QNA-PT

Power quality analyzer that measures voltages and currents

Description

QNA-PT is a state-of-the-art power quality analyzer certified as a class A device, in compliance with the **IEC-61000-4-30 Standard**. It takes measurements in compliance with the international standard. In addition to the analysis of the variables related to the quality of supply (voltage, flicker, harmonics, events, etc.), it also acts as a network analyzer and redundant counter, since it can be used to analyse the current signals, power consumed (active and reactive), the power factor and active and reactive energy consumed or generated with an accuracy of 0.2S, as in the case of the high-precision energy meters.

Application

- Supervise the optimum operation of electric installations and transformers. The LV connection enables the supervision of the saturation of the power transformer and the reactive energy consumed in each installation.
- Detection and instantaneous recording of all events (in compliance with the **IEC Standard**) detected in the measurement point. It can be used to detect the origin of events to implement the necessary actions and carry out the preventive maintenance actions, in order to optimize the performance of the installation, thus increasing the company's productivity.
- It can work as a redundant counter to check the energy charged by the company. The unit is fully sealable, so that it can not be tampered with.

Characteristics

Power circuit	
Power supply range	100 - 400 Vac (± 30 %) / 90 - 730 Vdc
Consumption	16 V·A / 8 W
Frequency	50 Hz
Auxiliary power circuit	
Battery	Ni MH
Autonomy	Configurable, up to 7200 s of continuous operation
Voltage measurement circuit	
Nominal voltage	3 x 500 / 866 Vac (for 4-wire connections) 3 x 500 Vac (for 3-wire connections) 110 V c.a.
Other voltages	Through the measurement transformers
Frequency	42.5 ... 57,5 Hz
Sampling frequency	10,24 kHz for channel
Consumption of the voltage per phase circuit	0.3 V·A
Current measurement circuit	
Measurement margin	.../5 (6) A (input with galvanic insulation) .../1 (1.2) A (input with galvanic insulation).../2 V.../ITF-EXTERIOR
Consumption of the circuit, current per phase	0.01 V·A
Maximum sampling frequency	10,24 kHz
Energy meter, maximum value	1 999 999 kW·h (rotates)
Accuracy	
Voltage	0.1 % U_n (**IEC-61000-4-30** class A)
Current	0.1 % I_n (**IEC-61000-4-30** class A)
Energy	Class 0.2S in accordance with **EN-62053-22**
Harmonics	**IEC-61000-4-7** class I, **IEC-61000-4-30** class A
Communications	Ethernet
Data memory	
Size	4 MB
Setup	Rotary (FIFO)
Ambient conditions	
Usage temperature	0 °C ... +50 °C
Storage temperature	-20 °C ... + 70 °C
Build features	
Enclosure	In compliance with **DIN 43859**
Differential	IP 51
Dimensions	327 x 176 x 96 mm
Weight	2.3 kg
Safety	**EN-61010-1** category III 600 V

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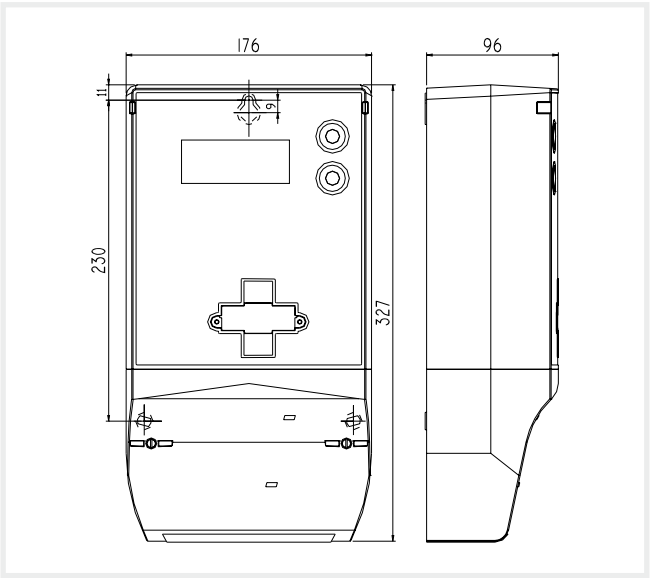
Dimensions



Standards

EN 60664, EN 61036, VDE 110, UL 94			
Electromagnetic emission		**Electromagnetic immunity**	
EN 61000-3-2	Harmonics	**EN 50082-2**	Industrial immunity
EN 61000-3-3	Voltage fluctuations	**EN 61000-4-2**	Electrostatic discharge
EN 55022 class B	Driven	**ENV 50140**	EM Radiated field of RF
EN 55022 class A	Radiated	**EN 61000-4-4**	Quick temporary bursts
EN 50081-2	Industrial emission	**ENV 50141**	RF in common mode
-	-	**EN 61000-4-5**	Shockwave
-	-	**EN 61000-4-8**	50 Hz Magnetic field
-	-	**EN 61000-4-11**	Power supply interruptions

References

Voltage	Current	Power rating	Energy	Flicker	Harmonics and THD	Unbalance	Events	.../5 A	RMS Gráph	Forma onda evento	Communications	Type	Code
●	●	●	●		●	●	●	●	●	●	Ethernet	**QNA-412 T Ethernet**	**Q20543**

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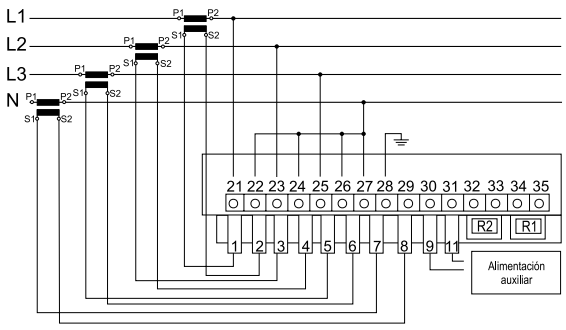
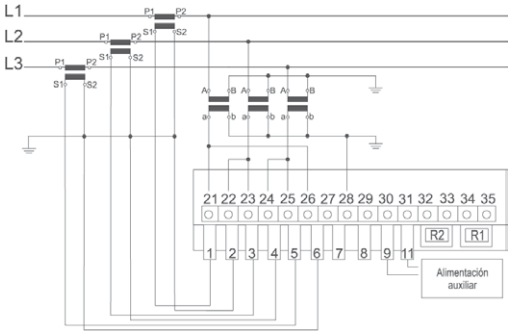
Distribution of memory

Type of file	Default storage capacity	Data stored
***.STD**	74 days	Voltage, current, active power, power factor, energy, harmonics (THD), waveform acpture
***.EVQ**	minimum of 342 events	Measurement events (overvoltages, voltage gaps and interruptions)
***.EVE**	4655 records	Events related to the analyzer (change of setup, change of hour, etc.)
***.WAT**	32 days	Active, reactive *L* and reactive *C*

Connections

LV 4 wires



MV 3 wires