ANALYZER FOR DC ELECTRICAL NETWORKS

PECA 21 DC

Type

The **PECA21 DC analyzers** are especially designed for the measurement, the control and the display of all the parameters from DC electrical networks: voltage, current, power, energy, …

Easy programming accessible on front face or by PC via the software SlimSET.

Display

Graphical rear-lit LCD screen

Display of the energies on 9 digits with automatic switching to the upper unit.



Environment

Operating temperature: -10°C to +55°C.

Storage temperature: -25°C to +70°C.

CE marking (89/336 rev.92/31).

Functions

Measurement in true RMS values TRMS

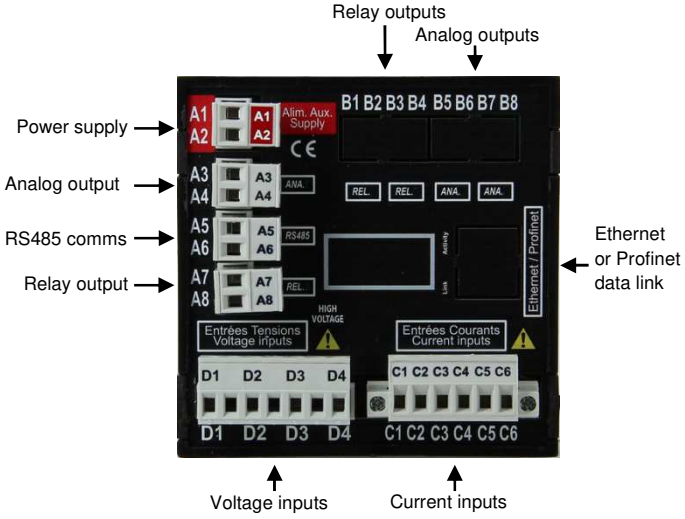
- Universal, for measurement of all the parameters from DC NETWORKS
- They accept as input by programming:
  Current: Input on 100mV shunt
  Voltage: 50, 125, 250 and 400 VDC
- RS485 Modbus/Jbus output
- **Quick cycle time: 20 ms**
- Universal power supply

Options

- Ethernet Modbus/TCP output + embarked web server
- 1 to 3 isolated analog outputs +/- 20 mA*
- 1 to 3 relay outputs, programmable either as alarm output or as energy pulses. *
- Profinet output

* 2 analog outputs and 2 relay outputs only for the option Profinet.

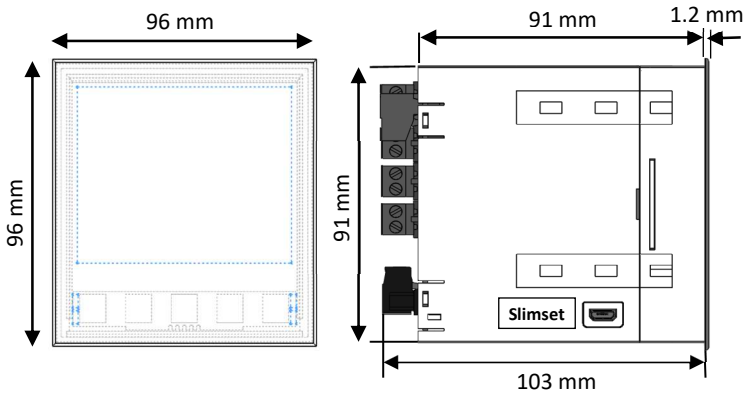
External features



Protection: housing / terminals IP20 – Front face IP65

Connectors: removable terminal blocks on the rear face for screwed connectings (2,5mm², flexible or rigid)

Dimensions



Housing: 96 x 96 x 103 mm (with terminals)
Self-extinguishing case of black UL94 V0 ABS

Mounting: on panel, cut out 91 x 91 mm

Tightening: with 4 screwable pads

Weight: 400 g

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Technical features

►Inputs

• **Voltage** 4 programmable ranges:
Un = 50V, 125V, 250V et 400V DC

Measurable overrange 1.2 Un

Overloads permanent: 750 V
During 10 s: 1000 V

• **Current** On 100mV external shunt
Supply of the shunt: consult with us

Power consumptions voltage input: 1.5 MΩ resistances
current input: 10 KΩ resistances

Test voltage 3 Kv / 50 Hz / 1 min.

►Outputs

• **RS485 output**

Type 2-wire with galvanic isolation

Baud rate 4800 / 9600 / 19200 bauds

Protocole Modbus / Jbus RTU 8 bits parity programmable

Format of the data Integer 16 bits (table of the units) or 32 bits dec.point and units fixed

• **Relay outputs (option R, 2R or 3R) ***

Type of contact on pot. free contact (galvanic isolation 3 kV) output 1 make

Rated load 5 A – 250 VAC

- soit **SORTIE A SEUILS**

Réglage des seuils et de l'hystérésis : 0 à 100% de la plage de mesure
Temporisation : 0 à 999.9 s par programmation

- either **SETPOINTS OUTPUT**

Count rate : 4 / 2 / 1 pulses per second according to the programmed width
Width of the pulses : 100 / 200 / 400 ms (programmable)

• **Analog outputs (option A, 2A or 3A) ***

Galvanic isolation 1 kV between outputs

Output signal -22 à +22 mA (programmable)

Réglage d'échelle 0 à 100% de la plage de mesure par programmation

Admissible load up to 500 Ω (20 mA)

Accuracy of the board < 0.1% of the full scale

Max. residual ripple < 25 mV (peak to peak) on 500Ω load

Response time 60 to 80 ms (input/output)

Thermal drifts < 100 ppm / °C

• **Ethernet output (option F)**

Modbus/TCP data link + embarked web server

Female RJ45 footing

• **Profinet output (option PN)**

Female RJ45 footing

* 2 analog outputs and 2 relay outputs only for the option Profinet.

►Supply

• **Universal power supply** 20 to 250 VAC / 21.5 to 250 VDC

Power draw 11 VA max. in AC, 6 W max. in DC

►Measure

• **7 measurable parameters**

UL, IL, P, consuled and supplied energy, carge and discharge current.

Acccuracy rating Voltages, currents: class 0.2 (CEI688-1)
Powers: class 0.5 (CEI688-1)
Energy : class 1 (CEI62053-21)

Measuring method Fast sampling.
Digital calculation on 32 bits.
TRMS measurement of deformed signals

Digital filtering Programmable on several levels

Energies Saved
Display on 9 digits

Cycle time 20 ms

► Connectings

With detailed manual, delivered with the instrument.

Coding

Types:

PECA 21 DC UL, IL, P, EA+, EA-, IC+ and IC-.

Options

A	1 analog output	**F**	Ethernet output
R	1 relay output	**PN**	Profinet output
2A2R	2 analog outputs + 2 relays		
3A3R	3 analog outputs + 3 relays		

Order example:

For a PECA21 DC with 3 analog outputs and 3 relay outputs (setpoint or pulses) request the reference: **PECA21 DC 3A3R**

For a PECA21 DC with Ethernet output and 1 relay output request the reference: **PECA21 DC FR**

This appliance is dedicated to industrial applications. It must be installed in an electrical cabinet, or equivalent.

ARDETEM – CA IN66 - A 07/20 – Any data in this documentation may be modified without prior notice.

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