

ELECTRICAL NETWORK ANALYSER DISTURBANCEMETER PECA11D / DIVA11D

ARDETEM

SFERE



Type

The **analysers PECA/DIVA** are especially designed for the measurement, the control and the display of all the parameters of AC electrical networks: voltage, current, power, energy, frequency ...

Simple programming, accessible on front face or by PC via the software.

Display

- Rear-lit graphical LCD.
- Reading of the energies on 8 digits with automatic switching to the upper unit.

Environment

- Operating temperature: 0°C to +55°C.
- Storage temperature: -25°C to +70°C.
- CE marking

Functions

- 25 measurable parameters, watching of the electrical network disturbances in real time.
Current: 1A and 5A (programmable)
Voltage: 100v L-N / 175v L-L and 330v L-N / 600v L-L
- Digital data link RS485 Modbus/Jbus.
- Analysis of the disturbances acc. to the standard EN50160.
- Display of the U, I, F errors, harmonics and Thd over 1 week.
- Universal (switching) power supply.
- 3 isolated logic inputs for watching external errors.

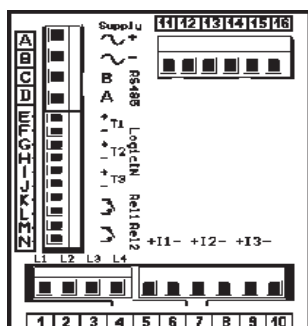
Options

- 5 relay outputs, programmable by the user as alarm setpoint.
- Modbus TCP Ethernet output

External features

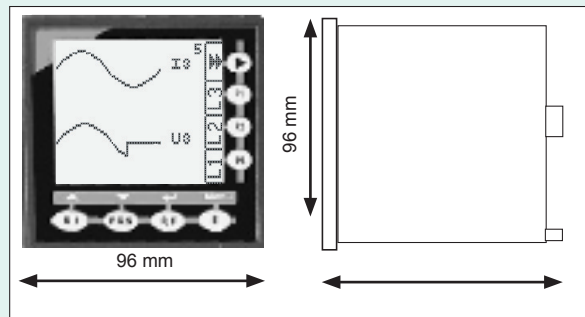
- Protection:** Case / terminals: IP 20
IP 40 front face protection (IP 65 optional)
- Housing:** Self-extinguishing case of black UL 94 V1 polycarbonate.
- Connecting:** Plug-off connectors on rear face for screwed connectings (2.5mm², flexible or rigid)

- KL - MN**
Relay outputs
- CD**
Digital data link 485
- EF - GH - IJ**
Logic inputs
- 1 - 2 - 3 - 4**
Measure voltages
- 56 - 78 - 910**
Measure currents
- AB**
Auxiliary power supply
- 11 12 - 13 14 - 15 16**
Relay outputs (optional)



Dimensions

Case: 96 x 96 x 108 mm (with terminals)



Mounting : on panel; cut out 92 x 92 mm

Tightening : with 4 screwed pads

Weight : 400 g



Technical features

inputs

- **Voltage** 2 programmable ranges:
Un=100V L-N / 175V L-L and 330V L-N / 600V L-L
- **Current** 2 programmable ranges: 1 and 5A (In=1.2A and In=6A)
Measurable oversteppings: 1.2 In; 1.2 Un
Overloads permanent: 750 V, 2 In
during 10 s: 1000 V, 10 In
Power draw voltage input: 1 MΩ resistances
current input: < 0.2 VA
Test voltage 2 kV / 50 Hz / 1 min.
Frequency 50Hz (other frequencies: consult)
Network type single or 3-phase unbalanced with or without neutral

• Logic inputs 3 insulated inputs

- Galvanic partition* 1kV (input 1 / input 2) 2KV (inputs)
Type pot. free contact or 24V (to be requested on order)

outputs

RS485 output

- Type* 2-wire (galvanic partition / inputs 2 KV)
Baud rate 4800 / 9600 / 19200 bauds
Protocole Modbus / Jbus RTU 8 bits, programmable parity
Format of the data Integer 16 bits (table of the units) or 32 bits
decimal points and units fixed.

• Relay outputs (option **2R** or **5R**)

- Type of contact* potential free contact (galvanic partition: 2.5KV)
output 1NO
Rated load 5A - 250 VAC

- SETPOINT OUTPUT

- Setting of the setpoints : 0 to 100% of the measure range, program.
Switching hysteresis : 0 to 15% of the setpoint, programmable
Time delay : 0 to 15s, programmable

power supply

- Universal power supply
20...270 VAC / 20...300 VDC
Power draw 6 VA max. in AC, 3.5W max. in DC

measures

• Function analysis and display of the disturbances

- Programmable detection setpoints allowing the recording of the measures, the wave shapes...
- Watching of the voltages, the currents, the frequency, the harmonics, the Thd and the flicker for the 3 phases over 1 week. Display of the results day per day according to EN50160.
- Function oscilloscope for the 3 voltages and the 3 currents.
- Display of the Fresnel vectors in real time.
- Display of the harmonics up to rank 32
- Plotter for 3 measures on choice over 1h, 1 day, 1 week.
- Recording and visualising of the average values over 10 minutes during 1 week for the voltages, the powers and the tangent.

• 25 measurable parameters

- Accuracy rating* Voltages, currents: 02 (IEC688-1)
Powers: 0.5 (IEC688-1)
Energies: 1 (IEC61036)
- Thermic drifts* < 200ppm
- Measuring method* fast simultaneous sampling of the 3 voltages and the 3 currents. Digital calculation on 32 bits. Measuring of deformed signals, pass-band 1.6KHz
- Refreshing of the display*, every second
- Digital filtering* programmable on several levels
- Energies* Saved
reading on 8 digits
- Cycle time* 20ms (for all network types)

wiring

With detailed user handbook supplied with the instrument

Coding

Types:

ARDETEM reference: PECA11D

SFERE reference: DIVA11D

3U, 3V, 3 I, cos φ, cos φ/phase, F, P, Q, S, P/phase, Q/phase,
E active, E reactive

Options

- 2R** 2 relay outputs
5R 5 relay outputs
F Ethernet output

Order example: For a PECA11D or a DIVA11D with 5 relay outputs request the reference: **PECA11D/DIVA11D 5R**

For a PECA11D or a DIVA11D with 2 relay outputs request the reference: **PECA11D/DIVA11D 2R**

For the 3 logic inputs specify if potential free contact or 24V

This appliance is designed for industrial applications. It has to be installed in an electrical cabinet, or equivalent.

your representative



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