



LV Split-phase Hybrid Inverter

RESIDENTIAL ENERGY STORAGE SOLUTION

Partial Home Backup: Ensure your essential home appliances stay powered during outages, maintaining comfort and convenience.

Built-In Transfer Switch: Simplify your solar energy system installation with an integrated transfer switch, seamlessly compatible with any AC power source.

Battery Agnostic: Enjoy unparalleled flexibility with compatibility across all 48V batteries on the market.

Military-Grade Reliability: Opt for up to twice the military grade protection, guaranteeing operation even during lightning strikes and other extreme conditions.

EV Home Charging: Power your electric vehicle efficiently with dedicated circuit loading for hassle-free home charging.



Technical Specifications

Spitzer Energy Residential Storage Solution

PV Input

Max. Allowed PV Power(kW)	13
Rated MPPT Operating Voltage Range(V)	175 ~ 425
MPPT Voltage Range(V)	150 ~ 500
Startup Voltage(V)	125
Max. Input Voltage ¹ (V)	500
Max. Operating Input Current per MPPT(A)	20(self-limiting)
No. of MPP Trackers	2
No. of PV Strings per MPPT	2
Max. AC Coupled Input(kW)	9.6

AC Output

Nominal AC Voltage(V)	120/240, 120/208, 220
Grid Frequency(Hz)	50 / 60
Real Power, max continuous ² (kW)	9
Max. Output Current(A)	37.5
Peak Apparent Power(kVA)(10s, off-grid)	16@240V
Peak Apparent Power(kVA)(100ms, off-grid)	25@240V
Max Output Fault Current(A)(100ms)	104
Max. Grid Passthrough Current(A)	63
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

1. See Installation Guide for more details on sizing array strings. The highest input voltage is based on the open-circuit voltage of the array at the minimum design temperature.

2. Max. continuous AC output of 9kW (loads / grid sell) + DC output of 3kW (batteries) = 12kW total

Battery Input

Battery Technologies	Lithium / Lead Acid
Nominal DC Voltage(V)	48
Operating Voltage Range(V)	43 ~ 63
Capacity(Ah)	50 ~ 9900
Max. Battery Charge / Discharge Current(A)	185
Charging Controller	3-Stage with Equalization
Grid to Battery Charging Efficiency	96.0%
External Battery Temperature Sensor (BTS)	Included
Automatic Generator Start (AGS)	2 Wire Start - Integrated
BMS Communication	CANBus, RS485 MODBUS

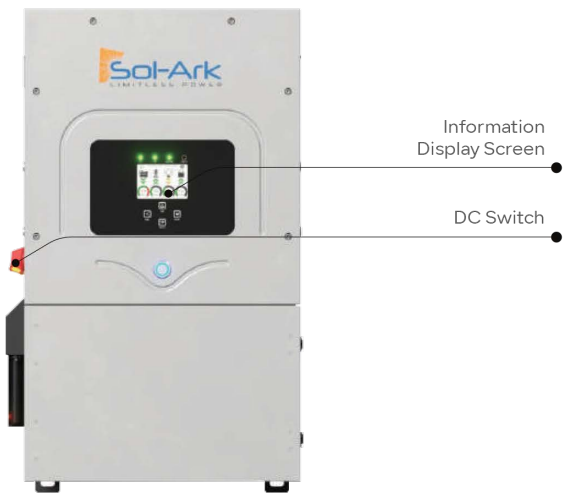
General Parament

Inverter Model	Sol-Ark-12K-P
Dimensions (W*D*H)	450*254*750mm/17.7*10*29.5in
Weight	35.4kg / 78lb
Enclosure	IP65 / NEMA 3R
Ambient Temperature	-25~55°C(>45°C Derating)
Noise	< 30 dB @ 25°C (77°F)
Idle consumption - No Load(W)	60
Communication and Monitoring	Wi-Fi & LAN Hardware Included
Standard Warranty	10 Years

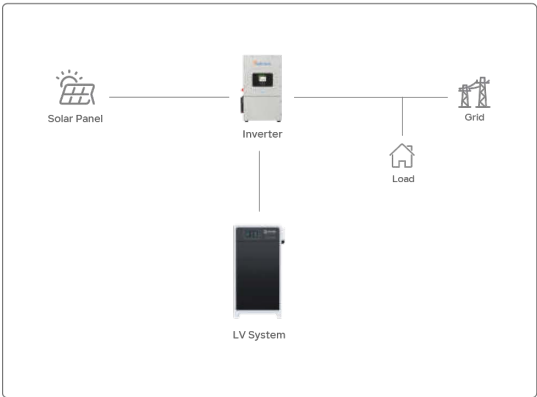
Protection & Certifications

Certifications and Listings	UL1741-2010/2018 IEEE1547a 2003/2014 FCC 15 Class B, UL1741SB CA Rule 21, HECO Rule 14H
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

Product Details



System Layout



Application Scenario

