

SUNNY ISLAND X

Next generation SMA battery inverter — more powerful than ever



SMA Sunny Island X



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Whether in off-grid areas or connected to the utility grid, the highly versatile Sunny Island X battery inverter supports a wide range of on-grid and off-grid installations.

As a central element of your system, it ensures that self-generated solar energy can be stored and made available at all times. The Sunny Portal powered by ennexOS interface allows you to visualize all the components in the Sunny Island system and monitor the energy flows.

The Sunny Island X ensures the required system flexibility and reliability. The broad temperature range ensures, for example, that the Sunny Island X can operate even under the most extreme conditions – desert heat, tropical humidity or snowy conditions are never a problem for Sunny Island X. Intelligent load and energy management keeps the system running, even in critical situations.

The Sunny Island X is a highly robust battery inverter – and comes with an up to 10-year warranty²⁾

The next generation of battery inverters

The **Sunny Island X** ensures that self-generated solar power is stored and made available at all times, whether in remote off-grid areas or on the utility grid. It is extremely versatile and ideal for both on-grid and off-grid installations.

The Sunny Island X impresses with its exceptional flexibility. Its modular design allows you to adjust the AC power and battery capacity of your system to meet your specific needs. Thanks to the integrated DC-to-DC converter, the Sunny Island X is compatible with a wide range of batteries, offering great flexibility in energy storage. In off-grid installations, generators or the utility grid can also be used as an energy source, when combined with the Sunny Island X Connection Box¹⁾. It delivers full power, even at extreme ambient temperatures up to 45 C.

Made to the highest quality standards in Germany, the Sunny Island X guarantees reliability and durability. In on-grid systems, the inverter improves energy management and ensures efficient use. The Sunny Portal powered by ennexOS interface allows you to visualize all the components in the Sunny Island system and monitor the energy flows. The flexible and robust battery inverter Sunny Island X offers you both energy reliability and independence.

Benefits at a glance

- Nominal output, even at high temperatures (45°C)
- Modular scalability of AC power and battery capacity in on- and off-grid installations
- Compatible with numerous approved batteries thanks to integrated DC-to-DC converter
- Flexible use of generators or the utility grid in off-grid installations using Sunny Island X Connection Box¹⁾
- Designed and manufactured in Germany with 100% SMA quality standards
- 10-year warranty (5 + 5*)²⁾
- Integrated energy management in on-grid installations without battery backup
- Compatible with SMA Hybrid Controller or other Modbus system controllers
- Comprehensive system monitoring thanks to Sunny Portal powered by ennexOS
- Sunny Design design tool • Advanced training available for project planning, installation and commissioning.

¹⁾ Sunny Island X Connection Box is an accessory

²⁾ Device registration via the SMA product registration homepage (my.sma-service.com)

SPECIFICATIONS

	Sunny Island X 30 (SI30-20)	Sunny Island X 50 (SI50-20)
Battery connection (DC)		
Max. DC Power	30.600 W	51.000 W

DC voltage range (at 400 Vac)	200 to 980 V	
Max. usable input current (I _{dc} max)	150 A	
Battery type	Li-Ion (Modbus TCP or CAN bus)	
Grid connection (AC)		
Rated power at nominal voltage	30.000 W	50.000 W
Max. apparent AC power	30.000 VA	50.000 VA
Max. reactive power	30.000 var	50.000 var
Nominal output current	45,6 A per line conductor	75,5 A per conductor
Overload capacity	Tbd	Tbd
Short-circuit current	Tbd	Tbd
Nominal AC voltage	400 V ³⁾	
AC voltage range	187 to 528 V	
Rated grid frequency	50 / 60 Hz	
Power frequency range	44 to 66 Hz	
Total harmonic distortion output voltage	Tbd	
Power factor at rated power / adjustable displacement power factor	1 / 0 overexcited to 0 underexcited	
Unbalanced load capability / connection lines / grid configuration	100% / 5 (L1, L2, L3, N, PE) / Yn	
Efficiency		
Max. Efficiency / European Efficiency	98,0 % / 97,6 %	98,0 % / 97,2 %
Protection device		
Grid monitoring	Yes	
Overtemperature	Yes	
Battery deep discharge	Yes	
AC short.-circuit current capability	Yes	
Galvanically isolated	No	
All-pole-senstive resicual-current monitoring unit	Yes	
Protection class (according to IEC 62109-1)	I	
Overvoltage category (according to IEC-60721-3-4)	AC: II	
General data		
Dimensions (W / H / D)	772 X 837,3 X 443,8 mm	
Weight	104 Kg	
Operating temperature range	-25° C to 60° C	
Noise emission, typical	69 dB (A)	
Standby	25 W	
Topology	Three-phases	
Cooling concept	Active	
Climatic category according to IEC 60721-3-4	4K4 / 4Z4 / 4S2 / 4M3 / 4C2 / 4B2	
Protection degree according to IEC 60529/UL 50E	IP65 / NEMA 4X	
Maximum permissible value for relative humidity (non-condensing)	95 %	
Features / functions / accessories		
Modbus TCP / Speedwire / WLAN	Yes / Yes / Yes	
LED display (status / fault / communication)	Yes / Yes / Yes	
On-grid energy management functions (with integrated Systems Manager)	Self-consumption optimization, peak load shaving, multi-use	
Web user interface / Wi-Fi ²⁾	Yes / Yes	
Systems monitoring	Sunny Portal powered by ennexOS	
LCD display	Optional	
Hybrid Controller functions (integrated Sunny Island X Connection Box)		
Support of Sunny Island X	Yes	
Blackstart	Yes	
Diesel-off mode (frequency and voltage control)	Yes	
Active and reactive power control (PV and battery)	Yes	
SOC (state of charge) balancing	Yes	
Diesel generator management	Yes	
On-gid energy amangement (increased self-consumption, peak load shaving)	Yes	
Synchronization with external AC sources (utility grid or generator)	Yes	
System Manager features for on-grid application only		
Total number of supported devices with Sunny Island X as System Manager ¹⁾	11	
Total number of supported devices when SMA Data Manager M is manager ¹⁾	50	
Centralized commisioning of all devices in the system	Yes	
Remote parametrization of SMA devices with Sunny Portal	Yes	
Accessories		

Sunny Island X Connection Box	Available in two sizes: 10 x SI-X and 16 x SI-X
For on-grid applications without battery backup	600 A (COM-EMETER-A-20) / 200 A (COM-EMETER-B-20)
For on-grid applications without battery backup	Janitza UMG604

- ¹⁾ Supported devices: SMA EV Charger Business (only monitoring), SMA PV inverter, Sunny Island X, Energy Meter, and other Modbus devices
- ²⁾ For commissioning only
- ³⁾ The AC output voltage can be adjusted (adjustable: 208 V, 415 V and 480 V)

DOWNLOADS

HOJA ESPECIFICACIONES SMA SUNNY ISLAND - SIX-20 DS

 [Slxx-20-DS-es-20.pdf](#) Size: 1.91 MiB

DATA SHEET SMA SUNNY ISLAND - SIX-20 DS

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