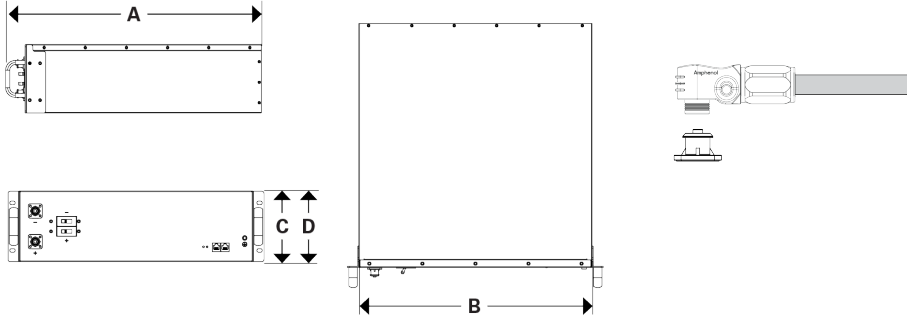


AES RACKMOUNT 48-48-5120-H



AES RACKMOUNT is the rapid install energy storage system designed for Residential Off-Grid Solar and Whole-Home Backup Power. The battery features a high-current GEN-4 BMS that delivers superior peak power for demanding load support, 1C charge/discharge rates and self-heating allowing for cold charge functionality. Easy configuration, UL1973 and UL9540-BESS enable seamless permitting throughout North America. An industry-leading 10-year warranty and energy throughput performance guarantee delivers a strong ROI.



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	

NOTE 1: Dimensions have a ±2 mm (0.08 in) tolerance. Weights may vary.

NOTE 2: Refer to [terminal guide](#) on website for torque values.

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 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.

PERFORMANCE SPECIFICATIONS

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

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

HEATED

- Integrated self-heating

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

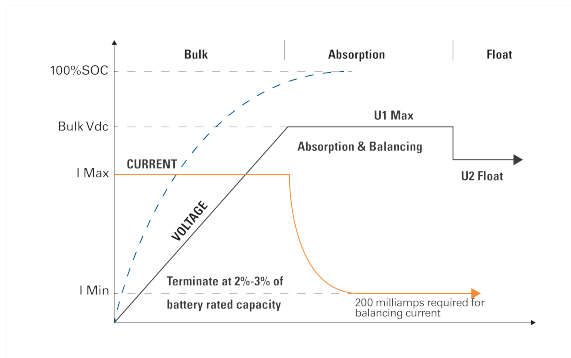
CERTIFICATION STANDARDS

- IEC 62619
- UL 1973
- UL 9540a (pending)
- UL9540 (pending)
- CE

SHIPPING CLASSIFICATION

- UN 38.3
- UN 3480, Class 9 (Lithium batteries)

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