

Equinox 750kW UL with Ampt Mode®

EQX0750UV480X

PV Inverters

50% More Power Lowers Cost Per Watt
50% Less DC Combining & Wiring
33% Less AC Electrical BOS
Lower Total System Cost

Streamline Design

With all components encased in a single enclosure. Equinox PV inverters are easy to install, operate and maintain.

Deployed with Ampt String Optimizers

- String-level DC/DC power converters
- Dual MPPT per string improves performance
- 2x modules per string eliminates 50% of wiring and combiners
- Enables inverter to operate at a higher rated power to lower inverter and AC electrical costs

Advanced Utility-Ready Features

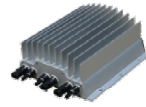
- Remote control of real and reactive power
- Low-voltage ride through
- Power factor control
- Simplified grid interconnection
- Fast communication
- Easily integrated into SCADA systems through standardized communication interfaces

Rugged Design

- Wide thermal operating range: -22°F to +140°F (-30°C to +60°C)
- Support for external temperatures as low as -40°F with optional Winter climate package
- Designed for optimal performance in Dessert, Topical and Winter climates

Industrial-Grade Engineering

- Fully outdoor rated solution (no concrete station required)
- IP54 enclosure for maximum protection and longevity
- Double wall enclosure eliminates external air circulation from inside inverter
- Solar shields attached to exterior of enclosure dissipate solar radiation, reduce heat buildup



Profitable PV Power

The Satcon® Equinox™ inverter with Ampt Mode® is deployed with Ampt String Optimizers to decrease the cost of PV systems while increasing performance. With its optimized design, system intelligence, and industrial-grade engineering, the Equinox inverter maximizes the profitability of commercial and utility-scale solar power systems.

Optimized with Ampt Mode®

The Equinox™ with Ampt Mode® operates in a narrow input voltage range that is closer to the maximum system voltage. This allows the inverter to deliver a higher AC output voltage at the same current which raises the rated output power of the inverter. Delivering more power from the inverter lowers its installed cost per watt and provides significant savings on related AC components and labor.

Reduced Costs of DC Wiring and Combining

The Equinox™ with Ampt Mode® is deployed with Ampt String Optimizers to save up to 50% on the cost of DC combiners, wiring and associated labor. This is accomplished by deploying twice the number of PV modules in each string without exceeding 1000 VDC.

Increased PV Plant Yield

Equinox™ features best-in-class peak efficiency of 98.7% to provide the highest levels of system performance and uptime. System production is further enhanced by Ampt String Optimizers which have two maximum power point trackers (MPPTs) on each string of PV modules.

Rugged Design

Equinox features a IP54 enclosure, ensuring protection and longevity. It features a wide thermal operating range from -22° F to +140° F. With the optional Winter climate package, it supports temperatures as low as -40° F with an optional heater.

Industrial-Grade Engineering

As a fully outdoor rated solution, Equinox does not require an external climate controlled enclosure or concrete station, reducing both cost and space requirements. Equinox's double wall enclosure cooling system eliminates the need for external air circulation inside the inverter, reducing contaminants and improving cooling performance.

Advanced Utility-Ready Features

Equinox's advanced utility-ready features enable remote control of real and reactive power, low-voltage ride through and power factor control. Equinox provides for simplified grid interconnection and supports fast communications, allowing it to be easily integrated into SCADA systems through standardized communication interfaces.



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Streamlined Design

With all components encased in a single enclosure, Equinox is easy to install, operate and maintain.

Outdoor Construction

- Rugged cabinet for all environments
- Dual cooling fans

Easy Maintenance

- Modular components make service efficient
- Convenient access to all components
- Customizable large in-floor cable gland plates make installation of DC and AC cables easy
- Integrated DC disconnect switch isolates the inverter, with the exception of the GFDI (Ground Fault Detection and Interruption) circuit, from the photovoltaic power system to allow inspection and maintenance

Proven Reliability

Rugged and reliable, Equinox PV inverters are engineered from the ground up to meet the demands of large-scale installations.

Specifications	750 kW
Input Parameters	
Input Voltage Range	775-850 VDC
Maximum Array Input Voltage	1000 VDC
Maximum Operating Input Current ¹	1097 ADC
PV Array Configuration	Negative/ Positive
DC Input Combiner	
Combiner Bus Bar Input	Configurable
Number of Inputs and Fuses	Configurable
Transformer	
Integrated Transformer	No
Efficiency	
Maximum ²	98.7%
European Efficiency	98.0%
Output Parameters	
Nominal Power	750 kW
Nominal Output Voltage	480 VAC
Output Voltage Range, [-12%/10%]	422-528 VAC
Maximum Continuous Output Current / Phase	902 A
Standby Consumption (tare losses including control power and aux.)	<100 W
Nominal Output Frequency, 3-Phase	60 Hz
Maximum Harmonic Distortion	< 3% THD
Power Factor, Full Load	> 99%
Dynamic Power Factor Control	+/- 0.8
Power Curtailment	0-100%, 1% step
Environment	
Operating Temp Range	-30°C ~ +60°C
Storage Temperature Range	-30°C ~ +70°C
Cooling	Forced Air
Noise Level (Distance of 3m)	< 65 dB(A)
Relative Humidity (Non-Condensing)	Up to 95%
Elevation (Maximum) ³	4,000 m



Satcon

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Specifications	750 kW
Enclosure	
Dimensions (H x W x D)	2103mm x 2778mm x 945mm
Weight ⁴	1870 kg
Finish	RAL 7035
Hood and Base Trim Finish	RAL 5001
Protection Rating	NEMA 3R / IP54
Warranty and Services	
Five Year Warranty	Standard
Extended Warranty (1 and 5 year warranty)	Optional
Preventive Maintenance Agreement	Optional
Communication Interface	
Modbus RS485	Standard
Modbus TCP/IP	Optional
Monitoring	
PV Zone	Optional
Third Party Compatibility	Standard
Regulations and Standards Conformity	
UL1741, CSA C22.2 No 107.1-01, IEEE1547, IEE1547.1	Standard
IEEE C62.41.2, IEEE C62.45	Standard
IEEE C37.90.1, IEEE C37.90.2	Standard

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1. Calculated at nominal power and minimum DC voltage
2. Calculated without auxiliary power
3. Operation above 3,281ft.(1,000m) results in a decrease in the maximum ambient temperature for full power operation. For each additional 3,281ft (1,000m) in elevation, there is approximately a +4.5°F (+2.5°C) decrease in the maximum ambient temperature for full power operation.
4. Dependent on the options selected.

Note: All specifications are subject to change.

