

SG50CX-P2

Multi-MPPT String Inverter for 1000 Vdc System

Preliminary



HIGH YIELD

- DC 15A current input, compatible with over 500W+ PV module
- Dynamic shading optimization mode
- Built-in PID recovery function

SMART O&M

- Key component diagnosis and protection
- Smart IV Curve Diagnosis
- Grid fault record function, easy for remote O&M

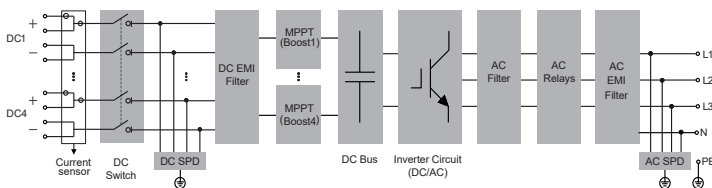
LOWER INVESTMENT

- Easy to handle thanks to 34% weight reduced
- Plug and Play with Buckle Design

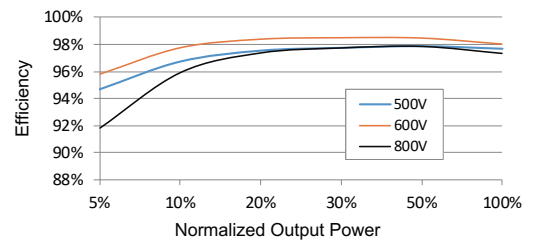
PROVEN SAFETY

- IP66 protection and C5 Anti-corrosion
- DC Type I+II SPD, AC Type II SPD
- Support AFCI 2.0 function

CIRCUIT DIAGRAM



EFFICIENCY CURVE (SG50CX-P2)



| Type designation | SG50CX-P2 | | |
|---|---|--|-------|
| Input (DC) | | | |
| Recommended max. PV input power | 70 kWp | | |
| Max. PV input voltage | 1100 V | | |
| Min. PV input voltage / Startup input voltage | 160 V / 200 V | | |
| Rated PV input voltage | 600 V | | |
| MPP voltage range | 160 V - 1000 V | | |
| No. of independent MPP inputs | 4 | | |
| No. of PV strings per MPPT | 2 | | |
| Max. PV input current | 120 A (30 A * 4) | | |
| Max. DC short-circuit current | 160 A (40 A * 4) | | |
| Max. current for DC connector | 20A | | |
| Output (AC) | | | |
| Rated AC output power | 50 kVA | | |
| Max. AC output apparent power | 55 kVA | | |
| Max. AC output current | 83.6 A | | |
| Rated AC output current(at 230V) | 72.5 A | | |
| Rated AC voltage | 3 / N / PE, 220 / 380 V, 230 / 400 V | | |
| AC voltage range | 312 - 480 V | | |
| Rated grid frequency | 50 Hz / 60 Hz | | |
| Grid frequency range | 45 – 55 Hz / 55 – 65 Hz | | |
| Harmonic (THD) | < 3 % (at rated power) | | |
| Power factor at rated power / Adjustable power factor | > 0.99 / 0.8 leading – 0.8 lagging | | |
| Feed-in phases / connection phases | 3 / 3-N-PE | | |
| Efficiency | | | |
| Max. efficiency / European efficiencyEuro. Efficiency | 98.5% / 98.3% | | |
| Protection | | | |
| Grid monitoring | Yes | | |
| DC reverse connection protection | Yes | | |
| AC short-circuit protection | Yes | | |
| Leakage current protection | Yes | | |
| Surge protection | DC Type I+II / AC Type II | | |
| Ground fault monitoring | Yes | | |
| DC switch | Yes | | |
| PV String current monitoring | Yes | | |
| Arc fault circuit interrupter (AFCI) | Yes | | |
| PID recovery function | Yes | | |
| General Data | | | |
| Dimensions (W*H*D) | 645*575*245 mm | | |
| Mounting Method | Wall-mounting bracket | | |
| Weight | 40 kg | 40 kg | 41 kg |
| Topology | Transformerless | | |
| Degree of protection | IP66 | | |
| Corrosion | C5 | | |
| Night power consumption | < 5W | | |
| 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 | | |
| Display | LED, Bluetooth+APP | | |
| Communication | RS485 / Optional: WLAN, Ethernet | | |
| DC connection type | EVO2 (Max. 6 mm ²) | | |
| AC connection type | OT terminal (16~35 mm ²) | OT or DT terminal (35~50 mm ²) | |
| AC Cable specification | Outside diameter 18~38mm | | |
| Grid Compliance | IEC 62109, IEC 61727, IEC 62116, VDE-AR-N 4105:2018, IEC 61000-6-3, EN 50549-1, CEI 0-21 2019,CEI0-16 2019, VDE 0126-1-1/A1 VFR 2019, UTE C15-712-1:2013, UNE 206007-1/RD 1699, UNE 217002, C99 | | |
| Grid Support | Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control | | |

