

SG33CX/SG40CX/SG50CX New

SUNGROW
Clean power for all

Multi-MPPT String Inverter for 1000 Vdc System



HIGH YIELD

- Up to 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

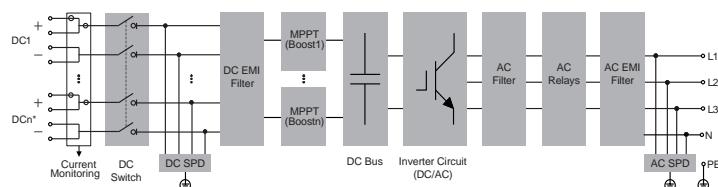
LOW COST

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

PROVEN SAFETY

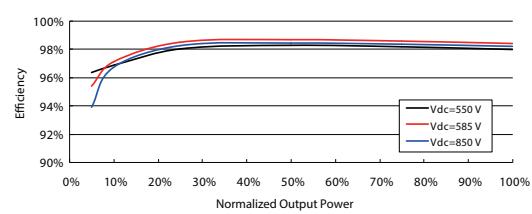
- IP66 and C5 anti-corrosion grade
- Type II SPD for both DC and AC
- Satisfied global safety and grid code

CIRCUIT DIAGRAM



*: n=3(SG33CX)/4(SG40CX)/5(SG50CX)

EFFICIENCY CURVE (SG50CX)



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| Type designation | SG33CX | SG40CX | SG50CX |
|---|--|--|--|
| Input (DC) | | | |
| 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 – 850 V | |
| 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. DC short-circuit current | 120 A | 160 A | 200 A |
| Output (AC) | | | |
| AC output power | 33 kVA @45 °C, 400Vac / 36.3 kVA @ 40 °C,400Vac 33 KVA@50 °C, 415Vac / 36.3 KVA@45 °C, 415Vac | 40 kVA @45 °C, 400Vac / 44 kVA @ 40 °C,400Vac 40 KVA@50 °C, 415Vac / 44 KVA@45 °C, 415Vac | 50 kVA @45 °C, 400Vac / 55kVA @ 40 °C,400Vac 50KVA@50 °C, 415Vac / 55kVA @ 45 °C,415Vac (Australia: max. 50 kVA) |
| 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 % 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 | 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 | | Yes (not available for Australia) | |
| AC switch | | No | |
| PV String current monitoring | | Yes | |
| Q at night | | Yes | |
| PID recovery function | | Yes | |
| Oversupply 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 | |
| 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 50549, 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 | | |

*: Only compatible with Sungrow logger and iSolarCloud

