



K SERIES

SINGLE PHASE INVERTER

Harness the power of the sun day and night with the ground-breaking range of Hybrid & AC inverters from Lightspeed. Full of advanced features and compatible with our very own range of high-voltage batteries, the hybrid range from Lightspeed is a new class of Inverter.



Lightspeed storage solutions are available with advanced and intuitive app based remote control and monitoring functionality.



Easy Installation

Flexible configuration, plug and play set-up, built-in fuse protection.



High Voltage

Includes high-voltage batteries for maximum round-trip efficiency.



IP65 Rated

Engineered to last with maximum flexibility. Suitable for outdoor installation.



Remote Monitoring

Monitor your system remotely via smartphone app or web portal.



up to
10.5kW
charge/
discharge

BATTERY EXPANSION EASY UPGRADE



Expand your system easily by simply adding additional batteries. Seven batteries can be installed in series, providing up to 33.24kWh of storage capacity.

TECHNICAL SPECIFICATIONS

| Model | KH7 KA7 | KH8 KA8 | KH9 KA9 | KH10 KA10 | KH10.5 KA10.5 |
|--|-----------------------------|------------|---|----------------------------------|------------------|
| ELECTRICAL CHARACTERISTICS | | | | | |
| Battery Type | | | Li-Ion | | |
| Battery Voltage Range [V] | | | 85 ~ 480 | | |
| Recommended Battery Voltage [V] | | | 300 | | |
| Max. Charge Current [A] | | | 50 | | |
| Max. Discharge Current [A] | | | 50 | | |
| Communication Interfaces | | | CAN / RS485 | | |
| Reverse Connect Protection | | | YES | | |
| INPUT PV (FOR KH ONLY) | | | | | |
| Max. Recommended DC Power [W] | 10500 | 12000 | 13500 | 15000 | 15000 |
| Max. DC Voltage [V] | | | 600 | | |
| Norminal DC Operating Voltage [V] | | | 360 | | |
| Max. Input Current (Input A / Input B) [A] | 16 / 16 / 16 ^[1] | | | 16 / 16 / 16 / 16 ^[1] | |
| Max. Short Circuit Current (Input A / Input B) [A] | 20 / 20 / 20 | | | 20 / 20 / 20 / 20 | |
| Max. Inverter Backfeed Current to the Array [mA] | | | 0 | | |
| MPPT Voltage Range [V] | | | 80 - 500 | | |
| Start-up Voltage [V] | | | 75 | | |
| No. of MPP Trackers | 3 | | | 4 | |
| Strings Per MPP Tracker | | | 1 | | |
| DC Disconnection Switch | | | Optional | | |
| OUTPUT AC | | | | | |
| Norminal AC Power [VA] | 7000 | 8000 | 9000 | 10000 | 10500 |
| Max. Apparent AC power [VA] | 7700 | 8800 | 9900 | 10500 | 10500 |
| Rated Grid Voltage (AC Voltage Range) [V] | | | 220 / 230 / 240 (180 - 270) | | |
| Rated Grid Frequency [Hz] | | | 50 / 60, ±5 | | |
| Norminal AC Current [A] | 30.4 | 34.8 | 39.1 | 43.5 | 45.7 |
| Max. AC Current [A] | 33.5 | 38.3 | 43.0 | 45.7 | 47.7 |
| Displacement Power Factor | | | 0.8 Leading to 0.8 Lagging | | |
| Total Harmonic Distortion (THDi, Rated Power) [%] | | | <3 | | |
| INPUT AC | | | | | |
| Max AC Power [VA] | 14000 | 16000 | 18000 | 18000 | 18000 |
| Max. AC Current [A] | 60.9 | 69.6 | 78.3 | 78.3 | 78.3 |
| Rated Grid Voltage (AC Voltage Range) [V] | | | 220 / 230 / 240 (180 - 270) | | |
| Rated Grid Frequency [Hz] | | | 50 / 60, ±5 | | |
| EPS OUTPUT (WITH BATTERY) | | | | | |
| Max. EPS Power [VA] | 7000 | 8000 | 9000 | 10000 | 10500 |
| EPS Rated Voltage [V], Frequency [Hz] | | | 220/230/240, 50 / 60 | | |
| Max. EPS Current [A] | 31.8 | 36.4 | 40.9 | 45.5 | 47.7 |
| EPS Peak Power [W] | 10000, 60s | | | 12000, 60s | |
| Switch Time [ms] | | | <20 | | |
| Total Harmonic Distortion (THDv, Linear Load) [%] | | | <2 | | |
| Parallel Operation | | | Yes @max10PCS | | |
| EFFICIENCY | | | | | |
| MPPT Efficiency [%] | | | 99.90 | | |
| Euro-efficiency [%] | | | 97.40 | | |
| Max. Efficiency [%] | | | 97.80 | | |
| Max. Battery Charge Efficiency (PV to BAT) (@Full Load) [%] | | | 98.50 | | |
| Max. Battery Discharge Efficiency (BAT to AC) (@Full Load) [%] | | | 97.00 | | |
| PROTECTION | | | | | |
| PV Reverse Polarity Protection | | | YES | | |
| Batter Reverse Protection | | | YES | | |
| Anti-islanding Protection | | | YES | | |
| Output Short Protection | | | YES | | |
| Leakage Current Protection | | | YES | | |
| Insulation Resistor Detection | | | YES | | |
| Over-current Protection / Over-temperature Protection | | | YES | | |
| Over Voltage Category | | | III (AC side), II (DC side) | | |
| AC/DC Surge Protection | | | Type II / Type II | | |
| AFCI Protection | | | Optional | | |
| POWER CONSUMPTION | | | | | |
| Standby Consumption [W] (Idle) | | | <15 | | |
| STANDARD | | | | | |
| Safety | | | IEC62109-1 / IEC62109-2 / IEC 62477-1 | | |
| EMC | | | EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3 | | |
| Certification | | | G99 / NRS 097-2-1 and so on | | |
| ENVIRONMENT LIMIT | | | | | |
| Ingress Protection | | | IP65 | | |
| Protective Class | | | Class I | | |
| Operating Temperature Range [°C] | | | -25 ~ +60 (Derating at +45) | | |
| Humidity [%] | | | 0 ~ 95 (Non-condensing) | | |
| Altitude [m] | | | <2000 | | |
| Storage Temperature [°C] | | | -40 ~ +70 | | |
| Noise Emission (Typical) [dB] | | | <30 | | |
| DIMENSION AND WEIGHT | | | | | |
| Dimensions (W * H * D) [mm] | | | 450*527*208 | | |
| Weight [kg] | | | 29 (KH) / 27.5 (KA) | | |
| Cooling Concept | | | Natural | | |
| Topology | | | Non-isolated | | |
| Communication | | | Meter(Optional), WIFI, 4G (Optional), DRM, USB, CT, RS485 | | |
| LCD Display | | | Backlight 16*4 Character | | |

* More technical characteristics are available on demand and customized.

[1] The maximum generating power of each pv string is limited to 3300 watts.