

PTC Thermistor Relay Series PD 225

- Monitors and Protects Motors with Integrated PTC Resistor sensors
- Protection against Over heating for Heavy Duty Load, High Switching Frequency, High operating temperature & Insufficient cooling conditions
- Wide Auxiliary Supply Voltage: 24 VAC/DC, 110 - 240 VAC & 220 - 415 VAC
- LED Indications for Healthy, Unhealthy, Sensor Open/Short conditions
- 1 C/O & 2 C/O Configuration
- Reset Options: Auto, Manual and Remote



Ordering Information

Cat. No.	Description
MJ83BK	110 - 240 VAC, PTC Thermistor Relay, 2 C/O
MJ93BK	220 - 440 VAC, PTC Thermistor Relay, 2 C/O
MJA3BK	24 VAC/DC, PTC Thermistor Relay, 2 C/O
MJ81BK	110 - 240 VAC, PTC Thermistor Relay, 1 C/O
MJ91BK	220 - 440 VAC, PTC Thermistor Relay, 1 C/O

UL Approval not applicable for Cat Nos. MJ83BK & MJ93BK.

PTC Thermistor Relay Series PD 225



Cat. No.		MJ83BK	MJ93BK	MJA3BK
Parameters				
Supply Voltage (ϕ)		110 - 240 VAC	220 - 440 VAC	24 VAC/DC
Supply Variation		-20% to + 10% (of ϕ)		
Frequency		50/60 Hz		
Power Consumption (Max.)		4 VA		2 VA
Trip Settings	Trip Level	2.7 k Ω , (\pm 5%)		
	Reset Level	1.71 k Ω , (\pm 5%)		
	Sensor Short	<20 Ω , (\pm 4 Ω)		
	Hysteresis	40 Ω , (\pm 4 Ω)		
	Sensor Open	> 20 k Ω , (\pm 5%)		
Max Cold Res(Ω) of Sensor Chain		< 1.5 k Ω		
Reset Mode		Auto, Manual, Remote		
Repeat Accuracy		1%		
Time Delay	ON Delay	500 ms		
	OFF Delay	100 ms		
	Reset Time	150 ms		
Output	Relay Output	2 C/O	2 C/O	2 C/O
	Contact Rating	5A (Resistive) @ 250 VAC / 28 VDC		
	Electrical Life	1 x 10 ⁵		
	Mechanical Life	3 x 10 ⁶		
Utilization Category	AC - 15	Rated Voltage (Ue): 120/240 V, Rated Current (Ie): 3.0/1.5 A		
	DC - 13	Rated Voltage (Ue): 24/125/250 V, Rated Current (Ie): 2.0/0.22/0.1 A		
LED Indications	Green LED	Continuous ON \rightarrow Healthy Flashing \rightarrow Sensor Open		
	Red LED	Continuous ON \rightarrow Relay ON Flashing \rightarrow Sensor Short		
	All LEDs OFF	Power Supply Fail		
Operating Temperature		- 15° C to +60° C		
Storage Temperature		- 25° C to +80° C		
Humidity (Non Condensing)		95% (Rh)		
Enclosure		Flame Retardant UL94-V0		
Dimension (W x H x D) (in mm)		22.5 X 83 X 100.5		
Weight (unpacked)		120 g		
Mounting		Base / DIN rail		
Certification		  		
Degree of Protection		IP 20 for Terminals, IP 40 for Enclosure		

EMI / EMC

Harmonic Current Emissions	IEC 61000-3-2
ESD	IEC 61000-4-2
Radiated Susceptibility	IEC 61000-4-3
Electrical Fast Transients	IEC 61000-4-4
Surges	IEC 61000-4-5
Conducted Susceptibility	IEC 61000-4-6
Voltage Dips & Interruptions (AC)	IEC 61000-4-11
Voltage Dips & Interruptions (DC)	IEC 61000-4-29
Conducted Emission	CISPR 14-1
Radiated Emission	CISPR 14-1

Environmental

Cold Heat	IEC 60068-2-1
Dry Heat	IEC 60068-2-2
Vibration	IEC 60068-2-6
Repetitive Shock	IEC 60068-2-27
Non-Repetitive Shock	IEC 60068-2-27