



POWER-ADAPT

by  ECO-ADAPT

Power-Elec meter and current transformers datahseet



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Power-Elec meter

Recommended to meet the requirements of the **ISO 50001** standards, the Power-Elec unit optimizes the deployment of **electricity sub-metering**, for both **new installations and retrofits**.



MADE IN
FRANCE

With its **6 RJ45 inputs**, the power meter can measure **6 three-phase** circuits or 18 single-phase circuits (mix possible), with an accuracy of **1% for active power**, voltage, current and power factor.

| Measurements | |
|---|---|
| Acquisition modes (according to CEI 62053) | Single Phase (18circuits), Three-phase (6 circuits), Three-phase with neutral (6 circuits), Three-phase balanced (18 circuits), Three-phase balanced with neutral (18 circuits) |
| Measurements (Standard) | Current, Voltage, Frequency, Active & Reactive Power/Energy index, Power factor. |
| Measurements (Expert) | THD, Voltage and Power Imbalance, Sag, Swell, Overcurrent, operating hours |
| Accuracy | Active energy index : CEI 62053-21 Class 1 (1%) Reactive energy index : CEI 62053-23 Class 2 (2%) |
| Input/Output | |
| Current input | Opening CTs or Rogowski coils |
| Voltage input (single input for power and measure) | Measure : 230VAC (Ph-N) / 400VAC (Ph-Ph) up to 63kV with Voltage transformer Power supply : 110-230 VAC (Ph-N) – overvoltage category II |
| Wired output | Modbus TCP/IP, Modbus RTU, BACnet |
| Wireless output | LoRaWAN 868MHz |
| Device | |
| Dimensions | 104x58x90mm (6 modules), IP30. DIN rail mounting. Integrated Wi-Fi access point, external LoRa antenna available (SMA connector) |
| Voltage connector | 0,2-4mm ² , required protection (fuse holder or breaker) 1A or 2A |
| Operating temperature | 0-65°C ; Relative humidity 95% |
| Consumption | 7W |

Current transformers

Opening current transformers allow current to be measured by clipping around cables. They are therefore ideal for **retrofitting**. They are assembled in kits of 3 and are connected to the Power-Elec meter via an RJ45 wire. Several sizes and ratings are available to suit a **wide range of configurations**.



| Reference | Rated current | Saturation current | Internal diameter |
|-----------------------------|---------------|--------------------|-------------------|
| 3TC-10-5A/3TC-10-5A-DIN | 5A | 6A | 10mm |
| 3TC-10-32A/3TC-10-32A-DIN | 32A | 36A | 10mm |
| 3TC-10-70A/3TC-10-70A-DIN | 70A | 84A | 10mm |
| 3TC-16-100A/3TC-16-100A-DIN | 100A | 120A | 16mm |
| 3TC-24-200A/3TC-24-200A-DIN | 200A | 240A | 24mm |
| 3TC-36-400A/3TC-24-400A-DIN | 400A | 480A | 36mm |

| Characteristics | | | | |
|-----------------------------|--|-------------|-------------|-------------|
| | 3TC-10-5/32/70A | 3TC-16-100A | 3TC-24-200A | 3TC-36-400A |
| Voltage output | 333mV | | | |
| Phase inaccuracy | $\pm 2^\circ$ at 50% of rated current | | | |
| Accuracy | $\pm 1\%$ from 5% to 120% of rated current | | | |
| Grid voltage | Sheathed conductor: Isolation provided by the cable Unprotected cable: Rated 600V - Isolation 3kV | | | |
| Operating conditions | -15°C/+60°C | | | |
| Weight | 0,2kg | 0,3kg | 0,55kg | 1,2kg |

| Dimensions (mm) | | | | | | | |
|-----------------|--------------|----|----|----|----|------|----|
| | Model | A | B | C | D | E | Ød |
| | TC-10 | 40 | 23 | 22 | 26 | 14.5 | 10 |
| | TC-16 | 45 | 26 | 29 | 31 | 19 | 16 |
| | TC-24 | 66 | 42 | 45 | 33 | 33 | 24 |
| | TC-36 | 86 | 50 | 56 | 42 | 42 | 36 |

Rogowski coils

Opening Rogowski coils allow current over 400A and **up to 3500A** to be measured by clipping around cables. They are therefore ideal for **retrofitting**. They are assembled in kits of 3 and are connected to the Power-Elec meter via an RJ45 wire. Two diameters are available to fit with your installation.



| Reference | 3TS-105 | 3TS-180 |
|----------------------|---|---|
| Rated current | 10 to 3500A | 10 to 3500A |
| Internal diameter | 105mm | 180mm |
| Voltage output | 100mV at 1000A | 100mV at 1000A |
| Accuracy | 1% from 50A to 3 500A 3% from 10A to 50A | 1% from 50A to 3 500A 3% from 10A to 50A |
| Linearity inaccuracy | 0,5% | 0,5% |
| Phase shift | <±1° | <±1° |
| Operating conditions | -25°C/+70°C | -25°C/+70°C |
| Gris voltage | Rated 600V - isolation 3kV | Rated 600V - isolation 3kV |

Cable extensions

To make maximum use of the 6 connectors of the Power-Elec meter, extension cables are available for wiring CTs kits in neighboring cabinets.

| Characteristics | | | | |
|--------------------|-------------------|--------------------|------------------------------|--------------------|
| | RAL-3TC-5M | RAL-3TC-10M | RAL-ANT-5M | RAL-ANT-10M |
| Type | RJ45 | RJ45 | RG-58 | RG-58 |
| Length | 5m | 10m | 5m | 10m |
| Connectors | RJ45 M/M | | SMA M/F | |
| Environment | Indoor | | Outdoor (connector not incl) | |

Contact us



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