Three-phase On-grid String Inverter

SPI512K-S-H

Excellent Performance

- Extended full-load MPPT voltage range for long-string PV designs
- 6 MPPTs with 105A high-current capability and full PV module compatibility
- Upgraded SiC technology improves power generation efficiency by 0.2%

Secure Reliable

- Comprehensive insulation monitoring from PV panels to transformer
- Self-cleaning and air-duct design with night time anti-icing for higher power and reduced

Intelligent O&M

- DC switch + electronic dual-action smart disconnect
- Active over-temperature protection for AC/DC wiring reliability
- Multi-scenario for full-dimension lightning protection against lightning strikes

Grid Friendly

- Grid adaptive control stabilizes grid-tied operation
- Panoramic monitoring enables fast grid dispatch response



Technical Specification

Items	SPI512K-S-H
DC Input (PV)*	
Max. PV input voltage	1500Vdc
Rated input voltage	1200Vdc
Max. current per MPPT	105A
No. of MPPTs	6
No. of PV strings per MPPT	6
MPPT voltage range	500~1500Vdc
Starting voltage	550Vdc
Max. short-circuit current	6*155A
AC Output (On-grid)	
Rated AC output power	465kW
Max. output power	512kW
Rated AC output voltage	1000Vac/3W3P+PE
Rated output current	268.4A
Max. output current	295.6A
Rated grid frequency	50Hz/60Hz
Grid frequency range	45~55Hz/55~65Hz
Power factor	>0.99 (rated power)
Adjustable power factor	0.8 (leading)~0.8 (lagging)
THDi	<3% (rated power)
Efficiency*	
Max. efficiency	99.12%
MPPT efficiency	99.9%
Function and Protection	
Continuous LVRT/HVRT	Yes
DC (PV) reversed connection	Yes
AC short circuit protection	Yes
Temperature protection	Yes
Surge protection	Yes
Anti-islanding	Yes
Terminal temperature protection	Yes
PID protection and repair	Yes (Optional)
General	
Dimensions (W*H*D)	1250*870*420mm
Weight*	149kg
IP grade	IP66
Self-consumption at night	<5W
Cooling type	Intelligent forced air cooling
Altitude	5000m(>4000m derating)
Operating temperature	-40~60ºC
Relative humidity	0~100%
Display	LED indicator, WIFI+APP(optional)
AC terminal	OT/DT Terminal
Installation method	Wall-mounted
Communication	RS485, PLC (Optional), Wi-Fi (Optional)
Compliance	EN 50549-2, EN IEC 61000-6-2/4

- *Efficiency data under laboratory test conditions.
- *The inverter's maximum withstand operating voltage can support up to 1600 V.
- *Weight data under laboratory test and no accessories.