

# 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
<b>Parameters</b>				
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 kΩ, (± 5%)		
	Reset Level	1.71kΩ, (± 5%)		
	Sensor Short	<20Ω, (±4Ω)		
	Hysteresis	40Ω, (± 4Ω)		
	Sensor Open	> 20 kΩ, (± 5%)		
Max Cold Res(Ω) of Sensor Chain		< 1.5 kΩ		
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 <sup>5</sup>		
	Mechanical Life	3 x 10 <sup>6</sup>		
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 → Healthy    Flashing → Sensor Open		
	Red LED	Continuous ON → Relay ON    Flashing → 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