

WALLMOUNT ALL WEATHER LITHIUM BATTERY

The PowerPro WallMount All Weather 280Ah batteries are ideal for low-voltage residential outdoor energy storage system (ESS) applications. The batteries use lithium iron phosphate cells with the highest safety performance and an intelligent Battery Management System (BMS) that can monitor and record the voltage of each cell along with the current, voltage, and temperature of the module in real-time. The BMS also contains a passive balance function and an advanced battery control method, both of which improve the performance and longevity of the battery pack.

**BUILT-IN
200A BMS**

**INTEGRATED
600A BUSBARS**

**82.6MWh
LIFETIME
PRODUCTION***

**10 YEAR
WARRANTY
>8000 CYCLES @
80% DOD**

ON-BOARD LCD TOUCH SCREEN

Easy to see BMS monitoring, and selectable closed-loop communications with EG4, Schneider, Sol-Ark, Victron, Growatt, Megarevo, Luxpower, and Deye inverters.

DUAL ON-BOARD FIRE ARRESTORS

Offer fail-safe protection against thermal runaway.

WEATHER-TIGHT QUICK CONNECTS

Included battery cables with outdoor rated connectors allowing for fast, safe, and reliable battery connections.

INTEGRATED SELF-HEATING FEATURE

Heats the battery when the ambient temperature is low. A key feature for outdoor Lithium battery cell operations.

INTEGRATED BUSBARS

The battery design comes manufactured with 600A internal busbars with multiple terminals (4 positive & 4 negative) eliminating the need for external busbars when paralleling batteries and/or multiple inverters.

INNOVATIVE EMERGENCY STOP FUNCTION

The optional ESS disconnect can shut down all batteries and inverters (if equipped with rapid shut down capability) with the press of a button.

THE PERFECT PARTNER TO THE EG4 18KPV

The optional conduit box mates up directly to the connection ports of the inverter allowing a sleek and efficient installation. For other inverters or stand-alone battery installation, the conduit box plugs should be installed.



SPECIFICATION SHEET

MODULE OPERATING PARAMETERS			
Parameter	BMS		Recommended Charger Settings
Total Energy Capacity	14.3kWh @25C, 100% SOC		-
Voltage	51.2V		-
Capacity	280Ah ±2%		@25°C ±2°C @ 0.5C
Charging Voltage (Bulk/Absorb)	56.0V (±0.8V)		56.2V (±0.2V)
Float	-		54V (±0.2V)
SOC Cutoff	-		20%*
Charge Current	200A Max. Continuous		60 - 160A
Discharge Current	200A Max. Continuous		160A
BMS PARAMETERS			
Charge	Spec	Delay	Recovery
Cell Voltage Protection	3.8V	1 sec	3.45V
Module Voltage Protection	60V	1 sec	55.2V
Charge Over-Current 1	>205A	10 sec	-
Charge Over-Current 2	>225A	3 sec	-
Temperature Protection	<23°F or >158°F <-5°C or >70°C	1 sec	>32°F or <140°F >0°C or <60°C
Discharge	Spec	Delay	Recovery
Cell Voltage Protection	2.3V	1 sec	3.1V
Module Voltage Protection	44.8V	1 sec	48V
Discharge Over-Current 1	>205A	10 sec	60 sec
Discharge Over-Current 2	>300A	3 sec	60 sec
Short Circuit	2000A	0.1 ms	-
Temperature Protection	<-4°F or >167°F <-20°C or >75°C	1 sec	>14°F or <149°F (>-10°C or <65°C)
PCB Temperature Protection	>230°F (>110°C)	1 sec	@ <176°F (<80°C)
GENERAL SPECIFICATIONS			
Parameter	Spec		Condition
Cell Balance	120mA	Passive Balance	Cell Voltage Difference >40mV
Temperature Accuracy	3%	Cycle Measurement	Measure Range: -40°F - ≈212°F (-40°C - ≈100°C)
Voltage Accuracy	0.5%	Cycle Measurement	Cells & Module
Current Accuracy	3%	Cycle Measurement	Measure Range: -200 - 200A
SOC	5%		Integral Calculation
Power Consumption (Standby)	<300uA		Standby/Storage
Power Consumption (Operating)	<25mA		Charging/Discharging
Communication Ports	RS485/CAN		Customizable

BATTERY HEATER SPECIFICATIONS		
Parameter	Spec	Condition
Voltage	56V	-
Power Consumption	224W	-
Internal Battery Temperature	≤32°F (0°C) or ≥41°F (5°C)	Heat On/Heat Off
ENVIRONMENTAL PARAMETERS		
Charging Range		32°F to ≈113°F (0°C to ≈45°C)
Discharging Range		-4°F to ≈122°F (-20°C to ≈50°C)
Storage Range		-4°F to ≈122°F (-20°C to ≈50°C)
Ingress Protection		IP65
PHYSICAL SPECIFICATIONS		
Dimensions (H × W × D)		34.6 × 22.3 × 9.1 in. (88 × 56.6 × 23.2cm)
Weight		308.6 lbs. (140 kg)
Design Life		>15 years
Cycle Life		>8000 Cycles @ 0.5C 80% DOD
Lifetime Production		82.6MWh*
SAFETY CERTIFICATIONS		
Certifications		UL1973, UL9540A (Passed)

*EG4 recommends this value be set no lower than 20% to maintain the recommended 80% depth of discharge.

** $(51.2V \times 280Ah / 1000 \times 80\% \times 8000 \text{ cycles} / 1000) 90\% = MWh$



Introducing the EG4 PowerPro WallMount All Weather Battery - the ultimate energy storage solution for all your solar power needs. This cutting-edge 48V 280Ah Lithium Iron Phosphate (LiFePO4) battery redefines reliability and performance, ensuring your power supply remains uninterrupted.

Reliable

- Smart and intelligent BMS for reliability, efficiency and safety
- Integrated self-heating features when needed in low temperature
- Constant discharge current 200A

All-Weather Design

- Perfect for outdoor applications, built to withstand various weather conditions
- Integrated self-heating feature ensures optimal battery performance in low temperatures

Seamless Integration

- Can pair with any inverter in the market
Designed to pair seamlessly with EG4, Victron, Growatt, Megarevo, Luxpower, Deye, and Sol-Ark inverters
- Onboard LCD touch screen for easy BMS monitoring & comm.
- Quick connect battery cables for fast, safe, reliable connections

Technical Specifications

- **Model name:** PowerPro WallMount All Weather Battery
- **Battery Type:** LiFePO4 (Lithium Iron Phosphate, Grade A)
- **Voltage:** 48V (Nominal: 51.2V, Float: 54V)
- **Continuous Charge/Discharge Current:** 200A (Max)
- **Capacity:** 14.3kWh
- **BMS:** 200A
- **Weight:** 308.6 lbs. / 140Kg
- **Dimensions:** See diagram for detail (in inches)

Confident Power

- 10kW delivery, with peak power 10.5kW (10 sec.) & 15.4kW (3 sec.)
- Constant discharge current – 200A
- Over 8000 cycles at 80% DOD with an 82.6Mwh lifetime production

Safety

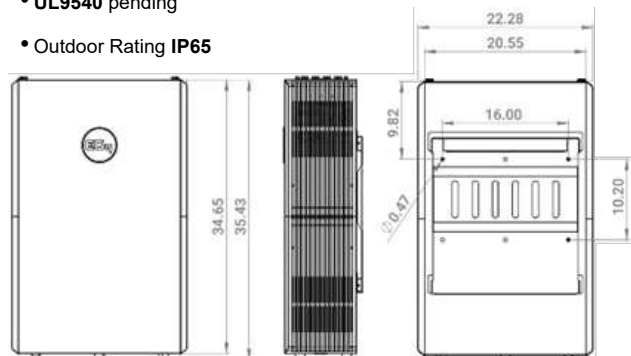
- Dual onboard fire arrestors offer fail-safe protection
- Innovative **Total Emergency Stop** function for instant shut down by RSD / ESS disconnect / inverter RSD
- 10-year warranty offered by EG4 electronics

PowerPro ESS

- Optional conduit box addon makes installation with an EG4 18kPV simple
- Turn any PowerPro into a fully capable Energy Storage System when paired with an EG4 18kPV
- No thermal monitoring, or ventilation needed
- No maintenance

Comprehensive Certifications

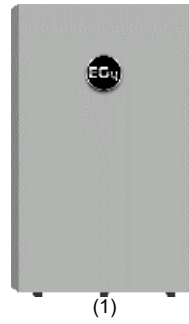
- **UL9540A** on cell, components, and unit level. **UL1973** on cell and module.
- **UL9540** pending
- Outdoor Rating **IP65**



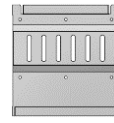
FAQ

- What is PowerPro Wallmount?
It is a 48V LFP battery, 16 cell 280Ah with capacity of 14.3kWh.
- Is it battery or inverter or combination of both?
PowerPro Wallmount is a LFP battery
- Can I use any inverter in the market with this battery?
Yes, you can.
- What's the recommended inverter for this battery?
EG4-18kPV with the conduit box.
- Can I add multiple WallMounts together?
Yes, you can do that in parallel. Each battery is provided with 4 connection slots that can accommodate 2/0 wires. You can daisy chain them for your scalability needs.
- What connection cables does it come with?
Each battery comes with two sets of outdoor rated battery connectors 2/0 size (amphenol or equivalent) at one end going to the battery and the other end going to the inverter. The inverter end of the wire is not amphenol connector.
- What cable to use for paralleling the batteries?
Parallel kit (sold separately) can connect multiple batteries in parallel. Both ends of these cables are weather rated connectors (amphenol or equivalent)
- Can I install the battery above the ground?
Yes, the battery can be installed above the ground. Ensure proper mounting procedures listed in the manual.
- Do I need X-bracket for all my battery installations?
You only need X-bracket for reference when installing EP-18kPV along with the battery.
- Do I need conduit box for every battery installation?
You only need conduit box for the 18kPV installation. However, it's a highly recommended accessory for each battery to ensure all the conduits are hidden for professional look.
- How many PowerPro WallMounts do I need for my 18kPV?
Up to 3 can be used with a single 18kPV.
- How do I upgrade the firmware?
You'll need to use a RS485 to USB cable along with the BMS Tools software. Firmware from EG4's website can be installed using this program.
- How can I access the BMS on my computer?
BMS Tools provides access to the BMS information. You'll need to use an RS485 to USB cable.

Packaging List



(1)



(2)



(3)



(7)



(4)



(5)



(6)

- (1) 280Ah PowerPro WallMount All Weather Battery (Qty 1)
- (2) Mounting bracket for PowerPro WallMount All Weather Battery (Qty 1)
- (3) X-bracket to align EG4-18kPV with PowerPro WallMount Battery (Qty 1)
- (4) Battery to inverter communication cable (Qty 1)
- (5) Black power cable 2/0 39.4in to connect inverter negative terminal (Qty 2)
- (6) Red power cable 2/0 39.4in to connect inverter positive terminal (Qty 2)
- (7) Concrete expansion bolts M8x70 (Qty 6)

The following items are included in the [Optional conduit box kit](#)



Conduit box
(Qty 1)



Plugs
(Qty 9)



Grommets
(Qty 9)



Cable glands
(Qty 16)

The following items are included in the [Optional battery parallel kit](#)



Red battery
parallel cable
53.1 in. (Qty 1)



Black battery
parallel cable
53.1 in. (Qty 1)



Parallel
Comm. cable
59.1 in. (Qty 1)

EG4 ELECTRONICS