

Power Relay

MM4XPN DC24

Power relay, DC-switching with operation indicator, 4 poles, With Case, Plug-In terminal, 24 VDC



Image

Coil ratings	24 VDC 104 mA
Operating indicator	LED
Contact form	4PDT
Contact method	Single
Contact material	Ag
Contact rated load	110 VDC 7 A (Resistive load) 110 VDC 6 A (Inductive load (L/R = 7 ms))
Terminal structure	Plug-in terminal

Ratings / Performance

As of July 25, 2024

Ratings

Operating indicator		LED
Degree of protection		Closed type (cover)
Terminal structure		Plug-in terminal
Coil	Coil ratings	24 VDC 104 mA
	Coil resistance	255 Ω
	Operate voltage (Set voltage)	70 % max.
	Release voltage (Reset voltage)	10 % min.
	Maximum voltage	110 %
	Power consumption	Approx. 2.7 W
Contact	Contact rated load	110 VDC 7 A (Resistive load) 110 VDC 6 A (Inductive load (L/R = 7 ms))
	Max. contact voltage	250 VAC 250 VDC
	Max. contact current	AC: 7.5 A DC: 7.5 A
	Maximum switching power	20 VA 800 W (Resistive load) 660 W (Inductive load (L/R = 7 ms))
	Contact form	4PDT
	Contact method	Single
	Contact material	Ag

Performance

Contact resistance	50 mΩ max. (Voltage drop method with 5 VDC 1 A)
Operating time	50 ms max. (With rated operating power applied, 23 °C, not including contact bounce)

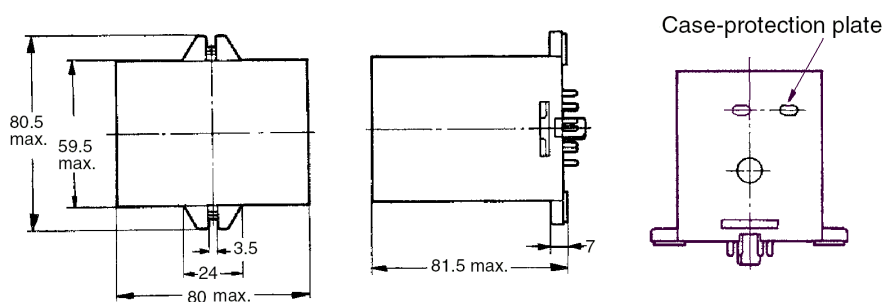
Reset time	30 ms max. (With rated operating power applied, 23 °C, not including contact bounce)
Maximum operating frequency	Mechanical: 7200 time/hour Rated load: 1800 time/hour
Insulation resistance	Between coil and contacts: 100 MΩ min. (at 500 VDC) Between contacts of different polarity: 100 MΩ min. (at 500 VDC) Between contacts of same polarity: 100 MΩ min. (at 500 VDC)
Dielectric strength	Between coil and contacts: 2000 VAC 50/60 Hz 1 min Between contacts of different polarity: 2000 VAC 50/60 Hz 1 min Between contacts of same polarity: 1500 VAC 50/60 Hz 1 min
Vibration resistance (destruction)	10 to 55 to 10 Hz, 0.75 mm single amplitude (1.5 mm double amplitude)
Vibration resistance (Malfunction)	10 to 55 to 10 Hz, 0.5-mm single amplitude (1-mm double amplitude)
Shock resistance (destruction)	1000 m/s ²
Shock resistance (Malfunction)	100 m/s ²
Endurance (Mechanical)	5,000,000 operations min. (switching frequency 7,200 operations/h)
Endurance (Electrical)	500,000 operations min. (23 °C, Rated load, switching frequency 1,800 operations/h)
Failure rate	5 VDC 10 mA (failure level: Preference value, Switching frequency: 60 operations per minute)
Ambient temperature (Operating)	-10 to 55 °C (with no freezing or condensation)
Ambient humidity (Operating)	5 to 85 %
Mounting method	Socket
Applicable socket	14PFA/ PL15

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Dimensions

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Outline drawing

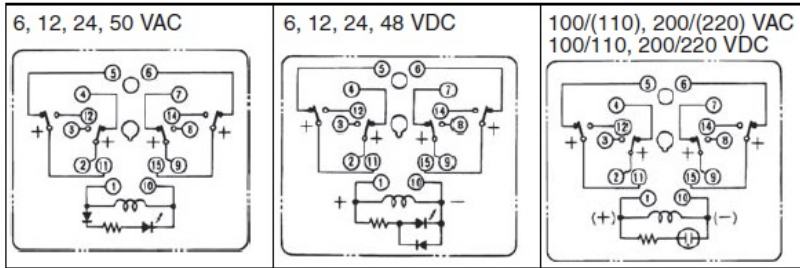


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Terminal arrangement and internal connection

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Terminal arrangement and internal connection



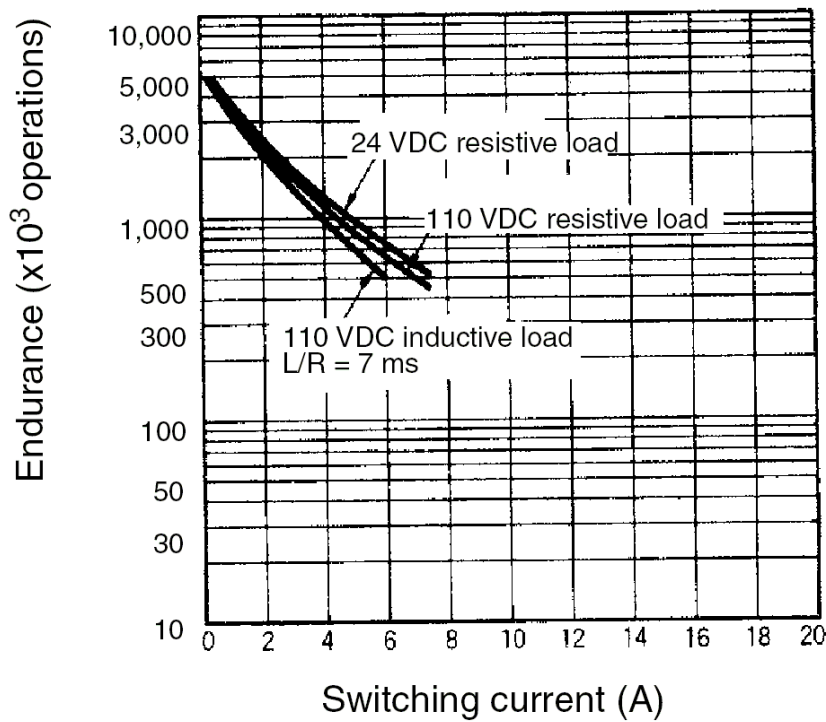
Make sure that all common connections have the same polarity for the MMXP-N-D. The markings of the common connections on the casing all show "+" but the polarity of the common connections can be either negative or positive as long as they are all the same.

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Characteristic chart

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Electrical life curve



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