

**SiteReach Energy Commercial Energy Solutions by Sol-Ark** 



# Unlocking the Full Energy Value for Commercial

Reduce Electricity Demand ChargesImprove Energy Resilience Both<br/>Behind and in Front of the MeterImprove Energy Resilience Both<br/>Surface AdvantageLeverage Storage as a<br/>Competitive AdvantageImproveOptimize Energy UseImproveSprinze Energy UseImproveStan Mew Revenue by Selling Excess<br/>Energy Back to the Local UtilityImprove







# 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

# Seamless UPS Modular Architecture NEM3 and VPP Ready

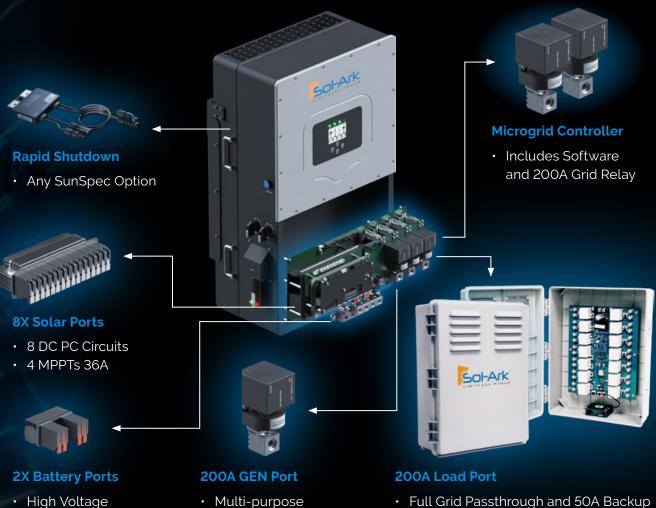
....

.



# 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.



Multiple Options

**AC Coupling** 

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

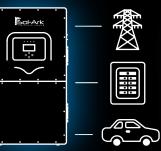


 $\boxtimes$ 

- EV, Solar, or Generators
- Full Grid Passthrough and 50A Backup
- Works with SL-14 Load Controller (208V)

## **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.



# Driving Commercial Energy Resilience

Commercial & Industrial			
Product Suite	30K-3P-208V, 60K-3P-480V		
Max PV Power to Battery	30,000W (30K) – 60,000W (60K)		
CEC Efficiency	96.5%		
Standard Warranty	10 Years + 5 Year Extended Option		

Sol-Ark revolutionary commercial hybrid inverters simplify adding storage to commercial buildings. The Sol-Ark 30K provides native 208V three-phase electricity outof-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.



### 14 x 100A Channels, up to 240V

Ensure Quality Performance with Backup Circuit Prioritization

Enhances Inverter Capability by 2X and Battery by 30%

Smart, In-Platform Software powered by Sol-Ark

Convenient Installation Next to Existing Load Panel

Advanced State-of-Charge and Time Shift Controls

### **AI-Powered Smart Load Management**



# Limitless Lithium™

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



### Features/Innovations







Integrated air conditioner for temperature control

Built-in dual fire suppression

including cabinet and packs

Fully integrated energy

storage solution – hybrid Inverter, battery and fleet

management



Intelligent EMS, BMS and hybrid inverter technology

+ **f** 

Supports up to 6 battery cabinets per Inverter



10-Year Warranty



# Limitless Lithium™

Battery Energy Storage System L3 HV-40 and L3 HV-60



Features/Innovations



Prismatic cells offer maximum reliability, efficiency, and safety



Automatic configuration of batteries and BMS



5kW packs include built-in fire suppression



Intelligent Battery Management System monitors, balances, and controls battery cells for safe and efficient operation



Supports up to 16 battery cabinets per inverter



10-Year Warranty





Inside of the battery

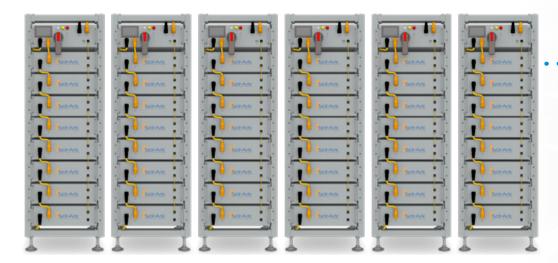


BMS touch screen offers real-time intelligent monitoring and diagnostics

# Modular Outdoor and Indoor Solutions



L3 HVR-60: Up to 6 inverters / 36 battery cabinets 30k: 180kWac / 2.2MWh / 234kWdc – 346kWac PV 60k: 360kWac / 2.2MWh / 468kWdc – 720kWac PV



L3 HV-40 and L3 HV-60: Up to 10 inverters / 160 battery cabinets 30k: 300kWac / 6.4MWh / 390kWdc – 576kWac PV 60k: 600kWac / 9.6MWh / 780kWdc – 1.2MWac PV On-Grid or Off-Grid



## Technical Specifications: 208V Outdoor and Indoor

Battery Model: SKU:	L3 HVR-60 L3-HVR-60KWH	L3 HV-40 L3-HV-40KWH
System Data		
Compatible Inverter	Sol-Ark 30K-	-3P-208V-N
Environmental Rating	Outdoor	Indoor
Cell Chemistry	Lithium Iron	Phosphate
Battery Cabinet Capacity	61.44 kWh	40.96 kWh
System Usable Energy <sup>1</sup>	55.30 kWh	36.86 kWh
Built-In DC Disconnect Rating	200	A
Internal Fuse Rating	160A	
Real Power (backup) Per Inverter	30 k <sup>v</sup>	Wac
Max DC-Coupled Solar Per Inverter	39 kV	Wac
Max AC-Coupled Solar Per Inverter	54 k)	Wac
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>	100	A
<ul> <li>Peak Discharge (2 mins @ 25°C)</li> </ul>	125	
System Roundtrip Efficiency	90% (25)	C, 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 <sup>4</sup>	-10°C — 50°C (14°F — 122°F)	4°C — 43°C (40°F — 110°F)
Humidity	5%-8	5% RH
Operating Altitude ⁵	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 @ 1m	75 dBA at 30°C (86°F)	< 40 dBA at 30°C (86°F)
Seismic Zone	4	
Communication Ports	CAN2.0	/RS485
Battery Module Specifications		
Battery Module Configuration	6s2p	8s1p
Battery Module Energy	5.12	‹Wh
Battery Module Nominal Voltage	51.2	2V
Battery Module Nominal Capacity	100	Ah
Warranty and Certification		
Performance Warranty <sup>7</sup>	10 years or 196MWh Throughput	10 years or 130MWh Throughput
Product Warranty	10 Ye	· · · ·
Certification	UL1973, UL9540, UL9540a, UN38.3, FCC, Prop 65	

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.

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.

Battery Model: SKU:	L3 HVR-60 L3-HVR-60KWH	L3 HV-60 L3-HV-60KWH	
System Data			
Compatible Inverter	Sol-Ark 60K	Sol-Ark 60K-3P-480V-N	
Environmental Rating	Outdoor	Indoor	
Cell Chemistry	Lithium Iron	Phosphate	
Battery Cabinet Capacity	61.44	kWh	
System Usable Energy <sup>1</sup>	55.30	55.30 kWh	
Built-In DC Disconnect Rating	20	200A	
Internal Fuse Rating	160	AC	
Real Power (backup) Per Inverter	60 k	60 kWac	
Max DC-Coupled Solar Per Inverter	78 k <sup>3</sup>	78 kWac	
Max AC-Coupled Solar Per Inverter	125 k	125 kWac	
Max Battery Cabinets Per Inverter	6	16	
Maximum Inverters Per System	6 <sup>2</sup>	10	
Recommend Depth of Discharge	90	90%	
System Nominal Voltage	614	.4V	
System Operating Voltage	588V-	-672V	
Charge/Discharge Current <sup>3</sup>			
Recommend	50	A	
<ul> <li>Nominal/Continuous</li> </ul>	100	100A	
<ul> <li>Peak Discharge (2 mins</li></ul>	125	125A	
System Roundtrip Efficiency	90% (25	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 <sup>₄</sup>	-10°C — 50°C (14°F — 122°F)	4°C — 43°C (40°F — 110°F)	
Humidity	5%-8	5%-85%RH	
Operating Altitude⁵	3000m (	3000m (9,843 ft)	
	-4°F — 95°F		
Storage Conditions <sup>6</sup>	Up to 85% RH (non-condensing)		
	State of Charg	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	
Communication Port	CAN2.0	CAN2.0/RS485	
Battery Module Specifications			
Battery Module Configuration	129	s1p	
Battery Module Energy	5.12	kWh	
Battery Module Nominal Voltage	51.	51.2V	
Battery Module Nominal Capacity	100	DAh	
Warranty and Certification			
Warranty <sup>7</sup>	10 years or 196M	10 years or 196MWh Throughput	
Product Warranty		10 Years	
Certification		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. For larger outdoor installations use the Sol-Ark Mega Ark.

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.

Europerative 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.

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.

 <sup>4.</sup> 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.

<sup>3.</sup> Output current is affected by battery temperature and SOC.

# Mega Ark

# 500kW+ Turnkey Containerized Solutions

To be released mid-year 2024



### Features/Innovations

### **Pre-Engineered**



Designed with precise equipment selection to maximize efficiency, reliability and lifespan

### **Factory Tested**



Factory built solution integrates comprehensive safety features

### **Plug-and-Play**



Includes all batteries, power conversion, coupling transformer, safety features, cooling, and protection and controls



Integrated air conditioner for temperature control



Built-in dual fire suppression including cabinet and packs

# Energy Efficiency, Independence and Resilience. Delivered.

Peak Shaving

Grid Support

Intermittent Power Generation

Charging Infrastructure

**Islanding Options** 

Time of Use

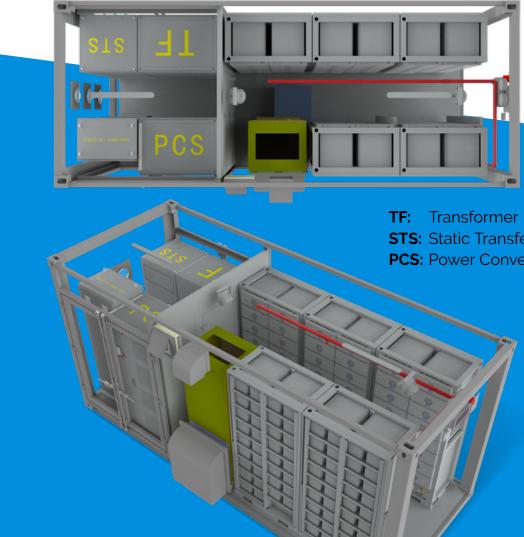
**Multi-Use Applications** 

\* Subject to Change

# Technical Specifications: Mega Ark

• • • • •		
System Data		
AC Output/Input Power	500kW	
AC Output Frequency and Voltage	50/60Hz; 480Vac	
Grid Type	3W Custom Transformer	
THD	<3%	
Power Factor	-1 to +1	
System Communication	ETH	
Black Start	Yes	
Fire Detection	Heat and Smoke Detection and Extinguishment	
Fire Alarm	Alarm Panel, Strobes and Horns with UPS Backup	
Aux Load	10kW	
Auxiliary Power Interface	208Vac, 3W+N+PE	
Auxiliary Power Back Up	30 mins (Important Load)	
Local Emergency Stop	Yes	
Remote Stop/Shut-off	Yes	
Battery Technical Specification		
Energy Configuration	1060kWh	
Battery Operating Voltage	642V-868V	
Battery Communication	CAN, RS485	
Pack Configuration	1P14S (14 Cells)	
Rack Configuration	1P238S (17 Packs)	
Stack Configuration	5*1P238S (5 Racks)	
Other Technical Specification		
Dimension (feet)	19.9W/8D/9.5H	
Weight Approximate	18.2 tons	
IP Rating of Enclosure	IP54	
Selsmic Parameter	Zone 4	
Noise @1m Distance	≤75 dB	
Operating Temperature Range	-22°F to 140°F (> 113°F Derating)	
Relative Humidity	≤95% (Non Condensing)	

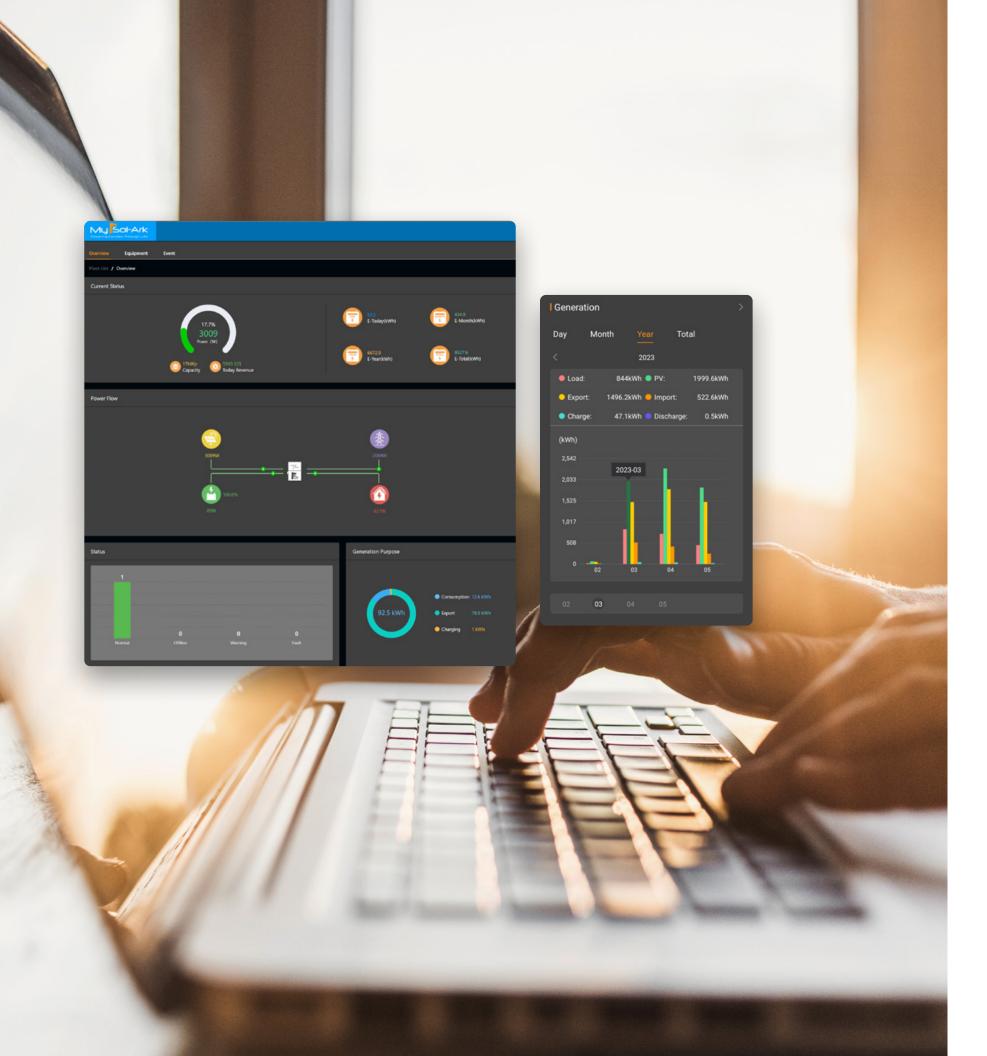




\* Subject to Change

**STS:** Static Transfer Switch **PCS:** Power Conversion System

21



# 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**



**Data Center** 



Telecommunications





Military



**Pharmaceutical** 



Industrial Automation

**Big Box Retail** 

Oil & Gas



**Financial Institutions** 



Pharmacies



**Gas Stations** 





Restaurants



Education



Agriculture



**Disaster Relief** 



Wineries



# innovators...

# who solve the most critical energy storage challenges every day





sitereachenergy .com

siteReach Energy | 370 Industrial Avenue, Rocky Mount, VA 24151 | info@sitereaachenergy.com | 540-238-2332