MORNINGSTAR
PROFESSIONAL SERIES
World's Leading Solar Controllers & Inverters

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SureSine™ Inverter Line

Sine Wave Inverter

- Superior Industrial Grade
- Remote Control via Dry-Contact
- Industry-Leading Safety, Low-Noise, High Performance
- Fanless Convection Cooling

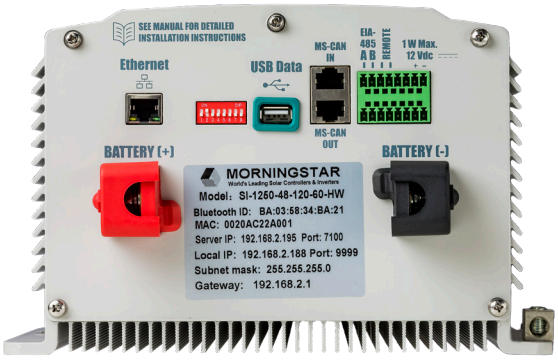
SureSine SINE WAVE INVERTER

Since 1993 the name Morningstar has been synonymous with industry-leading charge controllers, used in mission-critical applications around the world. With that heritage and reputation, "Morningstar of Inverters" has a very high bar to meet.

The new SureSine line was conceived for exactly that reason: meeting customer requests for a Morningstar inverter that's equal to the quality and performance of our charge controllers. These new models are more than up to that task.

KEY FEATURES AND BENEFITS

- Inverter Functions: DC/AC conversion with pure sinewave output
- Superior industrial-grade product design and manufacturing
- Engineered for system-level integration and communication with Morningstar charge controllers
- Communication ports: RS485 USB, Ethernet, MS-CAN, Bluetooth while using industry-standard MODBUS protocol
- Wireless Android and iOS utility apps included for set-up and monitoring with remote devices
- AC hardwire terminal option available on selected models (all power ranges and frequencies)
- Remote On/Off improves safety and enables control in inaccessible locations
- Auxiliary Power Output (700-2500 W models) provides power for an EIA-485 bus or other small DC loads
- Overbuilt, industrial-grade low-frequency transformer for improved sinewave stability
- Fanless convection cooling with extruded aluminum heat sinking, for maximum efficiency and reliability
- Status LEDs for both System and AC Sinewave output, to ensure reliable operation and notify of any system alerts
- Industry leading safety, low-noise and high performance NRTL certifications for reliability and system conformance
- Configuration can be achieved via manual DIP switch configuration or digitally programmable custom setpoints



SureSine communications and configuration features

- Communication ports include Ethernet, USB, MS-CAN
- Inverter can be configured either manually via a DIP switch or digitally programmed with custom setpoints

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Model Numbers	SureSine 150	SureSine 300	SureSine 700
Rated Battery Voltage	12, 24 or 48V	12, 24 or 48V	12, 24 or 48V
Minimum Battery Operating Voltage	10.5 / 21.0 / 42.0 V		
Maximum Battery Operating Voltage	16.5 / 33.0 / 66.0 V		
Continuous Power@25C	150 W	300 W	700 W
Power Surge @ 40C (< 5 sec)	300 W	600 W	1400 W
1 min Surge Power @40C	225 W	450 W	1050 W
3 min Surge Power @40C	180 W	360 W	840 W
Operating Temperature Range*	-40° to +60°C		
Peak Efficiency	89 / 89 / 90%	91 / 91 / 92%	91 / 90 / 92%
Output Voltage Model Options	120 / 230V +/-5% V		
Output Frequency Options	50 / 60 Hz		
Waveform	Pure Sine Wave		
Total Harmonic Distortion (THD)	<2%		
Galvanically Isolated	Yes		
Self-Consumption: AC Output On AC Output Off	 2.6 W 0.65 W	 3.9 W 0.65 W	 <9.4 W <2.8 W
Electronic Protections	AC Short Circuit, AC Overload, High/Low Voltage		
Battery Reverse Polarity	Replaceable internal fuse		
AC Output Protection against Short Circuit	Yes		
AC Output Protection against Overload	Yes		
Low Voltage Alarm, Disconnect, Reconnect	Yes		
High Voltage Alarm, Disconnect, Reconnect	Yes		
High Temperature Alarm, Disconnect, Reconnect	Yes		
Cooling	Fanless natural convection		
Operational Humidity Level	100%RH non condensing		
Weight (kg)	3.8 Kg / 8.4 lbs	5.2 Kg / 11.5 lbs	8.1 Kg / 17.9 lbs
Dimensions	312*190*96 (mm) 12.2*7.5*3.8 (in)	332*190*96 (mm) 13.1*7.5*3.8 (in)	462*247*156 (mm) 18.2*9.7*6.1 (in)
IP Rating	IP20		
Wired Communications	RS485, MS-CAN		RS485,USB,Enet, MS-CAN
Wireless Communications	Bluetooth, companion Android & iOS Apps		
Data Storage	4MB / 5 years internal		
Safety Certifications	IEC-62109-1, IEC 62109-2, IEC 62368-1, UL 1741, UL 458(pending)		
CE / UKCA Compliant	Yes		
Compliance	IEC/EN 61000, IEC/EN 55032, IEC/EN 55011		
Warranty	5 Years		

* power derating at high ambient temperatures 40 C and above

Specifications SureSine Inverter Series

Model Numbers	SureSine 1000	SureSine 1250	SureSine 2500
Rated Battery Voltage	24 or 48 V	24 or 48 V	48 V
Minimum Battery Operating Voltage	10.5 / 21.0 / 42.0 V		
Maximum Battery Operating Voltage	16.5 / 33.0 / 66.0 V		
Continuous Power@25C	1000 W	1250 W	2500 W
Power Surge @ 40C (< 5 sec)	2000 W	2500 W	5000 W
1 min Surge Power @40C	1500 W	1875 W	3750 W
3 min Surge Power @40C	1200 W	1500 W	3000 W
Operating Temperature Range*	-40° to +60°C		
Peak Efficiency	93 / 93%	93 / 94%	95%
Output Voltage Model Options	120 / 230V +/-5%V		
Output Frequency Options	50 / 60 Hz		
Waveform	Pure Sine Wave		
Total Harmonic Distortion (THD)	<2%		
Galvanically Isolated	Yes		
Self-Consumption: AC Output On AC Output Off	<10 W <2.3 W	12 W <2.2 W	18.6 W <2.4 W
Electronic Protections	AC Short Circuit, AC Overload, High/Low Voltage		
Battery Reverse Polarity	Replaceable internal fuse		
AC Output Protection against Short Circuit	Yes		
AC Output Protection against Overload	Yes		
Low Voltage Alarm, Disconnect, Reconnect	Yes		
High Voltage Alarm, Disconnect, Reconnect	Yes		
High Temperature Alarm, Disconnect, Reconnect	Yes		
Cooling	Fanless natural convection		
Operational Humidity Level	100%RH non condensing		
Weight (kg)	10.6 Kg / 23.4 lbs	13.3 Kg / 29.3 lbs	22.1 Kg / 48.7 lbs
Dimensions	524*247*156 (mm) 20.6*9.7*6.1 (in)	524*247*156(mm) 20.6*9.7*6.1 (in)	544*247*156 (mm) 21.4*9.7*6.1 (in)
IP Rating	IP20		
Wired Communications	RS485, USB, Ethernet, MS-CAN		
Wireless Communications	Bluetooth, companion Android & iOS Apps		
Data Storage	4MB / 5 years internal		
Safety Certifications	IEC-62109-1, IEC 62109-2, IEC 62368-1, UL 1741, UL 458(pending)		
CE / UKCA Compliant	Yes		
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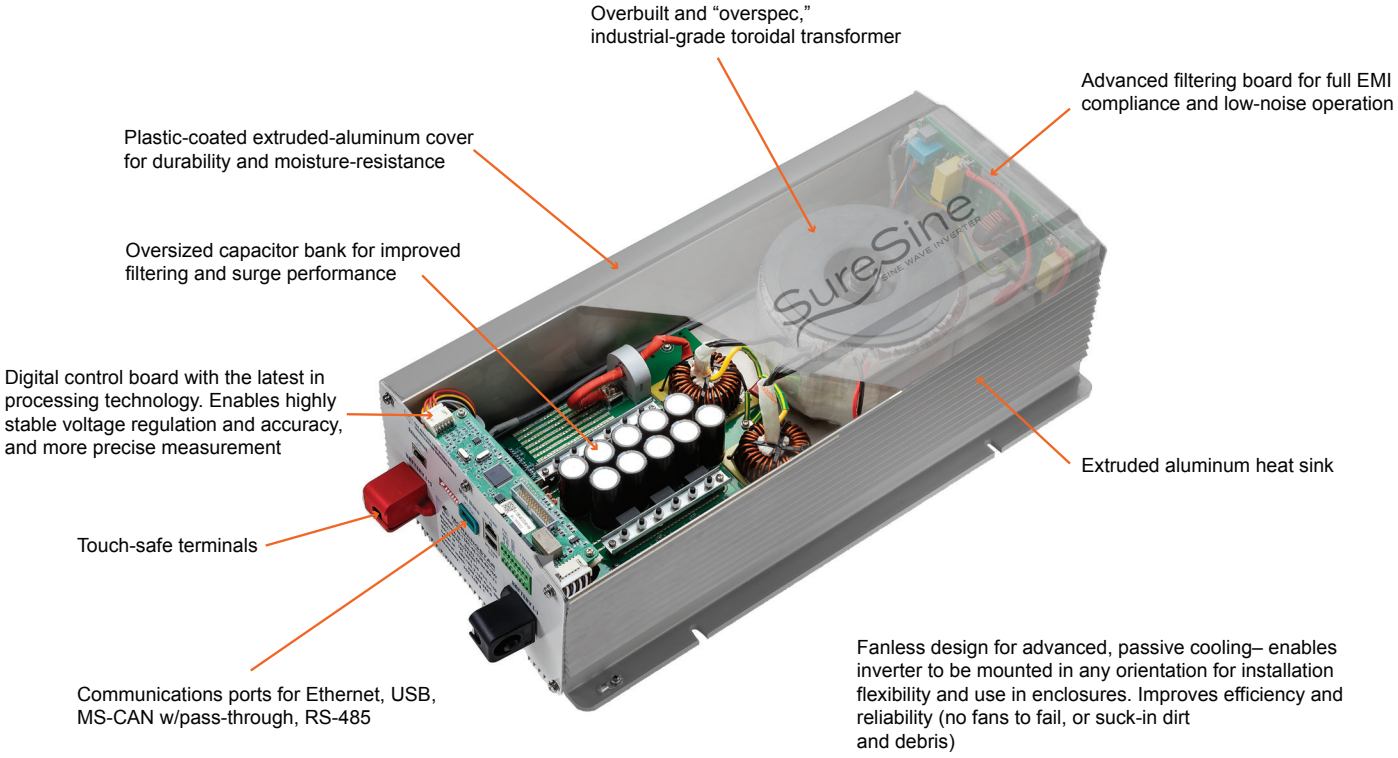
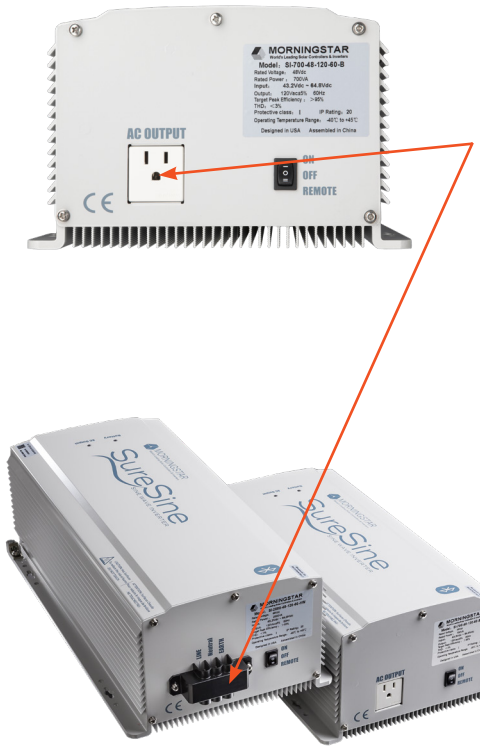
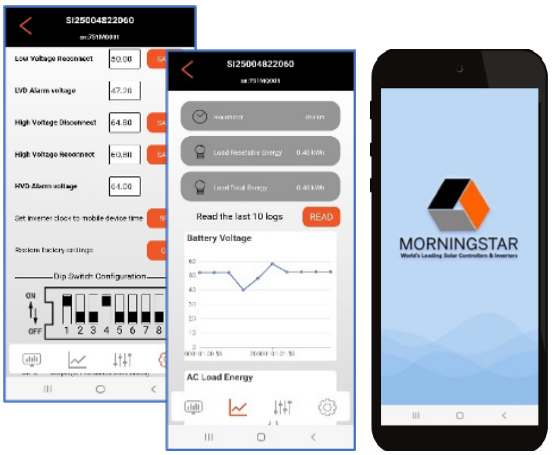




AC options include:

- Hard-wire terminals for all markets and power levels
- Type B for North America 150, 300, and 700W versions
- Universal for International 150, 300, and 700W versions



Wireless Android and iOS utility apps included for set-up and monitoring with remote devices