

### ZIGOR SOLAR TL1

Single-phase On-grid solar inverters range

#### Description



The ZIGOR SOLAR TL1 inverters combine design and versatility with ease of operation. An outstanding feature of these inverters is their 96% efficiency without transformer. The ZIGOR SOLAR TL1 range stands out because of its RS-485 communications with the centralised supervision and control system and all its parameters can be configured locally (optional). They offer a range of input DC voltages of between 120-500 vdc and IP65 watertightness.



ZIGOR SOLAR TL1

#### 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 monitoring system: ZIGOR SWS200: communications system, parameter display, inverter records control, production data storage etc. (Optional)

#### Connectivity and accessories

##### > ZIGOR SWS200

The ZIGOR SWS200 monitoring system is a platform for monitoring and register variables, check and modify the settings as well as customise all parameters from the ZIGOR SOLAR TL1 inverters. (Optional)

on-grid solar plants

mid voltage solar plants

hybrid generation

energy saving

telecom back up

wind energy



**ELECTRICAL CHARACTERISTICS**

Modelo	ZIGOR SOLAR TL1 2	ZIGOR SOLAR TL1 3	ZIGOR SOLAR TL1 3,6	ZIGOR SOLAR TL1 4	ZIGOR SOLAR TL1 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.