

SG125CX-P2

Multi-MPPT String Inverter for 1000 Vdc System



HIGH YIELD

- 12 MPPTs with max. efficiency 98.5%
- DC 15A current input, compatible with over 500W+ PV module
- Dynamic shading optimization mode

SMART O&M

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

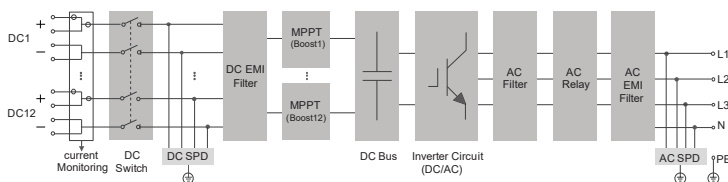
LOWER INVESTMENT

- Compatible max. 240mm² Al AC cables
- Drawer-style cable sealing plate support AC cable pre-assembly

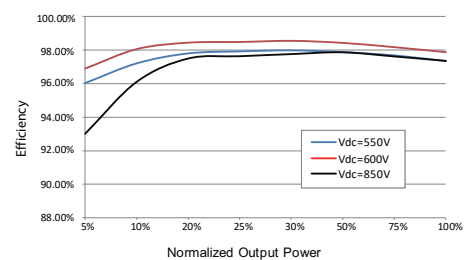
PROVEN SAFETY

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

CIRCUIT DIAGRAM



EFFICIENCY CURVE



| Type designation | SG125CX-P2 |
|---|---|
| Input (DC) | |
| Recommended max. PV input power | 175 kW |
| Max. PV input voltage | 1100 V |
| Min. PV input voltage / Startup input voltage | 180 V / 200 V |
| Rated PV input voltage | 600 V |
| MPP voltage range | 180 – 1000 V |
| No. of independent MPP inputs | 12 |
| No. of PV strings per MPPT | 2 |
| Max. PV input current | 360 A (30 A *12) |
| Max. DC short-circuit current | 480 A (40 A *12) |
| Max. current for DC connector | 20A |
| Output (AC) | |
| Max. AC Output power | 125 kVA |
| Rated AC output apparent power | 125 kVA |
| Max. AC output current | 181.1 A |
| Rated AC output current(at 230V) | 181.1 A |
| Rated AC voltage | 3 / N / PE, 230 / 400 V |
| AC voltage range | 320 – 480V |
| 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 efficiency | 98.5% / 98.3% |
| Protection | |
| Grid monitoring | Yes |
| DC reverse polarity 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 monitoring | Yes |
| Q at night function | Yes |
| Arc fault circuit interrupter (AFCI) | Yes |
| PID recovery function | Yes |
| General Data | |
| Dimensions (W*H*D) | 1020*795*360mm |
| Mounting Method | Wall-mounting bracket |
| Weight | 87 kg |
| Topology | Transformerless |
| Degree of protection | IP66 |
| Corrosion | C5 |
| Night power consumption | < 5 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: WLAN, Ethernet |
| DC connection type | Evo2 (Max. 6 mm ²) |
| AC connection type | OT / DT terminal (Max. 240 mm ²) |
| Grid Compliance | IEC 62109-1, EN/IEC 61000-6-1/2/3/4, IEC 61727, IEC 62116, EN 50549-1/2, UTE C15-712-1, VDE V 0126-1-1, VDE-AR-N 4105:2018, VFR 2019, NC RfG, G99, UNE 217002, NTS, CEI 0-21 2019,CEI0-16 2019, NRS-097-2-1 |
| Grid Support | Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control |

Multi-MPPT String Inverter for 1000 Vdc System



HIGH YIELD

- 9 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 diagnosis*
- Fuse free design with smart string current monitoring

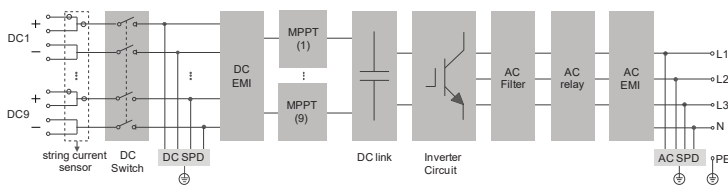
SAVED INVESTMENT

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

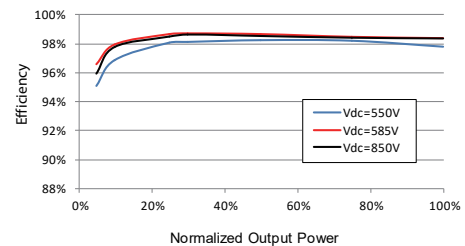
PROVEN SAFETY

- IP66 and C5 anti-corrosion
- Type II SPD for both DC and AC, DC Type I+II optional
- Compliant with global safety and grid code

CIRCUIT DIAGRAM



EFFICIENCY CURVE



| Type designation | SG110CX |
|---|--|
| 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 | 9 |
| No. of PV strings per MPPT | 2 |
| Max. PV input current | 26 A * 9 |
| Max. DC short-circuit current | 40 A * 9 |
| Output (AC) | |
| AC output power | 110 kVA @ 45 °C / 100 kVA @ 50 °C |
| Max. AC output current | 158.8 A |
| Nominal AC voltage | 3 / N / PE, 400 V |
| AC voltage range | 320 – 460V |
| 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 | 98.7 % |
| European efficiency | 98.5 % |
| 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 |
| Arc fault circuit interrupter (AFCI) | Optional |
| Surge protection | DC Type II (optional: Type I + II) / AC Type II |
| General Data | |
| Dimensions (W*H*D) | 1051*660*362.5 mm |
| Weight | 89 kg |
| Topology | Transformerless |
| Ingress protection rating | IP66 |
| Night power consumption | < 2 W |
| Operating ambient temperature range | -30 to 60 °C (> 50 °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 / Optional: WLAN, Ethernet |
| DC connection type | MC4 (max. 10 mm ² optional) |
| AC connection type | OT / DT terminal (Max. 240 mm ²) |
| Compliance | IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, VDE-AR-N 4110:2018, VDE-AR-N 4120:2018, EN 50549-1/2, AS/NZS 4777.2:2015, CEI 0-16 2019, VDE 0126-1-1/A1 VFR 2019, UTE C15-712-1:2013, DEWA, UNE 206007-1/RD 1699, UNE 217001, P.O. 12.3, Israel certificate, G99 |
| 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

** : 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.



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
- Smart IV Curve diagnosis *
- Fuse free design with smart string current monitoring

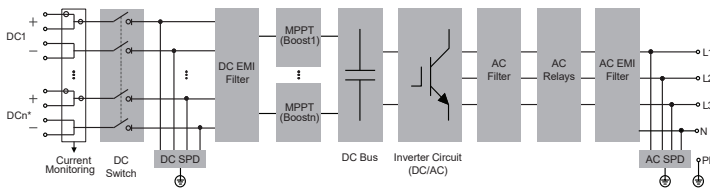
SAVED INVESTMENT

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

PROVEN SAFETY

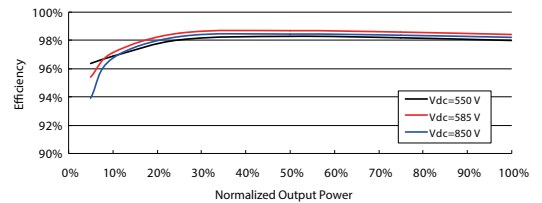
- IP66 and C5 anti-corrosion
- Type II SPD for both DC and AC, DC Type I+II Opt.
- Satisfied global safety and grid code

CIRCUIT DIAGRAM



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

EFFICIENCY CURVE (SG50CX)



| 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 | |
| No. of independent MPP inputs | 3 | 4 | 5 |
| No. of PV strings per MPPT | | 2 | |
| Max. PV input current | 3 * 26 A | 4 * 26 A | 5 * 26 A |
| Max. DC short-circuit current | 3 * 40 A | 4 * 40 A | 5 * 40 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 |
| 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 | |
| Harmonic (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 / AC connection | | 3 / 3-PE | |
| Efficiency | | | |
| Max. efficiency / European efficiency | 98.6 % / 98.3 % | 98.6% / 98.3% | 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 | |
| Arc fault circuit interrupter (AFCI) | | Optional | |
| Surge protection | | DC Type II (optional: Type I + 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 |
| 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 / Optional: WLAN, 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 50549-1/2, AS/NZS 4777.2:2015, CEI 0-21 2019, CEI0-16 2019, VDE 0126-1-1/A1 VFR 2019, UTE C15-712-1:2013, DEWA, UNE 206007-1/RD 1699, UNE 217001, Israel certificate, G99 | |
| 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

** 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.



SG5.0RT/SG7.0RT/SG10RT/ SG15RT/SG20RT **New**

SUNGROW
Clean power for all

Multi-MPPT String Inverter for 1000 Vdc System



HIGH YIELD

- Lower startup & wider MPPT voltage
- Compatible with bifacial modules
- Built-in PID recovery function

SMART MANAGEMENT

- Smart IV curve scanning
- 24/7 Live monitoring
- Over-the-air firmware updates

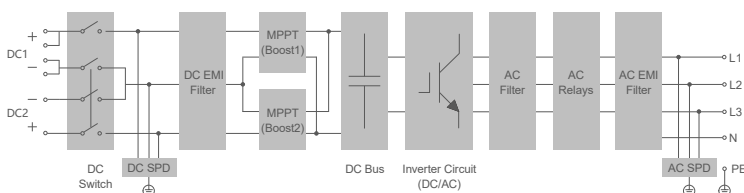
SAFE AND DURABLE

- Quick arc fault circuit interrupter
- Build-in Type II DC & AC SPD
- High anti-corrosion rating at C5

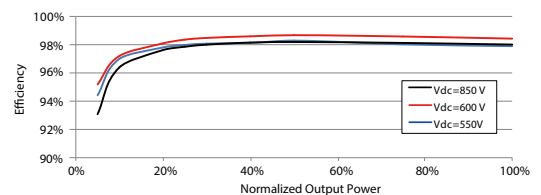
EASY AND USER FRIENDLY

- 18 kg compact design
- Unique push-in connectors
- Fast and easy commissioning via App

CIRCUIT DIAGRAM



EFFICIENCY CURVE



SG5.0RT/SG7.0RT/SG10RT/SG15RT/SG20RT

| Type designation | SG5.0RT | SG7.0RT | SG10RT | SG15RT | SG20RT |
|---|--|----------------------|---|--------------------------|--------------------------|
| Input (DC) | | | | | |
| Recommended max. PV input power | 7.5 kW | 10.5 kW | 15 kW | 22.5kW | 30 kW |
| Max. PV input voltage | | | 1100 V | | |
| Min. PV input voltage / Start-up input voltage | | | 180 V | | |
| Nominal input voltage | | | 600 V | | |
| MPP voltage range | | | 160 V – 1000 V | | |
| No. of independent MPP inputs | | | 2 | | |
| No. of PV strings per MPPT | 1/1 | 2/1 | 2/1 | 2/2 | 2/2 |
| Max. PV input current | 25 A (12.5 A/12.5 A) | 37.5 A (25 A/12.5 A) | 37.5 A (25 A/12.5 A) | 50 A (25 A / 25 A) | 50 A (25 A / 25 A) |
| Max. current for input connector | | | 30A | | |
| Max. DC short-circuit current | 32 A (16 A / 16 A) | 48 A (32 A / 16 A) | 48 A (32 A / 16 A) | 64 A (32 A / 32 A) | 64 A (32 A / 32 A) |
| Output (AC) | | | | | |
| Nominal AC power (@230 V, 50 Hz) | 5000 W | 7000 W** | 10000 W | 15000 W | 20000 W |
| Max. AC output power | 5500 VA* | 7700 VA** | 11000 VA* | 16500 VA* | 22000 VA* |
| Max. AC output current | 8.3 A | 11.7 A | 16.7 A | 25 A | 31.9 A |
| Nominal AC voltage | | | 3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V 3 / N / PE, 240 / 415 V | | |
| AC voltage range | | | 180 V – 276 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 | | |
| Efficiency | | | | | |
| Max. efficiency | 98.40% | 98.40% | 98.50% | 98.50% | 98.50% |
| European efficiency | 97.40% | 97.70% | 97.90% | 98.10% | 98.10% |
| Protection | | | | | |
| Grid monitoring | | | Yes | | |
| DC reverse connection protection | | | Yes | | |
| AC short-circuit protection | | | Yes | | |
| Leakage current protection | | | Yes | | |
| Surge Protection | | | DC Type II / AC Type II | | |
| DC switch | | | Yes | | |
| Arc fault circuit interrupter (AFCI) | | | Yes | | |
| PID recovery function | | | Yes | | |
| General Data | | | | | |
| Dimensions (W*H*D) | | | 370 * 480 * 195 mm | | |
| Mounting method | | | Wall-mounting bracket | | |
| Weight | 18 kg | 18 kg | 18 kg | 21 kg | 21 kg |
| Topology | | | Transformerless | | |
| Degree of protection | | | IP65 | | |
| Operating ambient temperature range | | | -25 °C to 60 °C | | |
| Allowable relative humidity range | | | 0% – 100% | | |
| Cooling method | Natural cooling | Natural cooling | Natural cooling | Smart forced air cooling | Smart forced air cooling |
| Max. operating altitude | | | 4000 m (> 2000 m derating) | | |
| Noise(Typical) | 35dB (A) | 35dB (A) | 35dB (A) | 45dB (A) | 45dB (A) |
| Display | | | LED | | |
| Communication | | | WLAN, Ethernet, RS485, DI, DO | | |
| DC connection type | | | MC4 | | |
| AC connection type | | | Plug and play | | |
| Compliance | EN 61000-6-1/-3, IEC62109-2, IEC 61727, IEC 62116, AS/NZS 4777.2:2015, VDE-AR-N-4105, DIN VDE0126-1-1, CEI 0-21, EN50549-1 | | | | |

*: For Australia & Belgium & Germany Max. AC output power: SG5.0RT is 5000VA, SG10RT is 10000VA, SG15RT is 15000VA, SG20RT is 20000VA,

** : For Australia, 6999W, 6999 VA

