



# Sol-Ark

## 12K-P

### Spec Sheet



Battery (optional)		Output Power 9000W	
Type		Lead-Acid or Li-Ion	
Nominal DC Input		48V	
Capacity		50 — 9900Ah	
Voltage Range		43.0 — 63.0V	
Continuous Battery Charging Output		185A	
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 12000W	
Max Allowed PV Power		6500W + 6500W = 13000W	
Max PV Power Delivered to Battery & AC Outputs		12000W	
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)		20A	
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)	10 Years

AC		Output Power 9kW On-Grid & Off-Grid	
Connections		120/240/208V Split Phase	
Continuous AC Power to Grid (On-Grid)		9000W 37.5A-L (240V)	
Continuous AC Power to Load (Off-Grid)		9000W 37.5A-L (240V)	
Surge AC Power 10sec		16,000VA L-L (240V)	
Surge AC Power 100ms		25,000VA L-L(240V)	
Parallel Stacking		Yes	
Frequency		60/50Hz	
Continuous AC Power with Grid or Generator		15120W 63A L-L (240V)	
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,	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