

Equinox 500 kW CE

Peak Efficiency of 98.5%

98% CEC Weighted Efficiency

Next-Generation Modular Design

Wide Thermal Operating Range

Streamlined Design

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

Rugged Design

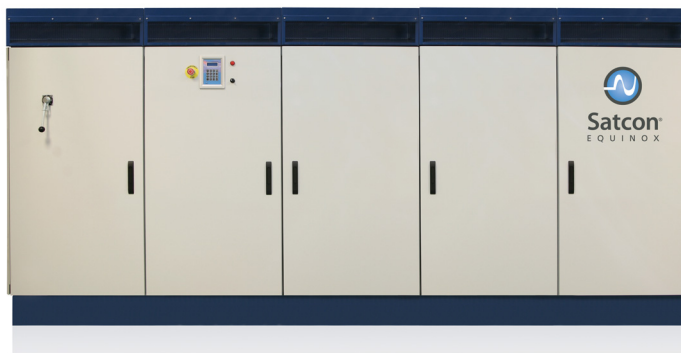
- Wide thermal operating range: -20° C to 50° C
- Support for external temperatures as low as -40° C with optional Winter climate package
- Designed for optimal performance in Desert, Tropical, and Winter climates

Industrial-Grade Engineering

- Fully outdoor 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

Advanced Utility-Ready Features

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



Profitable PV Power

The Satcon™ Equinox™ 500 kW PV inverter has a significant impact on the profitability dynamic of large-scale solar power systems. With its system intelligence, next-generation Edge™ MPPT technology, and industrial-grade engineering, the Equinox 500 kW 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 -20° C to 50° C. With the optional Winter climate package, it supports temperatures as low as -40° C with an optional heater.

Industrial-Grade Engineering

As fully outdoor 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 98.5%* to provide you with the highest levels of system performance and uptime.

Advanced Utility-Ready Features

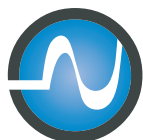
Equinox's advanced utility-ready features enable remote control of real and reactive power, low-voltage ride through and power factor control. Equinox provides for simplified grid interconnection and supports fast communications, allowing it to be easily integrated into SCADA systems through standardized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



Satcon®

Utility-Ready Solar Inverters

Equinox 500 kW 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
- Large in-floor cable gland plates make installation of DC and AC cables easy
- Customizable for cable glands of customer's choice
- Integrated DC two-pole disconnect switch isolates the inverter (with the exception of the GFDI circuit) from the photovoltaic power system to allow inspection and maintenance

Proven Reliability

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

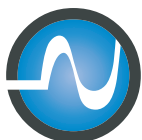
Safety

- Built-in DC and AC disconnect switches
- Protective covers over exposed power connections

Output Transformer

- Provides galvanic isolation
- Matches the output voltage of the PV inverter to the grid

Equinox 500 kW Specifications		CE	
Input Parameters			
Input Voltage Range		420-850 VDC	
Maximum Array Input Voltage		900 VDC	
Maximum Input Current ¹		1228 ADC	
PV Array Configuration	Floating	•	
	Negative Ground	•	
	Positive Ground	•	
DC Input Combiner Options			
Combiner Bus Bar Inputs		24	
Number of Inputs and Fuses	20 x 100A	○	
	18 x 125A	○	
	16 x 160A	○	
	12 x 200A	○	
	10 x 250A	○	
	8 x 315A	○	
	6 x 400A	○	
Transformer			
Integrated Transformer	No	Yes	
Efficiency			
Maximum ²	98.5%	97.5%*	
European – Eta	97.5%	96.5%*	
CEC	97.5%	96.5%*	
Output Parameters			
Nominal Power		500 kW	
Nominal Output Voltage		265 VAC	400 VAC
Output Voltage Range, [-12% / 10%]		233-292 VAC	352-440 VAC
Maximum Output Current/Phase		1090 A	722 A
Standby Consumptions (tare losses including control power and aux.)		160 W	
Nominal Output Frequency, 3 phase		50 Hz	
Harmonic Distortion		<3% THD	
Power Factor, Full Load		>0,99	
Dynamic Power Factor Control		+/- 0.8	
Power Curtailment		0-100%, 1% steps via ModBus	
Environment			
Operating Temperature Range (Nominal Power)		-20° C to +50° C	
Storage Temperature Range		-30° C to +70° C	
Cooling		Forced Air	
Elevation (Maximum) ³		4000 m	
Noise Level (Distance of 3 m)		<65 dB(A)	
Relative Humidity (Non-Condensing)		15 - 90 %	



Satcon[®]

Utility-Ready Solar Inverters

Equinox 500 kW Specification		CE	
Enclosure			
Dimensions (H x L x D)	211 x 452 x 84 cm	211 x 583 ⁴ x 84 cm*	
Weight ⁵	3090 kg	4680 kg*	
Finish	RAL 7035		
Hood and Base Trim Finish	RAL 5001		
Protection Rating	IP54		
Warranty and Services			
Five Year Warranty	●		
Extended Warranty (1 and 5 year increments)	○		
Preventative Maintenance Agreement	○		
Uptime Guarantee ⁶	○		
Design Services	○		
APEX Project Management	○		
Communication and Monitoring			
Communication Interface	Modbus RS485	●	
	Modbus TCP/IP	●	
Monitoring	PV View Plus	○	
	PV Zone	○	
	Third-Party Compatibility	●	
Regulations and Standards Conformity			
CE Certification (IEC 62109-1, EN 61000-6-2, EN 61000-6-4, DIN VDE 0126-14-1)	●		

- Standard / Standard Option
- Optional

NOTE: All specifications are subject to change.

- * Preliminary data.
- ¹ Input current calculated at nominal line voltage, full output power, minimum DC voltage.
- ² Calculated without auxiliary power.
- ³ Operation above 1000 m results in a decrease in the maximum ambient temperature for full power operation. For each additional 1000 m in elevation, there is approximately a 2.5° C decrease in the maximum ambient temperature for full power operation.
- ⁴ 639 cm with Floating option fuse kit. For some models. Information available under request.
- ⁵ Dependent on options selected.
- ⁶ Requires Preventative Maintenance Agreement.

Energy Equity Protection

Satcon provides a wide range of optional value-added services to protect your investment across the entire lifecycle of your project.

Design Services

Satcon's Design Services organization can guide you through all phases of project development using our broad experience and engineering skills.

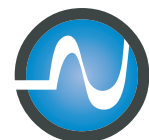
APEX Project Management

Satcon APEX Project Management ensure that your project comes in on time and on budget.

- Project planning
- Logistics
- Project supervision
- Mitigating risk, maximizing ROI

Service and Warranties

- Help desk
- Support services
- Extended warranty
- Preventative maintenance plans
- 99% Uptime Guarantee



Satcon[®]
Utility-Ready Solar Inverters

Satcon Corporate
25 Drydock Avenue, 7th Floor
Boston, MA 02210
USA
P: +1.617.910.5500
F: +1.617.910.5501
E: sales@satcon.com

Satcon West
46441 Landing Parkway
Fremont, CA 94538
USA
P: +1.510.897.4900
F: +1.510.897.4901
E: sales@satcon.com

Satcon Canada
835 Harrington Court
Burlington, ON L7N 3P3
Canada
P: +1.905.639.4692
F: +1.905.639.0961
E: sales@satcon.com

Satcon Germany
An der Welle 4
60322 Frankfurt Main
Germany
P: +49 (0)69 7593 - 8620
F: +49 (0)69 7593 - 8200
E: sales.eu@satcon.com

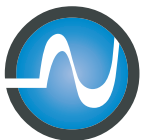
Satcon International s.r.o.
Jankovcova 1037/49
170 00 Praha 7
Czech Republic
P: +420.255.729.610
F: +420.255.729.611
E: sales.eu@satcon.com

Satcon Greece
5 Iraklitou St.
Patima Halandriou - 152 38
Greece
P: +30.210.6654424
F: +30.210.6654425
E: sales.gr@satcon.com

Satcon Shenzhen China
Unit C101-C102, Tower C,
Unisplendour Info. Harbor,
Langshan Road, Nanshan Dist.
Shenzhen 518057, China
P: +86.755.6168.2588
F: +86.755.6168.2599
E: sales@satcon.com

Satcon Shanghai China
Unit 2902-3, Tower A,
City Center of Shanghai,
100 Zun Yi Road,
Shanghai 200051, China
P: +86.21.6236.8236
F: +86.21.6236.8240
E: sales@satcon.com

www.Satcon.com



Satcon[®]
Utility-Ready Solar Inverters