

**Features:**

- ▶ Site Programmable CT and PT ratio
- ▶ True RMS measurement
- ▶ Password protection
- ▶ LED/LCD Display
- ▶ Harmonic measurement (THDV, THDI)
- ▶ Autoranging
- ▶ Universal Auxiliary supply
- ▶ Optional features
 - RS 485 computer interface
 - Ethernet Modbus Over TCP/IP
 - 60A direct current CT module available
 - Maximum demand relay contact

**Advantages:**

- ▶ To caution on the Extra Energy Consumption
- ▶ To identify inefficiency of Machine/Man
- ▶ Reduce Panel Space, Wiring, Installation Time

Applications:

- ▶ Control Panel
- ▶ Distribution System
- ▶ Generator sets
- ▶ Motor Control
- ▶ Test Bench
- ▶ Energy Management
- ▶ Process Control & SCADA

Measuring Parameters

- ▶ V_{L-L} (Individual/Average)
- ▶ V_{L-N} (Individual/Average)
- ▶ Current (Individual/Average)
- ▶ Neutral Current
- ▶ Power factor (Individual/Average)
- ▶ Phasor angle
- ▶ Frequency
- ▶ Power: (Active, Reactive and Apparent)
- ▶ Maximum Demand: (kW or kVA)
- ▶ Peak maximum Demand: (kW or kVA)
- ▶ Energy (Active, Reactive inductive, Reactive capacitive, Apparent)
- ▶ Run hour (Import, Export and Total)

Supply Voltage

Auxiliary supply	90-270 V AC/DC (±15%)
Frequency	50/60 Hz

Display VIPS 70

Display	4 rows of 4 digit LED display
Digit Height	0.56 inch
Display Scrolling	Automatic/Manual

Display VIPS 70L

Display	4 rows of 4 digits (For parameter) LCD display, 8x1 Digit for energy
Digit Height	7.5 mm
Display Scrolling	Automatic/Manual

Settable Parameters

C.T. Primary	1/5A to 10000A(Programmable)
C.T. Secondary	1/5A (Programmable)
P.T. Ratio	Programmable upto 500 kV
Display Reset	Energy

Output Specification

Communication	RS485/Ethernet Modbus (Optional) Over TCP/IP
Relay	NO-COM-NC (Optional)

Input Specifications

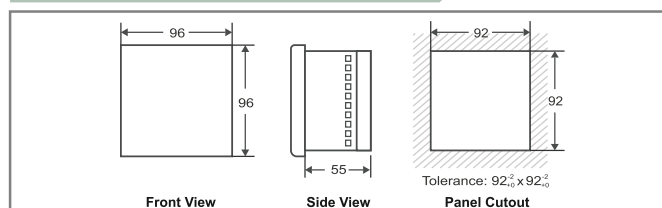
Electrical Connection	3Ø-4 wire/3Ø-3 wire/1Ø-2wire
Input Voltage Range	1-500 VAC (L-L)/1-300V (L-N)
Input Current Range	0.005A-6AAC
Frequency	Direct 60A optional
Resolution	45-65 Hz
Accuracy	▶ Energy 0.1 kWh ▶ Power factor: 0.001 ▶ Frequency: 0.01 Hz ▶ Voltage: Autoranging ▶ Current: Autoranging ▶ Power: Autoranging ▶ Voltage ±0.5% of F.S. ▶ Current ±0.5% of F.S. ▶ Power Factor ±0.5% of F.S. ▶ Frequency ±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))
Burden	:voltage: 0.2 VA max. per input Current: 0.2 VA max. per input Aux. supply: 3 VA max.

Environmental Specifications

Temperature	Operating : -10° to 55°C Storage : -20° to 75°C
Humidity	< 95% RH

Mechanical Specifications

Mounting	Flush Mounting with Side Clamps
Weight	380 g
Enclosure Material	ABS Thermoplastic
Protection Degree	IP20 (Terminals)
Enclosure Material	IP54 (Front of housing)

Dimension



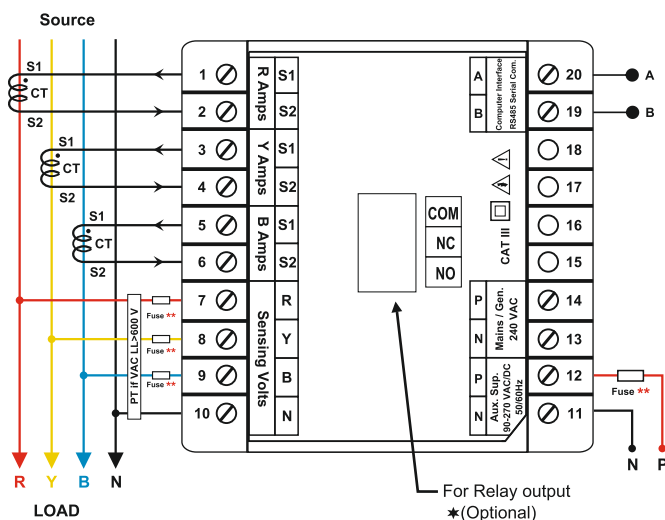
Applicable Standards

Radiated Emission	CISPR22
Fast Transient Burst Test	IEC61000-4.4
Conducted Emission	IEC61000-6.3
Test of Immunity to Electromagnetic RF Fields	IEC61000-4.3
Test of Immunity to Conducted Disturbances, Induced by Radio-Frequency Fields	IEC61000-4.6
Test of Immunity to Electrostatic Discharges	IEC61000-4.2
Surge Immunity Test	IEC61000-4.5

Safety Standards

Safety Standard	IEC61010-1
Pollution Degree	II
Installation Category	III
High Voltage Test	2 kV AC, 50Hz for 1 Minute Between Aux.& Measuring Inputs

Connection Diagram



Ordering Information

Ordering Code	Current Rating	Comm. RS485
VIPS 70	0-5A, CT Programmable	
VIPS 70-60A-1P-M	0-60A, external CT for 1 phase (M)	
VIPS 70-60A-1P-N	0-60A, external CT for 1 phase (N)	
VIPS 70-60A-1P-NX.X	0-60A, external CT for 1 phase (NX.X)	
VIPS 70-60A-3P-M	0-60A, external CT for 3 phase (M)	
VIPS 70-60A-3P-N	0-60A, external CT for 3 phase (N)	
VIPS 70-60A-3P-NX.X	0-60A, external CT for 3 phase (NX.X)	
VIPS 70-C	0-5A, CT Programmable	
VIPS 70-60A-1P-M-C	0-60A, external CT for 1 phase (M)	
VIPS 70-60A-1P-N-C	0-60A, external CT for 1 phase (N)	
VIPS 70-60A-1P-NX.X-C	0-60A, external CT for 1 phase (NX.X)	
VIPS 70-60A-3P-M-C	0-60A, external CT for 3 phase (M)	
VIPS 70-60A-3P-N-C	0-60A, external CT for 3 phase (N)	
VIPS 70-60A-3P-NX.X-C	0-60A, external CT for 3 phase (NX.X)	

* Replace C with ET For Ethernet Communication .

* Add L for LCD Disply.

Preference of Accessories		
The above module to be mounted behind the meter		M
The above module to be supplied with 1 meter long Leads		N
The above module to be supplied with long leads (any length on request) *Where X.X is length to be specified for eg. 2.5		NX.X

Accessories		
Description	Code	Photo
for external CT of 60A programmed for single phase	60A-1P	
for external CT of 60A programmed for three phase	60A-3P	