

**12K**

Energy Storage Inverters

S6-EH3P12K-H-EU(21A)

Three Phase | High Voltage

Unique Advantages

- ★ Supports up to 4 MPPTs, suitable for multi-orientation and occlusion, to improve power generation

Leading Advantages

- Supports PV input up to 160% of the inverter's rated DC power, maximising solar utilisation
- Supports up to 21A PV input current, compatible with future higher-power PV modules
- 160% overload for 60s in off-grid mode, ensuring stable startup of motors, water pumps and air conditioner
- Seamless on/off-grid switching in under 10ms, guaranteeing an uninterrupted power supply
- Support three-phase unbalanced output, each phase supports output max. 50% rated inverter power
- Supports existing PV grid-tied power connection for export control and off-grid use
- Support grid side generator access, adapting to scenarios with insufficient power supply
- Support max 6 units in parallel, for expanding system capacity
- Customizable battery backup level for uninterrupted power
- PV only off grid mode, to reduce the initial investment cost
- SolisCloud: Smart remote control, AI optimisation, and instant troubleshooting - all in one platform
- Ingress protection IP66, adapting to harsh ambient conditions

DATASHEET

Models	12K
Input DC (PV side)	
Recommended max. PV array size	24 kW
Max. usable PV input power	19.2 kW
Max. input voltage	1000 V
Rated voltage	600 V
Start-up voltage	160 V
MPPT voltage range	200 - 850 V
Max. input current	4 x 21 A
Max. short circuit current	4 x 31.5 A
MPPT number / Max. input strings number	4 / 4
Battery	
Battery type	Li-ion
Battery voltage range	120 - 700 V
Max. charge / discharge power	12 kW
Max. charge / discharge current	50 A
Communication	CAN / RS485
Output AC (Grid side)	
Rated output power	12 kW
Max. apparent output power	12 kVA
Rated grid voltage	3/N/PE, 380 V / 400 V
Rated grid frequency	50 Hz / 60 Hz
Rated grid output current	18.2 A / 17.3 A
Max. output current	18.2 A / 17.3 A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)
THDi	< 3%
Input AC (Grid side)	
Input voltage range	304 - 437 V / 320 - 460 V
Max. input current	27.3 A / 26.0 A
Rated grid frequency	50 Hz / 60 Hz
Frequency range	45 - 55 Hz / 55 - 65 Hz
Output AC (Back-up)	
Rated output power	12 kW
Max. apparent output power	1.6 times of rated power, 60 s
Back-up switch time	< 10 ms
Rated output voltage	3/N/PE, 380 V / 400 V
Rated frequency	50 Hz / 60 Hz
Rated output current	18.2 A / 17.3 A
THDv (@linear load)	< 3%
Efficiency	
Max. efficiency	97.85%
EU efficiency	97.51%
BAT charged by PV max. efficiency	98.31%
BAT charged / discharged to AC max. efficiency	97.50%
Protection	
Anti-islanding protection	Yes
Output over current protection	Yes
Short circuit protection	Yes
Surge protection	DC Type II / AC Type II (optional)
Integrated DC switch	Yes
DC reverse-polarity protection	Yes
Battery reverse protection	Yes
General Data	
Max. power per phase	50% rated power
Dimensions (W x H x D)	563 x 412 x 230 mm
Weight	34.5 kg
Topology	Transformerless
Self-consumption (night)	< 25 W
Operating ambient temperature range	-25 ~ +60°C
Relative humidity	0 - 100%
Ingress protection	IP66
Noise emission (typical)	< 46.9 dB(A)
Cooling concept	Natural cooling
Max. operation altitude	4000 m
Grid connection standard	G98 or G99, VDE-AR-N 4105/VDE V 0124, EN 50549-1, VDE 0126/UTE C 15/VFR:2019, RD 1699/RD 244/UNE 206006/UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA, EK18
Safety / EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-3
Features	
PV connection	MC4 connector
Battery connection	Quick connection plug
AC connection	Quick connection plug
Display	LED indicator & Bluetooth + APP
Communication	CAN, RS485, Optional: Wi-Fi, Cellular, LAN