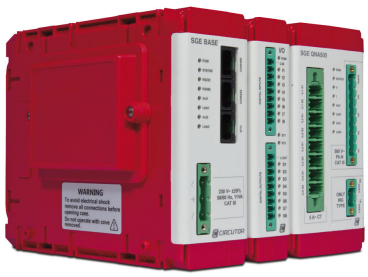

K-QNA500 8IO

K-QNA500 8IO, Advanced power quality analyzers

Code: Q20912. **CONSULTAR DISPONIBILIDAD**

> Protocol: Modbus/TCP | ZMODEM | FTP | webserver (HTTP)
> Memory: 4 GB
> Memory: Yes
> Events / Waveform (1 = yes): Yes
> Web server: Yes
> Energy accuracy: 0,2S
> Communications: RS-232 | RS-485 | Ethernet
> Transistor output: 8
> Digital inputs: 8
> Harmonics: 50
> Class: S
> Mounting: Pannel | DIN rail | Wall-mounted

Description

QNA 500 is a modular power quality analyzer designed to measure and record the main electrical parameters and transient disturbances. The measurement is taken in true root mean square (TRMS), with 5 AC voltage inputs, 4 AC current inputs (via .../5 A current transformers) and a leakage current input.

Application

QNA0500 is designed to supervise the electric installation and problems relating to electric power quality, in order to control production processes and manage incidents. It integrates easily with **SCADA** applications and interacts with commercially available PLCs, and so can be part of more global data acquisition systems and report to users the information they require at any time. Its modularity and the addition of **M-IO8** modules enable the user to also control energy consumption, states of switches or loads, send alarms, and even connect/disconnect loads according to configurable conditions.
When combined with **CIRCUTOR PowerVision Plus** software, the user can configure customised reports to assess the correct running of the electric installation, and can apply standards such as the **EN-50160**, event tables such as **CBEMA, UNIPEDE** or others. By automating this information, the user can view the most important data needed for the relevant analysis with just one click .

K-QNA500 8I0

Modular power quality analyzer

Code: Q20912.

Specifications

Auxiliary battery power supply

Battery type	Ni-MH extraíble (base module)

AC power supply

Consumption	26 VA
Frequency	50...60 HZ (Alim.Aux.:módulo base)
Nominal voltage	90...300 Vc.a.(Alim.Aux.:módulo base)

DC power supply

Nominal voltage	100...300 Vdc (Aux. power base module)

Mechanical characteristics

Size (mm) width x height x depth	174 x 125 x 173.3 (mm)
Envelope	Self-extinguishing V0 plastic
Differential current measurement	≤ 2,5 mm2
Fastening	DIN rail 46227 (EN 50022) or Bottom Panel
Weight (kg)	2,3

Environmental characteristics

Protection class	IP 41
Relative humidity (without condensation)	5...95%
Working temperature	-10...+60 °C

Standards

Certifications	CE, UL, VDE
Electrical safety, Maximum height (m)	2000
Electrical safety, Installation category	CAT IV (600 V) o CAT III (1000 V) IEC 61010
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, IEC 61000-4-30 Class A or Class S

Current measurement circuit

Sampling frequency	512 samples / cycle
Phase current measuring range	1...120% of In (In: 5A)
Permanent overload	120% In (In: 5A, Imax: 6A)
Maximum pulse current	100 A

Voltage measurement circuit

Sampling frequency	512 samples / cycle

K-QNA500 8I0

Modular power quality analyzer

Code: Q20912.

Frequency measuring range	42.5...69 Hz
Nominal voltage	0...500V Ph-N / 0...866V Ph-Ph
Insulation voltage	1.2/50µs (8/20µs) 6 kV
Maximum permanent measurement voltage	1500 V (Ph-Ph)

Electrical characteristics

Insulation voltage, circuit	1.2/50µs (8/20µs) 6kV

Communication Network

Protocol	ModBus/RTU, ModBus/TCP, Cirbus, TCP/IP
Technology / Type	Ethernet

Electrical safety

Insulation	Double-insulated electric shock protection class II (IEC 61010-1)

Digital inputs

Input/output insulation	5 kV
Quantity	8
Consumption (per input)	2,5 mW
Type	Optocoupler
Minimum signal width	15 µs
Operating voltage	12-18 Vdc

Leakage current measurement (ID)

Sampling frequency	64 samples / cycle
Measurement range	0-3 A
Maximum current	3 A

Digital relay outputs

Quantity	8
Operating current	130 mA
Type	Relé de estado sólido (Optomosfet)
Operating voltage	250 V
Maximum resistance RON	30 Ω
Maximum power	500 mW
Maximum switching capacity	500 mW

Measurement accuracy

Current unbalance (Kd)	±5 % (IEC61000-4-30 class S)
Voltage unbalance (Kd)	±5 % (IEC61000-4-30 class S)
Active energy measurement (kWh)	0,2 % (in accordance with IEC 62053-22)

K-QNA500 8I0

Modular power quality analyzer

Code: Q20912.

Active power measurement (kW)	0,2 % (in accordance with IEC 62053-22)
Phase voltage measurement	0,2 % (IEC-61000-4-30 class S)
Pst Flicker	According to IEC 61000-4-15
Current harmonics (THD)	According to IEC 61000-4-7
Voltage harmonics (THD)	According to IEC 61000-4-7

Processor

Analoque to digital converter (ADC)	24 bits
Sampling frequency	512 samples/cycle per channel

Serial communication

Protocol	ModBus/RTU
Technology / Type	RS-232/RS-485

Communications through the BASE module (mandatory). Check the maximum number of modules that can be connected for each BASE system. The QNA500 include the Power Vision+ software Each unit is made up of a BASE module (power supply) + measuring module + inputs/outputs module (according to each type). Compatible with PowerStudio (version 4.02 and higher).

K-QNA500 8IO

Modular power quality analyzer

Code: Q20912.

Dimensions

Connections