

Power Relay

# MM4XP-D DC200/220

Power relay, DC-switching, 4 poles, With Case, Plug-In terminal, 200/220 VDC



Image

<b>Coil ratings</b>	200 VDC 11 mA 220 VDC 12 mA
<b>Coil surge killer</b>	Diode
<b>Contact form</b>	4PDT
<b>Contact method</b>	Single
<b>Contact material</b>	Ag
<b>Contact rated load</b>	110 VDC 7 A (Resistive load) 110 VDC 6 A (Inductive load (L/R = 7 ms))
<b>Terminal structure</b>	Plug-in terminal

Ratings / Performance

As of July 25, 2024

### Ratings

<b>Coil surge killer</b>		Diode
<b>Degree of protection</b>		Closed type (cover)
<b>Terminal structure</b>		Plug-in terminal
<b>Coil</b>	<b>Coil ratings</b>	200 VDC 11 mA 220 VDC 12 mA
	<b>Coil resistance</b>	18000 Ω
	<b>Operate voltage (Set voltage)</b>	70 % max.
	<b>Release voltage (Reset voltage)</b>	10 % min.
	<b>Maximum voltage</b>	110 %
	<b>Power consumption</b>	Approx. 2.7 W
<b>Contact</b>	<b>Contact rated load</b>	110 VDC 7 A (Resistive load) 110 VDC 6 A (Inductive load (L/R = 7 ms))
	<b>Max. contact voltage</b>	250 VAC 250 VDC
	<b>Max. contact current</b>	AC: 7.5 A DC: 7.5 A
	<b>Maximum switching power</b>	20 VA 800 W (Resistive load) 660 W (Inductive load (L/R = 7 ms))
	<b>Contact form</b>	4PDT
	<b>Contact method</b>	Single
	<b>Contact material</b>	Ag

### Performance

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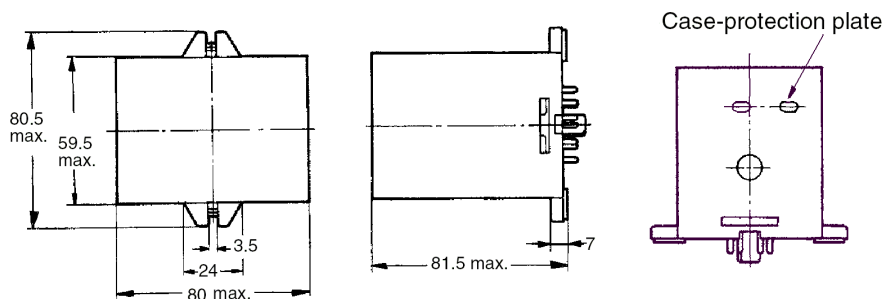
<b>Operating time</b>	50 ms max. (With rated operating power applied, 23 °C, not including contact bounce)
<b>Reset time</b>	100 ms max. (With rated operating power applied, 23 °C, not including contact bounce)
<b>Maximum operating frequency</b>	Mechanical: 7200 time/hour Rated load: 1800 time/hour
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

As of July 25, 2024

### Dimensions

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Outline drawing

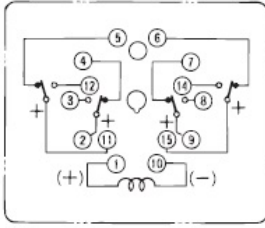


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### Terminal arrangement and internal connection

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## Terminal arrangement and internal connection



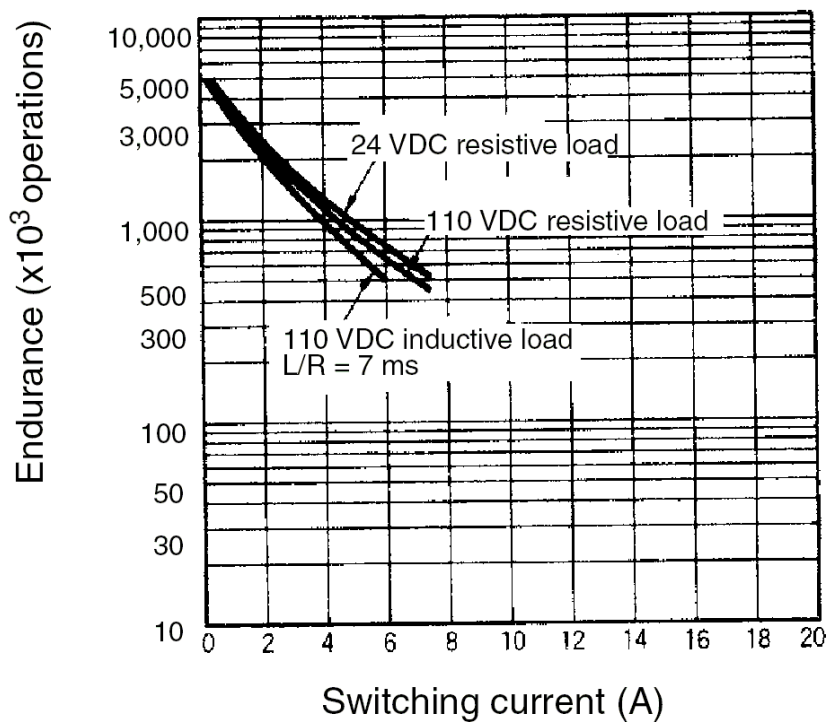
Make sure that all common connections have the same polarity for the MM□XP-N/-D. The markings of the common connections on the casing all show "+" but the polarity of the common connections can be either negative or positive as long as they are all the same.

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## Characteristic chart

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### Electrical life curve



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