

| Sol-Ark-12K-P Specifications | |
|---|---|
| Solar Output Power 12000W | |
| Max allowed PV Power | 6500W+6500W = 13,000W |
| Max PV power delivered to Battery & AC outputs | 12000W |
| Max DC voltage | 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@300V, 18A@400V |
| Max AC Coupled Input (Micro/String Inverters) | 9,600W / 9,600W |
| AC Output Power 9000W On Grid & 9000W Off Grid | |
| Connections | 120/240/208V split phase |
| Continuous AC power to Grid (On-Grid) | 9000W 37.5A-L (240V) 4800W 40A L-N (120V) |
| Continuous AC power to Load (Off-Grid) | 9000W 37.5A-L (240V) 4800W 40A L-N (120V) |
| Surge AC power 10sec | 16,000VA L-L (240V) |
| Surge AC power 100ms | 25,000VA L-L (240V) |
| Parallel Stacking | 2-8 (240V), 2,3,6,9 (208V) |
| Frequency | 60/50Hz |
| Continuous AC power with Grid or Generator | 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 or Full 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 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 Battery Charging Efficiency | 96.0% |
| External temperature sensor | included |
| Current shunt for accurate % SOC | integrated |
| External Generator Start based on voltage or % SOC | integrated |
| Communication to Lithium battery | CanBus & RS485 |
| General | |
| Dimensions (H x W x D) | 30.0" x 18.30" x 10.00" |
| Weight | 78 lbs |
| Enclosure | NEMA Type 3R |
| Ambient Temperature (3 variable speed fans) | -25 to 55C, >45C derating |
| Display | Color touch screen |
| Wi-Fi Communication (monitoring or SW updates) | included |
| Snap on sensors for limited selling to Ho usehold | included |
| Standard Warranty (verified by HALT testing) | 10 years |

| Protection & 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, 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/UL1699B | integrated |
| PV input lightning protection | integrated |
| AC input/output 63A breakers | integrated |
| Battery breaker / disconnect | integrated |
| User wiring enclosure w/ 3/4" & 1" knock-outs | integrated |
| Solar Flare/EMP Hardened to 2015 MIL-STD-461G (Independently tested June 2018) | optional |

