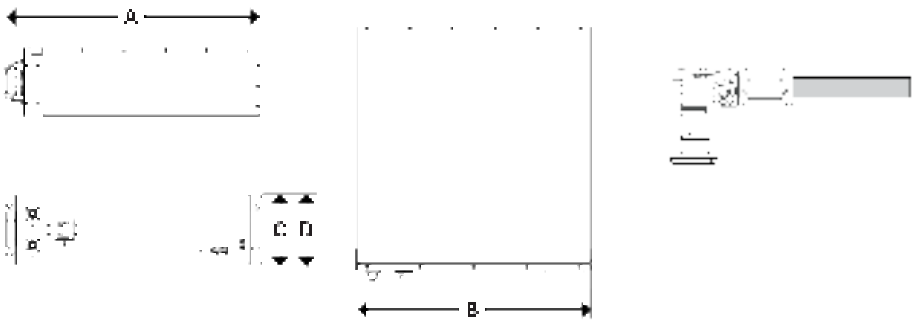




AES RACKMOUNT 48-48-5120 (Product Model 900-0062)



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                |       |

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 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

grades industrial voltage regulated iu curve

Voltage Regulated IU Charging Curve Parameters

grades 14242800 voltage regulated iu charging curve para