



Datasheet

UL: Sol-Ark-12K-P

Input Data (PV)

Max. Allowed PV Power (STC)	13,000W
Nominal Voltage Range	175 - 425V
Startup Voltage	125V
Max. Input Voltage	500V
Max. Input Current per MPPT	20A (self-limiting)
No. of MPP Trackers	2
No. of PV Strings per MPPT	2
Max. AC Coupled Input	9,600W

Output Data (AC)

Nominal AC Voltage	120/240V, 120/208V, 220V
Grid Frequency	50 / 60Hz
Real Power, max continuous	9,000W ⁽¹⁾
Max. Output Current	37.5A
Peak Apparent Power (10s, off-grid)	16,000VA @ 240V
Peak Apparent Power (100ms, off-grid)	25,000VA @ 240V
Max Output Fault Current (100ms)	104A
Max. Grid Passthrough Current	63A
Power Factor Output Range	+/- 0.9 adjustable
Backup Transfer Time	4ms
CEC Efficiency	96.5%
Max Efficiency	97.5%
Design (DC to AC)	Transformerless DC
Stackable	Up to 9 in parallel

Battery Input Data (DC)

Battery Technologies	Lithium / Lead Acid
Nominal DC Voltage	48V
Operating Voltage Range	43 - 63V
Capacity	50 – 9900Ah
Max. Battery Charge / Discharge Current	185A
Charging Controller	3-Stage with Equalization
Grid to Battery Charging Efficiency	96.0%
External Temperature Sensor	Included
Current Shunt for Accurate % SOC	Integrated
Automatic Generator Start	Integrated
Communication to Lithium	CANBus & RS485

General Data

Dimensions (H x W x D)	750 x 450 x 254 mm / 29.5 x 17.7 x 10 in
Weight	35.4 kg / 78 lb.
Enclosure	IP65 / NEMA 3R
Ambient Temperature	-25~55°C, > 45°C Derating
Noise	< 30 dB
Idle consumption - No Load	60W
Wi-Fi & LAN Communication	Included
Standard Warranty	10 Years

Protection and Certifications

Electronics Certified Safety by SGS Labs to NEC & UL Specs - NEC 690.4B & NEC 705.4/6	Yes
Grid Sell Back – UL1741-2010/2018, IEEE1547a 2003/2014, FCC 15 Class B, UL1741SB, CA Rule 21, HECO Rule 14H	Yes
PV DC Disconnect Switch – NEC 240.15	Integrated
Ground Fault Detection – NEC 690.5	Integrated
PV Rapid Shutdown Control – NEC 690.12	Integrated
PV Arc Fault Detection – NEC 690.11	Integrated
PV Input Lightning Protection	Integrated
PV String Input Reverse Polarity Protection	Integrated
AC Output Breaker - 63A	Integrated
250A Battery Breaker / Disconnect	Integrated
Surge Protection	DC Type II / AC Type II