

# ELNet <sup>PQD</sup> Power Quality Analyzer

EINet-PQ is a highly accurate (0.2%) multifunctional, three-phase power quality analyzer, the unit is especially designed to meet the stringent needs of power analyzing in any electrical network. The EINet PQ allows producing a detailed report according to EN50160 standard as well providing records of the wave forms during the power quality events. EINet-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 64<sup>th</sup> Harmonics, phasor display, drift current, online wave forms and much more.

## Technical Data

|                        |   |
|------------------------|---|
| Power Requirements:    | 90 ~ 250 VAC<br>110 ~ 280 VDC<br>12 VDC (optional)<br>60/50 Hz<br>8VA |
| Dimensions (HxWxD):    | 179 x 120 x 53 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 | IP33  |

## Communication

|                    |  |
|--------------------|--|
| RS485 port:        | 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                | 1000V RMS Continuous  |
| Burden                 | < 0.06VA  |
| Current: Rated         | 0-1 A or 0-5 A  |
| Overload               | 50 A RMS Continuous   |
| Withstand              | 100 A for 1 minute  |
| Burden                 | < 0.05 VA   |
| Display:               | High resolution color LCD<br>display 320x240 pixels               |
| Maximum Input Voltage: | 1000V   |
| Maximum Input Current: | 6A  |
| Digital inputs:        | 4, 230VAC (ON)  |
| Digital output:        | 2, dry contact maximum<br>load 150mA (S0)<br>2, Solid state relay |



**CONTROL APPLICATIONS Ltd.**

Supervision & control system

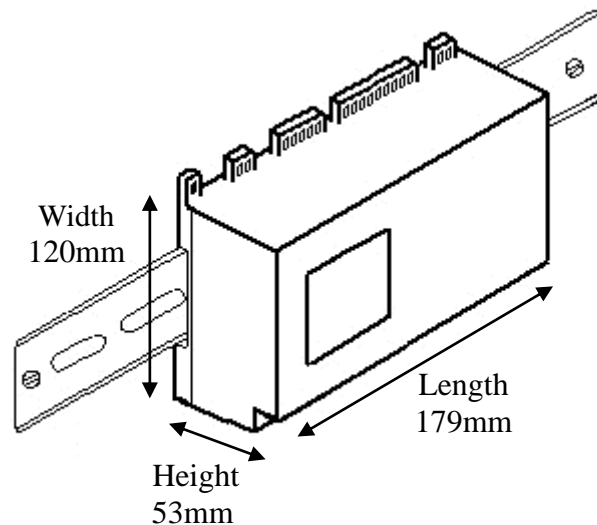
Tel: +972-3-6474998 Fax: +972-3-6474598 24a Habarzel St. Tel-Aviv, 69710, Israel

## 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

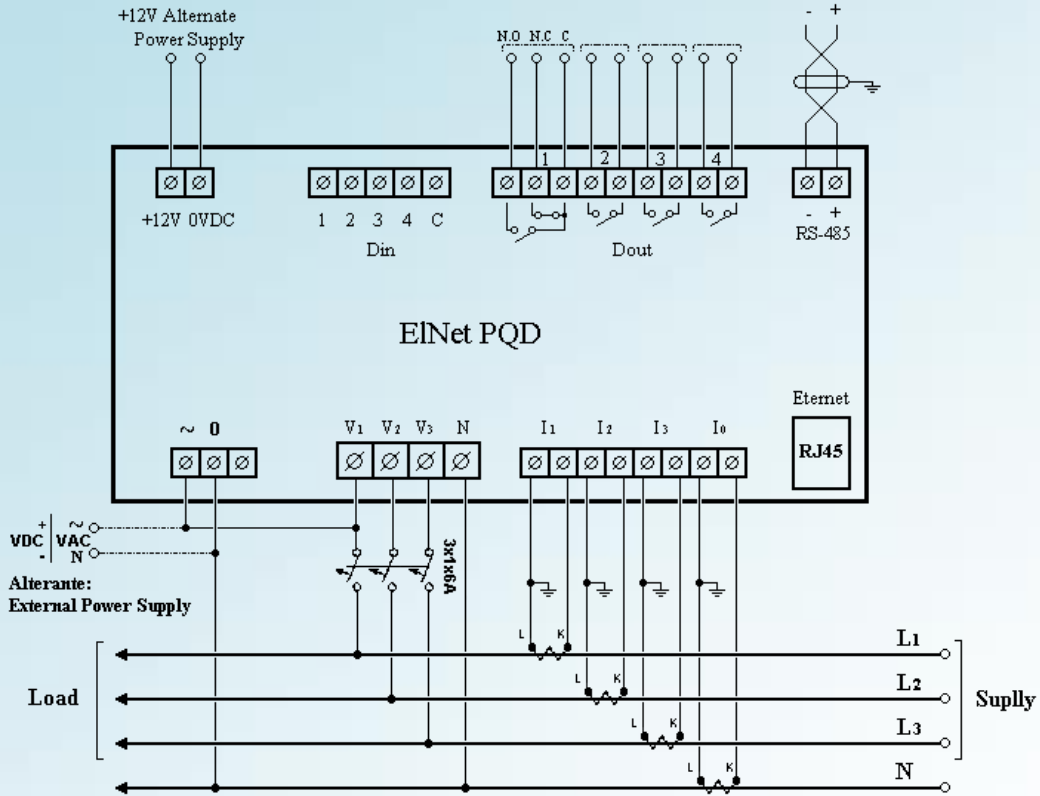
IEC 62053-22  
 IEC 62053-23  
 IEC 62052-11  
 EN 55022, Class A, Amendments A1; A2  
 EN 55024, Amendments A1; A2  
 EN 61000-3-2, Class A  
 EN 61000-3-3, Amendment A1  
 IEC 61000-4-2  
 IEC 61000-4-3  
 IEC 61000-4-4  
 IEC 61000-4-5  
 IEC 61000-4-6  
 ICE 61000-4-11



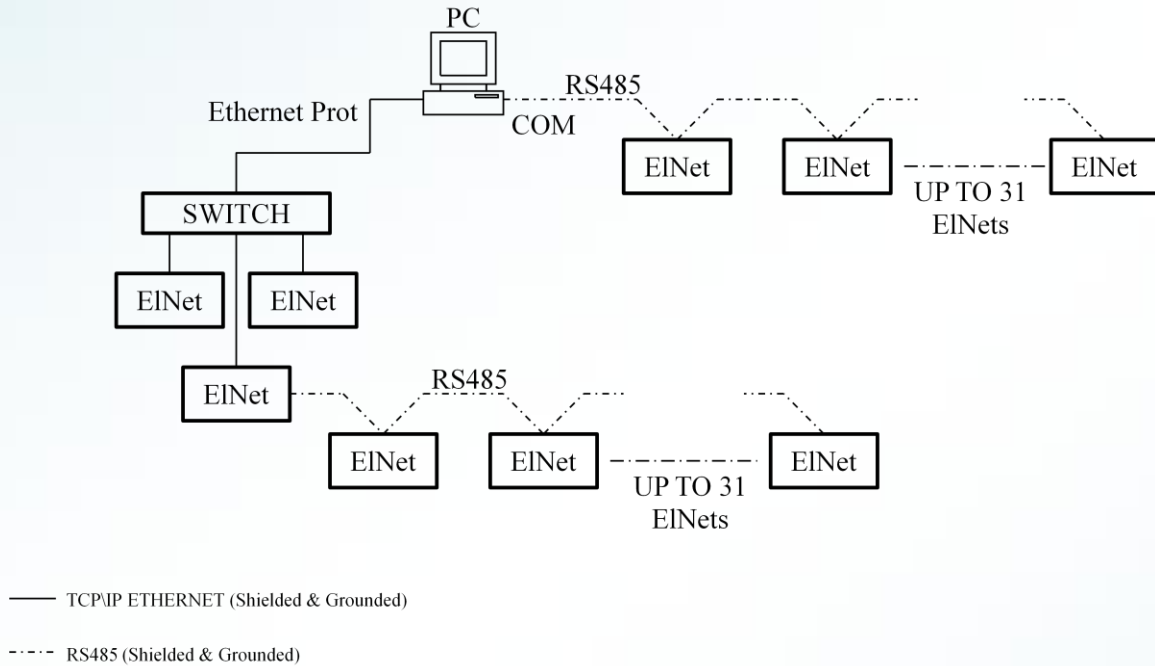
**Mechanical mounting**



# EI<sup>Net</sup> <sup>PQD</sup> Power Quality Analyzer



**Wiring Diagram Example**



**Communication Diagram Example**