

THREE PHASE INVERTERS

MODULAR SUNZET TP

Three-phase on-grid central inverters range

Parallel modular architecture based on independent inverters T/TL/MV

Description



The high power range of Modular SUNZET TP central inverters is defined through a parallel compatible modular architecture based on independent Sunzet inverters, each one managing its own solar field with its own MPPT. These inverters and their parallel modular architecture have been thought to get the maximum yield of big solar plants.

Modular SUNZET TP central inverters provide high reliability and guaranteed operation. Another outstanding function is the high-energy efficiency of its MPPT, which is over 99%. One remarkable feature is its automatic regulation of reactive power and communications tools of every inverter. All its parameters are configurable both locally and remotely. Modular SUNZET TP inverters operate with an output voltage 3x450 V and comply with most European regulations concerning the support of voltage sags without disconnection. Due to their double-conversion architecture they never generate dangerous overvoltages when disconnection from mains.



Sunzet 500 TL

Features

- > Range of input voltage (300-700 VDC)
- > Maximum power point tracking (MPPT)
- > High energy efficiency MPPT > 99%
- > Very low harmonic distortion, THD < 3%
- > Selectable power factor
- > Direct mains connection (T & TL model)
- > Unlimited parallel connection
- > Anti-islanding protection with automatic shut down
- > Monitoring from the unit with LCD
- > Galvanic isolation through the transformer (T model)
- > Strings current monitoring (with option "sunzet String Box")
- > IP21 protection level
- > Protection against: inverse polarity, short-circuits, overvoltages, insulation failure with output to relay
- > Service life of more than 20 years
- > Automatic reactive energy regulation
- > PC-based Web server programme for full access to inverter data
- > Maximum yield of solar plants
- > Modularity
- > Output voltage 3x400 and 3x450 V (T & TL model)
- > DC and AC surge protections included
- > Compatible with thin film modules
- > ETHERNET communications ports
- > Easy access through any web browser
- > Remote SCADA (SWS 1000): communications system, parameter display, inverter records control, production data storage etc., (optional)

Connectivity and accessories

> Sunzet Web server integrated

PC-based Web server programme for full access to inverter data by Zigor to monitor and communicate with Modular SUNZET TP inverters. (integrated)

> SWS 1000

The SWS 1000 Scada system is a platform for monitoring and register variables, check and modify the settings as well as customise all parameters from the Modular SUNZET TP inverters. (optional)

See more information about connectivity and accessories on page 48

on-grid solar plants

mid voltage solar plants

hybrid generation

energy saving

telecom back up

wind energy



NON - STOP POWER

ZIGOR

ELECTRICAL CHARACTERISTICS

Model	Sunzet 500 T	Sunzet 500 TL	Sunzet 500 MV
Continuous output power AC		500 KW	
Maximum recommended PV power		+5% to +20%	
Nominal DC power		≥ 512 KW	
Nominal AC voltage	3x400 V + N	3x400 V	3x450 V
Nominal frequency		50 Hz	
Power factor		1 adjustable ± 0.8	
Maximum line current AC		640 A	
Current distortion AC		<3% THD of nominal power ⁽¹⁾	
Maximum open circuit voltage DC		880 V ⁽²⁾	
Power tracking range (MPPT) DC		300 to 720 V	
Maximum input current DC		1440 A	
Maximum efficiency	96 %	98 %	98%
European efficiency	94,95%	96,78	97,34 %

ENVIRONMENTAL AND MECHANICAL FEATURES

Range of ambient temperatures	-10°C to +50°C ⁽³⁾		
Type and grade of environmental protection	IP21		
Weight	3800 kg	1960 kg	1350 Kg
Dimensions (WxHxD) mm	880x2150x600	3600x2150x600	
Operating height	<1000 m without power loss		
Relative humidity	0 to 95% without condensation		

GENERAL FEATURES

Cooling	Internal forced ventilation External fan control (6 Amax.)		
Protection	Inverse polarity, Over/Sub-voltage AC Over/Sub-frequency, Overvoltage DC		
User interface	Standard LCD		
Breakers (AC and DC)	Integrated in the system		
Communication software	Web server through Ethernet connection		
Equipment supervision SELF DIAGNOSTIC	Yes		
Data acquisition	SNMP		
SWS 1000 Scada system (option)	Ethernet, GSM modem (option), Data logger / Monitoring programme		
External measurements	2 analogue inputs for monitoring (option) Digital Inputs/Outputs		

STANDARDS AND SAFETY

Certificates	CE Marking, VDE, ENEL		
Directives	2004/108/CE (UNE-EN 61000-6-2 / UNE-EN 61000-6-3) 2006/95/CE (EN 50178)		
Standards	IEC 62116 (2008) - Anti-islanding protection		

Countries standards

Spain	PO 12.3		
Germany	VDE 0126-1-1		
Italy	DK5940 (Chapter 8.2 Allegato 17. TERNA Regolazione)		
UK	G83		
France	Decret: Arrête du 23 avril 2008		

(1) For THDV < 1% and Nominal Power.

(2) This voltage must not be exceeded under any circumstances.

(3) Under 40°C, the system operates with nominal values, at 50°C nominal values are maintained for two hours.

These specifications may be changed without notice.