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MC type Magnetic contactors



Frame size			18AF				22AF				
Type			MC-6a	MC-9a	MC-12a	MC-18a	MC-9b	MC-12b	MC-18b	MC-22b	
Screws clamp terminals			●	●	●	●	●	●	●	●	
	Lug clamp terminals										
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	27	32	45	
	AC-3 200/240V	kW	2.2	2.5	3.5	4.5	2.5	3.5	4.5	5.5	
		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	
	1000V	kW	-	-	-	-	-	-	-	-	
	A	-	-	-	-	-	-	-	-		
Rated Short-time withstand current (IEC 60947)	1s	A	210	250	280	300	250	280	300	400	
	10s	A	105	110	120	130	110	120	154	186	
	30s	A	70	70	80	85	70	80	100	130	
	1min	A	61	61	61	70	61	61	84	90	
	3min	A	40	45	47	50	45	50	60	60	
	10min	A	30	30	30	40	30	30	40	50	
	≥ 15min	A	25	26	28	30	26	28	30	45	
UL rating (50/60Hz)	Continuous current	A	25	25	25	32	25	25	40	40	
	Single phase	110-120V	HP	0.5	0.5	0.75	1	0.5	0.75	1	2
		220-240V	HP	1.5	1.5	2	3	1.5	2	3	3
		200-208V	HP	2	2	3	7.5	2	3	7.5	7.5
	Three phase	220-240V	HP	3	3	5	7.5	3	5	7.5	10
		440-480V	HP	5	5	7.5	10	5	7.5	10	15
		550-600V	HP	7.5	7.5	10	15	7.5	10	15	20
	NEMA size		00	00	0	1	00	0	1		
Size and weight	AC control	Weight	0.33				0.34				
		Size(W×H×D) mm	45×73.5×80.4				45×73.5×87.4				
	DC control	Weight	0.4				0.41				
		Size(W×H×D) mm	45×73.5×96.6				45×73.5×103.6				
Auxiliary(standard)		1a or 1b				1a1b					
Auxiliary	Side mount		UA-1				UA-1				
	Front mount		UA-2, UA-4				UA-2, UA-4				

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

MT type Thermal Overload Relays



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

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



40AF	
MC-32a	MC-40a
●	●
3pole	
1000V	
1000V	
50/60Hz	
8kV	
1800 operations per hour	
12 mil. operations	
2 mil. operations	
55	60
7.5	11
32	40
15	18.5
32	40
18.5	22
28	32
18.5	22
20	23
22	22
17	17
600	700
260	300
160	190
100	120
70	80
55	65
50	60
50	60
2	3
5	7.5
7.5	15
10	15
20	30
25	30
1P	2
0.55	
69×83×90	
0.77	
69×83×117.1	
2a2b	
UA-1	
UA-2, UA-4	



65AF	
MC-50a	MC-65a
●	●
●	●
3pole	
1000V	
1000V	
50/60Hz	
8kV	
1200 operations per hour	
12 mil. operations	
2 mil. operations	
100	115
15	18.5
55	65
22	30
50	65
30	33
43	60
30	33
28	35
30	30
23	23
1000	1050
550	700
330	380
250	270
150	200
90	120
87	96
70	100
3	5
10	15
20	25
25	30
40	50
50	60
1.05	
79×106×119	
1.3	
79×106×146.4	
2a2b	
UA-1	
UA-2, UA-4	



100AF		
MC-75a	MC-85a	MC-100a
●	●	●
●	●	●
3pole		
1000V		
1000V		
50/60Hz		
8kV		
1200 operations per hour		
12 mil. operations		
2 mil. operations		1 mil. operations
125	135	160
22	25	30
75	85	105
37	45	55
75	85	105
37	45	55
64	75	85
37	45	55
42	45	65
37	37	37
28	28	28
1100	1200	1320
750	800	900
400	450	500
300	350	400
220	270	270
140	170	180
114	150	160
110	135	160
5	7.5	10
15	15	20
25	30	30
30	40	40
50	60	75
60	75	75
	3	
	1.93	
	94×140×135.8	
	2.8	
	94×140×172.3	
	2a2b	
	UA-1	
	UA-2, UA-4	



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



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



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

Table of specifications

MC type Magnetic contactors



Frame size			150AF		225AF		400AF			
Type	screws clamp terminals		●	●	●	●	●	●	●	
	Lug clamp terminals		●	●	●	●				
Number of poles			3pole		3pole		3pole			
Rated operational voltage, Ue			1000V		1000V		1000V			
Rated insulation voltage, Ui			1000V		1000V		1000V			
Rated frequency			50/60Hz		50/60Hz		50/60Hz			
Rated impulse withstand voltage, Uimp			8kV		8kV		8kV			
Maximum operating rate in operating cycles per hour(AC3)			1200 operations per hour		1200 operations per hour		1200 operations per hour			
Durability	Mechanical		5 mil. operations		5 mil. operations		5 mil. operations		2.5 mil. operations	
	Electrical		1 mil. operations		1 mil. operations		1 mil. operations		0.5 mil. operations	
Current and power	AC-1, Thermal current	A	200	250	300	350	400	500	520	
		kW	37	45	55	75	80	90	125	
	AC-3 200/240V	A	130	150	185	225	265	330	400	
		kW	60	75	90	132	147	160	200	
	380/440V	A	130	150	185	225	265	330	400	
		kW	60	70	110	132	147	160	225	
	500/550V	A	90	100	180	200	225	280	350	
		kW	55	55	110	140	160	200	250	
	690V	A	60	60	120	150	185	220	300	
		kW	75	75	132	132	147	147	147	
1000V	A	50	50	90	90	105	105	105		
Rated Short-time withstand current (IEC 60947)	1s	A	1350	1800	2000	2500	3500	4000	4600	
	10s	A	950	1200	1500	1700	2400	3000	4400	
	30s	A	700	800	1000	1200	1500	2500	2974	
	1min	A	550	600	800	1000	1100	1700	1846	
	3min	A	350	450	520	700	800	1000	1313	
	10min	A	200	300	350	500	600	620	760	
UL rating (50/60Hz)	Continuous current	A	200	250	300	350	400	500	520	
		HP	10	15	15	15	-	-	-	
	Single phase	110~120V	HP	20	25	30	40	-	-	-
		220~240V	HP	40	40	60	60	75	100	125
	Three phase	220~240V	HP	40	50	60	75	100	100	150
		440~480V	HP	75	100	125	150	200	200	300
	550~600V	HP	75	75	125	150	200	200	300	
NEMA size				4						
Size and weight	AC control	Weight	2.4		5.4		9.2			
	DC control	Size(W×H×D)	119×158×130.3		138×203×185.1		163×243×204.4			
Auxiliary(standard)	DC control	Weight								
	DC control	Size(W×H×D)								
Auxiliary	Side mount		2a2b		2a2b		2a2b			
	Front mount		UA-1		AU-100, AU-100E (Max.4a4b)		AU-100, AU-100E (Max.4a4b)			
			UA-2, UA-4		-		-			

MT type Thermal Overload Relays



Type			MT150/□	MT225/□	MT400/□
Type	screws clamp terminals		●	●	●
	Lug clamp terminals		●	●	
Rated operational voltage, Ue			690V	690V	690V
Rated insulation voltage, Ui			690V	690V	690V
Rated impulse withstand voltage, Uimp			6kV	6kV	6kV
Trip class			10A, 20	10A, 20	10A, 20
Setting range			34~150A	65~240A	85~400A
Size and weight	Weight	kg	0.67	2.5	2.6
	Size(W×H×D)	mm	95×109×113	147×141×184	151×171×198

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

