

## SINGLE PHASE INVERTER

### SUNZET TL

#### Single-phase On-grid solar inverters range

##### Description



The SUNZET TL combines design and versatility with ease of operation. An outstanding feature of SUNZET TL inverters is their 96% efficiency without transformer.

The SUNZET TL stands out because of its RS-485 communications with the centralised supervision and control system and all its parameters can be configured locally (optional).

The SUNZET TL offers a range of input DC voltages of between 120-500 vdc and IP65 watertightness.



Sunzet 5 TL

##### Features

- > Range of input voltages (120-500 VDC)
- > Maximum power point tracking (MPPT)
- > High energy efficiency, higher than 96%
- > Very low harmonic distortion, THD < 4%
- > Direct mains connection
- > Unlimited parallel connection arrangements
- > Anti-islanding protection with automatic shut down
- > Monitoring from the unit with LCD
- > Protection against: inverse polarity, short-circuits, overvoltages, isolation failure
- > RS-485 communication port (optional)
- > Compact size, light weight
- > Remote SCADA (SWS 200): communications system, parameter display, inverter records control, production data storage etc. (optional)

#### Connectivity and accessories

##### > SWS 200

The SWS 200 Scada system is a platform for monitoring and register variables, check and modify the settings as well as customise all parameters from the SUNZET TL inverters. (optional)

See more information about connectivity and accessories on page 52

on-grid solar plants

mid voltage solar plants

hybrid generation

energy saving

telecom back up

wind energy



NON - STOP POWER



**ELECTRICAL CHARACTERISTICS**

Model	Sunzet TL 2	Sunzet TL 3	Sunzet TL 3,6	Sunzet TL 4	Sunzet TL 5
Reference	20104	20105	20106	20107	20108
Max. output power	2 KW	3 KW	3.6 KW	4 KW	5 KW

**SYSTEM**

Conversion mode	High frequency PWM
Electromechanical method	Low loss transformer (optional)

**DC INPUT**

Nominal DC voltage	360V
Maximum DC voltage	500V
Operating range DC	120-500V
Operating range DC for MPPT	150-450V
No. input circuits	1(14.6A Max. x circuit)    1(22A Max. x circuit)    2(12.2A Max. x circuit)    2(14A Max. x circuit)    2(17.65A Max. x circuit)

**AC OUTPUT**

No. phases/No. wires	1- phase/2- wires or 1 – phase/ 3 – wires (LNG)
Nominal voltage AC	230V
Nominal frequency	50/60 Hz
Nominal output current AC	8.7 A    13 A    15.2 A    17.4 A    21.7 A
Power factor	Over 0.99 (at nominal output current)
European efficiency	96%

**PROTECTION**

Input	Ground fault / DC isolation fault
Output	Over-undervoltage/ Over-under frequency / Islanding
Protection class	IP 65
Anti-islanding detection	Active method: reactive power control

**INTERFACE**

Standard	RS232
Optional	RS485

**ENVIRONMENTAL CHARACTERISTICS**

Temperature	-10°C to +50°C
Relative humidity	0-90% without condensation
Altitude	< 2000m

**MECHANICAL CHARACTERISTICS**

Dimensions (WxHxD) mm	430x455x170	445x510x170
Weight kg	22	29
Cooling	Free convection	

**STANDARDS**

Certificates	CE Marking, UL, VDE
Directives	73/23/CEE-93/68/CEE 2004/108/CEE
Standards	EN50178 EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3 IEC60146

**Countries standards**

USA	UL1741, IEEE1547 FCC
Italy	ENEL
Germany	VDE0126-1-1
Australia	AS/NZS3100:2099, AS/NZS4777.2:2005 AS/NZS4477.3:2005

Power derating protection at low DC input & high room temperature.  
These specifications may be changed without notice.