



## 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 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



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

SureSine communications and configuration features



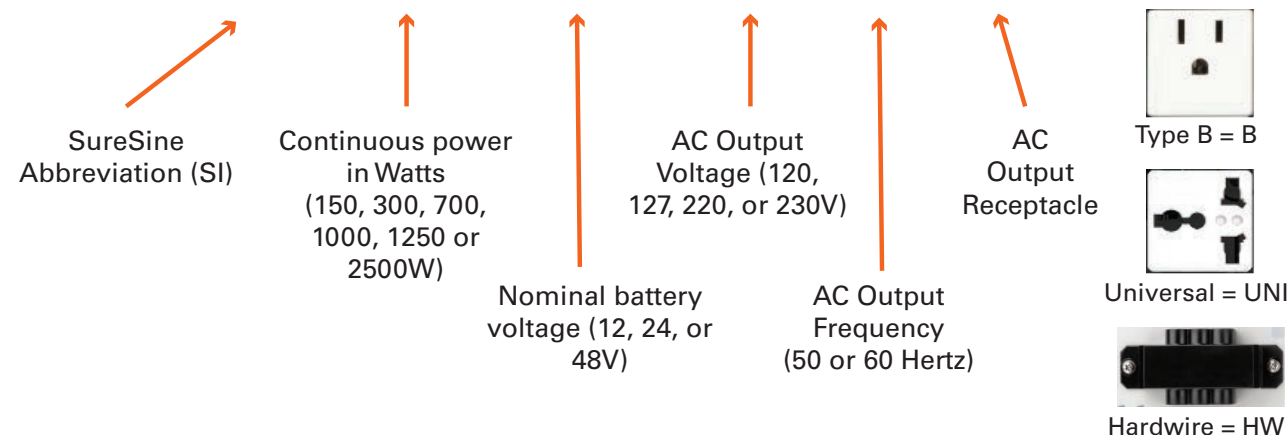
Model Numbers	SureSine 150			SureSine 300			SureSine 700			Model Numbers	SureSine 1000		SureSine 1250		SureSine 2500
Rated Battery Voltage	12V	24V	48V	12V	24V	48V	12V	24V	48V	Rated Battery Voltage	24 or 48V		24 or 48V		48V
Battery Operational Voltage Range	10-16.5V	20-33V	40-66V	10-16.5V	20-33V	40-66V	10-16.5V	20-33V	40-66V	Battery Operational Voltage Range	21-33V (24V), 42-66V (48V)				
Maximum Continuous DC Input Current	18 Amps	8 Amps	4 Amps	36 Amps	16 Amps	8 Amps	84 Amps	38 Amps	18.5 Amps	Maximum Continuous DC Input Current	54A (24V), 26.5A (48V)		68A (24V), 33A (48V)		66A
AC Output Voltage (Frequency) Options	120V, 127V, 220V (60 Hz) / 230V (50 Hz) +/-5% V									AC Output Voltage (Frequency) Options	120V, 127V, 220V (60 Hz) / 230V (50 Hz) +/-5% V				
Continuous AC Output Power @ 40°C	150W			300W			700W			Continuous AC Output Power @ 40°C	1000W	1250W	2500W		
Power Surge @ 40C (< 5 sec)	300W			600W			1400W			Power Surge @ 40C (< 5 sec)	2000W	2500W	5000W		
1 min Surge Power @40C	225W			450W			1050W			1 min Surge Power @40C	1500W	1875W	3750W		
3 min Surge Power @40C	180W			360W			840W			3 min Surge Power @40C	1200W	1500W	3000W		
Operating Temperature Range*	-40° to +60°C									Operating Temperature Range*	-40° to +60°C				
Peak Efficiency	89%	89%	90%	91%	91%	92%	91%	90%	92%	Peak Efficiency	93 / 93%		93 / 94%		95%
Output Voltage Model Options	120 / 230V +/-5% V									Output Voltage Model Options	120 / 230V +/-5% V				
Output Frequency Options	50/60 Hz									Output Frequency Options	50/60 Hz				
Waveform	Pure Sine Wave									Waveform	Pure Sine Wave				
Total Harmonic Distortion (THD )	<2%									Total Harmonic Distortion (THD )	<2%				
Galvanically Isolated	Yes									Galvanically Isolated	Yes				
Self-Consumption:										Self-Consumption:					
AC Output On	2.6W			3.9W			<9.4W			AC Output On	<10W		12W		18.6W
AC Output Off	0.65W			0.65W			<2.8W			AC Output Off	<2.3W		<2.2W		<2.4W
Electronic Protections	AC Short Circuit, AC Overload, High/Low Voltage									Electronic Protections	AC Short Circuit, AC Overload, High/Low Voltage				
Battery Reverse Polarity	Replaceable internal fuse									Battery Reverse Polarity	Replaceable internal fuse				
AC Output Protection against Short Circuit	Yes									AC Output Protection against Short Circuit	Yes				
AC Output Protection against Overload	Yes									AC Output Protection against Overload	Yes				
Low Voltage Alarm, Disconnect, Reconnect	Yes									Low Voltage Alarm, Disconnect, Reconnect	Yes				
High Voltage Alarm, Disconnect, Reconnect	Yes									High Voltage Alarm, Disconnect, Reconnect	Yes				
High Temperature Alarm, Disconnect, Reconnect	Yes									High Temperature Alarm, Disconnect, Reconnect	Yes				
Cooling	Fanless natural convection									Cooling	Fanless natural convection				
Operational Humidity Level	100%RH non condensing									Operational Humidity Level	100%RH non condensing				
Weights	4.4 kg / 9.6 lbs			5.7 kg / 12.5 lbs			12V model: 14.5 kg / 32.0 lbs 24 & 48V versions: 13.5 kg / 30 lbs			Weights	16.5 kg / 36 lbs		17.5 kg / 36 lbs		27 kg / 59 lbs
Shipping Weights	5 kg / 11 lbs			6.2 kg / 13.5 lbs			12V model: 16.5 kg / 35.5 lbs 24 & 48V versions:15.5 kg 33.5 lbs			Shipping Weights	18 kg / 39 lbs		19.5 kg / 42.5 lbs		28.5 kg / 63 lbs
Dimensions: NOTE: Hard-Wired versions are 0.6 in / 14m longer than factory-AC wired units	312/190/96 (mm) 12.2/7.5/3.8 (in)			332/190/96 (mm) 13.1/7.5/3.8 (in)			12V: 463/247/156 (mm)18.2/9.7/6.1(in) 24V & 48V: 463 x 247 x 156 (mm) 18.23 x 9.72 x 6.14 (in)			Dimensions: NOTE: Hard-Wired versions are 0.6 in / 14m longer than factory-AC wired units	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									IP Rating	IP20				
Wired Communications	RS485, MS-CAN						RS485,USB,Ethernet, MS-CAN			Wired Communications	RS485,USB,Ethernet, MS-CAN				
Wireless Communications	Bluetooth, companion Android & iOS Apps									Wireless Communications	Bluetooth, companion Android & iOS Apps				
Data Storage	4MB / 5 years internal									Data Storage	4MB / 5 years internal				
Safety Certifications	IEC 62368-1 (pending   FCC Article 15, Class B   IEC/EN 61000-6-3   IEC/EN 61000-6-4   IEC/EN 55032									Safety Certifications	IEC 62368-1 (pending   FCC Article 15, Class B   IEC/EN 61000-6-3   IEC/EN 61000-6-4   IEC/EN 55032				
CE / UKCA Compliant	Yes									CE / UKCA Compliant	Yes				
Compliance	IEC/EN 61000   IEC/EN 55032   IEC/EN 55011									Compliance	IEC/EN 61000   IEC/EN 55032   IEC/EN 55011				
Warranty	5 Years									Warranty	5 Years				

\* power derating at high ambient temperatures 40°C and above

## Product Model Number Guide

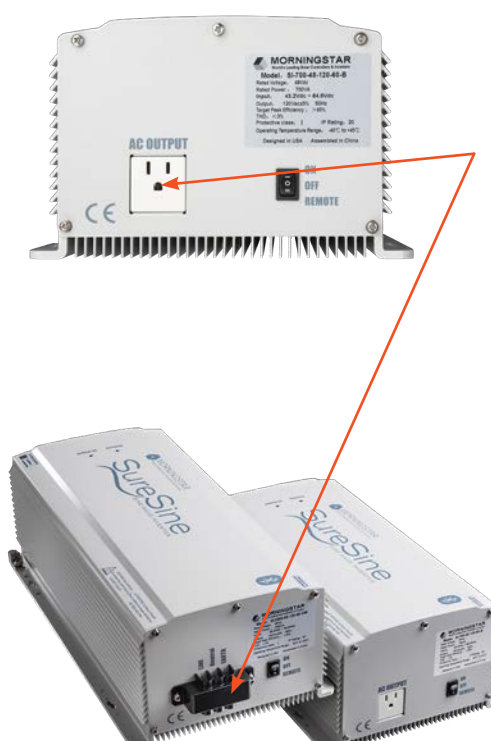
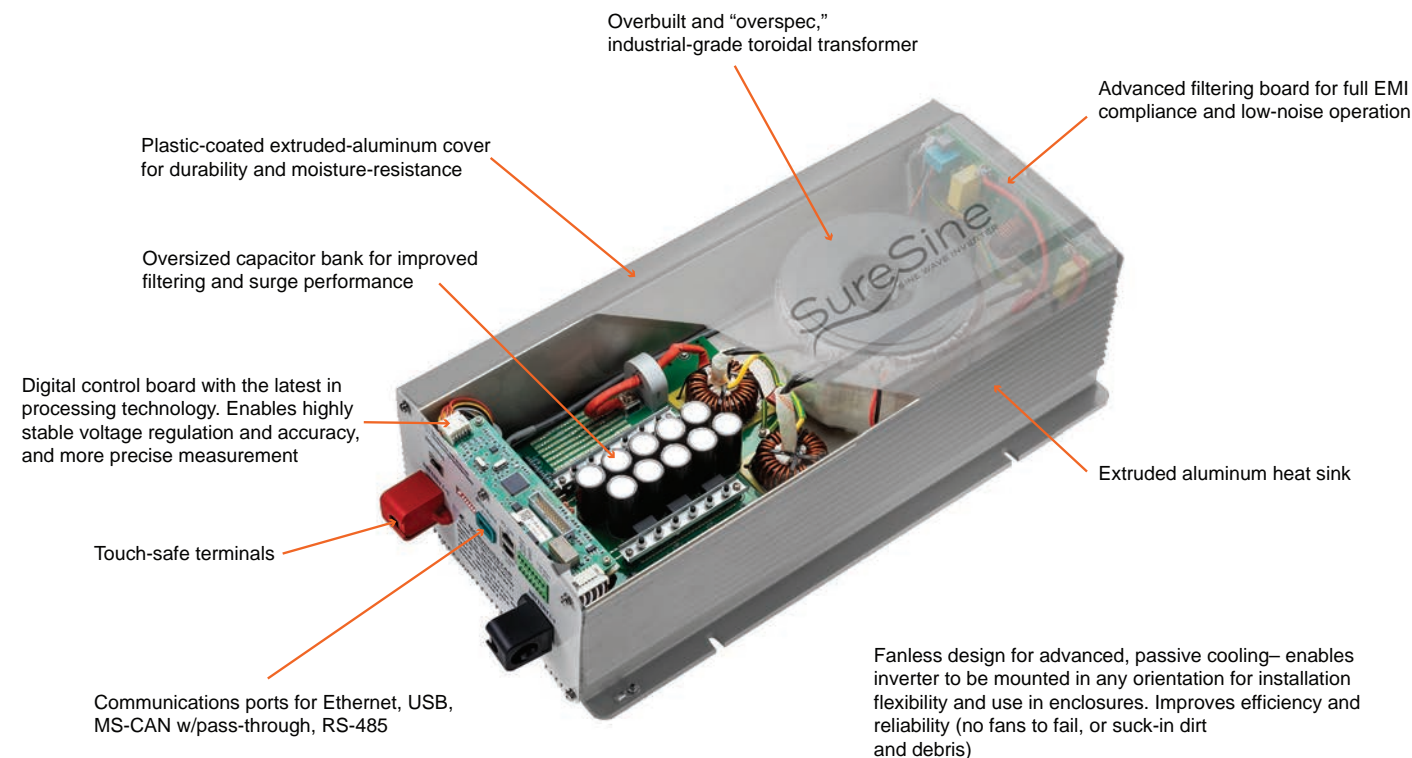
Here's what the different letters and numbers represent in our SureSine Model Number, using an example of a SureSine inverter rated for 150W and 12 volt batteries with 120 volt AC output at 60 Hertz with a Type B AC output receptacle.

# SI-150-12-120-60-B



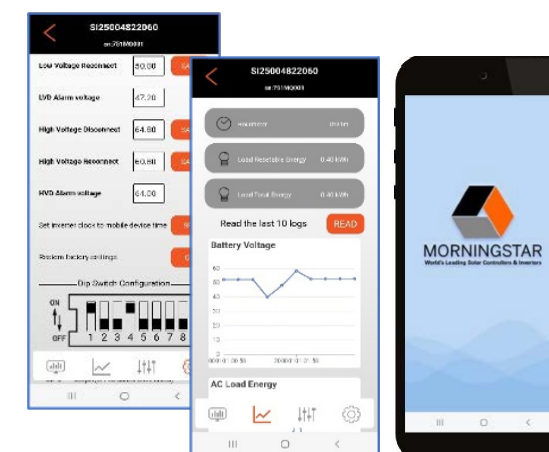
Use this guide to choose your **SureSine model number** from the list below.

SI-150-12-120-60-B	SI-300-12-120-60-B	SI-700-12-120-60-B	SI-1250-24-120-60-HW
SI-150-12-120-60-HW	SI-300-12-120-60-HW	SI-700-12-120-60-HW	SI-1250-24-230-50-HW
SI-150-12-127-60-HW	SI-300-12-127-60-HW	SI-700-12-230-50-HW	SI-1250-48-120-60-HW
SI-150-12-127-60-UNI	SI-300-12-127-60-UNI	SI-700-12-230-50-UNI	SI-1250-48-127-60-HW
SI-150-12-220-60-HW	SI-300-12-220-60-HW	SI-700-24-120-60-B	SI-1250-48-220-60-HW
SI-150-12-220-60-UNI	SI-300-12-220-60-UNI	SI-700-24-120-60-HW	SI-1250-48-230-50-HW
SI-150-12-230-50-HW	SI-300-12-230-50-HW	SI-700-24-230-50-HW	SI-2500-48-120-60-HW
SI-150-12-230-50-UNI	SI-300-12-230-50-UNI	SI-700-24-230-50-UNI	SI-2500-48-127-60-HW
SI-150-24-120-60-B	SI-300-24-120-60-B	SI-700-48-120-60-B	SI-2500-48-220-60-HW
SI-150-24-120-60-HW	SI-300-24-120-60-HW	SI-700-48-120-60-HW	SI-2500-48-230-50-HW
SI-150-24-127-60-HW	SI-300-24-127-60-HW	SI-700-48-127-60-HW	
SI-150-24-127-60-UNI	SI-300-24-127-60-UNI	SI-700-48-220-60-HW	
SI-150-24-220-60-HW	SI-300-24-220-60-HW	SI-700-48-230-50-HW	
SI-150-24-220-60-UNI	SI-300-24-220-60-UNI	SI-700-48-230-50-UNI	
SI-150-24-230-50-HW	SI-300-24-230-50-HW	SI-1000-24-120-60-HW	
SI-150-24-230-50-UNI	SI-300-24-230-50-UNI	SI-1000-24-230-50-HW	
SI-150-48-120-60-B	SI-300-48-120-60-B	SI-1000-48-120-60-HW	
SI-150-48-120-60-HW	SI-300-48-120-60-HW	SI-1000-48-127-60-HW	
SI-150-48-127-60-HW	SI-300-48-127-60-HW	SI-1000-48-220-60-HW	
SI-150-48-127-60-UNI	SI-300-48-127-60-UNI	SI-1000-48-230-50-HW	
SI-150-48-220-60-HW	SI-300-48-220-60-HW		
SI-150-48-220-60-UNI	SI-300-48-220-60-UNI		
SI-150-48-230-50-HW	SI-300-48-230-50-HW		
SI-150-48-230-50-UNI	SI-300-48-230-50-UNI		



### 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

# SureSine

Inverters to the Power  
of Morningstar

**With over 1,600 off-grid inverters\* already on the market from our competitors, we had to make sure that our six new ones raised the bar. Meet the result.**

Our new SureSine inverters start with the industrial-grade “over build” quality and precision engineering that made Morningstar the industry leader in off-grid solar over the past three decades. Next, we added our customers’ wish list of inverter features and technologies. Finally, we designed-in the performance and safety needed to achieve industry-leading NRTL conformance certifications— unique in this class of inverters.

SureSine is the inverter line our customers asked us to build. And our competitors will wish we hadn’t. Multiple DC/AC configurations means there’s a SureSine ideal for your next project. Contact Morningstar to learn more [www.morningstarcorp.com](http://www.morningstarcorp.com)

- Six all-new inverter models from 150 to 2500 Watts; 120 or 230V output, 12, 24 or 48V DC input options
- Superior industrial-grade design “over built” in the Morningstar tradition, including a low-frequency toroidal transformer for improved sinewave stability
- Engineered for system-level integration with Morningstar charge controllers
- Full communications capabilities: Bluetooth, RS-485, USB, Ethernet, MS-CAN while using MODBUS protocol
- AC hardwire terminal options on selected models
- Fanless convection cooling with extruded aluminum heat sinking, for maximum efficiency and reliability



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



Simple Network Management Protocol  
**SNMP**  
COMPATIBLE



\*source: ENF Solar industry company and product directory 2022 <https://www.enfsolar.com/pv/inverter>

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Due to Morningstar's policy of continuous improvement, product availability, features and specifications are subject to change without notice.

[www.morningstarcorp.com](http://www.morningstarcorp.com)

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