

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

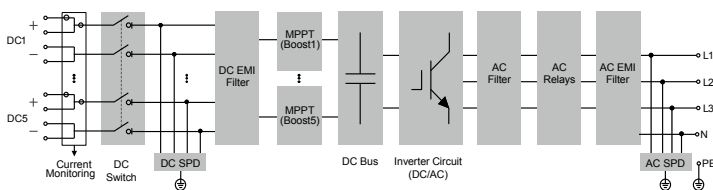
SAVED INVESTMENT

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

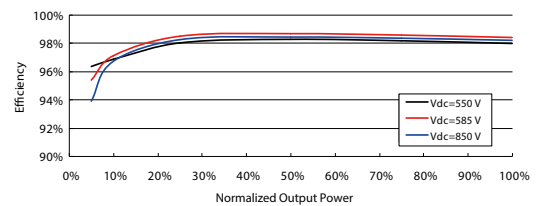
PROVEN SAFETY

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

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG50CX
Input (DC)	
Recommended max. PV input power	76 kW
Max. PV input voltage	1100 V **
Min. PV input voltage / Start-up input voltage	200 V / 250 V
Rated 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 (26 A / 26 A / 26 A / 26 A / 26 A)
Max. DC short-circuit current	200 A (40 A / 40 A / 40 A / 40 A / 40 A)
Output (AC)	
Max. AC Output power	50 kVA
Rated AC output apparent power	50 kVA
Max. AC output current	80.5 A
Rated AC voltage	3 / N / PE, 230 / 400 V
AC voltage range	312 – 528 V
Rated grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 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-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
Communication dongle (EyeM4)	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 4777.2:2020
Grid Support	Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control
Country of manufacture	China

*: Only compatible with Sungrow Logger, EyeM4 and iSolarCloud

** : The inverter enters the standby state when the input voltage ranges 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.