PPRD-4M-1-230V

Pump Protection Relay



DIN 70mm

Features :

- 1Ø - 2 wire input
- Monitors Dry/Under Current, Over Current, Locked Current, Over Voltage, Under Voltage, Phase Failure and Overload .
- Direct current measurement up to 32A
- LED indication : Power ON, Trip relay
- Test & Reset function via key & terminal
- Start & Stop Function by Push Button

Display Specifications

Display	3 Digits, 7 Segment LED display
No of LED	2 LED 1- Red LED for relay status indication LED 2- Green LED for pump status indication
No of keys	3 1- Set 2- Up / Test 3- Down / Reset

LED Indication Chart

Condition	Trip LED (Red)	'PUMP' LED (Green)
Healthy	OFF	OFF
Healthy & Motor ON	OFF	ON
Fault present	ON	OFF

Input Specifications

Measuring range	
A) Motor rated current	1A to 30A
B) Voltage measuring range	180 to 300V AC (L - N)
Time settings	
Power ON delay	1sec (Fixed)
Trip time delay (Current & Voltage parameters)	0 - 999sec
Reset Time (Current & Voltage parameters)	1 - 999sec
Reset Attempts	3 (Fixed)
Reset Attempt Time Frame	1 - 999min
Hysteresis	
Voltage	0 - 10V (Not applicable for current parameters)
Accuracy	
Current accuracy	±5% of rated current ±1 digit
Voltage accuracy	±1% of 300V ±1 digit
Time accuracy	±5% ±100msec
Functional specification	
Over load	NEMA class 5, 10, 15, 20, 30
Over current ranges	[Ir (Rated current) + 1 to 32A]
Under current	[0.2A to Ir (Rated current) - 1]
Locked current / Stall current	[Ir (Rated current) + 1 to 32A]
Over voltage	180V - 300V AC (L - N)
Under voltage	180V - 300V AC (L - N)

Output Specifications

Control output	1 NO Relay
Relay rating	30A@277V AC

Auxilliary Supply Specifications

Operating voltage range	180V - 300V AC (L - N)
Power consumption	40VA (max)
Frequency	50 - 60Hz

Environmental Specifications

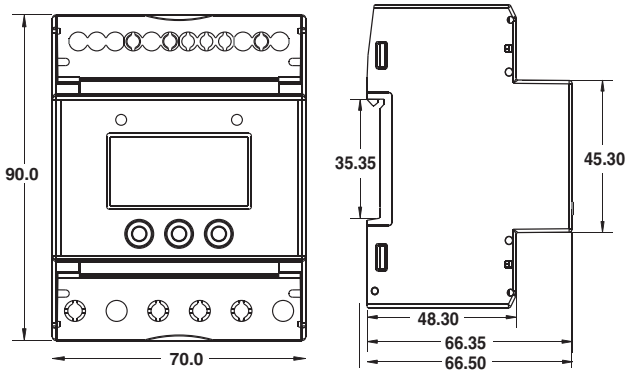
Temperature	Operating temperature : 0°C to 55°C Storage temperature : -20°C to +70°C
Humidity (non-condensing)	Upto 95% RH

Mechanical Specifications

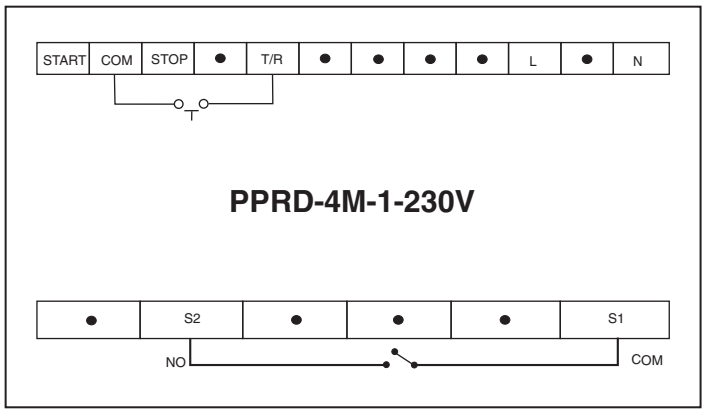
Mounting	DIN rail mount
Wire size (max)	4sq.mm
Size	66.50 x 70 x 90 x (H x W x L)
Screw tightening torque	0.5 NM
Weight	190 g approx

Dimensions (All are in mm)

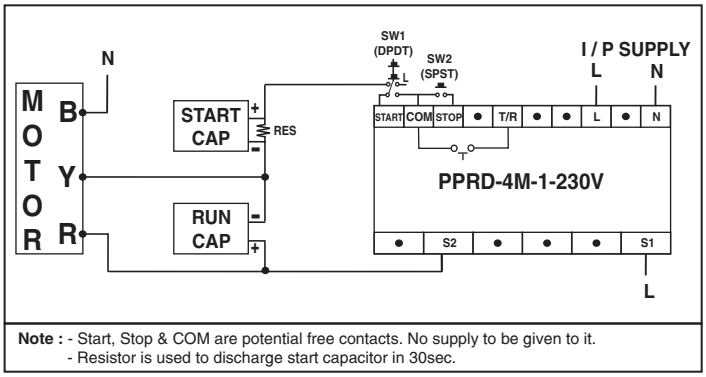
PPRD-4M-1-230V



Terminal Connections



Connection Diagram



Note : - Start, Stop & COM are potential free contacts. No supply to be given to it.
- Resistor is used to discharge start capacitor in 30sec.

Recommended resistor value as per different motor rating	
Start Capacitor Value	**Resistor Value**
Upto 200uF/300VAC	100kOhm/2W

(Minimum 30sec delay required between two consecutive starts.)

Ordering Information

Product code	Supply voltage	Certification
PPRD-4M-1-230V	180V - 300V AC (L - N)	---