



Sol-Ark

5K-P

Spec Sheet



Battery (optional)		Output Power 5000W	
Type	Lead-Acid or Li-Ion		
Nominal DC Input	48V		
Capacity	50 — 9900Ah		
Voltage Range	43.0 — 63.0V		
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		Input Power 5000W	
Max Allowed PV Power	3250W + 3250W = 6500W		
Max PV Power Delivered to Battery & AC Outputs	5000W		
Max DC Voltage (Voc)	500V @ 18A, 450V @ 20A		
MPPT Voltage Range	150-425V		
Starting Voltage	125V		
Number of MPPT	2		
Max Solar Strings Per MPPT	2		
Max DC Current per MPPT (Self Limiting)	10A		
Max AC Coupled Input (Micro/String Inverters)	9600W		

General	
Dimensions (H x W x D)	30.0" x 18.3" x 10.0"
Weight	78 lbs
Enclosure	NEMA 3R
Ambient Temperature	-25-55°C, >45°C Derating
Installation Style	Wall-Mounted
Wi-Fi & LAN Communication	Included
Standard Warranty (verified by HALT Testing)	5 Years

AC Output Power 5kW On-Grid & Off-Grid	
Connections	120/240/208V Split Phase
Continuous AC Power to Grid (On-Grid)	5000W 20.8A-L (240V)
Continuous AC Power to Load (Off-Grid)	5000W 20.8A-L (240V)
Surge AC Power 10sec (Load)	16,000VA L-L (240V)
Surge AC Power 100ms (Load)	25,000VA L-L(240V)
Parallel Stacking	No
Frequency	60/50Hz
Continuous AC Power with Grid or Generator (Pass-through Power)	15120W 63A L-L (240V) 7560W 63A L-N (120V)
CEC Efficiency	96.5% (Peak 97.5%)
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)	4ms
Power Factor	+/- 0.9 - 1.0

Protections & 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, IEE-E1547a-2003/2014, FCC 15 Class B, UL1741SA, 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 Breakers - 63A	Integrated
250A Battery Breaker / Disconnect	Integrated
Surge Protection	DC Type II / AC Type II