



VERITEK

ENERGY METER(LCD KWH)



ENERGY METER

VIPS 84L (96X96)

* VIPS 84LC (96X96) with Commucation

TEST CERTIFICATE

Type : ENERGY METER (LCD KWH)

Accuracy : Class 0.5 for V & A ; 0.1% of FS for Hz

Accuracy TEST :

VOLTAGE		CURRENT		FREQUENCY
10%	100%	10%	100%	100%
+/- 0.5%	+/- 0.5%	+/- 0.5%	+/- 0.5%	+/- 0.1%
OK	OK	OK	OK	OK

Power Factor		Watts		kVA
10%	100%	10%	100%	100%
+/- 0.5%	+/- 0.5%	+/- 0.1%	+/- 0.1%	+/- 0.1%
OK	OK	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. Jagdish Dike

Date :

VERITEK ENGINEERING PVT. LTD.

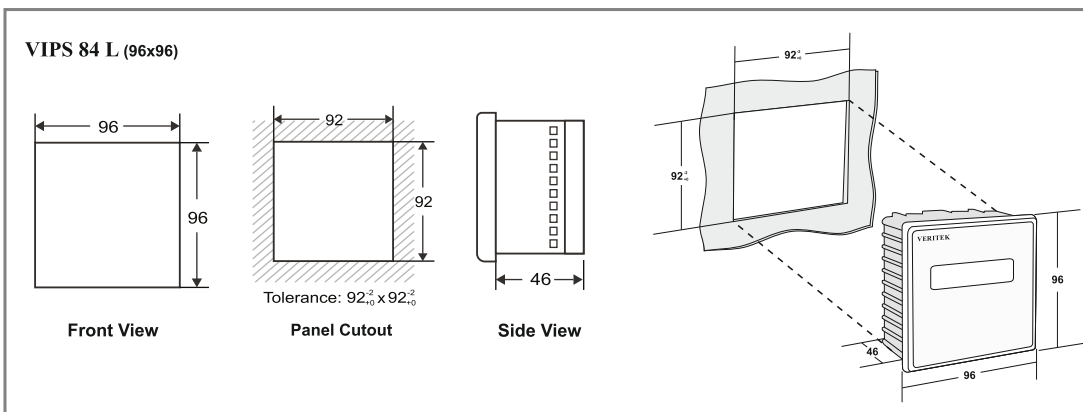
Plot No. 222, EL-Electronic Zone, MIDC, TTC Industrial Area,

Mahape, Navi Mumbai - 400701, India

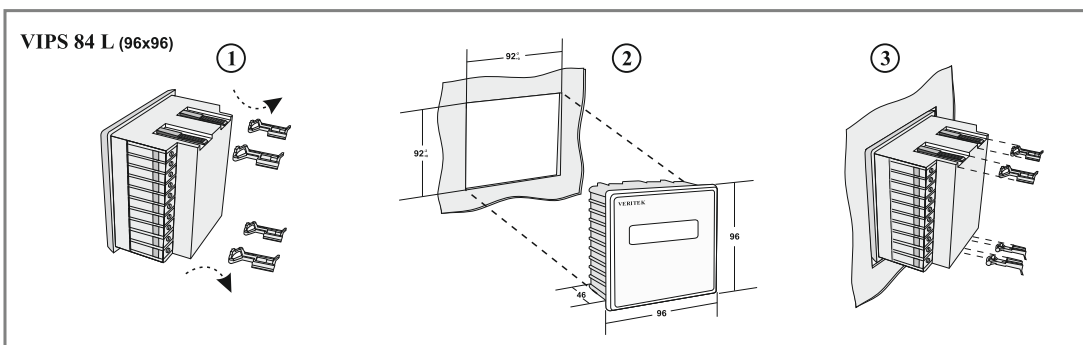
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MECHANICAL DIMENSION



MOUNTING ARRANGEMENT



1) Remove the mounting clamps 2) Gently slide the Meter through the cut-out. 3) Put the mounting clamps back in the Meter.

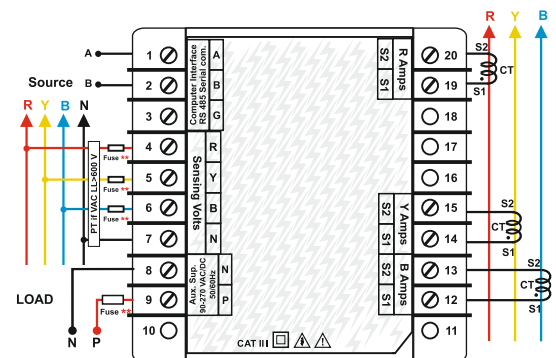
FEATURES

- (1) State of Art Micro controller Based Design
- (2) 1 Line 8 Digit Ultra Bright LED Display for Energy
- (3) 1 Line 4 Digit Ultra Bright LED Display for Other Parameters
- (4) Site Programmable PT ratio (Primary & Secondary)
Site Programmable CT ratio (Primary & Secondary)
- (5) True RMS Measurement
- (6) Password Protection
- (7) RS 485 Computer Interface (optional)
- (8) Total Harmonic Distortion
- (9) Auto Ranging
- (10) Universal Aux. Supply

CONNECTION DETAILS

Electrical Wiring / Connection Diagram

3 Phase 4 Wire (96x96) - VIPS 84L



*** Connect Fuse = 0.25 A

SPECIFICATION

Input	: 3 Phase 4 Wire / 1 Phase 2 Wire
Volts	: Range 10 - 500 Volts
Amp	: 0.015A - 6.00Amp AC
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 10 Digit LCD for energy 1 Line x 4 Digit for parameter display
Computation	: True RMS
Frequency	: 45 Hz - 65 Hz
Display Update	: 1 Sec
Resolution	: 0.1kWh For Energy, auto ranging for other parameter.
Ambient	: -10 to 55°C
Storage	: -20 to 75°C
Humidity	: < 95% Non-Condensing
Weight	: 280 gms
Dimensons	: 96 x 96 x 46 mm (L x W x D)
Panel Cutout	: (92 $\frac{3}{4}$)mm x (92 $\frac{3}{4}$)mm
Mounting	: Flush Mounting with Side Clamps.
Accuracy	: Current $\pm 0.5\%$ of F.S. Power Factor $\pm 0.5\%$ of F.S. Frequency $\pm 0.1\%$ of F.S. Power (Active & Apparent) Class - 0.5 Power (Reactive) class - 2.0 Energy (Active & Apparent) Class 0.5s (Class 0.5s as per IEC 62053-22 at 5A nominal (for 1A nominal when I > 0.15A) Energy (Reactive) Class 2 (Class 2 as per IEC 62053-23 at 5A nominal (for 1A nominal when I > 0.15 A)

PARAMETERS

✓ **Active Energy / Reactive Energy (Cap & Ind)/ Apparent Energy**

✓ **Volts** : R Y (Phase - Phase)
YB (Phase - Phase)
BR (Phase - Phase)
RN (Phase - Neutral)
YN (Phase - Neutral)
BN (Phase - Neutral)

✓ **Amps** : R Phase
Y Phase
B Phase

✓ **Power Factor** : R Phase
Y Phase
B Phase

✓ **Active Power (KW)** : R Phase
Y Phase
B Phase

✓ **Apparent Power (KVA)** : R Phase
Y Phase
B Phase

✓ **Reactive Power (KVAR)** : R Phase
Y Phase
B Phase

✓ **Frequency** : System

✓ **Harmonics - Volts - Total (THDV Phase wise in %)**

✓ **Harmonics - Amps - Total (THDI Phase wise in %)**



✓ **Load Hour**

DISPLAY PAGES

Page	Symbol	Parameters
1	V L-L	Voltage (L-L) RY, YB, BR
2	V L-N	Voltage (L-N) RN, YN, BN
3	A	Amps R, Y, B
4	Hz	Frequency
5	W	Watts (Active Power) R, Y, B
6	Var	Var (Reactive Power) R, Y, B
7	VA	VA (Apparent Power) R, Y, B
8	PF	Power Factor R, Y, B
9	THD %	Harmonics - Voltage - THDV (V led / flashes)
10	THD %	Harmonics - Current - THDI (I led / flashes)
11	t	Load Hour

MANUAL SCROLL MODE :

In this mode the display shows parameter of the selected page one after another.

The parameter of next / previous page can be viewed by pressing  or  keys.

AUTO SCROLL MODE :

In this mode the display shows parameter of page 1 then scroll to page 2 and so on.

PROGRAMMING

USR

PASS

0000

PROG

Left arrow

Right arrow

PROG

Press Programming

Set 2000 (Factory Reset Password 2862)

To Save

Addr	Unit Address
PtPr	PT Primary
PtSc	PT Secondary
CtPr	CT Primary
CtSc	CT Secondary
CLrE	Clear Energy
nPAS	New Password
bAUd	Baud rate & Odd / Even parity
CLrE	Reset Timer
ScRL	Auto / manual Scroll

Addr

001

PROG

Left arrow

Right arrow

PROG

To enter into address

To change value of address (Default value 001)

To Save

PtPr

0000

0001

PROG

Left arrow

Right arrow

PROG

To enter into PT Primary

To change value of PT Primary (Default value 0001)

To Save

PtSc

0000

0001

PROG

Left arrow

Right arrow

PROG

To enter into PT Secondary

To change value of PT Secondary (Default value 0001)

To Save

CtPr

0000

0001

PROG

Left arrow

Right arrow

PROG

To enter into CT Primary

To change value of CT Primary (Default value 0001)

To Save

CtSc

0000

0001

PROG

Left arrow

Right arrow

PROG

To enter into CT Secondary

To change value of CT Secondary (Default value 0001)

To Save

SUrE

P

CLrE

PROG

Left arrow

Right arrow

PROG

To Clear Energy

To Confirm Eneriges to Clear

To Save

nPAS

CHG PASS

2000

PROG

Left arrow

Right arrow

PROG

To enter into Change Password

To edit new password

To Save

bAUd

9600

EnEn

PROG

Left arrow

Right arrow

PROG

To enter into Baud Rate & Parity

To set baud rate (1200, 2400, 4800, 9600)

To Save

rU

SUrE

P

PROG

Left arrow

Right arrow

PROG

To Clear Load Timer

To Confirm to Clear Load Timer

To Save

AUTO ScRL

d, S

PROG

Left arrow

Right arrow

PROG

To enter into select Auto / Manual Scroll

To Disable / Enable Scrolling

To Save

ESC

To come out of program 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 :



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