

PRODUCT DATA SHEET

DER SuperModule™ System



The EnSync Energy DER SuperModule™ is a fully integrated and self-contained distributed energy resource (DER) system that integrates with any building's renewable energy generation, customer load and grid interconnection, as a "plug and play" solution for deploying the most reliable and economical electricity.

From sub-500 kilowatt-hour to more than a megawatt-hour in size, the DER SuperModule™ features EnSync Energy's Matrix™ Energy Management system with proprietary Auto-Sync DC-Bus control and an innovative modular design. This technology enables the optimum initial system configuration, as well as provides the ability to evolve it over the lifetime of the installation to continually maximize economic returns. This "future-proof" capability is a key advantage since energy policies and available revenue streams are not static, and new avenues to making or saving money with the installation are a near certainty over the life of the asset.

EnSync Energy pioneered the commercialization of hybrid energy storage systems, where multiple battery technologies can concurrently be controlled to perform multiple applications, simultaneously in a distributed energy resource installation. The DER SuperModule™ provides customized hybrid storage configurations with a mix of power and energy lithium-ion batteries based upon the applications being monetized for any given installation.



DER SuperModule™ 20' container

In addition to the Matrix™ Energy Management system and energy storage batteries, the DER SuperModule™ includes DER Flex™, EnSync Energy's Internet of energy platform. DER Flex™ seamlessly integrates the DER SuperModule™ into the grid network, enabling participation in utility and wholesale market programs, providing real-time pricing and capacity data between the DER owner and the utility or ISO, and monitoring performance for billing purposes. DER Flex™ also enables simple DER SuperModule™ aggregation by a utility, ISO or other third party.



Matrix DC-DC
Converter - 50 kW
(Model: LCM-50DCPCU)



Matrix DC-AC Inverter
Series: 50 - 250 kW
(Model: LCM-250ACPCU)



Matrix Eight-Slot Rack for
DC-DC 50 kW converter
(Model: LCM-8X50DCPCUR)



Matrix Li-Ion Power
Batteries (50 kWh);
<60 minute applications



Matrix Li-Ion Energy Batteries
(61 kWh); two-slot rack with
DC-DC (50 kW) converters inserted

The DER SuperModule is designed for quick deployment with all components making up a total system that ideally meets your distributed energy resources, renewable energy and applications needs.

SPECIFICATIONS

ELECTRICAL INPUT (DC GENERATING SOURCE, EXTERNAL ES,)	
Voltage*	720 VDC Max
Rated DC Power	Configurable up to 1250 kW

*These are standard ratings, for higher ratings contact EnSync Energy Systems

ELECTRICAL POWER USE	
Auxiliary Power is self-derived from a common internal point of connection	
Can self-power / idle without external power source	

DER SuperModule™ System

SPECIFICATIONS CONT.

INTEGRATED ENERGY STORAGE	
Rated power capacity*	up to 1250kw
Rated energy capacity*	up to 1000kwh
ELECTRICAL OUTPUT	
Point of Connection Voltage	480 VAC, 3ph, 60hz
Rated Power*	Up to 1250 kW
Operational mode	Grid interactive and/or Grid independent
MECHANICAL / ENVIRONMENTAL	
Configuration	Standard Intermodal Container
Dimensions (Excludes Ventilation Shrouds)	20' L x 8' W x 8'6" H 6058 mm x 2438 mm x 2591 mm
Weight (Dependent on Configuration)	12,000 - 25,000 lbs / 5,455 -11,339 kg
Unit Handling	Crane or Forklift
Operating Temperature Range	-25°C to 40°C (De-rating at > 40°C)
CERTIFICATIONS, COMPLIANCE, WARRANTY	
Certified to	UL1741, UL1741-SA, IEEE1547, CSA 22.2, CEC, Rule 21, Heco Rule 14 and 22, UL1973, UL1642
Designed to Meet	NFPA 70

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Note: Product specifications are subject to change without notice.