

SG250HX-US

Multi-MPPT String Inverter for 1500 Vdc System



HIGH YIELD

- 12 MPPTs with max. efficiency of 99%
- 30A MPPT compatible with 500Wp+ module
- Built-in anti-PID and PID recovery functions

SMART O&M

- Touch free commissioning and remote firmware upgrade
- Fuse free design with smart string current monitoring

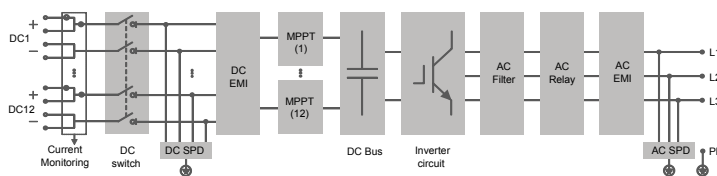
LOW COST

- Compatible with Al and Cu AC cables
- DC 2 in 1 connection enabled
- Reactive power at night function

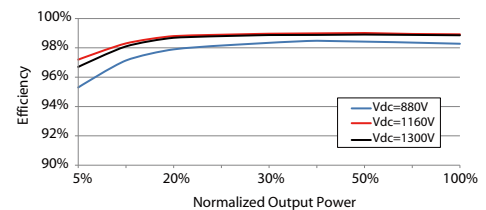
PROVEN SAFETY

- Integrated Arc fault circuit protection
- NEMA 4X protection and C5 anti-corrosion grade
- Type II SPD for both DC and AC

CIRCUIT DIAGRAM



EFFICIENCY CURVE



| Type designation | SG250HX-US |
|---|--|
| Input (DC) | |
| Max. PV input voltage | 1500 V |
| Min. PV input voltage / Startup input voltage | 500 V / 500 V |
| Nominal PV input voltage | 1080 V |
| MPP voltage range | 500 V – 1500 V |
| MPP voltage range for nominal power | 860 V – 1300 V |
| No. of independent MPP inputs | 12 |
| Max. PV input current | 30 A * 12 |
| Max. DC short-circuit current | 50 A * 12 |
| Output (AC) | |
| AC output power | 250 kVA @ 30 °C / 225 kVA @ 40 °C / 200 kVA @ 50 °C |
| Max. AC output current | 180.5 A |
| Nominal AC voltage | 3 / PE, 800 V |
| AC voltage range | 680 – 880V |
| 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 | 99.0 % |
| CEC efficiency | 98.5 % |
| Protection | |
| DC reverse connection protection | Yes |
| AC short circuit protection | Yes |
| Leakage current protection | Yes |
| Grid monitoring | Yes |
| Ground fault monitoring | Yes |
| DC switch | Yes |
| AC switch | No |
| Arc fault circuit interrupter (AFCI) | Yes |
| PV String current monitoring | Yes |
| Reactive power at night function | Yes |
| PID protection | Anti-PID or PID recovery |
| Overvoltage protection | DC Type II and AC Type II |
| General Data | |
| Dimensions (W*H*D) | 1051 * 660 * 363 mm (41.4" * 26" * 14.3") |
| Weight | 99 kg (218.25 lbs) |
| Isolation method | Transformerless |
| Ingress protection rating | NEMA 4X |
| Night power consumption | < 2 W |
| Operating ambient temperature range | -30 to 60 °C (-22 to 140 °F) |
| Allowable relative humidity range (non-condensing) | 0 – 100 % |
| Cooling method | Smart forced air cooling |
| Max. operating altitude | 4000 m (> 3000 m derating) 13123 ft (> 9843 ft derating) |
| Display | LED, Bluetooth+APP |
| Communication | RS485 |
| DC connection type | MC4-Evo2 (Max. 10AWG) |
| AC connection type | OT / DT terminal (Max. 300 mm ² 600 Kcmil) |
| Compliance | UL1741, UL1741SA, IEEE1547, IEEE1547.1, CSA C22.2 107.1-01-2001, California Rule 21, UL 1699B |
| Grid Support | Reactive power at night function, LVRT, HVRT, active & reactive power control and power ramp rate control, Volt/Watt, Frequency/Watt |