

SG50CX Premium

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
- Smart IV curve scanning *
- Fuse free design with smart string current monitoring

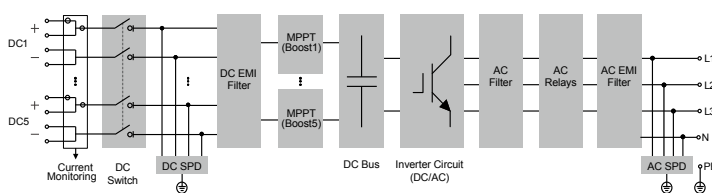
SAVED INVESTMENT

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

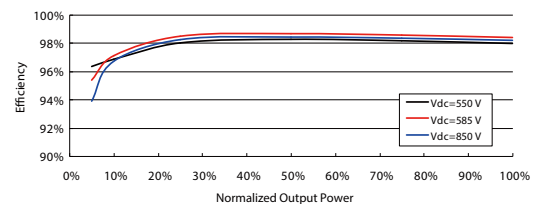
PROVEN SAFETY

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

CIRCUIT DIAGRAM



EFFICIENCY CURVE



| Type designation | 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 |
| No. of independent MPP inputs | 5 |
| No. of PV strings per MPPT | 2 |
| Max. PV input current | 130 A |
| Max. DC short-circuit current | 200 A |
| Output (AC) | |
| AC output power | 50 kVA |
| Max. AC output current | 80.5 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 |
| Harmonic (THD) | < 3 % (at nominal power) |
| Power factor at nominal power / Adjustable power factor | > 0.99 / 0.8 leading – 0.8 lagging |
| Feed-in phases / AC connection | 3 / 3-PE |
| Efficiency | |
| Max. efficiency / European efficiency | 98.7 % / 98.4 % |
| Protection and function | |
| DC reverse polarity protection | Yes |
| AC short-circuit protection | Yes |
| Leakage current protection | Yes |
| Grid monitoring | Yes |
| Ground fault monitoring | Yes |
| DC switch | Yes |
| AC switch | No |
| PV string monitoring | Yes |
| Q at night function | Yes |
| PID recovery function | Yes |
| DC terminal protective cover | Yes |
| Surge protection | DC Type II / AC Type II |
| General Data | |
| Dimensions (W * H * D) | 782 * 645 * 310 mm |
| Weight | 62 kg |
| Topology | 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 | 0 – 100 % |
| Cooling method | Smart forced air cooling |
| Max. operating altitude | 4000 m (> 3000 m derating) |
| Display | LED, Bluetooth+APP |
| Communication | RS485 / WLAN / Optional: 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, IEC 61000-6-3, AS/NZS 4777.2:2015 |
| Grid Support | Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control |

*: Only compatible with Sungrow Logger, EyeM4 and iSolarCloud

** : The inverter enters the standby state when the input voltage ranges is between 1,000V and 1,100V. If the maximum DC voltage in the system can exceed 1000V, the MC4 connectors included in the scope of delivery must not be used. In this case MC4 Evo2 connectors must be used.