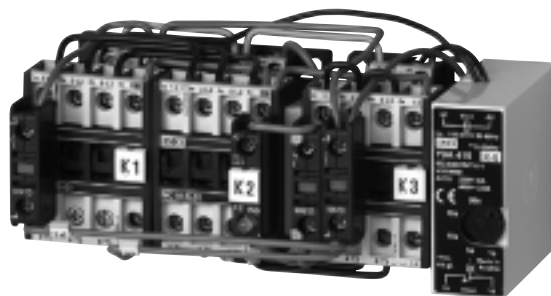


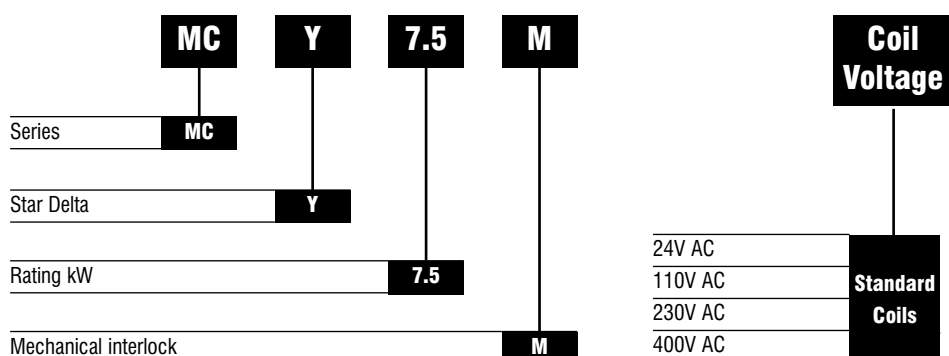
Star Delta Starters MC-Y



- Open type – assembled and pre-wired to accept separate overload
- LED indication in Delta position up to 55kW
- Variable electronic timer with inherent dwell period
- DIN rail mounted up to 55kW
- Mechanical and electrical interlock between Star and Delta contactors
- Designed to EN60947-4-1



Options and ordering codes



Selection

Rating@400V AC		Construction						Product Code	Associated Overload
kW	Amps	Line K1	Delta K2	Star K3	Star-Delta Inter Link	Mechanical Interlock	Timer		
7.5	16	MC10-S-01 + MCA10	MC10-S-01	MC10-S-10 +MCA10 +MCA01	MCY-C-22	MC-I-W	Y9A..	MC-Y7.5M..	MCOR-1 U12/16E...MC
15	30	MC18-S-01 + MCA10	MC18-S-01	MC14-S-10 +MCA10 +MCA01	MCY-C-22	MC-I-W	Y9A..	MC-Y15M..	MCOR-1 U12/16E...MC
22	45	MC24-S-00 +MCA10 +MCA01	MC24-S-00 + MCA01	MC18-S-10 +MCA10 +MCA01	MCY-C-40	MC-I-W	Y9A..	MC-Y22M..	MCOR-2
30	60	MC32-S-00 +MCA10	MC32-S-00 +MCA01	MC24-S-00 +2xMCA10 +MCA01	MCY-C-40	MC-I-W	Y9A..	MC-Y30M..	MCOR-2
45	85	MC50-S-00 +MCA10 +MCA01	MC50-S-00 +MCA01	MC32-S-00 +2xMCA10 +MCA01	-	MC-I-X	Y9A..	MC-Y45M..	MCOR-3
55	109	MC62-S-00 +MCA10 +MCA01	MC62-S-00 +MCA01	MC50-S-00 +2xMCA10 +MCA01	-	MC-I-X	Y9A..	MC-Y55M..	MCOR-3
75	150	MC90-S-00 +MCA10 +MCA01	MC90-S-00 +MCA01	MC90-S-00 +2xMCA10 + MCA01	-	MC-I-Y	Y9AL..	MC-Y75M..	MCOR-4
110	205	MC115-S-00 +MCA10 +MCA01	MC115-S-00 +MCA01	MC90-S-00 +2xMCA10 +MCA01	-	MC-I-Y	Y9AL..	MC-Y110M..	MCOR-4

Thermal overloads

Order Codes

Amps	MCOR-1 Hand/Auto Reset	U12/16E Hand Reset	MCOR-2 Hand/Auto Reset	MCOR-3 Hand/Auto Reset	MCOR-4 Hand Reset
7 - 10.5	MCOR-1-6	U12/16E6-MC			
10.5 - 15.5	MCOR-1-9	U12/16E9-MC			
14 - 19	MCOR-1-11	U12/16E11-MC			
18 - 24	MCOR-1-14	U12/16E14-MC	MCOR-2-14		
23 - 31	MCOR-1-18	U12/16E18-MC			
24 - 35			MCOR-2-20		
30 - 40	MCOR-1-24	U12/16E23-MC	MCOR-2-28		
35 - 48				MCOR-3-28	
38 - 52	MCOR-1-32	U12/16E30-MC			
48 - 73			MCOR-2-42	MCOR-3-42	
70 - 90				MCOR-3-52	
90 - 112				MCOR-3-65	
104 - 156					MCOR-4
140 - 207					MCOR-4

Y9A timer

Electronic timer specifically designed for use in Star Delta applications.

Variable run-up time with an inherent dwell period of 20-30ms during changeover from Star to Delta position, for Y9A times and 40-80.

Din rail mounting. Contacts rated 4A @ 400VAC, for Y9AL timers.

The timer is not continuously rated and must be wired in accordance with circuit diagram as detailed.

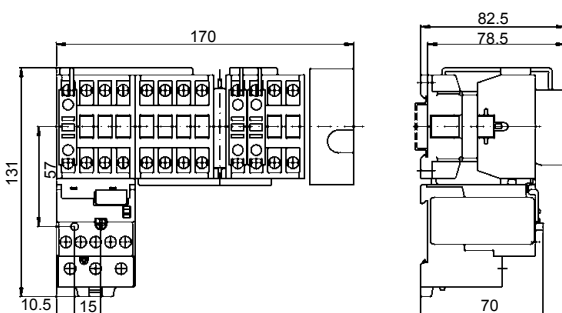
Time	Voltage	Part No1
1 - 20 sec	24 - 60VAC	Y9A60
1 - 20 sec	110 - 415VAC	Y9A415
1 - 20 sec	24 - 60VAC	Y9AL60
1 - 20 sec	110 - 415VAC	Y9AL415

Accessories

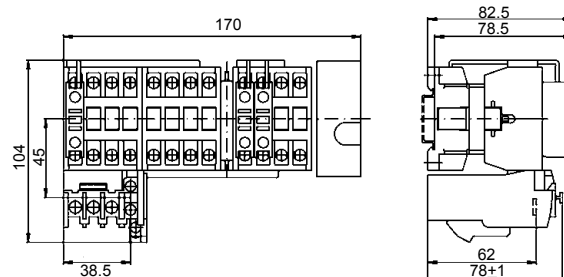
Description	Part ref
Additional auxiliary contacts	
Normally Open 10A @ 690V AC1	MCA10
Normally Closed 10A @ 690V AC1	MCA01
Normally Open 25A @ 690V AC1	MCAH10
Normally Closed 25A @ 690V AC1	MCAH01
DIN rail mounting set for overloads	
For U12/16E..-MC	U12SM-MC
For MCOR-1	U3/32SM

Dimensions (mm) AC operated, open type

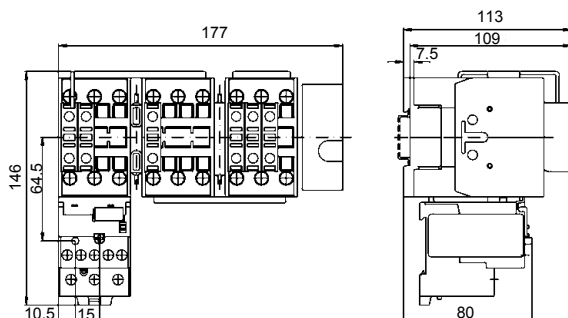
MC-Y7.5M MC-Y15M + MCOR-1



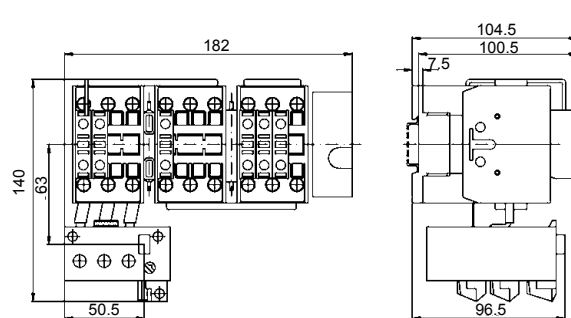
MC-Y7.5M MC-Y15M + U1216E..-MC



MC-Y22M, MC-Y30M + MCOR-1

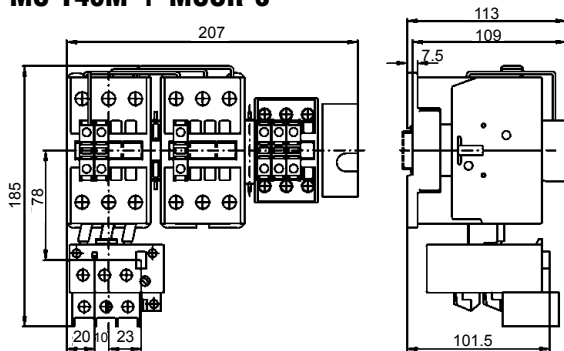


MC-Y22M, MC-Y30M + MCOR-2

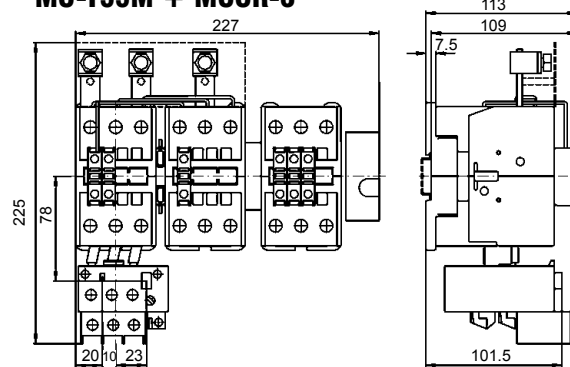


Dimensions (mm) continued

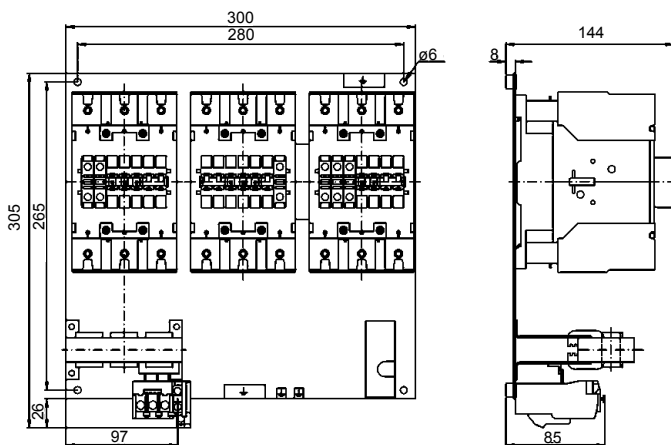
MC-Y45M + MCOR-3



MC-Y55M + MCOR-3



MC-Y75M MC-Y110M + MCOR-4

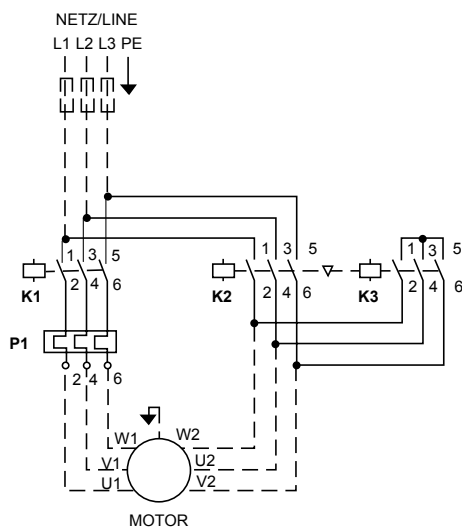


Application notes

Setting of timer

It is essential to adjust the timer for the correct changeover from Star to Delta position, this will vary according to the application.

Typical circuit diagrams



Typical control circuit

