

# SG55CX-US New

String Inverter For North America



## High Yield

- 6 MPPTs with max. efficiency 98.9%
- Compatible with bifacial module
- Built-in PID recovery function



## Smart O&M

- Touch free commissioning and remote firmware upgrade
- Online IV curve scan and diagnosis
- Fuse free design with smart string current monitoring



## Low Cost

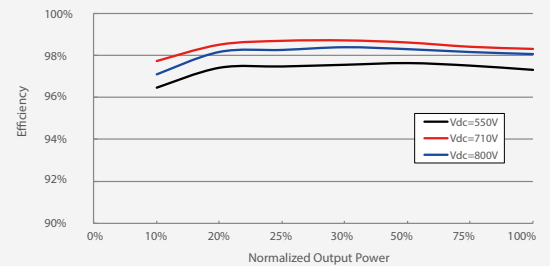
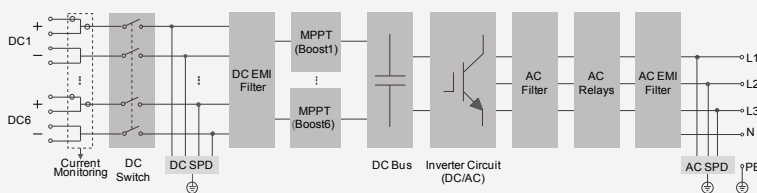
- DC/AC ratio more than 1.5
- Compatible with Al and Cu AC cables
- Flexible installation from vertical to horizontal



## Proven Safety

- NEMA 4X and C5 protection
- Type II SPD for both DC and AC
- Compliant with UL safety and grid code

## Circuit Diagram



**Input (DC)****SG55CX-US**

Max. PV input voltage	1000 V
Min. PV input voltage / Start-up input voltage	200 V / 200 V
Nominal PV input voltage	710 V
MPP voltage range	200 – 1000 V
MPP voltage range for nominal power	500 – 850 V
No. of independent MPP inputs	6
Max. number of PV strings per MPPT	2 / 2 / 2 / 2 / 2 / 2
Max. PV input current	26 A * 6
Max. current for input connector	15 A
Max. DC short-circuit current	40 A * 6

**Output (AC)**

AC output power	55 kVA @ 45 °C (113 °F) / 50 kVA @ 50 °C (122 °F)
Max. AC output current	66.2 A
Nominal AC voltage	3 / N/PE, 277 / 480 V
AC voltage range	422 – 528 V
Nominal grid frequency / Grid frequency range	60 Hz / 55 – 65 Hz
THD	< 3 % (at nominal power)
DC current injection	< 0.5 % I <sub>n</sub>
Power factor at nominal power / Adjustable power factor	>0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / Connection phases	3 / 3

**Efficiency**

Max. efficiency / CEC efficiency	98.9% / 98.5%
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**Protection**

DC reverse connection protection	Yes
AC short-circuit protection	Yes
Leakage current protection	Yes
Grid monitoring	Yes
DC switch / AC switch	Yes / Yes
PV string current monitoring	Yes
Anti-PID function	Yes
Arc fault circuit interrupter (AFCI)	Yes
Overvoltage protection	DC Type II / AC Type II

**General Data**

Dimensions (W*H*D)	780*930*310 mm (30.7**36.6**12.2")
Weight	68 kg (149.9 lbs)
Isolation method	Transformerless
Degree of protection	NEMA 4X
Night power consumption	< 2 W
Operating ambient temperature range	-30 to 60 °C (> 50 °C derating)
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: WiFi, Ethernet
Third-Party communication protocol	SunSpec Modbus
DC connection type	Screw clamp terminal (10AWG,Cu or Al )
AC connection type	OT (max. 2/0AWG,Cu or Al )
Compliance	UL1741, UL 1741 SA, CA Rule 21, IEEE 1547, IEEE 1547.1, CSA C22.2, No.107.1-01, UL 1699B and FCC Part 15
Grid support	LVRT, HVRT, active & reactive power control and power ramp rate control

