

ELNet-PQ multimeter is a highly accurate multifunctional, three-phase power quality analyzer, the unit is especially designed to meet the stringent needs of power analyzing in any electrical network. ELNet PQ allows producing a detailed report according to EN50160 standard as well providing records of the wave forms during the power quality events (such as Sag, Swell etc with sampling resolution of 160 bit per cycle). The PQ model allows analyzing and receiving Profile recording and Event recording such as minimum and maximum RMS value over 10 min of voltage, current, harmonics, power and power factor. Voltage Unbalanced (positive and negative as well as Zero Sequence). PST and PLT. ELNet-PQ includes history data logging and supports standard communication protocols BACnet and Modbus with simple integration into Building Management Systems over RS485 or Ethernet TCP.



In addition to power quality monitoring the PQ stores the daily based energy, showing the Power Factor, Max and Min demand, Voltage, Current, THD, TDD, K Factor, up to 64th Harmonics, phasor diagram and much more.

### Technical Data

|                         |  |
|-------------------------|--|
| Power Requirements:     | 90 ~ 250 VAC<br>110 ~ 280 VDC<br>60/50 Hz<br>8VA |
| Dimensions (HxWxD):     | 144 x 144 x 100 mm                               |
| Shipping Weight:        | 1.00 Kg.   |
| Environmental:          |  |
| Operation.              | -20 ~ +70 °C                                     |
| Storage.                | -20 ~ +70 °C                                     |
| Humidity                | 0 ~ 95 RH%<br>non-condensing                     |
| Front Panel Protection: | IP64   |
| Memory size:            | 4GB  |

### Communication

|                    |   |
|--------------------|---|
| RS485 port:        | Up to 115200 bauds<br>Modbus RTU, BACnet MSTP     |
| Ethernet (TCP/IP): | (Modbus and BACnet IP +<br>Web browser capability |

### Input & Output Rating

|                        |   |
|------------------------|---|
| Accuracy:              | Active energy 0.2%<br>Reactive energy 0.2%          |
| Voltage: Line-Line     | 0 ~ 950 VAC RMS                                     |
| Line-Neutral           | 0 ~ 550 VAC RMS                                     |
| Maximum Burden         | 1000V RMS Continuous<br>< 0.06VA                    |
| Current: Rated         | 0-1 A or 0-5 A                                      |
| Overload               | 50 A RMS Continuous                                 |
| Withstand Burden       | 100 A for 1 minute<br>< 0.05 VA                     |
| Display:               | High resolution color LCD<br>display 320x234 pixels |
| Maximum Input Voltage: | 1000V   |
| Maximum Input Current: | 6A  |
| Digital inputs:        | 4, 230VAC (ON)                                      |
| Digital output:        | 3, dry contact maximum<br>load 250mA                |

### Measurement & Display Values

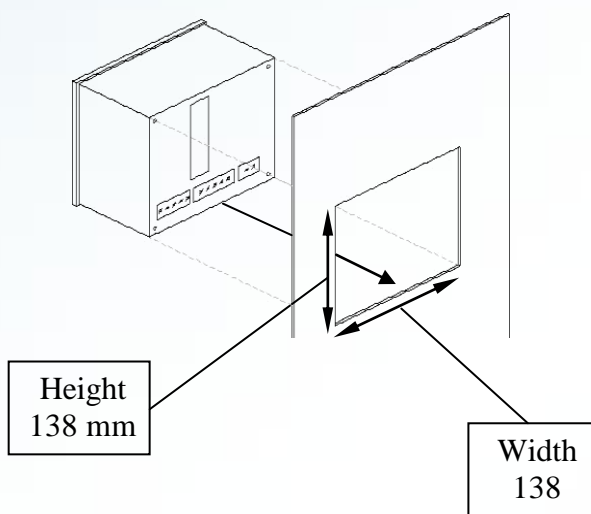
| Measurement Parameter       | Display Range in direct connection (scaling factor 1) | Measuring in direct connection (scaling factor 1) | Display Range             |
|-----------------------------|---|---|---------------------------|
| Current                     | 0.001 – 6A  | 0.001 – 6A  | 0.001 – 99999KA           |
| Neutral Current             | 0.001 – 6A  | 0.001 – 6A  | 0.001 – 99999KA           |
| Voltage L-N                 | 0.000 – 550 V   | 0.000 – 550 V                                     | 0.001 – 99999KV           |
| Voltage L-L                 | 0.000 – 650 V   | 0.000 – 650 V                                     | 0.001 – 99999KV           |
| Frequency (Hz)              | 45.001-65.001 Hz                                      | 45.001-65.001 Hz                                  | 45.001-65.001 Hz          |
| Active power total\phase    |   |   | 0.000W – 99999MW          |
| Reactive power total\phase  |   |   | 0.000VAR - 99999MVAR      |
| Apparent power total\phase  |   |   | 0.000VA - 99999MVA        |
| Power Factor (cap.\ind.)    | -1.000 ÷ 1.000  | -1.000 ÷ 1.000                                    | -1.000 ÷ 1.000            |
| Active Energy total\phase   |   |   | 0.001WH – 99999999MWH     |
| Reactive Energy total\phase |   |   | 0.001VARH - 99999999MVARH |
| Apparent Energy total\phase |   |   | 0.001VAH - 99999999MVAH   |
| Harmonic THD V\I            |   |   | 0.000 – 100%              |
| Partial Harmonic V\I        |   |   | 0.000 – 100%              |
| Operating hour meter        |   |   | 99999-HH:MM:SS            |

### Standards

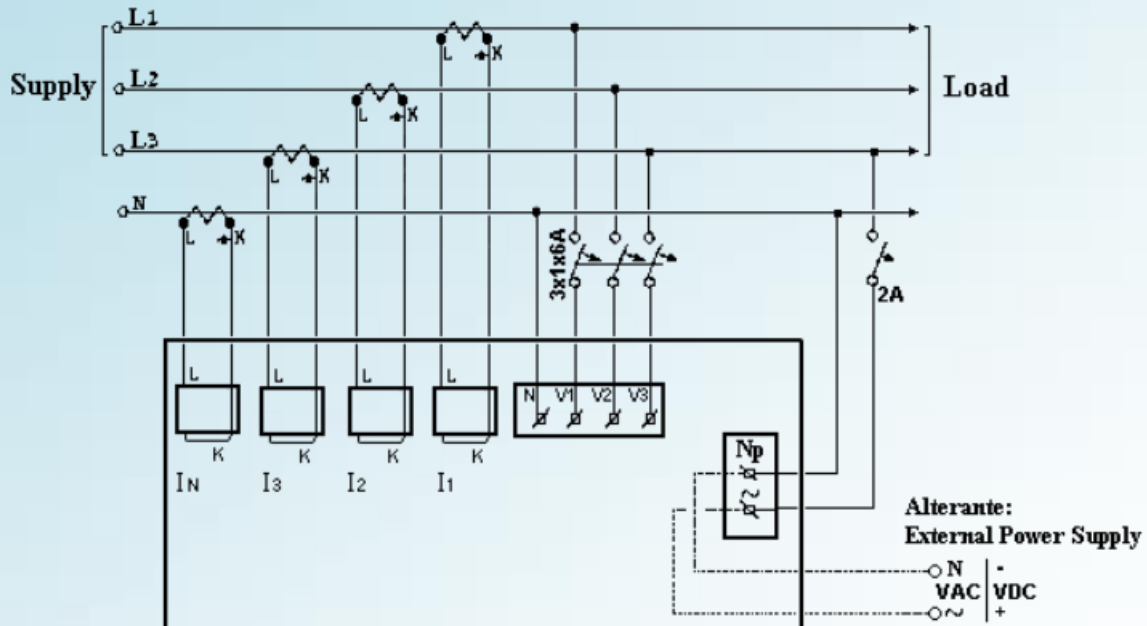
IEC 62053-22  
 IEC 62053-23  
 IEC 62052-11  
 EN 55022, Class A, Amendments A1; A2  
 EN 55024, Amendments A1; A2  
 EN 61000-3-2, Class A  
 EN 61000-3-3, Amendment A1  
 IEC 61000-4-2  
 IEC 61000-4-3  
 IEC 61000-4-4  
 IEC 61000-4-5  
 IEC 61000-4-6  
 IEC 61000-4-11  
 IEC 61000-4-30 class A compatible  
 IEC 61000-4-7 compatible  
 IEC 61000-4-15 compatible

### Accuracy (FS):

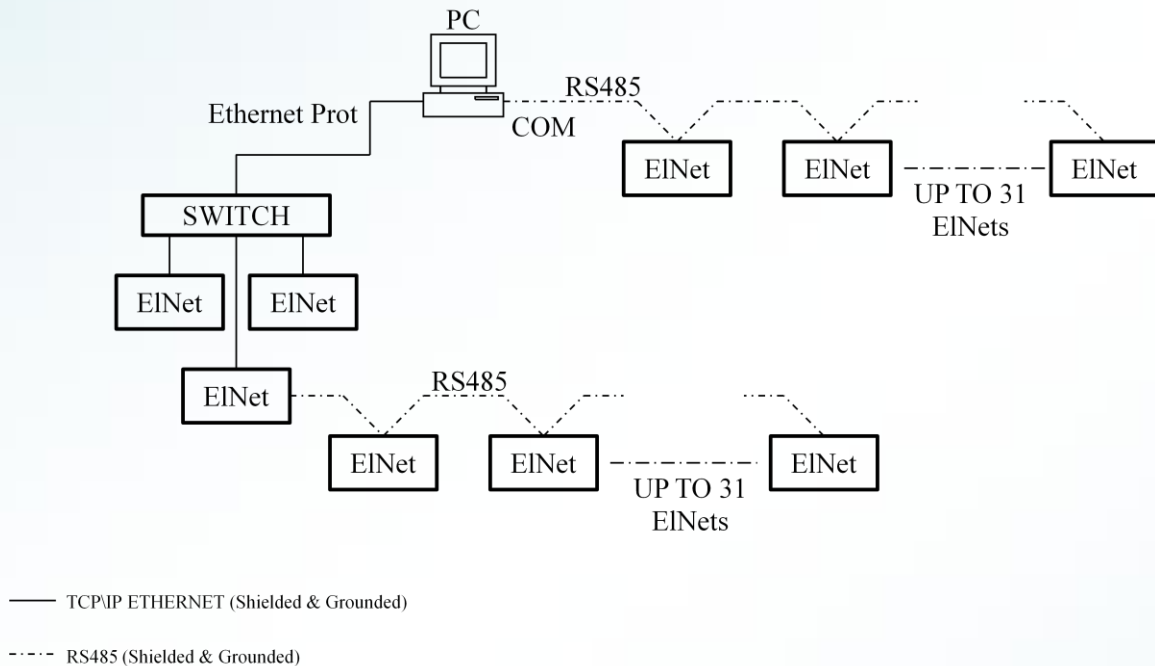
|              |         |
|--------------|---------|
| Voltage      | ±0.2 %  |
| Current      | ± 0.2%  |
| Energy       | ± 0.2%  |
| Power        | ± 0.4 % |
| Frequency    | ± 0.05% |
| Power Factor | ± 0.5%  |



**Mechanical mounting**



**Wiring Diagram Example**



**Communication Diagram Example**