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# DATASHEET

# S6-EH1P(3-8)K-L-PLUS

| Models | 3K | 3.6K | 5K | 6K | 8K |
|---|---|---|---|---|---|
| **Input DC (PV side)** | | | | | |
| Recommended max. PV array size | 6 kW | 7.2 kW | 10 kW | 12 kW | 16 kW |
| Max. usable PV input power | 4.8 kW | 5.76 kW | 8 kW | 9.6 kW | 12.8 kW |
| Max. input voltage | 500 V | | | | |
| Rated voltage | 330 V | | | | |
| Start-up voltage | 90 V | | | | |
| MPPT voltage range | 90 - 435 V | | | | |
| Max. input current | 16 A / 16 A | | | | 32 A / 32 A |
| Max. short circuit current | 20 A / 20 A | | | | 40 A / 40 A |
| MPPT number / Max. input strings number | 2 / 2 | | | | 2 / 4 |
| **Battery** | | | | | |
| Battery type | Li-ion / Lead-acid | | | | |
| Battery voltage range | 40 - 60 V | | | | |
| Max. charge / discharge power | 3 kW | 3.6 kW | 5 kW | 6 kW | 8 kW |
| Max. charge / discharge current | 70 A | 80 A | 112 A | 135 A | 190 A |
| Communication | CAN / RS485 | | | | |
| **Output AC (Grid side)** | | | | | |
| Rated output power | 3 kW | 3.6 kW | 5 kW | 6 kW | 8 kW |
| Max. apparent output power | 3 kVA | 3.6 kVA | 5 kVA | 6 kVA | 8 kVA |
| Operation phase | L/N/PE | | | | |
| Rated grid voltage | 220 V / 230 V | | | | |
| Rated grid frequency | 50 Hz / 60 Hz | | | | |
| Rated grid output current | 13.7 A / 13.1 A | 16.4 A / 15.7 A | 22.8 A / 21.8 A | 27.3 A / 26.1 A | 36.4 A / 34.8 A |
| Max. output current | 13.7 A / 13.1 A | 16.4 A / 15.7 A | 22.8 A / 21.8 A | 27.3 A / 26.1 A | 36.4 A / 34.8 A |
| Power factor | > 0.99 (0.8 leading - 0.8 lagging) | | | | |
| THDi | < 2% | | | | |
| **Input AC (Grid side)** | | | | | |
| Input voltage range | 187 - 253 V | | | | |
| Max. input current | 21 A | 25 A | 32 A | 40 A | 50 A |
| Frequency range | 45 - 55 Hz / 55 - 65 Hz | | | | |
| **Output AC (Back-up)** | | | | | |
| Rated output power | 3 kW | 3.6 kW | 5 kW | 6 kW | 8 kW |
| Max. apparent output power | 2 times of rated power, 10 s | | | | |
| Back-up switch time | < 4 ms | | | | |
| Rated output voltage | L/N/PE, 220 V / 230 V | | | | |
| Rated frequency | 50 Hz / 60 Hz | | | | |
| Rated output current | 13.7 A / 13.1 A | 16.4 A / 15.7 A | 22.8 A / 21.8 A | 27.3 A / 26.1 A | 36.4 A / 34.8 A |
| Max. AC passthrough current | 35 A | 35 A | 40 A | 40 A | 50 A |
| THDv (@linear load) | < 2% | | | | |
| **Efficiency** | | | | | |
| Max. efficiency | 96.2% | | | | |
| EU efficiency | 96.1% | | | | |
| BAT charged by PV / AC max. efficiency | 95.3% / 93.9% | | | | |
| BAT discharged to AC max. efficiency | 93.8% | | | | |
| **Protection** | | | | | |
| Ground fault monitoring | Yes | | | | |
| DC reverse-polarity protection | Yes | | | | |
| Integrated AFCI 2.0 | Optional | | | | |
| Protection class / Over voltage category | I / II (PV and BAT), III (MAINS and BACKUP and GEN) | | | | |
| **General Data** | | | | | |
| Dimensions (W × H × D) | 335 × 560 × 253 mm | | | | |
| Weight | 23 kg | | | 23.5 kg | |
| Topology | High frequency isolation (for battery) | | | | |
| Operating ambient temperature range | -40 ~ + 60°C | | | | |
| Ingress protection | IP66 | | | | |
| Cooling concept | Natural cooling | | | Intelligent fan-cooling | |
| Max. operation altitude | 3000 m | | | | |
| Grid connection standard | NRS 097-2-1, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA, NBR 16149, NBR 16150 | | | | |
| Safety / EMC standard | IEC/EN 62109-1/-2, EN 61000-6-2/-3 | | | | |
| **Features** | | | | | |
| DC connection | MC4 plug (PV port) / Terminal Block (BAT port) | | | | |
| AC connection | Terminal Block | | | | |
| Display | 7.0" LCD display & Bluetooth + APP | | | | |
| Communication | RS485, CAN, Optional: Wi-Fi, GPRS, LAN | | | | |