

Overview

The SPS3-6KTL series single-phase on-grid PV inverter adopts advanced MPPT control algorithms, maximizing the conversion of DC power from the PV array into AC power. The energy can be fed into the grid or utilized for self-consumption via CT detection, meeting diverse grid requirements across different regions. It is an ideal solution for residential applications.

Features

High Efficiency

- High yield 110% rating power; 150% PV oversizing
- 2 MPPTs; Max. PV input voltage: 600VDC; Input current per string: 16A

Reliable & Safe

- Natural cooling; Maintenance-free; Ultra-quiet
- IP65 protection for outdoor use
- Built-in Type II SPD
- Optional AFCI function

User-Friendly & Intelligent Monitoring

- Optional LCD display
- Standard USB communication port, WiFi / GPRS (optional)



Model	SPS3KTL	SPS3.6KTL	SPS4KTL	SPS4.6KTL	SPS5KTL	SPS6KTL
PV Input (DC)						
Max. input power	4500W	5400W	6000W	7500W	7500W	9000W
Max. open-circuit voltage	600V					
Start-up voltage	90V					
Rated input voltage	360V					
Max. input current per MPPT	16A					
Max. short-circuit current per MPPT	20A					
MPPT voltage range	70-550V					
Number of MPPTs	1		2			
Number of strings per MPPT	1					
AC Output (AC)						
Rated output power	3000W	3600W	4000W	4600W	5000W	6000W
Max. output power	3300W	3960W	4400W	5060W	5500W	6000W
Rated output current	13.1A	15.7A	17.4A	20.0A	21.7A	26.1A
Max. output current	14.4A	17.3A	19.1A	22.0A	24.0A	28.6A
Rated voltage	230V					
Voltage range	161~276V					
Rated grid frequency	50/60Hz					
THDi	< 3%					
Power factor	≈ 1 (Adjustable from 0.8 leading to 0.8 lagging)					
Efficiency						
Max. Efficiency	97.90%					
European Efficiency	97.00%		97.10%			
Protection						
Basic protection	• PV reverse polarity • PV insulation resistance • PV string current monitoring • AC output overvoltage • AC output overcurrent • AC output short circuit • Anti-islanding • Grid monitoring • Residual current (RCD) detection					
AFCI	Optional					
DC switch	Integrated					
SPD	DC Type II / AC Type II					
Environmental Parameters						
Operating temperature	-25°C to 60°C					
Relative humidity	0~100%					
Altitude	3,000m (> 2,000m Derating)					
Ingress protection	IP65					
Mechanical Parameters						
Dimensions (L×W×H) (mm)	369×389×140					
Weight (kg)	11.5		12			
Others						
Self-consumption (Night)	< 1W					
Topology	Transformer-less					
Cooling method	Natural					
Display	LED/LCD (Optional)					
PV input connector	MC4 (4mm ² –6mm ²)					
AC output connector	Plug-and-play connectors (Up to 6mm ²)					
Certificate	IEC/EN 62109; IEC/EN 61000; EN 50549; IEC 61727; IEC 62116; EN 62920					

