

SG30KU-M New

String Inverter For North America



High Yield

- Max. efficiency 98.7%, CEC efficiency 98.5%
- 10% overload capacity, supports bi-facial modules
- Built-in anti-PID function, reduces PV module degradation
- Wide operating temperature range from -22 °F to 140 °F
- Up to 3 MPP trackers



Easy O&M

- Integrated string current monitoring function for fast troubleshooting
- NEMA 4X protection
- Support Bluetooth communication, easy for maintenance



Saved Investment

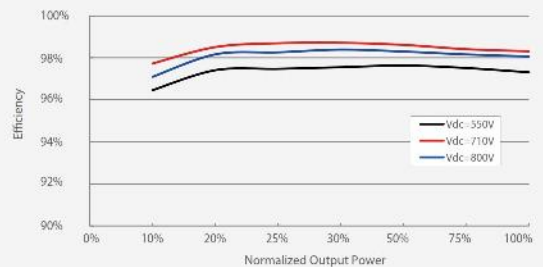
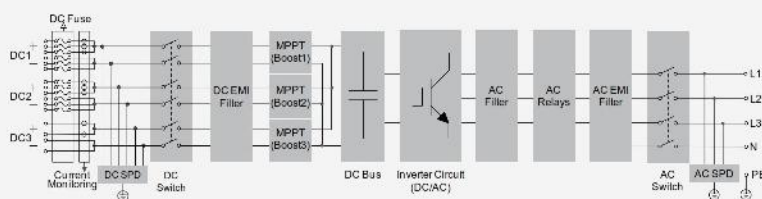
- Max. DC/AC ratio more than 1.5
- Integrated DC and AC switch
- Copper and Aluminum compatible AC connections
- Flexible installation e.g. vertical or horizontal



Grid Support

- Complies with standards: UL1741, UL 1741 SA, CA Rule 21, IEEE 1547, IEEE 1547.1, CSA C22.2, No.107.1-01
- Low/High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control

Circuit Diagram



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Input (DC)**SG30KU-M**

Max. PV input voltage	1000 V
Min. PV input voltage / Startup input voltage	200 V / 200 V
Nominal input voltage	710 V
MPP voltage range	200 – 1000 V
MPP voltage range for nominal power	500 – 850 V
No. of independent MPP inputs	3
Max. number of PV strings per MPPT	3 / 3 / 2
Max. DC short-circuit current	45 A / 45 A / 30 A

Output (AC)

AC output power	33000 VA @ 45 °C (113 °F) / 30000 VA @ 50 °C (122 °F)
Max. AC output current	39.7A
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%In
Power factor at nominal power / Adjustable power factor	> 0.99 @default value at nominal power, (adj. 0.8 leading – 0.8 lagging)
Feed-in phases / Connection phases	3 / 3

Efficiency

Max. efficiency / CEC efficiency	98.7% / 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
DC fuse	Yes (positive and negative)
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)	954*781*274 mm (37.6**30.7**10.8")
Weight	55 kg (121.3 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) (-22 to 140 °F (> 122 °F derating))
Allowable relative humidity range (non-condensing)	0 – 100%
Cooling method	Smart forced air cooling
Max. operating altitude	4000 m (> 3000 m derating) (13123 ft (> 9843 ft derating))
Display / Communication	LED, Bluetooth + APP / RS485, Ethernet
Third-Party communication protocol	SunSpec Modbus
DC connection type	MC4 / Screw clamp terminal (10 AWG, Cu or Al)
AC connection type	OT (Max. 2/0 AWG, 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	L/HVRT, L/HFRT, active & reactive power control and power ramp rate control, Volt-var, Frequency-watt
Type designation	SG30KU-M-10