Equinox 500kW & 630kW CE

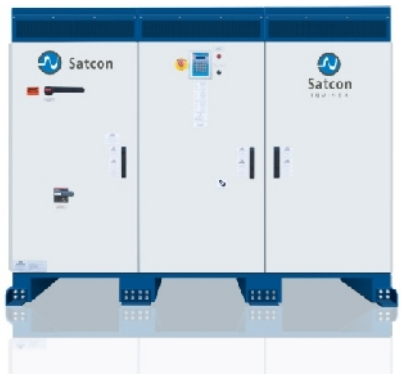
PV Inverters

EQX0500EV320XN/P/F
EQX0630EV360XN/P/F

Peak Efficiency of 98.7%

Next Generation Modular Design

Wide Thermal Operating Range



Streamline Design

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

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: -22ºF to +140ºF (-30ºC to +60ºC)
- Support for external temperatures as low as -40ºF 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

Satcon®
Utility-Ready Solar Inverters

Profitable PV Power

The Satcon® Equinox™ inverter has a significant impact on the profitability dynamic of large-scale solar power systems. With its system intelligence, next-generation MPPT technology, and industrial-grade engineering, the Equinox inverter maximizes system uptime and power production, even in the harshest environments.

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.

Increased PV Plant Yield

Equinox, Satcon's next-generation inverter design, features best-in-class peak efficiency of 98.7% to provide you with the highest levels of system performance and uptime.

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.

Commercial and Utility-Scale

Many of the world's largest solar power installations depend on Satcon Equinox PV inverters to provide efficient and stable power—even in the harshest climates.

Proven Performance

The proven leader in solar inverter solutions for commercial installations, Satcon sets the standards for efficient large-scale power conversion

Equinox 500kW & 630kW CE

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	500 kW	630 kW
Input Parameters		
Input Voltage Range	500-850 VDC	585-850 VDC
Maximum Array Input Voltage	1000 VDC	1000 VDC
Maximum Operating Input Current [1]	1134 ADC	1221 ADC
PV Array Configuration	Negative/ Positive/Floating	Negative/ Positive/Floating
DC Input Combiner		
Combiner Bus Bar Input	10	10
Number of Inputs and Fuses	10 x 200A	10 x 200A
Transformer		
Integrated Transformer	No	No
Efficiency		
Maximum[2]	98.7%	98.7%
European Efficiency	98.0%	98.0%
Output Parameters		
Nominal Power	500 kW	630 kW
Nominal Output Voltage	320 VAC	360 VAC
Output Voltage Range, [-20%/15%]	256-368VAC	288-414 VAC
Maximum Continuous Output Current / Phase	902 A	1010 A
Standby Consumption (tare losses including control power and aux.)	<100 W	<100 W
Nominal Output Frequency, 3-Phase	50 Hz	50 Hz
Maximum Harmonic Distortion	< 3% THD	< 3% THD
Power Factor, Full Load	> 99%	> 99%
Dynamic Power Factor Control	+/- 0.8	+/- 0.8
Power Curtailment	0-100%, 1% step	0-100%, 1% step
Environment		
Operating Temp Range	-30°C ~ +60°C	-30°C ~ +60°C
Storage Temperature Range	-30°C ~ +70°C	-30°C ~ +70°C
Cooling	Forced Air	Forced Air
Noise Level (Distance of 3m)	< 65 dB(A)	< 65 dB(A)
Relative Humidity (Non-Condensing)	Up to 95%	Up to 95%
Elevation (Maximum)[3]	4,000 m	4,000 m

Satcon®

Utility-Ready Solar Inverters

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Specifications	500 kW	630 kW
Enclosure		
Dimensions (H x W x D)	2103mm x 2778mm x 945mm	2103mm x 2778mm x 945mm
Weight[4]	1870 kg	1870 kg
Finish	RAL 7035	RAL 7035
Hood and Base Trim Finish	RAL 5001	RAL 5001
Protection Rating	IP54 (Outdoor Rating)	IP54 (Outdoor Rating)
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		
CE Mark, Low Voltage Directive 2014/35/EU, Electromagnetic Compatibility Directive: 2014/30/EU, IEC/EN62109-1/-2, IEC/EN61000-6-2/-6-4.	Standard	
Advanced Grid Support (incl. LVRT/BDEW) Option	Optional	

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.

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