

QNA500

Modular power quality analyzer



Description

QNA500 is a modular power quality analyzer designed to measure and log the main electrical parameters and the transient disturbances. The measurement is taken as an RMS value by 5 AC voltage inputs and 4 AC current inputs. (through current transformers /5 A). It has 2 GB of memory

Application

QNA500 is designed to supervise the electrical installation and the problems related to the electrical power quality, with the objective of controlling the productive processes and managing incidents. Its easy integration into **SCADA** applications and its interaction with market **PLC** software lets it form part of more comprehensive data acquisition systems and report the information required by users at all times.

Its modularity and the addition of **8IO** modules also let the user control energy consumption, the statuses of switches or loads, the sending of alarms and even the connection/disconnection of loads based on configurable conditions.

Along with the **CIRCUTOR PowerVision+** software, the user can configure customized reports to evaluate the smooth operation of the electrical installation, and can apply standards like the **EN-50160**, **CBEMA** and **UNIPED** event tables, and others. By automating this information, the user can display the most important information with just one click, in order to carry out the corresponding analysis.

Features

Auxiliary Power Supply (BASE)	
Power supply voltage	90 - 300 V _{ac} - 100 - 300 V _{dc}
Frequency	50 ... 60 Hz
Consumption	7 W / 11 VA (BASE) 4 W / 5 VA (QNA500) 6 W / 10 VA (8IO)
Auxiliary battery power supply (BASE)	
Type	Removable battery
Battery life	15 minutes of continuous operation (QNA500) 1 minute of continuous operation (8IO)
Voltage measurement (QNA500)	
Measurement circuit	3 or 4 wires
Measurement range	0 ... 500 V _{p-n} / 0 ... 866 V _{p-p}
Other voltages	Through the measuring transformers
Maximum voltage of the permanent measurement	1500 V _{ac(p-p)}
Maximum voltage of the instantaneous measurement	1.2/50 μS (8/20 μS) 6 kV
Frequency	42.5 ... 69 Hz
Sampling frequency	512 samples/cycle
Current measurement (QNA500)	
Measurement range	1 ... 120 % I _n ... I _n = 5 A
Maximum current	120% of I _n (for I _n = 5A, I _{max} = 6A) permanent, 100A t<1 s
Sampling frequency	512 samples/cycle
Leakage current measurement (ID) (QNA500)	
Measurement range	0 ... 3 A
Maximum current	3 A
Sampling frequency	64 samples/cycle
Accuracy	
Voltage	0.2 %
Current	0.2 %
Power and Energy	0.2 %, depending on the model (IEC-62053-22)
Imbalance	± 0.15 %
Flicker	in compliance with IEC -61000-4-15
Harmonics	in compliance with IEC -61000-4-7
Memory	2Gb (MicroSD card)
Processor	
Sampling frequency	512 samples/cycle
DSP converter	24 bits
Connection	
Maximum cross-section of the cable	2.5 mm ² (power supply) 2.5 mm ² (voltage measurement) 4 mm ² (current measurement) 2.5 mm ² (earth leakage current measurement) 1 mm ² (inputs / outputs)
Electrical safety	
CAT III - 1000 V AC or CAT IV-600V. EN-61010 Double-insulated electric shock protection class II	
Standards	
IEC 664, VDE 0110, UL 94, IEC 801, IEC 348, IEC 571-1, EN 61000-6-3, EN 61000-6-1, EN 61010-1, EN 61000-4-11, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 55011, CE	

Variables

Registry variables	Unit	L 1	L 2	L 3	III
Phase-phase and phase-neutral voltage (RMS, maximum, minimum)	V				
Current (RMS, maximum, minimum)	A				
Neutral current (RMS, maximum, minimum)	A				
Neutral ground voltage (RMS, maximum, minimum)	V				
Frequency (RMS, maximum, minimum)	Hz				
Active power (RMS, maximum, minimum)	kW				
Inductive reactive power (RMS, maximum, minimum)	kvar				
Capacitive reactive power (RMS, maximum, minimum)	kvar				
Apparent power (RMS, maximum, minimum)	kVA				
Maximum demand	kW				
Power factor (RMS, maximum, minimum)					

