

## Models:

S6-EH3P20K

-H



## Features:

- Generator-compatible to extend backup duration during grid power outage
- Supports dual backup ports for intelligent control of critical and non-critical loads
- SG heat pump compatibility
- Supports a maximum input current of 20A, making it ideal for all high-power PV modules of any brand
- Supports AC voltage detection of grid and generator output to prevent damage to generators from reverse current from the grid
- Supports peak shaving features
- Supports Unbalanced and Half-Wave Loads on both the Grid and Backup Port

**S6-EH3P 20K-H**

Models	20KW
<b>Input DC (PV side)</b>	
Recommended max. PV array size	40 kW
Max. usable PV input power	32 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 × 20 A
Max. short circuit current	4 × 30 A
MPPT number / Max. input strings number	4 / 4
<b>Battery</b>	
Battery type	Li-ion
Battery voltage range	120 - 800 V
Max. charge / discharge power	20 kW
Max. charge / discharge current	50 A
Communication	CAN / RS485
<b>Output AC (Grid side)</b>	
Rated output power	20 kW
Max. apparent output power	20 kVA
Rated grid voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V
Rated grid frequency	50 Hz / 60 Hz
Rated grid output current	30.4 A / 28.9 A
Max. output current	30.4 A / 28.9 A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)
THDi	< 3%
<b>Input AC (Grid side)</b>	
Input voltage range	304 - 437 V / 320 - 460 V
Max. input current	45.6 A / 43.3 A
Rated grid frequency	50 Hz / 60 Hz
Frequency range	45 - 55 Hz / 55 - 65 Hz
<b>Input Generator</b>	
Max. input power	20 kW
Max. input current	30.4 A / 28.9 A
Rated input frequency	50 Hz / 60 Hz
<b>Output AC (Back-up)</b>	
Rated output power	20 kW
Max. apparent output power	1.6 time of rated power, 10 s
Back-up switch time	< 10 ms
Rated output voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V
Rated frequency	50 Hz / 60 Hz
Rated output current	30.4 A / 28.9 A
THDv (@linear load)	< 3%
<b>Efficiency</b>	
Max. efficiency	97.7%
EU efficiency	97.5%
BAT charged by PV max. efficiency	98.5%
BAT charged / discharged to AC max. efficiency	97.2%
<b>Protection</b>	
Anti-islanding protection	Yes
Output over current protection	Yes
Short circuit protection	Yes
Integrated AFCI 2.0	Optional
Integrated DC switch	Yes
DC reverse-polarity protection	Yes
PV over voltage protection	Yes
Battery reverse protection	Yes
<b>General Data</b>	
Max. allowable phase imbalance (grid & back-up)	100%
Max. power per phase (grid & back-up)	40% rated power
Dimensions (W × H × D)	563 × 546 × 250 mm
Weight	35.2 kg
Topology	Transformerless
Self-consumption (night)	< 25 W
Operating ambient temperature range	-25 ~ +60°C
Relative humidity	0 - 95%
Ingress protection	IP66
Noise emission (typical)	< 65 dB(A)
Cooling concept	Intelligent fan-cooling
Max. operation altitude	2000 m
Grid connection standard	EN 50549-1/-10, VDE4105, CEI 0-21, CEI 0-16, NC-RFG TypeB, NRS 097-2-1, LTU-1, G99, PEA
Safety / EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4
<b>Features</b>	
PV connection	MC4 connector
Battery connection	OT terminal
AC connection	OT terminal
Display	7.0" LCD display & Bluetooth + APP
Communication	CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN