

# Single-Phase Grid-Connected Inverter

- Small-scale solar power system for domestic and industrial applications
- Power rating from 1kW to 10kW

### Advanced Technology

- Novel transformerless topology
- Maximum efficiency of 97.5%
- Wide range of MPPT voltage (with two stages)

### Safe and Reliability

- Integrated DC switch
- High protection class IP65
- Comprehensive fault detection

### Flexible Design

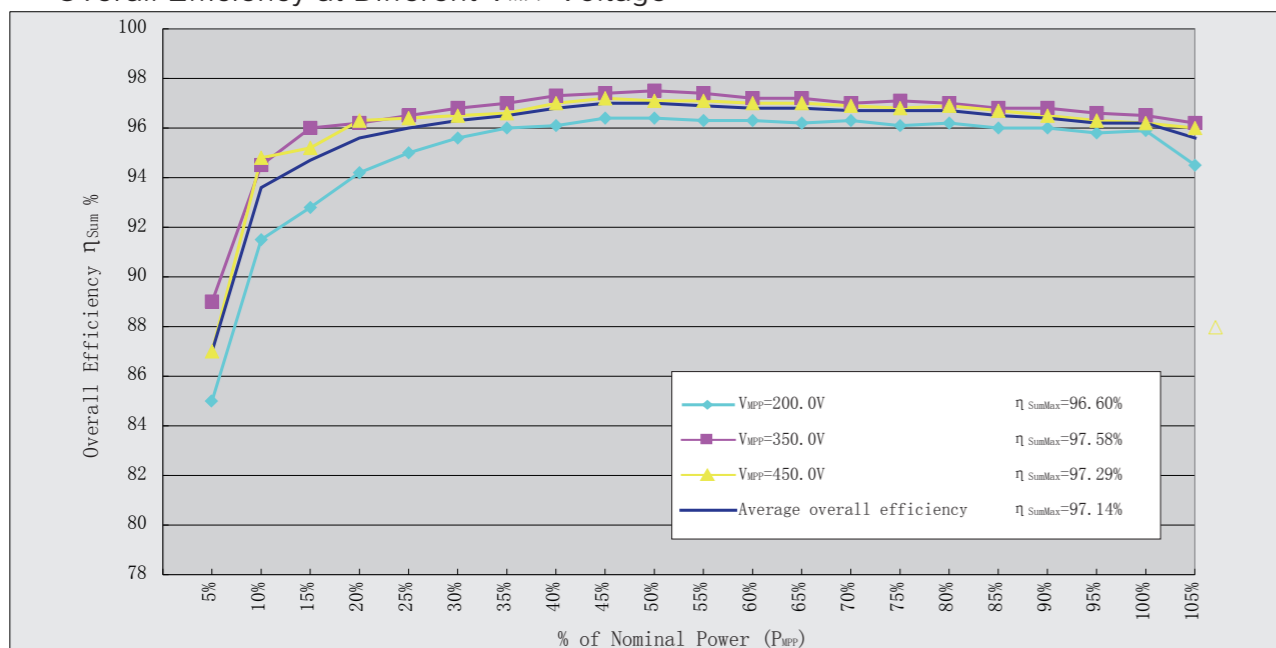
- LCD graphic display for comfortable control
- Wall mounting with standard PV plugs
- RS485 (Ethernet optional) communication

### Certificate and Warranty

5-year warranty, extended to 25 years



Overall Efficiency at Different  $V_{MPP}$  Voltage



## Technical Specifications

Model	SPG3KTLA0	SPG4KTLA0	SPG5KTLA0
<b>DC Input Data</b>			
Max. PV-generator power	3200 W	4200 W	5200 W
Max. DC voltage	550 V	550 V	550 V
MPPT voltage range	175-500 V	200-500 V	225-500 V
Turn-off DC voltage	100 V	100 V	100 V
Max. DC current	17 A	21 A	24 A
Nominal DC current	17 A	21 A	24 A
Number of DC connections	2	2	2
Number of MPPT trackers	1	1	1
DC-connection	MC4 or Amphenol Helios		
DC-switch	Yes, standard		
<b>AC Output Data</b>			
AC connector	Plug-in connector		
Power connection	Single phase		
Nominal AC power	3000 W	4000 W	5000 W
Max. AC power	3000 W	4000 W	5000 W
Nominal AC voltage	195 - 260 V		
Nominal AC frequency	50 / 60 Hz		
Nominal AC current	13 A	17.4 A	21 A
Max. AC current	13 A	17.4 A	21 A
Power factor	$\geq 0.99$	$\geq 0.99$	$\geq 0.99$
THD of AC current	< 3%	< 3%	< 3%
Power consumption at night	< 2 W	< 2 W	< 2 W
Power consumption at standby	< 5 W	< 5 W	< 5 W
<b>Efficiency</b>			
Max. efficiency	97.40%	97.50%	97.50%
Euro efficiency	96.40%	96.50%	96.50%
MPPT adaptation efficiency	> 99%	> 99%	> 99%
<b>Safety Equipment</b>			
DC insulation monitoring	Integrated		
Earth fault protection	Integrated		
Mains monitoring	Integrated		
Earth fault current monitoring	Integrated		
Islanding effect monitoring	Integrated		
<b>General Data</b>			
Dimensions (L*W*H) [mm]	460 * 315 * 175	485 * 315 * 175	485 * 315 * 175
Net weight [kg]	20	21	21
Installation environment	Indoor and outdoor		
Mounting information	Wall mount		
Operating temperature	-20°C to +60°C (up 40°C derating)		
Relative humidity	95%, no condensation		
Site altitude	Up to 2000m without derating above sea level		
IP protection type	IP 65		
Isolation type	Transformerless		
Cooling concept	Free convection	Forced convection	Forced convection
Noise level	< 40 dBA		
LED display	Yes		
LCD display	Graphic		
Computer communication	RS485		
Standard warranty	5 years		