

RAY-MAX[®] Inverter System

Patented Distributed Architecture[™]

1. Introduction

2. Higher Energy Production & Performance

3. Thoughtful Engineering

4. Grid Management Capabilities

5. Total System Solution



The Nextronex Solution

- ✓ Distributed Architecture Inverter Topology
- ✓ Smart Controller PLC
 - Manages inverter switching and data acquisition and telemetry
- ✓ Low Light Energy Harvest
 - Smart Controller Master/Slave electronic inverter switching
 - Wiring topology: poor low light energy harvesting
- ✓ DC Bus Power Strip
 - All combiners runs connect to the Power Strip, i.e. no recombiners needed
 - Breakers in the Power Strip, i.e. No means of disconnect at the combiners needed



Benefits of Distributed Architecture™

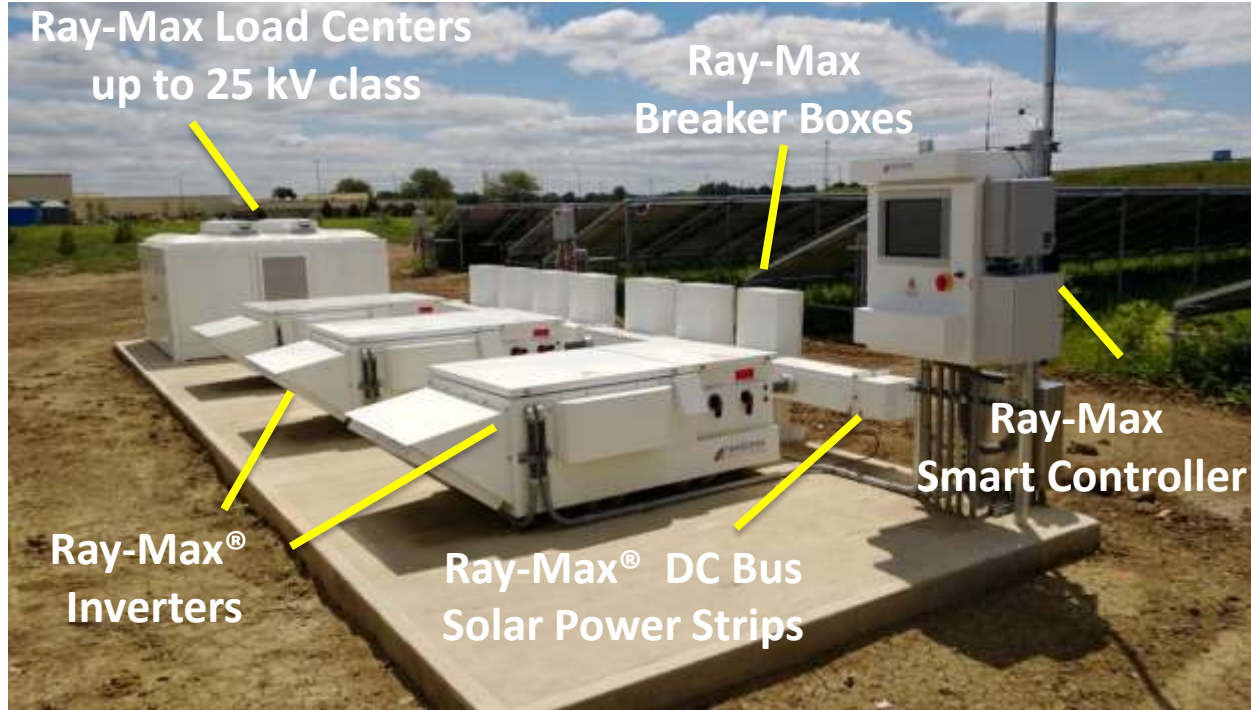
- Better Low Light Harvesting
 - Master / Slave running rotation
- Best-in-class system efficiency with transformerless inverter:
 - Inverter 98% Peak efficiency with TP1 transformer
- High Reliability and Availability
 - Master / Slave running rotation
 - Effective run time 40%
- Integrated control & monitoring via the Smart Controller
- Low profile cabinet
- Multi-Primary Medium Voltage Load Center Transformers
 - Allows for one less transformer stage at TP1 efficiency



Distributed Architecture Overview



POIC



DC Runs



1 MW DC (850kW AC) Power Podium



Using the Power Podium Solution, All Nextronex equipment is pre-wired on a platform in the factory and delivered via truck for faster and easier commissioning.



Customers Select Us Because We Offer

- ✓ Superior Inverter Product
- ✓ Higher ROI through:
 - ✓ Up to 8% Higher AC Energy Output
 - ✓ 100% Uptime Guarantee
 - ✓ 10 Year Standard Warranty
- ✓ Excellent Engineering and Field Support



Ray Max Inverter Specifications Overview



- ✓ NEMA 3R **patented** Low Profile Cabinet with **advanced cooling**
 - Inverter compartments meet IP65
- ✓ Best in class 98% peak efficiency
- ✓ 1000 V DC Input with flexible grounding
- ✓ Compatible with all PV modules
- ✓ MPPT range of 240-850 Volts
- ✓ Transformerless
- ✓ UL 1741, IEEE 1547, CSA C22.2 No. 107.1-01, CEC Listed since 2010



Inverter Output

Output	Value
Output Voltage Range (line to line)	208 – 480 V AC
Nominal output voltage	360 V AC, 3 phase
Output frequency range	50, 60 Hz (+/- 1%)
Maximum output current per phase	240 Amp
Nominal continuous output power	150 kW
Peak (maximum) output power	170 kW
Max overcurrent protection per phase	350 Amp
Peak and Weighted efficiency	transformerless
Peak efficiency with medium voltage transformer	(12.47kV) ; 97.50%; 96.70%
CEC weighted efficiency with medium voltage transformer	(12.47kV); 96%
Power factor at full load	0.99
Harmonic distortion	<3%

Inverter Input

Maximum Array Input Voltage	Input Voltage Range for MPPT
1000 V DC	350-850 V DC
600 V DC	240-500 V DC



Smart Controller Interface



Real Time Data

- ✓ kWAC generation
- ✓ Running Inverters
- ✓ Power Strip Voltage
- ✓ Weather Data

Production Data

- ✓ Performance Ratio

Green Stats

Example Stat

1,560

60W bulbs for 1 year
of 8 hour/day use.

Example Stat

1,560

60W bulbs for 1 year
of 8 hour/day use.

Example Stat

1,560

60W bulbs for 1 year
of 8 hour/day use.

Lifetime Generation

1,560

Lifetime KiloWatt
Hours Generated

10-year warranty on all inverters

Support Service:

- ✓ Expert advice over the phone
- ✓ Assistance & Support during design, engineering, installation and commissioning
- ✓ Assistance in monitoring of your PV plant

Field Service:

- ✓ Commissioning Included
- ✓ Preventive Maintenance Option
- ✓ 24-Hour response time

Spare Parts Guarantee:

- ✓ Ensuring availability of spare parts
- ✓ 48-Hour service response & parts replacement
- ✓ Full one-year warranty on parts

Warranty extension to 20-years

Customer Testimonies



"Nexttronex system's energy output has exceeded our expectations and predictions by approximately 10%."



"Of the three projects in NW Ohio and SE Michigan, PNA Solar has the best performance. The other projects met expectations, but PNA Solar exceeded our forecasted generation by 8%. We are pleased that Hull & Associates selected Nexttronex inverters for the PNA Solar Project."



"The Nexttronex inverter system installations have been very efficient, and the after-sales support and service has been extremely responsive, thorough and helpful to our overall solar operations."



"The Nexttronex distributed architecture complements our design to harvest more power and works extremely well to maximize the solar resource we get here in Ohio."



"I have been a believer in Nexttronex since 2011."



"Our company believes we have a true partner in Nexttronex and can rely on their expertise and support any time."

**We look forward to helping you
optimize your solar project.**

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