

# 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	265 A
AC Output Power ( <i>discharge</i> )	100kW
AC Input Current ( <i>charge</i> )	100kW
Battery Capacity Range	69kWh – 500+ kWh
AC Frequency ( <i>field settable</i> )	50/60 Hz
Max AC Overcurrent Protection	450 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	450A
AC Output Power ( <i>discharge</i> )	375kW
AC Input Current ( <i>charge</i> )	375kW
Battery Capacity Range	69kWh – 500+ kWh
AC Frequency ( <i>field settable</i> )	50/60 Hz
Max AC Overcurrent Protection	450 A
Peak Efficiency	97.00%
AC Connection	3 Phase, 3 Wire

## Equipment Specifications

External Dimensions ( <i>L x W x H</i> )	7' x 4' x 6'
Weight	4500 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 SA
System	UL 9540 Pending

*Switch's S-MG 100/375 can be configured for single or 3-phase operation via firmware updates to the inverter. Both single phase and 3-phase operation do require an external step down transformer which is included in the system package.* The Switch inverter can accept multiple high voltage commercial batteries which can supply up to 500+ kWh per energy storage container. 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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