

Power and Energy Meters

Order no. EL6.P

1-phase power and energy meter

The power and energy meters enable the acquisition of high power and energy for 1-phase consumers up to 24 kW with exceptional accuracy. A digital output can be set if limit values are exceeded. If necessary, an external circuit can react to dangerous situations and deactivate the respective periphery.

The unit's integrated new measurement technology thus ensures an enormous bandwidth. The power meter is integrated directly behind the laboratory sockets to save space and does not require a separate slot on the internal backplane. This means that even more additional devices can be integrated within the smallest space available.

The power is recorded via the front laboratory sockets of the digital multimeter. This means that no additional connections are required.

Special emphasis was placed on the graphic display of measured values. The power meter enables the graphic display of the current and stored measured values by means of X-Y diagrams and thus ensures fast and reliable recording for each measurement.



Power and energy measurement: The power and energy meter in full-screen mode with Display of all relevant energy values as well as the active energy and the crest factors for U and I incl. zoom function.



Dynamic screen content: When menus are displayed, the screens scale automatically without overlaying the unit displays. In this way, you always remain connected to all devices and can, for example, follow measured value progressions in parallel during parameter settings.



Connection panel with actual value display: The new connection panel shows all measured values at the outputs and inputs. The screen with the unit displays scales automatically. The connection panel thus represents a separate information screen that can remain permanently displayed.



More scalable graphic measured value display: In the upper half, the power meter displays all measurement data. At the same time, in full-screen mode, other devices can be displayed in the smart scroll bar.



Efficient use of all equipment groups: Even if the power meter is in the small secondary range, it is possible to switch between power measurement and digital multimeter functions.

Technical data and features (order data preferred types p. 88-89 | device p. 99)

Display: simultaneous display of U and I as well as all power and energy values on one screen.

Active power

- 24 kW to + 24 kW at 750V AC
 - 7,5 kW to + 7,5 kW at 230V AC, (short term 9,2 kW)
 Accuracy: ± 0,2 % + 10 dgt

Active energy

- 24 kWh to + 24 kWh at 750V AC
 - 7,5 kWh to + 7,5kWh at 230V AC, (short term 9,2 kWh)
 Accuracy: ± 0,2 % + 10 dgt

Apparent power

0 to 24 kVA at 750V AC
 - 7,5 kVA to + 7,5 kVA at 230V AC, (short term 9,2 kVA)
 Accuracy: ± 0,4 % + 10 dgt

Apparent energy

0 to 24 kVAh at 750V AC
 0 to 7,5 kVAh at 230V AC, (short term 9,2 kVAh)
 Accuracy: ± 0,4 % + 10 dgt

Reactive power

- 24 kvar to + 24 kvar at 750V AC
 - 7,5 kvar to + 7,5 kvar at 230V AC, (short term 9,2 kvar)
 Accuracy: ± 0,2 % + 10 dgt

Reactive energy

- 24 kvarh to + 24 kvarh at 750V AC
 - 7,5 kvarh to + 7,5 kvarh at 230V AC, (short term 9,2 kvarh)
 Accuracy: ± 0,2 % + 10 dgt

Output

A digital output is triggered when the measured values are exceeded or fallen short of.

Input

Start of measurement by trigger pulse of the input (edge control).

Data logger

The 5-channel operation enables the storage of 100,000 measured values per channel. The values can be called up and read out on the display in a graphic.

Power factor

cos phi from -1 to +1 and angle display!
 Max. current (AC/DC): 32 A, (short term 40 A)
 Max. voltage (AC): 750V
 Max. voltage (DC): 1.000V

Measured value display

X and Y graph scalable by 2-finger gesture. Ideal for recording changes (long-term measurement).

Crest factor 5: for voltage and for current
For all measured variables: AUTO-RANGE
Limits: all measured value limits programmable