



Sol-Ark Home Energy Solutions



A global energy technology leader with over 6 generations of hybrid inverters

Deep engineering expertise in smart energy solutions

A track record of results. For over a decade, Sol-Ark has been solving complex energy challenges with innovation and technology

Powered by a vast ecosystem including thousands of distributors, installers, EPCs, integrators, and battery manufacturers

Trusted by global Fortune 500 companies in telecommunications, retail, big tech, restaurants, and the largest space agency in the world

Sol-Ark-8K-48-ST

Input Data (PV)	
Max. Allowed PV Power (STC)	11,000W
Nominal Voltage Range	175 – 425V
Startup Voltage	125V
Max. Input Voltage	500V
Max. Input Current per MPPT	18A (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	8,000W
Max. Output Current	33A
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	No
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