

Contactors & Overload relays

Metasol MC 3P 18 to 150A

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
	380/440V	A	9	11	13	18	11	13	18	22	
		kW	3	4	5.5	7.5	4	5.5	7.5	11	
	500/550V	A	7	9	12	18	9	12	18	22	
		kW	3	4	7.5	7.5	4	7.5	7.5	15	
	690V	A	6	7	12	13	7	12	13	20	
		kW	3	4	7.5	7.5	4	7.5	7.5	15	
	1000V	A	4	5	9	9	6	9	9	18	
		kW	-	-	-	-	-	-	-	-	
	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	
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
	220-240V	HP	1.5	1.5	2	3	1.5	2	3	3	
		HP	2	2	3	7.5	2	3	7.5	7.5	
		HP	3	3	5	7.5	3	5	7.5	10	
	Three phase	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)	45×73.5×80.4				45×73.5×87.4				
	DC control	Weight	0.4				0.41				
		Size(W×H×D)	45×73.5×96.6				45×73.5×103.6				
Auxiliary(standard)		1NO or 1NC				1NO1NC					
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		65AF		100AF			150AF	
MC-32a	MC-40a	MC-50a	MC-65a	MC-75a	MC-85a	MC-100a	MC-130a	MC-150a
•	•	•	•	•	•	•	•	•
-	-	•	•	•	•	•	•	•
3pole		3pole		3pole			3pole	
1000V		1000V		1000V			1000V	
1000V		1000V		1000V			1000V	
50/60Hz		50/60Hz		50/60Hz			50/60Hz	
8kV		8kV		8kV			8kV	
1800 operations per hour		1800 operations per hour		1800 operations per hour			1200 operations per hour	
12 mil. operations		12 mil. operations		12 mil. operations			5 mil. operations	
2 mil. operations		2 mil. operations		2 mil. operations		1 mil. operations	4 mil. operations	
55	60	100	115	125	135	160	200	250
7.5	11	15	18.5	22	25	30	37	45
32	40	55	65	75	85	105	130	150
15	18.5	22	30	37	45	55	60	75
32	40	50	65	75	85	105	130	150
18.5	22	30	33	37	45	55	60	70
28	32	43	60	64	75	85	90	100
18.5	22	30	33	37	45	55	55	55
20	23	28	35	42	45	65	60	60
22	22	30	30	37	37	37	75	75
17	17	23	23	28	28	28	50	50
600	700	1000	1050	1100	1200	1320	1350	1800
260	300	550	700	750	800	900	950	1200
160	190	330	380	400	450	500	700	800
100	120	250	270	300	350	400	550	600
70	80	150	200	220	270	270	350	450
55	65	90	120	140	170	180	200	300
50	60	87	96	114	150	160	175	280
50	60	70	100	110	135	160	200	250
2	3	3	5	5	7.5	10	10	15
5	7.5	10	15	15	15	20	20	25
7.5	15	20	25	25	30	30	40	40
10	15	25	30	30	40	40	40	50
20	30	40	50	50	60	75	75	100
25	30	50	60	60	75	75	75	75
1P	2				3			4
0.55		1.05		1.93			2.4	
69×83×90		79×106×119		94×140×135.8			119×158×130.3	
0.77		1.3		2.8				
69×83×117.1		79×106×146.4		94×140×172.3				
2NO2NC		2NO2NC		2NO2NC			2NO2NC	
UA-1		UA-1		UA-1			UA-1	
UA-2, UA-4		UA-2, UA-4		UA-2, UA-4			UA-2, UA-4	



MT-32/□	MT-63/□	MT-95/□	MT-150/□
•	•	•	•
-	•	•	•
690V	690V	690V	690V
690V	690V	690V	690V
6kV	6kV	6kV	6kV
10A, 20	10A, 20	10A, 20	10A, 20
0.1~40A	4~65A	7~100A	34~150A
0.17	0.31/0.33	0.48/0.5	0.67
45×75×90	55×81×100	70×97×110	95×109×113

Contactors & Overload relays

Metasol MC 3P 225 to 2100A



MC type Magnetic Contactors

Frame size			225AF		400AF			
Type			MC-185a	MC-225a	MC-265a	MC-330a	MC-400a	
	Screws clamp terminals		●	●	●	●	●	
	Lug clamp terminals		-	-	-	-	-	
Number of poles			3pole		3pole			
Rated operational voltage, Ue			1000V		1000V			
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	Mechanical		5 mil. operations		5 mil. operations		2.5 mil. operations	
	Electrical		1 mil. operations		1 mil. operations		0.5 mil. operations	
Current and power	AC-1, Thermal current	A	300	350	400	500	520	
	AC-3 200/240V	kW	55	75	80	90	125	
		A	185	225	265	330	400	
	380/440V	kW	90	132	147	160	200	
		A	185	225	265	330	400	
	500/550V	kW	110	132	147	160	225	
		A	180	200	225	250	350	
	690V	kW	110	140	160	200	250	
		A	120	150	185	220	300	
	1000V	kW	132	132	147	147	147	
A		90	90	105	105	105		
Rated Short-time withstand current (IEC 60947)	1s	A	2000	2500	3500	4000	4600	
	10s	A	1500	1700	2400	3000	4400	
	30s	A	1000	1200	1500	2500	2974	
	1min	A	800	1000	1100	1700	1846	
	3min	A	520	700	800	1000	1313	
	10min	A	350	500	600	620	760	
	≥15min	A	320	400	500	553	699	
UL rating (50/60Hz)	Continuous current	A	300	350	400	500	520	
		Single phase 110~120V	HP	15	15	-	-	-
		220~240V	HP	30	40	-	-	-
	Three phase	200~208V	HP	60	60	75	100	125
		220~240V	HP	60	75	100	100	150
		440~480V	HP	125	150	200	200	300
550~600V	HP	125	150	200	200	300		
NEMA size				5				
Size and weight	AC control	Weight						
		Size(W×H×D)	5.4		9.2			
	DC control	Weight	138×203×185.1		163×243×204.4			
		Size(W×H×D)						
Auxiliary(standard)			2NO2NC		2NO2NC			
Auxiliary	Side mount		AU-100, AU-100E (Max.4NO4NC)		AU-100, AU-100E (Max.4NO4NC)			
	Front mount		-		-			

MT type Thermal Overload Relays



Type			MT-225/□	MT-400/□
	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			65~240A	85~400A
Size and weight	Weight	kg	2.5	2.6
	Size(W×H×D)	mm	147×141×184	151×171×198

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