

**1 PHASE METERS**

**TEST CERTIFICATE**

**Type : 1 PHASE VOLTMETER  
1 PHASE AMMETER**

Accuracy : 1Ø Voltmeter - Class 0.5% For V  
0.1% of FS for Hz  
1Ø Ammeter - Class 0.5% For A

Accuracy Test :  
1Ø Voltmeter  
1Ø Ammeter

VOLTAGE	FREQUENCY	AMPS
10%	100%	10%
+/-0.5%	+/-0.5%	+/-0.5%
OK	OK	OK

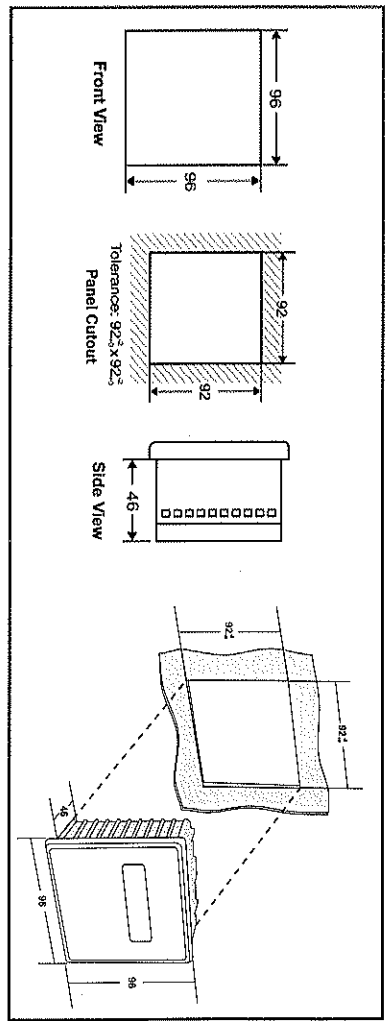
**Note :**

A) For Digital Readouts the error is Computed in Counts.

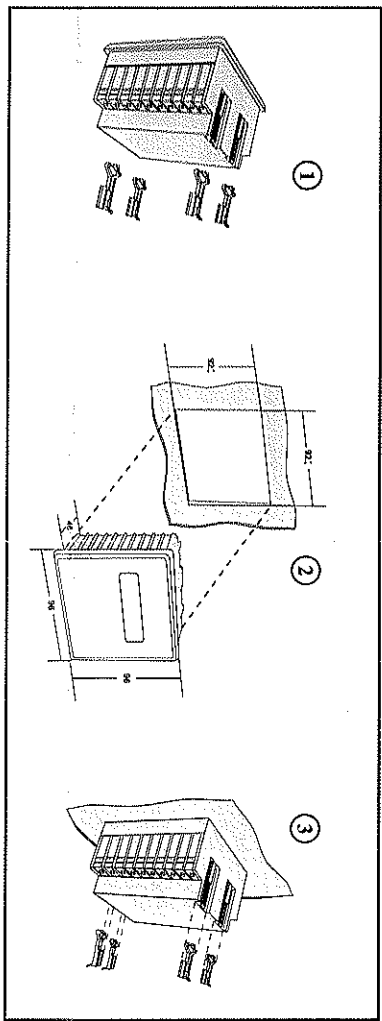
- Class 1.0 ± 1% of Full Scale ± 1 Count
- Class 0.5 ± 0.5% of Full Scale ± 1 Count

Tested By : Mr. Kailas Sign. :

Date : **03 MAR 2021**

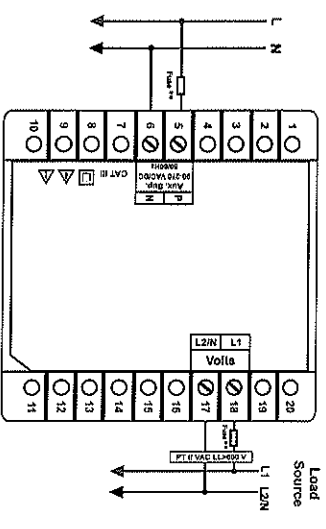


**MOUNTING ARRANGEMENT**

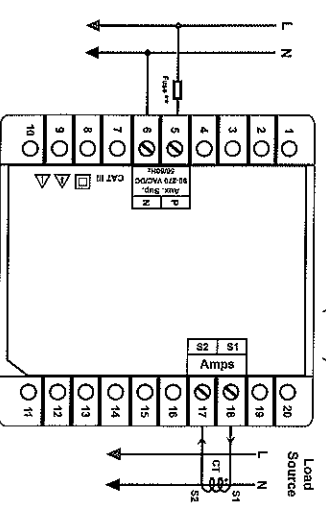


**CONNECTION DETAILS**

**Electrical Wiring / Connection Diagram**



**Electrical Wiring / Connection Diagram**



- FEATURES**
- (1) State of Art Micro controller Based Design
  - (2) 1 Line 4 Digit Ultra Bright LED Display
  - (3) Site Programmable PT ratio (1 Phase Voltmeter) Site Programmable CT ratio (1 Phase Ammeter)
  - (4) True RMS Measurement
  - (5) Harmonics THDV (1 Phase Voltmeter) Harmonics THDI (1 Phase Ammeter)
  - (6) Auto Ranging
  - (7) Universal Aux. Supply

**PARAMETERS**

1 Phase Voltmeter	1 Phase Ammeter
Volts	Amps
THDV	THDI
Frequency	

**SPECIFICATION**

- Input** : 1 Phase 2 Wire  
: 1Ø Voltmeter - 0-500 VAC  
: 1Ø Ammeter - 0.015-6.00A  
Direct 60 ampere optional
- Burden** : 3VA Max. for Aux. Supply, 0.2VA for Voltage & Current input
- Aux. Supply** : 90 - 270 VAC / DC, 50/60 Hz
- Display** : 1 Line x 4 Digit  
{ 0.56 Inches 7 Segment LED Display }
- Computation** : True RMS
- Frequency** : 45 Hz - 65 Hz
- Ambient** : -10 to 55°C
- Storage** : -20 to 75°C
- Humidity** : < 95% Non-Condensing
- Weight** : 1 Phase Voltmeter - 120 gms  
1 Phase Ammeter - 150 gms
- Dimensions** : 96 x 96 x 46 mm (L x W x D)
- Panel Cutout** : (92.2)mm x (92.2)mm
- Mounting** : Flush Mounting with Side Clamps.

## MEASUREMENT RANGES

Description	AC VOLT METER	AC AMMETER
Volts :	0 - 500 VAC (L-L)	—
Amps :	—	0.015 - 6.00 AAC
Display Update	1 Sec	
Hz	45.0 to 65.0 Hz	
Resolution	Auto Ranging	
Frequency	± 0.1% for Hz	
Accuracy	±0.5% of full scale for voltage	±0.5% of full scale for current

## PROGRAMMING

- 1) Press the push button available on the front panel 3 seconds (long press) enter into programming mode.
- 2) The following programming menu are available :

Menu	Symbol	Description
1	<i>PEPR</i>	PT Ratio (1Ø Voltmeter)
1	<i>CEPR</i>	CT Ratio (1Ø Ammeter)
2	<i>SCR L</i>	Select Scroll
3	<i>USP R</i>	Scroll Speed
4	<i>ESC</i>	Escape

- a) To move from one menu to another, short press push key.
- b) To enter into a particular menu, long press for 3 seconds.

### MENU 1 : (Only for 1 Phase Voltmeter)

When you enter the menu, the following options are available :

Option	Explanation	Option	Explanation
1	No PT	200	22kV/110V
30	3.3kV/110V	300	33kV/110V
60	6.6kV/110V	600	66kV/110V
100	11kV/110V	* 200	132kV/110V

*ESC* To Escape Page

### MENU 1 : (Only for 1 Phase Ammeter)

When you enter the menu, the following options are available :

Option	Explanation	Option	Explanation
1	5/5	120	600/5, 120/1
5	25/5, 5/1	125	625/5, 125/1
6	30/5	150	750/5, 150/1
10	50/5, 10/1	160	800/5, 160/1
12	60/5	200	1000/5, 200/1
15	75/5, 15/1	240	1200/5, 240/1
16	80/5	250	1250/5, 250/1
20	100/5, 20/1	300	1500/5, 300/1
25	125/5, 25/1	320	1600/5, 320/1
30	150/5, 30/1	400	2000/5, 400/1
40	200/5, 40/1	500	2500/5, 500/1
50	250/5, 50/1	600	3000/5, 600/1
60	300/5, 60/1	640	3200/5, 640/1
80	400/5, 80/1	800	4000/5, 800/1
100	500/5, 100/1	1000	5000/5, 1000/1

*ESC* To Escape Page

- 1) Short press the push key to move from one option to another.
- 2) Long press the push key to set the particular PT / CT ratio, "*5R<sub>uE</sub>*" appears.

### MENU 2 : SELECT SCROLL

When you enter the menu, the following options are available :

Option	Explanation
<i>dI 5</i>	Disables scrolling enters fixed mode
<i>En</i>	Enables scrolling enters auto scroll mode
<i>ESC</i>	To escape page

- 1) Short press the push key to move from one option to another.

- 2) Long press the push key to set the particular option. "*5R<sub>uE</sub>*" appears.

### MENU 3 : SELECT SPEED

When you enter the menu, the following options are available :

Option	Explanation
<i>RUJ</i>	Average
<i>FRS E</i>	Fast
<i>UFR S</i>	Very Fast
<i>ESC</i>	To Escape Page
<i>U S L O</i>	Very Slow
<i>S L O</i>	Slow

- 1) Short press the push key to move from one option to another.
- 2) Long press the push key to set the particular option. "*5R<sub>uE</sub>*" appears.

### MENU 4 : ESCAPE PROGRAMMING

Long press escape to escape programming mode "*DonE*" appears as confirmation.

Note : If the meter is inactive in programming mode for 30 seconds, it will come out of programming mode.

## SAFETY PRECAUTIONS :

All safety related conditions, 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 instruction 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 connection. Confirm that all connection are correct.

#### CAUTION :



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