

## **PURCELL** SOLAR + BATTERY STORAGE SYSTEM

# **Consumer Brochure**

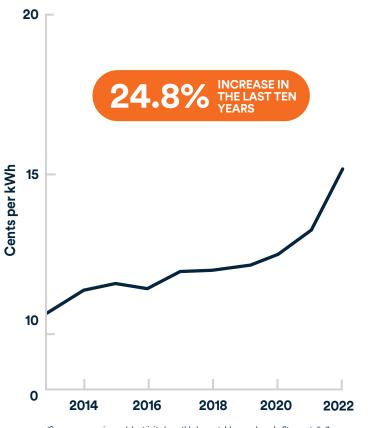






## **Power Outages and Electricity Rates Are Increasing**

#### **Residential Electrical Rate**



Year	Year Electric Outage Cu Incidents At	
2013	5,494	14.8 Million
2014	6,353	13.8 Million
2015	2,203	11 Million
2016	2,888	23 Million
2017	4,327	44.1 Million
2018	4,254	39.3 Million
2019	4,655	41.5 Million
2020	4,789	51.9 Million
2021	5,162	51.8 Million
2022	4,738	42.8 Million

#### **Power Outages by Year**

Source: www.eia.gov/electricity/monthly/epm\_table\_grapher.php?t=epmt\_5\_3

Source: Data Fusions

The electrical power grid continues to age, making it less reliable and more susceptible to power outages that can leave you without lights, refrigeration, Internet access, and in some areas, water.

Additionally, electric utility rates are on the rise, with no relief in sight. In the last 10 years, rates have increased 24.8%<sup>1</sup>. Paying more for electricity can prevent you from investing in the things that matter the most to you, such as:

- Dream vacation
- Home improvement projects
- Financial freedom
- Child's/grandchild's college fund
- Retirement savings

You need an innovative solution that will power your home, prepare for power outages and help you lower your monthly electric bills.

## **Prepare for Power Outages and Save Money with PWRcell**

The Generac PWRcell is a fully integrated solar + battery storage system that provides backup power using stored energy from the sun, which helps you save money.



## Whole Home Backup Power

Choose from a variety of configurations that offer scalable backup power during power outages, with the largest residential battery capacity in single cabinet



## **Environmentally Friendly**

100% emission and fossil fuel free



## Savings Powered by the Sun

Use stored energy from solar panels to power your home, which helps you reduce your electric utility costs\*

2



3

## **DC-Coupled Efficiency**

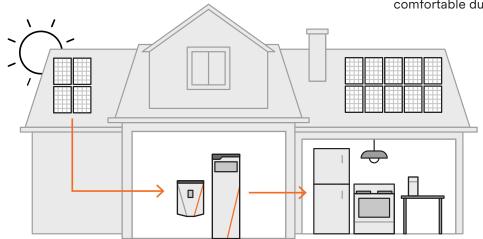
DC-coupled design provides high round-trip efficiency, helping you get the most from your stored energy

## Here's How It Works



PWRcell stores energy from solar panels\*

- Use stored energy to power your home - day or night
- During a utility power outage, the energy stored in PWRcell can also be used to provide backup power, to help your home and family stay comfortable during a power outage



\*PWRcell can also store energy from the electric power grid. Solar panels are sold separately.

## The PWRcell System

If you're looking for a fully-integrated solar + battery storage system, the Generac PWRcell is the right solution for you.

The modular Generac PWRcell system provides up to 36 kWh of storage capacity and includes:

- 1 Inverter
- 1+ Battery cabinet
- 3+ Lithium ion battery modules
- 1 PWRcell Automatic Transfer Switch
- 10 Year Limited Warranty

PWRcell pairs with solar panels from most manufacturers. Your installer will help you determine the right panels for your home based on your needs and budget.

## **Customizable Options and Easy Installation**

PWRcell was designed for ultimate flexibility. Individual 3.0 kWh battery modules allow you to increase your system size from 9 – 36 kWh on a single PWRcell Inverter as your power needs evolve.

PWRcell is also fully integrated and lightweight, making installs faster and more efficient. Each component weighs 75 lb or less and is designed to work seamlessly with the rest of the system.



Outdoor Rated Battery Storage Cabinet



Inverter



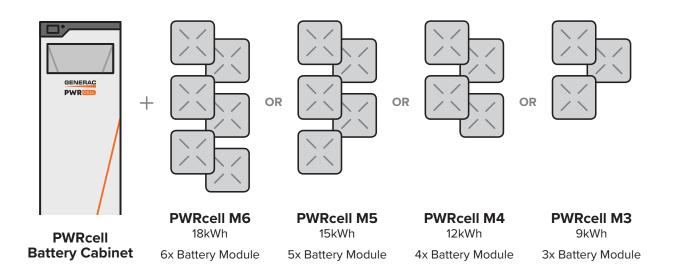
Included with the PWRcell!



Automatic Transfer Switch



Lithium Ion Battery Modules



## Why Choose PWRcell?

#### Save Money and Prepare For Power Outages

A PWRcell Solar + Battery Storage system offers the power and capacity to power an entire home when the grid goes down, while also helping you save money on energy bills.\*

Without PWRcell	With PWRcell
\$ Increasingly high utility bills. 24.8% Increase over the last ten years <sup>1</sup> .	<ul> <li>Save money on your utility bill by producing and consuming your own energy.</li> <li>30% Solar Tax Credit on install and equipment + local and state tax incentives where available.<sup>2</sup></li> <li>Net Metering Savings from selling excess energy back to the utility where available.<sup>3</sup></li> <li>TOU Savings from using stored energy during peak demand times where available.<sup>4</sup></li> </ul>
When the grid goes down, you lose power. You can be without lights, AC, Wi-Fi, and refrigeration for hours or even days.	<ul> <li>Preparation for outages, whether they're caused by severe weather, an unreliable grid, or Public Safety Power Shutoffs (PSPS).</li> <li>Get up to 18 kWh of stored energy from a single PWRcell Battery Cabinet, plus solar panels<sup>5</sup> continue generating power from the sun.</li> <li>Outage Guard<sup>6</sup> feature tracks the weather for potential outage-causing events to help ensure your system has maximum charge in case an outage does occur.</li> </ul>

 $`Source: www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt\_5\_3$ 

<sup>2</sup>Not everyone is eligible for the federal and state tax credits/rebates or can use them. Please consult your tax or legal professional for more details.

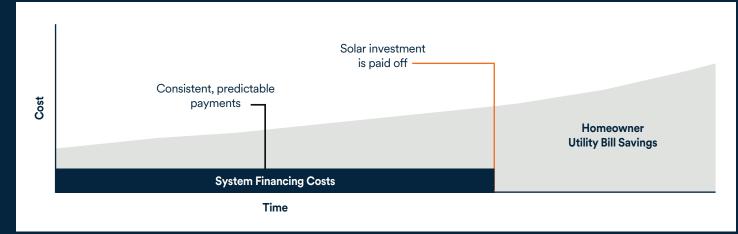
<sup>3</sup>Net Metering is not available in all locations, to all utility customers. Please consult your local utility to determine availability.

<sup>4</sup>Not all utilities utilize Time-of-Use (TOU) Rates. Please consult your local utility for more information.

⁵Solar panels sold separately.

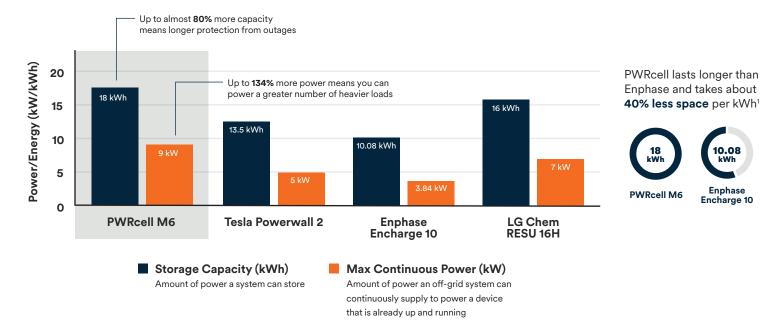
<sup>6</sup>Outage Guard is available in the contiguous 48 states, Alaska, Puerto Rico (provided the address is listed as US) and Canada.

**Saving money with PWRcell is simple.** When you generate, store, use, and sell your own energy, that's money going to your pocket instead of the utility. And as electricity prices continue to increase over time, so will the amount you save.\* Meanwhile, your system financing costs will remain consistent and eventually be paid off.



\*Actual savings will vary based on factors such as user energy consumption, energy unit costs, available solar exposure, and other variables.

## **PWRcell Outshines the Competition**



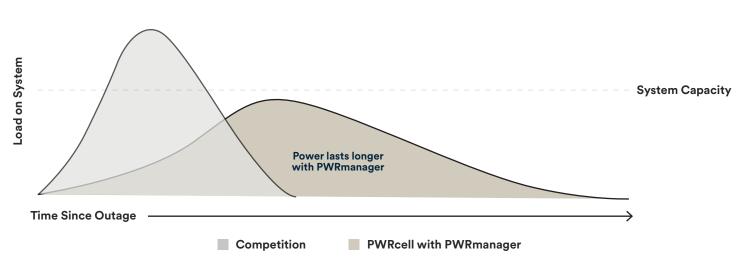
Data obtained from competitor data specification sheets in January 2024. All comparisons assume unity power factor. 'Assumes a PWRcell M6 configuration with 6 battery modules. The volume of a PWRcell Battery Cabinet (14960 in<sup>5</sup>) divided by the storage capacity (18 kWh) equals 831.11 in<sup>3</sup> per kWh. The volume of the Enphase Encharge 10 (13832.05 in<sup>3</sup>) divided by the storage capacity (10.08 kWh) equals 1372.83 in<sup>3</sup> per kWh, which is 39.43% larger than PWRcell.

# Advanced Load Management with PWRmanager

## **Cost-effective Solution to Whole Home Power**

The PWRmanager advanced load management device adds unbeatable flexibility and value to the PWRcell System. Controlled via the user-friendly PWRview app, PWRmanager enables batteries to work smarter, so a smaller system can power the home for longer.



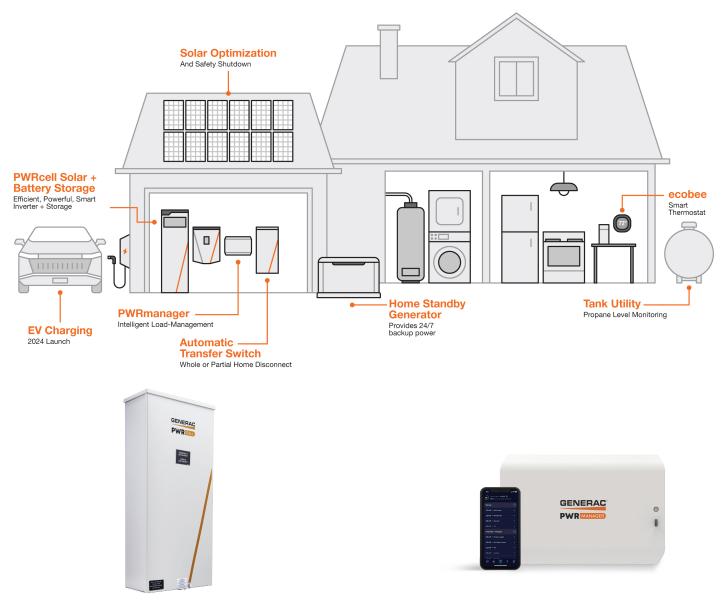


During an outage, PWRmanager extends backup duration and prevents the PWRcell system from being overloaded by too many large loads being turned on at once.

## **Integrated Home Energy Ecosystem**

PWRcell isn't just a powerful battery, but it's also the most flexible and scalable home energy system on the market. With a range of supplementary products and features, PWRcell can be configured to meet just about any budget or lifestyle so you get a solution tailored to your unique needs.

Each component has also been designed to work better together. The PWRmanager advanced load management device and features like Outage Guard integrate seamlessly with PWRcell, helping provide additional protection from outages and invaluable peace of mind.



## **Automatic Transfer Switch**

An integrated solar + battery storage system is made easy with the PWRcell Automatic Transfer Switch (ATS). Power your home and manage up to four individual HVAC (24 VAC controlled) loads with the PWRcell ATS.

## PWRmanager

The PWRmanager advanced load management device enhances whole home backup power and provides simplified control of up to twelve 120 V circuits or six 240 V circuits plus two thermostats. PWRmanager will automatically manage those loads during an outage to extend backup duration and prevent inverter overload.

## Smart Management Modules / Load Management

Generac's Smart Management Modules (SMMs) allow PWRcell to make the most of its leading backup power capabilities and capacity by helping to prevent system overload and allowing lockout of select connected loads for power usage management during a utility outage.

## PV Link / Optimizer

#### 25-Year Limited Warranty

Each PV Link allows you to connect 2 to 9 solar PV modules, enabling you to build a flexible, easy-to-install solar array.

## SnapRS / Rapid Shutdown Device

#### 25-Year Limited Warranty

The SnapRS is an in-line disconnect device that helps to satisfy modulelevel rapid shutdown requirements.

#### National Electric Code (NEC) Rapid Shutdown Requirements

SnapRS and PV Link Optimizers are designed to meet NEC 2017 and NEC 2020 PV rapid shutdown requirements.







## GENERAC



PWRview is Generac's premier home energy monitoring app. Easily enable **Outage Guard**\* or access your home's energy information from anywhere in the world with your smartphone.

## **Features and Benefits**

- · Learn how your daily habits impact your electricity costs
- Receive detailed bill tracking and forecasting
- Understand how PWRcell helps you meet your energy needs and reduce grid dependence with daily energy dashboards and summaries

PWRview is equipped with **Outage Guard** to help you prepare your home for storms and potential outages by automatically charging up your battery when severe weather is forecasted.







## **Overview of Technical Specifications**

Battery Modules3456Usable Energy'9 kWh12 kWh15 kWh18 kWNominal Cont. AC Power'.23.4 kW4.5 kW5.6 kW6.7 kVMax. AC Power'.34.5 kW6 kW7.5 kW9 kVNominal Cont. Dc (Charge/Discharge) - A11.615.519.423.3Peak Motor Starting Current (2 Sec) - A, RMS25334250Compatible Battery Modules⁴Generac PWRcell DCB 3.0 kWh, Generac PWRcell EX 3.0 kWh7.5 kW7.5 kWRebus™ Voltage - Input/OutputCompatible Carge of the compatible Carge of the compatibl			
Nominal Cont. AC Power¹²3.4 kW4.5 kW5.6 kW6.7 kVMax. AC Power¹³4.5 kW6 kW7.5 kW9 kVNominal Cont. Dc (Charge/Discharge) - A11.615.519.423.3Peak Motor Starting Current (2 Sec) - A, RMS25334250Compatible Battery Modules⁴Cenerac PWRcell DCB 3.0 kWh, Generac PWRcell EX 3.0 kWh5050Rebus™ Voltage - Input/OutputCenerac PWRcell DCB 3.0 kWh, Generac PWRcell EX 3.0 kWh100Dc-Dc Round-Trip Efficiency96.5%59 to 104 °F (15 to 40 °C)			
Max. AC Power¹.³4.5 kW6 kW7.5 kW9 kWNominal Cont. Dc (Charge/Discharge) - A11.615.519.423.5Peak Motor Starting Current (2 Sec) - A, RMS25334250Compatible Battery Modules⁴Generac PWRcell DCB 3.0 kWk. Generac PWRcell EX 3.0 kWk50Rebus™ Voltage - Input/Output	√h		
Nominal Cont. Dc (Charge/Discharge) - A11.615.519.423.3Peak Motor Starting Current (2 Sec) - A, RMS25334250Compatible Battery Modules4Generac PWRcell DCB 3.0 kWh, Generac PWRcell EX 3.0 kWhRebus™ Voltage - Input/Output	W		
Peak Motor Starting Current (2 Sec) - A, RMS       25       33       42       50         Compatible Battery Modules <sup>4</sup> Generator WRcell DCB 3.0 kW, Generator PWRcell EX 3.0 kWh       Rebus™ Voltage - Input/Output       360-42 VDC       70         Nominal Voltage       Generator WRcell DCB 3.0 kW, Generator WRcell EX 3.0 kWh       70       70       70         Dc-Dc Round-Trip Efficiency       Generator WRcell SC 3.0 kWh       70       70       70         Full Performance Temperature Range (Charging) <sup>6</sup> 90       90 to 104 °F (15 to 40 °C)       70	V		
Compatible Battery Modules⁴       Generac PWRcell DCB 3.0 kWh, Generac PWRcell EX 3.0 kWh         Rebus™ Voltage - Input/Output       360-420 VDC         Nominal Voltage       380 VDC         Dc-Dc Round-Trip Efficiency       96.5%         Full Performance Temperature Range (Charging)⁵       59 to 104 °F (15 to 40 °C)	5		
Rebus <sup>™</sup> Voltage - Input/Output     360-420 VDC       Nominal Voltage     380 VDC       Dc-Dc Round-Trip Efficiency     96.5%       Full Performance Temperature Range (Charging) <sup>5</sup> 59 to 104 °F (15 to 40 °C)			
Nominal Voltage     380 VDC       Dc-Dc Round-Trip Efficiency     96.5%       Full Performance Temperature Range (Charging) <sup>5</sup> 59 to 104 °F (15 to 40 °C)			
Dc-Dc Round-Trip Efficiency     96.5%       Full Performance Temperature Range (Charging) <sup>5</sup> 59 to 104 °F (15 to 40 °C)	360-420 VDC		
Full Performance Temperature Range (Charging)⁵       59 to 104 °F (15 to 40 °C)	380 VDC		
	96.5%		
Full Performance Temperature Range (Discharging)5:32 to 104 °F (0 to 40 °C)	59 to 104 °F (15 to 40 °C)		
	32 to 104 °F (0 to 40 °C)		
Maximum Operating Temperature Range (Charging) <sup>5</sup> 41 to 104 °F (5 to 40 °C)	41 to 104 °F (5 to 40 °C)		
Maximum Operating Temperature Range (Discharging)⁵14 to 122 °F (-10 to 50 °C)	14 to 122 °F (-10 to 50 °C)		
Maximum Installation Altitude - ft (m) 6560 (2000)	6560 (2000)		
Dimensions, L x W x H - in (mm) 22" x 10" x 68" (559 x 254 x 1727)			
Weight, Enclosure - Ib (kg) 115 (52)			
Weight, Installed w/ Dcb Modules - Ib (kg)         280 (127)         335 (152)         390 (177)         445 (2	02)		
Weight, Installed w/ Ex Modules - Ib (kg)         287 (130)         344 (156)         401 (182)         459 (287)	08)		
Weight, Accessory Mounting Hardware - Ib (kg) 21 (10)	21 (10)		
Enclosure Type 3R	Type 3R		
Warranty - Li-Ion Modules     10 Years, (7.56 MWh)	10 Years, (7.56MWh)		
Warranty - Electronics and Enclosure     10 Years	10 Years		
Communication Protocol         REbus™ DC Nanogrid™	REbus <sup>™</sup> DC Nanogrid <sup>™</sup>		
Seismic Rating IEEE 693-2018 (HIGH)			
Compliance:         UL 9540, UL 9540A <sup>6</sup> , UL 1973, UL 1642, CSA 22.2 #107.1			

<sup>1</sup>Assumes use of 3.0kWh battery module. |<sup>2</sup>Average AC power over a complete discharge cycle. |<sup>3</sup>Values provided for 40°C (104°F). |<sup>4</sup>All PWRcell battery models used in a PWRcell Battery Cabinet must be the same model. Do NOT combine module SKUs in a single battery cabinet. |<sup>5</sup>Reference the PWRcell Battery Installation and Owner's Manual for a detailed deration curve. |<sup>6</sup>4th ed. tested at unit-level when installed with DCB battery modules and OR enclosure. Note: Charge/discharge rate may be reduced at temperature extremes. | Generac offers a Foot Bracket Accessory Kit (Model #APKE00043) for the PWRcell Battery Cabinet that is available for installations where a foot bracket mount is required.

# PWRcell 3x Battery Module 4x Battery Module 5x Battery Module 5x Battery Module 5x Battery Module

## **Battery Configuration Guide**

PWRcell™ Inverter		
Islanding	Yes	
Grid Sell	Yes	
Self Consumption	Yes	
Prioritized Charging from Renewables	Yes	
Grid Support - Zero Export	Yes	
ESS PCS Operation Modes (Import Only, Export only)	Yes	
Supported Communication Interfaces	REbus <sup>™</sup> , ethernet	
System Monitoring	PWRview <sup>™</sup> Mobile App	
Backup Loads Disconnect	Yes, 50 A Circuit Breaker	
Inverter Bypass Switch	Automatic	
Warranty	10 Years	
Safety	UL 1741 SA, CSA 22.2, UL 1998	
Grid Connection Standards	IEEE 1547, Rule 21, Rule 14H, CSIP, UL 1741 PCS CRD (import only, export only)	

Enclosure Knockouts - Qty, Size - in (mm)	6 x Combo 3/4" x 1" (19 x 25.4) 7 x Combo 1/2" x 3/4" (12.7 x 19)	
Dimensions L x W x H - in (mm)	24.5" x 19.25" x 8" (622.3 x 488.9 x 203.2)	
Weight - Ib (kg)	62.7 (28.4)	
Cooling	Forced convection	
Audible Noise	< 40 dBA	
Operating Temperature - Fahrenheit (°C)	-4 to 122 °F (-20 to 50 °C) <sup>1</sup>	
Protection Rating	NEMA 3R	
Battery Types Supported	PWRcell™ Battery	
Module String Size per PV LINK Optimizer	Varies, refer to PV Link installation manual	
Maximum Recommended DC Power from PV <sup>2</sup>	10 kW (1Ø)	

AC Output (Grid-Tie)	Model XVT076A03
Cont. Grid-Tied AC Power @ 50°C (122°F)	7600 W
AC Output Voltage	120/240, 1Ø VAC
AC Frequency	60 Hz
Maximum Continuous Output Current	32 A, RMS
Ground-Fault Isolation Detection	Included
Charge Battery from AC	Yes <sup>3</sup>
THD (Current)	< 2%
Typical Nighttime Power Consumption	< 7 W

DC Input	Model XVT076A03
DC Input Voltage Range	360-420 VDC
Nominal DC BUS Voltage	380 VDC
DC Distribution Input Breakers	4 x 2-Pole 30 A
Max Input Current per DC Input	24 A
Reverse-Polarity Protection	Yes
Transformerless, Ungrounded	Yes
DC Bus Export Fuses (+/-)	40 A
2-Pole Disconnection	Yes

AC Output (Islanded)	Model XVT076A03
Max. Cont. Islanded AC Power Without an External Transfer Switch <sup>4</sup>	7600 W
Max. Cont. Islanded AC Power with External Transfer Switch and Single 6 Module Battery Cabinet⁵	9000 W
Max. Cont. Islanded AC Power with External Transfer Switch and 2 Battery Cabinets (8 Modules Minimum) <sup>1</sup>	11000 W
Peak Motor Starting Current (2 sec)	50 A, RMS
AC Backup Output Voltage	120/240, 1Ø VAC
AC Frequency	60 Hz
THD (Voltage)	< 2%
Allowable Split Phase Imbalance	Up to 30%

Efficiency	Model XVT076A03
Peak Efficiency	97.3%
CEC Weighted Efflciency	97%

<sup>1</sup>Includes ambient temperature rising from inverter operation. Reduced power at extreme temperatures. <sup>2</sup>Values provided for PV-only or small storage systems. Additional PV power is permissible if sufficient battery storage capacity is installed. <sup>3</sup>Where permitted by utility. <sup>4</sup>When islanded, continuous power output is restricted to 7.6kW unless backup power is routed through an external transfer switch. <sup>5</sup>Peak performance, values provided for 40°C (104°F).

PWRcell™ Automatic Transfer Switch	CSXC100A301	CXSW100A301	CXSW200A301
Amps	100	100	200
Voltage	120/240 1Ø	120/240 1Ø	120/240 1Ø
Load Transition Type (Automatic)	Open Transition	Open Transition Service Rated	Open Transition Service Rated
Enclosure Type	NEMA 3R	NEMA 3R	NEMA 3R
Compliance	UL 1008	UL 1008	UL 1008
Withstand Rating (Amps)	10,000	10,000	22,000
Lug Range	1/0 - #14	1/0 - #14	250 MCM - #6

PWRmanager		
No. of 120 V Relays	12	
HVAC Relays	2	
Current Rating	60 amps per relay	
Connections	WiFi, ethernet	
Dimensions, L x W x H - in (mm)	17.7" x 12.2" x 5.5" (449.58 x 309.88 x 139.7)	
Weight - Ib (kg)	13.23 (5.2)	
Compliance	UL-916, FCC, IC, Surge IEC 61000-4-5	
Enclosure	NEMA 3R	
Wire Gauge	#14 to #6 AWG	
Operating Temperature	-40°F to + 122°F (-40°C to + 50°C)	
Warranty	10 year limited	

Smart Management Modules	50 Amp (G0070000)	100 Amp (G0070060)
Power Supply Source	240 VAC (from line input)	240 VAC (from line input)
Contactor Voltages	220/240 VAC	220/240 VAC
Resistive Amps	50	100

PWRcell™ DCB Battery Module	
Nominal Voltage	46.8 VDC
Usable Capacity @ Typical Voltage	3.00 kWh
Full Performance Temperature Range (Charging) <sup>1</sup>	59 to 104 °F (15 to 40 °C)
Full Performance Temperature Range (Discharging) <sup>1</sup>	32 to 104 °F (0 to 40 °C)
Maximujm Operating Temperature Range (Charging) <sup>1</sup>	41 to 122 °F (5 to 50 °C)
Maximujm Operating Temperature Range (Discharging) <sup>1</sup>	14 to 122 °F (-10 to 50 °C)
Maximum Storage Temperature	122 °F (<1 mo)
Scalability	3-6 pcs in series
Dimensions, L x W x H - in (mm)	17.3" x 17.7" x 3.3" (440 x 450 x 84)
Weight - Ib (kg)	55 (25)
Battery Chemistry	Lithium nickel manganese cobalt (NMC)
Warranty	10 years or 7.56MWh throughput (per module)

'Reference the PWRcell Battery Installation and Owner's Manual for a detailed deration curve. Charge/discharge rate may be reduced at temperature extremes.

EX Battery Module	G0080001	G0080003/G0080005	
Nominal Voltage	43.2 VDC	44.4 VDC	
Usable Capacity @ Typical Voltage	3.0	3.00 kWh	
Full Performance Temperature Range (Charging)*	59 to 104 °F (15 to 40 °C)		
Full Performance Temperature Range (Discharging)*	32 to 104 °F (0 to 40 °C)		
Maximum Operating Temperature Range (Charging)*	41 to 122 °F (5 to 50 °C)		
Maximum Operating Temperature Range (Discharging)*	14 to 122 °F (-10 to 50 °C)		
Maximum Storage Temperature	122 °F (<1 mo)		
Scalability	3-6 pcs in series		
Dimensions, L x W x H - In (mm)	17.3" x 17.7" x 3.5" (440 x 450 x 88)		
Weight - Ib (kg)	58.6 (26.6)		
Battery Chemistry	Lithium nickel manganese cobalt (NMC)		
Warranty	10 years or 7.56MWh	10 years or 7.56MWh throughput (per module)	
Compliance	U	L 1973	

Note: Charge/discharge rate may be reduced at temperature extremes Note: Ensure all batteries in a single cabinet are compatible with each other. Do NOT install G0080003/G0080005 EX Modules in the same battery cabinet as G0080001 EX Modules. \*Reference the PWRcell Battery Installation and Owner's Manual for a detailed deration curve.

PV Link™ (APKE00010)	
Rated Power <sup>2</sup>	2500W
Peak Efficiency	99%
MPPT Boltage Range	60-360 VMP
Max Input Boltage	420 VOC; max when cold
Max Output	420 VOC
Nominal Output (REbus™)	380 VDC
Max Output Current (Continuous)	8 A
Max Output Current (Fault)	10 A
Max Input Current (Continuous)	13 A @ 50°C, 10 A @ 70°C
Max input Short Circuit Current (ISC)	18 A
Standby Power	< 1 W
Protections	Ground-fault, Arc-fault (Arc-fault type 1 AFCI, integrated), PVRSE
Max Operating Temp Fahrenheit (Celsius)	158 °F (70 °C)
System Monitoring	PWRview™ mobile app
Enclosure	Type 4X
Compliance	UL 1741, CSA 22.2
Warranty	25 years

SnapRS™ (RS802)	
PV Module Max Voc	75 V
Efficiency	99.8%1
Max Input Current	15 A
Max Total Qty in Substring	10
Shutdown Time	< 10 seconds
Enclosure Rating	NEMA 6P
Operating Temperature - Fahrenheit (Celsius)	-40 to 158 °F (-40 to 70 °C)
Certifications	UL1741
PROTECTIONS	PVRSE
Warranty	25 years

<sup>1</sup>When used with a 50V panel <sup>2</sup>PV Link can tolerate higher than rated power at its input if Max Input Voltage and Short Circuit Current specifications are not exceeded



## **Dealer Logo**

Company Name www.website.com (000) 000-0000



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