



Satya Electrocom

MULTI FUNCTION



PMF-5331

Customer care: +0129-2210058

Web site: www.satyaepl.com

PARAMETER MEASURED

PARAMETERS	DISPLAY
Voltage VLN	Phasewise and Average
Voltage VLL	Phase to Phase and Average
Current	Phase current and Average
Frequency	System Frequency
PF	Phasewise and average
kW	Phasewise and total kW
kVA	Phasewise and total kVA
kWh	Total kWh 8 digits
LOAD Hours	8 digits in hours and minute
RUN Hours	8 digits in hours and minute
RPM	Resolution 1RPM

ELECTRICAL SPECIFICATIONS

- System : 3 phase, 4 wire
- Input voltage : 20-500 VAC
- Input current : 5A AC
- Accuracy : $\pm 0.5\%$ of FS for V, I, PF and
 $\pm 1.0\%$ of FS for kW, kVA, kVAR.
- Frequency : 0.02% Accuracy
- Aux supply : 90V - 270V AC
- Burden : < 0.3 VA/ phase, < 2 VA on Aux supply
- Continuous overload : 2 times Rated current
1.2 times Rated Voltage

TECHNICAL FEATURES

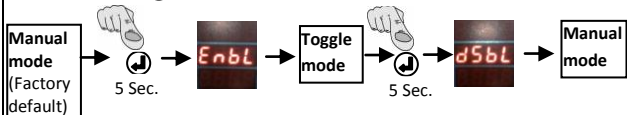
- True RMS reading.
- Three switches for onsite setting.
- CT & PT ratio adjustable at site.
- Manual & auto scrolling features.
- Password protection.
- Low power micro controller based.
- Display: 3rows of 4 digits each 14.2mm bright red LED display.
- Size 96*96*55mm.

MECHANICAL FEATURE




- Ambient temperature : -10°C to $+70^{\circ}\text{C}$
- Humidity : $<95\text{ R H}$
- Cut out size : $92.5^{\circ}\text{mm} \times 92.5^{\circ}\text{mm}$.
- Meter enclosure : ABS engineering material.

FRONT PANEL KEYS

⬆️ OR ⬆️ keys scroll through 15 display pages manually. The default page on power up is R phase V A PF page. Pressing ⬆️ button for 4 seconds will take display into auto scroll mode. Here the auto scroll interval is 5 seconds and pressing again ⬆️ button for 4 seconds will take display into manual mode.



START SET UP

- Set CT/PT ratio using setting switches as given in the lat    .
- Make wiring as per connection diagram.
- Apply 230 V AC to the Aux supply terminals R phase V(L-L) is displayed.




NOTE:-


1. Default page on power up is V(L-L) of all three phase.
2. RUN hrs indicates the duration of the ON time of Aux. supply to the meter.
3. LOAD hrs indicates the duration of the LOAD ON time to the meter



PROGRAMMING MANUAL:




ENTERING CONFIGURATION (SETUP) MODE

Follow the following steps to configure the setup parameters through front panel key.

Step	Actions	Display Reads	Comments
1	Press ENTER and DOWN keys together, to enter programming mode	 with first digit "0" blinking.	
2	Press UP/DOWN Key till the first digit read "1".	PASSWORD = 1000 (Default/factory set).	Default is 1000
3	Press the ENTER key to shift the blink digit to right (here , 4 times)	 Display "En-Y": if password ----- Display "En-n": if password wrong	<u>if password correct:</u> you can edit saved parameter. ----- <u>if password wrong:</u> you can only see saved parameter.
4	Press the DOWN key.	 Displays Ct.Pr Display "L" in row1 i.e. List of parameter	Now you enter in MENU (LIST) mode. Meter would display the last set up value/system.

5	Press the ENTER key to set the CT primary	5.000 (default). display "E" in place of "L" in row 1 (Edit mode)	Indicates the last set value. Programmable range: 5.000- 50000 A.
6	Press UP/DOWN key to change	Changed digit blinks.	Select the required value.
7	Press ENTER key to accept	Previous blinking digit stabilizes and next digit start blinking	Follow the same procedure to set 4 digits.
8	Press DOWN key		Set decimal point. Ex : To set "200.0", Set 4 digits (2000) as explained above. Press DOWN key to place Decimal point.
9	Press ENTER key to go to set parameter.		
10	Press DOWN key to go to next parameter (MENU Mode).	 Displays CT.5E	CT secondary. Follow the same procedure as per S. No. 5 to 9.

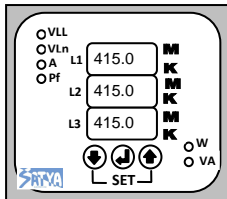
11	Press DOWN key to go to next parameter (MENU Mode).	 Displays "r.LLr"	Run Hours Clear. It always NO, to clear make it YES, after clear it automatically become NO.
12	Press the ENTER key	"no" blinking and display "E" in place of "L" in row 1	Now other options can be chosen. You are in edit (E) mode.
13	Press the UP/DOWN key	"YES" blinking.	
14	Press ENTER key to accept.	Blinking stops. Displays steady	
15	Press DOWN key to go to next page of MENU Mode. (Only for model No. PMF-5331)	 Displays "E.LLr"	Energy Clear. It always NO, to clear make it YES, after clear it automatically become NO.
16	Press the ENTER key	"no" blinking and display "E" in place of "L" in row 1	Now other options can be chosen. You are in edit (E) mode.
17	Press the UP/DOWN key	"YES" blinking.	
18	Press ENTER key to accept.	Blinking stops. Displays steady	

19	Press DOWN key to go to next parameter (MENU Mode).		To change password	This page only be display if you enter with correct password i.e. "En-3" in step 3.
20	Press the ENTER key to edit		Follow the procedure as per S. No.	You cannot see here previous set password i.e. always start with "0000" (0 Blinking)
21	Press DOWN key to go to the next parameter.		"Yes" Blinking	To save the setting mode. Option: SAVE.YES / SAVE.no.
22	Press ENTER key to memorize the change done.	Display returns to Home page (Measurement mode)		

- Previously saved parameter can only be change if user save the value by pressing ENTER key (Step 21) while display showing "SAVE YES" (YES Blinking) in configurations mode.
- If entered password is wrong, in this case user can only see the previously saved parameters and not authorized to edit any of them.
- **URGENT:** If password other than the default is set, then memorize it. Meter will reject the programming if tried with wrong passwords. In such case meter will need to reset and calibrated in factory only.

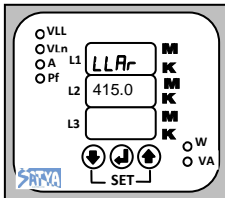
Page 1

Per Phase LL



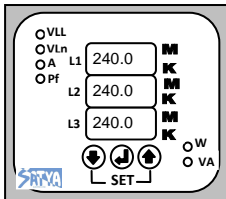
Page 2

Avg. LL



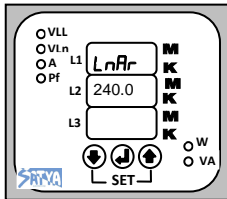
Page 3

Per Phase LN



Page 4

Avg. LN



Per Phase A

O VLL
 O VLn
 O A
 O P f

L1 4.000 M K K

L2 4.000 M K K

L3 4.000 M K K

O W
 O VA

SET

Avg. A

O VLL
 O VLn
 O A
 O P f

L1 AAr M K K

L2 4.000 M K K

L3 M K K

O W
 O VA

SET

Per Phase PF

O VLL
 O VLn
 O A
 O P f

L1 0.999 M K K

L2 0.999 M K K

L3 0.999 M K K

O W
 O VA

SET

Avg PF

O VLL
 O VLn
 O A
 O P f

L1 PFSy M K K

L2 0.999 M K K

L3 M K K

O W
 O VA

SET

Page 9

Per Phase W

O VLL
 O VLn
 O A
 O Pf

L1 1197 M K K

L2 1197 M K K

L3 1197 M K K

SET

O W
O VA

Page 10

TOTAL W

O VLL
 O VLn
 O A
 O Pf

L1 1197 M K K

L2 3591 M K K

L3 M K K

SET

O W
O VA

Page 11

Per Phase VA

O VLL
 O VLn
 O A
 O Pf

L1 1200 M K K

L2 1200 M K K

L3 1200 M K K

SET

O W
O VA

Page 12

TOTAL VA

O VLL
 O VLn
 O A
 O Pf

L1 1200 M K K

L2 3600 M K K

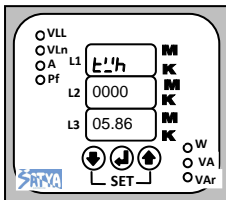
L3 M K K

SET

O W
O VA

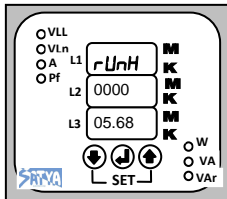
Page 13

kWh



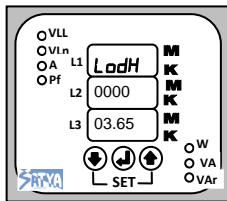
Page 14

Run Hour



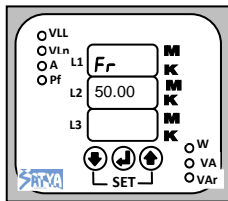
Page 15

Load Hour

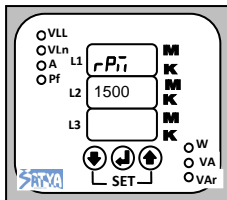


Page 16

SYSTEM FREQUENCY



RPM



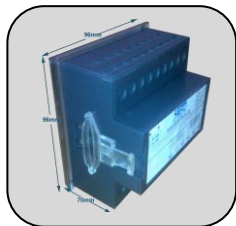
Here:

Frequency: 49.98 Hz

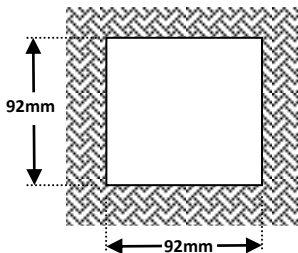
RPM : 1499

Run hour: HHHHHH.MM
000005.59

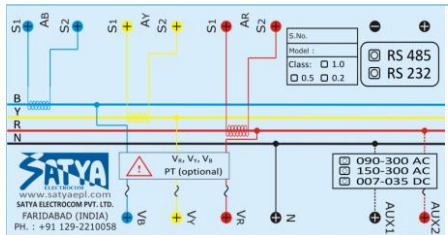
BACK DIAGRAM:



PANEL BEZEL CUTOUT:



CONNECTION DETAILS:



LIMITED WARRANTY STATEMENT

Satya Electrocom represents and warrants that this product is free from defects in material and workmanship.

This warranty is subject to the following terms and conditions:

1. This warranty of the product extends for a period of 18 months commencing from the date of invoice.
2. The warranty in respect of a repaired or replaced product/part shall extend for the remaining warranty period of the repaired product or replacement thereof to the customer.
3. The customer may be required to provide the purchase receipt or other documentation or information in respect of the date and place of purchase upon the request.
4. The customer shall have no coverage or benefits under this warranty in the event that any of the following conditions are applicable.
 - The product has been subjected to abnormal use or condition, improper storage, exposure to excessive moisture or dampness, exposure to excessive temperature, unauthorized repair, abuse , accident, acts of god, spills of liquid, improper installation, improper connections and breakage (otherwise than by reason of any defects in materials of workmanship).