

Sol-Ark 12K All-In-One Solar Generator Hybrid Inverter



Price: CAD \$11,999.00

SKU: SOL-ARK-12K

Product Categories: [Supply](#), [Grid/Battery : Hybrid >10kW](#), [Grid/Battery : Hybrid Pre-Wired](#), [Inverters](#)

Product Tags: [sol-ark canada](#), [canada](#), [emergency](#), [grid tie](#), [hybrid inverter](#), [off-grid](#), [self-reliant](#), [sol-ark](#), [sol-ark 12k](#), [sol-ark 12k canada](#), [solar](#), [solar inverter](#)

Product Page:

<https://www.modernoutpost.com/product/sol-ark-12k-all-in-one-solar-generator-hybrid-inverter/>

Product Summary

Sol-Ark 12K All-In-One Solar Generator Hybrid Inverter. Solar Plus Storage. Made Simple.

This is an impressive system, providing grid-tie, off-grid, and hybrid functionality in

a single unit. It is the world's most efficient battery-based inverter system, that is just as happy to operate without batteries. With the Sol-Ark 12K, you have the flexibility to build your system the way you want, and adapt it according to future needs. All in one unit.

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If you've had the pleasure of visiting the Sol-Ark website or viewing some of their videos, you will quickly realize how challenging a task it is to describe this multi-function energy hub.

On one hand it is a grid-tied inverter, connecting your solar directly to the grid. It can also function as an off-grid inverter, sending energy into your battery bank and interfacing with generators.



Then again, it's also a high-efficiency hybrid inverter, able to use a battery bank to maximize your system's internal consumption, and interface with the utility in either a buy/sell, or buy-only configuration.

Here is an overview video...

YouTube Video: [YouTube.com/watch?v=9SZ0bwgNgcA](https://www.youtube.com/watch?v=9SZ0bwgNgcA)

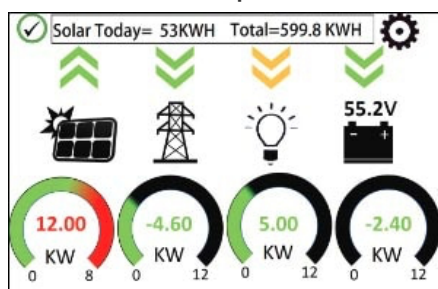
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And a webinar covering greater detail...

YouTube Video: [YouTube.com/watch?v=GX2VqIjmK0Y](https://www.youtube.com/watch?v=GX2VqIjmK0Y)

Consider the rich set of components pre-installed in the Sol-Ark system. The additional labour and additional parts required for any other hybrid inverter system to be able to come close to the Sol-Ark's core functionality, makes this system an exceptional value.

Sol-Ark 12K Specifications



Solar

Output Power : 12000W

Max allowed PV DC Capacity : 6,500W+6,500W = 13,000W

Max PV power delivered to Battery & AC outputs : 12000W

Max DC voltage : 500V@18A, 450V@20A

MPPT voltage range : 150-425VMPPT Starting voltage : 175V

Number of MPPT : 2

Solar Strings per MPPT : 2 w/o fuses, 3 w/ fuses

Max DC current per MPPT (self limiting) : 20A@300V, 18A@400V

Max AC Coupling (Gen Breaker / Load Breaker) : 7,600W / 9,600W

AC Output

Power : 9000W On Grid & 8000W Off Grid

Connections : 120/240/208V split phase

Continuous AC power to Grid (On Grid) : 9000W 37.5A L-L (255 V) 4800W 40A L-N (120V)

Continuous AC power to Loads (Off Grid) : 8000W 33A L-L (240V) 4800W 40A L-N (120V)

Surge AC power : 10sec 16,000VA L-L (240V) 25,000VA L-L (240V)

Parallel Stacking : 2-8 (240V), 3-9 (208V)

Frequency : 60/50Hz

Continuous AC power with Grid or Generator : 12000W 50A L-L (240V) 6000W 50A 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 16.75" x 9.37"

Weight : 74 lbs Enclosure : NEMA type 1 (Indoor Use)

Ambient Temperature (3 variable speed fans) : -25 to 55C, >45C derating

Display : Colour touch screen

Wi-Fi Communication (monitoring or SW updates) : Included

Snap on sensors for limited selling to Household : 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 50A breakers : Integrated

250A Battery breaker / disconnect : Integrated

User wiring enclosure w/ ¾” & 1” knock-outs : Integrated

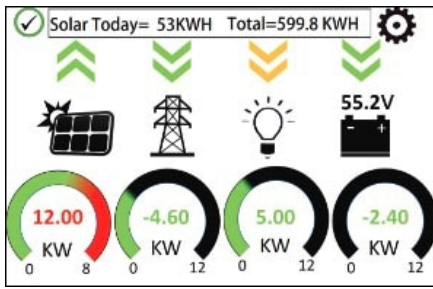
Solar Flare/EMP Hardened to 2015 MIL-STD-461G (Independently tested June 2018)
: Optional

Product Attributes

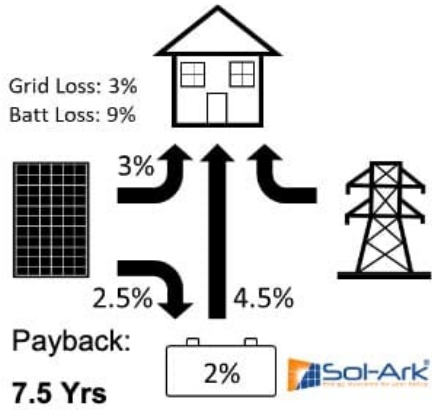
- Dimensions: 1 × 1 × 1 cm
- Weight: 30 kg

Product Gallery

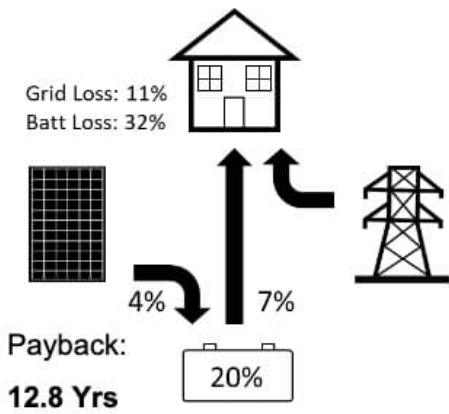




Sol-Ark Hybrid Solar



Traditional Solar



Hybrid Solar

