

**12-20K**

# SOLARATOR SERIES

Operates Seamlessly with Generator: Experience Uninterrupted Power, Even in Areas with Grid Instability

## S6-EH3P(12-20)K-H

Three Phase | High Voltage



### Smart Energy Management

- AI intelligently manages charging and discharging based on TOU (Time-of-Use) tariffs
- Seamless integration with VPP and EMS platforms for enhanced energy optimization
- Built-in control for SG-ready heat pumps

### High Performance

- Supports three-phase unbalanced output, allowing up to 40% of rated inverter power per phase
- 160% PV input capacity to maximize solar energy utilization
- Switching time < 10ms

### Flexible & Scalable

- Compatible with mainstream lithium batteries
- Easily expand system capacity using parallel connections and AC coupling

### Simple & Fast Configuration

- 7-inch large screen uses U.S.-made ZEITLER industrial-grade components
- Bluetooth app support for quick and easy setup

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# DATASHEET

Models	12K	15K	20K
<b>Input DC (PV side)</b>			
Recommended max. PV array size	24 kW	30 kW	40 kW
Max. usable PV input power	19.2 kW	24 kW	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	12 kW	15 kW	20 kW
Max. charge / discharge current		50 A	
Communication		CAN / RS485	
<b>Output AC (Grid side)</b>			
Rated output power	12 kW	15 kW	20 kW
Max. apparent output power	12 kVA	15 kVA	20 kVA
Rated grid voltage		3/N/PE, 220 V / 380 V, 230 V / 400 V	
Rated grid frequency		50 Hz	
Rated grid output current	18.2 A / 17.3 A	22.8 A / 21.7 A	30.4 A / 28.9 A
Max. output current	18.2 A / 17.3 A	22.8 A / 21.7 A	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	27.3 A / 26.0 A	34.2 A / 32.5 A	45.6 A / 43.3 A
Rated grid frequency		50 Hz	
Frequency range		45 - 55 Hz / 55 - 65 Hz	
<b>Input Generator</b>			
Max. input power	12 kW	15 kW	20 kW
Max. input current	18.2 A / 17.3 A	22.8 A / 21.7 A	30.4 A / 28.9 A
Rated input frequency		50 Hz	
<b>Output AC (Back-up)</b>			
Rated output power	12 kW	15 kW	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	
Rated output current	18.2 A / 17.3 A	22.8 A / 21.7 A	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 - 100%	
Ingress protection		IP66	
Noise emission (typical)		< 65 dB(A)	
Cooling concept		Intelligent fan-cooling	
Max. operation altitude		4000 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	