



SureSine™ Inverter Line

Sine Wave Inverter

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

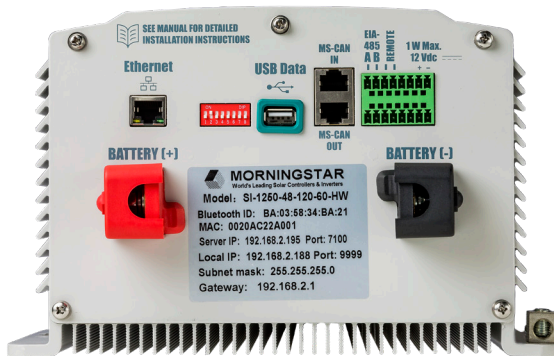


Since 1993 the name Morningstar has been synonymous with industry-leading charge controllers, used in mission-critical applications around the world. With that heritage and reputation, “Morningstar of Inverters” has a very high bar to meet.

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 Control via Dry-Contact terminal to manage inverter power externally
- 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



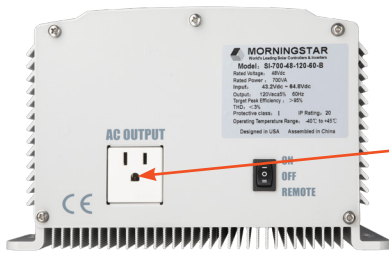
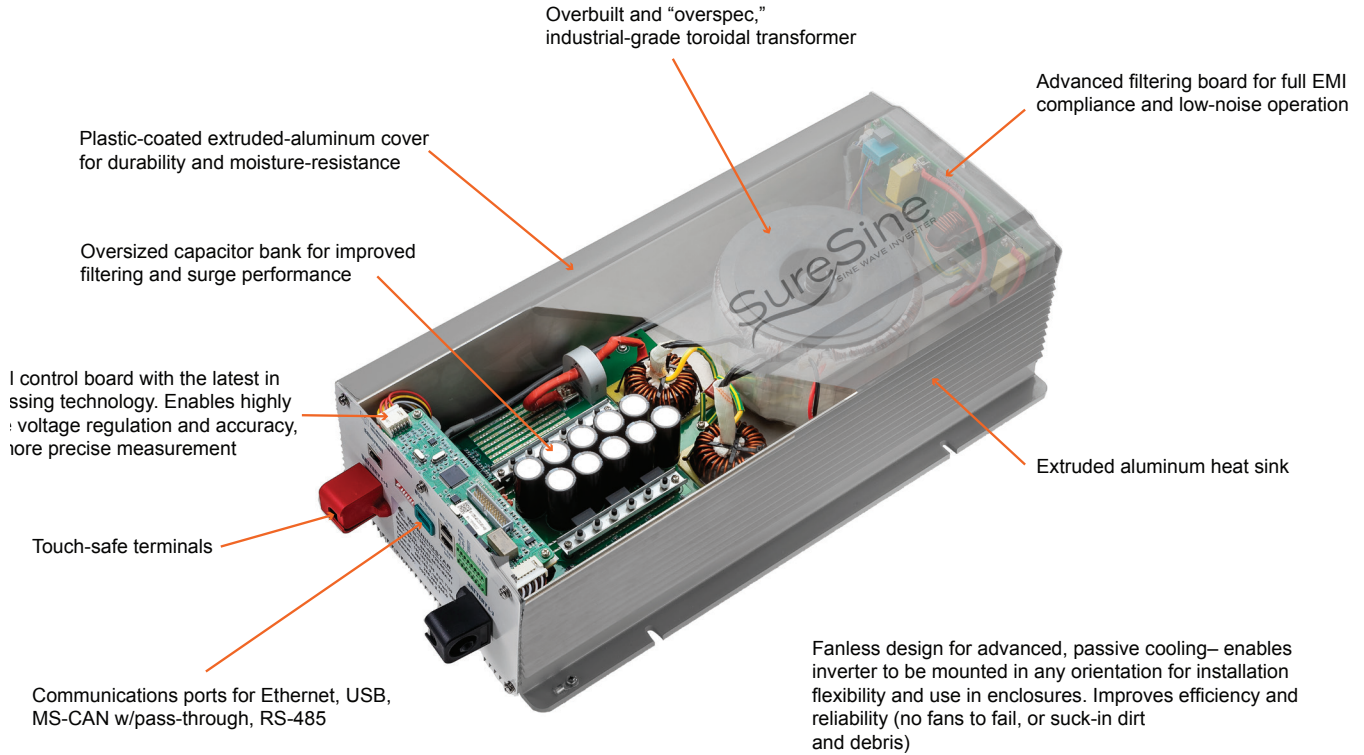
Specifications SureSine Inverter Series



Model Numbers	SureSine 150	SureSine 300	SureSine 700
Rated Battery Voltage	12, 24 or 48V	12, 24 or 48V	12, 24 or 48V
Battery Voltage Range (base 12V, 2/4X for 24/48V)	10.5-16.5V	10.5-16.5V	10.5-16.5V
Continuous Power@25C	150W	300W	700W
Power Surge @25C	300W	600W	1400W
Surge Duration @25C	5s		
1 min Surge Power @40C	225W	450W	1050W
3 min Surge Power @40C	180W	360W	840W
Operating Temperature Range*	-40° to +60°C		
Peak Efficiency	92.5%	93.0%	90.4%
Output Voltage Model Options	120 60Hz / 230V 50Hz +/-5%V		
Output Frequency (Hz) Model Options	50/60		
Waveform	Pure Sine Wave		
Total Harmonic Distortion (THD)	<2%		
Galvanically Isolated	Yes		
Self-Consumption:			
AC Output On	2.6W	3.9W	<9.4W
AC Output Off	0.65W	0.65W	<2.8W
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)	3.8Kg	5.2Kg	8.1Kg
Dimensions	312*190*96 (mm)	332*190*96 (mm)	462*247*156 (mm)
IP Rating	IP20		
Wired Communications	RS485, MS-CAN		
Wireless Communications	Bluetooth		
Wireless Apps	Android & iOS		
Data Storage	4MB / 5 years internal		
UL Certifications	UL 1741, UL 458, UL 62368		
CE Compliant	Yes		
IEC Compliance	IEC/EN 61000, IEC/EN 62109, IEC/EN 55032, IEC/EN 55011		
Warranty	5 Years		

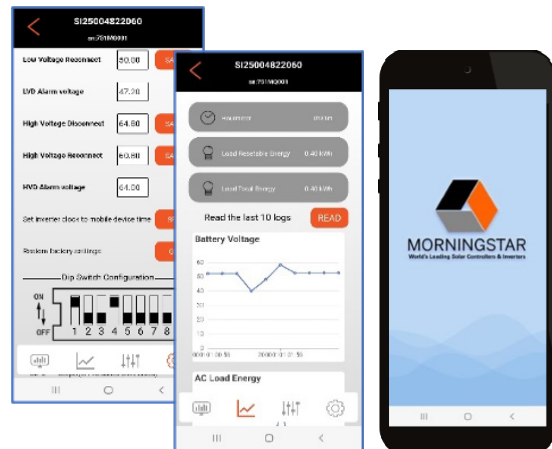
* power derating at high ambient temperatures TBD

Model Numbers	SureSine 1000	SureSine 1250	SureSine 2500
Rated Battery Voltage	24 or 48V	24 or 48V	48V
Battery Voltage Range (base 12V, 2/4X for 24/48V)	10.5-16.5V	10.5-16.5V	10.5-16.5V
Continuous Power@25C	1000W	1250W	2500W
Power Surge @25C	2000W	2500W	5000W
Surge Duration @25C	5s		
1 min Surge Power @40C	1500W	1875W	3750W
3 min Surge Power @40C	1200W	1500W	3000W
Operating Temperature Range*	-40° to +60°C		
Peak Efficiency	95.0%	93.0%	95.6%
Output Voltage Model Options	120 60Hz / 230V 50Hz +/-5%V		
Output Frequency (Hz) Model Options	50/60		
Waveform	Pure Sine Wave		
Total Harmonic Distortion (THD)	<2%		
Galvanically Isolated	Yes		
Self-Consumption:			
AC Output On	<10W	12W	18.6W
AC Output Off	<2.3W	<2.2W	<2.4W
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)	10.6Kg	13.3Kg	22.1Kg
Dimensions	524*247*156 (mm)	524*247*156(mm)	544*247*156 (mm)
IP Rating	IP20		
Wired Communications	RS485, USB, Ethernet, MS-CAN		
Wireless Communications	Bluetooth		
Wireless Apps	Android and iOS		
Data Storage	4MB / 5 years internal		
UL Certifications	UL 1741, UL 458, UL 62368		
CE Compliant	Yes		
IEC Compliance	IEC/EN 61000, IEC/EN 62109, IEC/EN 55032, IEC/EN 55011		
Warranty	5 Years		



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