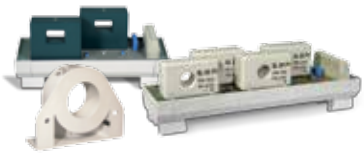
TR8

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 70 mA
	Consumption of the unit with 8 sensors (no-load)	32 mA / 7.36 VA AC 270 mA
	Consumption of the unit with 8 sensors (current)	32 mA / 7.36 VA AC 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_n
	Resolution	± 0.075% I_n
	Offset	0.075% I_n
	Measurement margin	2,5 .... 100% I_n
	Voltage	1%
Transformer accuracy	Linearity (excluding offset)	± 0.5%
	Offset 25 °C	± 10 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
	Type	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)	

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References

Type	Code	Description	Current
TR8-RS-485-25	**E80000**	Measurement of up to eight 25 A channels Measurement of voltages of up to 1,000 V for the 25 A module	25 A
TR8-RS-485-25A-UL	**E800000000700**	Measurement of up to eight 25 A channels Measurement of voltages of up to 1,000 V for the 25 A module **UL certification**	25 A
TR8-RS-485-100/200	**E80001**	Measurement of voltages of up to 1,000 V, exclusive for 100 or 200 A transformers	acc. to trans. (100 or 200 A)
TR8-RS-485-100/200A-UL	**E800010000700**	Measurement of voltages of up to 1,000 V, exclusive for 100 or 200 A transformers **UL certification**	acc. to trans. (100 or 200 A)

* Accessories **E80000**, **E800000000700**, **E80001** and **E800010000700** are complements listed in the **UL** file, so that together with the **TR8**s with **UL** certification they represent an assembly that can be fully certified

Type	Code	Description
M/TR-25A x2	**E80010**	Two-transformer module, up to 25 A
M/TR-25A x4	**E80011**	Four-transformer module, up to 25 A
M/TR-100A	**E80012**	Transformer, up to 100 A
M/TR-200A	**E80013**	Transformer, up to 200 A

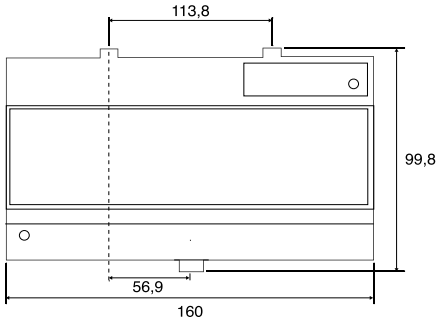
* Accessories **E80010**, **E80011**, **E80012** and **E80013** are complements listed in file **UL**, so that together with the **TR16** with **UL** certification they represent an assembly that can be fully certified.

Type	Code	Description
M/TR-100A - UR certification	**E800120000500**	Transformer, up to 100 A
M/TR-200A - UR certification	**E800130000500**	Transformer, up to 200 A

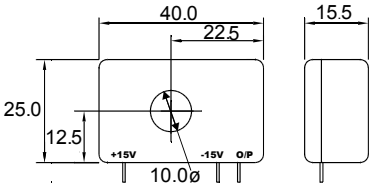
** Accessories **E800120000500** and **E800130000500** are complements with **UR** certification. They comply with the **UR** of the units of other manufacturers.

Dimensions

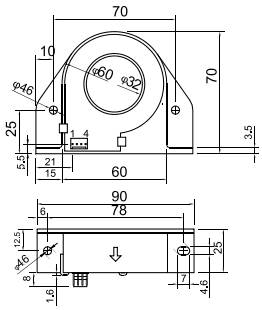
TR8



M/TR-25A

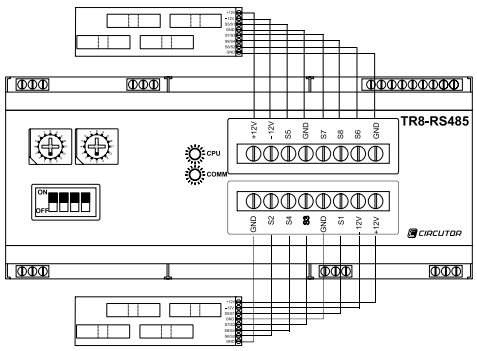


M/TR-100/200A



Connections

TR8-25A



TR8-100/200A