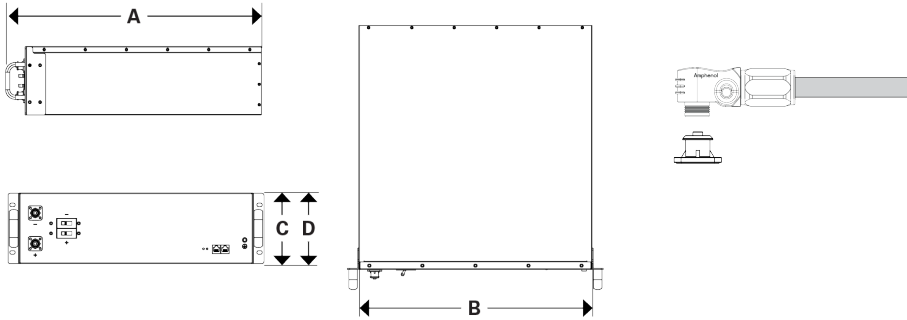


**AES RACKMOUNT 48-48-5120 (Product Model 900-0062)**



The AES RACKMOUNT ESS Battery Module performs reliably, installs quickly and configures easily for Off-Grid Solar, Whole-Home Backup Power and Microgrids. A high-current fourth-generation Battery Management System (BMS) reliably delivers high current and peak power to low-voltage hybrid inverters. Network RACKMOUNT Battery Modules in closed-loop communication to dramatically elevate inverter battery charging performance. Parallel unlimited kWh in open-loop or up to 180 kWh in a closed-loop system. The optional RACKMOUNT Slimline Enclosure with RACKMOUNT Battery Modules installed is UL9540 DC ESS certified.



**MECHANICAL SPECIFICATIONS**

Industry Reference	19 Inch Rackmount 3U	
Length A (in/mm)	19.6	497.3
Width B (in/mm)	17.3	439.2
Height C (in/mm)	5.3	133.5
Total Height D (in/mm)	5.3	133.5
Weight (lbs/kgs)	97	44
Terminal *	Amphenol SurLok Plus	
Cell(s)	16S1P	
Case Material	Galvanized Steel Sheet	
IP Rating	20	
Electrolyte	LiFePO4	

**ELECTRICAL SPECIFICATIONS**

Open Circuit Voltage (V)	51.2
Charge Voltage (Bulk Vdc)	55.2
Max Absorption Voltage (U1 Vdc)	55.2
Float Voltage (U2 Vdc)	53.6
Suggested Low Voltage Cutoff (Vdc)	48
Max Continuous Charge Current - 1 Hour	95 A
Max. Continuous Charge Current (I Max. Adc)	70 A
Min. Finishing Charge Current (I Min. Adc)	2.5 A
Max Continuous Discharge Current - 1 Hour	95 A
Max Continuous Discharge Current (Adc)	70 A
Max Continuous Discharge Rate (kW)	5.12
Max Peak Current (Adc)	218 A RMS
Self-Discharge (25°C / 77°F)	< 3% per month
Charge Temperature	Min: 4°C (39.2°F)   Max: 52°C (125.6°F)
Discharge Temperature	Min: -17°C (1.4°F)   Max: 52°C (125.6°F)
Storage Temperature	Min: -20°C (-4°F)   Max: 55°C (131°F)

Electrical Specifications at 25°C.

Do not exceed maximum voltage at the battery terminals.

CAUTION: Extra considerations must be given to depths of discharge, operating voltages and currents when designing systems for use at maximum operating temperatures.

**FEATURES**

**LYNK PORT**

- Connect battery string to LYNK Gateway
- Multi-battery BMS communication
- Remote ON/OFF capability

**HIGH-CURRENT BMS**

- High peak surge, continuous current
- Sets charge voltage, broadcasts SoC and temperature, balances cells

**LYNK ACCESS**

- Monitor and troubleshoot
- Configure communication with charger
- Export battery data logs
- Update battery firmware

**ACCESSORIES**

**LYNK GATEWAY**

- Closed-loop charger configuration
- J1939 / CAN Open / Serial CAN
- Three programmable relays

**ELEMENT ESS BATTERY COMBINER**

- Fully assembled. Quick connect cables
- 19-inch rack mount
- Combine up to 6 Battery Modules
- Disconnect breaker
- System ON/OFF button

**BENEFITS**

**RUNS LONGER**

- 2x Runtime of lead-acid batteries
- Up to 100% usable capacity

**LASTS LONGER**

- 10x the life of lead-acid battery (BCI-06)
- 10-Year warranty (Requires Registration)
- 30 MWh Energy Throughput Performance Guarantee

**CHARGES FASTER**

- 1C max charge rate, regardless of SoC
- 2x faster than C/2 rated Lithium batteries

**SURGE POWER**

- Up to 2.2C peak power
- Up to 1C charge/discharge

**HIGH-EFFICIENCY**

- Up to 50% more energy efficient than lead-acid batteries
- Up to 98% round-trip efficiency

**DYNAMIC CHARGING**

- Up to 40% faster recharge from 0% to 100% SoC
- Real-time charge rate optimization

**PARALLEL POWER**

- Up to 180 kWh with closed-loop communication (per LYNK)
- Unlimited in open-loop configuration
- Linear scaling of charge, discharge, peak capacity

**CERTIFICATION STANDARDS**

- IEC 62619
- UL 1973
- UL 9540a
- UL9540 (when installed using the AES Slimline Enclosure 950-0053)
- Seismic AC 156 (when installed using the AES Slimline Enclosure 950-0053)
- CEC
- CE

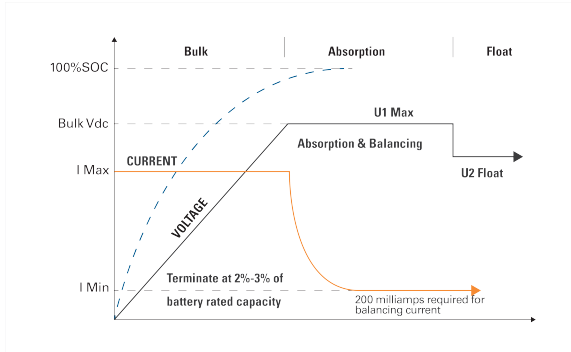
**SHIPPING CLASSIFICATION**

- UN 38.3
- UN 3480, Class 9 (Lithium batteries)
- Made in China

## PERFORMANCE SPECIFICATIONS

Nominal Energy (kWh)	5.12
Usable DoD	100%
Rated Wh Capacity (1C)	5120
Rated Ah Capacity (1C)	100

## Charging Profile



## Voltage Regulated IU Charging Curve Parameters

Nominal Voltage	48 V
Bulk Current (I1)	70 Adc recommended 95 Adc maximum
Absorption Voltage (U1)	55.2 V
Termination Charge Current	$I2 \leq 2.5\% C1$ Capacity