

## Lync™ 500

### Power Conversion System

Lync™ 500 delivers uninterruptible power to facilities, lowers facility energy costs, integrates renewables and other DERs into a resilient microgrid and provides grid-stabilizing energy services to utilities.

Lync™ 500 is Go Electric's patented power conversion system (PCS) that provides uninterruptible power to critical loads with a single conversion active front end inverter design. Embedded in the system is the AutoLync™ Microgrid Controller that, combined with local microprocessors, controls DER assets in real-time, maintains power stability and prevents any load or generation imbalances.

AutoLync™ optimizes the DER's to operate in specific use-case scenarios that deliver maximum economic value stacking to the customer – such as generator optimization, power factor correction, and economic dispatch.

#### Applications

- Grid-Tied Operation with "Blip-less" Grid-Catching / UPS Functionality
- Black start capable
- Islanded operation
- Fast frequency response
- Power factor (kVAR) response
- Generator hybridization
- Renewable energy management and optimization
- Peak shaving
- Demand response
- Energy arbitrage

The Lync™ 500 is constructed to be an all-in-one PCS. On top of the base inverter power section, it includes a transformer, reactor assembly, motor operated breaker, protective relay, metering and a control panel with an integrated AutoLync™ microgrid controller.



#### Benefits at a glance

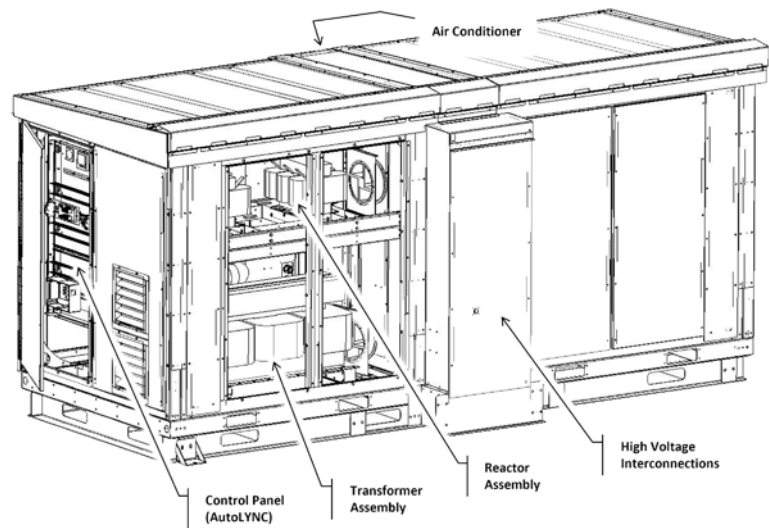
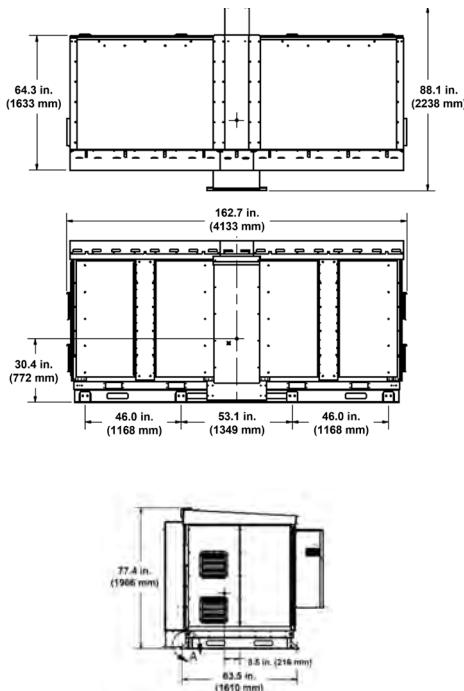
- Customizable Sequence of Operation with AutoLync™ microgrid controller
- Uninterruptible power with grid disturbances
- Grid forming with full 4 quadrant P & Q capability
- Islanding and resiliency capability
- Increased renewable penetration
- Increased power stability in islanded mode with renewable intermittency
- Avoid power factor charge penalties
- Avoid demand charges and TOU charges
- Low short-circuit fault currents with built in transformer
- Reduced generator O&M when operating in islanded mode

Parameter	Lync™ 500
<b>AC</b>	
Current Harmonic Distortion (THDi)	<3% per IEEE519
Power Rating	500 kVA
Nominal Output Voltage	480 V
Nominal Output Frequency	60 Hz
Maximum Continuous Operating Current	601 A
Maximum Output Fault Current	4000 A
Maximum Output Overcurrent Protection	100 kA
Power Factor	0.90 lagging - 0.99 leading
Reactive Power Capability	Four quadrant operation

This all-in-one design provides the key innovation of synchronizing and connecting to an AC utility grid while simultaneously maintaining power to a critical load. The fully equipped microgrid design allows the system to switch between various modes of operation while controlling current in a bi-directional manner, all while maintaining IEEE 519 conditions on delivered power.

If the utility grid experiences inconsistency such as phase loss or a complete failure, the system will automatically sense the grid failure and will switch its control state accordingly. The patented UL certified design is capable of automatically disconnecting in a sub-cycle time frame from the utility grid and creating a seamless power transfer from grid connected to grid isolated, and vice-versa. This capability keeps existing renewable inverters online when transitioning to islanded mode where the AutoLync™ controller will autonomously manage generators, PV sources, wind energy and battery reserves.

Parameter	LYNC™ 500
<b>DC</b>	
Battery Technology	All types (BMS required)
Input Voltage Range	540 – 800 VDC
Maximum Input Current	780 A
<b>Enclosure</b>	
Dimensions (W x L x H)	84 x 160 x 77 in
Weight	9400 lbs
Rating	NEMA 3R
<b>Environmental</b>	
Temperature Operating Range	0° - 40°C
Derated Power @ 40° - 50°C	340 kVA
<b>Communications &amp; Controls</b>	
Supported Protocols	Modbus TCP or 485, CANbus, DNP3, SCADA
HMI Panel	Standard
<b>Certifications</b>	
UL 1741, UL 1741 SA, CSA 22.2, IEEE 1547, IEEE 2030.5 compliant	



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