ELNet[PQ] electrical multimeter & power quality analyzer

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 110 ~ 280 VDC 60/50 Hz 8VA
Dimensions (HxWxD):	144 x 144 x 100 mm
Shipping Weight:	1.00 Kg.
Environmental:	
Operation.	-20 ~ +70 ºC
Storage.	-20 ~ +70 ºC
Humidity	0 ~ 95 RH% non-condensing
Front Panel Protection:	IP64
Memory size:	4GB

Communication

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

Input & Output Rating

Accuracy:		Active energy 0.2% 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 display 320x234 pixels
Maximum Input Voltage:		1000V
Maximum Input Current:		6A
Digital inputs:		4, 230VAC (ON)
Digital output:		3, dry contact maximum load 250mA

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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

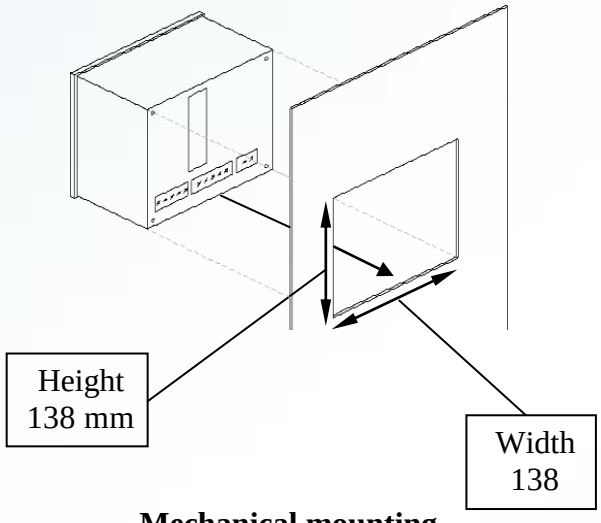
IEC 61000-4-30 class A compatible

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

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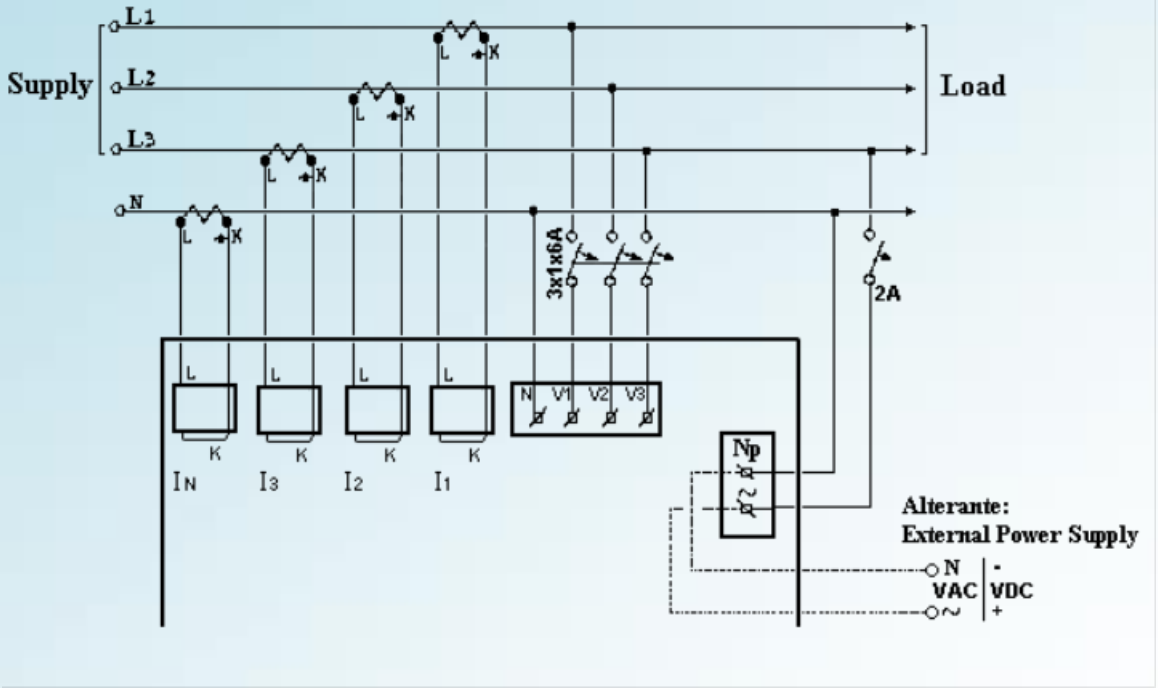
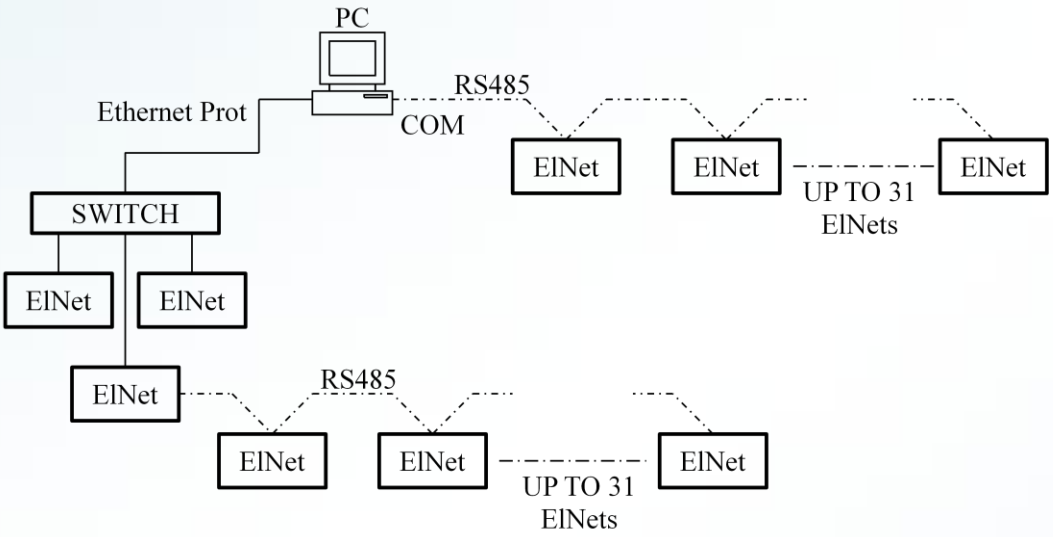


Wiring Diagram Example



Communication Diagram Example