Sol-Ark Commercial Energy Solutions

sol-ark.com | (972) 575-8875

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

Easy retrofit with including AC coupling interconnection port up to 2X solar capacity or DC-couple directly onto the inverter

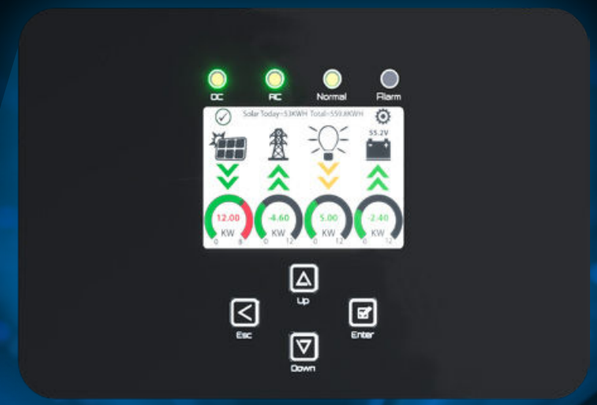
Ground Mount

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

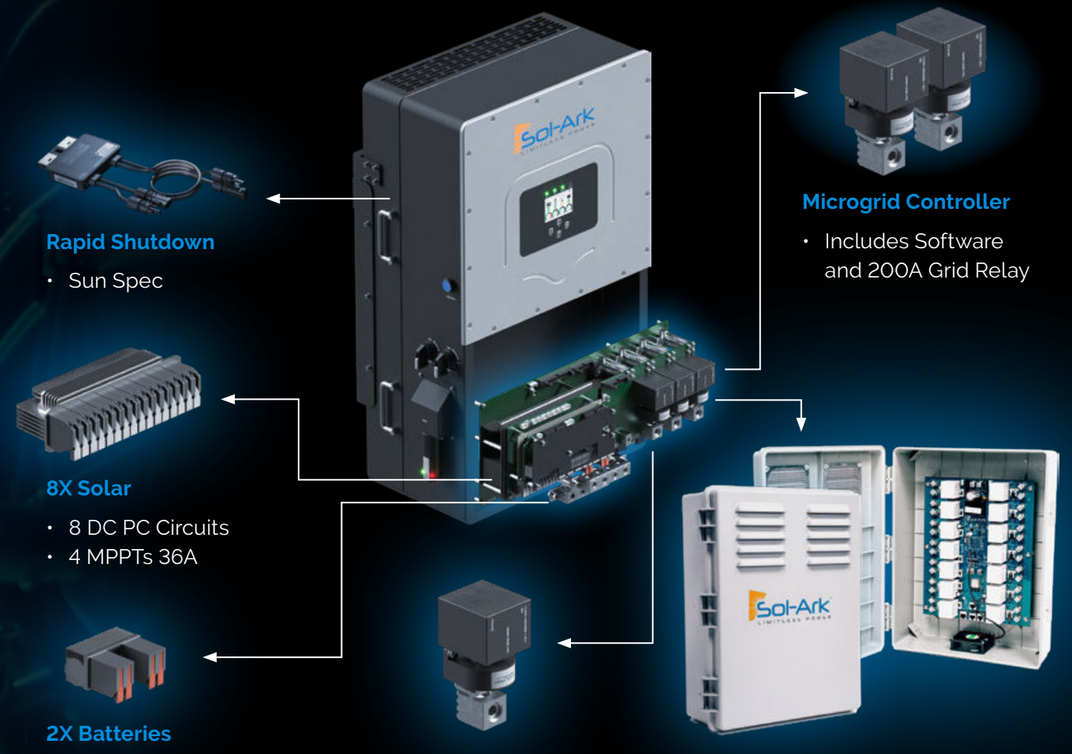
DC-couple to the inverters and use the included GEN port for easy and controlled EV-charging interconnectivity

Seamless UPS
Modular Architecture
Battery Agnostic



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.



Rapid Shutdown

- Sun Spec

8X Solar

- 8 DC PC Circuits
- 4 MPPTs 36A

2X Batteries

- High Voltage
- Multiple Options

Microgrid Controller

- Includes Software and 200A Grid Relay

200A GEN Port

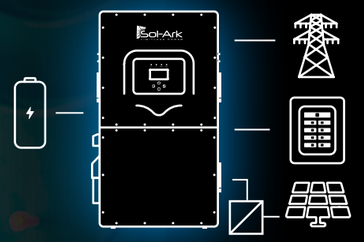
- Multi-purpose

Load Control

- SL-14 208V

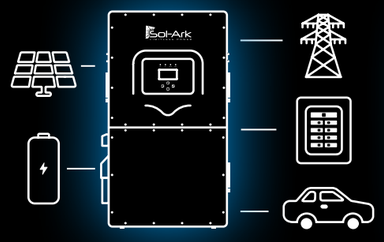
AC Coupling

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.

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

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 12 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.

AI-Powered Smart Load Management
14 x 100A Channels, up to 600V
Ensure Quality Performance with Backup Circuit Prioritization
Enhances Inverter Power 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

Limitless Lithium™

Battery Energy Storage System
IP55 Outdoor: L3 30K-HV-60-IP55 and L3 60K-HV-60-IP55

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

Limitless Lithium™

Battery Energy Storage System
IP20 Indoor: L3 30K-HV-40-IP20 and L3 60K-HV-60-IP20

Features/Innovations

Prismatic cells offer maximum reliability, efficiency, and safety

Automatic configuration of batteries and BMS

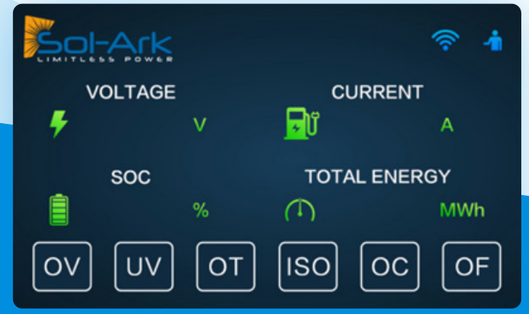
5kW packs include built-in fire suppression

Supports USB and wifi upgrade (optional), remote upgrade

Modular batteries can easily be connected in parallel or series to increase capacity or voltage

10-Year Warranty

Inside of the battery



BMS touch screen offers real-time intelligent monitoring and diagnostics

Modular Outdoor and Indoor Solutions

Grid

IP55 Outdoor: Up to 6 inverters / 36 battery cabinets
30k: 180kWac / 2.2 MWH / 235kWdc – 325kWac PV
60k: 360kWac / 2.2 MWH / 470kWdc – 750kWac PV

Grid

IP20 Indoor: Up to 12 inverters / 72 battery cabinets
30k: 360kWac / 4.3 MWH / 470kWdc – 650kWac PV
60k: 720kWac / 4.3 MWH / 940kWdc – 1.5MWac PV

Technical Specifications: 208V Outdoor and Indoor

Battery Model:	L3 30K-HV-60-IP55	L3 30K-HV-40-IP20
System Data		
Compatible Inverter	Sol-Ark 30K-3P-208V-N	
Environmental Rating	Outdoor	Indoor
Cell Chemistry	Lithium Iron Phosphate	
Battery Cabinet Capacity	61.44kWh	40.96kWh
System Usable Energy[1]	55.30kWh	36.86kWh
Inverter Grid/Gen/Load OCPD Rating	200A	
Backup Capability 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	
Min Battery Cabinets Per Inverter	1	
Inverter Stacks in Parallel	6[2]	8
Recommend Depth of Discharge	90%	
System Nominal Voltage	307V	410V
System Operating Voltage	249.6V–350.4V	332.8V–467.2V
Charge/Discharge Current[3]		
• **Recommend**	100A	50A
• **Nominal/Continuous**	100A	
• **Peak Discharge (2 mins, 25°C)**	125A	
Combined Battery + Inverter Efficiency	90% (25C, 0.5C)	
Dimension (feet)	2.5W/3.5D/7.4H	1.9W/1.9D/5.3H
Weight	2095lbs	1384lbs
Operating Temperature[4]	-22°F to 131°F	-4°F to 131°F
Humidity	5%~85%RH	
Altitude	≤2000m	
Storage Temperature	-4°Fto 95°F	
Seismic Zone	4	
Communication Port	CAN2.0/RS485	
Battery Module Specifications		
Battery Modules in Series Per Cabinet	6s2p	8
Battery Module Energy	5.12kWh	
Battery Module Nominal Voltage	51.2V	
Battery Module Nominal Capacity	100Ah	
Battery Module Qty Per Cabinet		
Warranty and Certification		
Cycle Life	>6000 Cycles (77°F±7°F 0.5C/0.5C, EOL70%)	
Warranty[5]	10 Years	
Certification	UL9540, UL9540a, UN38.3, CEC, JA12, IEC62477, IEC62619, VDE-AR-N 4105, IEC62109, VDE2510-50	

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. The current is affected by temperature and SOC.
4. Charging disconnects below 32°F. Derating occurs above 113°F. Ambient temperature may exceed operating range on IP55 model if using included climate controls. See Sol-Ark technical sales for planning outdoor sites outside of operating temperature range.
5. Battery warranty expires at 6000 cycles or 10-year term, whichever occurs first. 5-year extended warranty option available for inverter only.

Technical Specifications: 480V Outdoor and Indoor

Battery Model:	L3 60K-HV-60-IP55	L3 60K-HV-60-IP20
System Data		
Compatible Inverter	Sol-Ark 60K-3P-480V-N	
Environmental Rating	Outdoor	Indoor
Cell Chemistry	Lithium Iron Phosphate	
Battery Cabinet Capacity	61.44kWh	
System Usable Energy[1]	55.30kWh	
Inverter Grid/Gen/Load OCPD Rating	200A	
Backup Capability 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	
Min Battery Cabinets Per Inverter	1	
Inverter Stacks in Parallel	6[2]	12
Recommend Depth of Discharge	90%	
System Nominal Voltage	614.4V	
System Operating Voltage	499.2V–700V	
Charge/Discharge Current[3]		
• **Recommend**	50A	
• **Nominal/Continuous**	100A	
• **Peak Discharge (2 mins, 25°C)**	125A	
Combined Battery + Inverter Efficiency	90% (25C, 0.5C)	
Dimension (feet)	2.5W/3.5D/7.4H	1.9W/1.9D/7.4H
Weight	2095lbs	1705lbs
Operating Temperature[4]	-22°F to 131°F	-4°F to 131°F
Humidity	5%–85%RH	
Altitude	≤2000m	
Storage Temperature	-4°Fto 95°F	
Seismic Zone	4	
Communication Port	CAN2.0/RS485	
Battery Module Specifications		
Battery Modules in Series Per Cabinet	12	
Battery Module Energy	5.12kWh	
Battery Module Nominal Voltage	51.2V	
Battery Module Nominal Capacity	100Ah	
Battery Module Qty Per Cabinet		
Warranty and Certification		
Cycle Life	>6000 Cycles (77°F±7°F 0.5C/0.5C, EOL70%)	
Warranty[5]	10 Years	
Certification	UL9540, UL9540a, UN38.3, CEC, JA12, IEC62477, IEC62619, VDE-AR-N 4105, IEC62109, VDE2510-50	

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5. Battery warranty expires at 6000 cycles or 10-year term, whichever occurs first. 5-year extended warranty option available for inverter only.

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

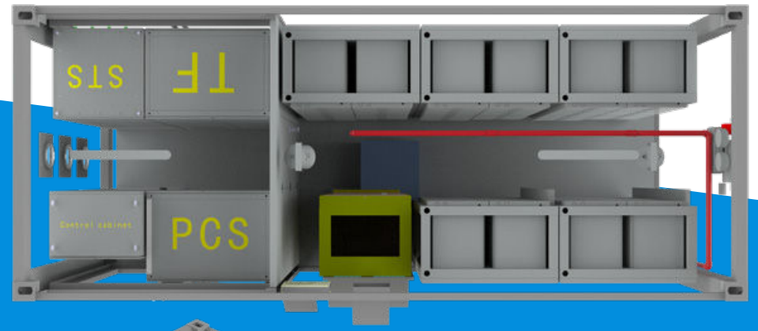
Built-in dual fire suppression including cabinet and packs

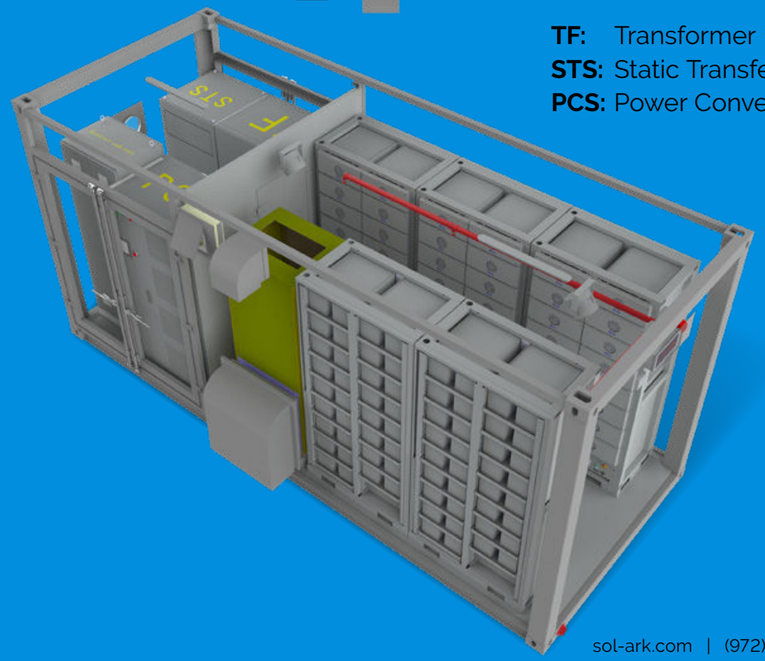
Energy Efficiency, Independence and Resilience. Delivered.

- Peak Shaving
- Grid Support
- Intermittent Power Generation
- Charging Infrastructure
- Islanding Options
- Time of Use
- Multi-Use Applications

Technical Specifications: Mega Ark

System Specification	
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)





TF: Transformer
STS: Static Transfer Switch
PCS: Power Conversion System

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

Deka BATTERIES

EnduroEnergy Systems, Inc.

HOMEGRID

PYLONTECH

Sol-Ark

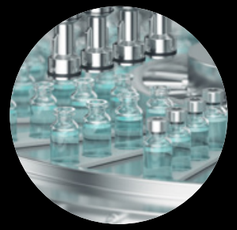
Our Industry Solutions


Data Center


Telecommunications


Oil & Gas


Military


Pharmaceutical


Industrial Automation


Big Box Retail

Financial Institutions


Pharmacies


Gas Stations


Restaurants


Education


Agriculture


Disaster Relief


Wineries

We're innovators...

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

Tom Brennan, CEO and CTO of Sol-Ark, is a 2023 winner of the E&Y Entrepreneur of the Year®, the world's most prestigious business award for entrepreneurs

Sol-Ark®

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