



THE STARTER

Your safe & reliable grid-tied solar system.

The **Starter Package** is a simple and easy way to get into solar and save money. This is a great starting point, which you can scale as your needs change and grow. Add solar panels as your energy usage increase or add batteries to create a battery backup system anytime.

Package components

Qty 1 - Sol-Ark 12K

Qty 9 - 340W Canadian Solar Panels



PERFECT **STARTING POINT TO OFFSET ELECTRICAL COSTS** WITHOUT BATTERY BACKUP.



IDEAL FOR **SELLING OR BUILDING CREDIT** WITH YOUR UTILITY COMPANY FOR THE WHOLE HOME.



SCALE THE SYSTEM UP TO MATCH YOUR ENERGY BILL OR ADD BATTERIES LATER ON.



Key features



Stackable

Parallel up to 9 Sol-Ark units and up to 24 PT14 batteries to expand your system.



Sensors

RSD / Emergency Stop, External CT Sensors, Parallel Comms / Battery Comms, Auto Gen Start.



Smart System

Grid sell, off-grid, meter zero, time of use, & peak shaving.



Smart Load

Prioritize Necessities & Run Luxuries With Less.



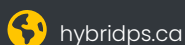
Gen Breaker

Up to 12kW Generator Input.



ATTENTION: Please note it is the customer's obligation to check local electrical requirements and certification requirements of all HPS purchased equipment to ensure they meet the local electrical code. Additional components such as AFCI protection, Conduit Caps, and fusing/breakers may be required.

Contact us



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Sol-Ark 12K Specifications.

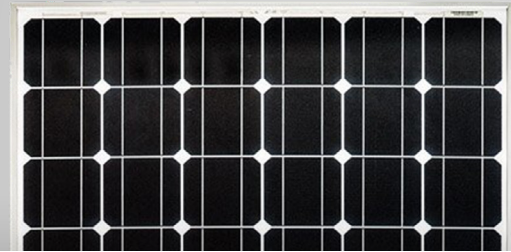
Solar Output Power	12000W	Max Allowed PV Power	6500W + 6500W = 13,000W
Max PV Power Delivered to Battery & AC Outputs	12000W	Max DC Voltage	500V@18A, 450V@20A
MPPT Voltage Range	150-425V	Starting Voltage	175V
Number of MPPT	2	Max Solar Strings per MPPT	2
Max DC Current per MPPT (Self Limiting)	20A@300V, 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	Dimensions	76.2cm x 46.4cm x 25.4cm [30in x 18.3in x 10in]
Weight	35.3 Kg [78 lbs]	Enclosure	NEMA Type 3R
Ambient Temperature (3 Variable Speed Fans)	-25°C to 55°C [-13°F to 131°F] derating	Display	Color 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 UL1741-2010/2018, IEEE1547a-2003/2014, FCC 15 class B, UL1741SA, CA Rule 21, HECO Rule 14H



340W Canadian Solar Panel Specifications.

Electrical Data | STC*

Nominal Max. Power (Pmax)	340W
Opt. Operating Voltage (Vmp)	37.9V
Opt. Operating Current (Imp)	8.97A
Open Circuit Voltage (Voc)	46.2V
Module Efficiency	17.49%
Operating Temperature	40°C to 85°C [-40°F to 185°F]
Max. System Voltage	1500V (IEC) or 1500V (UL)
Module Fire Performance	TYPE 1 (UL 1703) or CLASS C (IEC 61730)
Max. Series Fuse Rating	15A
Application Classification	Class A
Power Tolerance	0 ~ + 5W

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.

Electrical Data | NOCT*

Nominal Max. Power (Pmax)	245W
Opt. Operating Voltage (Vmp)	34.6V
Opt. Operating Current (Imp)	7.10A
Open Circuit Voltage (Voc)	42.4V
Short Circuit Current (Isc)	7.67A

* Under Nominal Operating Cell Temperature (NOCT), irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

Mechanical Data

Cell Type	Mono-crystalline, 6 inch
Cell Arrangement	72 (6 x 12)
Dimensions	196 cm x 99.2 cm x 4 cm [77.2in x 39.1in x 1.57in]
Weight	22.4 kg (49.4 lbs)
Front Cover	3.2 mm tempered glass
Frame Material	Anodized aluminium alloy
J-Box	IP67, 3 diodes
Cable	PV1500DC-F1 4 mm ² (IEC) & 12 AWG 2000 V (UL), 1160 mm (45.7 in)
Connector	T4 series or PV2 series

Temperature Characteristics

Temperature Coefficient (Pmax)	-0.41 % / °C/F
Temperature Coefficient (Voc)	-0.31 % / °C/F
Temperature Coefficient (Isc)	0.053 % / °C/F
Nominal Operating Cell Temperature	45±2 °C/F

Performance At Low Irradiance

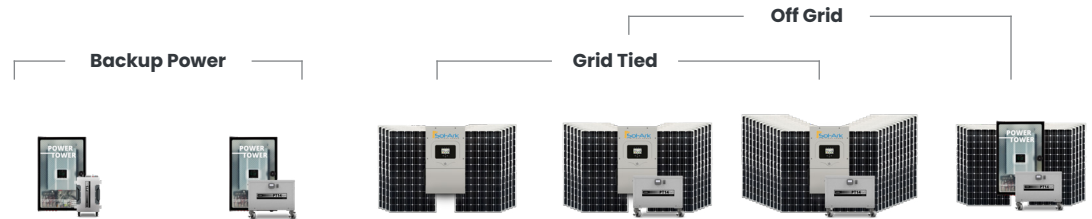
Outstanding performance at low irradiance, average relative efficiency of 96.5 % from an irradiance of 1000 W/m² to 200 W/m² (AM 1.5, 25°C).

The specification and key features described in this datasheet may deviate slightly and are not guaranteed. Due to on-going innovation, research and product enhancement, Canadian Solar Inc. reserves the right to make any adjustment

to the information described herein at any time without notice. Please always obtain the most recent version of the datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the products described herein.

Caution: For professional use only. The installation and handling of PV modules requires professional skills and should only be performed by qualified professionals. Please read the safety and installation instructions before using the modules.

Compare our solar & backup power packages



	Frontier	Defender	Starter	Cottager	Chateau	Ranger
Power	6,000W	6,000W	12,000W	12,000W	15,000W	6,000W
Surge Power	18,000W	18,000W	25,000W	25,000W	30,000W	18,000W
Output Voltage	120VAC	120VAC	120 - 208 - 240V AC	120 - 208 - 240V AC	120 - 208 - 240V AC	120VAC
Solar Charging Power	3,500W	3,500W	12,000W	12,000W	15,000W	3,500W
Outdoor Rated	No	No	Yes (Inverter only)	Yes (Inverter only)	Yes (Inverter only)	No
Temperature Rating	-30°C to 45 °C [-22°F to 113 °F]					
Total Energy	5kWh	14kWh	-	14kWh	14kWh	14kWh
Number of Solar Panels	-	-	9	12	24	8
Included Solar Panel Power	-	-	3,060W	4,080W	8,160W	2,720W
Package Components	(1) Power Tower (1) PT5 Battery	(1) Power Tower (1) PT14 Battery	(1) Solark 12K (9) 340W Canadian Solar Panel	(1) Solark 12K (1) PT14 Battery (12) 340W Canadian Solar Panel	(1) Solark 15K (1) PT14 Battery (24) 340W Canadian Solar Panel	(1) Power Tower (1) PT14 Battery (8) 340W Canadian Solar Panel

Perfect For

Back up power for 10 - 50 hours

Avg. Monthly Energy Usage: 367kWh**
Base package will offset some energy costs and can be scaled to offset full energy costs.

Avg. Monthly Energy Usage: 490kWh**
Base package will power all electrical appliances and devices with the exception of electric heat/air conditioning.

Avg. Monthly Energy Usage: 980kWh**
Base package will power all electric appliances and devices with limited load management. Includes air conditioning for grid-tied, excludes electric heating for off-grid.

Avg. Monthly Energy Usage: 326kWh*
Will power most small appliances and electrical basics.

*Based on Canadian figures
**Can be scaled to a maximum of 1,440kWh



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