

## THE DEFENDER

## Fuel free backup power you can count on.

Looking for the perfect backup power system for your home or cottage? Capable of powering your key appliances and electronics, **The Defender Package** provides reliable backup power to get your family through the worst storms and power outages. **The Defender** can be scaled as your needs change. You can add batteries and solar panels at any time!

#### Package components

**Qty 1** - Power Tower

Qty 1 - PT Battery 14



RELIABLE BACK UP POWER FOR 10 - 50 HOURS.



IDEAL FOR **HOME APPLIANCES**, **ELECTRONICS**, **PUMPS AND MORE!** 

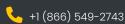


**INCREASE YOUR RUN TIME** BY ADDING UP TO 23 MORE BATTERIES OR UP TO 3500W OF SOLAR PANELS.

### Contact us









#### **Key features**



#### Stackable

Up to 24 PT 5 Batteries can be paralleled to grow your system to your exact needs at time of purchase or at a later date.



#### **Auto Gen Start**

Auto generator starts ensure you never run out of power when off grid.



#### **Smart System**

Off-grid and backup power.



#### **Gen Breaker**

Up to 12kW Generator Input.



#### **Pure Sine Wave**

Pure sine wave means clean power for sensitive electronics.



#### **Automatic Transfer Switch**

Automatic transfer switch changes over to battery power almost instantaneously.



**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.





## **Power Tower Specifications.**

Continuous Power Output	6,000W	Peak Power Output	18,000W		
Output Voltage	120V AC	Sine Wave	Pure Sine		
AC Input	120 VAC up to 60A	Battery Charging From Grid/Generator	Selectable up to 50A		
Solar Array Power	3,500W	Maximum Solar Input	30A		
Maximum Solar Voltage	135 VDC	Weight	75 kg [165 lbs]		
Dimensions	88 cm x 56 cm x 24.5 cm [34.6in x 22in x 9.6in]				



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.

hybridps.ca







## PT14 Battery Specifications.

Chemistry	LiFePO4	Min Voltage	44V	
Nominal Voltage	51.2VDC	Max Voltage	56VDC	
Energy Capacity	14kWh	Operational Temperature	-30°C to 45°C [-22°F to 113°F]	
Battery Heating Operational Temperature	-30°C to 10°C [-22°F to 50°F]	Maximum Continuous Discharge Amperage	280A	
Maximum Continuous Charge Current	280 A (140 A recommended)	Weight	90.7 kg [200 lbs]	
Dimensions	39cm x 13.3cm x 61cm [15.5in x 13.3in x 24in]	Circuit Breaker Amperage	300A	
Enclosure Material	Aluminum	Communication	CANBUS	
Maximum Batteries in Parallel	24	Certifications (battery)	UL1973 (Pending) UN38.3 CSA (SPE-1000) Inspected UL9540A	

#### **Cycles**

6700 cycles

(charging CC/CV @0.5C & discharging CC @0.5C, 100% DOD, 25°C +/-2°C 80% of rated capacity), 8500 cycles

(charging CC/CV @0.5C & discharging CC @0.5C, 100% DOD, 25°C +/-2°C 70% of rated capacity),

(charging CC/CV @0.3C & discharging CC @0.3C, 70 DOD, 25°C +/-2°C 70% of rated capacity)

#### With

- \*4 Caster Wheels
- \*\* Temporary rope handles provided for installation



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.



hybridps.ca



# 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 Ca- nadian 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 Ca- nadian Solar Panel		

\*Based on Canadian figures

\*\*Can be scaled to a maximum of 1,440kWh

**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 gridtied, excludes electric heating for off-grid.



Avg. Monthly Energy Usage: 326kWh\*

Will power most small appliances and electrical basics.



**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.

hybridps.ca

