

# SG25/30/33CX-P2

Multi-MPPT String Inverter for 1000 Vdc System



## 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

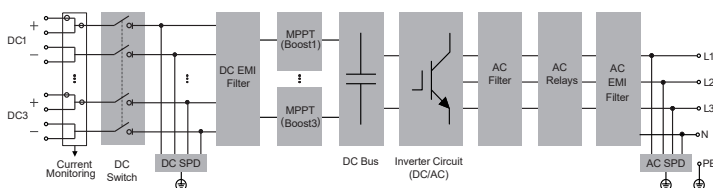
## LOWER INVESTMENT

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

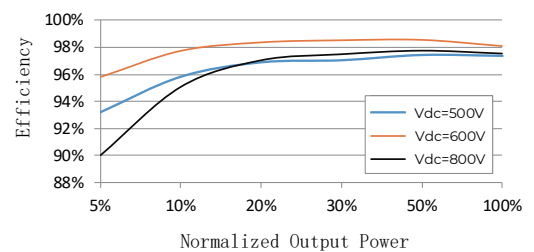
## PROVEN SAFETY

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

## CIRCUIT DIAGRAM



## EFFICIENCY CURVE (SG33CX-P2)



| Type designation                                      | SG25CX-P2 | SG30CX-P2   | SG33CX-P2 |
|---|-----------|---|-----------|
| <b>Input (DC)</b>                                     |           |   |           |
| Recommended max. PV input power                       | 35 kWp    | 42 kWp  | 46.2 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                         |           | 3   |           |
| No. of PV strings per MPPT                            |           | 2   |           |
| Max. PV input current                                 |           | 90 A ( 30 A * 3 )   |           |
| Max. DC short-circuit current                         |           | 120 A ( 40 A * 3 )  |           |
| Max. current for DC connector                         |           | 30 A  |           |
| <b>Output (AC)</b>                                    |           |   |           |
| Rated AC output power                                 | 25 kW     | 30 kW   | 33 kW     |
| Max. AC output apparent power                         | 27.5 kVA  | 33 kVA*   | 36.3 kVA  |
| Max. AC output current                                | 41.8 A    | 50.2 A  | 55.2 A    |
| Rated AC output current( at 230V )                    | 36.2 A    | 43.5 A  | 47.8 A    |
| Rated AC voltage                                      |           | 3 / N / PE, 220 / 380 V, 230 / 400 V  |           |
| AC voltage range                                      |           | 312 V - 480 V   |           |
| Rated grid frequency                                  |           | 50 Hz / 60 Hz   |           |
| Grid frequency range                                  |           | 45 Hz - 55 Hz / 55 Hz - 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 / AC connection                        |           | 3 / 3-N-PE  |           |
| <b>Efficiency</b>                                     |           |   |           |
| Max. efficiency / European efficiency                 |           | 98.5 % / 98.3 %   |           |
| <b>Protection</b>                                     |           |   |           |
| 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 current monitoring                          |           | Yes   |           |
| Arc fault circuit interrupter (AFCI)                  |           | Yes   |           |
| PID recovery function                                 |           | Yes   |           |
| Optimizer compatibility **                            |           | Optional  |           |
| <b>General Data</b>                                   |           |   |           |
| Dimensions (W*H*D)                                    |           | 645 mm * 575 mm * 245 mm  |           |
| Mounting Method                                       |           | 38 kg   |           |
| Weight  |           | Wall-mounting bracket   |           |
| Topology  |           | Transformerless   |           |
| Degree of protection                                  |           | IP66  |           |
| Night power consumption                               |           | < 5W  |           |
| Corrosion   |           | C5  |           |
| Operating ambient temperature range                   |           | -30 °C - 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 <sup>2</sup> )   |           |
| AC connection type                                    |           | OT terminal (16~35 mm <sup>2</sup> )  |           |
| 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, G99, IEC 63027 |           |
| Grid Support  |           | Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control  |           |

\* 30kVA for Germany, Belgium, Austria, Ukraine and Denmark, 33kVA for others

\*\* For optimizer compatibility, please consult Sungrow before placing an order

