

12K-2P-N



13 KW SOLAR INPUT POWER

x2 built-in MPPTs for max DC coupled power of 13,000 W

Max AC coupled solar input of 9,600 W

Max combined solar input of 16,000 W

French Cleat for
easy installation

Outdoor rated
NEMA 3R

Built-in solar
array disconnect

Remote WIFI / Ethernet
and local monitoring



9 KW OUTPUT POWER OFF-GRID

Continuous AC power of 9,000 W

Supports 120/240/208V connections



BATTERY AGNOSTIC

Lead Acid or Li-ion battery chemistry support

Any battery with nominal DC voltage of 48V

185A continuous battery charging output

Closed loop communication w/ most High-End Li Batteries



FULL GENERATOR COMPATIBILITY

Supports 220/240/208V generators on GRID breaker

Up to 10 KW 240V generators on GEN breaker

Standby generator connection for whole-home backup

Two Wire for automatic generator start



INSTALLATIONS
SIMPLIFIED

Do not spend time piecing multiple parts
for basic functions.
A Sol-Ark All-in-One system does it all,
and does it better.



12K-2P-N

UL Model:

"Sol-Ark-12K-P"



Solar Input Power 13,000W	
Max Allowed PV Power	6,500W + 6,500W = 13,000W
Max PV Power Delivered to Battery &	12,000W
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 Lim-	20A
Max AC Coupled Input (Micro/String	9,600W

AC Output Power 9kW On-Grid & Off-Grid	
Connections	120/240/208V Split Phase
Continuous AC Power to Grid (On-Grid)	9,000W 37.5A-L (240V)
Continuous AC Power to Load (Off-Grid)	9,000W 37.5A-L (240V)
Surge AC Power 10sec	16,000VA L-L (240V)
Surge AC Power 100ms	25,000VA L-L(240V)
Fault Current 100ms	104A L-L (240V)
Parallel Stacking	Yes
Frequency	60/50Hz
Continuous AC Power with Grid or Generator	15,120W 63A L-L (240V) 7,560W 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

Battery (Optional) Output Power 9,000W	
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	Integrated
Communication to Lithium Battery	CanBus & RS485

General	
Dimensions (H x W x D)	30.0" x 18.3" x
Weight	78 lbs
Enclosure	NEMA 3R
Ambient Temperature	-25-55°C, >45°C
Installation Style	Wall-Mounted
Wi-Fi & LAN Communication	Included
Standard Warranty (verified by HALT Testing)	10 Years

Protections & Certifications	
Electronics Certified Safety by SGS Labs to NEC	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