	AC100V	60Hz	1a1b	1307009600
	Screw	AC110V	60Hz	1a1b	1307009700
	Screw	AC120V	60Hz	1a1b	1307009800
	Screw	AC200V	60Hz	1a1b	1307009900
	Screw	AC220V	60Hz	1a1b	1307010000
	Screw	AC240V	60Hz	1a1b	1307010100
Screw	AC280V	60Hz	1a1b	1307010200	
Screw	AC300V	60Hz	1a1b	1307010300	
Screw	AC400V	60Hz	1a1b	1307010400	
Screw	AC440V	60Hz	1a1b	1307010500	
Screw	AC500V	60Hz	1a1b	1307010600	
Screw	AC600V	60Hz	1a1b	1307010700	
Screw	AC660V	60Hz	1a1b	1307010800	
Screw	AC100V, 110V	50Hz, 60Hz	1a1b	1307010900	
Screw	AC110V, 120V	50Hz, 60Hz	1a1b	1307011000	
Screw	AC200V, 220V	50Hz, 60Hz	1a1b	1307011100	
Screw	AC200V, 220V	50Hz, 60Hz	1a1b	1307011200	
Screw	DC12V	-	1a1b	1307011300	
Screw	DC24V	-	1a1b	1307011400	
Screw	DC36V	-	1a1b	1307011500	
Screw	DC48V	-	1a1b	1307011600	
Screw	DC60V	-	1a1b	1307011700	
Screw	DC80V	-	1a1b	1307011800	
Screw	DC100V	-	1a1b	1307011900	
Screw	DC110V	-	1a1b	1307012000	
Screw	DC125V	-	1a1b	1307012100	
Screw	DC200V	-	1a1b	1307012200	
Screw	DC240V	-	1a1b	1307012300	
Screw	DC300V	-	1a1b	1307012400	

Contactors

MC-40a screw only type



40AF

Model	Terminal type	Rated Voltage	Frequency	App. Contact	Code
MC-40a	Screw	AC24V	50/60Hz	2x25	1337H12500
	Screw	AC48V	50/60Hz	2x25	1337H12600
	Screw	AC100V	50/60Hz	2x25	1337H12700
	Screw	AC110V	50/60Hz	2x25	1337H12800
	Screw	AC120V	50/60Hz	2x25	1337H12900
	Screw	AC150V	50/60Hz	2x25	1337H13000
	Screw	AC200V	50/60Hz	2x25	1337H13100
	Screw	AC230V	50/60Hz	2x25	1337H13200
	Screw	AC240V	50/60Hz	2x25	1337H13300
	Screw	AC250V	50/60Hz	2x25	1337H13400
	Screw	AC280V	50/60Hz	2x25	1337H13500
	Screw	AC300V	50/60Hz	2x25	1337H13600
	Screw	AC310V	50/60Hz	2x25	1337H13700
	Screw	AC440V	50/60Hz	2x25	1337H13700
	Screw	AC500V	50/60Hz	2x25	1337H13800
	Screw	AC550V	50/60Hz	2x25	1337H13900
	Screw	AC60V	60Hz	2x25	1337H14000
	Screw	AC70V	60Hz	2x25	1337H14100
	Screw	AC80V	60Hz	2x25	1337H14200
	Screw	AC90V	60Hz	2x25	1337H14300
	Screw	AC100V	60Hz	2x25	1337H14400
	Screw	AC110V	60Hz	2x25	1337H14500
	Screw	AC120V	60Hz	2x25	1337H14600
	Screw	AC130V	60Hz	2x25	1337H14700
	Screw	AC140V	60Hz	2x25	1337H14800
	Screw	AC150V	60Hz	2x25	1337H14900
	Screw	AC160V	60Hz	2x25	1337H15000
	Screw	AC170V	60Hz	2x25	1337H15100
	Screw	AC180V	60Hz	2x25	1337H15200
	Screw	AC190V	60Hz	2x25	1337H15300
	Screw	AC200V	60Hz	2x25	1337H15400
	Screw	AC230V	60Hz	2x25	1337H15500
	Screw	AC240V	60Hz	2x25	1337H15600
	Screw	AC250V	60Hz	2x25	1337H15700
	Screw	AC280V	60Hz	2x25	1337H15800
	Screw	AC300V	60Hz	2x25	1337H15900
	Screw	AC310V	60Hz	2x25	1337H16000
	Screw	AC330V	60Hz	2x25	1337H16100
	Screw	AC350V	60Hz	2x25	1337H16200
	Screw	AC370V	60Hz	2x25	1337H16300
	Screw	AC380V	60Hz	2x25	1337H16400
	Screw	AC400V	60Hz	2x25	1337H16500
	Screw	AC440V	60Hz	2x25	1337H16600
	Screw	AC500V	60Hz	2x25	1337H16700
	Screw	AC550V	60Hz	2x25	1337H16800
	Screw	AC600V	60Hz	2x25	1337H16900
	Screw	AC100V 110V	50/60 Hz	2x25	1337H17100
	Screw	AC110V 120V	50/60 Hz	2x25	1337H17200
	Screw	AC200V 230V	50/60 Hz	2x25	1337H17300
	Screw	AC300V 370V	50/60 Hz	2x25	1337H17400
Screw	DC12V	-	2x25	1337H17500	
Screw	DC24V	-	2x25	1337H17600	
Screw	DC48V	-	2x25	1337H17700	
Screw	DC60V	-	2x25	1337H17800	
Screw	DC80V	-	2x25	1337H17900	
Screw	DC100V	-	2x25	1337H18000	
Screw	DC110V	-	2x25	1337H18100	
Screw	DC120V	-	2x25	1337H18200	
Screw	DC240V	-	2x25	1337H18300	
Screw	DC300V	-	2x25	1337H18400	
Screw	DC350V	-	2x25	1337H18500	
Screw	DC500V	-	2x25	1337H18600	

Contactors

MC-50a screw only type



65AF

Model	Terminal type	Coil Voltage	Frequency	Act. Contact	Code
MC-50a	Screw	AC24V	50/60Hz	-	1338000100
	Screw	AC48V	50/60Hz	-	1338000200
	Screw	AC100V	50/60Hz	-	1338000300
	Screw	AC110V	50/60Hz	-	1338000400
	Screw	AC120V	50/60Hz	-	1338000500
	Screw	AC200V	50/60Hz	-	1338000600
	Screw	AC220V	50/60Hz	-	1338000700
	Screw	AC230V	50/60Hz	-	1338000800
	Screw	AC240V	50/60Hz	-	1338000900
	Screw	AC280V	50/60Hz	-	1338001000
	Screw	AC300V	50/60Hz	-	1338001100
	Screw	AC415V	50/60Hz	-	1338001200
	Screw	AC440V	50/60Hz	-	1338001300
	Screw	AC100V	50/60Hz	-	1338018800
	Screw	AC120V	50/60Hz	-	1338001500
	Screw	AC24V	50Hz	-	1338001600
	Screw	AC36V	50Hz	-	1338001700
	Screw	AC48V	50Hz	-	1338001800
	Screw	AC60V	50Hz	-	1338001900
	Screw	AC80V	50Hz	-	1338002000
	Screw	AC100V	50Hz	-	1338002100
	Screw	AC110V	50Hz	-	1338002200
	Screw	AC200V	50Hz	-	1338002300
	Screw	AC220V	50Hz	-	1338002400
	Screw	AC240V	50Hz	-	1338002500
	Screw	AC300V	50Hz	-	1338002600
	Screw	AC360V	50Hz	-	1338002700
	Screw	AC415V	50Hz	-	1338002800
	Screw	AC440V	50Hz	-	1338002900
	Screw	AC100V	50Hz	-	1338018900
Screw	AC24V	50Hz	-	1338003000	
Screw	AC36V	50Hz	-	1338003100	
Screw	AC48V	50Hz	-	1338003200	
Screw	AC100V	50Hz	-	1338003300	
Screw	AC110V	50Hz	-	1338003400	
Screw	AC120V	50Hz	-	1338003500	
Screw	AC180V	50Hz	-	1338003600	
Screw	AC200V	50Hz	-	1338003700	
Screw	AC220V	50Hz	-	1338003800	
Screw	AC240V	50Hz	-	1338003900	
Screw	AC280V	50Hz	-	1338004000	
Screw	AC300V	50Hz	-	1338004100	
Screw	AC370V	50Hz	-	1338004200	
Screw	AC380V	50Hz	-	1338004300	
Screw	AC440V	50Hz	-	1338004400	
Screw	AC100V	50Hz	-	1338004500	
Screw	AC200V	50Hz	-	1338004600	
Screw	AC100V, 110V	50Hz, 60Hz	-	1338004700	
Screw	AC110V, 120V	60Hz, 60Hz	-	1338004800	
Screw	AC200V, 220V	60Hz, 60Hz	-	1338004900	
Screw	AC380V, 377V	60Hz, 60Hz	-	1338005000	
Screw	DC12V	-	-	1338005100	
Screw	DC24V	-	-	1338005200	
Screw	DC36V	-	-	1338005300	
Screw	DC48V	-	-	1338005400	
Screw	DC60V	-	-	1338005500	
Screw	DC80V	-	-	1338005600	
Screw	DC100V	-	-	1338005700	
Screw	DC110V	-	-	1338005800	
Screw	DC120V	-	-	1338005900	
Screw	DC200V	-	-	1338006000	
Screw	DC250V	-	-	1338006100	
Screw	DC300V	-	-	1338006200	

Contactors

MC-50a screw only type



65AF

Model	Terminal type	Cat. Voltage	Frequency	Act. Contact	Code
	Screw	AC24V	50/60Hz	2x2x	1338012500
	Screw	AC48V	50/60Hz	2x2x	1338012600
	Screw	AC100V	50/60Hz	2x2x	1338012700
	Screw	AC110V	50/60Hz	2x2x	1338012800
	Screw	AC120V	50/60Hz	2x2x	1338012900
	Screw	AC200V	50/60Hz	2x2x	1338013000
	Screw	AC220V	50/60Hz	2x2x	1338013100
	Screw	AC230V	50/60Hz	2x2x	1338013200
	Screw	AC240V	50/60Hz	2x2x	1338013300
	Screw	AC280V	50/60Hz	2x2x	1338013400
	Screw	AC300V	50/60Hz	2x2x	1338013500
	Screw	AC415V	50/60Hz	2x2x	1338013600
	Screw	AC440V	50/60Hz	2x2x	1338013700
	Screw	AC480V	50/60Hz	2x2x	1338013800
	Screw	AC500V	50/60Hz	2x2x	1338013900
	Screw	AC24V	50Hz	2x2x	1338014000
	Screw	AC36V	50Hz	2x2x	1338014100
	Screw	AC42V	50Hz	2x2x	1338014200
	Screw	AC48V	50Hz	2x2x	1338014300
	Screw	AC60V	50Hz	2x2x	1338014400
	Screw	AC100V	50Hz	2x2x	1338014500
	Screw	AC110V	50Hz	2x2x	1338014600
	Screw	AC200V	50Hz	2x2x	1338014700
	Screw	AC220V	50Hz	2x2x	1338014800
	Screw	AC240V	50Hz	2x2x	1338014900
	Screw	AC280V	50Hz	2x2x	1338015000
	Screw	AC300V	50Hz	2x2x	1338015100
	Screw	AC415V	50Hz	2x2x	1338015200
	Screw	AC440V	50Hz	2x2x	1338015300
	Screw	AC480V	50Hz	2x2x	1338015400
	Screw	AC500V	50Hz	2x2x	1338015500
	Screw	AC24V	50Hz	2x2x	1338015600
	Screw	AC36V	50Hz	2x2x	1338015700
	Screw	AC42V	50Hz	2x2x	1338015800
	Screw	AC48V	50Hz	2x2x	1338015900
	Screw	AC60V	50Hz	2x2x	1338016000
	Screw	AC100V	50Hz	2x2x	1338016100
	Screw	AC110V	50Hz	2x2x	1338016200
	Screw	AC200V	50Hz	2x2x	1338016300
	Screw	AC220V	50Hz	2x2x	1338016400
	Screw	AC240V	50Hz	2x2x	1338016500
	Screw	AC277V	50Hz	2x2x	1338016600
	Screw	AC380V	50Hz	2x2x	1338016700
	Screw	AC440V	50Hz	2x2x	1338016800
	Screw	AC480V	50Hz	2x2x	1338016900
	Screw	AC500V	50Hz	2x2x	1338017000
	Screw	AC100V, 110V	50Hz, 60Hz	2x2x	1338017100
	Screw	AC110V, 120V	50Hz, 60Hz	2x2x	1338017200
	Screw	AC200V, 220V	50Hz, 60Hz	2x2x	1338017300
	Screw	AC280V, 277V	50Hz, 60Hz	2x2x	1338017400
	Screw	DC12V	-	2x2x	1338017500
	Screw	DC24V	-	2x2x	1338017600
	Screw	DC36V	-	2x2x	1338017700
	Screw	DC48V	-	2x2x	1338017800
	Screw	DC60V	-	2x2x	1338017900
	Screw	DC80V	-	2x2x	1338018000
	Screw	DC100V	-	2x2x	1338018100
	Screw	DC110V	-	2x2x	1338018200
	Screw	DC120V	-	2x2x	1338018300
	Screw	DC200V	-	2x2x	1338018400
	Screw	DC220V	-	2x2x	1338018500
	Screw	DC250V	-	2x2x	1338018600
	Screw	DC280V	-	2x2x	1338018700
	Screw	DC300V	-	2x2x	1338018800

MC-50a

Contactors

MC-65a screw only type

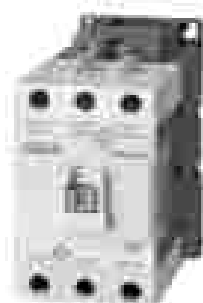


65AF

Model	Terminal type	Cont. Voltage	Frequency	Ass. Contact	Code
MC-65a	Screw	AC24V	50/60Hz	—	1320001100
	Screw	AC48V	50/60Hz	—	1320001200
	Screw	AC100V	50/60Hz	—	1320001300
	Screw	AC110V	50/60Hz	—	1320001400
	Screw	AC120V	50/60Hz	—	1320001500
	Screw	AC120V	50/60Hz	—	1320001600
	Screw	AC220V	50/60Hz	—	1320001700
	Screw	AC230V	50/60Hz	—	1320001800
	Screw	AC240V	50/60Hz	—	1320011000
	Screw	AC240V	50/60Hz	—	1320011100
	Screw	AC415V	50/60Hz	—	1320011200
	Screw	AC440V	50/60Hz	—	1320011300
	Screw	AC500V	50/60Hz	—	1320011400
	Screw	AC550V	50/60Hz	—	1320011500
	Screw	AC6V	50Hz	—	1320011600
	Screw	AC24V	50Hz	—	1320011700
	Screw	AC48V	50Hz	—	1320011800
	Screw	AC96V	50Hz	—	1320011900
	Screw	AC192V	50Hz	—	1320012000
	Screw	AC288V	50Hz	—	1320012100
	Screw	AC384V	50Hz	—	1320012200
	Screw	AC480V	50Hz	—	1320012300
	Screw	AC576V	50Hz	—	1320012400
	Screw	AC672V	50Hz	—	1320012500
	Screw	AC768V	50Hz	—	1320012600
	Screw	AC864V	50Hz	—	1320012700
	Screw	AC960V	50Hz	—	1320012800
	Screw	AC1056V	50Hz	—	1320012900
	Screw	AC1152V	50Hz	—	1320013000
	Screw	AC1248V	50Hz	—	1320013100
	Screw	AC1344V	50Hz	—	1320013200
	Screw	AC1440V	50Hz	—	1320013300
	Screw	AC1536V	50Hz	—	1320013400
	Screw	AC1632V	50Hz	—	1320013500
	Screw	AC1728V	50Hz	—	1320013600
	Screw	AC1824V	50Hz	—	1320013700
	Screw	AC1920V	50Hz	—	1320013800
	Screw	AC2016V	50Hz	—	1320013900
	Screw	AC2112V	50Hz	—	1320014000
	Screw	AC2208V	50Hz	—	1320014100
	Screw	AC2304V	50Hz	—	1320014200
	Screw	AC2400V	50Hz	—	1320014300
Screw	AC2496V	50Hz	—	1320014400	
Screw	AC2592V	50Hz	—	1320014500	
Screw	AC2688V	50Hz	—	1320014600	
Screw	AC2784V	50Hz	—	1320014700	
Screw	AC2880V	50Hz	—	1320014800	
Screw	AC2976V	50Hz	—	1320014900	
Screw	AC3072V	50Hz	—	1320015000	
Screw	DC12V	—	—	1320015100	
Screw	DC24V	—	—	1320015200	
Screw	DC48V	—	—	1320015300	
Screw	DC96V	—	—	1320015400	
Screw	DC192V	—	—	1320015500	
Screw	DC384V	—	—	1320015600	
Screw	DC768V	—	—	1320015700	
Screw	DC1536V	—	—	1320015800	
Screw	DC3072V	—	—	1320015900	
Screw	DC6144V	—	—	1320016000	

Contactors

MC-65a screw only type



65AF

Model	Terminal type	Coil Voltage	Frequency	Ass. Contact	Code
	Screw	AC24V	50/60Hz	1a1b	1339006300
	Screw	AC48V	50/60Hz	1a1b	1339006400
	Screw	AC100V	50/60Hz	1a1b	1339006500
	Screw	AC110V	50/60Hz	1a1b	1339006600
	Screw	AC120V	50/60Hz	1a1b	1339006700
	Screw	AC200V	50/60Hz	1a1b	1339006800
	Screw	AC220V	50/60Hz	1a1b	1339006900
	Screw	AC230V	50/60Hz	1a1b	1339007000
	Screw	AC240V	50/60Hz	1a1b	1339007100
	Screw	AC300V	50/60Hz	1a1b	1339007200
	Screw	AC400V	50/60Hz	1a1b	1339007300
	Screw	AC415V	50/60Hz	1a1b	1339007400
	Screw	AC440V	50/60Hz	1a1b	1339007500
	Screw	AC500V	50/60Hz	1a1b	1339007600
	Screw	AC120V	50/60Hz	1a1b	1339007700
	Screw	AC24V	50Hz	1a1b	1339007800
	Screw	AC36V	50Hz	1a1b	1339007900
	Screw	AC48V	50Hz	1a1b	1339008000
	Screw	AC60V	50Hz	1a1b	1339008100
	Screw	AC80V	50Hz	1a1b	1339008200
	Screw	AC100V	50Hz	1a1b	1339008300
	Screw	AC110V	50Hz	1a1b	1339008400
	Screw	AC200V	50Hz	1a1b	1339008500
	Screw	AC220V	50Hz	1a1b	1339008600
	Screw	AC240V	50Hz	1a1b	1339008700
	Screw	AC300V	50Hz	1a1b	1339008800
	Screw	AC400V	50Hz	1a1b	1339008900
	Screw	AC415V	50Hz	1a1b	1339009000
	Screw	AC440V	50Hz	1a1b	1339009100
	Screw	AC500V	50Hz	1a1b	1339009200
	Screw	AC120V	50Hz	1a1b	1339009300
	Screw	AC24V	50Hz	1a1b	1339009400
	Screw	AC36V	50Hz	1a1b	1339009500
	Screw	AC100V	50Hz	1a1b	1339009600
	Screw	AC110V	50Hz	1a1b	1339009700
	Screw	AC120V	50Hz	1a1b	1339009800
	Screw	AC180V	50Hz	1a1b	1339009900
	Screw	AC190V	50Hz	1a1b	1339010000
	Screw	AC200V	50Hz	1a1b	1339010100
	Screw	AC220V	50Hz	1a1b	1339010200
	Screw	AC240V	50Hz	1a1b	1339010300
	Screw	AC277V	50Hz	1a1b	1339010400
	Screw	AC380V	50Hz	1a1b	1339010500
	Screw	AC440V	50Hz	1a1b	1339010600
	Screw	AC100V	50Hz	1a1b	1339010700
	Screw	AC500V	50Hz	1a1b	1339010800
	Screw	AC100V, 110V	50Hz, 60Hz	1a1b	1339010900
	Screw	AC110V, 120V	50Hz, 60Hz	1a1b	1339011000
	Screw	AC200V, 220V	50Hz, 60Hz	1a1b	1339011100
	Screw	AC380V, 377V	50Hz, 60Hz	1a1b	1339011200
	Screw	DC12V	-	1a1b	1339011300
	Screw	DC24V	-	1a1b	1339011400
	Screw	DC48V	-	1a1b	1339011500
	Screw	DC60V	-	1a1b	1339011600
	Screw	DC80V	-	1a1b	1339011700
	Screw	DC100V	-	1a1b	1339011800
	Screw	DC110V	-	1a1b	1339011900
	Screw	DC120V	-	1a1b	1339012000
	Screw	DC200V	-	1a1b	1339012100
	Screw	DC220V	-	1a1b	1339012200
	Screw	DC240V	-	1a1b	1339012300
	Screw	DC250V	-	1a1b	1339012400

MC-65a

Contactors

MC-65a screw only type

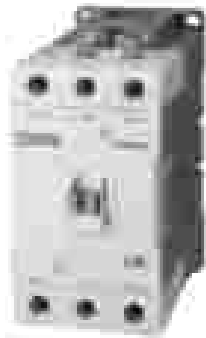


65AF

Model	Terminal type	Rated Voltage	Frequency	App. Contact	Code
MC-65a	Screw	AC24V	50/60Hz	2x25	132KH2400
	Screw	AC48V	50/60Hz	2x25	132KH2500
	Screw	AC100V	50/60Hz	2x25	132KH2700
	Screw	AC110V	50/60Hz	2x25	132KH2800
	Screw	AC120V	50/60Hz	2x25	132KH2900
	Screw	AC120V	50/60Hz	2x25	132KH3000
	Screw	AC220V	50/60Hz	2x25	132KH3100
	Screw	AC230V	50/60Hz	2x25	132KH3200
	Screw	AC240V	50/60Hz	2x25	132KH3300
	Screw	AC280V	50/60Hz	2x25	132KH3400
	Screw	AC400V	50/60Hz	2x25	132KH3500
	Screw	AC415V	50/60Hz	2x25	132KH3600
	Screw	AC440V	50/60Hz	2x25	132KH3700
	Screw	AC500V	50/60Hz	2x25	132KH3800
	Screw	AC60V	50Hz	2x25	132KH4000
	Screw	AC36V	50Hz	2x25	132KH4100
	Screw	AC42V	60Hz	2x25	132KH4200
	Screw	AC48V	60Hz	2x25	132KH4300
	Screw	AC50V	60Hz	2x25	132KH4400
	Screw	AC100V	60Hz	2x25	132KH4500
	Screw	AC110V	60Hz	2x25	132KH4600
	Screw	AC220V	60Hz	2x25	132KH4700
	Screw	AC230V	60Hz	2x25	132KH4800
	Screw	AC240V	60Hz	2x25	132KH4900
	Screw	AC280V	60Hz	2x25	132KH5000
	Screw	AC400V	60Hz	2x25	132KH5100
	Screw	AC415V	60Hz	2x25	132KH5200
	Screw	AC440V	60Hz	2x25	132KH5300
	Screw	AC500V	60Hz	2x25	132KH5400
	Screw	AC550V	60Hz	2x25	132KH5500
	Screw	AC60V	60Hz	2x25	132KH5600
	Screw	AC100V	60Hz	2x25	132KH5800
	Screw	AC110V	60Hz	2x25	132KH5900
	Screw	AC120V	60Hz	2x25	132KH6000
	Screw	AC180V	60Hz	2x25	132KH6100
	Screw	AC200V	60Hz	2x25	132KH6200
	Screw	AC220V	60Hz	2x25	132KH6300
	Screw	AC230V	60Hz	2x25	132KH6400
	Screw	AC240V	60Hz	2x25	132KH6500
	Screw	AC277V	60Hz	2x25	132KH6600
	Screw	AC380V	60Hz	2x25	132KH6700
	Screw	AC480V	60Hz	2x25	132KH6800
Screw	AC500V	60Hz	2x25	132KH6900	
Screw	AC500V	60Hz	2x25	132KH7000	
Screw	AC100V, 110V	50Hz, 60Hz	2x25	132KH7100	
Screw	AC110V, 120V	60Hz, 60Hz	2x25	132KH7200	
Screw	AC200V, 220V	60Hz, 60Hz	2x25	132KH7300	
Screw	AC200V, 277V	60Hz, 60Hz	2x25	132KH7400	
Screw	DC10V	-	2x25	132KH7500	
Screw	DC24V	-	2x25	132KH7600	
Screw	DC48V	-	2x25	132KH7700	
Screw	DC60V	-	2x25	132KH7800	
Screw	DC72V	-	2x25	132KH7900	
Screw	DC96V	-	2x25	132KH8000	
Screw	DC100V	-	2x25	132KH8100	
Screw	DC110V	-	2x25	132KH8200	
Screw	DC125V	-	2x25	132KH8300	
Screw	DC200V	-	2x25	132KH8400	
Screw	DC250V	-	2x25	132KH8500	
Screw	DC500V	-	2x25	132KH8600	

Contactors

MC-75a screw only type

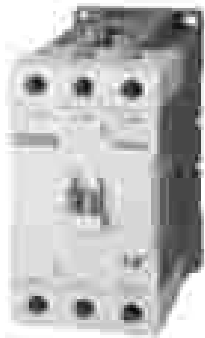


100&F

Model	Terminal type	Coil Voltage	Frequency	Act. Contact	Code
MC-75a	Screw	AC24V	50/60Hz	-	1340000100
	Screw	AC40V	50/60Hz	-	1340000200
	Screw	AC100V	50/60Hz	-	1340000300
	Screw	AC110V	50/60Hz	-	1340000400
	Screw	AC130V	50/60Hz	-	1340000500
	Screw	AC180V	50/60Hz	-	1340000600
	Screw	AC220V	50/60Hz	-	1340000700
	Screw	AC230V	50/60Hz	-	1340000800
	Screw	AC240V	50/60Hz	-	1340010100
	Screw	AC280V	50/60Hz	-	1340001100
	Screw	AC400V	50/60Hz	-	1340010000
	Screw	AC415V	50/60Hz	-	1340001200
	Screw	AC440V	50/60Hz	-	1340001300
	Screw	AC500V	50/60Hz	-	1340001400
	Screw	AC550V	50/60Hz	-	1340001500
	Screw	AC34V	50Hz	-	1340001600
	Screw	AC36V	50Hz	-	1340010700
	Screw	AC38V	50Hz	-	1340001700
	Screw	AC42V	50Hz	-	1340001800
	Screw	AC46V	50Hz	-	1340001900
	Screw	AC60V	50Hz	-	1340002000
	Screw	AC100V	50Hz	-	1340002100
	Screw	AC110V	50Hz	-	1340002200
	Screw	AC200V	50Hz	-	1340002300
	Screw	AC220V	50Hz	-	1340002400
	Screw	AC240V	50Hz	-	1340002500
	Screw	AC280V	50Hz	-	1340002600
	Screw	AC380V	50Hz	-	1340002700
	Screw	AC415V	50Hz	-	1340002800
	Screw	AC440V	50Hz	-	1340002900
	Screw	AC500V	50Hz	-	1340003000
	Screw	AC550V	50Hz	-	1340003100
	Screw	AC24V	50Hz	-	1340003200
	Screw	AC48V	50Hz	-	1340003300
	Screw	AC100V	50Hz	-	1340003400
	Screw	AC110V	50Hz	-	1340003500
	Screw	AC130V	50Hz	-	1340003600
	Screw	AC200V	50Hz	-	1340003700
	Screw	AC220V	50Hz	-	1340003800
	Screw	AC240V	50Hz	-	1340003900
	Screw	AC280V	50Hz	-	1340004000
	Screw	AC340V	50Hz	-	1340004100
	Screw	AC377V	50Hz	-	1340004200
	Screw	AC380V	50Hz	-	1340004300
	Screw	AC440V	50Hz	-	1340004400
	Screw	AC480V	50Hz	-	1340004500
	Screw	AC500V	50Hz	-	1340004600
	Screw	AC110V, 110V	50Hz, 60Hz	-	1340004700
	Screw	AC110V, 120V	50Hz, 60Hz	-	1340004800
	Screw	AC200V, 200V	50Hz, 60Hz	-	1340004900
Screw	AC380V, 377V	50Hz, 60Hz	-	1340005000	
Screw	DC12V	-	-	1340005100	
Screw	DC24V	-	-	1340005200	
Screw	DC36V	-	-	1340005300	
Screw	DC48V	-	-	1340005400	
Screw	DC60V	-	-	1340005500	
Screw	DC80V	-	-	1340005600	
Screw	DC100V	-	-	1340005700	
Screw	DC110V	-	-	1340005800	
Screw	DC125V	-	-	1340005900	
Screw	DC200V	-	-	1340006000	
Screw	DC250V	-	-	1340006100	
Screw	DC300V	-	-	1340006200	

Contactors

MC-75a screw only type



100AE

Model	Terminal type	Rated Voltage	Frequency	Act. Contact	Code
	Screw	AC24V	50/60Hz	1ph	1500006200
	Screw	AC48V	50/60Hz	1ph	1500006400
	Screw	AC100V	50/60Hz	1ph	1500006600
	Screw	AC110V	50/60Hz	1ph	1500006800
	Screw	AC120V	50/60Hz	1ph	1500007000
	Screw	AC200V	50/60Hz	1ph	1500008000
	Screw	AC220V	50/60Hz	1ph	1500008200
	Screw	AC240V	50/60Hz	1ph	1500008400
	Screw	AC280V	50/60Hz	1ph	1500008600
	Screw	AC300V	50/60Hz	1ph	1500008800
	Screw	AC415V	50/60Hz	1ph	1500009000
	Screw	AC440V	50/60Hz	1ph	1500009200
	Screw	AC500V	50/60Hz	1ph	1500009400
	Screw	AC550V	50/60Hz	1ph	1500009600
	Screw	AC60V	50Hz	1ph	1500009800
	Screw	AC70V	50Hz	1ph	1500010000
	Screw	AC96V	50Hz	1ph	1500010200
	Screw	AC100V	50Hz	1ph	1500010400
	Screw	AC110V	50Hz	1ph	1500010600
	Screw	AC120V	50Hz	1ph	1500010800
	Screw	AC150V	50Hz	1ph	1500011000
	Screw	AC160V	50Hz	1ph	1500011200
	Screw	AC180V	50Hz	1ph	1500011400
	Screw	AC200V	50Hz	1ph	1500011600
	Screw	AC220V	50Hz	1ph	1500011800
	Screw	AC240V	50Hz	1ph	1500012000
	Screw	AC280V	50Hz	1ph	1500012200
	Screw	AC300V	50Hz	1ph	1500012400
	Screw	AC415V	50Hz	1ph	1500012600
	Screw	AC440V	50Hz	1ph	1500012800
	Screw	AC500V	50Hz	1ph	1500013000
	Screw	AC550V	50Hz	1ph	1500013200
	Screw	AC60V	50Hz	1ph	1500013400
	Screw	AC70V	50Hz	1ph	1500013600
	Screw	AC96V	50Hz	1ph	1500013800
	Screw	AC100V	50Hz	1ph	1500014000
	Screw	AC110V	50Hz	1ph	1500014200
	Screw	AC120V	50Hz	1ph	1500014400
	Screw	AC150V	50Hz	1ph	1500014600
	Screw	AC160V	50Hz	1ph	1500014800
	Screw	AC180V	50Hz	1ph	1500015000
	Screw	AC200V	50Hz	1ph	1500015200
	Screw	AC220V	50Hz	1ph	1500015400
	Screw	AC240V	50Hz	1ph	1500015600
	Screw	DC12V	-	1ph	1500015800
	Screw	DC24V	-	1ph	1500016000
	Screw	DC48V	-	1ph	1500016200
	Screw	DC96V	-	1ph	1500016400
	Screw	DC100V	-	1ph	1500016600
	Screw	DC110V	-	1ph	1500016800
	Screw	DC120V	-	1ph	1500017000
	Screw	DC150V	-	1ph	1500017200
	Screw	DC160V	-	1ph	1500017400
	Screw	DC180V	-	1ph	1500017600
	Screw	DC200V	-	1ph	1500017800
	Screw	DC220V	-	1ph	1500018000
	Screw	DC240V	-	1ph	1500018200

MC-75a

Contactors

MC-75a screw only type

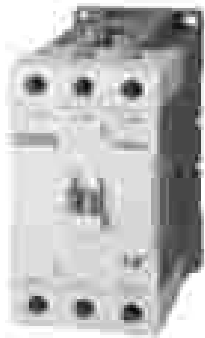


100&F

Model	Terminal type	Coil Voltage	Frequency	Act. Contact	Code
MC-75a	Screw	AC24V	50/60Hz	2/2b	1340012500
	Screw	AC48V	50/60Hz	2/2b	1340012600
	Screw	AC100V	50/60Hz	2/2b	1340012700
	Screw	AC110V	50/60Hz	2/2b	1340012800
	Screw	AC130V	50/60Hz	2/2b	1340012900
	Screw	AC180V	50/60Hz	2/2b	1340013000
	Screw	AC220V	50/60Hz	2/2b	1340013100
	Screw	AC230V	50/60Hz	2/2b	1340013200
	Screw	AC240V	50/60Hz	2/2b	1340013300
	Screw	AC280V	50/60Hz	2/2b	1340013400
	Screw	AC400V	50/60Hz	2/2b	1340013500
	Screw	AC415V	50/60Hz	2/2b	1340013600
	Screw	AC440V	50/60Hz	2/2b	1340013700
	Screw	AC500V	50/60Hz	2/2b	1340013800
	Screw	AC550V	50/60Hz	2/2b	1340013900
	Screw	AC6V	50Hz	2/2b	1340014000
	Screw	AC6V	50Hz	2/2b	1340014100
	Screw	AC6V	50Hz	2/2b	1340014200
	Screw	AC6V	50Hz	2/2b	1340014300
	Screw	AC6V	50Hz	2/2b	1340014400
	Screw	AC100V	50Hz	2/2b	1340014500
	Screw	AC110V	50Hz	2/2b	1340014600
	Screw	AC220V	50Hz	2/2b	1340014700
	Screw	AC230V	50Hz	2/2b	1340014800
	Screw	AC240V	50Hz	2/2b	1340014900
	Screw	AC280V	50Hz	2/2b	1340015000
	Screw	AC400V	50Hz	2/2b	1340015100
	Screw	AC415V	50Hz	2/2b	1340015200
	Screw	AC440V	50Hz	2/2b	1340015300
	Screw	AC500V	50Hz	2/2b	1340015400
	Screw	AC550V	50Hz	2/2b	1340015500
	Screw	AC24V	50Hz	2/2b	1340015600
	Screw	AC48V	50Hz	2/2b	1340015700
	Screw	AC100V	50Hz	2/2b	1340015800
	Screw	AC110V	50Hz	2/2b	1340015900
	Screw	AC130V	50Hz	2/2b	1340016000
	Screw	AC200V	50Hz	2/2b	1340016100
	Screw	AC220V	50Hz	2/2b	1340016200
	Screw	AC230V	50Hz	2/2b	1340016300
	Screw	AC240V	50Hz	2/2b	1340016400
	Screw	AC280V	50Hz	2/2b	1340016500
	Screw	AC277V	50Hz	2/2b	1340016600
	Screw	AC380V	50Hz	2/2b	1340016700
	Screw	AC440V	50Hz	2/2b	1340016800
	Screw	AC480V	50Hz	2/2b	1340016900
	Screw	AC600V	50Hz	2/2b	1340017000
	Screw	AC110V, 110V	50Hz, 60Hz	2/2b	1340017100
	Screw	AC110V, 120V	50Hz, 60Hz	2/2b	1340017200
	Screw	AC220V, 220V	50Hz, 60Hz	2/2b	1340017300
	Screw	AC240V, 277V	50Hz, 60Hz	2/2b	1340017400
Screw	DC12V	-	2/2b	1340017500	
Screw	DC24V	-	2/2b	1340017600	
Screw	DC48V	-	2/2b	1340017700	
Screw	DC60V	-	2/2b	1340017800	
Screw	DC80V	-	2/2b	1340017900	
Screw	DC100V	-	2/2b	1340018000	
Screw	DC110V	-	2/2b	1340018100	
Screw	DC125V	-	2/2b	1340018200	
Screw	DC250V	-	2/2b	1340018300	
Screw	DC380V	-	2/2b	1340018400	
Screw	DC500V	-	2/2b	1340018500	
Screw	DC600V	-	2/2b	1340018600	

Contactors

MC-85a screw only type



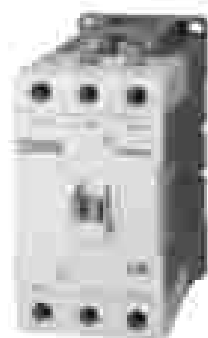
100AE

Model	Terminal type	Cont. Voltage	Frequency	App. Contact	Code
	Screw	AC24V	50/60Hz	—	1341000100
	Screw	AC48V	50/60Hz	—	1341000200
	Screw	AC100V	50/60Hz	—	1341000300
	Screw	AC110V	50/60Hz	—	1341000400
	Screw	AC120V	50/60Hz	—	1341000500
	Screw	AC200V	50/60Hz	—	1341000600
	Screw	AC220V	50/60Hz	—	1341000700
	Screw	AC240V	50/60Hz	—	1341000800
	Screw	AC260V	50/60Hz	—	1341000900
	Screw	AC300V	50/60Hz	—	1341001000
	Screw	AC310V	50/60Hz	—	1341001100
	Screw	AC340V	50/60Hz	—	1341001200
	Screw	AC380V	50/60Hz	—	1341001300
	Screw	AC400V	50/60Hz	—	1341001400
	Screw	AC440V	50/60Hz	—	1341001500
	Screw	AC48V	60Hz	—	1341001600
	Screw	AC60V	60Hz	—	1341001700
	Screw	AC66V	60Hz	—	1341001800
	Screw	AC72V	60Hz	—	1341001900
	Screw	AC84V	60Hz	—	1341002000
	Screw	AC96V	60Hz	—	1341002100
	Screw	AC100V	60Hz	—	1341002200
	Screw	AC110V	60Hz	—	1341002300
	Screw	AC120V	60Hz	—	1341002400
	Screw	AC140V	60Hz	—	1341002500
	Screw	AC150V	60Hz	—	1341002600
	Screw	AC160V	60Hz	—	1341002700
	Screw	AC180V	60Hz	—	1341002800
	Screw	AC200V	60Hz	—	1341002900
	Screw	AC220V	60Hz	—	1341003000
	Screw	AC240V	60Hz	—	1341003100
	Screw	AC260V	60Hz	—	1341003200
	Screw	AC280V	60Hz	—	1341003300
	Screw	AC300V	60Hz	—	1341003400
	Screw	AC310V	60Hz	—	1341003500
	Screw	AC340V	60Hz	—	1341003600
	Screw	AC380V	60Hz	—	1341003700
	Screw	AC400V	60Hz	—	1341003800
	Screw	AC440V	60Hz	—	1341003900
	Screw	AC48V	60Hz	—	1341004000
	Screw	AC60V	60Hz	—	1341004100
	Screw	AC66V	60Hz	—	1341004200
	Screw	AC72V	60Hz	—	1341004300
	Screw	AC84V	60Hz	—	1341004400
	Screw	AC96V	60Hz	—	1341004500
	Screw	AC100V 110V	60Hz 60Hz	—	1341004600
	Screw	AC110V 120V	60Hz 60Hz	—	1341004700
	Screw	AC200V 220V	60Hz 60Hz	—	1341004800
	Screw	AC300V 377V	60Hz 60Hz	—	1341004900
	Screw	DC12V	—	—	1341005100
	Screw	DC24V	—	—	1341005200
	Screw	DC48V	—	—	1341005300
	Screw	DC60V	—	—	1341005400
	Screw	DC80V	—	—	1341005500
	Screw	DC100V	—	—	1341005600
	Screw	DC110V	—	—	1341005700
	Screw	DC120V	—	—	1341005800
	Screw	DC140V	—	—	1341005900
	Screw	DC150V	—	—	1341006100
	Screw	DC160V	—	—	1341006200

MC-85a

Contactors

MC-85a screw only type



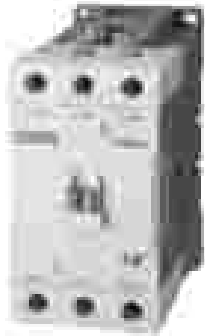
100&F

Model	Terminal type	Coil Voltage	Frequency	Act. Contact	Code
	Screw	AC24V	50/60Hz	1a1b	1341006300
	Screw	AC48V	50/60Hz	1a1b	1341006400
	Screw	AC100V	50/60Hz	1a1b	1341006500
	Screw	AC110V	50/60Hz	1a1b	1341006600
	Screw	AC120V	50/60Hz	1a1b	1341006700
	Screw	AC180V	50/60Hz	1a1b	1341006800
	Screw	AC220V	50/60Hz	1a1b	1341006900
	Screw	AC230V	50/60Hz	1a1b	1341007000
	Screw	AC240V	50/60Hz	1a1b	1341007100
	Screw	AC280V	50/60Hz	1a1b	1341007200
	Screw	AC400V	50/60Hz	1a1b	1341007300
	Screw	AC415V	50/60Hz	1a1b	1341007400
	Screw	AC440V	50/60Hz	1a1b	1341007500
	Screw	AC500V	50/60Hz	1a1b	1341007600
	Screw	AC550V	50/60Hz	1a1b	1341007700
	Screw	AC6V	50Hz	1a1b	1341007800
	Screw	AC6V	50Hz	1a1b	1341007900
	Screw	AC6V	50Hz	1a1b	1341008000
	Screw	AC6V	50Hz	1a1b	1341008100
	Screw	AC6V	50Hz	1a1b	1341008200
	Screw	AC100V	50Hz	1a1b	1341008300
	Screw	AC110V	50Hz	1a1b	1341008400
	Screw	AC220V	50Hz	1a1b	1341008500
	Screw	AC230V	50Hz	1a1b	1341008600
	Screw	AC240V	50Hz	1a1b	1341008700
	Screw	AC280V	50Hz	1a1b	1341008800
	Screw	AC400V	50Hz	1a1b	1341008900
	Screw	AC415V	50Hz	1a1b	1341009000
	Screw	AC440V	50Hz	1a1b	1341009100
	Screw	AC500V	50Hz	1a1b	1341009200
	Screw	AC550V	50Hz	1a1b	1341009300
	Screw	AC24V	50Hz	1a1b	1341009400
	Screw	AC48V	50Hz	1a1b	1341009500
	Screw	AC100V	50Hz	1a1b	1341009600
	Screw	AC110V	50Hz	1a1b	1341009700
	Screw	AC120V	50Hz	1a1b	1341009800
	Screw	AC200V	50Hz	1a1b	1341009900
	Screw	AC220V	50Hz	1a1b	1341010000
	Screw	AC230V	50Hz	1a1b	1341010100
	Screw	AC240V	50Hz	1a1b	1341010200
	Screw	AC280V	50Hz	1a1b	1341010300
	Screw	AC277V	50Hz	1a1b	1341010400
	Screw	AC380V	50Hz	1a1b	1341010500
	Screw	AC440V	50Hz	1a1b	1341010600
	Screw	AC480V	50Hz	1a1b	1341010700
	Screw	AC600V	50Hz	1a1b	1341010800
	Screw	AC110V, 110V	50Hz, 60Hz	1a1b	1341010900
	Screw	AC110V, 120V	50Hz, 60Hz	1a1b	1341011000
	Screw	AC220V, 220V	50Hz, 60Hz	1a1b	1341011100
	Screw	AC240V, 277V	50Hz, 60Hz	1a1b	1341011200
	Screw	DC12V	-	1a1b	1341011300
	Screw	DC24V	-	1a1b	1341011400
	Screw	DC24V	-	1a1b	1341011500
	Screw	DC48V	-	1a1b	1341011600
	Screw	DC60V	-	1a1b	1341011700
	Screw	DC80V	-	1a1b	1341011800
	Screw	DC100V	-	1a1b	1341011900
	Screw	DC110V	-	1a1b	1341012000
	Screw	DC125V	-	1a1b	1341012100
	Screw	DC200V	-	1a1b	1341012200
	Screw	DC240V	-	1a1b	1341012300
	Screw	DC280V	-	1a1b	1341012400

MC-85a

Contactors

MC-85a screw only type



100AE

Model	Terminal type	Rated Voltage	Frequency	App. Contact	Code
Screw	AC24V	50A85L	-	2x25	1341012500
Screw	AC48V	50A85L	-	2x25	1341012600
Screw	AC100V	50A85L	-	2x25	1341012700
Screw	AC110V	50A85L	-	2x25	1341012800
Screw	AC120V	50A85L	-	2x25	1341012900
Screw	AC200V	50A85L	-	2x25	1341013000
Screw	AC220V	50A85L	-	2x25	1341013100
Screw	AC240V	50A85L	-	2x25	1341013200
Screw	AC280V	50A85L	-	2x25	1341013300
Screw	AC300V	50A85L	-	2x25	1341013400
Screw	AC360V	50A85L	-	2x25	1341013500
Screw	AC410V	50A85L	-	2x25	1341013600
Screw	AC440V	50A85L	-	2x25	1341013700
Screw	AC500V	50A85L	-	2x25	1341013800
Screw	AC550V	50A85L	-	2x25	1341013900
Screw	AC60V	60L	-	2x25	1341014000
Screw	AC70V	60L	-	2x25	1341014100
Screw	AC80V	60L	-	2x25	1341014200
Screw	AC90V	60L	-	2x25	1341014300
Screw	AC100V	60L	-	2x25	1341014400
Screw	AC110V	60L	-	2x25	1341014500
Screw	AC120V	60L	-	2x25	1341014600
Screw	AC130V	60L	-	2x25	1341014700
Screw	AC140V	60L	-	2x25	1341014800
Screw	AC150V	60L	-	2x25	1341014900
Screw	AC160V	60L	-	2x25	1341015000
Screw	AC170V	60L	-	2x25	1341015100
Screw	AC180V	60L	-	2x25	1341015200
Screw	AC190V	60L	-	2x25	1341015300
Screw	AC200V	60L	-	2x25	1341015400
Screw	AC220V	60L	-	2x25	1341015500
Screw	AC240V	60L	-	2x25	1341015600
Screw	AC280V	60L	-	2x25	1341015700
Screw	AC300V	60L	-	2x25	1341015800
Screw	AC360V	60L	-	2x25	1341015900
Screw	AC410V	60L	-	2x25	1341016000
Screw	AC440V	60L	-	2x25	1341016100
Screw	AC500V	60L	-	2x25	1341016200
Screw	AC550V	60L	-	2x25	1341016300
Screw	AC600V	60L	-	2x25	1341016400
Screw	AC700V	60L	-	2x25	1341016500
Screw	AC777V	60L	-	2x25	1341016600
Screw	AC800V	60L	-	2x25	1341016700
Screw	AC900V	60L	-	2x25	1341016800
Screw	AC1000V	60L	-	2x25	1341016900
Screw	AC100V 110V	60L 60L	-	2x25	1341017100
Screw	AC110V 120V	60L 60L	-	2x25	1341017200
Screw	AC200V 220V	60L 60L	-	2x25	1341017300
Screw	AC300V 330V	60L 60L	-	2x25	1341017400
Screw	DC12V	-	-	2x25	1341017500
Screw	DC24V	-	-	2x25	1341017600
Screw	DC48V	-	-	2x25	1341017700
Screw	DC96V	-	-	2x25	1341017800
Screw	DC192V	-	-	2x25	1341017900
Screw	DC384V	-	-	2x25	1341018000
Screw	DC768V	-	-	2x25	1341018100
Screw	DC1152V	-	-	2x25	1341018200
Screw	DC2304V	-	-	2x25	1341018300
Screw	DC4608V	-	-	2x25	1341018400
Screw	DC9216V	-	-	2x25	1341018500
Screw	DC18432V	-	-	2x25	1341018600

MC-85a

Contactors

MC-100a screw only type



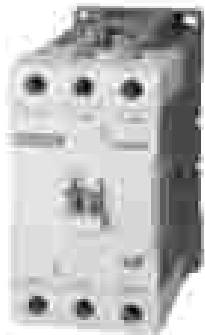
100&A

Model	Terminal type	Cat Voltage	Frequency	Act. Contact	Code
	Screw	AC24V	50/60Hz	-	13420001100
	Screw	AC48V	50/60Hz	-	13420002200
	Screw	AC100V	50/60Hz	-	13420003300
	Screw	AC110V	50/60Hz	-	13420004400
	Screw	AC120V	50/60Hz	-	13420005500
	Screw	AC180V	50/60Hz	-	13420006600
	Screw	AC220V	50/60Hz	-	13420007700
	Screw	AC230V	50/60Hz	-	13420008800
	Screw	AC240V	50/60Hz	-	13420109900
	Screw	AC380V	50/60Hz	-	13420011000
	Screw	AC400V	50/60Hz	-	13420012100
	Screw	AC415V	50/60Hz	-	13420013200
	Screw	AC440V	50/60Hz	-	13420014300
	Screw	AC500V	50/60Hz	-	13420015400
	Screw	AC24V	50Hz	-	13420016500
	Screw	AC36V	50Hz	-	13420017700
	Screw	AC30V	50Hz	-	13420017700
	Screw	AC42V	50Hz	-	13420018800
	Screw	AC48V	50Hz	-	13420018800
	Screw	AC60V	50Hz	-	13420019900
	Screw	AC60V	50Hz	-	13420020000
	Screw	AC100V	50Hz	-	13420021100
	Screw	AC110V	50Hz	-	13420022200
	Screw	AC220V	50Hz	-	13420023300
	Screw	AC230V	50Hz	-	13420024400
	Screw	AC240V	50Hz	-	13420025500
	Screw	AC380V	50Hz	-	13420026600
	Screw	AC400V	50Hz	-	13420027700
	Screw	AC415V	50Hz	-	13420028800
	Screw	AC440V	50Hz	-	13420029900
	Screw	AC380V	50Hz	-	13420030000
	Screw	AC500V	50Hz	-	13420031100
	Screw	AC24V	50Hz	-	13420032200
	Screw	AC48V	50Hz	-	13420033300
	Screw	AC100V	50Hz	-	13420034400
	Screw	AC110V	50Hz	-	13420035500
	Screw	AC120V	50Hz	-	13420036600
	Screw	AC200V	50Hz	-	13420037700
	Screw	AC220V	50Hz	-	13420038800
	Screw	AC230V	50Hz	-	13420039900
	Screw	AC240V	50Hz	-	13420040000
	Screw	AC240V	50Hz	-	13420041100
	Screw	AC277V	50Hz	-	13420042200
	Screw	AC380V	50Hz	-	13420043300
	Screw	AC440V	50Hz	-	13420044400
	Screw	AC480V	50Hz	-	13420045500
	Screw	AC600V	50Hz	-	13420046600
	Screw	AC100V, 110V	50Hz, 60Hz	-	13420047700
	Screw	AC110V, 120V	50Hz, 60Hz	-	13420048800
	Screw	AC220V, 230V	50Hz, 60Hz	-	13420049900
	Screw	AC380V, 415V	50Hz, 60Hz	-	13420050000
	Screw	DC12V	-	-	13420051100
	Screw	DC24V	-	-	13420052200
	Screw	DC24V	-	-	13420053300
	Screw	DC48V	-	-	13420054400
	Screw	DC60V	-	-	13420055500
	Screw	DC80V	-	-	13420056600
	Screw	DC100V	-	-	13420057700
	Screw	DC110V	-	-	13420058800
	Screw	DC125V	-	-	13420059900
	Screw	DC200V	-	-	13420060000
	Screw	DC250V	-	-	13420061100
	Screw	DC300V	-	-	13420062200

MC-100a

Contactors

MC-100a screw only type



100AE

Model	Terminal type	Rated Voltage	Frequency	App. Contact	Code
Screw	AC24V	20A/30A	50/60Hz	10A	15A2006200
Screw	AC48V	20A/30A	50/60Hz	10A	15A2006400
Screw	AC100V	20A/30A	50/60Hz	10A	15A2006500
Screw	AC110V	20A/30A	50/60Hz	10A	15A2006600
Screw	AC120V	20A/30A	50/60Hz	10A	15A2006700
Screw	AC200V	20A/30A	50/60Hz	10A	15A2006800
Screw	AC220V	20A/30A	50/60Hz	10A	15A2006900
Screw	AC240V	20A/30A	50/60Hz	10A	15A2007000
Screw	AC260V	20A/30A	50/60Hz	10A	15A2007200
Screw	AC300V	20A/30A	50/60Hz	10A	15A2007300
Screw	AC415V	20A/30A	50/60Hz	10A	15A2007400
Screw	AC440V	20A/30A	50/60Hz	10A	15A2007500
Screw	AC500V	20A/30A	50/60Hz	10A	15A2007600
Screw	AC550V	20A/30A	50/60Hz	10A	15A2007700
Screw	AC60V	10A	50/60Hz	10A	15A2007800
Screw	AC70V	10A	50/60Hz	10A	15A2010000
Screw	AC96V	10A	50/60Hz	10A	15A2007900
Screw	AC100V	10A	50/60Hz	10A	15A2008000
Screw	AC110V	10A	50/60Hz	10A	15A2008100
Screw	AC120V	10A	50/60Hz	10A	15A2008200
Screw	AC130V	10A	50/60Hz	10A	15A2008300
Screw	AC150V	10A	50/60Hz	10A	15A2008400
Screw	AC160V	10A	50/60Hz	10A	15A2008500
Screw	AC180V	10A	50/60Hz	10A	15A2008600
Screw	AC200V	10A	50/60Hz	10A	15A2008700
Screw	AC220V	10A	50/60Hz	10A	15A2008800
Screw	AC240V	10A	50/60Hz	10A	15A2008900
Screw	AC260V	10A	50/60Hz	10A	15A2009000
Screw	AC300V	10A	50/60Hz	10A	15A2009100
Screw	AC380V	10A	50/60Hz	10A	15A2009200
Screw	AC400V	10A	50/60Hz	10A	15A2009300
Screw	AC415V	10A	50/60Hz	10A	15A2009400
Screw	AC440V	10A	50/60Hz	10A	15A2009500
Screw	AC500V	10A	50/60Hz	10A	15A2009600
Screw	AC60V	50A	50/60Hz	10A	15A2009700
Screw	AC70V	50A	50/60Hz	10A	15A2009800
Screw	AC100V	50A	50/60Hz	10A	15A2009900
Screw	AC110V	50A	50/60Hz	10A	15A2010000
Screw	AC120V	50A	50/60Hz	10A	15A2010100
Screw	AC130V	50A	50/60Hz	10A	15A2010200
Screw	AC150V	50A	50/60Hz	10A	15A2010300
Screw	AC160V	50A	50/60Hz	10A	15A2010400
Screw	AC180V	50A	50/60Hz	10A	15A2010500
Screw	AC200V	50A	50/60Hz	10A	15A2010600
Screw	AC220V	50A	50/60Hz	10A	15A2010700
Screw	AC240V	50A	50/60Hz	10A	15A2010800
Screw	AC260V	50A	50/60Hz	10A	15A2010900
Screw	AC300V	50A	50/60Hz	10A	15A2011000
Screw	AC380V	50A	50/60Hz	10A	15A2011100
Screw	AC400V	50A	50/60Hz	10A	15A2011200
Screw	DC12V	-	-	10A	15A2011300
Screw	DC24V	-	-	10A	15A2011400
Screw	DC48V	-	-	10A	15A2011500
Screw	DC96V	-	-	10A	15A2011600
Screw	DC100V	-	-	10A	15A2011700
Screw	DC110V	-	-	10A	15A2011800
Screw	DC120V	-	-	10A	15A2011900
Screw	DC130V	-	-	10A	15A2012000
Screw	DC150V	-	-	10A	15A2012100
Screw	DC200V	-	-	10A	15A2012200
Screw	DC240V	-	-	10A	15A2012300

MC-100a

Contactors

MC-100a screw only type



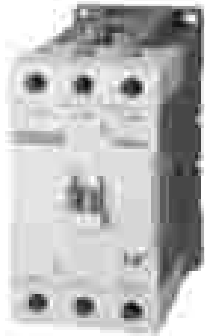
100&A

Model	Terminal type	Coil Voltage	Frequency	Act. Contact	Code
	Screw	AC24V	50/60Hz	2/2b	1342012500
	Screw	AC48V	50/60Hz	2/2b	1342012600
	Screw	AC100V	50/60Hz	2/2b	1342012700
	Screw	AC110V	50/60Hz	2/2b	1342012800
	Screw	AC120V	50/60Hz	2/2b	1342012900
	Screw	AC180V	50/60Hz	2/2b	1342013000
	Screw	AC220V	50/60Hz	2/2b	1342013100
	Screw	AC230V	50/60Hz	2/2b	1342013200
	Screw	AC240V	50/60Hz	2/2b	1342013300
	Screw	AC280V	50/60Hz	2/2b	1342013400
	Screw	AC400V	50/60Hz	2/2b	1342013500
	Screw	AC415V	50/60Hz	2/2b	1342013600
	Screw	AC440V	50/60Hz	2/2b	1342013700
	Screw	AC500V	50/60Hz	2/2b	1342013800
	Screw	AC550V	50/60Hz	2/2b	1342013900
	Screw	AC6V	50Hz	2/2b	1342014000
	Screw	AC6V	50Hz	2/2b	1342014100
	Screw	AC6V	50Hz	2/2b	1342014200
	Screw	AC6V	50Hz	2/2b	1342014300
	Screw	AC6V	50Hz	2/2b	1342014400
	Screw	AC100V	50Hz	2/2b	1342014500
	Screw	AC110V	50Hz	2/2b	1342014600
	Screw	AC220V	50Hz	2/2b	1342014700
	Screw	AC230V	50Hz	2/2b	1342014800
	Screw	AC240V	50Hz	2/2b	1342014900
	Screw	AC280V	50Hz	2/2b	1342015000
	Screw	AC400V	50Hz	2/2b	1342015100
	Screw	AC415V	50Hz	2/2b	1342015200
	Screw	AC440V	50Hz	2/2b	1342015300
	Screw	AC500V	50Hz	2/2b	1342015400
	Screw	AC550V	50Hz	2/2b	1342015500
	Screw	AC24V	50Hz	2/2b	1342015600
	Screw	AC48V	50Hz	2/2b	1342015700
	Screw	AC100V	50Hz	2/2b	1342015800
	Screw	AC110V	50Hz	2/2b	1342015900
	Screw	AC120V	50Hz	2/2b	1342016000
	Screw	AC200V	50Hz	2/2b	1342016100
	Screw	AC220V	50Hz	2/2b	1342016200
	Screw	AC230V	50Hz	2/2b	1342016300
	Screw	AC240V	50Hz	2/2b	1342016400
	Screw	AC280V	50Hz	2/2b	1342016500
	Screw	AC277V	50Hz	2/2b	1342016600
	Screw	AC380V	50Hz	2/2b	1342016700
	Screw	AC440V	50Hz	2/2b	1342016800
	Screw	AC480V	50Hz	2/2b	1342016900
	Screw	AC600V	50Hz	2/2b	1342017000
	Screw	AC100V, 110V	50Hz, 60Hz	2/2b	1342017100
	Screw	AC110V, 120V	50Hz, 60Hz	2/2b	1342017200
	Screw	AC200V, 220V	50Hz, 60Hz	2/2b	1342017300
	Screw	AC280V, 277V	50Hz, 60Hz	2/2b	1342017400
	Screw	DC12V	-	2/2b	1342017500
	Screw	DC24V	-	2/2b	1342017600
	Screw	DC48V	-	2/2b	1342017700
	Screw	DC60V	-	2/2b	1342017800
	Screw	DC80V	-	2/2b	1342017900
	Screw	DC100V	-	2/2b	1342018000
	Screw	DC110V	-	2/2b	1342018100
	Screw	DC125V	-	2/2b	1342018200
	Screw	DC200V	-	2/2b	1342018300
	Screw	DC280V	-	2/2b	1342018400
	Screw	DC380V	-	2/2b	1342018500
	Screw	DC500V	-	2/2b	1342018600

MC-100a

Contactors

MC-130a - MC-150a screw only type

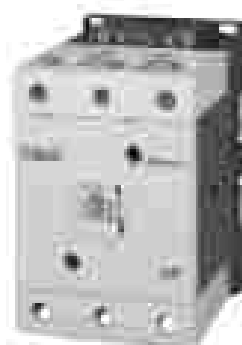


100AE

Model	Terminal type	Cont. Voltage	Frequency	Ass. Contact	Code
MC-130a	Screw	AC220V	50/60Hz	-	1302001100
	Screw	AC24V	50/60Hz	-	1302001200
	Screw	AC48V	50/60Hz	-	1302001300
	Screw	AC110V	50/60Hz	-	1302001400
	Screw	AC380V	50/60Hz	-	1302001500
	Screw	AC500V	50/60Hz	-	1302001600
	Screw	DC24V	-	-	1302001700
	Screw	DC48V	-	-	1302001800
	Screw	DC110V	-	-	1302001900
	Screw	DC220V	-	-	1302002000
	Screw	AC220V	50/60Hz	1a1b	1302001100
	Screw	AC24V	50/60Hz	1a1b	1302001200
	Screw	AC48V	50/60Hz	1a1b	1302001300
	Screw	AC110V	50/60Hz	1a1b	1302001400
	Screw	AC380V	50/60Hz	1a1b	1302001500
	Screw	AC500V	50/60Hz	1a1b	1302001600
	Screw	DC24V	-	1a1b	1302001700
	Screw	DC48V	-	1a1b	1302001800
	Screw	DC110V	-	1a1b	1302001900
	Screw	DC220V	-	1a1b	1302002000
	Screw	AC220V	50/60Hz	2a2b	1302002100
	Screw	AC24V	50/60Hz	2a2b	1302002200
	Screw	AC48V	50/60Hz	2a2b	1302002300
	Screw	AC110V	50/60Hz	2a2b	1302002400
	Screw	AC380V	50/60Hz	2a2b	1302002500
	Screw	AC500V	50/60Hz	2a2b	1302002600
	Screw	DC24V	-	2a2b	1302002700
	Screw	DC48V	-	2a2b	1302002800
	Screw	DC110V	-	2a2b	1302002900
	Screw	DC220V	-	2a2b	1302003000
MC-150a	Screw	AC220V	50/60Hz	-	1504001100
	Screw	AC24V	50/60Hz	-	1504001200
	Screw	AC48V	50/60Hz	-	1504001300
	Screw	AC110V	50/60Hz	-	1504001400
	Screw	AC380V	50/60Hz	-	1504001500
	Screw	AC500V	50/60Hz	-	1504001600
	Screw	DC24V	-	-	1504001700
	Screw	DC48V	-	-	1504001800
	Screw	DC110V	-	-	1504001900
	Screw	DC220V	-	-	1504002000
	Screw	AC220V	50/60Hz	1a1b	1504001100
	Screw	AC24V	50/60Hz	1a1b	1504001200
	Screw	AC48V	50/60Hz	1a1b	1504001300
	Screw	AC110V	50/60Hz	1a1b	1504001400
	Screw	AC380V	50/60Hz	1a1b	1504001500
	Screw	AC500V	50/60Hz	1a1b	1504001600
	Screw	DC24V	-	1a1b	1504001700
	Screw	DC48V	-	1a1b	1504001800
	Screw	DC110V	-	1a1b	1504001900
	Screw	DC220V	-	1a1b	1504002000
	Screw	AC220V	50/60Hz	2a2b	1504002100
	Screw	AC24V	50/60Hz	2a2b	1504002200
	Screw	AC48V	50/60Hz	2a2b	1504002300
	Screw	AC110V	50/60Hz	2a2b	1504002400
	Screw	AC380V	50/60Hz	2a2b	1504002500
	Screw	AC500V	50/60Hz	2a2b	1504002600
	Screw	DC24V	-	2a2b	1504002700
	Screw	DC48V	-	2a2b	1504002800
	Screw	DC110V	-	2a2b	1504002900
	Screw	DC220V	-	2a2b	1504003000

Contactors

MC-185a - MC-800a screw only type



150AF

Model	Terminal type	Cat Voltage	Frequency	Act. Contact	Code
MC-185a	Screw	AC/DC 100-200V	50/60Hz	2cd	1366000200
	Screw	AC/DC 24V	50/60Hz	2cd	1366000300
	Screw	AC/DC 48V	50/60Hz	2cd	1366000400
	Screw	AC 100V	50/60Hz	2cd	1366000500
	Screw	AC 200V	50/60Hz	2cd	1366000600
MC-225a	Screw	AC/DC 100-200V	50/60Hz	2cd	1368000200
	Screw	AC/DC 24V	50/60Hz	2cd	1368000300
	Screw	AC 100V	50/60Hz	2cd	1368000400
	Screw	AC 200V	50/60Hz	2cd	1368000500
	Screw	AC 400V	50/60Hz	2cd	1368000600
MC-255a	Screw	AC/DC 100-200V	50/60Hz	2cd	1369000200
	Screw	AC 100V	50/60Hz	2cd	1369000300
	Screw	AC 200V	50/60Hz	2cd	1369000400
	Screw	AC 500V	50/60Hz	2cd	1369000500
MC-300a	Screw	AC/DC 100-200V	50/60Hz	2cd	1370000200
	Screw	AC 100V	50/60Hz	2cd	1370000300
	Screw	AC 200V	50/60Hz	2cd	1370000400
MC-400a	Screw	AC/DC 100-200V	50/60Hz	2cd	1371000200
	Screw	AC 100V	50/60Hz	2cd	1371000300
	Screw	AC 200V	50/60Hz	2cd	1371000400
MC-500a	Screw	AC/DC 200V	50/60Hz	2cd	1372000200
	Screw	AC/DC 100V	50/60Hz	2cd	1372000300
	Screw	AC 200V	50/60Hz	2cd	1372000400
	Screw	AC 400V	50/60Hz	2cd	1372000500
	Screw	AC 500V	50/60Hz	2cd	1372000600
MC-600a	Screw	AC/DC 200V	50/60Hz	2cd	1373000200
	Screw	AC/DC 100V	50/60Hz	2cd	1373000300
	Screw	AC 200V	50/60Hz	2cd	1373000400
	Screw	AC 400V	50/60Hz	2cd	1373000500
MC-800a	Screw	AC/DC 200V	50/60Hz	2cd	1374000200
	Screw	AC/DC 100V	50/60Hz	2cd	1374000300
	Screw	AC 200V	50/60Hz	2cd	1374000400
	Screw	AC 400V	50/60Hz	2cd	1374000500

Contactors

MC-50a Lug type



65AF

Model	Terminal type	Coil Voltage	Frequency	Act. Contact	Code
	Lug	DC60V	-	-	1300005200
	Lug	DC30V	-	-	1300005200
	Lug	AC24V	50/60Hz	1a1b	1300006000
	Lug	AC48V	50/60Hz	1a1b	1300006000
	Lug	AC110V	50/60Hz	1a1b	1300006100
	Lug	AC220V	50/60Hz	1a1b	1300006200
	Lug	AC240V	50/60Hz	1a1b	1300006300
	Lug	AC380V	50/60Hz	1a1b	1300006400
	Lug	AC400V	50/60Hz	1a1b	1300006500
	Lug	AC410V	50/60Hz	1a1b	1300006600
	Lug	AC500V	50/60Hz	1a1b	1300006700
	Lug	AC550V	50/60Hz	1a1b	1300006800
	Lug	AC720V	50/60Hz	1a1b	1300006900
	Lug	AC900V	50/60Hz	1a1b	1300007000
	Lug	AC120V	50/60Hz	1a1b	1300007100
	Lug	AC160V	50/60Hz	1a1b	1300007200
	Lug	AC115V	50/60Hz	1a1b	1300007300
	Lug	AC24V	50Hz	1a1b	1300007400
	Lug	AC48V	50Hz	1a1b	1300007500
	Lug	AC110V	50Hz	1a1b	1300007600
	Lug	AC120V	50Hz	1a1b	1300007700
	Lug	AC200V	50Hz	1a1b	1300007800
	Lug	AC240V	50Hz	1a1b	1300007900
	Lug	AC380V	50Hz	1a1b	1300008000
	Lug	AC410V	50Hz	1a1b	1300008100
	Lug	AC400V	50Hz	1a1b	1300008200
	Lug	AC500V	50Hz	1a1b	1300008300
	Lug	AC110V, 120V	50Hz, 60Hz	1a1b	1300008400
	Lug	AC200V, 220V	50Hz, 60Hz	1a1b	1300008500
	Lug	AC200V	50Hz	1a1b	1300008800
	Lug	AC277V	50Hz	1a1b	1300008700
	Lug	AC24V	50Hz	1a1b	1300008800
	Lug	AC48V	50Hz	1a1b	1300008900
	Lug	AC110V	50Hz	1a1b	1300009000
	Lug	AC200V	50Hz	1a1b	1300009100
	Lug	AC240V	50Hz	1a1b	1300009200
	Lug	AC380V	50Hz	1a1b	1300009300
	Lug	AC410V	50Hz	1a1b	1300009400
	Lug	AC400V	50Hz	1a1b	1300009500
	Lug	AC410V	50Hz	1a1b	1300009600
	Lug	AC500V	50Hz	1a1b	1300009700
	Lug	AC36V	50Hz	1a1b	1300009800
	Lug	AC48V	50Hz	1a1b	1300009900
	Lug	AC60V	50Hz	1a1b	1300110000
	Lug	AC100V	50Hz	1a1b	1300110100
	Lug	AC200V	50Hz	1a1b	1300110200
	Lug	AC380V	50Hz	1a1b	1300110300
	Lug	AC410V	50Hz	1a1b	1300110400
	Lug	DC12V	-	1a1b	1300110500
	Lug	DC24V	-	1a1b	1300110600
	Lug	DC48V	-	1a1b	1300110700
	Lug	DC110V	-	1a1b	1300110800
	Lug	DC110V	-	1a1b	1300110900
	Lug	DC120V	-	1a1b	1300111000
	Lug	DC200V	-	1a1b	1300111100
	Lug	DC200V	-	1a1b	1300111200
	Lug	DC250V	-	1a1b	1300111300
	Lug	DC30V	-	1a1b	1300111400
	Lug	DC60V	-	1a1b	1300111500
	Lug	DC80V	-	1a1b	1300111600
	Lug	AC24V	50/60Hz	2a2b	1300111700
	Lug	AC48V	50/60Hz	2a2b	1300111800

MC-50a

Contactors

MC-50a Lug type



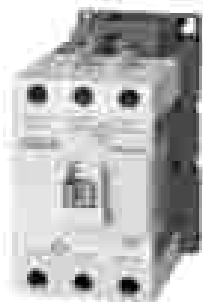
MC5AF

Model	Terminal type	Rated Voltage	Frequency	App. Contact	Code
	Lug	AC110V	50/60Hz	2x25	1300H1100
	Lug	AC220V	50/60Hz	2x25	1300H1200
	Lug	AC380V	50/60Hz	2x25	1300H12100
	Lug	AC380V	50/60Hz	2x25	1300H12500
	Lug	AC440V	50/60Hz	2x25	1300H12800
	Lug	AC500V	50/60Hz	2x25	1300H13000
	Lug	AC550V	50/60Hz	2x25	1300H12900
	Lug	AC220V	50/60Hz	2x25	1300H12700
	Lug	AC380V	50/60Hz	2x25	1300H13000
	Lug	AC120V	50/60Hz	2x25	1300H12900
	Lug	AC110V	50/60Hz	2x25	1300H13000
	Lug	AC110V	50/60Hz	2x25	1300H13100
	Lug	AC240V	60Hz	2x25	1300H13500
	Lug	AC240V	60Hz	2x25	1300H13600
	Lug	AC110V	60Hz	2x25	1300H13400
	Lug	AC120V	60Hz	2x25	1300H13500
	Lug	AC220V	60Hz	2x25	1300H13600
	Lug	AC240V	60Hz	2x25	1300H13700
	Lug	AC440V	60Hz	2x25	1300H13800
	Lug	AC440V	60Hz	2x25	1300H13900
	Lug	AC440V	60Hz	2x25	1300H14000
	Lug	AC500V	60Hz	2x25	1300H14100
	Lug	AC100V, 110V	50Hz, 60Hz	2x25	1300H14200
	Lug	AC100V, 220V	50Hz, 60Hz	2x25	1300H14300
	Lug	AC200V	60Hz	2x25	1300H14400
	Lug	AC277V	60Hz	2x25	1300H14500
	Lug	AC240V	60Hz	2x25	1300H14600
	Lug	AC100V	60Hz	2x25	1300H14700
	Lug	AC110V	60Hz	2x25	1300H14800
	Lug	AC220V	60Hz	2x25	1300H14900
	Lug	AC240V	60Hz	2x25	1300H15000
	Lug	AC240V	60Hz	2x25	1300H15100
	Lug	AC240V	60Hz	2x25	1300H15200
	Lug	AC115V	60Hz	2x25	1300H15300
	Lug	AC240V	60Hz	2x25	1300H15400
	Lug	AC350V	60Hz	2x25	1300H15500
	Lug	AC350V	60Hz	2x25	1300H15600
	Lug	AC350V	60Hz	2x25	1300H15700
	Lug	AC200V	60Hz	2x25	1300H15800
	Lug	AC200V	60Hz	2x25	1300H15900
	Lug	AC350V	60Hz	2x25	1300H16000
	Lug	AC350V	60Hz	2x25	1300H16100
	Lug	AC350V	60Hz	2x25	1300H16200
	Lug	DC12V	-	2x25	1300H16300
	Lug	DC24V	-	2x25	1300H16400
	Lug	DC48V	-	2x25	1300H16500
	Lug	DC110V	-	2x25	1300H16600
	Lug	DC110V	-	2x25	1300H16700
	Lug	DC110V	-	2x25	1300H16800
	Lug	DC110V	-	2x25	1300H16900
	Lug	DC110V	-	2x25	1300H17000
	Lug	DC150V	-	2x25	1300H17100
	Lug	DC24V	-	2x25	1300H17200
	Lug	DC48V	-	2x25	1300H17300
	Lug	DC60V	-	2x25	1300H17400

MC-50a

Contactors

MC-65a Lug type



65AF

Model	Terminal type	Coil Voltage	Frequency	Act. Contact	Code
	Lug	AC24V	50/60Hz	-	1581000100
	Lug	AC48V	50/60Hz	-	1581000200
	Lug	AC110V	50/60Hz	-	1581000400
	Lug	AC220V	50/60Hz	-	1581000500
	Lug	AC340V	50/60Hz	-	1581000600
	Lug	AC500V	50/60Hz	-	1581000700
	Lug	AC690V	50/60Hz	-	1581000800
	Lug	AC110V	50/60Hz	-	1581000900
	Lug	AC220V	50/60Hz	-	1581001000
	Lug	AC340V	50/60Hz	-	1581001100
	Lug	AC500V	50/60Hz	-	1581001200
	Lug	AC690V	50/60Hz	-	1581001300
	Lug	AC110V	50/60Hz	-	1581001400
	Lug	AC110V	50/60Hz	-	1581001500
	Lug	AC110V	50/60Hz	-	1581001600
	Lug	AC24V	50Hz	-	1581001700
	Lug	AC48V	50Hz	-	1581001800
	Lug	AC110V	50Hz	-	1581001900
	Lug	AC120V	50Hz	-	1581002000
	Lug	AC220V	50Hz	-	1581002100
	Lug	AC380V	50Hz	-	1581002200
	Lug	AC500V	50Hz	-	1581002300
	Lug	AC440V	50Hz	-	1581002400
	Lug	AC100V	50Hz	-	1581002500
	Lug	AC500V	50Hz	-	1581002600
	Lug	AC110V, 110V	50Hz, 60Hz	-	1581002700
	Lug	AC200V, 200V	50Hz, 60Hz	-	1581002800
	Lug	AC200V	50Hz	-	1581002900
	Lug	AC777V	50Hz	-	1581003000
	Lug	AC24V	50Hz	-	1581003100
	Lug	AC48V	50Hz	-	1581003200
	Lug	AC110V	50Hz	-	1581003300
	Lug	AC220V	50Hz	-	1581003400
	Lug	AC340V	50Hz	-	1581003500
	Lug	AC500V	50Hz	-	1581003600
	Lug	AC100V	50Hz	-	1581003700
	Lug	AC115V	50Hz	-	1581003800
	Lug	AC140V	50Hz	-	1581003900
	Lug	AC160V	50Hz	-	1581004000
	Lug	AC20V	50Hz	-	1581004100
	Lug	AC40V	50Hz	-	1581004200
	Lug	AC80V	50Hz	-	1581004300
	Lug	AC100V	50Hz	-	1581004400
	Lug	AC200V	50Hz	-	1581004500
	Lug	AC300V	50Hz	-	1581004600
	Lug	AC50V	50Hz	-	1581004700
	Lug	DC12V	-	-	158100200
	Lug	DC24V	-	-	1581001800
	Lug	DC48V	-	-	1581001600
	Lug	DC100V	-	-	1581003000
	Lug	DC110V	-	-	1581001100
	Lug	DC120V	-	-	1581005200
	Lug	DC240V	-	-	1581005300
	Lug	DC300V	-	-	1581005400
	Lug	DC500V	-	-	1581005500
	Lug	DC24V	-	-	1581005600
	Lug	DC60V	-	-	1581005700
	Lug	DC80V	-	-	1581005800
	Lug	AC24V	50/60Hz	141b	1581006000
	Lug	AC48V	50/60Hz	141b	1581006000
	Lug	AC110V	50/60Hz	141b	1581006100
	Lug	AC300V	50/60Hz	141b	1581006200

MC 65a

Contactors

MC-65a Lug type



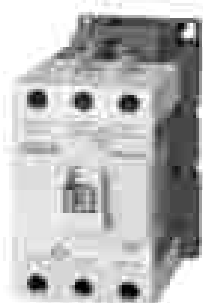
65AF

Model	Terminal type	Rated Voltage	Frequency	App. Contact	Code
	Lug	AC300V	50/60Hz	1a1b	1301006300
	Lug	AC300V	50/60Hz	1a1b	1301006400
	Lug	AC300V	50/60Hz	1a1b	1301006500
	Lug	AC300V	50/60Hz	1a1b	1301006600
	Lug	AC300V	50/60Hz	1a1b	1301006700
	Lug	AC300V	50/60Hz	1a1b	1301006800
	Lug	AC300V	50/60Hz	1a1b	1301006900
	Lug	AC300V	50/60Hz	1a1b	1301007000
	Lug	AC300V	50/60Hz	1a1b	1301007100
	Lug	AC300V	50/60Hz	1a1b	1301007200
	Lug	AC115V	50/60Hz	1a1b	1301007300
	Lug	AC30V	60Hz	1a1b	1301007400
	Lug	AC48V	60Hz	1a1b	1301007500
	Lug	AC110V	60Hz	1a1b	1301007600
	Lug	AC120V	60Hz	1a1b	1301007700
	Lug	AC200V	60Hz	1a1b	1301007800
	Lug	AC240V	60Hz	1a1b	1301007900
	Lug	AC380V	60Hz	1a1b	1301008000
	Lug	AC400V	60Hz	1a1b	1301008100
	Lug	AC300V	60Hz	1a1b	1301008200
	Lug	AC300V	60Hz	1a1b	1301008300
	Lug	AC100V, 110V	50Hz, 60Hz	1a1b	1301008500
	Lug	AC200V, 200V	50Hz, 60Hz	1a1b	1301008600
	Lug	AC200V	60Hz	1a1b	1301008700
	Lug	AC277V	60Hz	1a1b	1301008800
	Lug	AC34V	50Hz	1a1b	1301008900
	Lug	AC60V	60Hz	1a1b	1301009000
	Lug	AC110V	60Hz	1a1b	1301009100
	Lug	AC200V	60Hz	1a1b	1301009200
	Lug	AC240V	60Hz	1a1b	1301009300
	Lug	AC380V	60Hz	1a1b	1301009400
	Lug	AC300V	60Hz	1a1b	1301009500
	Lug	AC15V	60Hz	1a1b	1301009600
	Lug	AC40V	60Hz	1a1b	1301010000
	Lug	AC55V	60Hz	1a1b	1301010100
	Lug	AC60V	60Hz	1a1b	1301010200
	Lug	AC60V	60Hz	1a1b	1301010300
	Lug	AC60V	60Hz	1a1b	1301010400
	Lug	AC100V	60Hz	1a1b	1301010500
	Lug	AC200V	60Hz	1a1b	1301010600
	Lug	AC240V	60Hz	1a1b	1301010700
	Lug	AC30V	60Hz	1a1b	1301010800
	Lug	DC12V	-	1a1b	1301010900
	Lug	DC24V	-	1a1b	1301011000
	Lug	DC60V	-	1a1b	1301011100
	Lug	DC110V	-	1a1b	1301011200
	Lug	DC120V	-	1a1b	1301011300
	Lug	DC150V	-	1a1b	1301011400
	Lug	DC200V	-	1a1b	1301011500
	Lug	DC250V	-	1a1b	1301011600
	Lug	DC30V	-	1a1b	1301011700
	Lug	DC60V	-	1a1b	1301011800
	Lug	DC60V	-	1a1b	1301011900
	Lug	AC34V	50/60Hz	2a2b	1301012000
	Lug	AC48V	50/60Hz	2a2b	1301012100

MC-65a

Contactors

MC-65a Lug type



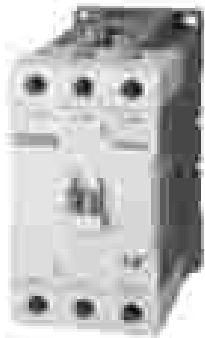
65AF

Model	Terminal type	Coil Voltage	Frequency	Act. Contact	Code
	Lug	AC110V	50/60Hz	2cd	1381012100
	Lug	AC220V	50/60Hz	2cd	1381012200
	Lug	AC380V	50/60Hz	2cd	1381012300
	Lug	AC380V	50/60Hz	2cd	1381012400
	Lug	AC400V	50/60Hz	2cd	1381012500
	Lug	AC400V	50/60Hz	2cd	1381012600
	Lug	AC500V	50/60Hz	2cd	1381012700
	Lug	AC550V	50/60Hz	2cd	1381012800
	Lug	AC750V	50/60Hz	2cd	1381012900
	Lug	AC750V	50/60Hz	2cd	1381013000
	Lug	AC120V	50/60Hz	2cd	1381013100
	Lug	AC100V	50/60Hz	2cd	1381013200
	Lug	AC110V	50/60Hz	2cd	1381013300
	Lug	AC24V	50/60Hz	2cd	1381013400
	Lug	AC48V	50/60Hz	2cd	1381013500
	Lug	AC110V	50/60Hz	2cd	1381013600
	Lug	AC120V	50/60Hz	2cd	1381013700
	Lug	AC250V	50/60Hz	2cd	1381013800
	Lug	AC240V	50/60Hz	2cd	1381013900
	Lug	AC380V	50/60Hz	2cd	1381014000
	Lug	AC400V	50/60Hz	2cd	1381014100
	Lug	AC400V	50/60Hz	2cd	1381014200
	Lug	AC600V	50/60Hz	2cd	1381014300
	Lug	AC100V, 110V	50/60, 50/60Hz	2cd	1381014400
	Lug	AC200V, 200V	50/60, 50/60Hz	2cd	1381014500
	Lug	AC700V	50/60Hz	2cd	1381014600
	Lug	AC777V	50/60Hz	2cd	1381014700
	Lug	AC24V	50/60Hz	2cd	1381014800
	Lug	AC48V	50/60Hz	2cd	1381014900
	Lug	AC110V	50/60Hz	2cd	1381015000
	Lug	AC220V	50/60Hz	2cd	1381015100
	Lug	AC240V	50/60Hz	2cd	1381015200
	Lug	AC380V	50/60Hz	2cd	1381015300
	Lug	AC400V	50/60Hz	2cd	1381015400
	Lug	AC415V	50/60Hz	2cd	1381015500
	Lug	AC440V	50/60Hz	2cd	1381015600
	Lug	AC550V	50/60Hz	2cd	1381015700
	Lug	AC60V	50/60Hz	2cd	1381015800
	Lug	AC40V	50/60Hz	2cd	1381015900
	Lug	AC80V	50/60Hz	2cd	1381016000
	Lug	AC100V	50/60Hz	2cd	1381016100
	Lug	AC250V	50/60Hz	2cd	1381016200
	Lug	AC380V	50/60Hz	2cd	1381016300
	Lug	AC50V	50/60Hz	2cd	1381016400
	Lug	DC12V	-	2cd	1381000700
	Lug	DC24V	-	2cd	1381016500
	Lug	DC40V	-	2cd	1381016600
	Lug	DC700V	-	2cd	1381016700
	Lug	DC110V	-	2cd	1381016800
	Lug	DC120V	-	2cd	1381016900
	Lug	DC200V	-	2cd	1381017000
	Lug	DC250V	-	2cd	1381017100
	Lug	DC30V	-	2cd	1381017200
	Lug	DC40V	-	2cd	1381017300
	Lug	DC50V	-	2cd	1381017400
	Lug	DC60V	-	2cd	1381017500

MC 65a

Contactors

MC-75a Lug type



100AE

Model	Terminal type	Rated Voltage	Frequency	Ass. Contact	Code
	Lug	AC24V	50/60Hz	—	13020001100
	Lug	AC48V	50/60Hz	—	13020001200
	Lug	AC110V	50/60Hz	—	13020001300
	Lug	AC220V	50/60Hz	—	13020001400
	Lug	AC360V	50/60Hz	—	13020001500
	Lug	AC480V	50/60Hz	—	13020001600
	Lug	AC600V	50/60Hz	—	13020001700
	Lug	AC720V	50/60Hz	—	13020001800
	Lug	AC840V	50/60Hz	—	13020001900
	Lug	AC1000V	50/60Hz	—	13020002000
	Lug	AC1100V	50/60Hz	—	13020002100
	Lug	AC24V	60Hz	—	13020002200
	Lug	AC48V	60Hz	—	13020002300
	Lug	AC110V	60Hz	—	13020002400
	Lug	AC120V	60Hz	—	13020002500
	Lug	AC220V	60Hz	—	13020002600
	Lug	AC360V	60Hz	—	13020002700
	Lug	AC480V	60Hz	—	13020002800
	Lug	AC600V	60Hz	—	13020002900
	Lug	AC100V, 110V	50Hz, 60Hz	—	13020003000
	Lug	AC200V, 220V	50Hz, 60Hz	—	13020003100
	Lug	AC300V	60Hz	—	13020003200
	Lug	AC377V	60Hz	—	13020003300
	Lug	AC415V	60Hz	—	13020003400
	Lug	AC48V	60Hz	—	13020003500
	Lug	AC110V	60Hz	—	13020003600
	Lug	AC220V	60Hz	—	13020003700
	Lug	AC340V	60Hz	—	13020003800
	Lug	AC380V	60Hz	—	13020003900
	Lug	AC400V	60Hz	—	13020004000
	Lug	AC440V	60Hz	—	13020004100
	Lug	AC480V	60Hz	—	13020004200
	Lug	AC550V	60Hz	—	13020004300
	Lug	AC60V	60Hz	—	13020004400
	Lug	AC90V	60Hz	—	13020004500
	Lug	AC100V	60Hz	—	13020004600
	Lug	AC120V	60Hz	—	13020004700
	Lug	AC150V	60Hz	—	13020004800
	Lug	AC200V	60Hz	—	13020004900
	Lug	AC250V	60Hz	—	13020005000
	Lug	DC12V	—	—	13020005100
	Lug	DC24V	—	—	13020005200
	Lug	DC48V	—	—	13020005300
	Lug	DC110V	—	—	13020005400
	Lug	DC120V	—	—	13020005500
	Lug	DC220V	—	—	13020005600
	Lug	DC240V	—	—	13020005700
	Lug	DC300V	—	—	13020005800
	Lug	DC360V	—	—	13020005900
	Lug	DC480V	—	—	13020006000
	Lug	DC60V	—	—	13020006100
	Lug	DC60V	—	—	13020006200
	Lug	AC415V	50/60Hz	141b	13020006300
	Lug	AC48V	50/60Hz	141b	13020006400
	Lug	AC110V	50/60Hz	141b	13020006500
	Lug	AC220V	50/60Hz	141b	13020006600

MC-75a

Contactors

MC-75a Lug type



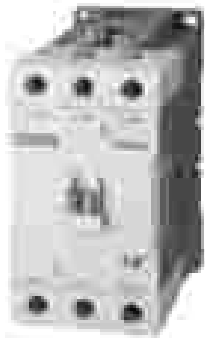
100&F

Model	Terminal type	Coil Voltage	Frequency	Act. Contact	Code
	Lug	AC240V	50/60Hz	1a1b	1382006600
	Lug	AC280V	50/60Hz	1a1b	1382006700
	Lug	AC300V	50/60Hz	1a1b	1382006800
	Lug	AC440V	50/60Hz	1a1b	1382006900
	Lug	AC500V	50/60Hz	1a1b	1382007000
	Lug	AC550V	50/60Hz	1a1b	1382007100
	Lug	AC240V	50/60Hz	1a1b	1382007200
	Lug	AC280V	50/60Hz	1a1b	1382007300
	Lug	AC300V	50/60Hz	1a1b	1382007400
	Lug	AC440V	50/60Hz	1a1b	1382007500
	Lug	AC415V	50/60Hz	1a1b	1382007600
	Lug	AC48V	50Hz	1a1b	1382007700
	Lug	AC48V	50Hz	1a1b	1382007800
	Lug	AC110V	50Hz	1a1b	1382007900
	Lug	AC120V	50Hz	1a1b	1382008000
	Lug	AC240V	50Hz	1a1b	1382008100
	Lug	AC240V	50Hz	1a1b	1382008200
	Lug	AC380V	50Hz	1a1b	1382008300
	Lug	AC440V	50Hz	1a1b	1382008400
	Lug	AC480V	50Hz	1a1b	1382008500
	Lug	AC500V	50Hz	1a1b	1382008600
	Lug	AC110V, 110V	50Hz, 60Hz	1a1b	1382008700
	Lug	AC200V, 200V	50Hz, 60Hz	1a1b	1382008800
	Lug	AC200V	50Hz	1a1b	1382008900
	Lug	AC777V	50Hz	1a1b	1382009000
	Lug	AC24V	50Hz	1a1b	1382009100
	Lug	AC48V	50Hz	1a1b	1382009200
	Lug	AC110V	50Hz	1a1b	1382009300
	Lug	AC200V	50Hz	1a1b	1382009400
	Lug	AC240V	50Hz	1a1b	1382009500
	Lug	AC300V	50Hz	1a1b	1382009600
	Lug	AC400V	50Hz	1a1b	1382009700
	Lug	AC415V	50Hz	1a1b	1382009800
	Lug	AC440V	50Hz	1a1b	1382009900
	Lug	AC500V	50Hz	1a1b	1382010000
	Lug	AC50V	50Hz	1a1b	1382010100
	Lug	AC60V	50Hz	1a1b	1382010200
	Lug	AC80V	50Hz	1a1b	1382010300
	Lug	AC100V	50Hz	1a1b	1382010400
	Lug	AC250V	50Hz	1a1b	1382010500
	Lug	AC200V	50Hz	1a1b	1382010600
	Lug	AC20V	50Hz	1a1b	1382010700
	Lug	DC12V	-	1a1b	1382006400
	Lug	DC24V	-	1a1b	1382016400
	Lug	DC48V	-	1a1b	1382016500
	Lug	DC70V	-	1a1b	1382016600
	Lug	DC110V	-	1a1b	1382016700
	Lug	DC120V	-	1a1b	1382016800
	Lug	DC200V	-	1a1b	1382016900
	Lug	DC200V	-	1a1b	1382017000
	Lug	DC250V	-	1a1b	1382017100
	Lug	DC30V	-	1a1b	1382017200
	Lug	DC60V	-	1a1b	1382017300
	Lug	DC80V	-	1a1b	1382017400
	Lug	AC24V	50/60Hz	2a1b	1382006900
	Lug	AC48V	50/60Hz	2a1b	1382011900

MC-75a

Contactor

MC-75a Lug type



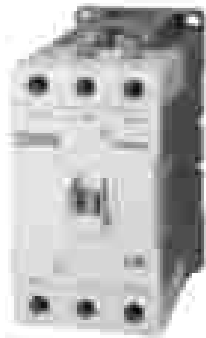
100AE

Model	Terminal type	Rated Voltage	Frequency	App. Contact	Code
	Lug	AC110V	50/60Hz	2x25	1302N1000
	Lug	AC220V	50/60Hz	2x25	1302N1100
	Lug	AC380V	50/60Hz	2x25	1302N1200
	Lug	AC380V	50/60Hz	2x25	1302N1200
	Lug	AC440V	50/60Hz	2x25	1302N1300
	Lug	AC500V	50/60Hz	2x25	1302N1400
	Lug	AC550V	50/60Hz	2x25	1302N1500
	Lug	AC660V	50/60Hz	2x25	1302N1600
	Lug	AC720V	50/60Hz	2x25	1302N1700
	Lug	AC720V	50/60Hz	2x25	1302N1700
	Lug	AC110V	50/60Hz	2x25	1302N1800
	Lug	AC110V	50/60Hz	2x25	1302N1800
	Lug	AC240V	60Hz	2x25	1302N1900
	Lug	AC240V	60Hz	2x25	1302N1900
	Lug	AC110V	60Hz	2x25	1302N2000
	Lug	AC120V	60Hz	2x25	1302N2100
	Lug	AC220V	60Hz	2x25	1302N2200
	Lug	AC240V	60Hz	2x25	1302N2300
	Lug	AC380V	60Hz	2x25	1302N2400
	Lug	AC440V	60Hz	2x25	1302N2500
	Lug	AC440V	60Hz	2x25	1302N2500
	Lug	AC660V	60Hz	2x25	1302N2600
	Lug	AC660V	60Hz	2x25	1302N2600
	Lug	AC100V, 110V	50/60Hz, 60Hz	2x25	1302N4000
	Lug	AC100V, 220V	50/60Hz, 60Hz	2x25	1302N4100
	Lug	AC200V	60Hz	2x25	1302N4200
	Lug	AC277V	60Hz	2x25	1302N4300
	Lug	AC240V	60Hz	2x25	1302N4400
	Lug	AC110V	60Hz	2x25	1302N4500
	Lug	AC220V	60Hz	2x25	1302N4600
	Lug	AC240V	60Hz	2x25	1302N4700
	Lug	AC380V	60Hz	2x25	1302N4800
	Lug	AC440V	60Hz	2x25	1302N4900
	Lug	AC500V	60Hz	2x25	1302N5000
	Lug	AC550V	60Hz	2x25	1302N5100
	Lug	AC660V	60Hz	2x25	1302N5200
	Lug	AC720V	60Hz	2x25	1302N5300
	Lug	AC110V	60Hz	2x25	1302N5400
	Lug	AC240V	60Hz	2x25	1302N5500
	Lug	AC380V	60Hz	2x25	1302N5600
	Lug	AC440V	60Hz	2x25	1302N5700
	Lug	AC500V	60Hz	2x25	1302N5800
	Lug	AC550V	60Hz	2x25	1302N5900
	Lug	AC660V	60Hz	2x25	1302N6000
	Lug	AC720V	60Hz	2x25	1302N6100
	Lug	DC12V	-	2x25	1302N10000
	Lug	DC24V	-	2x25	1302N10000
	Lug	DC48V	-	2x25	1302N10000
	Lug	DC110V	-	2x25	1302N1100
	Lug	DC120V	-	2x25	1302N1200
	Lug	DC150V	-	2x25	1302N1300
	Lug	DC180V	-	2x25	1302N1400
	Lug	DC200V	-	2x25	1302N1500
	Lug	DC250V	-	2x25	1302N1600
	Lug	DC30V	-	2x25	1302N1700
	Lug	DC48V	-	2x25	1302N1800
	Lug	DC110V	-	2x25	1302N1900
	Lug	DC120V	-	2x25	1302N2000

MC-75a

Contactors

MC-85a Lug type



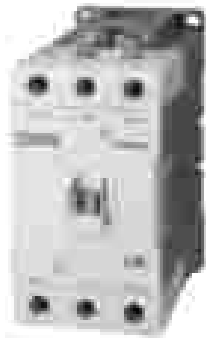
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Model	Terminal type	Coil Voltage	Frequency	Aux. Contact	Code
	Lug	AC24V	50/60Hz	-	1383001100
	Lug	AC48V	50/60Hz	-	1383011200
	Lug	AC110V	50/60Hz	-	1383011300
	Lug	AC220V	50/60Hz	-	1383011350
	Lug	AC340V	50/60Hz	-	1383011400
	Lug	AC500V	50/60Hz	-	1383011500
	Lug	AC690V	50/60Hz	-	1383011600
	Lug	AC110V	50/60Hz	-	1383011700
	Lug	AC220V	50/60Hz	-	1383011800
	Lug	AC340V	50/60Hz	-	1383011900
	Lug	AC500V	50/60Hz	-	1383012000
	Lug	AC690V	50/60Hz	-	1383014000
	Lug	AC220V	50/60Hz	-	1383014100
	Lug	AC110V	50/60Hz	-	1383014200
	Lug	AC110V	50/60Hz	-	1383014300
	Lug	AC24V	50Hz	-	1383014500
	Lug	AC48V	50Hz	-	1383014600
	Lug	AC110V	50Hz	-	1383014700
	Lug	AC110V	50Hz	-	1383014800
	Lug	AC220V	50Hz	-	1383015000
	Lug	AC340V	50Hz	-	1383015100
	Lug	AC500V	50Hz	-	1383015200
	Lug	AC480V	50Hz	-	1383015300
	Lug	AC100V	50Hz	-	1383015400
	Lug	AC500V	50Hz	-	1383015500
	Lug	AC110V, 110V	50Hz, 60Hz	-	1383015600
	Lug	AC200V, 200V	50Hz, 60Hz	-	1383015700
	Lug	AC200V	50Hz	-	1383015800
	Lug	AC777V	50Hz	-	1383015900
	Lug	AC24V	50Hz	-	1383016000
	Lug	AC48V	50Hz	-	1383016100
	Lug	AC110V	50Hz	-	1383016200
	Lug	AC200V	50Hz	-	1383016300
	Lug	AC240V	50Hz	-	1383016400
	Lug	AC300V	50Hz	-	1383016500
	Lug	AC100V	50Hz	-	1383016600
	Lug	AC115V	50Hz	-	1383016700
	Lug	AC140V	50Hz	-	1383016800
	Lug	AC180V	50Hz	-	1383016900
	Lug	AC20V	50Hz	-	1383017000
	Lug	AC40V	50Hz	-	1383017100
	Lug	AC80V	50Hz	-	1383017200
	Lug	AC100V	50Hz	-	1383017300
	Lug	AC200V	50Hz	-	1383017400
	Lug	AC300V	50Hz	-	1383017500
	Lug	AC20V	50Hz	-	1383017600
	Lug	DC12V	-	-	1383000300
	Lug	DC24V	-	-	1383017000
	Lug	DC48V	-	-	1383012100
	Lug	DC100V	-	-	1383012200
	Lug	DC110V	-	-	1383012300
	Lug	DC120V	-	-	1383012400
	Lug	DC200V	-	-	1383012500
	Lug	DC300V	-	-	1383012600
	Lug	DC500V	-	-	1383012700
	Lug	DC20V	-	-	1383012800
	Lug	DC40V	-	-	1383012900
	Lug	DC80V	-	-	1383013000
	Lug	AC24V	50/60Hz	141b	1383000400
	Lug	AC48V	50/60Hz	142b	1383007400
	Lug	AC110V	50/60Hz	143b	1383007500
	Lug	AC200V	50/60Hz	144b	1383007600

MC-85a

Contactors

MC-85a Lug type



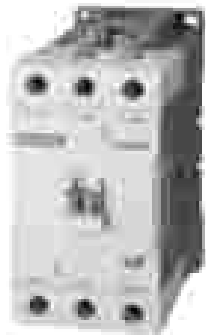
100&F

Model	Terminal type	Coil Voltage	Frequency	Act. Contact	Code
	Lug	AC110V	50/60Hz	2cd	1383001000
	Lug	AC220V	50/60Hz	2cd	1383002000
	Lug	AC380V	50/60Hz	2cd	1383003100
	Lug	AC380V	50/60Hz	2cd	1383003200
	Lug	AC400V	50/60Hz	2cd	1383003300
	Lug	AC500V	50/60Hz	2cd	1383003400
	Lug	AC550V	50/60Hz	2cd	1383003500
	Lug	AC700V	50/60Hz	2cd	1383003600
	Lug	AC700V	50/60Hz	2cd	1383003700
	Lug	AC700V	50/60Hz	2cd	1383003800
	Lug	AC700V	50/60Hz	2cd	1383003900
	Lug	AC700V	50/60Hz	2cd	1383004000
	Lug	AC700V	50/60Hz	2cd	1383004100
	Lug	AC700V	50/60Hz	2cd	1383004200
	Lug	AC700V	50/60Hz	2cd	1383004300
	Lug	AC700V	50/60Hz	2cd	1383004400
	Lug	AC700V	50/60Hz	2cd	1383004500
	Lug	AC700V	50/60Hz	2cd	1383004600
	Lug	AC700V	50/60Hz	2cd	1383004700
	Lug	AC700V	50/60Hz	2cd	1383004800
	Lug	AC700V	50/60Hz	2cd	1383004900
	Lug	AC700V	50/60Hz	2cd	1383005000
	Lug	AC700V	50/60Hz	2cd	1383005100
	Lug	AC700V	50/60Hz	2cd	1383005200
	Lug	AC700V	50/60Hz	2cd	1383005300
	Lug	AC700V	50/60Hz	2cd	1383005400
	Lug	AC700V	50/60Hz	2cd	1383005500
	Lug	AC700V	50/60Hz	2cd	1383005600
	Lug	AC700V	50/60Hz	2cd	1383005700
	Lug	AC700V	50/60Hz	2cd	1383005800
	Lug	AC700V	50/60Hz	2cd	1383005900
	Lug	AC700V	50/60Hz	2cd	1383006000
	Lug	AC700V	50/60Hz	2cd	1383006100
	Lug	AC700V	50/60Hz	2cd	1383006200
	Lug	DC24V	-	2cd	1383006300
	Lug	DC24V	-	2cd	1383006700
	Lug	DC48V	-	2cd	1383006800
	Lug	DC700V	-	2cd	1383006900
	Lug	DC110V	-	2cd	1383007000
	Lug	DC120V	-	2cd	1383007100
	Lug	DC200V	-	2cd	1383007200
	Lug	DC200V	-	2cd	1383007300
	Lug	DC250V	-	2cd	1383007400
	Lug	DC30V	-	2cd	1383007500
	Lug	DC30V	-	2cd	1383007800
	Lug	DC30V	-	2cd	1383007900

MC-85a

Contactors

MC-100a Lug type



100AE

Model	Terminal type	Rated Voltage	Frequency	Act. Contact	Code
	Lug	AC24V	50/60Hz	—	1304000000
	Lug	AC48V	50/60Hz	—	1304010000
	Lug	AC110V	50/60Hz	—	1304013100
	Lug	AC220V	50/60Hz	—	1304013200
	Lug	AC360V	50/60Hz	—	1304013300
	Lug	AC380V	50/60Hz	—	1304013400
	Lug	AC480V	50/60Hz	—	1304013500
	Lug	AC440V	50/60Hz	—	1304013600
	Lug	AC560V	50/60Hz	—	1304013700
	Lug	AC520V	50/60Hz	—	1304013800
	Lug	AC720V	50/60Hz	—	1304013900
	Lug	AC100V	50/60Hz	—	1304014100
	Lug	AC110V	50/60Hz	—	1304014200
	Lug	AC110V	50/60Hz	—	1304014300
	Lug	AC24V	60Hz	—	1304014400
	Lug	AC48V	60Hz	—	1304014500
	Lug	AC110V	60Hz	—	1304014600
	Lug	AC110V	60Hz	—	1304014700
	Lug	AC220V	60Hz	—	1304014800
	Lug	AC360V	60Hz	—	1304014900
	Lug	AC380V	60Hz	—	1304015000
	Lug	AC440V	60Hz	—	1304015100
	Lug	AC480V	60Hz	—	1304015200
	Lug	AC560V	60Hz	—	1304015300
	Lug	AC100V, 110V	50Hz, 60Hz	—	1304015400
	Lug	AC200V, 220V	50Hz, 60Hz	—	1304015500
	Lug	AC200V	60Hz	—	1304015600
	Lug	AC277V	60Hz	—	1304015700
	Lug	AC24V	60Hz	—	1304015800
	Lug	AC48V	60Hz	—	1304015900
	Lug	AC110V	60Hz	—	1304016000
	Lug	AC220V	60Hz	—	1304016100
	Lug	AC360V	60Hz	—	1304016200
	Lug	AC380V	60Hz	—	1304016300
	Lug	AC440V	60Hz	—	1304016400
	Lug	AC480V	60Hz	—	1304016500
	Lug	AC560V	60Hz	—	1304016600
	Lug	AC720V	60Hz	—	1304016700
	Lug	AC24V	60Hz	—	1304016800
	Lug	AC48V	60Hz	—	1304016900
	Lug	AC110V	60Hz	—	1304017000
	Lug	AC110V	60Hz	—	1304017100
	Lug	AC220V	60Hz	—	1304017200
	Lug	AC360V	60Hz	—	1304017300
	Lug	AC380V	60Hz	—	1304017400
	Lug	DC12V	—	—	1304000100
	Lug	DC24V	—	—	1304011000
	Lug	DC48V	—	—	1304012000
	Lug	DC110V	—	—	1304013100
	Lug	DC110V	—	—	1304012200
	Lug	DC120V	—	—	1304012300
	Lug	DC240V	—	—	1304012400
	Lug	DC220V	—	—	1304012500
	Lug	DC240V	—	—	1304012600
	Lug	DC48V	—	—	1304012700
	Lug	DC60V	—	—	1304012800
	Lug	DC60V	—	—	1304012900
	Lug	AC24V	50/60Hz	1a1b	1304000000
	Lug	AC48V	50/60Hz	1a1b	1304007400
	Lug	AC110V	50/60Hz	1a1b	1304007500
	Lug	AC220V	50/60Hz	1a1b	1304007600

MC-100a

Contactors

MC-100a Lug type



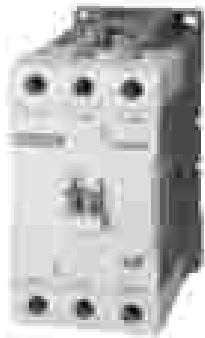
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Model	Terminal type	Coil Voltage	Frequency	Act. Contact	Code
	Lug	AC240V	50/60Hz	1a1b	1384007700
	Lug	AC280V	50/60Hz	1a1b	1384007800
	Lug	AC300V	50/60Hz	1a1b	1384007900
	Lug	AC440V	50/60Hz	1a1b	1384008000
	Lug	AC500V	50/60Hz	1a1b	1384008100
	Lug	AC550V	50/60Hz	1a1b	1384008200
	Lug	AC240V	50/60Hz	1a1b	1384008300
	Lug	AC280V	50/60Hz	1a1b	1384008400
	Lug	AC300V	50/60Hz	1a1b	1384008500
	Lug	AC440V	50/60Hz	1a1b	1384008600
	Lug	AC500V	50/60Hz	1a1b	1384008700
	Lug	AC24V	50Hz	1a1b	1384008800
	Lug	AC48V	50Hz	1a1b	1384008900
	Lug	AC110V	50Hz	1a1b	1384009000
	Lug	AC120V	50Hz	1a1b	1384009100
	Lug	AC220V	50Hz	1a1b	1384009200
	Lug	AC240V	50Hz	1a1b	1384009300
	Lug	AC380V	50Hz	1a1b	1384009400
	Lug	AC440V	50Hz	1a1b	1384009500
	Lug	AC480V	50Hz	1a1b	1384009600
	Lug	AC500V	50Hz	1a1b	1384009700
	Lug	AC110V, 110V	50Hz, 60Hz	1a1b	1384009800
	Lug	AC200V, 200V	50Hz, 60Hz	1a1b	1384009900
	Lug	AC200V	50Hz	1a1b	1384010000
	Lug	AC777V	50Hz	1a1b	1384010100
	Lug	AC24V	50Hz	1a1b	1384010200
	Lug	AC48V	50Hz	1a1b	1384010300
	Lug	AC110V	50Hz	1a1b	1384010400
	Lug	AC200V	50Hz	1a1b	1384010500
	Lug	AC240V	50Hz	1a1b	1384010600
	Lug	AC300V	50Hz	1a1b	1384010700
	Lug	AC400V	50Hz	1a1b	1384010800
	Lug	AC415V	50Hz	1a1b	1384010900
	Lug	AC440V	50Hz	1a1b	1384011000
	Lug	AC500V	50Hz	1a1b	1384011100
	Lug	AC50V	50Hz	1a1b	1384011200
	Lug	AC6V	50Hz	1a1b	1384011300
	Lug	AC30V	50Hz	1a1b	1384011400
	Lug	AC100V	50Hz	1a1b	1384011500
	Lug	AC250V	50Hz	1a1b	1384011600
	Lug	AC200V	50Hz	1a1b	1384011700
	Lug	AC30V	50Hz	1a1b	1384011800
	Lug	DC12V	-	1a1b	1384000300
	Lug	DC24V	-	1a1b	1384000400
	Lug	DC48V	-	1a1b	1384000500
	Lug	DC75V	-	1a1b	1384000600
	Lug	DC110V	-	1a1b	1384000700
	Lug	DC120V	-	1a1b	1384000800
	Lug	DC200V	-	1a1b	1384000900
	Lug	DC300V	-	1a1b	1384001000
	Lug	DC50V	-	1a1b	1384007100
	Lug	DC60V	-	1a1b	1384007200
	Lug	DC80V	-	1a1b	1384007300
	Lug	DC10V	-	1a1b	1384007400
	Lug	AC24V	50/60Hz	2a1b	1384000200
	Lug	AC48V	50/60Hz	2a1b	1384001800

MC 100a

Contactors

MC-100a Lug type

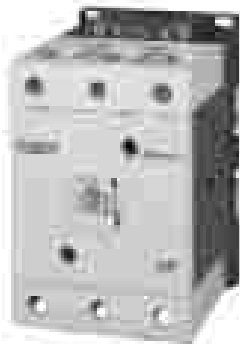


100AE

Model	Terminal type	Rated Voltage	Frequency	Act. Contact	Code
MC-100a	Lug	AC110V	50/60Hz	2x25	1304001000
	Lug	AC220V	50/60Hz	2x25	1304002000
	Lug	AC380V	50/60Hz	2x25	1304003000
	Lug	AC380V	50/60Hz	2x25	1304003200
	Lug	AC440V	50/60Hz	2x25	1304004000
	Lug	AC500V	50/60Hz	2x25	1304005000
	Lug	AC550V	50/60Hz	2x25	1304005500
	Lug	AC660V	50/60Hz	2x25	1304007000
	Lug	AC700V	50/60Hz	2x25	1304008000
	Lug	AC120V	50/60Hz	2x25	1304002000
	Lug	AC110V	50/60Hz	2x25	1304001000
	Lug	AC24V	50Hz	2x25	1304003200
	Lug	AC40V	50Hz	2x25	1304003300
	Lug	AC110V	50Hz	2x25	1304003400
	Lug	AC120V	50Hz	2x25	1304003500
	Lug	AC220V	50Hz	2x25	1304003600
	Lug	AC240V	50Hz	2x25	1304003700
	Lug	AC380V	50Hz	2x25	1304003800
	Lug	AC440V	50Hz	2x25	1304003900
	Lug	AC440V	50Hz	2x25	1304004000
	Lug	AC600V	50Hz	2x25	1304004100
	Lug	AC100V, 110V	50Hz, 60Hz	2x25	1304004200
	Lug	AC100V, 220V	50Hz, 60Hz	2x25	1304004300
	Lug	AC200V	50Hz	2x25	1304004400
	Lug	AC277V	50Hz	2x25	1304004500
	Lug	AC24V	50Hz	2x25	1304004600
	Lug	AC40V	50Hz	2x25	1304004700
	Lug	AC110V	50Hz	2x25	1304004800
	Lug	AC220V	50Hz	2x25	1304004900
	Lug	AC440V	50Hz	2x25	1304005000
	Lug	AC550V	50Hz	2x25	1304005100
	Lug	AC660V	50Hz	2x25	1304005200
	Lug	AC115V	50Hz	2x25	1304005300
	Lug	AC240V	50Hz	2x25	1304005400
	Lug	AC350V	50Hz	2x25	1304005500
	Lug	AC40V	50Hz	2x25	1304005600
	Lug	AC200V	50Hz	2x25	1304005700
	Lug	AC200V	50Hz	2x25	1304005800
	Lug	AC240V	50Hz	2x25	1304005900
	Lug	AC380V	50Hz	2x25	1304006000
	Lug	AC550V	50Hz	2x25	1304006100
	Lug	AC660V	50Hz	2x25	1304006200
Lug	DC12V	-	2x25	1304006300	
Lug	DC24V	-	2x25	1304006400	
Lug	DC48V	-	2x25	1304006500	
Lug	DC110V	-	2x25	1304006600	
Lug	DC120V	-	2x25	1304006700	
Lug	DC110V	-	2x25	1304006800	
Lug	DC120V	-	2x25	1304006900	
Lug	DC240V	-	2x25	1304007000	
Lug	DC250V	-	2x25	1304007100	
Lug	DC48V	-	2x25	1304007200	
Lug	DC48V	-	2x25	1304007300	
Lug	DC60V	-	2x25	1304007400	

Contactors

MC-130a Lug type

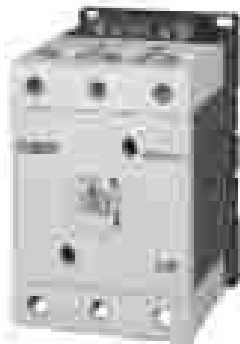


150AF

Model	Terminal type	Cat. Voltage	Frequency	Aux. Contact	Cat. No.
MC-130a	Lug	AC200V	variable	-	1385000100
	Lug	AC24V	variable	-	1385000700
	Lug	AC48V	variable	-	1385000800
	Lug	AC110V	variable	-	1385000900
	Lug	AC200V	variable	-	1385001000
	Lug	AC300V	variable	-	1385001100
	Lug	AC300V	variable	-	1385001200
	Lug	DC24V	-	-	1385000700
	Lug	DC48V	-	-	1385001300
	Lug	DC110V	-	-	1385001400
	Lug	DC200V	-	-	1385001500
	Lug	AC200V	variable	1x1b	1385000700
	Lug	AC24V	variable	1x1b	1385001600
	Lug	AC48V	variable	1x1b	1385001700
	Lug	AC110V	variable	1x1b	1385001800
	Lug	AC200V	variable	1x1b	1385001900
	Lug	AC300V	variable	1x1b	1385002000
	Lug	AC300V	variable	1x1b	1385002100
	Lug	DC24V	-	1x1b	1385000800
	Lug	DC48V	-	1x1b	1385002200
	Lug	DC110V	-	1x1b	1385002300
	Lug	DC200V	-	1x1b	1385002400
	Lug	AC200V	variable	2x1b	1385000500
	Lug	AC24V	variable	2x1b	1385002500
	Lug	AC48V	variable	2x1b	1385002600
	Lug	AC110V	variable	2x1b	1385002700
	Lug	AC200V	variable	2x1b	1385002800
	Lug	AC300V	variable	2x1b	1385002900
	Lug	AC300V	variable	2x1b	1385003000
	Lug	DC24V	-	2x1b	1385000600
Lug	DC48V	-	2x1b	1385003100	
Lug	DC110V	-	2x1b	1385003200	
Lug	DC200V	-	2x1b	1385003300	

Contactors

MC-150a Lug type



150AF

Model	Terminal type	Cat Voltage	Frequency	Ass. Contact	Code
MC-150a	Lug	AC220V	50/60Hz	-	1386001100
	Lug	AC24V	50/60Hz	-	1386002700
	Lug	AC48V	50/60Hz	-	1386009800
	Lug	AC110V	50/60Hz	-	1386000000
	Lug	AC200V	50/60Hz	-	1386011800
	Lug	AC400V	50/60Hz	-	1386011100
	Lug	AC600V	50/60Hz	-	1386012700
	Lug	DC24V	-	-	1386000200
	Lug	DC48V	-	-	1386012300
	Lug	DC110V	-	-	1386011400
	Lug	DC200V	-	-	1386012500
	Lug	AC220V	50/60Hz	1x1b	1386000700
	Lug	AC24V	50/60Hz	1x1b	1386011600
	Lug	AC48V	50/60Hz	1x1b	1386012100
	Lug	AC110V	50/60Hz	1x1b	1386011900
	Lug	AC200V	50/60Hz	1x1b	1386011800
	Lug	AC400V	50/60Hz	1x1b	1386002500
	Lug	AC600V	50/60Hz	1x1b	1386002100
	Lug	DC24V	-	1x1b	1386000600
	Lug	DC48V	-	1x1b	1386002200
	Lug	DC110V	-	1x1b	1386002500
	Lug	DC200V	-	1x1b	1386002400
	Lug	AC220V	50/60Hz	2x2b	1386001400
	Lug	AC24V	50/60Hz	2x2b	1386002500
	Lug	AC48V	50/60Hz	2x2b	1386009900
	Lug	AC110V	50/60Hz	2x2b	1386007700
	Lug	AC200V	50/60Hz	2x2b	1386002800
	Lug	AC400V	50/60Hz	2x2b	1386002900
	Lug	AC600V	50/60Hz	2x2b	1386003000
	Lug	DC24V	-	2x2b	1386000800
Lug	DC48V	-	2x2b	1386002100	
Lug	DC110V	-	2x2b	1386002200	
Lug	DC200V	-	2x2b	1386002300	

Contactors

MT-12 Screw type



18AF

Model	Terminal type	Rated current	Tripping	Type	Code
MT-12	Screw	5A	4-6	Non-differential(2P)	1318000000
	Screw	6.3A	5-8	Non-differential(2P)	1318001000
	Screw	7.5A	6-9	Non-differential(2P)	1318001100
	Screw	8.5A	7-10	Non-differential(2P)	1318001200
	Screw	11A	8-13	Non-differential(2P)	1318001300
	Screw	15A	12-18	Non-differential(2P)	1318001400
	Screw	0.11A	0.1-0.18	Non-differential(2P)	1319000100
	Screw	0.21A	0.16-0.25	Non-differential(2P)	1319000200
	Screw	0.35A	0.25-0.4	Non-differential(2P)	1319000300
	Screw	0.52A	0.4-0.63	Non-differential(2P)	1319000400
	Screw	0.82A	0.63-1	Non-differential(2P)	1319000500
	Screw	1.3A	1-1.6	Non-differential(2P)	1319000600
	Screw	2.1A	1.6-2.5	Non-differential(2P)	1319000700
	Screw	3.3A	2.5-4	Non-differential(2P)	1319000800
	Screw	5A	4-6	Non-differential(2P)	1319000900
	Screw	6.3A	5-8	Non-differential(2P)	1319001000
	Screw	7.5A	6-9	Non-differential(2P)	1319001100
	Screw	8.5A	7-10	Non-differential(2P)	1319001200
	Screw	11A	8-13	Non-differential(2P)	1319001300
	Screw	15A	12-18	Non-differential(2P)	1319001400
	Screw	0.11A	0.1-0.18	Differential(2P)	1329000100
	Screw	0.21A	0.16-0.25	Differential(2P)	1329000200
	Screw	0.35A	0.25-0.4	Differential(2P)	1329000300
	Screw	0.52A	0.4-0.63	Differential(2P)	1329000400
	Screw	0.82A	0.63-1	Differential(2P)	1329000500
	Screw	1.3A	1-1.6	Differential(2P)	1329000600
	Screw	2.1A	1.6-2.5	Differential(2P)	1329000700
	Screw	3.3A	2.5-4	Differential(2P)	1329000800
	Screw	5A	4-6	Differential(2P)	1329000900
	Screw	6.3A	5-8	Differential(2P)	1329001000
	Screw	7.5A	6-9	Differential(2P)	1329001100
	Screw	8.5A	7-10	Differential(2P)	1329001200
	Screw	11A	8-13	Differential(2P)	1329001300
	Screw	15A	12-18	Differential(2P)	1329001400
	Screw	1.3A	1-1.6	Class 20(2P)	1324000100
	Screw	2.1A	1.6-2.5	Class 20(2P)	1324000200
	Screw	3.3A	2.5-4	Class 20(2P)	1324000300
	Screw	5A	4-6	Class 20(2P)	1324000400
	Screw	6.3A	5-8	Class 20(2P)	1324000500
	Screw	7.5A	6-9	Class 20(2P)	1324000600
	Screw	8.5A	7-10	Class 20(2P)	1324000700
	Screw	11A	8-13	Class 20(2P)	1324000800
Screw	15A	12-18	Class 20(2P)	1324000900	

Contactors

MT-32 Screw type



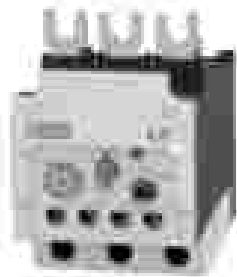
40AF

Model	Terminal type	Rated current	Range	Type	Code
	Screw	0.14A	0.1-0.16	Non-differential	1296001100
	Screw	0.21A	0.16-0.25	Non-differential	1296001200
	Screw	0.33A	0.25-0.4	Non-differential	1296001300
	Screw	0.52A	0.4-0.63	Non-differential	1296001400
	Screw	0.82A	0.63-1	Non-differential	1296001500
	Screw	1.2A	1-1.6	Non-differential	1296001600
	Screw	2.1A	1.6-2.5	Non-differential	1296001700
	Screw	3.2A	2.5-4	Non-differential	1296001800
	Screw	5A	4-6	Non-differential	1296001900
	Screw	6.5A	5-8	Non-differential	1296002000
	Screw	7.5A	6-8	Non-differential	1296002100
	Screw	8.5A	7-10	Non-differential	1296002200
	Screw	11A	9-13	Non-differential	1296002300
	Screw	15A	12-18	Non-differential	1296002400
	Screw	19A	16-22	Non-differential	1296002500
	Screw	21.5A	18-25	Non-differential	1296002600
	Screw	27A	22-32	Non-differential	1296002700
	Screw	34A	28-40	Non-differential	1296002800
	Screw	0.14A	0.1-0.16	Non-differential	1297001100
	Screw	0.21A	0.16-0.25	Non-differential	1297001200
	Screw	0.33A	0.25-0.4	Non-differential	1297001300
	Screw	0.52A	0.4-0.63	Non-differential	1297001400
	Screw	0.82A	0.63-1	Non-differential	1297001500
	Screw	1.2A	1-1.6	Non-differential	1297001600
	Screw	2.1A	1.6-2.5	Non-differential	1297001700
	Screw	3.2A	2.5-4	Non-differential	1297001800
	Screw	5A	4-6	Non-differential	1297001900
	Screw	6.5A	5-8	Non-differential	1297002000
	Screw	7.5A	6-8	Non-differential	1297002100
	Screw	8.5A	7-10	Non-differential	1297002200
	Screw	11A	9-13	Non-differential	1297002300
	Screw	15A	12-18	Non-differential	1297002400
	Screw	19A	16-22	Non-differential	1297002500
	Screw	21.5A	18-25	Non-differential	1297002600
	Screw	27A	22-32	Non-differential	1297002700
	Screw	34A	28-40	Non-differential	1297002800
	Screw	0.14A	0.1-0.16	Differential	1296003100
	Screw	0.21A	0.16-0.25	Differential	1296003200
	Screw	0.33A	0.25-0.4	Differential	1296003300
	Screw	0.52A	0.4-0.63	Differential	1296003400
	Screw	0.82A	0.63-1	Differential	1296003500
	Screw	1.2A	1-1.6	Differential	1296003600
	Screw	2.1A	1.6-2.5	Differential	1296003700
	Screw	3.2A	2.5-4	Differential	1296003800
	Screw	5A	4-6	Differential	1296003900
	Screw	6.5A	5-8	Differential	1296004000
	Screw	7.5A	6-8	Differential	1296004100
	Screw	8.5A	7-10	Differential	1296004200
	Screw	11A	9-13	Differential	1296004300
	Screw	15A	12-18	Differential	1296004400
	Screw	19A	16-22	Differential	1296004500
	Screw	21.5A	18-25	Differential	1296004600
	Screw	27A	22-32	Differential	1296004700
	Screw	34A	28-40	Differential	1296004800
	Screw	1.2	1-1.6	Class 20(D)	1296001100
	Screw	2.1	1.6-2.5	Class 20(D)	1296001200
	Screw	3.2	2.5-4	Class 20(D)	1296001300
	Screw	5	4-6	Class 20(D)	1296001400
	Screw	6.5	5-8	Class 20(D)	1296001500
	Screw	7.5	6-8	Class 20(D)	1296001600
	Screw	8.5	7-10	Class 20(D)	1296001700
	Screw	11	9-13	Class 20(D)	1296001800
	Screw	15	12-18	Class 20(D)	1296001900
	Screw	19	16-22	Class 20(D)	1296002000
	Screw	21.5	18-25	Class 20(D)	1296002100
	Screw	27	22-32	Class 20(D)	1296002200
	Screw	34	28-40	Class 20(D)	1296002300

MT-32

Contactors

MT-63 Screw type

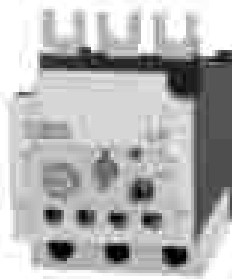


65AF

Model	Terminal type	Rated current	Tripping	Type	Code
MT-63	Screw	5	4-6	Non-differential(2P)	1300000100
	Screw	6.5	5-8	Non-differential(2P)	1300000200
	Screw	7.5	6-9	Non-differential(2P)	1300000300
	Screw	8.5	7-10	Non-differential(2P)	1300000400
	Screw	11	8-13	Non-differential(2P)	1300000500
	Screw	15	12-18	Non-differential(2P)	1300000600
	Screw	19	16-22	Non-differential(2P)	1300000700
	Screw	21.5	18-25	Non-differential(2P)	1300000800
	Screw	30	24-36	Non-differential(2P)	1300000900
	Screw	34	28-40	Non-differential(2P)	1300001000
	Screw	42	34-50	Non-differential(2P)	1300001100
	Screw	54	40-60	Non-differential(2P)	1300001200
	Screw	5	4-6	Non-differential(3P)	1300000100
	Screw	6.5	5-8	Non-differential(3P)	1300000200
	Screw	7.5	6-9	Non-differential(3P)	1300000300
	Screw	8.5	7-10	Non-differential(3P)	1300000400
	Screw	11	8-13	Non-differential(3P)	1300000500
	Screw	15	12-18	Non-differential(3P)	1300000600
	Screw	19	16-22	Non-differential(3P)	1300000700
	Screw	21.5	18-25	Non-differential(3P)	1300000800
Screw	30	24-36	Non-differential(3P)	1300000900	
Screw	34	28-40	Non-differential(3P)	1300001000	
Screw	42	34-50	Non-differential(3P)	1300001100	
Screw	54	40-60	Non-differential(3P)	1300001200	
Screw	5	4-6	Differential(2P)	1310000100	
Screw	6.5	5-8	Differential(2P)	1310000200	
Screw	7.5	6-9	Differential(2P)	1310000300	
Screw	8.5	7-10	Differential(2P)	1310000400	
Screw	11	8-13	Differential(2P)	1310000500	
Screw	15	12-18	Differential(2P)	1310000600	
Screw	19	16-22	Differential(2P)	1310000700	
Screw	21.5	18-25	Differential(2P)	1310000800	
Screw	30	24-36	Differential(2P)	1310000900	
Screw	34	28-40	Differential(2P)	1310001000	
Screw	42	34-50	Differential(2P)	1310001100	
Screw	54	40-60	Differential(2P)	1310001200	
Screw	5	4-6	Class 20(2P)	1311000100	
Screw	6.5	5-8	Class 20(2P)	1311000200	
Screw	7.5	6-9	Class 20(2P)	1311000300	
Screw	8.5	7-10	Class 20(2P)	1311000400	
Screw	11	8-13	Class 20(2P)	1311000500	
Screw	15	12-18	Class 20(2P)	1311000600	
Screw	19	16-22	Class 20(2P)	1311000700	
Screw	21.5	18-25	Class 20(2P)	1311000800	
Screw	30	24-36	Class 20(2P)	1311000900	
Screw	34	28-40	Class 20(2P)	1311001000	
Screw	42	34-50	Class 20(2P)	1311001100	
Screw	54	40-60	Class 20(2P)	1311001200	

Contactors

MT-63 Lug type

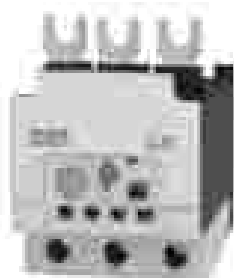


65AF

Model	Terminal type	Rated current	Range	Type	Code
MT-63	Lug	5	4-6	Non-differential(2P)	10000001
	Lug	6.5	5-8	Non-differential(2P)	10000002
	Lug	7.5	6-8	Non-differential(2P)	10000003
	Lug	8.5	7-10	Non-differential(2P)	10000004
	Lug	11	8-13	Non-differential(2P)	10000005
	Lug	15	12-18	Non-differential(2P)	10000006
	Lug	19	16-22	Non-differential(2P)	10000007
	Lug	21.5	18-25	Non-differential(2P)	10000008
	Lug	30	24-36	Non-differential(2P)	10000009
	Lug	34	28-40	Non-differential(2P)	10000010
	Lug	42	34-50	Non-differential(2P)	10000011
	Lug	55	42-60	Non-differential(2P)	10000012
	Lug	5	4-6	Non-differential(3P)	10010001
	Lug	6.5	5-8	Non-differential(3P)	10010002
	Lug	7.5	6-8	Non-differential(3P)	10010003
	Lug	8.5	7-10	Non-differential(3P)	10010004
	Lug	11	8-13	Non-differential(3P)	10010005
	Lug	15	12-18	Non-differential(3P)	10010006
	Lug	19	16-22	Non-differential(3P)	10010007
	Lug	21.5	18-25	Non-differential(3P)	10010008
Lug	30	24-36	Non-differential(3P)	10010009	
Lug	34	28-40	Non-differential(3P)	10010010	
Lug	42	34-50	Non-differential(3P)	10010011	
Lug	55	42-60	Non-differential(3P)	10010012	
Lug	5	4-6	Differential(2P)	10020001	
Lug	6.5	5-8	Differential(2P)	10020002	
Lug	7.5	6-8	Differential(2P)	10020003	
Lug	8.5	7-10	Differential(2P)	10020004	
Lug	11	8-13	Differential(2P)	10020005	
Lug	15	12-18	Differential(2P)	10020006	
Lug	19	16-22	Differential(2P)	10020007	
Lug	21.5	18-25	Differential(2P)	10020008	
Lug	30	24-36	Differential(2P)	10020009	
Lug	34	28-40	Differential(2P)	10020010	
Lug	42	34-50	Differential(2P)	10020011	
Lug	55	42-60	Differential(2P)	10020012	
Lug	5	4-6	Class 20(2D)	10030001	
Lug	6.5	5-8	Class 20(2D)	10030002	
Lug	7.5	6-8	Class 20(2D)	10030003	
Lug	8.5	7-10	Class 20(2D)	10030004	
Lug	11	8-13	Class 20(2D)	10030005	
Lug	15	12-18	Class 20(2D)	10030006	
Lug	19	16-22	Class 20(2D)	10030007	
Lug	21.5	18-25	Class 20(2D)	10030008	
Lug	30	24-36	Class 20(2D)	10030009	
Lug	34	28-40	Class 20(2D)	10030010	
Lug	42	34-50	Class 20(2D)	10030011	
Lug	55	42-60	Class 20(2D)	10030012	

Contactors

MT-95 Screw type

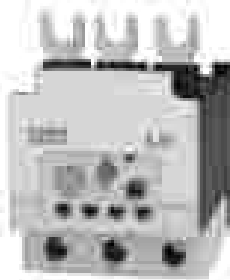


65AF

Model	Terminal type	Rated current	Tripping	Type	Code
MT-95	Screw	6.3	7-10	Non-differential(2P)	1312000100
	Screw	11	9-13	Non-differential(2P)	1312000200
	Screw	15	12-18	Non-differential(2P)	1312000300
	Screw	19	16-22	Non-differential(2P)	1312000400
	Screw	21.5	18-25	Non-differential(2P)	1312000500
	Screw	30	24-36	Non-differential(2P)	1312000600
	Screw	34	28-40	Non-differential(2P)	1312000700
	Screw	42	34-50	Non-differential(2P)	1312000800
	Screw	54	40-55	Non-differential(2P)	1312000900
	Screw	65	54-75	Non-differential(2P)	1312001000
	Screw	78	63-85	Non-differential(2P)	1312001100
	Screw	83	70-95	Non-differential(2P)	1312001200
	Screw	90	80-100	Non-differential(2P)	1312001300
	Screw	6.3	7-10	Non-differential(3P)	1313000100
	Screw	11	9-13	Non-differential(3P)	1313000200
	Screw	15	12-18	Non-differential(3P)	1313000300
	Screw	19	16-22	Non-differential(3P)	1313000400
	Screw	21.5	18-25	Non-differential(3P)	1313000500
	Screw	30	24-36	Non-differential(3P)	1313000600
	Screw	34	28-40	Non-differential(3P)	1313000700
	Screw	42	34-50	Non-differential(3P)	1313000800
	Screw	54	40-55	Non-differential(3P)	1313000900
	Screw	65	54-75	Non-differential(3P)	1313001000
	Screw	78	63-85	Non-differential(3P)	1313001100
	Screw	83	70-95	Non-differential(3P)	1313001200
	Screw	90	80-100	Non-differential(3P)	1313001300
	Screw	6.3	7-10	Differential(2P)	1314000100
	Screw	11	9-13	Differential(2P)	1314000200
	Screw	15	12-18	Differential(2P)	1314000300
	Screw	19	16-22	Differential(2P)	1314000400
Screw	21.5	18-25	Differential(2P)	1314000500	
Screw	30	24-36	Differential(2P)	1314000600	
Screw	34	28-40	Differential(2P)	1314000700	
Screw	42	34-50	Differential(2P)	1314000800	
Screw	54	40-55	Differential(2P)	1314000900	
Screw	65	54-75	Differential(2P)	1314001000	
Screw	78	63-85	Differential(2P)	1314001100	
Screw	83	70-95	Differential(2P)	1314001200	
Screw	90	80-100	Differential(2P)	1314001300	
Screw	6.3	7-10	Class 20(2P)	1315000100	
Screw	11	9-13	Class 20(2P)	1315000200	
Screw	15	12-18	Class 20(2P)	1315000300	
Screw	19	16-22	Class 20(2P)	1315000400	
Screw	21.5	18-25	Class 20(2P)	1315000500	
Screw	30	24-36	Class 20(2P)	1315000600	
Screw	34	28-40	Class 20(2P)	1315000700	
Screw	42	34-50	Class 20(2P)	1315000800	
Screw	54	40-55	Class 20(2P)	1315000900	
Screw	65	54-75	Class 20(2P)	1315001000	
Screw	78	63-85	Class 20(2P)	1315001100	
Screw	83	70-95	Class 20(2P)	1315001200	
Screw	90	80-100	Class 20(2P)	1315001300	

Contactors

MT-95 Lug type

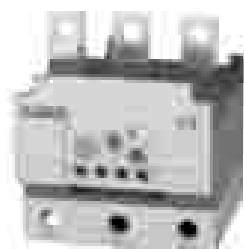


65AF

Model	Terminal type	Rated current	Range	Type	Code
MT-95	Lug	6.5	7-10	Non-differential(2P)	10040001
	Lug	11	9-13	Non-differential(2P)	10040002
	Lug	15	12-18	Non-differential(2P)	10040003
	Lug	19	18-22	Non-differential(2P)	10040004
	Lug	21.5	18-25	Non-differential(2P)	10040005
	Lug	30	24-36	Non-differential(2P)	10040006
	Lug	34	28-40	Non-differential(2P)	10040007
	Lug	42	34-50	Non-differential(2P)	10040008
	Lug	54	42-55	Non-differential(2P)	10040009
	Lug	65	54-75	Non-differential(2P)	10040010
	Lug	74	63-85	Non-differential(2P)	10040011
	Lug	83	70-95	Non-differential(2P)	10040012
	Lug	90	80-100	Non-differential(2P)	10040013
	Lug	6.5	7-10	Non-differential(3P)	10050001
	Lug	11	9-13	Non-differential(3P)	10050002
	Lug	15	12-18	Non-differential(3P)	10050003
	Lug	19	18-22	Non-differential(3P)	10050004
	Lug	21.5	18-25	Non-differential(3P)	10050005
	Lug	30	24-36	Non-differential(3P)	10050006
	Lug	34	28-40	Non-differential(3P)	10050007
Lug	42	34-50	Non-differential(3P)	10050008	
Lug	54	42-55	Non-differential(3P)	10050009	
Lug	65	54-75	Non-differential(3P)	10050010	
Lug	74	63-85	Non-differential(3P)	10050011	
Lug	83	70-95	Non-differential(3P)	10050012	
Lug	90	80-100	Non-differential(3P)	10050013	
Lug	6.5	7-10	Differential(2P)	10060001	
Lug	11	9-13	Differential(2P)	10060002	
Lug	15	12-18	Differential(2P)	10060003	
Lug	19	18-22	Differential(2P)	10060004	
Lug	21.5	18-25	Differential(2P)	10060005	
Lug	30	24-36	Differential(2P)	10060006	
Lug	34	28-40	Differential(2P)	10060007	
Lug	42	34-50	Differential(2P)	10060008	
Lug	54	42-55	Differential(2P)	10060009	
Lug	65	54-75	Differential(2P)	10060010	
Lug	74	63-85	Differential(2P)	10060011	
Lug	83	70-95	Differential(2P)	10060012	
Lug	90	80-100	Differential(2P)	10060013	
Lug	6.5	7-10	Class 20(2D)	10070001	
Lug	11	9-13	Class 20(2D)	10070002	
Lug	15	12-18	Class 20(2D)	10070003	
Lug	19	18-22	Class 20(2D)	10070004	
Lug	21.5	18-25	Class 20(2D)	10070005	
Lug	30	24-36	Class 20(2D)	10070006	
Lug	34	28-40	Class 20(2D)	10070007	
Lug	42	34-50	Class 20(2D)	10070008	
Lug	54	42-55	Class 20(2D)	10070009	
Lug	65	54-75	Class 20(2D)	10070010	
Lug	74	63-85	Class 20(2D)	10070011	
Lug	83	70-95	Class 20(2D)	10070012	
Lug	90	80-100	Class 20(2D)	10070013	

Contactors

MT-150 Screw / Lug type

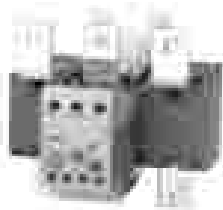


65AF

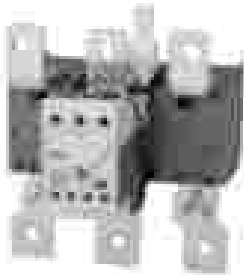
Model	Terminal type	Rated current	Voltage	Type	Code
MT 150	Screw	40A	14-34	Non-differential(2P)	1375000100
	Screw	50A	40-65	Non-differential(2P)	1375000200
	Screw	63A	54-75	Non-differential(2P)	1375000300
	Screw	74A	63-85	Non-differential(2P)	1375000400
	Screw	90A	80-105	Non-differential(2P)	1375000500
	Screw	113A	95-130	Non-differential(2P)	1375000600
	Screw	130A	110-150	Non-differential(2P)	1375000700
	Screw	40A	14-34	Non-differential(3P)	1375000800
	Screw	50A	40-65	Non-differential(3P)	1375000900
	Screw	63A	54-75	Non-differential(3P)	1375001000
	Screw	74A	63-85	Non-differential(3P)	1375001100
	Screw	90A	80-105	Non-differential(3P)	1375001200
	Screw	113A	95-130	Non-differential(3P)	1375001300
	Screw	130A	110-150	Non-differential(3P)	1375001400
	Screw	40A	14-34	Differential(2P)	1375001500
	Screw	50A	40-65	Differential(2P)	1375001600
	Screw	63A	54-75	Differential(2P)	1375001700
	Screw	74A	63-85	Differential(2P)	1375001800
	Screw	90A	80-105	Differential(2P)	1375001900
	Screw	113A	95-130	Differential(2P)	1375002000
	Screw	130A	110-150	Differential(2P)	1375002100
	Screw	40A	14-34	Class 20(2P)	1375002200
	Screw	50A	40-65	Class 20(2P)	1375002300
	Screw	63A	54-75	Class 20(2P)	1375002400
	Screw	74A	63-85	Class 20(2P)	1375002500
	Screw	90A	80-105	Class 20(2P)	1375002600
	Screw	113A	95-130	Class 20(2P)	1375002700
	Screw	130A	110-150	Class 20(2P)	1375002800
	Screw	40A	14-34	Non-differential(2P)	1375002900
	Screw	50A	40-65	Non-differential(2P)	1375003000
	Screw	63A	54-75	Non-differential(2P)	1375003100
	Screw	74A	63-85	Non-differential(2P)	1375003200
	Screw	90A	80-105	Non-differential(2P)	1375003300
	Screw	113A	95-130	Non-differential(2P)	1375003400
	Screw	130A	110-150	Non-differential(2P)	1375003500
	Screw	40A	14-34	Non-differential(3P)	1375003600
Screw	50A	40-65	Non-differential(3P)	1375003700	
Screw	63A	54-75	Non-differential(3P)	1375003800	
Screw	74A	63-85	Non-differential(3P)	1375003900	
Screw	90A	80-105	Non-differential(3P)	1375004000	
Screw	113A	95-130	Non-differential(3P)	1375004100	
Screw	130A	110-150	Non-differential(3P)	1375004200	
Screw	40A	14-34	Differential(3P)	1375004300	
Screw	50A	40-65	Differential(3P)	1375004400	
Screw	63A	54-75	Differential(3P)	1375004500	
Screw	74A	63-85	Differential(3P)	1375004600	
Screw	90A	80-105	Differential(3P)	1375004700	
Screw	113A	95-130	Differential(3P)	1375004800	
Screw	130A	110-150	Differential(3P)	1375004900	
Screw	40A	14-34	Class 20(3P)	1375005000	
Screw	50A	40-65	Class 20(3P)	1375005100	
Screw	63A	54-75	Class 20(3P)	1375005200	
Screw	74A	63-85	Class 20(3P)	1375005300	
Screw	90A	80-105	Class 20(3P)	1375005400	
Screw	113A	95-130	Class 20(3P)	1375005500	
Screw	130A	110-150	Class 20(3P)	1375005600	

Contactors

MT-225 - MT-800 Screw type



225AF



400AF



800AF

Model	Terminal type	Rated current	Range	Type	Code
MT-225	Screw	80A	65-100	Non-differential(2P)	1377000100
	Screw	107A	80-125	Non-differential(2P)	1377000100
	Screw	100A	100-160	Non-differential(2P)	1377000100
	Screw	153A	120-185	Non-differential(2P)	1377000100
	Screw	200A	160-240	Non-differential(2P)	1377000100
	Screw	250A	200-300	Non-differential(2P)	1377000100
	Screw	100A	80-125	Non-differential(2P)	1377000100
	Screw	100A	100-160	Non-differential(2P)	1377000100
	Screw	153A	120-185	Non-differential(2P)	1377000100
	Screw	200A	160-240	Non-differential(2P)	1377000100
	Screw	80A	65-100	Differential(2P)	1377001100
	Screw	107A	80-125	Differential(2P)	1377001200
	Screw	120A	100-160	Differential(2P)	1377001300
	Screw	153A	120-185	Differential(2P)	1377001400
	Screw	200A	160-240	Differential(2P)	1377001500
	Screw	80A	65-100	Class 20(2P)	1377001600
	Screw	107A	80-125	Class 20(2P)	1377001700
	Screw	100A	100-160	Class 20(2P)	1377001800
	Screw	150A	120-185	Class 20(2P)	1377001900
	MT-400	Screw	200A	160-240	Class 20(2P)
Screw		250A	200-300	Class 20(2P)	1377001100
Screw		107A	80-125	Non-differential(2P)	1370000100
Screw		100A	100-160	Non-differential(2P)	1370000200
Screw		153A	120-185	Non-differential(2P)	1370000300
Screw		200A	160-240	Non-differential(2P)	1370000400
Screw		250A	200-300	Non-differential(2P)	1370000500
Screw		300A	240-400	Non-differential(2P)	1370000600
Screw		107A	80-125	Non-differential(2P)	1370000700
Screw		100A	100-160	Non-differential(2P)	1370000800
Screw		153A	120-185	Non-differential(2P)	1370000900
Screw		200A	160-240	Non-differential(2P)	1370001000
Screw		250A	200-300	Non-differential(2P)	1370001100
Screw		300A	240-400	Non-differential(2P)	1370001200
Screw		107A	80-125	Differential(2P)	1370001300
Screw		100A	100-160	Differential(2P)	1370001400
Screw		150A	120-185	Differential(2P)	1370001500
Screw		200A	160-240	Differential(2P)	1370001600
Screw		250A	200-300	Differential(2P)	1370001700
Screw		300A	240-400	Differential(2P)	1370001800
MT-800	Screw	200A	160-240	Class 20(2P)	1370001900
	Screw	250A	200-300	Class 20(2P)	1370002000
	Screw	300A	240-400	Class 20(2P)	1370002100
	Screw	315A	250-300	Class 20(2P)	1370002200
	Screw	250A	200-300	Non-differential(2P)	1370000100
	Screw	300A	240-400	Non-differential(2P)	1370000200
	Screw	315A	250-300	Non-differential(2P)	1370000300
	Screw	400A	320-400	Non-differential(2P)	1370000400
	Screw	250A	200-300	Non-differential(2P)	1370000500
	Screw	300A	240-400	Non-differential(2P)	1370000600
	Screw	315A	250-300	Non-differential(2P)	1370000700
	Screw	400A	320-400	Non-differential(2P)	1370000800
	Screw	250A	200-300	Differential(2P)	1370000900
	Screw	300A	240-400	Differential(2P)	1370001000
Screw	315A	250-300	Differential(2P)	1370001100	
Screw	400A	320-400	Differential(2P)	1370001200	
Screw	250A	200-300	Class 20(2P)	1370001300	
Screw	300A	240-400	Class 20(2P)	1370001400	
Screw	315A	250-300	Class 20(2P)	1370001500	
Screw	400A	320-400	Class 20(2P)	1370001600	

Direct adapter

Type	Model	Description	Applied products	Code
Direct adapter	DA 16SA	Adapter, MINI, AC, DA 16SA	CMC 6M-16M	73311941001
	DA 16SD	Adapter, MINI, DC, DA 16SD	CMC 6M-16M	73311941002
	DA 16SA	Adapter, MINI, AC, DA 16SA	CMC 6M-16M	73311941003
	DA 16SD	Adapter, MINI, DC, DA 16SD	CMC 6M-16M	73311941004
	DA 16SA	Adapter, AC, DA 16SA, EXP	MC 6a-16a AC	73311634001
	DA 16SD	Adapter, DC, DA 16SD, EXP	MC 6a-16a DC	73311634003
	DA 16SA	Adapter, AC, DA 16SA, EXP	MC 6a-16a AC	73311634002
	DA 16SD	Adapter, DC, DA 16SD, EXP	MC 6a-16a DC	73311634004
	DA 20SA	Adapter, AC, DA 20SA	MC 6a-20a AC	73311634005
	DA 20SD	Adapter, AC, DA 20SD	MC 6a-20a DC	73311634007
	DA 20SA	Adapter, AC, DA 20SA	MC 6a-20a AC	73311634006
	DA 20SD	Adapter, AC, DA 20SD	MC 6a-20a DC	73311634008
	DA 30SA	Adapter, AC, DA 30SA	MC 30a-40a AC	73311634001
	DA 30SD	Adapter, DC, DA 30SD	MC 30a-40a DC	73311634003
	DA 30SA	Adapter, AC, DA 30SA	MC 30a-40a AC	73311634002
	DA 30SD	Adapter, DC, DA 30SD	MC 30a-40a DC	73311634004
	DA 50A	Adapter, AC, DA 50A	MC 50a-60a AC Long	73311634005
	DA 50D	Adapter, DC, DA 50D	MC 50a-60a DC Long	73311634006
	DA 50A	Adapter, AC, DA 50A	MC 70a-100a AC Long	73311634007
	DA 50D	Adapter, DC, DA 50D	MC 70a-100a DC Long	73311634008

Surge unit



Model	Terminal type	Rated output	Type	Code
Surge Unit	US 1	AC 24-40V	MC 6a-150a	83811634001
	US 2	AC 100-125V	MC 6a-150a	83811634002
	US 3	AC 100-240V	MC 6a-150a	83811634003
	US 4	DC 24-40V	MC 6a-150a	83811634004
	US 5	DC 100-125V	MC 6a-150a	83811634005
	US 6	DC 240-250V	MC 6a-150a	83811634006
	US 11	AC/DC 24-40V	MC 6a-150a	83811634007
	US 12	AC/DC 100-125V	MC 6a-150a	83811634008
	US 13	AC/DC 100-240V	MC 6a-150a	83811634009
	US 14	AC 100-440V	MC 6a-150a	83811634010
	US 22	AC 100-125V	MC 6a-150a	83811634011

Aux. Contact unit

Type	Model	Description	Applied product	Code	
Aux. Contact Unit	AU-1	1A1B	1NO 1NC	MC 400-1100u	0001813001
		2A	2NC	MC 400-1100u	0001811008
	AU-2	1A1B	1NO 1NC	MC 400-1100u	0001811000
		2B	2NC	MC 400-1100u	0001811002
	AU-4	4A	4NC	MC 400-1100u	0001811004
		2A1B	2NO 1NC	MC 400-1200u	0001811006
		2A2B	2NO 2NC	MC 400-1100u	0001811008
		1A3B	1NO 3NC	MC 400-1100u	0001811000
		4B	4NC	MC 400-1200u	0001811002
	AU-100	1A1B	1NO 1NC	MC 1000-8000u	0001814000
AU-100E	1A1B	1NO 1NC	MC 1000-8000u	0001814010	

Wire Assy

Type	Model	Description	Applied product	Code
Wire Assy	UW-10	-	MC 400L-1100R	7001830000
	UW-20	-	MC 400L-2200R	7001830010
	UW-30	-	MC 400L-4400L	7001831000
	UW-40	-	MC 400L-8800R	7001830000
	UW-60	-	MC 700L-11000L	7001830000

Delay open device

Type	Model	Description	Applied product	Code
Delay open device	AD-0	AC200V	MC 00-00u	0001811001
	AD-0	AC110V	MC 00-00u	0001811000
	AD-00	AC200V	MC 20u-100u	0001813000
	AD-50	AC110V	MC 10u-100u	0001813001
	AD-100	AC100-240V	MC 100u-300u	0001814000
	AD-300	AC100-240V	MC 300u-400u	0001814001
	AD-400	AC100-227V	MC 300u-800u	0001814001
	AD-600	AC200-240V	MC 400u-800u	0001814000

Interlok unit



Type	Model	Description	Applied product	Code
Interlok Unit	UI-02	2NC	MC 62-150a	80411821000
	SE1-340	HORIZONTAL	MC 100a-400a	80411810000
	AF1-000	HORIZONTAL	MC 100a-300a	58121018000
	AF1-000	VERTICAL	MC 500a-600a	58121010000

Capacitor unit



Type	Model	Description	Applied product	Code
Capacitor Unit	AC-0	-	MC 62-40a	80021011000
	AC-50	-	MC 50a-100a	80021015000

Remote reset



Type	Model	Description	Applied product	Code
Remote reset	RM-4F1	400mm	MT 001-150	81581821000
	RM-5F1	500mm	MT 32-150	81581821000
	RM-6F1	600mm	MT 32-150	81581821000

Separate mounting adapter



Type	Model	Description	Applied product	Code
Separate mounting adapter	AZ-13MB1	-	GTB(R)-12M	830418201001
	U2-12	-	MT-32	830418201001
	U2-4000	-	MT-400	830418200002
	U2-6025	-	MT-60	830418200002
	U2-10025	-	MT-100	830418200002

Lug Ass'y terminal

Type	Model	Description	Applied product	Code
Lug Ass'y Terminal	AJ-200	-	MC-115A-200a	71021610000
	AJ-400	-	MC-200a-400a	71021610000
	AJ-800	-	MC-400a-800a	71021610000

Capacitor unit



Type	Model	Description	Applied product	Code
Safety Circuit	-	-	MC-60a-110a	8451160000
	-	-	MC-110a-800a	8451160000

Catalogue numbers

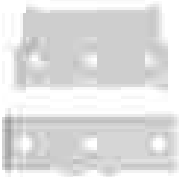
Latch unit

Type	Model	Rated current	Applied product	Description	Code
Latch unit	AL 0	AC24V	MC 64-80a		83401011007
	AL 0	AC100V	MC 64-80a		83401011004
	AL 0	AC200V	MC 64-80a		83401011008
	AL 0	AC300V	MC 64-80a		83401011009
	AL 0	AC140V	MC 64-80a		83401011011
	AL 0	AC50V	MC 64-80a		83401011013
	AL 0	DC24V	MC 64-80a		83401011024
	AL 0	DC40V	MC 64-80a		83401011025
	AL 0	DC100V	MC 64-80a		83401011016
	AL 0	DC125V	MC 64-80a		83401011018
	AL 0	DC12V	MC 64-80a		83401011020
	AL 0	DC200V	MC 64-80a		83401011022
	AL 00	AC24V	MC 100a 00a		83401013006
	AL 00	AC40V	MC 100a 00a		83401013014
	AL 00	AC100V	MC 100a 00a		83401013005
	AL 00	AC200V	MC 100a 00a		83401013004
	AL 00	AC300V	MC 100a 00a		83401013009
	AL 00	AC140V	MC 100a 00a		83401013010
	AL 00	AC50V	MC 100a 00a		83401013012
	AL 00	DC24V	MC 100a 00a		83401013014
	AL 00	DC100V	MC 100a 00a		83401013016
	AL 05	AC24V	MC 70a 150a		83401034001
	AL 05	AC40V	MC 70a 150a		83401034007
	AL 05	AC100V	MC 70a 150a		83401034003
	AL 05	AC200V	MC 70a 150a		83401034004
	AL 05	AC300V	MC 70a 150a		83401034005
	AL 05	AC140V	MC 70a 150a		83401034006
	AL 05	AC50V	MC 70a 150a		83401034008
	AL 05	DC24V	MC 70a 150a		83401034009
	AL 05	DC40V	MC 70a 150a		83401034010
	AL 05	DC100V	MC 70a 150a		83401034011
	AL 05	DC125V	MC 70a 150a		83401034012
	AL 05	DC200V	MC 70a 150a		83401034013
	AL 200	AC100V	MC 180a 250a	Base Latch, GMC 100L/200L	8340104001
				Quick Latch, GMC 100L/200L	8340104002
				Spacer Latch, GMC 100L - 400L	8340104003
				Latch Ass'y, AC100V, GMC 180L/200L	8340104004
	AL 200	AC200V	MC 180a 250a	Base Latch, GMC 100L/200L	8340104001
				Quick Latch, GMC 100L/200L	8340104002
				Spacer Latch, GMC 100L - 400L	8340104003
				Latch Ass'y, AC200V, GMC 180L/200L	8340104004
	AL 400	AC100V	MC 300a 400a	Base Latch, GMC 300L/400L	8340107001
				Quick Latch, GMC 300L/400L	8340107002
				Spacer Latch, GMC 300L - 400L	8340107003
				Latch Ass'y, AC100V, GMC 300L/400L	8340107004
AL 400	AC200V	MC 300a 400a	Base Latch, GMC 300L/400L	8340107001	
			Quick Latch, GMC 300L/400L	8340107002	
			Spacer Latch, GMC 300L - 400L	8340107003	
			Latch Ass'y, AC200V, GMC 300L/400L	8340107004	

Timer

Type	Model	Rated voltage	Applied product	Code
Timer	UT-1N	AC/DC24-41V	MC-10A-110A	02011834001
	UT-3N	AC/DC24-200V		02011834002
	UT-1F	AC/DC24-41V		02011834003
	UT-3F	AC/DC24-200V		02011834004

Cover



Type	Model	Applied product	Code
Terminal cover unit for contacts	AP-200	MC-110A-215A	04011814006
	AP-400	MC-200A-400A	04011814007
	AP-800	MC-500A-800A	04011814008

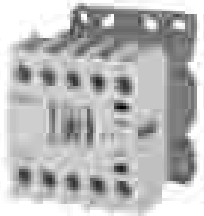


Type	Model	Applied product	Code
Terminal cover unit for TCB	APT-200	MT-225	04011817016
	APT-400	MT-400	04011817015



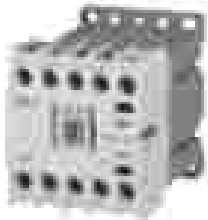
Type	Model	Applied product	Code
Insulation breaker units	AI-100	MC-110A-400A	02011814004
	AI-200	MC-200A-800A	02011814005

3-pole AC operating Mini Contactors (6-16A)



Model	Coil Voltage (V)	IR	No. of Auxiliary Contact	Capacity (A)
QMC-1M	AC650V	switch	0	10A/60-10000
	AC60V	switch	0	10A/60-10100
	AC240V	switch	0	10A/60-10200
	AC120V	switch	0	10A/60-10300
	AC60V	switch	0	10A/60-10400
	AC110V	switch	0	10A/60-10500
	AC115V	switch	0	10A/60-10600
	AC100V	switch	0	10A/60-10700
	AC100V	switch	0	10A/60-10800
	AC200V	switch	0	10A/60-10900
	AC200V	switch	0	10A/60-11000
	AC200V	switch	0	10A/60-11100
	AC200V	switch	0	10A/60-11200
	AC200V	switch	0	10A/60-11300
	AC200V	switch	0	10A/60-11400
	AC200V	switch	0	10A/60-11500
	AC200V	switch	0	10A/60-11600
	QMC-1M	AC100V	switch	0
AC100V		switch	0	10A/60-11800
QMC-1M	AC60V	switch	0	10A/60-11900
	AC60V	switch	0	10A/60-12000
	AC60V	switch	0	10A/60-12100
	AC60V	switch	0	10A/60-12200
	AC60V	switch	0	10A/60-12300
	AC60V	switch	0	10A/60-12400
	AC60V	switch	0	10A/60-12500
	AC60V	switch	0	10A/60-12600
	AC60V	switch	0	10A/60-12700
	AC60V	switch	0	10A/60-12800
	AC60V	switch	0	10A/60-12900
	AC60V	switch	0	10A/60-13000
	AC60V	switch	0	10A/60-13100
	AC60V	switch	0	10A/60-13200
	AC60V	switch	0	10A/60-13300
	AC60V	switch	0	10A/60-13400
	AC60V	switch	0	10A/60-13500
	AC60V	switch	0	10A/60-13600
	AC60V	switch	0	10A/60-13700
	AC60V	switch	0	10A/60-13800
	AC60V	switch	0	10A/60-13900
	AC60V	switch	0	10A/60-14000
	AC60V	switch	0	10A/60-14100
	AC60V	switch	0	10A/60-14200
	AC60V	switch	0	10A/60-14300
	AC60V	switch	0	10A/60-14400
	AC60V	switch	0	10A/60-14500
	AC60V	switch	0	10A/60-14600
	AC60V	switch	0	10A/60-14700
	AC60V	switch	0	10A/60-14800
	AC60V	switch	0	10A/60-14900
	AC60V	switch	0	10A/60-15000
	AC60V	switch	0	10A/60-15100
	AC60V	switch	0	10A/60-15200
	AC60V	switch	0	10A/60-15300
	AC60V	switch	0	10A/60-15400
AC60V	switch	0	10A/60-15500	
AC60V	switch	0	10A/60-15600	
AC60V	switch	0	10A/60-15700	
AC60V	switch	0	10A/60-15800	
AC60V	switch	0	10A/60-15900	
AC60V	switch	0	10A/60-16000	

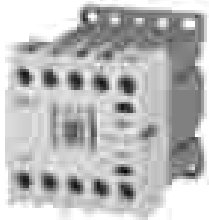
3-pole DC operating Mini Contactors (6-16A)



Model	Coil Voltage (V)	Coil Consumption	No. of Auxiliary Contact	Category No.
	DC 12V	1.2W	1a	1270004300
	DC 24V	1.2W	1a	1270004400
	DC 48V	1.2W	1a	1270004500
	DC 60V	1.2W	1a	1270004600
	DC 72V	1.2W	1a	1270004700
	DC 110V	1.2W	1a	1270004800
	DC 120V	1.2W	1a	1270004900
	DC 12V	1.2W	0b	1270007100
	DC 24V	1.2W	0b	1270007200
	DC 48V	1.2W	0b	1270007300
	DC 60V	1.2W	0b	1270007400
	DC 72V	1.2W	0b	1270007500
	DC 110V	1.2W	0b	1270007600
	DC 120V	1.2W	0b	1270007700
	DC 12V	2W	1a	1270005000
	DC 24V	2W	1a	1270005100
	DC 48V	2W	1a	1270005200
	DC 60V	2W	1a	1270005300
	DC 72V	2W	1a	1270005400
	DC 110V	2W	1a	1270005500
	DC 120V	2W	1a	1270005600
	DC 12V	2W	0b	1270007800
	DC 24V	2W	0b	1270007900
	DC 48V	2W	0b	1270008000
	DC 60V	2W	0b	1270008100
	DC 72V	2W	0b	1270008200
	DC 110V	2W	0b	1270008300
	DC 120V	2W	0b	1270008400
	DC 12V	2W	1a	1270008500
	DC 24V	2W	1a	1270008600
	DC 48V	2W	1a	1270008700
	DC 60V	2W	1a	1270008800
	DC 72V	2W	1a	1270008900
	DC 110V	2W	1a	1270009000
	DC 120V	2W	1a	1270009100
	DC 12V	2W	0b	1270009200
	DC 24V	2W	0b	1270009300
	DC 48V	2W	0b	1270009400
	DC 60V	2W	0b	1270009500
	DC 72V	2W	0b	1270009600
	DC 110V	2W	0b	1270009700
	DC 120V	2W	0b	1270009800
	DC 12V	2W	1a	1270009900
	DC 24V	2W	1a	1270010000
	DC 48V	2W	1a	1270010100
	DC 60V	2W	1a	1270010200
	DC 72V	2W	1a	1270010300
	DC 110V	2W	1a	1270010400
	DC 120V	2W	1a	1270010500
	DC 12V	2W	0b	1270010600
	DC 24V	2W	0b	1270010700
	DC 48V	2W	0b	1270010800
	DC 60V	2W	0b	1270010900
	DC 72V	2W	0b	1270011000
	DC 110V	2W	0b	1270011100
	DC 120V	2W	0b	1270011200
	DC 12V	1.2W	1a	1270011300

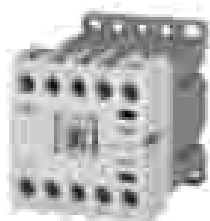
CMD 16A

3-pole DC operating Mini Contactors (6-16A)



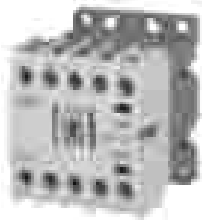
Model	Coil Voltage (V)	Coil Consumption	No. of Auxiliary Contact	Category No.
DC16V	1.2W	1A	12	1270001000
DC20V	1.2W	1A	12	1270001100
DC24V	1.2W	1A	12	1270001200
DC28V	1.2W	1A	12	1270001300
DC32V	1.2W	1A	12	1270001400
DC36V	1.2W	1A	12	1270001500
DC40V	1.2W	1A	12	1270001600
DC44V	1.2W	1A	12	1270001700
DC48V	1.2W	1A	12	1270001800
DC52V	1.2W	1A	12	1270001900
DC56V	1.2W	1A	12	1270002000
DC60V	1.2W	1A	12	1270002100
DC64V	1.2W	1A	12	1270002200
DC68V	1.2W	1A	12	1270002300
DC72V	1.2W	1A	12	1270002400
DC76V	1.2W	1A	12	1270002500
DC80V	1.2W	1A	12	1270002600
DC84V	1.2W	1A	12	1270002700
DC88V	1.2W	1A	12	1270002800
DC92V	1.2W	1A	12	1270002900
DC96V	1.2W	1A	12	1270003000
DC100V	1.2W	1A	12	1270003100
DC104V	1.2W	1A	12	1270003200
DC108V	1.2W	1A	12	1270003300
DC112V	1.2W	1A	12	1270003400
DC116V	1.2W	1A	12	1270003500
DC120V	1.2W	1A	12	1270003600
DC124V	1.2W	1A	12	1270003700
DC128V	1.2W	1A	12	1270003800
DC132V	1.2W	1A	12	1270003900
DC136V	1.2W	1A	12	1270004000
DC140V	1.2W	1A	12	1270004100
DC144V	1.2W	1A	12	1270004200
DC148V	1.2W	1A	12	1270004300
DC152V	1.2W	1A	12	1270004400
DC156V	1.2W	1A	12	1270004500
DC160V	1.2W	1A	12	1270004600
DC164V	1.2W	1A	12	1270004700
DC168V	1.2W	1A	12	1270004800
DC172V	1.2W	1A	12	1270004900
DC176V	1.2W	1A	12	1270005000
DC180V	1.2W	1A	12	1270005100
DC184V	1.2W	1A	12	1270005200
DC188V	1.2W	1A	12	1270005300
DC192V	1.2W	1A	12	1270005400
DC196V	1.2W	1A	12	1270005500
DC200V	1.2W	1A	12	1270005600
DC204V	1.2W	1A	12	1270005700
DC208V	1.2W	1A	12	1270005800
DC212V	1.2W	1A	12	1270005900
DC216V	1.2W	1A	12	1270006000
DC220V	1.2W	1A	12	1270006100
DC224V	1.2W	1A	12	1270006200
DC228V	1.2W	1A	12	1270006300
DC232V	1.2W	1A	12	1270006400
DC236V	1.2W	1A	12	1270006500
DC240V	1.2W	1A	12	1270006600
DC244V	1.2W	1A	12	1270006700
DC248V	1.2W	1A	12	1270006800
DC252V	1.2W	1A	12	1270006900
DC256V	1.2W	1A	12	1270007000
DC260V	1.2W	1A	12	1270007100
DC264V	1.2W	1A	12	1270007200
DC268V	1.2W	1A	12	1270007300
DC272V	1.2W	1A	12	1270007400
DC276V	1.2W	1A	12	1270007500
DC280V	1.2W	1A	12	1270007600
DC284V	1.2W	1A	12	1270007700
DC288V	1.2W	1A	12	1270007800
DC292V	1.2W	1A	12	1270007900
DC296V	1.2W	1A	12	1270008000
DC300V	1.2W	1A	12	1270008100
DC304V	1.2W	1A	12	1270008200
DC308V	1.2W	1A	12	1270008300
DC312V	1.2W	1A	12	1270008400
DC316V	1.2W	1A	12	1270008500
DC320V	1.2W	1A	12	1270008600
DC324V	1.2W	1A	12	1270008700
DC328V	1.2W	1A	12	1270008800
DC332V	1.2W	1A	12	1270008900
DC336V	1.2W	1A	12	1270009000
DC340V	1.2W	1A	12	1270009100
DC344V	1.2W	1A	12	1270009200
DC348V	1.2W	1A	12	1270009300
DC352V	1.2W	1A	12	1270009400
DC356V	1.2W	1A	12	1270009500
DC360V	1.2W	1A	12	1270009600
DC364V	1.2W	1A	12	1270009700
DC368V	1.2W	1A	12	1270009800
DC372V	1.2W	1A	12	1270009900
DC376V	1.2W	1A	12	1270010000
DC380V	1.2W	1A	12	1270010100
DC384V	1.2W	1A	12	1270010200
DC388V	1.2W	1A	12	1270010300
DC392V	1.2W	1A	12	1270010400
DC396V	1.2W	1A	12	1270010500
DC400V	1.2W	1A	12	1270010600
DC404V	1.2W	1A	12	1270010700
DC408V	1.2W	1A	12	1270010800
DC412V	1.2W	1A	12	1270010900
DC416V	1.2W	1A	12	1270011000
DC420V	1.2W	1A	12	1270011100
DC424V	1.2W	1A	12	1270011200
DC428V	1.2W	1A	12	1270011300
DC432V	1.2W	1A	12	1270011400
DC436V	1.2W	1A	12	1270011500
DC440V	1.2W	1A	12	1270011600
DC444V	1.2W	1A	12	1270011700
DC448V	1.2W	1A	12	1270011800
DC452V	1.2W	1A	12	1270011900
DC456V	1.2W	1A	12	1270012000
DC460V	1.2W	1A	12	1270012100
DC464V	1.2W	1A	12	1270012200
DC468V	1.2W	1A	12	1270012300
DC472V	1.2W	1A	12	1270012400
DC476V	1.2W	1A	12	1270012500
DC480V	1.2W	1A	12	1270012600
DC484V	1.2W	1A	12	1270012700
DC488V	1.2W	1A	12	1270012800
DC492V	1.2W	1A	12	1270012900
DC496V	1.2W	1A	12	1270013000
DC500V	1.2W	1A	12	1270013100
DC504V	1.2W	1A	12	1270013200
DC508V	1.2W	1A	12	1270013300
DC512V	1.2W	1A	12	1270013400
DC516V	1.2W	1A	12	1270013500
DC520V	1.2W	1A	12	1270013600
DC524V	1.2W	1A	12	1270013700
DC528V	1.2W	1A	12	1270013800
DC532V	1.2W	1A	12	1270013900
DC536V	1.2W	1A	12	1270014000
DC540V	1.2W	1A	12	1270014100
DC544V	1.2W	1A	12	1270014200
DC548V	1.2W	1A	12	1270014300
DC552V	1.2W	1A	12	1270014400
DC556V	1.2W	1A	12	1270014500
DC560V	1.2W	1A	12	1270014600
DC564V	1.2W	1A	12	1270014700
DC568V	1.2W	1A	12	1270014800
DC572V	1.2W	1A	12	1270014900
DC576V	1.2W	1A	12	1270015000
DC580V	1.2W	1A	12	1270015100
DC584V	1.2W	1A	12	1270015200
DC588V	1.2W	1A	12	1270015300
DC592V	1.2W	1A	12	1270015400
DC596V	1.2W	1A	12	1270015500
DC600V	1.2W	1A	12	1270015600
DC604V	1.2W	1A	12	1270015700
DC608V	1.2W	1A	12	1270015800
DC612V	1.2W	1A	12	1270015900
DC616V	1.2W	1A	12	1270016000
DC620V	1.2W	1A	12	1270016100
DC624V	1.2W	1A	12	1270016200
DC628V	1.2W	1A	12	1270016300
DC632V	1.2W	1A	12	1270016400
DC636V	1.2W	1A	12	1270016500
DC640V	1.2W	1A	12	1270016600
DC644V	1.2W	1A	12	1270016700
DC648V	1.2W	1A	12	1270016800
DC652V	1.2W	1A	12	1270016900
DC656V	1.2W	1A	12	1270017000
DC660V	1.2W	1A	12	1270017100
DC664V	1.2W	1A	12	1270017200
DC668V	1.2W	1A	12	1270017300
DC672V	1.2W	1A	12	1270017400
DC676V	1.2W	1A	12	1270017500
DC680V	1.2W	1A	12	1270017600
DC684V	1.2W	1A	12	1270017700
DC688V	1.2W	1A	12	1270017800
DC692V	1.2W	1A	12	1270017900
DC696V	1.2W	1A	12	1270018000
DC700V	1.2W	1A	12	1270018100
DC704V	1.2W	1A	12	1270018200
DC708V	1.2W	1A	12	1270018300
DC712V	1.2W	1A	12	1270018400
DC716V	1.2W	1A	12	1270018500
DC720V	1.2W	1A	12	1270018600
DC724V	1.2W	1A	12	1270018700
DC728V	1.2W	1A	12	1270018800
DC732V	1.2W	1A	12	1270018900
DC736V	1.2W	1A	12	1270019000
DC740V	1.2W	1A	12	1270019100
DC744V	1.2W	1A	12	1270019200
DC748V	1.2W	1A	12	1270019300
DC752V	1.2W	1A	12	1270019400
DC756V	1.2W	1A	12	1270019500
DC760V	1.2W	1A	12	1270019600
DC764V	1.2W	1A	12	1270019700
DC768V	1.2W	1A	12	1270019800
DC772V	1.2W	1A	12	1270019900
DC776V	1.2W	1A	12	1270020000
DC780V	1.2W	1A	12	1270020100
DC784V	1.2W	1A	12	1270020200
DC788V	1.2W	1A	12	1270020300
DC792V	1.2W	1A	12	1270020400
DC796V	1.2W	1A	12	1270020500
DC800V	1.2W	1A	12	1270020600
DC804V	1.2W	1A	12	1270020700
DC808V	1.2W	1A	12	1270020800
DC812V	1.2W	1A	12	1270020900
DC816V	1.2W	1A	12	1270021000
DC820V	1.2W	1A	12	1270021100
DC824V	1.2W	1A	12	1270021200
DC828V	1.2W	1A	12	1270021300
DC832V	1.2W	1A	12	1270021400
DC836V	1.2W	1A	12	1270021500
DC840V	1.2W	1A	12	1270021600
DC844V	1.2W	1A	12	1270021700
DC848V	1.2W	1A	12	1270021800
DC852V	1.2W	1A	12	1270021900
DC856V	1.2W	1A	12	1270022000
DC860V	1.2W	1A	12	1270022100
DC864V	1.2W	1A	12	1270022200
DC868V	1.2W	1A	12	1270022300
DC872V	1.2W	1A	12	1270022400
DC876V	1.2W	1A	12	1270022500
DC880V	1.2W	1A	12	1270022600
DC884V	1.2W	1A	12	1270022700
DC888V	1.2W	1A	12	1270022800
DC892V	1.2W	1A	12	1270022900
DC896V	1.2W	1A	12	1270023000
DC900V	1.2W	1A	12	1270023100
DC904V	1.2W	1A	12	1270023200
DC908V	1.2W	1A	12	1270023300
DC912V	1.2W	1A	12	1270023400
DC916V	1.2W	1A	12	1270023500
DC920V	1.2W	1A	12	1270023600
DC924V	1.2W	1A	12	1270023700
DC928V	1.2W	1A	12	1270023800

3-pole DC operating Mini Contactors (6-16A)



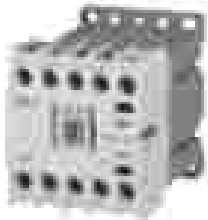
Model	Rated Voltage (V)	Rated Consumption	No. of Auxiliary Contact	Catalogue No.
	DC 12V	1.5W	1a	1270026000
	DC 24V	1.5W	1a	1270026400
	DC 48V	1.5W	1a	1270026800
	DC 60V	1.5W	1a	1270027000
	DC 72V	1.5W	1a	1270027200
	DC 96V	1.5W	1a	1270027600
	DC 120V	1.5W	1a	1270028000
	DC 150V	1.5W	1a	1270041100
	DC 60V	1.5W	1b	1270041200
	DC 24V	1.5W	1b	1270041300
	DC 60V	1.5W	1c	1270041400
	DC 24V	1.5W	1c	1270041500
	DC 120V	1.5W	1c	1270041600
	DC 150V	1.5W	1c	1270041700
	DC 12V	2W	1a	1270030000
	DC 24V	2W	1a	1270030400
	DC 48V	2W	1a	1270030800
	DC 60V	2W	1a	1270031200
	DC 72V	2W	1a	1270031600
	DC 96V	2W	1a	1270032000
	DC 120V	2W	1a	1270032400
	DC 150V	2W	1a	1270032800
	DC 12V	2W	1b	1270033200
	DC 24V	2W	1b	1270033600
	DC 48V	2W	1b	1270034000
	DC 60V	2W	1b	1270034400
	DC 72V	2W	1b	1270034800
	DC 96V	2W	1b	1270035200
	DC 120V	2W	1b	1270035600
	DC 150V	2W	1b	1270036000
	DC 12V	2W	1c	1270036400
	DC 24V	2W	1c	1270036800
	DC 48V	2W	1c	1270037200
	DC 60V	2W	1c	1270037600
	DC 72V	2W	1c	1270038000
	DC 96V	2W	1c	1270038400
	DC 120V	2W	1c	1270038800
	DC 150V	2W	1c	1270039200
	DC 12V	2W	1d	1270039600
	DC 24V	2W	1d	1270040000
	DC 48V	2W	1d	1270040400
	DC 60V	2W	1d	1270040800
	DC 72V	2W	1d	1270041200
	DC 96V	2W	1d	1270041600
	DC 120V	2W	1d	1270042000
	DC 150V	2W	1d	1270042400
	DC 12V	2W	1e	1270042800
	DC 24V	2W	1e	1270043200
	DC 48V	2W	1e	1270043600
	DC 60V	2W	1e	1270044000
	DC 72V	2W	1e	1270044400
	DC 96V	2W	1e	1270044800
	DC 120V	2W	1e	1270045200
	DC 150V	2W	1e	1270045600
	DC 12V	2W	1f	1270046000
	DC 24V	2W	1f	1270046400
	DC 48V	2W	1f	1270046800
	DC 60V	2W	1f	1270047200
	DC 72V	2W	1f	1270047600
	DC 96V	2W	1f	1270048000
	DC 120V	2W	1f	1270048400
	DC 150V	2W	1f	1270048800
	DC 12V	2W	1g	1270049200
	DC 24V	2W	1g	1270049600
	DC 48V	2W	1g	1270050000
	DC 60V	2W	1g	1270050400
	DC 72V	2W	1g	1270050800
	DC 96V	2W	1g	1270051200
	DC 120V	2W	1g	1270051600
	DC 150V	2W	1g	1270052000
	DC 12V	2W	1h	1270052400
	DC 24V	2W	1h	1270052800
	DC 48V	2W	1h	1270053200
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	DC 120V	2W	1h	1270054800
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	DC 12V	2W	1i	1270055600
	DC 24V	2W	1i	1270056000
	DC 48V	2W	1i	1270056400
	DC 60V	2W	1i	1270056800
	DC 72V	2W	1i	1270057200
	DC 96V	2W	1i	1270057600
	DC 120V	2W	1i	1270058000
	DC 150V	2W	1i	1270058400
	DC 12V	2W	1j	1270058800
	DC 24V	2W	1j	1270059200
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	DC 60V	2W	1j	1270060000
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	DC 96V	2W	1j	1270060800
	DC 120V	2W	1j	1270061200
	DC 150V	2W	1j	1270061600
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	DC 72V	2W	1k	1270063600
	DC 96V	2W	1k	1270064000
	DC 120V	2W	1k	1270064400
	DC 150V	2W	1k	1270064800
	DC 12V	2W	1l	1270065200
	DC 24V	2W	1l	1270065600
	DC 48V	2W	1l	1270066000
	DC 60V	2W	1l	1270066400
	DC 72V	2W	1l	1270066800
	DC 96V	2W	1l	1270067200
	DC 120V	2W	1l	1270067600
	DC 150V	2W	1l	1270068000
	DC 12V	2W	1m	1270068400
	DC 24V	2W	1m	1270068800
	DC 48V	2W	1m	1270069200
	DC 60V	2W	1m	1270069600
	DC 72V	2W	1m	1270070000
	DC 96V	2W	1m	1270070400
	DC 120V	2W	1m	1270070800
	DC 150V	2W	1m	1270071200
	DC 12V	2W	1n	1270071600
	DC 24V	2W	1n	1270072000
	DC 48V	2W	1n	1270072400
	DC 60V	2W	1n	1270072800
	DC 72V	2W	1n	1270073200
	DC 96V	2W	1n	1270073600
	DC 120V	2W	1n	1270074000
	DC 150V	2W	1n	1270074400
	DC 12V	2W	1o	1270074800
	DC 24V	2W	1o	1270075200
	DC 48V	2W	1o	1270075600
	DC 60V	2W	1o	1270076000
	DC 72V	2W	1o	1270076400
	DC 96V	2W	1o	1270076800
	DC 120V	2W	1o	1270077200
	DC 150V	2W	1o	1270077600
	DC 12V	2W	1p	1270078000
	DC 24V	2W	1p	1270078400
	DC 48V	2W	1p	1270078800
	DC 60V	2W	1p	1270079200
	DC 72V	2W	1p	1270079600
	DC 96V	2W	1p	1270080000
	DC 120V	2W	1p	1270080400
	DC 150V	2W	1p	1270080800
	DC 12V	2W	1q	1270081200
	DC 24V	2W	1q	1270081600
	DC 48V	2W	1q	1270082000
	DC 60V	2W	1q	1270082400
	DC 72V	2W	1q	1270082800
	DC 96V	2W	1q	1270083200
	DC 120V	2W	1q	1270083600
	DC 150V	2W	1q	1270084000
	DC 12V	2W	1r	1270084400
	DC 24V	2W	1r	1270084800
	DC 48V	2W	1r	1270085200
	DC 60V	2W	1r	1270085600
	DC 72V	2W	1r	1270086000
	DC 96V	2W	1r	1270086400
	DC 120V	2W	1r	1270086800
	DC 150V	2W	1r	1270087200
	DC 12V	2W	1s	1270087600
	DC 24V	2W	1s	1270088000
	DC 48V	2W	1s	1270088400
	DC 60V	2W	1s	1270088800
	DC 72V	2W	1s	1270089200
	DC 96V	2W	1s	1270089600
	DC 120V	2W	1s	1270090000
	DC 150V	2W	1s	1270090400
	DC 12V	2W	1t	1270090800
	DC 24V	2W	1t	1270091200
	DC 48V	2W	1t	1270091600
	DC 60V	2W	1t	1270092000
	DC 72V	2W	1t	1270092400
	DC 96V	2W	1t	1270092800
	DC 120V	2W	1t	1270093200
	DC 150V	2W	1t	1270093600
	DC 12V	2W	1u	1270094000
	DC 24V	2W	1u	1270094400
	DC 48V	2W	1u	1270094800
	DC 60V	2W	1u	1270095200
	DC 72V	2W	1u	1270095600
	DC 96V	2W	1u	1270096000
	DC 120V	2W	1u	1270096400
	DC 150V	2W	1u	1270096800
	DC 12V	2W	1v	1270097200
	DC 24V	2W	1v	1270097600
	DC 48V	2W	1v	1270098000
	DC 60V	2W	1v	1270098400
	DC 72V	2W	1v	1270098800
	DC 96V	2W	1v	1270099200
	DC 120V	2W	1v	1270099600
	DC 150V	2W	1v	1270100000
	DC 12V	2W	1w	1270100400
	DC 24V	2W	1w	1270100800
	DC 48V	2W	1w	1270101200
	DC 60V	2W	1w	1270101600
	DC 72V	2W	1w	1270102000
	DC 96V	2W	1w	1270102400
	DC 120V	2W	1w	1270102800
	DC 150V	2W	1w	1270103200
	DC 12V	2W	1x	1270103600
	DC 24V	2W	1x	1270104000
	DC 48V	2W	1x	1270104400
	DC 60V	2W	1x	1270104800
	DC 72V	2W	1x	1270105200
	DC 96V	2W	1x	1270105600
	DC 120V	2W	1x	1270106000
	DC 150V	2W	1x	1270106400
	DC 12V	2W	1y	1270106800
	DC 24V	2W	1y	1270107200
	DC 48V	2W	1y	1270107600
	DC 60V	2W	1y	1270108000
	DC 72V	2W	1y	1270108400
	DC 96V	2W	1y	1270108800
	DC 120V	2W	1y	1270109200
	DC 150V	2W	1y	1270109600
	DC 12V	2W	1z	1270110000
	DC 24V	2W	1z	1270110400
	DC 48V	2W	1z	1270110800
	DC 60V	2W	1z	1270111200
	DC 72V	2W	1z	1270111600
	DC 96V	2W	1z	1270112000
	DC 120V	2W	1z	1270112400
	DC 150V	2W	1z	1270112800
	DC 12V	2W	1aa	1270113200
	DC 24V	2W	1aa	1270113600
	DC 48V	2W	1aa	1270114000
	DC 60V	2W	1aa	1270114400
	DC 72V	2W	1aa	1270114800
	DC 96V	2W	1aa	1270115200
	DC 120V	2W	1aa	1270115600
	DC 150V	2W	1aa	1270116000
	DC 12V	2W	1ab	1270116400
	DC 24V	2W	1ab	1270116800
	DC 48V	2W	1ab	1270117200
	DC 60V	2W	1ab	1270117600
	DC 72V	2W	1ab	1270118000
	DC 96V	2W	1ab	1270118400
	DC 120V	2W	1ab	1270118800
	DC 150V	2W	1ab	1270119200
	DC 12V	2W	1ac	1270119600
	DC 24V	2W	1ac	1270120000
	DC 48V	2W	1ac	1270120400
	DC 60V	2W	1ac	1270120800
	DC 72V	2W	1ac	1270121200
	DC 96V	2W	1ac	1270121600
	DC 120V	2W	1ac	1270122000
	DC 150V	2W	1ac	1270122400
	DC 12V	2W	1ad	1270122800
	DC 24V	2W	1ad	1270123200
	DC 48V	2W	1ad	1270123600
	DC 60V	2W	1ad	1

4-pole AC operating Mini Contactors (6-16A)



Model	Rated Voltage (V)	FR	Main Contact	Catalogue No.
OMC-16M	AC 220V	10/10/10/10	2-pole	1260014000
	AC 24V	10/10/10/10	4-pole	1260020100
	AC 36V	10/10/10/10	4-pole	1260020200
	AC 48V	10/10/10/10	4-pole	1260020300
	AC 60V	10/10/10/10	4-pole	1260020400
	AC 110V	10/10/10/10	4-pole	1260020500
	AC 120V	10/10/10/10	4-pole	1260020600
	AC 120V	10/10/10/10	4-pole	1260020700
	AC 120V	10/10/10/10	4-pole	1260020800
	AC 120V	10/10/10/10	4-pole	1260020900
	AC 120V	10/10/10/10	4-pole	1260021000
	AC 120V	10/10/10/10	4-pole	1260021100
	AC 120V	10/10/10/10	4-pole	1260021200
	AC 120V	10/10/10/10	4-pole	1260021300
	AC 120V	10/10/10/10	4-pole	1260021400
	AC 120V	10/10/10/10	4-pole	1260021500
	AC 120V	10/10/10/10	4-pole	1260021600
	AC 120V	10/10/10/10	4-pole	1260021700
	AC 120V	10/10/10/10	4-pole	1260021800
	OMC-16M	AC 24V	10/10/10/10	2-pole
AC 36V		10/10/10/10	2-pole	1260022100
AC 48V		10/10/10/10	2-pole	1260022200
AC 60V		10/10/10/10	2-pole	1260022300
AC 110V		10/10/10/10	2-pole	1260022400
AC 120V		10/10/10/10	2-pole	1260022500
AC 120V		10/10/10/10	2-pole	1260022600
AC 120V		10/10/10/10	2-pole	1260022700
AC 120V		10/10/10/10	2-pole	1260022800
AC 120V		10/10/10/10	2-pole	1260022900
AC 120V		10/10/10/10	2-pole	1260023000
AC 120V		10/10/10/10	2-pole	1260023100
AC 120V		10/10/10/10	2-pole	1260023200
AC 120V		10/10/10/10	2-pole	1260023300
AC 120V		10/10/10/10	2-pole	1260023400
AC 120V		10/10/10/10	2-pole	1260023500
AC 120V		10/10/10/10	2-pole	1260023600
AC 120V		10/10/10/10	2-pole	1260023700
AC 120V		10/10/10/10	2-pole	1260023800
AC 120V		10/10/10/10	2-pole	1260023900
AC 120V		10/10/10/10	2-pole	1260024000
AC 120V		10/10/10/10	2-pole	1260024100
AC 120V		10/10/10/10	2-pole	1260024200
AC 120V		10/10/10/10	2-pole	1260024300
AC 120V		10/10/10/10	2-pole	1260024400
AC 120V		10/10/10/10	2-pole	1260024500
AC 120V		10/10/10/10	2-pole	1260024600
AC 120V		10/10/10/10	2-pole	1260024700
AC 120V		10/10/10/10	2-pole	1260024800
AC 120V		10/10/10/10	2-pole	1260024900
AC 120V		10/10/10/10	2-pole	1260025000

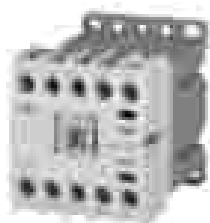
4-pole DC operating Mini Contactors (6-16A)



Model	Coil Voltage (V)	Coil Consumption (VA)	Main Contact	Catalogue No.
DC16V	12V	2.2W	2x25	12700011400
DC24V	12V	2.2W	2x25	12700011500
DC48V	12V	2.2W	2x25	12700011600
DC96V	12V	2.2W	2x25	12700011700
DC192V	12V	2.2W	2x25	12700011800
DC384V	12V	2.2W	2x25	12700011900
DC768V	12V	2.2W	2x25	12700020000
DC1536V	12V	2.2W	4x	12700021700
DC3072V	12V	2.2W	4x	12700021800
DC6144V	12V	2.2W	4x	12700021900
DC12288V	12V	2.2W	4x	12700022000
DC24576V	12V	2.2W	4x	12700022100
DC49152V	12V	2.2W	4x	12700022200
DC98304V	12V	2.2W	4x	12700022300
DC196608V	12V	2.2W	4x	12700022400
DC393216V	12V	2.2W	4x	12700022500
DC786432V	12V	2.2W	4x	12700022600
DC1572864V	12V	2.2W	4x	12700022700
DC3145728V	12V	2.2W	4x	12700022800
DC6291456V	12V	2.2W	4x	12700022900
DC12582912V	12V	2.2W	4x	12700023000
DC25165824V	12V	2.2W	4x	12700023100
DC50331648V	12V	2.2W	4x	12700023200
DC100663296V	12V	2.2W	4x	12700023300
DC201326592V	12V	2.2W	4x	12700023400
DC402653184V	12V	2.2W	4x	12700023500
DC805306368V	12V	2.2W	4x	12700023600
DC1610612736V	12V	2.2W	4x	12700023700
DC3221225472V	12V	2.2W	4x	12700023800
DC6442450944V	12V	2.2W	4x	12700023900
DC12884901888V	12V	2.2W	4x	12700024000
DC25769803776V	12V	2.2W	4x	12700024100
DC51539607552V	12V	2.2W	4x	12700024200
DC103079215104V	12V	2.2W	4x	12700024300
DC206158430208V	12V	2.2W	4x	12700024400
DC412316860416V	12V	2.2W	4x	12700024500
DC824633720832V	12V	2.2W	4x	12700024600
DC1649267441664V	12V	2.2W	4x	12700024700
DC3298534883328V	12V	2.2W	4x	12700024800
DC6597069766656V	12V	2.2W	4x	12700024900
DC13194139533312V	12V	2.2W	4x	12700025000
DC26388279066624V	12V	2.2W	4x	12700025100
DC52776558133248V	12V	2.2W	4x	12700025200
DC105553116266496V	12V	2.2W	4x	12700025300
DC211106232532992V	12V	2.2W	4x	12700025400
DC422212465065984V	12V	2.2W	4x	12700025500
DC844424930131968V	12V	2.2W	4x	12700025600
DC1688849860263936V	12V	2.2W	4x	12700025700
DC3377699720527872V	12V	2.2W	4x	12700025800
DC6755399441055744V	12V	2.2W	4x	12700025900
DC13510798882111488V	12V	2.2W	4x	12700026000
DC27021597764222976V	12V	2.2W	4x	12700026100
DC54043195528445952V	12V	2.2W	4x	12700026200
DC10808639105689184V	12V	2.2W	4x	12700026300
DC21617278211378368V	12V	2.2W	4x	12700026400
DC43234556422757376V	12V	2.2W	4x	12700026500
DC86469112845514752V	12V	2.2W	4x	12700026600
DC172938225691029024V	12V	2.2W	4x	12700026700
DC345876451382058048V	12V	2.2W	4x	12700026800
DC691752902764116096V	12V	2.2W	4x	12700026900
DC1383505805528221184V	12V	2.2W	4x	12700027000
DC2767011611056442368V	12V	2.2W	4x	12700027100
DC5534023222112884736V	12V	2.2W	4x	12700027200
DC11068046442225769472V	12V	2.2W	4x	12700027300
DC22136092884451538944V	12V	2.2W	4x	12700027400
DC44272185768903077888V	12V	2.2W	4x	12700027500
DC88544371537806155776V	12V	2.2W	4x	12700027600
DC177088743075612231552V	12V	2.2W	4x	12700027700
DC354177486151224463104V	12V	2.2W	4x	12700027800
DC708354972302448926208V	12V	2.2W	4x	12700027900
DC1416709944604897724416V	12V	2.2W	4x	12700028000
DC2833419889209795448832V	12V	2.2W	4x	12700028100
DC56668397784195908976V	12V	2.2W	4x	12700028200
DC113336795568391817952V	12V	2.2W	4x	12700028300
DC226673591136783635904V	12V	2.2W	4x	12700028400
DC453347182273567271808V	12V	2.2W	4x	12700028500
DC906694364547134543616V	12V	2.2W	4x	12700028600
DC1813388729094269087232V	12V	2.2W	4x	12700028700
DC3626777458188538174464V	12V	2.2W	4x	12700028800
DC7253554916377076348928V	12V	2.2W	4x	12700028900
DC145071098327541526976V	12V	2.2W	4x	12700029000
DC290142196655083053952V	12V	2.2W	4x	12700029100
DC580284393310166107904V	12V	2.2W	4x	12700029200
DC1160568786620332215808V	12V	2.2W	4x	12700029300
DC2321137573240664431616V	12V	2.2W	4x	12700029400
DC4642275146481328863232V	12V	2.2W	4x	12700029500
DC9284550292962657726464V	12V	2.2W	4x	12700029600
DC1856910058592511452928V	12V	2.2W	4x	12700029700
DC3713820117185022905856V	12V	2.2W	4x	12700029800
DC7427640234370045811712V	12V	2.2W	4x	12700029900
DC14855280468740891623424V	12V	2.2W	4x	12700030000

CMD 6M

4-pole DC operating Mini Contactors (6-16A)



Model	Rated Voltage (V)	Rated Consumption	Mini contact	Catalogue No.
	DC 12V	1.5W	2-pole	1270001000
	DC 24V	1.5W	2-pole	1270002700
	DC 48V	1.5W	2-pole	1270002800
	DC 60V	1.5W	2-pole	1270002900
	DC 72V	1.5W	2-pole	1270003000
	DC 96V	1.5W	2-pole	1270003100
	DC 120V	1.5W	2-pole	1270003200
	DC 144V	1.5W	4-pole	1270004200
	DC 180V	1.5W	4-pole	1270004300
	DC 240V	1.5W	4-pole	1270004400
	DC 300V	1.5W	4-pole	1270004500
	DC 360V	1.5W	4-pole	1270004600
	DC 480V	1.5W	4-pole	1270004700
	DC 600V	1.5W	4-pole	1270004800
	DC 12V	2W	2-pole	1270005300
	DC 24V	2W	2-pole	1270005400
	DC 48V	2W	2-pole	1270005500
	DC 60V	2W	2-pole	1270005600
	DC 72V	2W	2-pole	1270005700
	DC 96V	2W	2-pole	1270005800
	DC 120V	2W	2-pole	1270005900
	DC 144V	2W	4-pole	1270006000
	DC 180V	2W	4-pole	1270006100
	DC 240V	2W	4-pole	1270006200
	DC 300V	2W	4-pole	1270006300
	DC 360V	2W	4-pole	1270006400
	DC 480V	2W	4-pole	1270006500
	DC 12V	2W	4-pole	1270006600
	DC 144V	2W	4-pole	1270006700
	DC 180V	2W	4-pole	1270006800
	DC 240V	2W	4-pole	1270006900
	DC 300V	2W	4-pole	1270007000
	DC 360V	2W	4-pole	1270007100
	DC 480V	2W	4-pole	1270007200
	DC 12V	3W	2-pole	1270007300
	DC 24V	3W	2-pole	1270007400
	DC 48V	3W	2-pole	1270007500
	DC 60V	3W	2-pole	1270007600
	DC 72V	3W	2-pole	1270007700
	DC 96V	3W	2-pole	1270007800
	DC 120V	3W	2-pole	1270007900
	DC 144V	3W	4-pole	1270008000
	DC 180V	3W	4-pole	1270008100
	DC 240V	3W	4-pole	1270008200
	DC 300V	3W	4-pole	1270008300
	DC 360V	3W	4-pole	1270008400
	DC 480V	3W	4-pole	1270008500
	DC 12V	3W	4-pole	1270008600
	DC 144V	3W	4-pole	1270008700
	DC 180V	3W	4-pole	1270008800
	DC 240V	3W	4-pole	1270008900
	DC 300V	3W	4-pole	1270009000
	DC 360V	3W	4-pole	1270009100
	DC 480V	3W	4-pole	1270009200
	DC 12V	3W	4-pole	1270009300
	DC 144V	3W	4-pole	1270009400
	DC 180V	3W	4-pole	1270009500
	DC 240V	3W	4-pole	1270009600
	DC 300V	3W	4-pole	1270009700
	DC 360V	3W	4-pole	1270009800
	DC 480V	3W	4-pole	1270009900
	DC 12V	3W	4-pole	1270010000

EMC 10M

3-pole AC Contactors, Definite purpose



Type	Model	Rated voltage	Frequency	Code
CMC 3p	CMC 10P3	AC220V	50/60Hz	17330001100
	CMC 20P3	AC220V	50/60Hz	17330001500
	CMC 30P3	AC220V	50/60Hz	17330001800
	CMC 40P3	AC220V	50/60Hz	17330001700
	CMC 10P3	AC220V	50/60Hz	17330001800
	CMC 20P3	AC220V	50/60Hz	17330002200
	CMC 30P3	AC220V	50/60Hz	17330002500
	CMC 40P3	AC220V	50/60Hz	17330002400
	CMC 10P3	AC110V	50/60Hz	17330002500
	CMC 20P3	AC110V	50/60Hz	17330002900
	CMC 30P3	AC110V	50/60Hz	17330003200
	CMC 40P3	AC110V	50/60Hz	17330003100
	CMC 10P3	AC120V	50/60Hz	17330003200
	CMC 20P3	AC120V	50/60Hz	17330003600
	CMC 30P3	AC120V	50/60Hz	17330003900
	CMC 40P3	AC120V	50/60Hz	17330003800
	CMC 10P3	AC240V	50/60Hz	17330003900
	CMC 20P3	AC240V	50/60Hz	17330004300
	CMC 30P3	AC240V	50/60Hz	17330004600
	CMC 40P3	AC240V	50/60Hz	17330004500
	CMC 10P3	AC24V	50/60Hz	17330004600
	CMC 20P3	AC24V	50/60Hz	17330005000
	CMC 30P3	AC24V	50/60Hz	17330005300
	CMC 40P3	AC24V	50/60Hz	17330005200
	CMC 10P3	AC110V	50/60Hz	17330005300
	CMC 20P3	AC110V	50/60Hz	17330005700
	CMC 30P3	AC110V	50/60Hz	17330006000
	CMC 40P3	AC110V	50/60Hz	17330005900
	CMC 10P3	AC120V	50/60Hz	17330006000
	CMC 20P3	AC120V	50/60Hz	17330006400
	CMC 30P3	AC120V	50/60Hz	17330006700
	CMC 40P3	AC120V	50/60Hz	17330006600
	CMC 10P3	AC240V	50/60Hz	17330006700
	CMC 20P3	AC240V	50/60Hz	17330007100
	CMC 30P3	AC240V	50/60Hz	17330007400
	CMC 40P3	AC240V	50/60Hz	17330007300
	CMC 10P3	AC24V	50/60Hz	17330007400
	CMC 20P3	AC24V	50/60Hz	17330007800
	CMC 30P3	AC24V	50/60Hz	17330008100
	CMC 40P3	AC24V	50/60Hz	17330008000
	CMC 10P3	AC110V	50/60Hz	17330008100
	CMC 20P3	AC110V	50/60Hz	17330008500
CMC 30P3	AC110V	50/60Hz	17330008800	
CMC 40P3	AC110V	50/60Hz	17330008700	
CMC 10P3	AC120V	50/60Hz	17330008800	
CMC 20P3	AC120V	50/60Hz	17330009200	
CMC 30P3	AC120V	50/60Hz	17330009500	
CMC 40P3	AC120V	50/60Hz	17330009400	
CMC 10P3	AC240V	50/60Hz	17330009500	
CMC 20P3	AC240V	50/60Hz	17330009900	
CMC 30P3	AC240V	50/60Hz	17330010200	
CMC 40P3	AC240V	50/60Hz	17330010100	
CMC 10P3	AC24V	50/60Hz	17330010200	
CMC 20P3	AC24V	50/60Hz	17330010600	
CMC 30P3	AC24V	50/60Hz	17330010900	
CMC 40P3	AC24V	50/60Hz	17330010800	
CMC 10P3	AC110V	50/60Hz	17330010900	
CMC 20P3	AC110V	50/60Hz	17330011300	
CMC 30P3	AC110V	50/60Hz	17330011600	
CMC 40P3	AC110V	50/60Hz	17330011500	
CMC 10P3	AC120V	50/60Hz	17330011600	
CMC 20P3	AC120V	50/60Hz	17330012000	
CMC 30P3	AC120V	50/60Hz	17330012300	
CMC 40P3	AC120V	50/60Hz	17330012200	
CMC 10P3	AC240V	50/60Hz	17330012300	
CMC 20P3	AC240V	50/60Hz	17330012700	
CMC 30P3	AC240V	50/60Hz	17330013000	
CMC 40P3	AC240V	50/60Hz	17330012900	
CMC 10P3	AC24V	50/60Hz	17330013000	
CMC 20P3	AC24V	50/60Hz	17330013400	
CMC 30P3	AC24V	50/60Hz	17330013700	
CMC 40P3	AC24V	50/60Hz	17330013600	

2-pole DC Contactors



Type	Nominal Voltage	I _n	No. of Contact	Terminal code	Code
SMM 50P	AC100V		2pole		17320001700
SMM 60P	AC100V		2pole		17320001750
	AC120V		2pole		17320001700
SMM 70P	AC100V		2pole		17320001800
	AC120V		2pole		17320001750
SMM 80P	DC24V		2pole		17320001800
	DC48V		2pole		17320001800
	DC110V		2pole		17320001700
	DC220V		2pole		17320001750
SMM 100P	DC24V		2pole		17320001750
	DC48V		2pole		17320001700
	DC110V		2pole		17320001800
	DC220V		2pole		17320001700
SMM 100CP	DC24V		2pole		17320001800
	DC48V		2pole		17320001750

Manual Motor Starters

32AF



Model	Setting range of thermal trip (A)	AC Breaking capacity at 415V (kA)	Handle type	Code
MM1-32V	0.1-0.16	100	Toggle	0706003000
	0.16-0.25	100		0706003400
	0.25-0.4	100		0706003800
	0.4-0.63	100		0706003900
	0.63-1	100		0706003700
	1-1.6	100		0706003600
	1.6-2.5	100		0706003900
	2.5-4	100		0706004000
	4-6	100		0706004100
	6-8	100		0706004200
	8-10	50		0706004300
	10-13	50		0706004400
	13-17	30		0706004500
	17-22	15		0706004600
22-28	15	0706004700		
28-32	15	0706004800		
MM1-32H	0.1-0.16	100	Rotary	0706001100
	0.16-0.25	100		0706000200
	0.25-0.4	100		0706000300
	0.4-0.63	100		0706000400
	0.63-1	100		0706000500
	1-1.6	100		0706000600
	1.6-2.5	100		0706000700
	2.5-4	100		0706000800
	4-6	100		0706000900
	6-8	100		0706001000
	8-10	100		0706001100
	10-13	100		0706001200
	13-17	50		0706001300
	17-22	50		0706001400
22-28	50	0706001500		
28-32	50	0706001600		
MM1-32H	0.16	100	Rotary	0706001700
	0.25	100		0706001800
	4	100		0706001900
	6.3	100		0706002000
	1	100		0706002100
	1.6	100		0706002200
	2.5	100		0706002300
	4	100		0706002400
	6	100		0706002500
	8	100		0706002600
	10	100		0706002700
	13	100		0706002800
	17	50		0706002900
	22	50		0706003000
28	50	0706003100		
32	50	0706003200		

Manual Motor Starters

63AF








100AF




Model	Setting range of thermal type (A)	IP C Disabling capacity at 415V (kA)	Frame type	Code
MMS-63B	6-10	100	Rotary	0700000100
	6-13	50		0700000200
	11-17	25		0700000300
	14-22	25		0700000400
	36-24	25		0700000500
	22-32	25		0700000600
	36-40	25		0700000700
	34-50	25		0700000800
45-63	25	0700000900		
MMS-63H	6-10	100	Rotary	0700001000
	6-13	100		0700001100
	11-17	50		0700001200
	14-22	50		0700001300
	18-26	25		0700001400
	22-32	50		0700001500
	26-40	50		0700001600
	34-50	50		0700001700
45-63	50	0700001800		
MMS-100B	10	100	Rotary	0700001900
	13	100		0700002000
	17	50		0700002100
	22	50		0700002200
	26	50		0700002300
	32	50		0700002400
	40	25		0700002500
	50	50		0700002600
MMS-100S	11-17	50	Rotary	0700002700
	14-22	50		0700002800
	18-26	50		0700002900
	22-32	50		0700003000
	26-40	50		0700003100
	34-50	50		0700003200
	45-63	50		0700003300
	55-75	50		0700003400
MMS-100H	11-17	100	Rotary	0700003500
	14-22	100		0700003600
	18-26	100		0700003700
	22-32	100		0700003800
	26-40	100		0700003900
	34-50	100		0700004000
	45-63	100		0700004100
	55-75	75		0700004200
MMS-100BII	17	100	Rotary	0700004300
	22	100		0700004400
	26	100		0700004500
	32	100		0700004600
	40	100		0700004700
	50	100		0700004800
	63	100		0700004900
	75	75		0700005000
MMS-100BII	17	100	Rotary	0700005100
	22	100		0700005200
	26	100		0700005300
	32	100		0700005400
	40	100		0700005500
	50	100		0700005600
	63	100		0700005700
	75	75		0700005800
100	75	0700005900		


Accessories (For MMS)

Type	Model	Description	Applied product	Code
Auxiliary switch 	FX	ZNO	MMS-32-110	8336 104 1001
		1NO 1NC		8336 104 1002
		ZNC		8336 104 1003
	LX	ZNO		8336 104 1004
		1NO 1NC		8336 104 1005
		ZNC		8336 104 1006
Any trip alarm switch 	LA	ZNO (Operates in case of trip)		8301 104 1001
		1NO 1NC (Operates in case of trip)		8301 104 1002
		ZNC (Operates in case of trip)		8301 104 1003
Magnetic trip alarm switch 	LAM	ZNO (Operates in case of instantaneous trip)		8302 104 1004
		1NO 1NC (Operates in case of instantaneous trip)		8302 104 1005
		ZNC (Operates in case of instantaneous trip)		8302 104 1006
Shunt release 	RS	AC24V 50Hz/55V 60Hz	7100 104 1001	
		AC110V 50Hz/120V 60Hz	7100 104 1002	
		AC220-230V 50Hz/240-250V 60Hz	7100 104 1003	
		AC240V 50Hz/277V 60Hz	7100 104 1004	
		AC380-400V 50Hz/440-460V 60Hz	7100 104 1005	
		AC415-440V 50Hz/480-490V 60Hz	7100 104 1006	
		AC200V 50Hz/AC200V-200V 60Hz	7100 104 1007	
Undervoltage release 	RU	AC24V 50Hz/55V 60Hz	8321 104 1001	
		AC110V 50Hz/120V 60Hz	8321 104 1002	
		AC220-230V 50Hz/240-250V 60Hz	8321 104 1003	
		AC240V 50Hz/277V 60Hz	8321 104 1004	
		AC380-400V 50Hz/440-460V 60Hz	8321 104 1005	
		AC415-440V 50Hz/480-490V 60Hz	8321 104 1006	
		AC200V 50Hz/AC200V-200V 60Hz	8321 104 1007	
Undervoltage release with switch 	RUX	AC24V 50Hz/55V 60Hz	8321 104 1021	
		AC110V 50Hz/120V 60Hz	8321 104 1022	
		AC220-230V 50Hz/240-250V 60Hz	8321 104 1023	
		AC240V 50Hz/277V 60Hz	8321 104 1024	
		AC380-400V 50Hz/440-460V 60Hz	8321 104 1025	
		AC415-440V 50Hz/480-490V 60Hz	8321 104 1026	
		AC200V 50Hz/AC200V-200V 60Hz	8321 104 1027	

Accessories (For MMS)

Type	Model	Description	Applied product	Code
	DA 16SA	AC type mm contactor	CME 6M-16M	72311941061
	DA 16SD	DC type mm contactor	CME 6M-16M	72311941062
	DA 18SA	AC type mm contactor	CME 6M-18M	72311941063
	DA 18SD	DC type mm contactor	CME 6M-18M	72311941064
	DA 32SA	AC type 32AF (Toggle)	MC 6-32	72311834001
	DA 32SA	AC type 32AF (Flotary)	MC 6-32	72311834002
	DA 32SD	DC type 32AF (Toggle)	MC 6-32	72311834003
	DA 32SD	DC type 32AF (Flotary)	MC 6-32	72311834004
	DA 63A	AC type 63AF	MC 35-63	72311834005
	DA 63D	DC type 63AF	MC 35-63	72311834006
	DA 80A	AC type 80AF	MC 45-80	72311834007
	DA 80D	DC type 80AF	MC 45-80	72311834008

Type	Model	Description	Applied product	Code
	MU 45	45mm width	MMS 32	83661941001
	MU 65	65mm width	MMS 43	83661941011
	MU 70	70mm width	MMS 100	83661941021

Type	Model	Description	Applied product	Code
	PL 632	Use two of 63AF MMS	MMS 32	70211941001
	PL 632	Use two of 63SD MMS	MMS 43	70211941002

Type	Model	Description	Applied product	Code
	Dial Cover	To protect the setting current	MMS 32-100	61621941000
	MI barrier	Insulation barrier	MMS 100	62221941001

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- Please do not work on a job unless you are properly trained and authorized.
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