



switch

storage solutions

The Switch Microgrid is assembled to the highest standards in a UL 508A shop. It is shipped as a self-contained unit and can be installed outdoors or indoors.

SWITCH MICROGRID

Turnkey Solution

- Factory Assembled
- Pre-Engineered
- Pre-Wired
- Pre-Installed Safety Labels
- Pre-Tested

Managed Assets

- Diesel Generation
- Solar Generation
- Distributed Battery Storage
- Grid Power

Communications & Control

- 4G LTE Cellular
- Ethernet Wifi, Satellite
- Generator Start and Stop
- Optimal Power Forecasting
- Power Reliability Alerts
- Isochronous Generation Control

The Switch Advantage

- Assembled in UL 508A Shop
- Turnkey Solution
- Indoor and Outdoor Enclosure Options
- Includes Climate Control and Fire Suppression
- Includes Switch Microgrid Installation and O&M Guides

SWITCH TECHNICAL SPECIFICATIONS

Electrical Specifications

Single Phase Operation

AC Voltage	240 VAC
AC Input/Output Current	72A
AC Output Power (<i>discharge</i>)	18 kW
AC Input Current (<i>charge</i>)	18 kW
Battery Capacity Range	34kWh – 200+kWh
AC Frequency	60 Hz
Output Overload Capability	91 A
Peak Efficiency	97.00%
AC Connection	Split Phase 3 Wire L1, L2, N

Three Phase Operation

AC Voltage	480 VAC
AC Input/Output Current	36A
AC Output Power (<i>discharge</i>)	30 kW
AC Input Current (<i>charge</i>)	30 kW
Battery Capacity Range	34kWh – 200+kWh
AC Frequency	60 Hz
Output Overload Capability	46 A
Peak Efficiency	97.00%
AC Connection	3P + N + PE

Equipment Specifications

External Dimensions (<i>L x W x H</i>)	3' x 4' x 6'
Weight	2,500 lbs.
Lifting Provisions	Fork Lift Slots
Paint Tested	1000 Salt Hour Spray
Handles	Stainless Steel Lockable
Fire Suppression	3M Novec 1230
Temperature Range	-20°C to 50°C

Control Software

Web Portal Hosted on Microsoft Azure
Access & Alerts Desktop & Mobile 24/7
Asset Monitoring System Level & Individual Component Pages
Component Status PV, Inverters, Generators, Batteries
Local HMI IP 65 Touchscreen
Communications WiFi, Ethernet, Cellular, Satellite

Operation Parameters

Island MicroGrid	Building Power when Grid is Down
Grid Tied MicroGrid	Maintain Constant Power Irregardless of Utility Power
Distributed Generation	Time of Use Operation

Key System Components

NEMA 4 Enclosure
Bi Directional Storage Inverter
High Voltage Li Ion Battery
DC Disconnect
AC Disconnect (<i>battery – inverter</i>)
AC Disconnect (<i>utility interconnect</i>)
Circuit Breaker
Utility Disconnect Relay
Transformer (<i>if needed</i>)
Climate Controls

Certifications

Batteries	UL 1973
Inverter	UL 1741
System	UL 9540 Pending

Switch's S-MG 18/30 can be configured for single or 3-phase operation via firmware updates to the inverter. Single phase operation does require an external step down transformer which is included in the system package. The Switch inverter can accept one high voltage commercial battery (350 – 750 VDC) which can supply 69 to 90 kWh. For higher power or storage requirements multiple systems can be paralled on the AC side of the inverter. Please contact Switch for more details.

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