

CURRENT PROTECTION RELAY

MULTISPAN

CPR 126



PV = Process Value

SV = Set Value

TECHNICAL SPECIFICATION

FEATURES:

True RMS Measurement
Protection available <ul style="list-style-type: none"> • Over Load • Under Load • Current Asymmetry • Single phase prevention (i.e it can trip relay in case of any phase current is become zero)
Auto/Manual /ZVR (Zero Value Reset) reset option
3 digit bright LED display
Three phase current display with LED indication
Auto save out feature
Time parameter : Power on delay Trip delay Initial time delay Recovery time (Auto reset)

INPUT SPECIFICATION:

Primary CT value	5 to 999 Selectable
Secondary current AC	0.5 to 5 Amp AC
Resolution	0.01A, 0.1A, 1A

DISPLAY AND KEY:

Display	3 digit, 1line, 7 seg, 0.4" RED LED
Keys	SET, INC, DEC/ RST

OUTPUT SPECIFICATION:

Relay	1 nos.
Relay Type	1 C/O (NO-C-NC)
Rating	10A, 230V AC/28 V DC

ACCURACY

Class 1.0 (Standard)

GENERAL SPECIFICATION:

Dimension (mm)	75 (H) x 45 (W) x 110 (D) mm
Trip Setting	Under current : 0.00 to 100% of primary C.T value Over current : 0.00 - 125% of primary C.T value
Time parameter	Trip delay time : 0 to 999 sec Power on time : 0 to 99 sec Initial time delay : 0 to 99 sec Recovery time : 0 to 99 sec

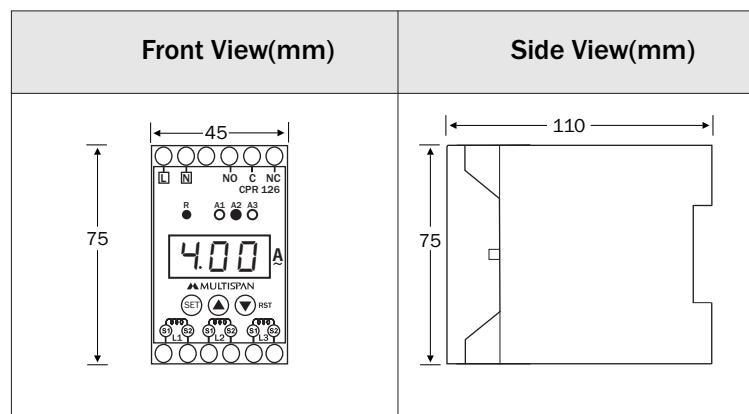
AUXILIARY SUPPLY:

Supply voltage	100 to 270V AC, 50-60Hz
Power consumption (VA RATING)	3 VA @ 230V AC MAX

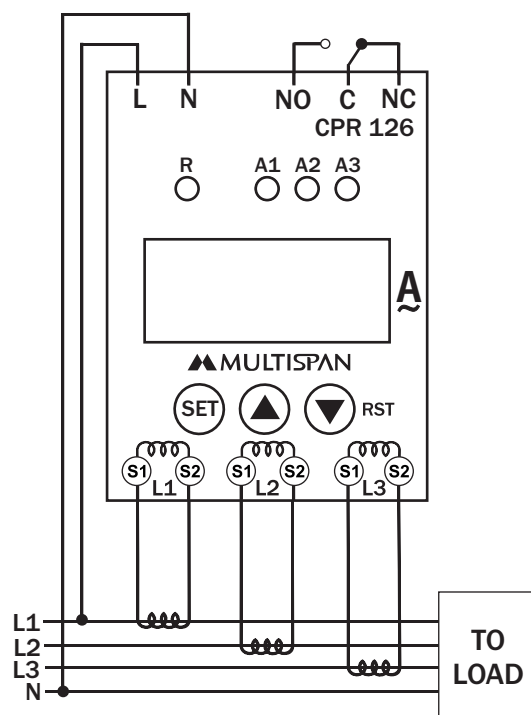
ENVIRONMENT CONDITION:

Operating Temp.	0°C to 55°C
Relative Humidity	UP to 95% RH (non-condensing)










MECHANICAL INSTALLATION



TERMINAL CONNECTION



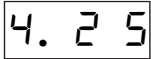
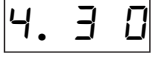
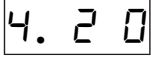
KEY OPERATION

FUNCTION	PRESS KEY
OPERATOR MODE	
To enter in parameter setting	 For 5 sec
To view individual phase current	 OR  RST
To Scroll & Hold Page	 + 
To reset the relay contact in manual mode after tripping	 RST
PARAMETER SETTING MODE	
It is used to set parameter value and to be save & exit from menu	
To increment value in parameter setting	
To decrement value in parameter setting	 RST

LED INDICATION

R Phase current	● A1
Y Phase current	● A2
B Phase current	● A3
Relay	● R

DISPLAY PAGE

1) R-Phase current	R A1 A2 A3 ● ● ○ ○ 
2) Y- Phase current	R A1 A2 A3 ● ○ ● ○ 
3) B-Phase current	R A1 A2 A3 ● ○ ○ ● 

MAINTENANCE

- The equipment should be cleaned regularly to avoid blockage of ventilating parts.
- Clean the equipment with a clean soft cloth. Do not use isopropyl alcohol or any other cleaning agent.
- Fusible resistor must not be replaced by operator.

MECHANICAL INSTALLATION GUIDELINES

- To install the instrument on a DIN rail, raise the clamp at the back of the instrument and place it on the rail. Now release the clamp, so the instrument fits on the DIN rail.
- Ensure proper fitting of the instrument by pulling it outwards.
- To remove the instrument raise the clamp to release it from the DIN rail.
- The equipment in its installed state must not come in close proximity to any heating source, caustic vapors, oil steam, or other unwanted process byproducts.
- Do not connect anything to unused terminals.

INSTALLATION GUIDELINES

- Do not allow pieces of metal, wire clippings, or fine metallic fillings from installation to enter the product or else it may lead to a safety hazard that may in turn endanger life or cause electrical shock to the operator.
- Circuit breaker or mains switch must be installed between power source and supply terminal to facilitate power 'ON' or 'OFF' function. However this mains switch or circuit breaker must be installed at convenient place normally accessible to the operator.
- Use and store the instrument within the specified ambient temperature and humidity ranges as mentioned in this manual.



SAFETY PRECAUTION

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 all the equipment is not handled 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.



WARNING : Risk of electric shock.

WARNING GUIDELINES

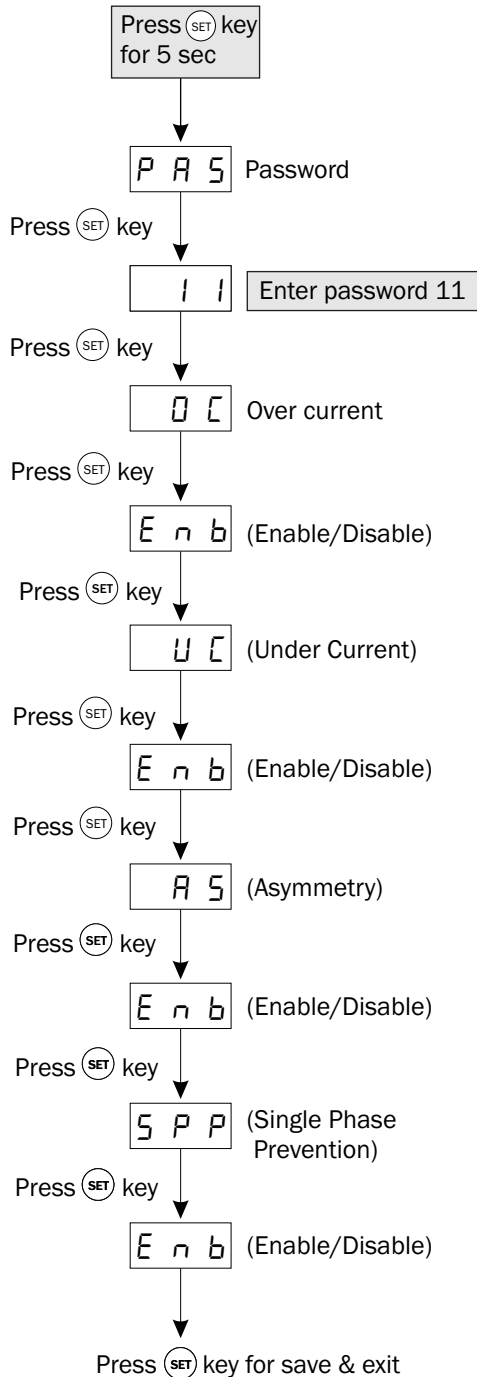


WARNING : Risk of electric shock.

- To prevent the risk of electric shock, power supply to the equipment must be kept OFF while doing the wiring arrangement. Do not touch the terminals while power is being supplied.
- To reduce electro magnetic interference, use wire with adequate rating and twists of the same of equal size shall be made with shortest connection.
- Cable used for connection to power source, must have a cross section of 1mm or greater. These wires should have insulations capacity made of at least 1.5kV.
- A better anti-noise effect can be expected by using standard power supply cable for the instrument.

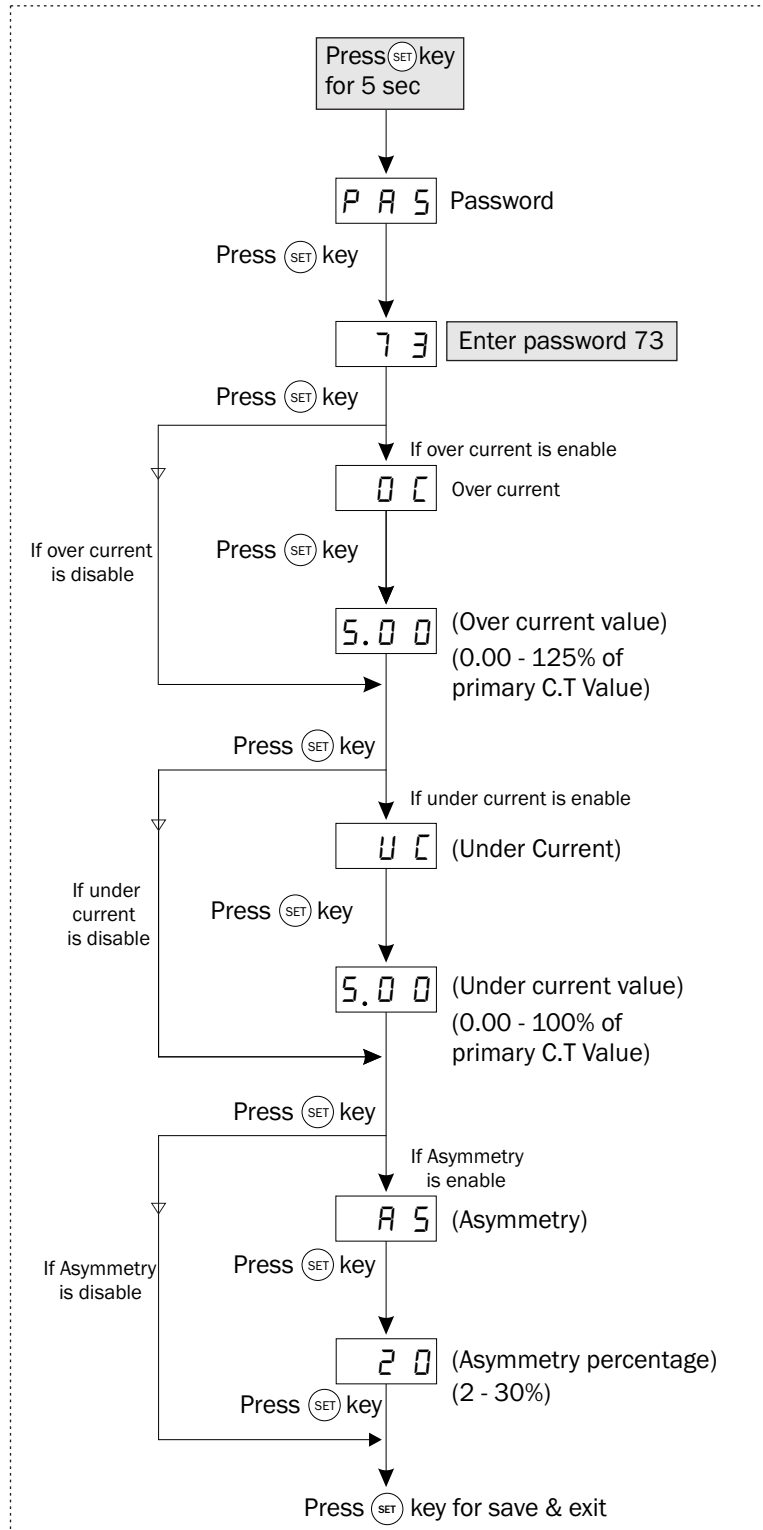
PARAMETER SETTING

- Password 11** : To Enable / Disable trip parameter (Over current, Under current, Asymmetry, Single phase prevention)
- Password 73** : To set trip value of Over current, Under current, Asymmetry percentage
- Password 37** : To set Power on time, ITD, Trip delay time, reset Mode, Relay Fault mode, C.T ratio



NOTE :-

- If Auxiliary supply cut out without fault Reset, Then fault will be display at next power on.
- To Reset fault press RST key.
- If Reset Mode Selected As ZVR (Zero Value Reset), then the Relay will be reset after Selected Reset time once the healthy condition achieved OR Zero Value reached.



FAULT MESSAGE

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: small;">R A1 A2 A3 O O O O</td> <td style="font-size: small;">R A1 A2 A3 O * O O</td> </tr> <tr> <td style="font-size: x-large; border: 1px solid black; padding: 5px;">0 C</td> <td style="font-size: x-large; border: 1px solid black; padding: 5px;">3 4.5</td> </tr> <tr> <td colspan="2" style="text-align: center; font-size: small;">← Scroll →</td> </tr> </table>	R A1 A2 A3 O O O O	R A1 A2 A3 O * O O	0 C	3 4.5	← Scroll →		<ul style="list-style-type: none"> ▣ Over current in R - Phase ▣ Over current Value = 34.5 A
R A1 A2 A3 O O O O	R A1 A2 A3 O * O O						
0 C	3 4.5						
← Scroll →							
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: small;">R A1 A2 A3 O O * O</td> <td style="font-size: small;">R A1 A2 A3 O O * O</td> </tr> <tr> <td style="font-size: x-large; border: 1px solid black; padding: 5px;">U C</td> <td style="font-size: x-large; border: 1px solid black; padding: 5px;">1 0.0</td> </tr> <tr> <td colspan="2" style="text-align: center; font-size: small;">← Scroll →</td> </tr> </table>	R A1 A2 A3 O O * O	R A1 A2 A3 O O * O	U C	1 0.0	← Scroll →		<ul style="list-style-type: none"> ▣ Under current in Y - Phase ▣ Under current Value = 10.0 A
R A1 A2 A3 O O * O	R A1 A2 A3 O O * O						
U C	1 0.0						
← Scroll →							
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: small;">R A1 A2 A3 O * * O</td> <td style="font-size: small;">R A1 A2 A3 O * * O</td> </tr> <tr> <td style="font-size: x-large; border: 1px solid black; padding: 5px;">A S</td> <td style="font-size: x-large; border: 1px solid black; padding: 5px;">2 0</td> </tr> <tr> <td colspan="2" style="text-align: center; font-size: small;">← Scroll →</td> </tr> </table>	R A1 A2 A3 O * * O	R A1 A2 A3 O * * O	A S	2 0	← Scroll →		<ul style="list-style-type: none"> ▣ Asymmetry current between R & Y Phase ▣ Asymmetry percentage=20%
R A1 A2 A3 O * * O	R A1 A2 A3 O * * O						
A S	2 0						
← Scroll →							
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: small;">R A1 A2 A3 O O O *</td> <td></td> </tr> <tr> <td style="font-size: x-large; border: 1px solid black; padding: 5px;">S P P</td> <td></td> </tr> </table>	R A1 A2 A3 O O O *		S P P		<ul style="list-style-type: none"> ▣ Single phase prevention fault occurred in B - Phase 		
R A1 A2 A3 O O O *							
S P P							

Note : LED Status- blinking LED LED on LED off

Press (SET) key **P A S** Password Press (SET) key for 5 sec
 Press (SET) key **3 7** Enter password 37
 Press (SET) key **P O n** Power on time
 Press (SET) key **2 0** (0-99 sec)
 Press (SET) key **1 t d** (Initial time delay)
 Press (SET) key **2 5** (0-99 sec)
 Press (SET) key **t d L** (Trip delay time)
 Press (SET) key **2** (0-999 sec)
 Press (SET) key **r S t** (Reset mode)
 Press (SET) key **A U T** (Auto / Manual / ZVR)
 Press (SET) key **r C t** (Recovery time)
 Press (SET) key **5** (0 to 99 sec.)
 Press (SET) key **r F i** (Relay fault mode)
 Press (SET) key **0 n** (On/Off)
 Press (SET) key **P F i** Power Fault Memory
 Press (SET) key **Y E S** Yes / No
 Press (SET) key **C t r** Primary C.T ratio
 Press (SET) key **5** (5-999 AmP)
 Press (SET) key for save & exit

If manual reset mode select

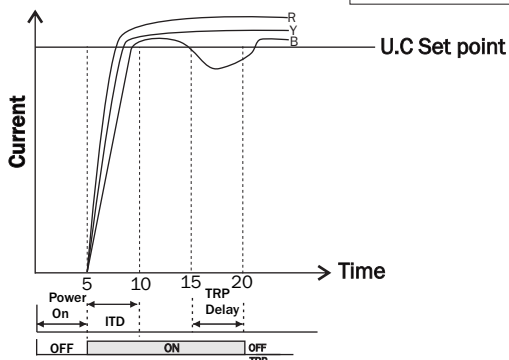
If Auto/ZVR reset mode select

CONTROL FUNCTION

Power on time = 5 sec **Initial time delay = 5 sec**
Trip delay time = 5 sec **Reset mode = Manual**

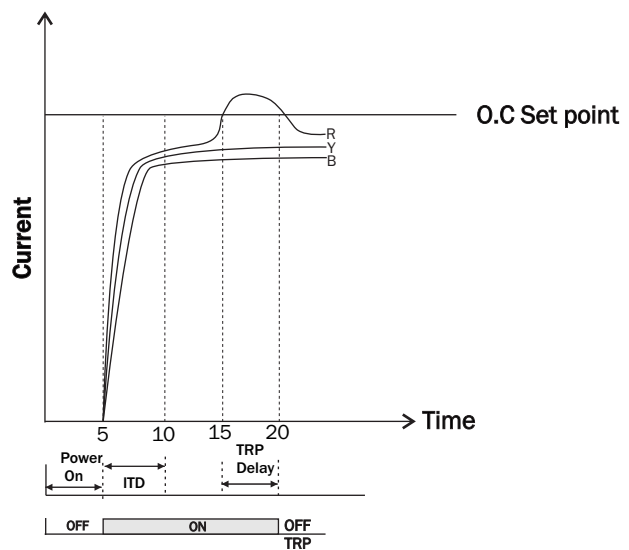
Under Current

Under Current - Enable RLY fault - OFF



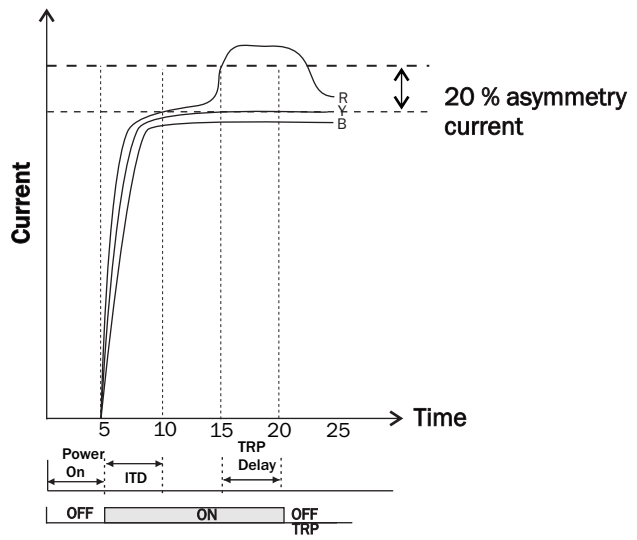
Over Current

Over Current - Enable RLY fault - OFF



Asymmetry Current

Asymmetry current - Enable
 RLY fault - OFF
 Asymmetry percentage - 20%



Single Phase Prevention

SPP - Enable RLY fault - Off

