


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



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.)		2VA		
Trip Settings	Trip Level	3.6 k Ω , (\pm 5%)		
	Reset Level	1.6 k Ω , (\pm 5%)		
	Sensor Short	< 20 Ω , (\pm 4 Ω)		
	Hysteresis	20 Ω , (\pm 4 Ω)		
	Sensor Open	> 10 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		
	Contact Rating	6A (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	Ed. 3.0 (2005-11) Class A	
ESD		IEC 61000-4-2	Ed. 1.2 (2001-04) Level II	
Radiated Susceptibility		IEC 61000-4-3	Ed. 3.0 (2006-02) Level III	
Electrical Fast Transients		IEC 61000-4-4	Ed. 2.0 (2004-07) Level IV	
Surges		IEC 61000-4-5	Ed. 2.0 (2005-11) Level IV	
Conducted Susceptibility		IEC 61000-4-6	Ed. 2.2 (2006-05) Level III	
Voltage Dips & Interruptions (AC)		IEC 61000-4-11	Ed. 2.0 (2004-03) All 7 Levels	
Voltage Dips & Interruptions (DC)		IEC 61000-4-29	Ed. 2.0 (2004-03) All 5 Levels	
Conducted Emission		CISPR 14-1	Ed. 5.0 (2005-11) Class B	
Radiated Emission		CISPR 14-1	Ed. 5.0 (2005-11) Class B	
Environmental				
Cold Heat		IEC 60068-2-1	Ed. 6.0 (2007-03)	
Dry Heat		IEC 60068-2-2	Ed. 5.0 (2007-07)	
Vibration		IEC 60068-2-6	Ed. 7.0 (2007-12) 5g	
Repetitive Shock		IEC 60068-2-27	Ed. 4.0 (2008-02) 40g, 6ms	
Non-Repetitive Shock		IEC 60068-2-27	Ed. 4.0 (2008-02) 30g, 15ms	

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

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