# TR8

# Multi-channel DC voltage and current analyzer for photovoltaic strings



Compatible with all modules of the **M/TR** transformer range.



## **Description**

It is extremely difficult to certify that a photovoltaic plant is at its peak performance without having control over the primary power generation sources that would certify it. **TR8** has been designed specifically to control strings in photovoltaic plants; it checks the level of current generated in the various groups in real time and, therefore, checks the current flowing through the voltage and current sensors connected to the unit.

## **Applications**

 Solar photovoltaic string monitoring application, used to measure up to 8 direct-current generation strings and a reference voltage of up to 1,000 V.

## **Technical features**

| Power circuit        | Rated voltage   | 230 Vac / 24 Vdc power supply           |
|----------------------|---|---|
|                      | Tolerance   | ± 30% AC / ± 10% DC                     |
|                      | Frequency   | 50 Hz AC                                |
|                      | Consumption of the unit without transformers  | 8 mA / 1.84 VA AC<br>70 mA              |
|                      | Consumption of the unit with 8 sensors (no-load)  | 32 mA / 7.36 VA AC<br>270 mA            |
|                      | Consumption of the unit with 8 sensors (current)  | 32 mA / 7.36 VA AC<br>270 mA            |
|                      | I rush AC (3 ms)  | 3,5 A                                   |
|                      | I rush CC (1 ms)  | 15 A                                    |
| Accuracy             | Linearity   | ± 0.1%                                  |
|                      | Total   | ± 0.5% I <sub>n</sub>                   |
|                      | Resolution  | ± 0.075% I <sub>n</sub>                 |
|                      | Offset  | 0.075% I <sub>n</sub>                   |
|                      | Measurement margin  | 2,5 100% I <sub>n</sub>                 |
|                      | Voltage   | 1%                                      |
| Transformer accuracy | Linearity (excluding offset)  | ± 0.5%                                  |
|                      | Offset 25 °C  | $\pm 10 \text{ mV at } I_n = 0$         |
|                      | Offset drift / T  | ± 1 mV / °C                             |
|                      | Thermal drift of the gain   | ± 0.05% / °C                            |
| Digital inputs       | Number of inputs  | 8                                       |
|                      | Туре  | Optoisolated voltage-free (dry contact) |
|                      | Maximum activation current  | 50 mA                                   |
| Mechanical features  | Operating temperature   | -10 °C+ 65 °C                           |
|                      | Relative humidity   | 5%95% (without condensation)            |
|                      | Protection degree   | IP 20                                   |
| Safety               | Category III – 300 Vac (EN 61010) Double-insulated electric shock protection class II                 |   |
| Standards            | CE certification UL certification (see attached codes) UR certification (Canada) (see attached codes) |   |

