

MC 4-Pole Contactors

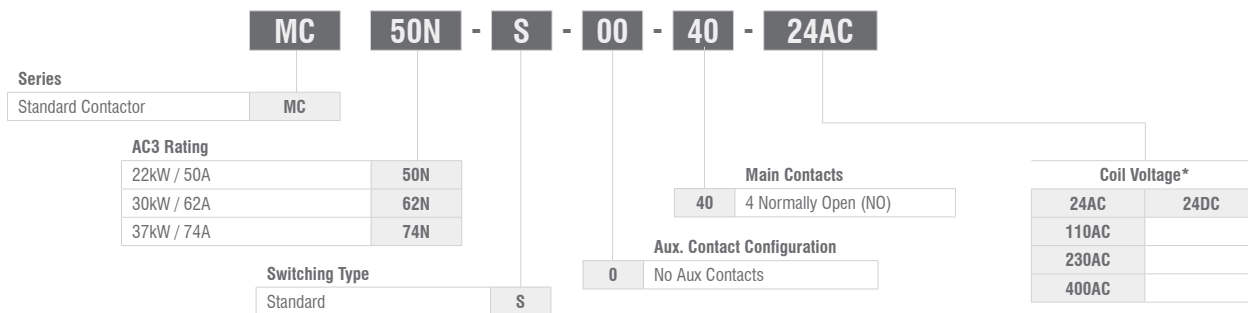


Key Features

- Up to 74A AC3
- Up to 130A AC1
- DIN Rail Mounting
- International Approvals
- Data according to IEC 947 / EN 60947



Options & Ordering Codes



Technical Data acc. to IEC / EN 60947-4-1

Part Number		MC50N-S-00-XX	MC62N-S-00-XX	MC74N-S-00-XX
Main Contact Ratings	AC1 $I_e (=I_m)$ open at 40°C	110A	120A	130A
	AC2, AC3, 380-440V	22kW/50A	30kW / 62A	37kW / 74A
	AC2, AC3, 500-690V	30kW	37kW	45kW
	Fuse "Typ1" gl. (gG)	160A max	160A max.	160A max.
	Rated Insulation Voltage U_i^{*4}	690V~	690V~	690V~
	Making Capacity I_{eff} at $U_e = 690V\sim$	700A	900A	900A
	Breaking Capacity I_{eff} 400V~ $\cos\theta = 0.35$ 500V~	600A 500A	800A 700A	800A 700A
Max. Ambient Temp	Operation Open	-40 to +60°C (+90°C)*1		
	Operation Enclosed	-40 to +40°C		
	with Thermal Overload Relay Open	-25 to +60°C		
	with Thermal Overload Relay Enclosed	-25 to +40°C		
Storage	-50 to +90°C			
Frequency of Operations z Ops/hr	Switching Without Load	7,000		
	AC3, I_e	400		
	AC4, I_e	120		
Switching Time at Control Voltage U_s $\pm 10\%$ z. *3	AC Operated	Make Time	12-28 ms	
		Release Time	8-15 ms	
		Arc Duration	10-15 ms	
	DC Operated	Make Time	12-23 ms	
		Release Time	10-18 ms	
		Arc Duration	10-15 ms	
Mech. Life	AC Operated	10 x 10 ⁶		
	DC Operated with Double Winding Coil	10 x 10 ⁶		
Curr. Heat Loss	Power Loss Per Pole (I_e /AC3 400V)	2.2W	3.9W	5.5W
	Contact Resistance Per Pole	1mΩ		
Shock Resistance acc. to IEC68-2-27 - 20ms Sine Wave NO		8g		
Shock Resistance acc. to IEC68-2-27 - 20ms Sine Wave NC		n/a		

*1 With reduced control voltage range 0.9 up to 1.0 x U_s and with reduced rated current I_e / AC1 according to I_e / AC3

*2 Total breaking time = release time + arc duration

*3 Values for delay of the release time of the make contact and the make time of the break contact will be increased if magnet coils are protected against voltage peaks with integrated suppressor

*4 Suitable at 690V for earthed-neutral systems, overvoltage category I to IV, pollution degree 3 (standard industry); $U_{imp} = 8kV$. Data for other conditions upon request

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Technical Datasheet

Technical Data continued acc. to IEC / EN 60947-4-1

Part Number	MC50N-S-00-XX.. + MCA..	MC62N-S-00-XX.. + MCA..	MC74N-S-00-XX.. + MCA..
Aux Contact Ratings	AC1 I _e (=I _{th}) open at 40°C	10A	10A
MCA10 (NO)	AC15, 220-240V	3A	3A
MCA01 (NC)	AC15, 380-440V	2A	2A
Fuse "Typ1" gl. (gG)		20A max.	20A max.

NOTE: Maximum number of auxiliaries that can be added to AC operated contactors is 4. Maximum that can be added to DC operated contactors is 3.

Cable Cross Sections

	Contacts	Coils
Solid Strand (mm ²)	4-50	0.75-2.5
Flexible Strand (mm ²)	10-35	0.5-2.5
Solid Strand (AWG)	12-10	14-12
Flexible Strand (AWG)	10-0	18-12
Cables per Clamp	1	2
Terminal Screws	M6	M3.5
Screwdriver	Pozidrive Pz3	Pozidrive Pz2
Tightening Torque (Nm)	3.5-4.5	0.8-1.4
Tightening Torque (lb.inch)	31-40	7-12

Coil

	AC Operated	DC Operated
Operation Range	0.85 - 1.1	0.8 - 1.1
Inrush	140 - 165VA	200W
Sealed	13 - 18VA	6W

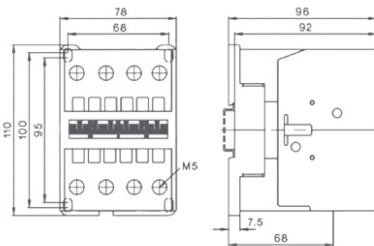
Resistance to Climatic Conditions acc. to IEC60068

Open-type devices are climate-resistant in the constant climate according to IEC60068-2-78 (this is a climate with an ambient temperature of 40°C and an atmospheric humidity of 90 to 95%). Enclosed devices are climate-resistant in an alternating climate according to IEC 68-2-30 (this is a moist alternating climate with a 24-hour cycle between climates with an ambient temperature of 25°C, and an atmospheric humidity of 95 to 100% and an ambient temperature of 40°C, and an atmospheric humidity of 90 to 96% in the presence of condensation during rises in temperature).

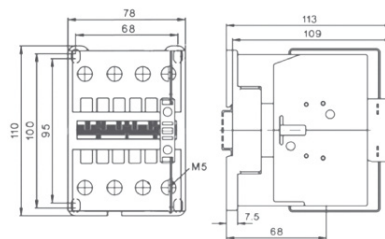
Note: Maximum operating altitude of 2000m above sea level.

Dimensions (mm)

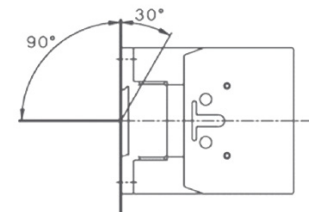
AC Operated



DC Operated

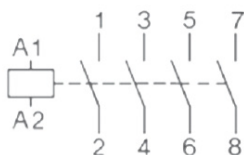


Mounting Position



Wiring Diagrams

AC Operated



DC Operated

