

Equinox 50kW Hybrid



Advanced Utility-Ready Features

- Remote control of real and reactive power
- Simplified grid interconnection
- Auto switching between on/off-grid modes.
- Provides complete grid management features, including LVRT, HVRT, LFRT, HFRT, etc.
- Supports various energy management modes and customization of specific functions.
- Equipped with intelligent loading regulation function.

Edge MPPT

- Provides rapid and accurate control that boosts PV plant kilowatt yield.
- Provides a wide range of operation across all photovoltaic cell technologies.

Rugged Design

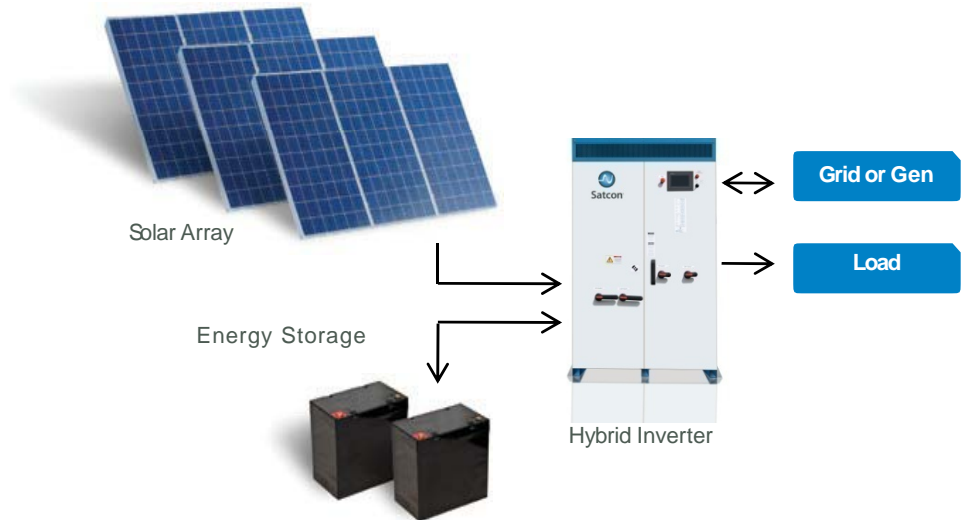
- Wide thermal operating range: -22°F to +140°F (-30°C to +60°C)
- PCBA conformal coated to withstand extreme humidity and air-pollution levels

The World Leader in Large Scale Solar Solutions

Built on the industry's most tested and proven commercial and utility scale inverter technology platform, Satcon's Equinox hybrid inverter is a bi-directional, 50kW, solar/battery-integrated solution.

Offering a wide input voltage range, the Equinox innovative design can be configured for a variety of on or off-grid and energy storage applications including:

- Micro-grids for dedicated loads
- Grid stabilization
- Reduction of diesel gen-set run time
- Back-up power system



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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

Output Transformer

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

Safety

- Built-in DC disconnect and AC breaker
- Built-in isolation transformer

Proven Reliability

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

Equinox 50kW Hybrid Specifications	50kW
PV Input Parameters	
Nominal Power	58 kW
MPPT Voltage Range	330 – 850 VDC
Maximum Array Input Voltage	1000 VDC
Maximum Operating Input Current	175 ADC
Number of independent MPP inputs	1
BAT Input Parameters	
Nominal Power	58 kW
Nominal Battery Voltage	300 VDC
Battery Voltage Range	96 – 750 VDC
Maximum Operating Input Current	200 ADC
Battery Type	Lead-acid Batteries, Lithium Batteries, Flow Batteries, Gel Batteries, etc
Transformer	
Integrated Transformer	Yes
Grid-Tied AC Parameters	
Nominal Power	50 kW
Nominal Grid Voltage	400 V
Grid Voltage Range	320 – 460 V
Nominal Output Current / Phase	72 A
Maximum Output Current / Phase	79 A
Nominal Grid Frequency, 3-Phase	50 Hz
Total Harmonic Distortion (THDi)	< 3%
Power Factor , Full Load	> 99%
Dynamic Power Factor Control	+/- 0.8
Overload	110%
Off-Grid AC Parameters	
Nominal Apparent Power	50 kVA
Nominal Output Voltage	400 V
Nominal Output Current / Phase	72 A
Maximum Output Current / Phase	79 A
Nominal Output Frequency, 3-Phase	50 Hz
Voltage Accuracy	+/- 3%
Frequency Accuracy	+/- 0.5 Hz
Total Harmonic Distortion (THDv)	Linear Load < 3%; Non-linear load < 5%



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Equinox 50kW Hybrid Specifications	50kW
Crest Factor	3:1
Power Factor	+/- 0.7
Overload	120%, 60S 150%, 30S
Wiring	3P4W
Standby Consumptions	< 100W
Efficiency	
PV Maximum Efficiency	95.0%
BAT Maximum Efficiency	94.0%
Environment	
Operating Temperature Range	-30°C to +60°C
Storage Temperature Range	-30°C to +70°C
Cooling	Forced Air
Noise Level (Distance of 3m)	<65 dB(A)
Relative Humidity (Non-condensing)	Up to 95%
Maximum Altitude without Derating	4000m
Enclosure	
Dimensions (WxHxD)	1250mm x 2125mm x 625mm
Weight	650 kg
Finish (Hood & Base)	RAL 5001
Finish (Body)	RAL 7035
Protective Rating	IP54
Warranty & Services	
Five Years Warranty	Standard
Communication Interface	
Modbus RS485	Standard
Modbus TCP/IP	Option

Warranty & Services

- Training programs
- Support services
- Extended warranty
- Preventive maintenance plans

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Note: All specifications are subject to change.

