



Sol-Ark Commercial Energy Solutions

A global energy technology leader with over 6 generations of hybrid inverters

Deep engineering expertise in smart energy solutions

A track record of results. For over a decade, Sol-Ark has been solving complex energy challenges with innovation and technology

Powered by a vast ecosystem including thousands of distributors, installers, EPCs, integrators, and battery manufacturers

Trusted by global Fortune 500 companies in telecommunications, retail, big tech, restaurants, and the largest space agency in the world

480V Outdoor and Indoor Battery Energy Storage System

Battery Model Name:
ESS Model Name:
Sol-Ark Product SKU:

L3 HVR-60
L3 HVR-60KWH-60K
L3-HVR-60KWH

L3 HV-60
L3 HV-60KWH-60K
L3-HV-60KWH

System Data

| | | |
|---|------------------------|-------|
| Compatible Inverter Model | Sol-Ark 60K-3P-480V | |
| Cell Chemistry | Lithium Iron Phosphate | |
| Nameplate Energy Capacity (DC) | 61.44 kWh | |
| Usable Energy Capacity (DC) ¹ | 55.30 kWh | |
| Built-In DC Disconnect Rating | 200A | |
| Internal Fuse Rating | 160A | |
| Max. # Battery Units Per Inverter | 6 | 16 |
| Max. # Inverters in Parallel | 6 | 10 |
| Recommend Depth of Discharge | 90% | |
| Roundtrip Efficiency Charge/Discharge (DC) | 94% (25C, 0.5C) | |
| System Nominal Voltage (DC) | 614.4V | |
| System Operating Voltage (DC) | 588V-672V | |
| Battery Pack Internal Configuration | 12s1p | 12s1p |
| Charge/Discharge Current (DC) ² | | |
| • Recommend | 50A | |
| • Max. Continuous | 100A | |
| • Peak Discharge (60 sec @ 25°C) | 125A | |
| Battery Max. Continuous Charge/Discharge Power (DC) | 61.44kW | |
| ESS Max. Continuous Charge/Discharge Power (AC) | 60kW | |
| Fault Current Contribution per Battery | 4,200A / 1.47ms | |

Mechanical Specifications

| | | |
|---|---|---------------------------------------|
| Product Dimensions (WxDxH) | 76x107x226 cm (30x42x89 in) | 58x58x218 cm (23x23x86 in) |
| Net Weight | 950 kg (2,095 lbs) | 773 kg (1,705lbs) |
| Mounting Type | Outdoor Enclosure | Freestanding Rack Mount |
| Material and Finish | Steel – Corrosion Resistant Powder Coat | Steel – Powder Coated |
| Operating Temperature ³ and Humidity | -20°C – 50°C (14°F – 122°F) – 5%–85% RH | 4°C – 43°C (40°F – 110°F) – 5%–85% RH |
| Operating Altitude ⁴ | 3000m (9,843 ft) | |
| Storage Conditions ⁵ | -4°F – 95°F up to 85% RH (non-condensing) – State of Charge (SOC) 30% | |
| Ingress Rating | IP55 (NEMA 3R) | IP20 (NEMA 1) |
| Noise Level @ 1m | 75 dBA at 30°C (86°F) | < 40 dBA at 30°C (86°F) |
| Seismic Mounting | Up to Category F | |
| Communication Ports | CAN2.0/RS485 | |

Battery Module Specifications

| | |
|---|---------------------------------------|
| Battery Module Nominal Energy Capacity | 5.12kWh |
| Battery Module Nominal Voltage and Capacity | 51.2V / 100Ah |
| Terminal Type | Amphenol SurLok – Push Lock Connector |

Warranty and Certification

| | |
|-----------------------------------|---|
| Performance Warranty ⁶ | 10 years or 196MWh Throughput |
| Product Warranty | 10 Years |
| Certifications | UL1973, UL9540, UL9540a, UN38.3, FCC, Prop 65 |

1. DC usable energy, test conditions: 90% DOD, 0.3C charge and discharge at 25°C. System usable energy may vary due to system configuration parameters.

2. Output current is affected by battery temperature and SOC.

3. Temperature is based on the average cell temperature as measured by the BMS. Charging is disabled below 0°C (32°F). Derating occurs above 45°C (113°F). See Sol-Ark technical sales for outdoor sites.

4. Battery will operate at a maximum of 1C charge/discharge up to 2000m, above 2000m maximum output is derated to 0.8C, contact Sol-Ark for details.

5. Storage temperature of the battery with no charge or discharge

6. EOL (End of Life) 70% retained capacity. See L3 Series warranty document for details.