

SG333HX

Multi-MPPT String Inverter for 1500 Vdc System



HIGH YIELD

- Up to 16 MPPTs with max. efficiency 99%
- 20A per string, compatible with 500Wp+ module
- Data exchange with tracker system, improving yield



LOW COST

- Q at night function, save investment
- Power line communication (PLC)
- Smart IV Curve diagnosis*, active O&M



GRID SUPPORT

- $SCR \geq 1.15$ stable operation in extremely weak grid
- Reactive power response time $< 30\text{ms}$
- Compliant with global grid code



PROVEN SAFETY

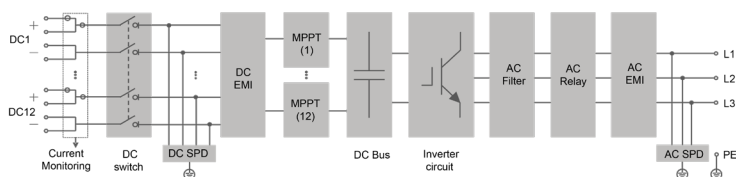
- 2 strings per MPPT, no fear of string reverse connection
- 24h real-time AC and DC insulation monitoring



Type designation		SG333HX
Input (DC)		
Max. PV input voltage		1500 V
Min. PV input voltage / Startup input voltage		500 V / 550 V
Nominal PV input voltage		1080 V
MPP voltage range		500 V – 1500 V
No. of independent MPP inputs		12 (Optional: 16)
Max. number of input connector per MPPT		2
Max. PV input current		12 * 40 A (Optional: 16 * 30 A)
Max. DC short-circuit current per MPPT		60 A
Output (AC)		
AC output power		333 kVA @ 35 °C / 320 kVA @ 40 °C
Max. AC output current		240.5 A
Nominal AC voltage		3 / PE, 800 V
AC voltage range		640 V – 920 V
Nominal grid frequency / Grid frequency range		50 Hz / 45 Hz – 55 Hz, 60 Hz / 55 Hz – 65 Hz
THD		< 3 % (at nominal power)
DC current injection		< 0.5 % In
Power factor at nominal power / Adjustable power factor		> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / Connection phases		3 / 3
Efficiency		
Max. efficiency / European efficiency		99.02 % / 98.8 %
Protection		
DC reverse connection protection		Yes
AC short circuit protection		Yes
Leakage current protection		Yes
Grid monitoring		Yes
Ground fault monitoring		Yes
DC switch / AC switch		Yes / No
PV string current monitoring		Yes
Q at night function		Yes
Anti-PID and PID recovery function		Optional
Surge protection		DC Type II / AC Type II
General data		
Dimensions (W*H*D)		1136 mm * 870 mm * 361 mm
Weight *		≤ 116 kg
Isolation method		Transformerless
Degree of protection		IP66
Power consumption at night		< 6 W
Operating ambient temperature range		-30 °C to 60 °C
Allowable relative humidity range		0 % – 100 %
Cooling method		Smart forced air cooling
Max. operating altitude		4000 m (> 3000 m derating)
Display		LED, Bluetooth+APP
Communication		RS485 / PLC
DC connection type		MC4-Evo2 (Max. 6 mm ² , optional 10mm ²)
AC connection type		Support OT/DT terminal (Max. 400 mm ²)
Compliance		IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, EN 50549-2
Grid Support		Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control, Q-U control, P-f control

*Due to the multi-supplier for some key components, the actual weight may have a ±10% deviation, please refer to the actually delivered product.

CIRCUIT DIAGRAM



EFFICIENCY CURVE

