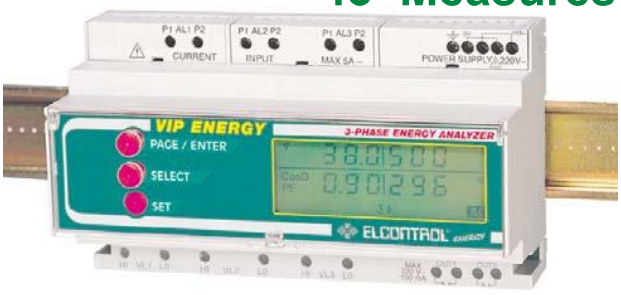
VIP ENERGY - Three-phase Energy Analyzers

43 Measures



VIP ENERGY is a measuring instrument in a 9 module DIN standard container allowing direct installation on a 35 mm DIN Rail.
The instrument can be used in three-phase systems with 3 or 4 wires (2 voltage and 2 current or 3 voltage and 3 current) in low voltage systems or (by means of connection to a voltage transformer) in medium and high voltage systems.
The electrical parameters measurable are: Volt, Amp, CosPhi, P.F., kW, kVA, kVAr, Hz, kWh, KVArh, kVA Peak, kW Peak, Average KW, Average KVA, Average KVAr, THDF, Date, Time.
The instrument also supplies the active and apparent power peak values with an integration time of 10, 15, 20, 30, 60, 1, 2, 5 minutes.

Main Features

- Digital Energy Analyzer 9 DIN modules.
- True RMS measures.
- Display 43 measures.
- Measures unbalanced three phase systems with or without neutral, bi-phase, single-phase.
- High accuracy : Voltage, Current and Power error <1.0%.
- Backlit LCD display.
- Cogeneration Counters (Imported / Exported Energy).
- Easy and extremely flexible SETUP menu including CT and VT ratios selection.
  Models equipped with:
- Rs485 communication port Modbus ASCII.
- Alarm / Pulse / Remote-controlled Relay-Outputs.

Technical Data:

Maximum size (mm): instrument: 157.5 X 73 X 90 (9 DIN module)
Power supply: from network 230 V ~ or 115 V ~ ± 10% @ 50/60 Hz (consumption: 8VA)
Display: LCD display with backlight
Voltmeter inputs: VL1, VL2, VL3, N up to 550 V ~ phase-neutral, 20 ÷ 600Hz
Voltage input overload: 2000 Vrms (for 60 seconds)
Current inputs: AL1, AL2, AL3 5A, 20 ÷ 600Hz
Current input overload: 100A for 1 second
Sensitivity: V - 111mV, I - 0,2mA
Number of scales: 2 voltage scale, 3 current scales
Accuracy: error <0.5% for V and I, <1.0% for Power (EN 62053-21)
Suitable for connection to: Single-Phase, Three-Phase Star, Three-Phase Delta or Two-Phase systems
Weight of instrument: 1 Kg
Protection level: instrument IP20, front panel IP40
Ambient temperature range: -10°C ÷ + 60°C
Relative humidity range (R.H.): from 20% to 80%
Condensation: condensation not allowed

Standards and Regulations

Vip Energy conforms to Directive 73/23/CEE (LVD) and 2004/108/CE (EMC). It has been designed with reference to EN 61010-1, EN 61326 including append. A1/A2/A3, EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-3/A1, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-5/A1, EN 61000-4-6, EN 61000-4-6/A1, EN 61000-4-8, EN 61000-4-8/A1, EN 61000-4-11, EN 61000-4-11/A1.

Available Models

VIP ENERGY: Standard model for unbalanced three-phase systems Measurements on STAR (4 wires) or DELTA (3 wires). Direct measurements up to 5A, 550V, or with external CT, PT up to 999999 A, 999999 V max.
Measures and displays Volts, Amps, W, P.F. cosø, VAr, VA, Hz, kwh, kvarh, VA Peak, W Peak, Average kW, Average kVA, Average kvar, Crest Factor (1/THDF), Date, Time, replacing 43 instruments and using the space and connections of just one.
4-quadrant energy counters kWh, kvarh Import/Export.
VIP ENERGY ALM 485: Standard model + 2 relay-outputs + RS485 port
ALARM-Mode:MINIMUM and MAXIMUM alarms on any 2 measurements chosen by the user from 27 of those displayed, with selection of the ON and OFF delay time (from 0 to 999 seconds) and of the MINIMUM and MAXIMUM threshold hysteresis (from 0 to 17.5% in steps of 2.5%) for each of the two relays which can be connected to the alarms.
PULSE-Mode: the relays generate pulses proportional to the associated measures. Also in this case the behaviour is adjustable via the setup menu.
REMOTE-Mode: the position of the relays is decided by an external master device (PLC, PC, etc) via the RS485 line. This is very convenient for load shedding application.
RS485-Port: RS485 serial port supporting Modbus ASCII.
VIP ENERGY ALM 485 30A: Standard model + 2 relay-outputs + RS485 port + direct current inputs up to 30A.
VIP ENERGY ALM 485 24VDC:
Standard model + 2 relay-outputs + RS485 port + 24Vdc Power Supply

Measures

Parameters	Tot	L1	L2	L3	N
Phase-neutral Voltage [V]	•	•	•	•	
Phase-phase Voltage [V]		L1-L2	L2-L3	L3-L1	
Current [A]	•	•	•	•	
Power Factor	•	•	•	•	
Frequency [Hz]		•			
Active Power [kW]	•	•	•	•	
Reactive Power [kvar]	•	•	•	•	
Apparent Power [kVA]	•	•	•	•	
Average Active Power [kW]	•				
Average Reactive Power [kvar]	•				
Average Apparent Power [kVA]	•				
Maximum Demand Active Power [kW]	•				
Maximum Demand Apparent Power [kVA]	•				
Positive (Imported) Active Energy [kWh]	•	•	•	•	
Cog-negative (Expo) Active Energy [kWh]	•				
Positive Reactive Energy [kvarh]	•				
Cog-negative Reactive Energy [kvarh]	•				
Date			•		
Time			•		

Dimensions