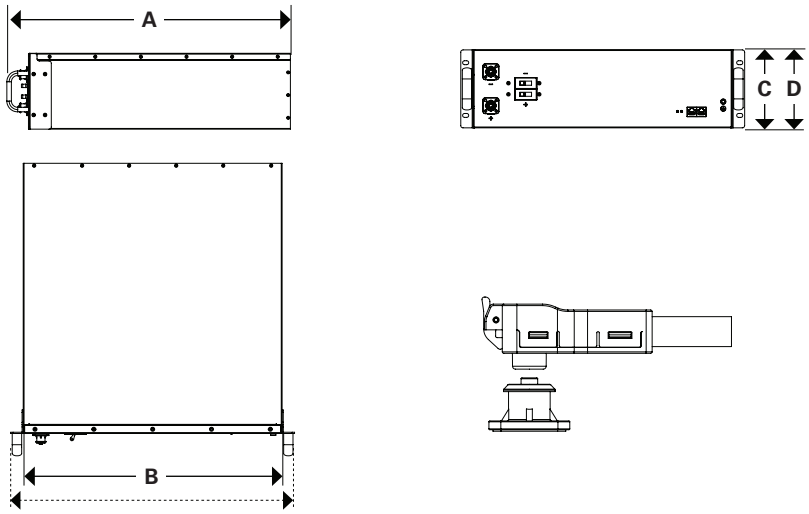
DISCOVER ENERGY SYSTEMS

48-48-5120-H
AES RACKMOUNT

AES RACKMOUNT is the rapid install energy storage system designed for Residential Off-Grid Solar and Whole-Home Backup Power and features a high-current GEN-4 BMS that delivers superior peak power for demanding load support and 1C charge and discharge rates. Easy configuration, UL1973, and UL9540-BESS enable AES RACKMOUNT for seamless permitting throughout North America.

MECHANICAL DRAWINGS



MECHANICAL SPECIFICATIONS

Industry Reference	19 inch - 3U rackmount	
Length (A) (in/mm)	19.6	497.3
Width (B) (in/mm) / incl. Handles	17.3 / 19	439.2 / 482.6
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	
Cells	16s1p	
Case Material	Galvanized Steel Sheet	
IP Rating	20	
Chemistry	$LiFePO_4$	

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

PERFORMANCE SPECIFICATIONS

Nominal Energy (kWh)	5.12
Useable DoD	100%
Rated Capacity kWh (1 HR)	5.12
Rated Capacity Ah (1 HR)	100

CERTIFICATION STANDARDS

Certification Standards	UL1973, UL9540, UL9540a, IEC 62619, CE
Shipping Classification	UN 38.3, UN3480, Class 9 (Lithium batteries)

ELECTRICAL SPECIFICATIONS

Nominal Voltage (V)	51.2
Charge Bulk Voltage - Bulk Vdc	55.2
Charge Absorption Voltage - U1 MAX	55.2
Charge Float Voltage - U2	53.6
Charge Termination Current[a]	2.5 A
Low Voltage Disconnect Recommended	48
Low Voltage Disconnect [b]	43.2
Max. Discharge Current (1 hour)	95 A
Max. Continuous Discharge Current	70 A
Max. Charge Current (1 hour)	95 A
Max. Continuous Charge Current	70 A
Peak Discharge Current (3 seconds)	218 A RMS
Self Discharge (25°C / 77°F)	< 3% per month
Charge Temperature	4°C to 52°C (39.2°F to 125.6°F)
Discharge Temperature	-17°C to 52°C (1.4°F to 125.6°F)
Internal Heater Operating Temperature Range	-17°C to 8°C (1.4°F to 46.4°F)
Storage Temperature	-10°C to 30°C (14°F to 86°F)

Electrical Specifications at 25°C.
(a) Charge termination current is permitted to be less than specified.
(b) Under load, low Voltage Disconnect is based on 2.5 VPC. In no load conditions, do not allow the battery to selfdischarge below 3.0 VPC.

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 and energy performance guarantee

CHARGES FASTER
- 1C Continuous 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 184 kWh (per LYNK II Gateway)
- Linear scaling of charge, discharge and peak capacity

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 voltage, broadcasts SoC, temperature, and balances cells

HEATED
- Integrated self-heating

LYNK ACCESS
- Monitor and Troubleshoot
- Configure Communication with Charger
- Export battery data logs
- Update battery firmware

ACCESSORIES

LYNK II GATEWAY
- Closed-loop charger configuration
- Configurable - CANopen, Serial CAN, J1939, RV-C, Others
- Three programmable relays

AES SLIMLINE ENCLOSURE
- Indoor, Outdoor NEMA 3R Enclosure
- Integrated 500A Busbar
- Integrated Battery Cables
- Closed-Loop Communications
- 30 kWh Enclosure (upto 6 battery modules)
- UL 9540 DC ESS Certified*

AES RACKMOUNT BATTERY COMBINER
- Fully assembled. Quick connect cables.
- 19-inch rack mount
- Combine up to 6 battery modules
- Disconnect breaker
- System ON/OFF button

AES RACKMOUNT QUICK STACK RACK
- Flexible and quick set up
- Stack up to six battery modules and a battery module combiner
- Brackets interlock without tools
- Air gap facilitates heat dissipation

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