


**12-20K**

## SOLARATOR SERIES

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

**S6-EH3P(12-20)K-H-AU**

Three Phase | High Voltage



- Supports up to 4 MPPTs, suitable for multi-orientation and occlusion, to improve power generation
- Supports PV input up to 160% of the inverter's rated DC power, maximising solar utilisation
- Supports up to 20A PV input current, compatible with the latest high-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 uninterrupted power supply
- Support three-phase unbalanced output, each phase supports output max. 40% rated inverter power
- Supports both DC and AC coupling—making it easy to expand PV, charge batteries, and power loads reliably, even in off-grid conditions
- Multiple methods of generator connection and auto control, enabling flexible local deployment

- Support SG-Ready heat pump connectivity for more intelligent home applications
- Support max 6 pcs in parallel, expanding system capacity
- Smart Load management with prioritisation, extending backup time for critical loads
- Customizable battery backup level for uninterrupted power
- PV only off grid mode, to reduce the initial investment cost
- AI-Powered & VPP-Ready - maximise savings, unlock additional income
- 7-inch industrial-grade LCD screen, providing a larger, user-friendly interface for local operation
- Ingress protection IP66, adapting to harsh ambient conditions

### AUSTRALIA

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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. input voltage                             |        | 1000 V   |        |
| Rated voltage                                  |        | 600 V  |        |
| Start-up voltage                               |        | 160 V  |        |
| MPPT voltage range                             |        | 200 - 850 V  |        |
| Max. input current                             |        | 4 x 20 A   |        |
| Max. short circuit current                     |        | 4 x 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, 230 V / 400 V                                |        |
| Rated grid frequency                           |        | 50 Hz  |        |
| Rated grid output current                      | 17.3 A | 21.7 A   | 28.9 A |
| Max. output current                            | 17.3 A | 21.7 A   | 28.9 A |
| Power factor                                   |        | > 0.99 (0.8 leading - 0.8 lagging)                   |        |
| THD <sub>i</sub>                               |        | < 3%   |        |
| <b>Input AC (Grid side)</b>                    |        |  |        |
| Input voltage range                            |        | 320 - 460 V  |        |
| Max. input current                             | 26.0 A | 32.5 A   | 43.3 A |
| Rated grid frequency                           |        | 50 Hz  |        |
| Frequency range                                |        | 45 - 55 Hz   |        |
| <b>Input Generator</b>                         |        |  |        |
| Max. input power                               | 12 kW  | 15 kW  | 20 kW  |
| Max. input current                             | 17.3 A | 21.7 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, 230 V / 400 V                                |        |
| Rated frequency                                |        | 50 Hz  |        |
| Rated output current                           | 17.3 A | 21.7 A   | 28.9 A |
| THD <sub>v</sub> (@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>                              |        |  |        |
| DC reverse-polarity protection                 |        | Yes  |        |
| Short circuit protection                       |        | Yes  |        |
| Output over current protection                 |        | Yes  |        |
| Anti-islanding protection                      |        | Yes  |        |
| Integrated DC switch                           |        | Yes  |        |
| PV over voltage protection                     |        | Yes  |        |
| Battery reverse protection                     |        | Yes  |        |
| <b>General Data</b>                            |        |  |        |
| Max. power per phase                           |        | 40% rated power                                      |        |
| Dimensions (W x H x D)                         |        | 563 x 546 x 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                       |        | AS 4777.2:2020                                       |        |
| 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                             |        | lever terminal                                       |        |
| AC connection                                  |        | OT terminal  |        |
| Display  |        | 7.0" LCD display & Bluetooth + APP                   |        |
| Communication                                  |        | CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN |        |
| Country of manufacture                         |        | China  |        |