

SG33CX/SG40CX/SG50CX New

Multi-MPPT String Inverter for 1000 Vdc System



High Yield

- 5 MPPTs with max. efficiency 98.7%
- Compatible with bifacial module
- Built-in PID recovery function



Smart O&M

- Touch free commissioning and remote firmware upgrade
- Online IV curve scan and diagnosis
- Fuse free design with smart string current monitoring



Low Cost

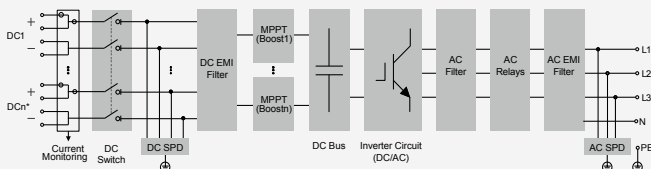
- Compatible with Al and Cu AC cables
- DC 2 in 1 connection enabled
- Cable free communication with optional Wi-Fi



Proven Safety

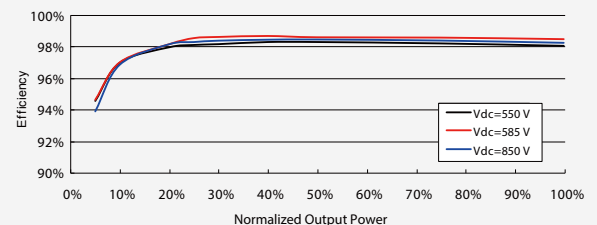
- IP66 and C5 protection
- Type II SPD for both DC and AC
- Compliant with global safety and grid code

Circuit Diagram



*: m3(SG33CX)4(SG40CX)5(SG50CX)

Efficiency Curve



| Input (DC) | SG33CX | SG40CX | SG50CX |
|---|--|---------------------------------|---------------------------------|
| Max. PV input voltage | 1100 V | | |
| Min. PV input voltage / Start-up input voltage | 200 V / 250 V | | |
| Nominal PV input voltage | 585 V | | |
| MPP voltage range | 200 – 1000 V | | |
| MPP voltage range for nominal power | 550 – 850V | | |
| No. of independent MPP inputs | 3 | 4 | 5 |
| Max. number of PV strings per MPPT | 2 | | |
| Max. PV input current | 78 A | 104 A | 130 A |
| Max. current for input connector | 30 A | | |
| Max. DC short-circuit current | 120 A | 160 A | 200 A |
| Output (AC) | | | |
| AC output power | 36.3 kVA @ 40 °C / 33 kVA @ 45 °C | 44 kVA @ 40 °C / 40 kVA @ 45 °C | 55 kVA @ 40 °C / 50 kVA @ 45 °C |
| Max. AC output current | 55.2 A | 66.9 A | 83.6 A |
| Nominal AC voltage | 3 / N / PE, 230 / 400 V | | |
| AC voltage range | 312 – 528 V | | |
| Nominal grid frequency / Grid frequency range | 50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz | | |
| THD | < 3 % (at nominal power) | | |
| DC current injection | < 0.5 % I _n | | |
| 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 | 98.6 % / 98.3 % | 98.6% / 98.3% | 98.7% / 98.4% |
| Protection | | | |
| DC reverse connection protection | Yes | | |
| AC short circuit protection | Yes | | |
| Leakage current protection | Yes | | |
| Grid monitoring | Yes | | |
| DC switch / AC switch | Yes / No | | |
| PV String current monitoring | Yes | | |
| Q at night | Yes | | |
| PID recovery function | optional | | |
| Overvoltage protection | DC Type II / AC Type II | | |
| General Data | | | |
| Dimensions (W*H*D) | 702*595*310mm | 782*645*310mm | 782*645*310mm |
| Weight | 50 kg | 58 kg | 62 kg |
| Isolation method | Transformerless | | |
| Degree of protection | IP66 | | |
| Night power consumption | ≤2 W | | |
| Operating ambient temperature range | -30 to 60 °C (> 45 °C derating) | | |
| Allowable relative humidity range (non-condensing) | 0 – 100 % | | |
| Cooling method | Smart forced air cooling | | |
| Max. operating altitude | 4000 m (> 3000 m derating) | | |
| Display | LED, Bluetooth+APP | | |
| Communication | RS485 / Optional: Wi-Fi, Ethernet | | |
| DC connection type | MC4 (Max. 6 mm ²) | | |
| AC connection type | OT or DT terminal (Max.70 mm ²) | | |
| Compliance | IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, VDE-AR-N 4105:2018, VDE-AR-N 4110:2018, IEC 61000-6-3, EN 50438, AS/NZS 4777.2:2015, CEI 0-21, VDE 0126-1-1/A1 VFR 2014, UTE C15-712-1:2013, DEWA | | |
| Grid Support | Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control | | |

