

# Sol-Ark Commercial Energy Solutions



# Unlocking the Full Energy Value for Commercial

**Reduce Electricity Demand Charges** 



Improve Energy Resilience Both Behind and in Front of the Meter



Leverage Storage as a Competitive Advantage



**Optimize Energy Use** 



Gain New Revenue by Selling Excess Energy Back to the Local Utility





#### Rooftop

Unique, oversized AC-coupling solution perfect for adding batteries to large solar arrays without changing rooftop strategy



#### **Ground Mount**

Rugged and space efficient outdoor ratings to accommodate a wide variety of project environments with or without batteries



#### Carports, EV Charging Stations, Mechatron EV Carports

Large DC-coupled solar input allows for use with solar carports in EV charging applications

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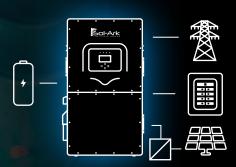
# Flexible Hardware for Every Job Site

Whether it's new construction, solar retrofit, site expansion, electric vehicles, or batteries only, Sol-Ark provides hardware solutions for your entire fleet.



#### **AC Coupling**

Easily retrofit very large solar arrays and add batteries with no change to existing solar strategy.



#### **DC Coupling**

Connect solar directly, using the GEN port for EV charging or gas generator controls.



#### **Battery Only**

Target electric bill savings, provide short duration backup, and expand site capability.



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# Driving Commercial Energy Resilience

#### **Commercial Hybrid Inverters**

Sol-Ark revolutionary commercial hybrid inverters simplify adding storage to commercial buildings. The Sol-Ark 30K provides native 208V three-phase electricity out-of-box, and the Sol-Ark 60K is 480V. Both include a microgrid controller, allowing savings to be optimized when grid connected and automatically isolated during power outages.

Both the 30K and 60K are stackable to 10 units of high voltage battery bank options, increasing project size and site flexibility. A multi-use port provides flexible interconnect to a variety of devices, including AC coupling, EV chargers, generator, or outdoor service panels.

Commercial & Industrial		
Product Suite	30K-3P-208V, 60K-3P-480V	
Max PV Power to Battery	30,000W (30K) - 60,000W (60K)	
CEC Efficiency	96%	
Standard Warranty	10 Years	





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# Limitless Lithium™

Battery Energy Storage System IP55 Outdoor, L3 HVR-60, Compatible with 30k and 60k Inverters



#### Features/Innovations



Fully integrated energy storage solution – hybrid Inverter, battery and fleet management



Built-in dual fire suppression including cabinet and packs



Integrated air conditioner for temperature control



Intelligent EMS, BMS and hybrid inverter technology



Supports up to 6 battery cabinets per Inverter



10-Year Warranty



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# Limitless Lithium™

Battery Energy Storage System IP20 Indoor, L3 HV-40 and L3 HV-60



#### Features/Innovations



Prismatic cells offer maximum reliability, efficiency, and safety



Automatic configuration of batteries and BMS for quick commissioning



5kW packs include built-in fire suppression



Supports USB and wifi updates including remote settings adjustment



Modular battery cabinets can be connected easily in parallel to increase capacity



10-Year Warranty



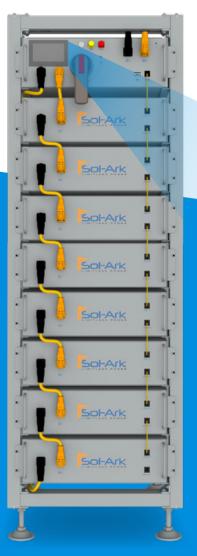
Preassembled IP55 outdoor option includes temperature control



Indoor IP20 option for maximum affordability



Inside of the battery



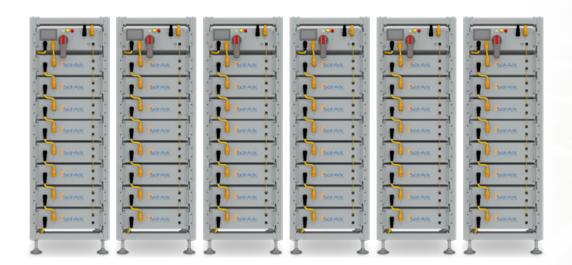


BMS touch screen offers real-time intelligent monitoring and diagnostics

### Modular Outdoor and Indoor Solutions



**IP55 Outdoor:** Up to 6 inverters / 36 battery cabinets **30k**: 180kWac / 2.2MWh / 234kWdc – 346kWac PV 60k: 360kWac / 2.2MWh / 468kWdc - 720kWac PV



IP20 Indoor: Up to 10 inverters / 160 battery cabinets **30k**: 300kWac / 6.4MWh / 390kWdc – 576kWac PV 60k: 600kWac / 9.6MWh / 780kWdc - 1.2MWac PV



#### Technical Specifications: 208V Outdoor and Indoor

Battery Model: L3 HVR-60 L3 HV-40 SKU: L3-HVR-60KWH L3-HV-40KWH

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System Data			
Compatible Inverter	Sol-Ark 30K-3P-208V-N		
Environmental Rating	Outdoor	Indoor	
Cell Chemistry	Lithium Iron Phosphate		
<b>Battery Cabinet Capacity</b>	61.44 kWh	40.96 kWh	
System Usable Energy <sup>1</sup>	55.30 kWh	36.86 kWh	
Built-In DC Disconnect Rating	20	OA	
Internal Fuse Rating	160A		
Real Power (backup) Per Inverter	30 kWac		
Max DC-Coupled Solar Per Inverter	39 kWac		
Max AC-Coupled Solar Per Inverter	54 kWac		
Max Battery Cabinets Per Inverter	6	16	
Maximum Inverters Per System	6 <sup>2</sup>	10	
Recommend Depth of Discharge	90%		
System Nominal Voltage	307V	410V	
System Operating Voltage	294V — 336V	392V — 448V	
Charge/Discharge Current <sup>3</sup>			
· Recommend	100A	50A	
<ul> <li>Nominal/Continuous</li> </ul>	100A		
· Peak Discharge (2 mins @ 25°C)	125A		
System Roundtrip Efficiency	90% (25C, 0.5C)		
Product Dimensions (WxDxH)	76x107x226 cm (30x42x89 in)	58x58x163 cm (23x23x64 in)	
Net Weight	950 kg (2,095 lbs)	628 kg (1,384 lbs)	
Mounting Type	Outdoor Enclosure	Freestanding Rack Mount	
Operating Temperature 4	-10°C — 50°C (14°F — 122°F)	4°C — 43°C (40°F — 110°F)	
Humidity	5% — 85% RH		
Operating Altitude 5	3000m (9,843 ft)		
Stavene Conditions 6	-4°F — 95°F Up to 85% RH (non-condensing)		
Storage Conditions 6	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 Zone			
Communication Ports	4 CAN2.0/RS485		
Battery Module Specifications	CANZ.U/ R3400		
Battery Module Configuration	6s2p	8s1p	
Battery Module Energy	·	· · · · · · · · · · · · · · · · · · ·	
Battery Module Nominal Voltage	5.12 kWh 51.2V		
Battery Module Nominal Capacity	100Ah		
Warranty and Certification		77.4.1	
Performance Warranty <sup>7</sup>	10 years or 196MWh Throughput	10 years or 130MWh Throughput	
Product Warranty		10 Years of 190MWH THroughput   10 Years of 130MWH Throughput	
Certification	UL1973, UL9540, UL9540		
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- 1. DC usable energy, test conditions: 90% DOD, 0.3C charge and discharge at 25°C. Usable system energy may vary due to system configuration parameters.
- 2. For larger outdoor installations use the Sol-Ark Mega Ark.
- 3. Output current is affected by battery temperature and SOC.
- 4. Temperature is based on the average cell temperature as measured by the BMS. Battery charging is disabled below 0°C (32°F). Derating occurs above 45°C (113°F). For HVR model, operating temperature range only applies if using included climate controls. See Sol-Ark technical sales for planning outdoor sites.
- 5. 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.
- 6. Storage temperature of the battery with no charge or discharge.
- 7. EOL (End of Life) 70% retained capacity. See L3 Series warranty document for details.

#### Technical Specifications: 480V Outdoor and Indoor

Battery Model: L3 HVR-60 L3 HV-60 SKU: L3-HVR-60KWH L3-HV-60KWH

SKU:	L3-HVR-60KWH	L3-HV-60KWH		
System Data				
Compatible Inverter	Sol-Ark 60K	Sol-Ark 60K-3P-480V-N		
<b>Environmental Rating</b>	Outdoor	Indoor		
Cell Chemistry	Lithium Iron Phosphate			
<b>Battery Cabinet Capacity</b>	61.44 kWh			
System Usable Energy <sup>1</sup>	55.30 kWh			
Built-In DC Disconnect Rating	200A			
Internal Fuse Rating	160A			
Real Power (backup) Per Inverter	60 kWac			
Max DC-Coupled Solar Per Inverter	78 kWac			
Max AC-Coupled Solar Per Inverter	125 kWac			
Max Battery Cabinets Per Inverter	6	16		
Maximum Inverters Per System	6 <sup>2</sup>	10		
Recommend Depth of Discharge	90%			
System Nominal Voltage	614.4V			
System Operating Voltage	588V-672V			
Charge/Discharge Current <sup>3</sup>				
· Recommend	50A			
Nominal/Continuous	100A			
• Peak Discharge (2 mins @ 25°C)	125A			
System Roundtrip Efficiency	90% (25C, 0.5C)			
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		
Operating Temperature 4	-10°C — 50°C (14°F — 122°F)	4°C — 43°C (40°F — 110°F)		
Humidity	5%-85%RH			
Operating Altitude <sup>5</sup>	3000m	(9,843 ft)		
Storage Conditions <sup>6</sup>	-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	75 dBA at 30°C (86°F)	< 40 dBA at 30°C (86°F)		
Seismic Zone		1		
<b>Communication Port</b>	CAN2.0	/RS485		
Battery Module Specifications				
Battery Module Configuration	129	12s1p		
Battery Module Energy	5.12	5.12 kWh		
Battery Module Nominal Voltage	51.2V			
Battery Module Nominal Capacity	51.	<del></del> _		
zattery reduce reminat supusity	100			
Warranty and Certification				
		)Ah		
Warranty and Certification	100	)Ah IWh Throughput		

- 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. For larger outdoor installations use the Sol-Ark Mega Ark.
- 3. Output current is affected by battery temperature and SOC.
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- 5. 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.
- 6. Storage temperature of the battery with no charge or discharge
- 7. EOL (End of Life) 70% retained capacity. See L3 Series warranty document for details.

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# Monitor and Manage Your Energy from Anywhere

Maximize energy performance of every circuit with smart load management

Automate business backup

Optimize demand response with Peak Shaving

Analyze how much energy was made, used, stored and sold back to the grid

Check the health of the battery

Remote commissioning and settings adjustment

# Future Proof. Battery Technology for Today and Tomorrow.

Battery technology is constantly evolving. Sol-Ark's industry leading software architecture enables pairing the best battery for the solution — today and in the future.



A Selection of Our Industry Leading Battery Partners





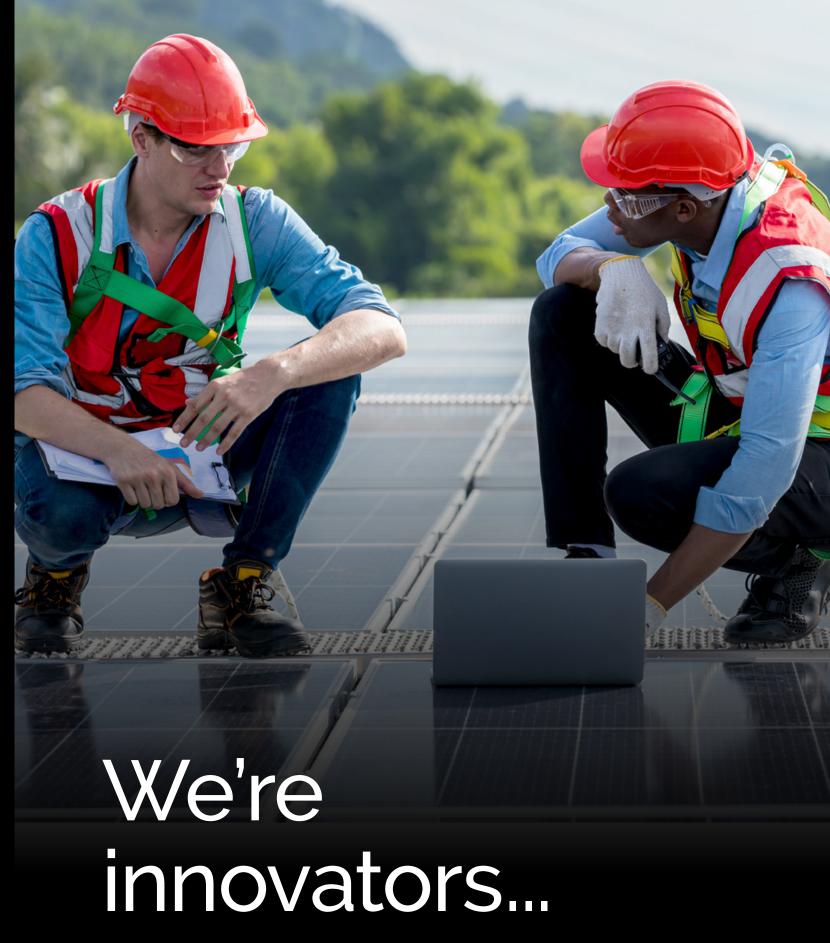






# Our Industry Solutions





who solve the most critical energy storage challenges every day

# About Sol-Ark

A global energy technology leader

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



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