SG320HX

Multi-MPPT String Inverter for 1500 Vdc System



HIGH YIELD

- Up to 16 MPPT with 99% efficiency
- 40A MPPT compatible with 500Wp+ module
- DC 2 in 1 connection

LOW COST

- Compatible with Al and Cu AC cables
- Less than 30ms reactive power response
- PLC communication to save the cable cost

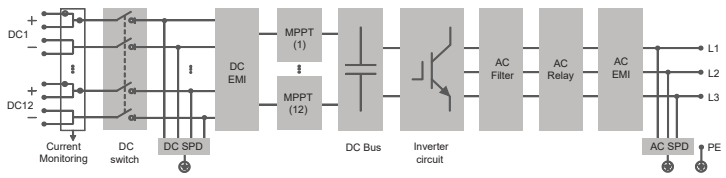
SMART O&M

- Touch free commissioning and remote firmware upgrade
- Smart string detection and IV scanning
- Fuse free design with smart string current monitoring

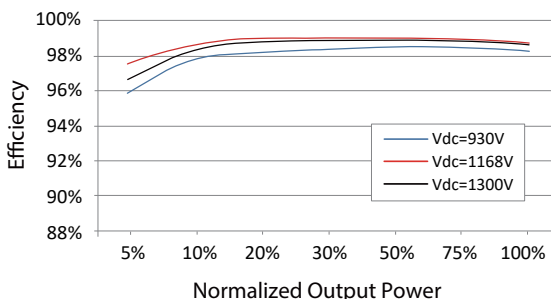
PROVEN SAFETY

- IP66 protection and C5 anti-corrosion grade
- Type II SPD for both DC and AC

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG320HX
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 PV strings per MPPT	2
Max. PV input current per MPPT	40 A (Optional: 30A for 16 MPPT inputs)
Max. DC short-circuit current per MPPT	60 A
Output (AC)	
AC output power	352 kVA @ 30 ℃ / 320 kVA @ 40 ℃ / 295 kVA @ 50 ℃
Max. AC output current	254 A
Nominal AC voltage	3 / PE, 800 V
AC voltage range	640 – 920V
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 57 – 63 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 * 870 * 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, EN 50549-1/2, UNE 206007-1:2013, UTE C15-712-1:2013
Grid Support	Q at night function, LVRT, HVRT,active & reactive power control and power ramp rate control

*Due to the multi-supplier for some key components, the actual weight may have a ±8% deviation, please refer to the actually delivered product.