SUNGROW
Clean power for all

SG285HX

Multi-MPPT String Inverter for 1500 Vdc System

HIGH YIELD

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

GRID SUPPORT

- SCR≥1.15 stable operation in extremely weak grid
- Reactive power response time <30ms
- Compliant with global grid code

LOW COST

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

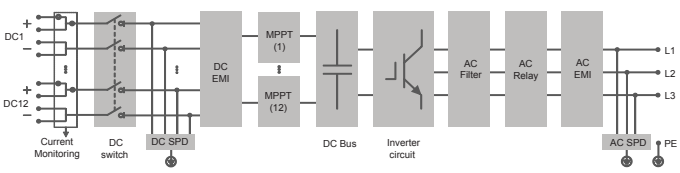
PROVEN SAFETY

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

Type designation	SG285HX
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
Max. number of input connector per MPPT	2
Max. PV input current	12 * 40 A
Max. DC short-circuit current per MPPT	60 A
Output (AC)	
AC output power	285 kVA @ 40 ℃
Max. AC output current	206 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 ℃ to 60 ℃
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 mm², optional 10mm²)
AC connection type	Support OT/DT terminal (Max. 400 mm²)
Compliance	IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, VDE-AR-N 4110:2018, VDE-AR-N 4120:2018, EN 50549-2, UNE 206007-1:2013, P.O.12.3
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