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MC type Magnetic Contactors



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

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

MT type Thermal Overload Relays



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

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



40AF

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



MT-32/□

●
690V
690V
6kV
10A, 20
0.1~40A
0.17
45 × 75 × 90



65AF

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



MT-63/□

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



100AF

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



MT-95/□

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

Table of specifications

MC type Magnetic Contactors



Frame size			150AF		225AF	
Type			MC-130a	MC-150a	MC-185a	MC-225a
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 in operating cycles per hour(AC3)			1200 operations per hour		1200 operations per hour	
Durability			5 mil. operations		5 mil. operations	
Electrical			1 mil. operations		1 mil. operations	
Current and power	AC-1, Thermal current	A	160	210	230	275
	AC-3	200/240V kW	37	45	55	75
		A	130	150	185	225
		380/440V kW	60	75	90	132
		A	130	150	185	225
		500/550V kW	60	70	110	132
	A	90	100	180	200	
	690V kW	55	55	110	140	
	A	60	60	120	150	
UL rating (50/60Hz)	Continuous current	A	160	210	230	275
	Single phase	110~120V HP	10	15	15	15
		220~240V HP	20	25	30	40
	Three phase	200~208V HP	40	40	60	60
		220~240V HP	40	50	60	75
		440~480V HP	75	100	125	150
	550~600V HP	75	75	125	150	
Size and weight	NEMA size		3	4	4	4
	AC control	Weight kg	2.4		5.4	
Size and weight	DC control	Weight kg	2.3		138 × 203 × 181	
	Size(W × H × D) mm		95 × 158 × 132			
Auxiliary(standard)			UA-1		2a2b	
Auxiliary			AU-2, AU-4		AU-100 (Max.4NO4NC)	
Side mount						
Front mount						

MT type Thermal Overload Relays



Type			MT-150/□	MT-225/□
Screws clamp terminals			●	●
Rated operational voltage, Ue			690V	690V
Rated insulation voltage, Ui			690V	690V
Rated impulse withstand voltage, Uimp			6kV	6kV
Trip class			10A, 20	10A, 20
Setting range			34~150A	65~240A
Size and weight	Weight	kg	0.67	2.5
	Size(W × H × D) mm		95 × 109 × 113	147 × 141 × 184

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



400AF

MC-265a	MC-330a	MC-400a
●	●	●
3pole		
690V		
1000V		
50/60Hz		
8kV		
1200 operations per hour		
5 mil. operations		2.5 mil. operations
1 mil. operations		0.5 mil. operations
300	350	450
80	90	125
265	330	400
147	160	200
265	330	400
147	160	225
225	280	350
160	200	250
185	225	300
300	350	450
-	-	-
-	-	-
75	100	125
100	125	150
200	250	300
200	250	300
5	5	5

9.2
163 × 243 × 198

2a2b

AU-100 (Max.4NO4NC)



MT-400/□

●
690V
690V
6kV
10A, 20
85~400A
2.6
151 × 171 × 198



800AF

MC-500a	MC-630a	MC-800a
●	●	●
3pole		
690V		
1000V		
50/60Hz		
8kV		
1200 operations per hour		
	2.5 mil. operations	
	0.5 mil. operations	
580	660	900
147	190	220
500	630	800
265	330	440
500	630	800
265	330	500
400	500	720
300	400	500
380	420	630
580	660	900
-	-	-
-	-	-
150	200	200
200	250	300
400	500	600
400	500	600
6	6	7

22.4
285 × 312 × 242

2a2b

AU-100 (Max.4NO4NC)



MT-800/□

●
690V
690V
6kV
10A, 20
200~800A
11.5
360 × 530 × 212

Type numbering system

Contactors

MC-6a / **R** / **AC220** **60Hz** **1a1b**

Rated current		Version		Coil voltage		Frequency		Auxiliary contact	
6a	6A	-	Standard	AC 220	AC 220V	60	60Hz	00	None
⋮	⋮	R	Reversing	⋮	⋮	50	50Hz	11	1a1b
800a	800A			DC 24	DC 24V			22	2a2b
								10	1a(1NO)
								01	1b(1NC)

Note) See page 18, 19 for details.

Starters

MS-6a / **R** **2H** / **AC220** **60Hz** **10** / **0.1**

Rated current		Contactor version		Relay version		Coil voltage		Frequency		Auxiliary contact		Relay setting current	
6a	6A	-	Standard	2H	Non-differential (2-heater)	AC 220	AC 220V	60	60Hz	00	None	0.1	0.1A
⋮	⋮	R	Reversing	3H	Non-differential (3-heater)	⋮	⋮	50	50Hz	11	1a1b	⋮	⋮
800a	800A			3K	Differential	DC 24	DC 24V			22	2a2b	800	800A
				3D	Class 20					10	1a(1NO)		
										01	1b(1NC)		

Note) See page 18, 19 for details.

Thermal Overload Relay

MT-12 / **2H** **0.1**

Frame size		Relay version		Relay setting current	
12	12AF	2H	Non-differential (2-heater)	0.1	0.1A
32	32AF	3H	Non-differential (3-heater)	⋮	⋮
63	63AF	3K	Differential	800	800A
95	95AF	3D	Class 20		
⋮	⋮				
800	800AF				

Optional Accessories

Auxiliary contact unit

UA1

Version	
UA-1	Side mount
AU-100	
AU-2	Front mount(2P)
AU-4	Front mount(4P)

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Contact composition	
11	1NO+1NC
20	2NO
02	2NC
40	4NO
31	3NO+1NC
22	2NO+2NC
13	1NO+3NC
04	4NC

Surge absorber

US11

Composition and voltage		
1	Varistor+RC	AC/DC 24~48V
2	Varistor+RC	AC/DC 100~125V
3	Varistor+RC	AC/DC 200~240V
4	Varistor+RC	AC 380~440V
5	Varistor+RC	AC 24~48V
6	Varistor+RC	AC 100~125V
11	Varistor	AC 200~240V
12	Varistor	DC 24~48V
13	Varistor	DC 100~125V
14	Varistor	DC 200~220V
22	RC	AC 100~125V

Note) See page 52 for details.

Interlock unit

UR02

Contact composition	
02	2NC
00	None

Wire kit for Interlocking

UW32

Frame size	
18	18AF
22	22AF
32	32AF
63	63AF
95	95AF

Interlock set (UR+UW)

RK32

Frame size	
32	32AF
63	63AF
95	95AF

Separate mounting unit (For relay)

UZ32

Frame size	
32	32AF
63	63AF
95	95AF
150	150AF

Remote reset unit (For relay)

UM

Cable length	
4R	400
5R	500
6R	600