

# Frequency Monitoring Series PD 225

- Wide Auxiliary Supply voltage Range: 110 - 240 VAC, 220 - 440 VAC
- Models for Over Frequency and Under/Over Frequency Monitoring
- Monitors Frequency of Three signals - Sine, Square & Triangular
- Model for Frequency Limit Control: 5 Hz to 135 Hz
- Wide Signal Input Voltage: 15 to 500 VAC
- Adjustable Relay status in Healthy or Unhealthy condition using DIP switch "ET" (Energize to Trip) or "DT" (De-energize to trip.)
- Ease of Frequency setting with simple Addition & Subtraction
- LED Indications for Healthy, Unhealthy & No signal conditions






## Ordering Information

Cat. No.	Description
MI81BJ	110 - 240 VAC, Over Frequency Relay, 1 C/O
MI91BJ	220 - 440 VAC, Over Frequency Relay, 1 C/O
MI81BL	110 - 240 VAC, Over Frequency & Under Frequency Relay, 1 C/O
MI91BL	220 - 440 VAC, Over Frequency & Under Frequency Relay, 1 C/O

UL Approval for Cat Nos. MI81BL & MI91BL only.

# Frequency Monitoring Series PD 225



Cat. No.		MI81BJ	MI91BL
<b>Parameters</b>			
Supply Voltage ( $\phi$ )		110 - 240 VAC	220 - 440 VAC
Supply Variation		-15% to +15% (of $\phi$ )	
Frequency		50/60 Hz	
Power Consumption (Max.)		3 VA	
Signal Type		Sinusoidal, Square, Triangular	
Signal Input Voltage Range		(15 to 500) V	
Overall Frequency Range		( 5 to 135) Hz	(40 to 70) Hz
Trip Settings	Over Frequency	0.33 to 1 of Full Scale	(+1 to +10) Hz above Selected Value
	Under Frequency	N A	(-1 to -10) Hz below Selected Value
	Reset Hysteresis	1.5 % of Full Scale selected	
Setting Accuracy		$\pm$ 5%	
Repeat Accuracy		$\pm$ 0.02%	
Time Delay	ON Delay	500 ms	
	OFF Delay	100 ms	500 ms to 5 s
	Reset Time	150 ms	
Output	Relay Output	1 C/O	
	Contact Rating	6A (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	Relay	Red LED Flashing if No Signal	
	UF / OF	N A	N A Separate for UF & OF
Operating Temperature		- 15° C to +60° C	
Storage Temperature		- 25° C to +80° C	
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

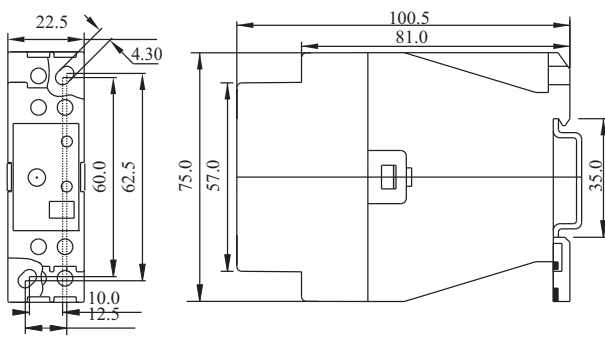
Harmonic Current Emissions	IEC 61000-3-2
ESD	IEC 61000-4-2
Radiated Susceptibility	IEC 61000-4-3
Electrical Fast Transients	IEC 61000-4-4
Surges	IEC 61000-4-5
Conducted Susceptibility	IEC 61000-4-6
Voltage Dips & Interruptions (AC)	IEC 61000-4-11
Conducted Emission	CISPR 14-1
Radiated Emission	CISPR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

## Environmental

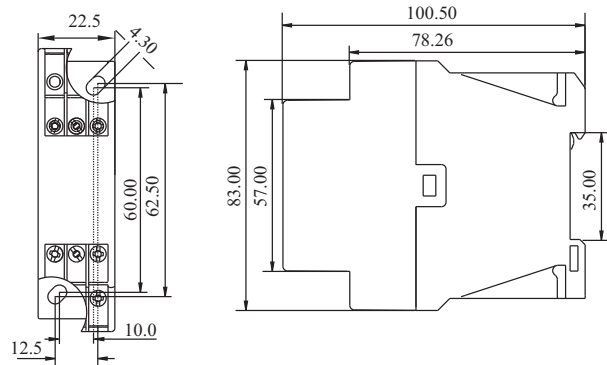
Cold Heat	IEC 60068-2-1
Dry Heat	IEC 60068-2-2
Vibration	IEC 60068-2-6
Repetitive Shock	IEC 60068-2-27
Non-Repetitive Shock	IEC 60068-2-27

# Frequency Monitoring & PTC Thermistor Relay Series PD225

## MOUNTING DIMENSION (mm)

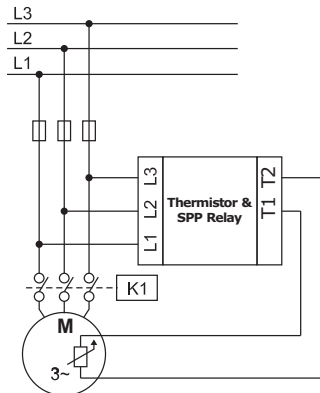


FREQUENCY MONITORING SERIES PD 225



PTC THERMISTOR RELAY SERIES PD 225 & PTC THERMISTOR & SINGLE PHASING PREVENTER SERIES PD 225

## CONNECTION DIAGRAM



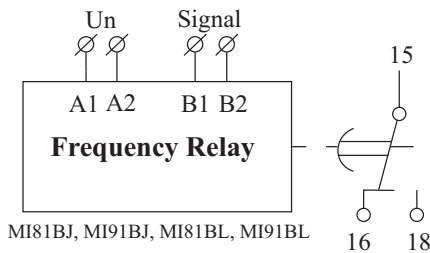
PTC THERMISTOR & SINGLE PHASING PREVENTER SERIES PD 225

## CONTACT ARRANGEMENT :

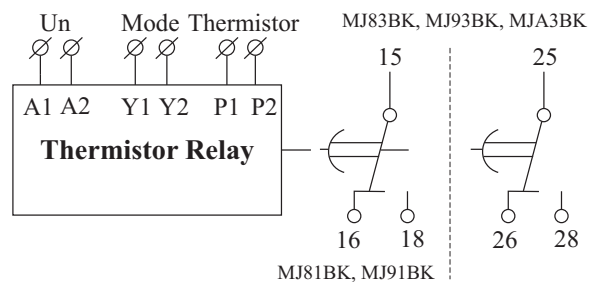
For 1 NO + 1 NO PRODUCT:  
ML64BS, MLD4BS



For 1 NO + 1 NC PRODUCT:  
ML67BS, MLD7BS

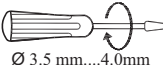



FREQUENCY MONITORING SERIES PD 225



PTC THERMISTOR RELAY SERIES PD 225

## TERMINAL TORQUE & CAPACITY

 Ø 3.5 mm...4.0mm	0.60 N.m (6 Lb.in)
	1 x 4.0 mm <sup>2</sup> Solid/Stranded Wire
AWG	1 x 20 to 10

FREQUENCY MONITORING SERIES PD 225

PTC THERMISTOR RELAY SERIES PD 225

PTC THERMISTOR & SINGLE PHASING PREVENTER SERIES PD 225