



5K-1P-N Spec Sheet



Battery Input Data (Optional)	
Type	Lead-Acid or Li-Ion
Nominal DC Input	48V
Capacity	50 — 9900Ah
Voltage Range	40V-60V
Continuous Battery Charging Output	120A
Charging Curve	3-Stage w/ Equalization
Grid to Batt Charging Efficiency	96.0%
External Temperature Sensor	Included
Current Shunt for Accurate % SOC	Integrated
External Gen Start Based on Voltage or %SOC	Integrated
Communication to Lithium Battery	CanBus & RS485

Solar String Input Data	
Max Allowed PV Power	10,400W
PV Input Voltage	370V (100~500V)
PV Input Current	20A + 20A
Starting Voltage / Min Voltage	150V
Number of MPPT / Range (V)	2 125-425V
Solar Strings Per MPPT	2 + 2
MPPT Efficiency	99.90%

General	
Dimensions (H x W x D)	22.8 x 13 x 9.1 in
Weight	51lbs (62lbs package)
Enclosure	IP65 / NEMA 3R
Ambient Temperature	-25~60°C, >45°C De-rating
Noise	<30 dB
Installation Style	Wall-Mounted
Wi-Fi & LAN Communication	Included
Standard Warranty	10 Years

AC Output Data	
Grid Type (Single Phase only)	120V 1P
Rated AC Output	4,800W
Peak Power (Off-Grid)	10,000W 10S
Rated AC Output Current (A)	40 A
Parallel Stacking	Yes - Up to 8
Frequency	60/50Hz
Max continuous AC passthrough (A)	50A
Max Efficiency	97.6%
Idle Consumption Typical—No Load	60W
Sell Back Power Modes	Limited to Household/Fully Grid-Tied
Design (DC to AC)	Transformerless DC
Response Time (Grid-Tied to Off-Grid)	5ms
Power Factor	+/- 0.8 - 1.0

Protections & Certifications	
PV Input Lightning Protection	Yes
Grid Sell Back — UL1741-2010/2018, IEE-E1547a-2003/2014, FCC 15 Class B	Yes
Anti-Islanding Protection	Integrated
PV String Input Reverse Polarity Detection	Integrated
PV Arc Fault Detection — NEC 690.11	Integrated
Insulation Resistor Detection	Integrated
Residual Current Monitoring Unit	Integrated
Output Over Current Protection	Integrated
Output shorted Protection	Integrated
Surge Protection	DC Type II / AC Type II