

# **FEATURES**

- Under current, Over current protection
- True RMS value measurement
- User selectable Power ON delay, Trip time delay and Recovery time delay
- · Adjustable hysteresis
- Two alarm relays with NC or NO operation selectable

## **SPECIFICATIONS**

# **DISPLAY**

3 Digits, LCD with backlight

# **ELECTRICAL CONNECTION**

1Ø - 2 wire

#### **AUXILIARY SUPPLY**

85 - 270V AC/DC

50 / 60Hz

### POWER CONSUMPTION

4VA 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)

## **TIME SETTINGS**

Response Time :< 200ms Trip time delay : 0 – 99.9 sec. Power ON Delay: 0.5-99.9sec. Recovery Time : 0-99.9sec **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 (Trip Time, Recovery Time,

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

## **OUTPUT SPECIFICATIONS**

2 Relays: Relay1:1C/O(SPDT) Relay2: 1C/O(SPDT)

## **RELAY RATING**

NO (5A, 250V AC) NC (3A, 250V AC)

#### LED INDICATION

LED1(Red): Relay1(Continuously ON after trip) LED2(Red): Relay2(Continuously ON after 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

: Up to 95% RH, non-condensing Humidity

## **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

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.

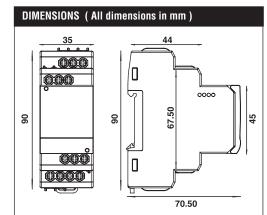
## **WIRING GUIDELINES**

# **★** WARNING

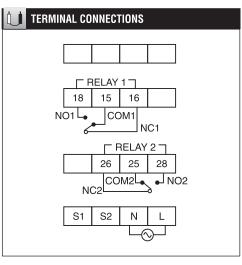
- 1. To prevent the risk of electric shock power supply to the equipment must be kept OFF while doing the wiring arrangement.
- 2. Wiring shall be done strictly according to the terminal layout with shortest connections. Confirm that all connections are correct.

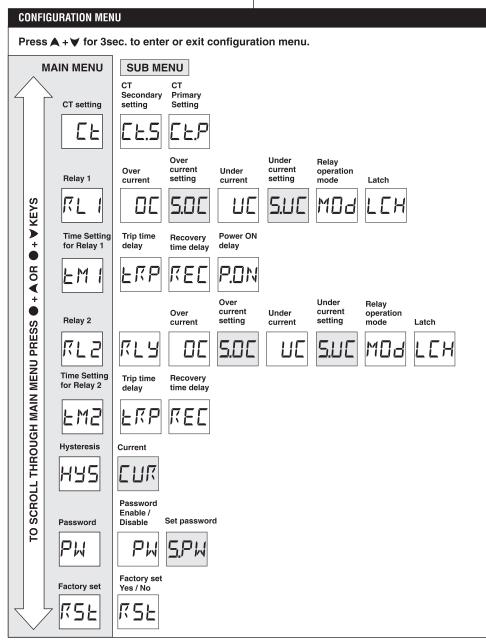
# ! CAUTION

- 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.



LED INDICATION CHART						
Various Conditions	'R1' LED	'R2' LED				
No fault	OFF	OFF				
Trip (Relay 1)	ON	OFF				
Trip (Relay 2)	OFF	ON				
Trip (If programmed for both relays)	ON	ON				





Note: Appearance of shaded menus dependant on selection of other parameters

CT setting	(CT)		Press \land to enter sub menu from main menu		
Press ▲ or through su		Press ● + ▲ or ● + ▼ to change parameter value			
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION	
C Ł.5	CT Secondary setting	Ŝ	1A / 5A		
C E.P	CT Primary setting	IDÔ	5 - 999A ( If CT.S is 5A ) 1 - 999A ( If CT.S is 1A )		
Relay 1 (R	RL1)		Press ▲ to e	enter sub menu from main menu	
Press ▲ or through su			Press ● + ▲ or ● + ▼ to cha	nge parameter value	
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION	
	Over current	PI A	ON / OFF		
5.00	Over current setting	R1 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 50	
ЦΕ	Under current	RI A	ON / OFF		
5.40	Under current setting	5 Ó, Ó	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 grabove the OC setting. e.g. If OC is 100A, UC setting will be limited till 100A only.	
MOd	Relay operation mode		ON / OFF	ON: NO (During Trip) OFF: NC (During Trip)	
LEH	Latch		ON / OFF	If Latch is ON, user has to reset the unit manually when fault is removed	
Time Setti	ng for Relay 1 (	(TM1)	Press ▲ to	enter sub menu from main menu	
Press A or ▼ to scroll through sub menu			Press ● + ▲ or ● + ▼ to change parameter value		
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION	
LKP	Trip time delay	R1 t	0.0 - 99.9s		
REC	Recovery time delay	R1 t off	0.0 - 99.9s		
P.ON	Power ON delay	5.0	0.5 - 99.9s		

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	<b>A</b>				
<b>A</b>	<b>\</b>	● ▲ ● ▼			
	Over current	> A	ON / OFF		
5.00	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	
ЦΕ	Under current	R2 A	ON / OFF		
5.40	Under current setting	S C 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.	
MOd	Relay operation mode	0FF	ON / OFF	ON : NO (During Trip) OFF : NC (During Trip)	
LEH		OFF			

		<b>A</b>				
<b>A V</b>		● ▲ ● ∀				
FLL		3.0				
REC		0.5				

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

TRIP VALUE SETTING (Online) Press A key for 3 sec. to enter or exit Trip Value Setting						
	Press Aor ▼ to scroll through main menu		Press ● + ▲ or ● + ▼ to change parameter value			
DISPLAY (For 1sec)	DESCRIPTION	DEFAULT VALUE	RANGE	CONDITION		
LEK	LOCK	YE5	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.		
5.00	Over current setting (RLY 1)	Rt 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.		
5.00	Over current setting (RLY 2)		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.		
5.UC	Under current setting (RLY 1)	S O.O	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.		
5.UC	Under current setting (RLY 2)	5 Ó Ó	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.		
FLL	Trip time delay (RLY 1)	RI .	0.0 - 99.9s			
FEB	Trip time delay (RLY 2)	R2 t	0.0 - 99.9s			
LOCK 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 TRP option.)			
ONLINE KEYS		Individual parameters can be viewed with every press of ▼ keys.				
PA	PARAMETER					
	Current					
TRIP INDI	TRIP INDICATION		Trip Indication on press of A key: Trip value will be displayed till the key is pressed.			
RESET		Press ● key for 3sec. to reset manually (Applicable only if Latch is ON)				

Master Password: 753

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

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