



CE RoHS

FEATURES

- Under current, Over current protection
- Current asymmetry monitoring (for 3Ø System only)
- True RMS value measurement
- User selectable Power ON delay, Trip time delay and Recovery time
- Adjustable hysteresis
- One alarm relay with NC or NO operation selectable

SPECIFICATIONS

DISPLAY

3 Digits, LCD with backlight

ELECTRICAL CONNECTION

900CPR-1 : 1Ø-2 wire

900CPR-3 : 1Ø-2 wire, 3Ø-3 wire, 3Ø-4 wire

AUXILIARY SUPPLY

110V / 230V AC (factory set)

50 / 60Hz

POWER CONSUMPTION

15VA max

CT PRIMARY SETTING

1A / 5A-999A

CT SECONDARY SETTING

1A or 5A (Selectable)

TRIP SETTINGS

Under Current : 0 - 999A

(0-100% of CT Primary Setting)

Over Current : 0.5A - 1.19kA

(10-120% of CT Primary Setting)

Current Asymmetry : 5.0 - 99.9%

TIME SETTINGS

Power ON Delay : 0.5 - 99.9sec

Response Delay (Trip time delay) : 0 - 99.9sec

Recovery Time : 0 - 99.9sec

Response Time : < 200ms

MAXIMUM CURRENT INPUT

120% of CT Primary setting

HYSTERESIS

0.1 - 99.9A

RESOLUTION

0.01, 0.1, 1A, 0.01kA (Depends on CT setting)

ACCURACY

Current : $\pm 1\%$ of Setting, ± 2 digits

Time (Recovery Time, Trip Time Delay,

Power ON Delay) : $\pm 5\%$ of setting ± 200 ms

OUTPUT SPECIFICATIONS

Relay : 1C/O (SPDT)

RELAY RATING

NO (5A, 250V AC)

NC (3A, 250V AC)

LED INDICATION

LED(Red) : Trip

ENVIRONMENTAL SPECIFICATIONS

- Indoor use

- Altitude of up to 2000 meters

- Pollution degree II

Temperature : Operating : 0°C to 50°C

Storage : -20°C to 70°C

Humidity : Up to 95% RH, non-condensing

MECHANICAL SPECIFICATIONS

No. of Push Buttons : 3

Size : 35mm width

Mounting : 35mm Din Rail Mount

Wire Size (max) : 4 sq.mm

Screw tightening torque : 0.5 N-M

WEIGHT

CPR-1 : 130 gms.

CPR-3 : 150 gms.

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.

If there is physical damage to the unit then do not use it.

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

WIRING GUIDELINES

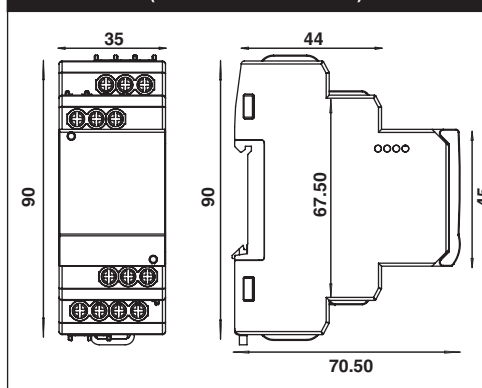
WARNING

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

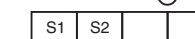
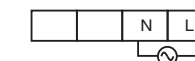
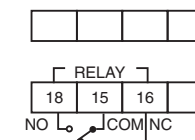
1. To ensure the safe operation of unit, check the wiring and connections.
2. It is recommended to test the unit periodically to satisfy the regulations.

DIMENSIONS (All dimensions in mm)

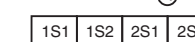
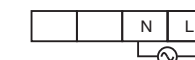
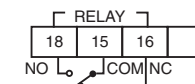
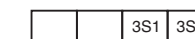


TERMINAL CONNECTIONS

900CPR-1

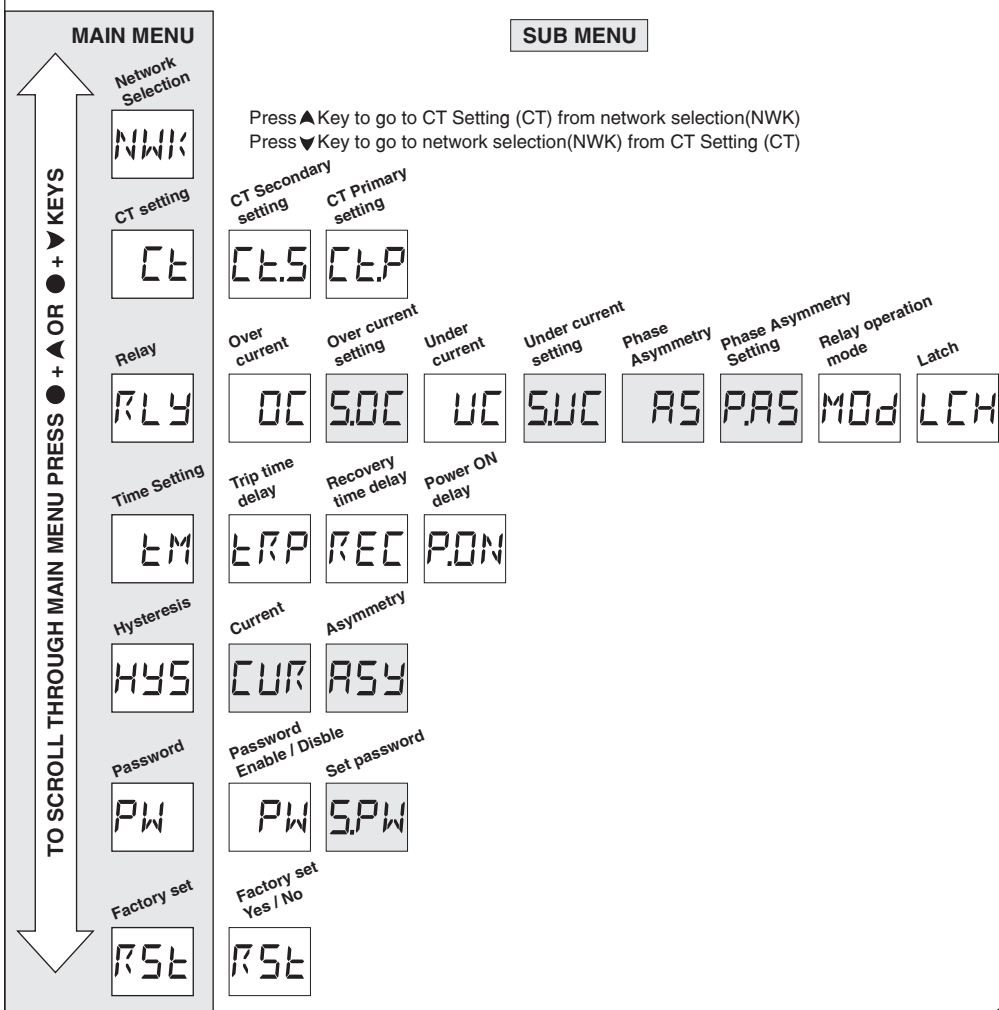


900CPR-3



CONFIGURATION MENU

Press ▲ + ▼ for 3sec. to enter or exit configuration menu.



Note : 1) Appearance of shaded menus dependant on selection of other parameters
2) Network selection & phase asymmetry setting not applicable for 900CPR-1

SUB MENU

Network selection (NWK) Press ▲ to enter sub menu from main menu				
Press ▲ or ▼ to scroll through sub menu		Press ● + ▲ or ● + ▼ to change parameter value		
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
NWK	Network selection	3P3	1P2 / 3P3 / 3P4	Not applicable for 900CPR-1

CT setting (CT) Press ▲ to enter sub menu from main menu				
Press ▲ or ▼ to scroll through sub menu		Press ● + ▲ or ● + ▼ to change parameter value		
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
CL.S	CT Secondary setting	5 ^A	1A / 5A	
CL.P	CT Primary setting	100 ^A	5 - 999A (If CT.S is 5A) 1 - 999A (If CT.S is 1A)	

Relay (RLY) Press ▲ to enter sub menu from main menu				
Press ▲ or ▼ to scroll through sub menu		Press ● + ▲ or ● + ▼ to change parameter value		
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
OC	Over current	ON ^A	ON / OFF	
SOC	Over current setting	110 ^A	0.5A - 1.19kA 10-120% of CT Primary setting	This option will be prompted only when OC option is made ON in config. menu. OC setting cannot go below the UC setting. e.g. If UC is 50A, OC setting cannot go below 50A
UC	Under current	OFF ^A	ON / OFF	
SUC	Under current setting	500 ^A	0 - 999A 0-100% of CT Primary setting	This option will be prompted only when UC option is made ON in config. menu. UC setting cannot go above the OC setting. e.g. If OC is 100A, UC setting will be limited till 100A only.
AS	Phase Asymmetry	ON ^{As}	ON / OFF	Not prompted for 1P2 network selection (not applicable for 900CPR-1)
PAS	Phase Asymmetry Setting	100 ^{As} %	5.0 - 99.9%	This option will be prompted only when AS option is made ON. Not prompted for 1P2 network selection (not applicable for 900CPR-1)
MOD	Relay operation mode	OFF	ON / OFF	ON : NO(During Trip) OFF : NC(During Trip)
LCH	Latch	OFF	ON / OFF	If Latch is ON, user has to reset the unit manually when fault is removed

Time Setting (TM) Press ▲ to enter sub menu from main menu				
Press ▲ or ▼ to scroll through sub menu		Press ● + ▲ or ● + ▼ to change parameter value		
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
	Trip time delay		0.0 - 99.9s	
	Recovery time		0.0 - 99.9s	
	Power ON delay		0.5 - 99.9s	

Hysteresis (HYS) Press ▲ to enter sub menu from main menu				
Press ▲ or ▼ to scroll through sub menu		Press ● + ▲ or ● + ▼ to change parameter value		
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
	Hysteresis for current		0.1 - 99.9A	
	Hysteresis for Asymmetry.		2 - 20%	Not prompted for 1P2 network selection (not applicable for 900CPR-1)

Password (PW) Press ▲ to enter sub menu from main menu				
Press ▲ or ▼ to scroll through sub menu		Press ● + ▲ or ● + ▼ to change parameter value		
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
	Password		ENB / DIS	Enable / Disable password protection option
	Set password		0-999	Will be prompted only when Password option is enabled
NOTE : PW option will be asked when the user enter the config. menu if PW option is enabled in the config menu and the user has to enter the password which he has set in the S.PW (set password) option.				

Factory set (RST) Press ▲ to enter sub menu from main menu				
Press ▲ or ▼ to scroll through sub menu		Press ● + ▲ or ● + ▼ to change parameter value		
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
	Reset (Factory set)		YES / NO	

TRIP VALUE SETTING		Press key for 3 sec. to enter or exit Trip Value Setting menu :		
Press or to scroll through main menu		Press + or + to change parameter value		
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
	LOCK		YES / NO	This option will be prompted first when the user enters the trip setting menu. User has to set NO after which he can access the trip setting menu.
	Over current setting		0.5A - 1.19kA 10-120% of CT Primary setting	This option will be prompted only when OC option is made ON in config. menu. OC setting cannot go below the UC setting. e.g. If UC is 50A, OC setting cannot go below 50A
	Under current setting		0 – 999A 0-100% of CT Primary setting	This option will be prompted only when UC option is made ON in config. menu. UC setting cannot go above the OC setting. e.g. If OC is 100A, UC setting will be limited till 100A only.
	Trip time delay		0.0 - 99.9s	
	LOCK		YES / NO, (In this option if YES is selected by the user, then whenever the user enters the Trip Value Setting, initially LOCK option will be prompted. The user will have to set NO after which he can access the trip setting menu. If the user wants to disable LOCK option, he can set NO when LOCK option is prompted after TR2 option.)	
ONLINE KEYS		Individual parameters can be viewed with every press of keys.		

900CPR-3

PARAMETER	SYMBOL
Current (R phase)	L1 A
Current (Y phase)	L2 A
Current (B phase)	L3 A
Phase Asymmetry	As

Note : 1) Phase Asymmetry not displayed for 1P2 network selection.
2) Only one phase current will be displayed for 1P2 network selection.

TRIP INDICATION	Trip Indication on press of ▲ key : Trip value will be displayed till the key is pressed.
RESET	Press ● key for 3sec. to reset manually
Master Password : 753	

(Specifications subject to change as development is a continuous process.)

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