

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

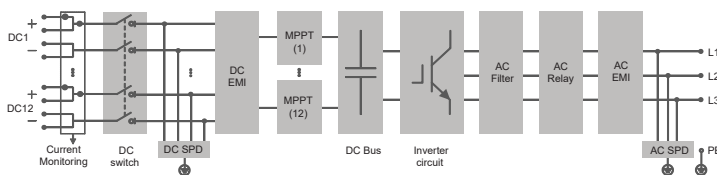
SMART O&M

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

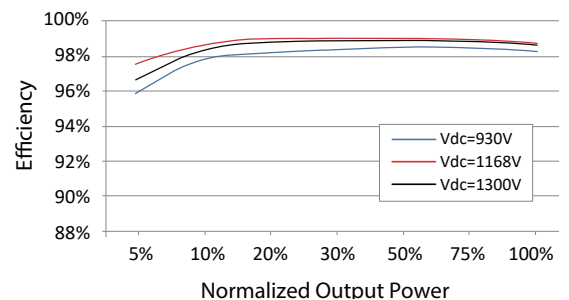
PROVEN SAFETY

- 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 °C / 320 kVA @ 40 °C / 295 kVA @ 50 °C |
| 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 °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 50549-1/2, 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.