

SUNWAY TG 730 800V TE

Inverter for Photovoltaic Application



CE



2 anni di garanzia.



Compatibile con software di teleassistenza,
"REMOTE SUNWAY" via internet.



Estensione fino a 25 anni di garanzia

SUNWAY TG 730 800V TE Inverters are full digital devices for controlling photovoltaic energy conversion. Designed and manufactured in Italy by the technicians of Elettronica Santerno S.p.A. using the most advanced electronics technology.

All parameters inherent to the inverter's operation are easily programmable in a guided way through the keyboard and the alphanumeric display. Parameters are organized in a menu structure.

ADVANTAGES

- Maximum conversion efficiency.
- Integrated transformer
- Maximum modularity and flexibility of connection of several machines in parallel.
- Remote monitoring possibility with REMOTE SUNWAY™ software both for a single machine and a multi inverter installation.
- Wide range of inverter sizes available.
- Integrated active monitoring of DC isolation.
- Integrated EMC filters for residential environments.
- Diagnostic messages on alphanumeric display that allow quick setting of parameters during start up and immediate monitoring during the operation.
- Easily accessible components for maximum reliability and maintainability.
- Possible use of photovoltaic modules that require an earthed pole.
- Thorough manufacturing with first class materials, all Made in Italy.

- **Dati tecnici / Technical data**

Nome inverter		SUNWAY TG 730 800V TE
Valori d'ingresso Input Ratings	Unita di misura Unit of measure	
Potenza picco suggerita campo FV Suggested PV field peak power	kWp	650
Potenza massima d'ingresso in CC Max. DC input power	kW	635,1
Potenza nominale d'ingresso in CC Rated DC input power	kW	577,4
Corrente massima d'ingresso Max. input current	A(dc)	1253,4
Tensione nominale campo fotovoltaico Rated PV field voltage	Vdc	650
Range di tensione campo fotovoltaico PV field voltage range	Vdc	415÷760
Massima tensione a vuoto del campo Open-circuit voltage	Vdc	880
Valori di uscita Output Ratings		
Potenza massima d'uscita Max. output power	kW	617,3
Potenza nominale d'uscita Rated output power	kW	561,2
Corrente nominale d'uscita Rated output current	A(ac)	1200
Tensione di uscita Output voltage		270 Vac +/- 15%
Frequenza di uscita Output frequency	Hz	50
Rapporto di trasformazione trafo MT Ratio of transformation MV transformer		270/15000 270/20000
Tensione di ripple residua sul campo fotovoltaico PV voltage ripple		<1%
Distorsione totale della corrente di rete Total AC current distortion		≤3%
Cosφ		1
Rendimento Efficiency		

Rendimento massimo <i>Maximum efficiency</i>		98,5%
Rendimento Europeo <i>European efficiency</i>		97,7%
Rendimento 100%		97,2
Rendimento di adattamento MPP [%] con campo di potenza < 20% potenza nominale		98,00%
Rendimento di adattamento MPP [%] con campo di potenza > 20% potenza nominale		99,00%
Variazione del rendimento dell'inverter al variare della tensione di ingresso dalla tensione nominale [%/100V]		0,20%
Dati meccanici Mechanical Features		
Dimesioni (LxAxP) <i>Dimensions (LxHxD)</i>		2800x2475x800mm
Peso <i>Weight</i>	Kg	1800
Grado di protezione <i>Degree of protection</i>		IP44
Raffreddamento con ventilazione forzata <i>Forced cooling system</i>		Termostata / Temperature controlled
Portata Ventilazione	m3/h	6680
Assorbimento Sistema di Ventilazione	W	1096
Max. numero cavi AC per polo <i>Max. number of AC output each pole</i>		4
Max. sezione cavi AC <i>Max. section of AC cables</i>		240
Max. numero cavi DC per polo <i>Max. number of DC input cables each pole</i>		8
Max. sezione cavi DC <i>Max. section of DC cables</i>		240
Dati ambientali Ambient Items		
Temperatura di funzionamento <i>perating temperature range</i>		-10°C..+40°C
Umidità relativa <i>Relative humidity</i>		95%
Ulteriori caratteristiche Additional Features		
Tensione di isolamento verso terra e tra ingresso ed uscita <i>Insulation voltage to ground and between input and output</i>	kV	2,5kV

Protezione termica <i>Thermal protection</i>		Integrata / Integrated
Livello di pressione acustica <i>Noise level</i>		74
Consumo notturno <i>Night consumption</i>	W	45
Consumo notturno con Datalogger <i>Night consumption with Datalogger</i>	W	25

Elettronica Santerno si riserva il diritto di modificare i dati tecnici senza preavviso.

Elettronica Santerno reserves the right to make any technical changes to this document without prior notice.

Operating description

The inverter is connected to the PV field through subfield paralleling panels (String Box) that form the PV generator, and to the electric grid through an interface switch. Once the open circuit voltage of the field is enough, the inverter synchronizes with the electric power grid, closes the paralleling contactor and according to the available power on field ($P_{field} = V_{dc} \cdot I_{dc}$) it imposes to the grid a sinusoidal current in phase with the network voltage.

The current's phase is defined by the requested $\cos \varphi$ that is typically 1.

Main normative references

SUNWAY TG series inverters have been developed, designed and constructed in accordance with the requirements of the low voltage directives and of electromagnetic compatibility directives

IMMUNITY :	Proof of immunity to electrostatic discharges according to EN61000-4-2 Livelli : Levels: 6kV for contact discharge 8kV for air discharge
	Proof of immunity to fast transients according to EN61000-4-4 Levels : 2kV/5kHz PV field and battery side 2kV/5kHz serial RS232.
	Proof of immunity to impulse according to EN61000-4-5 Levels: 1kV + pole/pole PV field side. 2kV + pole/earth PV field side. 2kV - pole/earth PV field side. 1kV + pole/earth battery side. 2kV + pole/earth battery side. 2kV - pole/earth battery side.
	Conducted emissions: EN55011 group 1 class B
ITALIAN GRID DIRECTIVES :	CEI 11-20, CEI 0-16

Included accessories

All inverters are supplied with user manuals, technical documentation conforming to existing regulations, keys and lifting hooks, dedicated pallets for easy and safe transport.