



## FEATURES

- Under current, Over current protection
- Current asymmetry monitoring (for 3Ø System only)
- 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, Liquid Crystal Display

### 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)

### FREQUENCY RANGE

45 - 65Hz

### POWER CONSUMPTION

12VA 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

Recovery Time : ≤ 300ms (On removal of fault)

## 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 : ±1% of Setting, ±2 digits

Time (Recovery Time, Trip Delay, Power ON

Delay) : ±5% of setting + 200ms

## OUTPUT SPECIFICATIONS

Relay : 1C/O (SPDT)

## RELAY RATING

NO (5A, 250V AC)

NC (3A, 250V AC)

## LED INDICATION

LED1 (Green) : Power ON

LED2 (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 : 127 gms.

CPR-3 : 146 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.

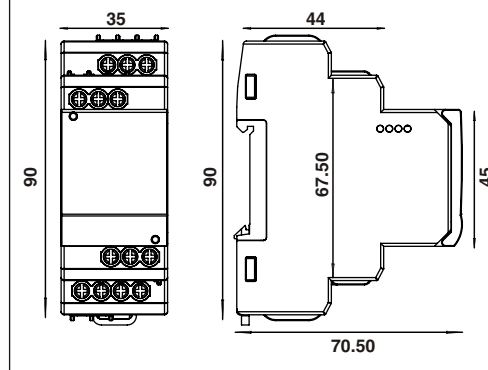
2. Wiring shall be done strictly according to the terminal layout with shortest connections. Confirm that all connections are correct.

### CAUTION

1. To ensure the safe operation of unit, check the wiring and connections.

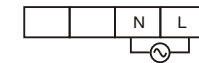
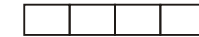
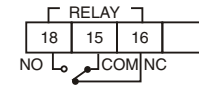
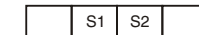
2. It is recommended to test the unit periodically to satisfy the regulations.

## DIMENSIONS ( All dimensions in mm )

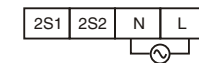
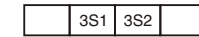
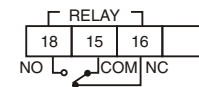
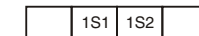


## TERMINAL CONNECTIONS

### 900CPR-1

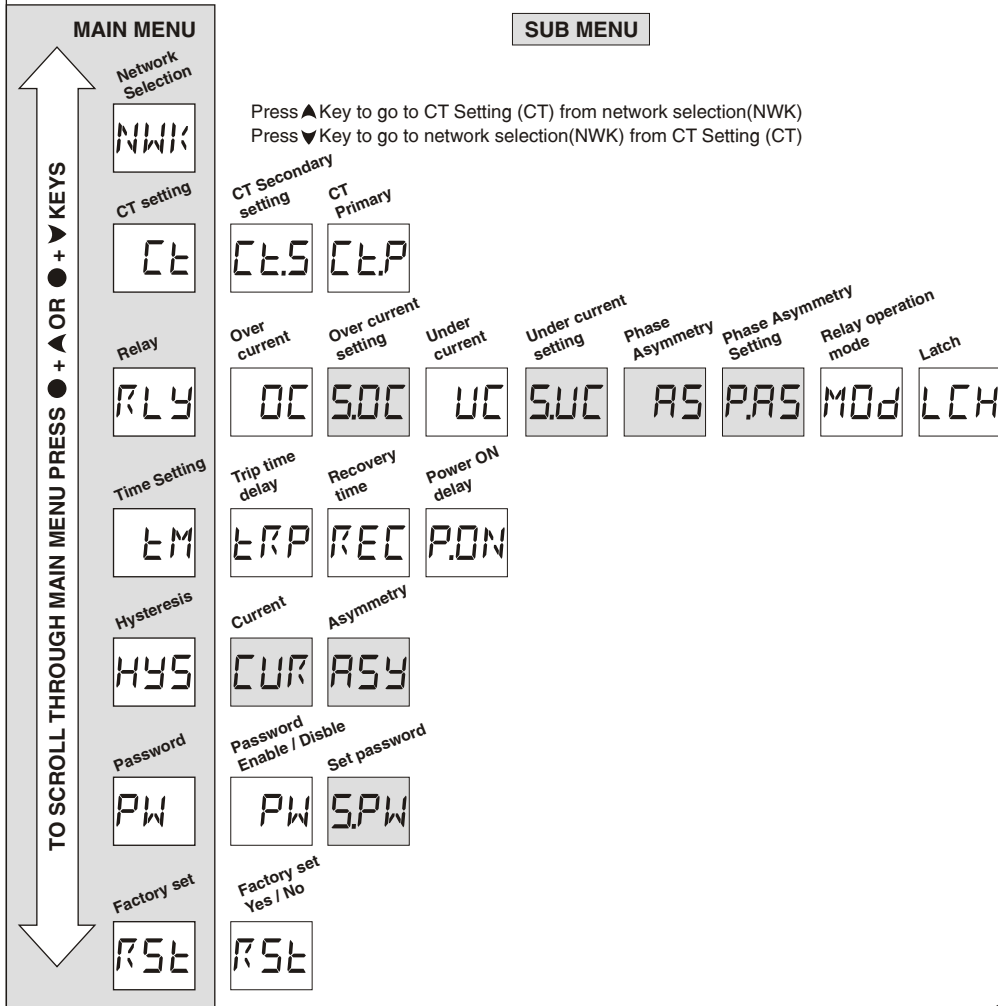


### 900CPR-3



# 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) <span style="float: right;">Press ▲ to enter sub menu from main menu</span>				
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) <span style="float: right;">Press ▲ to enter sub menu from main menu</span>				
Press ▲ or ▼ to scroll through sub menu		Press ● + ▲ or ● + ▼ to change parameter value		
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
CLS	CT Secondary setting	5 <sup>A</sup>	1A / 5A	
CLP	CT Primary	100 <sup>A</sup>	5 - 999A ( If CT.S is 5A ) 1 - 999A ( If CT.S is 1A )	

Relay (RLY) <span style="float: right;">Press ▲ to enter sub menu from main menu</span>				
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 <sup>A</sup>	ON / OFF	
SOC	Over current setting	110 <sup>A</sup>	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 <sup>A</sup>	ON / OFF	
SUC	Under current setting	500 <sup>A</sup>	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 <sup>As</sup>	ON / OFF	Not prompted for 1P2 network selection (not applicable for 900CPR-1)
PAS	Phase Asymmetry Setting	100 <sup>As</sup> %	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 : NC OFF : NO
LCH	Latch	OFF	ON / OFF	If Latch is ON, user has to reset the unit manually when fault is removed

Time Setting (TM) <span style="float:right">Press ▲ to enter sub menu from main menu</span>				
Press ▲ or ▼ to scroll through sub menu		Press ● + ▲ or ● + ▼ to change parameter value		
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
TRP	Trip time delay	3.0 <sup>s</sup>	0.0 - 99.9s	
REC	Recovery time	0.5 <sup>s</sup> t <sub>off</sub>	0.0 - 99.9s	
PON	Power ON delay	5.0 <sup>s</sup> t <sub>on</sub>	0.5 - 99.9s	

Hysteresis (HYS) <span style="float:right">Press ▲ to enter sub menu from main menu</span>				
Press ▲ or ▼ to scroll through sub menu		Press ● + ▲ or ● + ▼ to change parameter value		
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
CUR	Hysteresis for current	0.5 <sup>A</sup> H	0.1 - 99.9A	
ASY	Hysteresis for Asymmetry.	2.0 <sup>As</sup> H	2 - 20%	Not prompted for 1P2 network selection (not applicable for 900CPR-1)

Password (PW) <span style="float:right">Press ▲ to enter sub menu from main menu</span>				
Press ▲ or ▼ to scroll through sub menu		Press ● + ▲ or ● + ▼ to change parameter value		
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
PW	Password	di 5	ENB / DIS	Enable / Disable password protection option
SPW	Set password	000	000-999	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) <span style="float:right">Press ▲ to enter sub menu from main menu</span>				
Press ▲ or ▼ to scroll through sub menu		Press ● + ▲ or ● + ▼ to change parameter value		
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
RST	Reset (Factory set)	NO	YES / NO	

TRIP VALUE SETTING <span style="float:right">Press ▲ key for 3 sec. to enter or exit Trip Value Setting menu :</span>				
Press ▲ or ▼ to scroll through main menu		Press ● + ▲ or ● + ▼ to change parameter value		
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION
LCK	LOCK	YES	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.
SOC	Over current setting	110 <sup>A</sup>	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
SUC	Under current setting	500 <sup>A</sup>	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.
TRP	Trip time delay	3.0 <sup>s</sup>	0.0 - 99.9s	
LCK	LOCK	NO	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 are subject to change, since development is a continuous process )

**Selec Controls Pvt. Ltd.**  
Tel. No. : +91-22-40394200 / 40394202  
Fax No. : +91-22-28471733 | Toll free : 1800 227 353  
Website: www.selec.com | Email : sales@selec.com