selec



PPRD-4M-3-415V

FEATURES

- Dry Run/Under Current, Over Current, Locked Current, Current Asymmetry, Over Voltage, Under Voltage, Voltage Asymmetry, Phase Failure, Phase Sequence and Monitors Over Load (As per NEMA curve) in 3Ø system
- Trip Time Delay, Recovery Time Delay
- Adjustable Hysteresis Band
- Start & Stop Function by Push Button

SPECIFICATIONS

DISPLAY 3 Digits, Seven Segment LED Display

ELECTRICAL CONNECTION 3Ø-3 wire

OPERATING RANGE 280 - 500VAC (L-L)

FREQUENCY RANGE 50 - 60Hz

VA RATING

40VA max

CURRENT MEASUREMENT RANGE

2CT for R,Y,B Phase and Range From 3A - 80A (Depends on MPCT selected)

VOLTAGE MEASURING RANGE

280 - 500 VAC (L-L)

TRIP PARAMETERS

Overload : NEMA Class : 5,10,15,20,30

Rated Current:

10A CT : 3A-10A 40A CT : 11A-40A 80A CT : 24A-80A

Over Current : 10A CT : (IR+1)A to 60A

40A CT : (IR+1)A to 240A 80A CT : (IR+1)A to 240A [IR = Rated current] & Step size : 1A

Under Current :

10A CT : 1A to (IR-1)A 40A CT : 5A to (IR-1)A 80A CT : 10A (IR-1)A [IR = Rated current] & step size : 1A

Locked Current :

10A CT : (IR+1)A to 60A 40A CT : (IR+1)A to 240A 80A CT : (IR+1)A to 480A [IR = Rated current] & Step size : 1A

Current Asymmetry :

1A to (IR-1)A [IR = Rated current] & step size : 1A

Over Voltage : 280VAC - 500VAC (L-L)

Under Voltage : 280VAC - 500VAC (L-L)

Voltage Asymmetry : 10V - 50V

Phase Failure :

Yes

Phase Sequence : Yes

RESOLUTION

Current : <10A = 0.01 >10A = 0.1

ACCURACY Voltage Current

Time

: ±1% of 500V ± 1digi
: ±5% of IR ± 1digit
: ±5% ± 100msec

TIME SETTINGS

Power ON Delay : 1sec (Fixed) Trip Time Delay : 0-999sec (Current & Voltage Parameters) Phase Failure : Instantaneous Phase Reversal : Instantaneous Reset Time : 1-999sec for Current & Voltage parameters Response Time : <240ms Reset Attempts : 3 (Fixed) Reset Attempt Time Frame : 1-999 mins Auto diagnostic present

HYSTERESIS

Voltage : 0-10V (Not applicable for Current parameters)

OUTPUT SPECIFICATIONS

1 Relay : 1C/O (SPDT)

RELAY RATING

NO (5A, 250V AC/28VDC) NC (3A, 250V AC/28VDC)

LED INDICATION

LED1 (Red) : Relay(Continuously ON after trip) LED2 (Green): Pump(ON when Pump ON)

LED INDICATION CHART			
Various Conditions	'R' LED 'PUMP' LED		
Healthy	OFF	OFF	
Healthy & Motor ON	OFF	ON	
Trip	ON	OFF	

TST/RST FUNCTION :

TST : Relay Energized RST : Relay De-energized

ENVIRONMENTAL SPECIFICATIONS

- Indoor use

- Altitude of up to 2000 meters - Pollution degree II Temperature : Operating : 0 to 55°C Storage : -20 to 70°C Humidity : Up to 95% RH, non-condensing

MECHANICAL SPECIFICATIONS

No. of Push Buttons : 3 Mounting : Din Rail Mount Wire Size (max) : 4 sq.mm Screw tightening torque : 0.5 N-M

WEIGHT: 220gms (approx.)

ORDER CODE INFORMATION			
Product	Supply	Certification	
		CE	CUL US
PPRD-4M-3-415V	280V - 500V	—	—

ACCESSORIES		
PRODUCT	SUPPLY	CERTIFICATION
MPCT D15 10A	10A	
MPCT D15 40A	40A	
MPCT D15 80A	80A	

A SAFETY PRECAUTIONS

All safety related codifications, symbols and instructions that appear in this operating manual or on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument.

If the equipment is not used in a manner specified by the manufacturer it might impair the protection provided by the equipment.

Read complete instructions prior to installation and operation of the unit.

WIRING GUIDELINES

WARNING

- 1. To prevent the risk of electric shock power supply to the equipment must be kept OFF while doing the wiring arrangement.
- 2. Wiring shall be done strictly according to the terminal layout with shortest connections. Confirm that all connections are correct.

! CAUTION

- 1. To ensure the safe operation of unit, check the wiring and connections.
- 2. It is recommended to test the unit periodically to satisfy the regulations.

TERMINAL CONNECTIONS



CONFIGURATION MENU

Press \uparrow + \downarrow for 3sec. to enter or exit configuration menu.

Press 4 to save and scroll through sub menu Press 1 or 4 to enter and change parameter value			meter value	
DISPLAY	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
ΓĿ.Ε	Rated Current	10	3A - 10A (CT : 10A) 11A - 40A (CT : 40A) 24A - 80A (CT : 80A)	Default value will be as per selected range of CT selection
CFG	Config Settings	ПО	YES / NO	If configuration setting is 'YES', then other pages / settings will be displayed.
E E.5	CT Selection	10	3A - 10A (Default : 10A) 11A - 40A (Default : 40A) 24A - 80A (Default : 80A)	Default value will be as per selected range
OLP	Over Load	5	Class 5, 10, 15, 20, 30 (Starts with disable)	
	Over Current	20	(Ir+1)A to 60A (Default : 20A) (Ir+1)A to 240A (Default : 80A) (Ir+1)A to 480A (Default : 160A) (Starts with disable)	This parameter is only applicable when motor is already started
ШE	Under Current	5	1A to (Ir-1)A (Default : 5A) 5A to (Ir-1)A (Default : 20A) 10A to (Ir-1)A (Default : 40A) (Starts with disable)	This parameter is only applicable when motor is already started
LE	Locked Current	20	(Ir+1)A to 60A (Default : 20A) (Ir+1)A to 240A (Default : 80A) (Ir+1)A to 480A (Default : 160A) (Starts with disable)	This parameter is only applicable during motor start condition
٢R	Current Asymmetry	2	1A to (Ir-1)A (Starts with disable)	This parameter is only applicable when motor is already started
	Over Voltage	480	280V to 500V (Starts with disable)	Over Voltage cannot be less than Under Voltage
	Under Voltage	350	280V to 500V (Starts with disable)	Under Voltage cannot be greater than Over Voltage
<u>''</u> R	Voltage Asymmetry	30	10V to 50V (Starts with disable)	
PHL	Phase Loss	ЕПЬ	Enable / Disable	
PH.S	Phase Sequence	ЕПЬ	Enable / Disable	
LIF.H	Voltage Hysteresis	Б	0V to 10V	This parameter is applicable for Voltage parameter

DISPLAY	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
LTP	Trip Time	-	0 to 999 sec	This parameter is applicable for Voltage and Current parameter
ΓΕΕ	Recovery Time	5	1 to 999 sec	This parameter is applicable for Voltage and Current parameter
LEH	Latch	ПО	ON / OFF	If Latch is ON, user has to reset the unit manually when fault is removed
ΓC.E	Rapid Cycle Time	30	1 to 999 mins	Enable only if Auto mode selected
FEE	Factory Default	ПО	YES / NO	

KEY Function			
CURRENT	CURRENT Current value is shown in online mode.		
TEST	Press 🕈 key for 3sec to enter in test mode.		
RESET	Press 🖶 key for 3sec to reset manually.		
VOLTAGE	Press		
TRIP VALUE	Press 🕈 key for 3sec. to display trip value.		

NOTE :

- In configuration menu, if no key pressed for 30 sec. Then unit resumes to online page.

All Voltage and Current Parameters Tripping will be as per Average values of voltage and Current.
Unit will show OVR when current is greater than 10 times of rated current.
Unit will not show current less than 10% of full load current (Depends on MPCT selected)

- TEST/RESET function to be performed before turning ON Pump/Start key press & ensure application is disconnected from unit.

MECHANICAL INSTALLATION/DIMENSION (in mm)

72.50mm

Ø15

-35.30mm

SIDE VIEW



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54mm

FRONT VIEW

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TOP VIEW

44mm

Selec warrants the products to be free from

defects in the materials and workmanship for a period of one year (or other period specified, if any) from the date of sale by Selec.

WARRANTY / LIMITATIONS OF LIABILITY

The warranty does not apply to defects resulting from any action of the buyer, including but not limited to improper handling, operating the product outside the specification limits or unauthorized disassembling / altering of the product. The warranty shall be VOID if the product shows evidence of having been tampered or being damaged due to usage in corrosive environment ; or current, heat, moisture or vibration; improper specification; wrong usage in an application; misuse or other operating conditions outside of Selec's control.

Selec shall not be responsible for special, indirect or consequential damages, loss of profits or commercial loss in any way connected with the products, whether such claim is based on contract, warranty, negligence or strict liability.

In no event shall the responsibility of Selec for any act exceed the individual price of the product on which liability is asserted.

In no event shall Selec be responsible for warranty or other claims regarding the products unless Selec's analysis confirms that the products were properly handled, stored, installed and maintained and not subject to contamination, abuse, misuse or inappropriate modification or repair.



(Specifications are subject to change, since development is a continuous process)

Selec Controls Pvt. Ltd., India

Factory Address : EL-27/1, Electronic Zone, TTC Industrial Area, MIDC, Mahape, Navi Mumbai - 400 710 INDIA Tel. No. : +91-22-41 418 419/430 | Fax No. : +91-22-28471733 Toll free : 1800 227 353 (BSNL/MTNL Subscribers only) Website : www.selec.com | Email : sales@selec.com