EG4 ELECTRONICS

WALLMOUNT ALL WEATHER LITHIUM BATTERY

The EG4® 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.

COMPACT FOOTPRINT WITH OPTIMIZED SPACING:

Outdoor installations require only 3 inches of clearance side-to-side and 0.75 inch spacing front-to-back between stacked units, while indoor installations require 6 inches of clearance and 2 inches of spacing, maximizing installation flexibility and space efficiency.

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.

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.

**For information regarding warranty registration on EG4® Electronics products, please navigate to https://eg4electronics.com/warranty/ and select the corresponding product to begin the registration process.*

VER. 1.2.1 | INFORMATION SUBJECT TO CHANGE WITHOUT NOTICE.
MODEL #: WP-16/280-1AWLL | WP-16/280-1-AWLL

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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	140A Max. Continuous	60 – 140A
Discharge Current	140A Max. Continuous 200A (Max. Continuous for 30 min)	60 – 140A

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	>600A	<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

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

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 ≈122°F (0°C to ≈50°C)
Discharging Range		-4°F to ≈131°F (-20°C to ≈55°C)
Storage Range		32°F to ≈113°F (0°C to ≈45°C)
Operating Altitude		<16404 ft. (<5000 m)
Ingress Protection		IP65
PHYSICAL SPECIFICATIONS		
Dimensions (H × W × D)		36.1 × 22.3 × 9.1 in. (916 × 566 × 232 mm)
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)

***(51.2V×280Ah/1000×80%×8000 cycles/1000)90%=MWh*

CHANGELOG

Version 1.2.1

- Modified battery dimensions to include side panels

Version 1.2.0

- Added additional surge value for battery discharge, 200A for 30 minutes.

Version 1.1.9

- Modified first page to better reflect updated spacing requirements.

Version 1.1.8

- Modified operating altitude into environmental parameters

Version 1.1.7

- Modified the dimensions of the unit
- Modified Max. Continuous charging current from 200A to 140A
- Modified Max. Continuous discharging current from 200A to 140A
- Modified recommended discharging current from 160A to 60 – 140A
- Modified temperature range for charge range, discharge range, and storage range
- Modified short circuit spec from 2000A to >600A
- Modified short circuit delay from 0.1 ms to <0.1 ms

Version 1.1.6

- Modified recommended charging current from 60 – 160A to 60 – 140A.

Version 1.1.5

- Added operating altitude range value

Version 1.1.3

- Added additional safety certification

Version 1.1.0

- Reformatted document to match template standards.
- Adjusted the short circuit current rating from 600A to 2000A.

Version 1.0.2

- Added Total Energy Capacity to table

Version 1.0.1

- Added QR Codes

Version 1.0.0

- First revision of spec sheet