

SG30KU

String Inverter



High Yield

- Max efficiency 98.5 %, CEC efficiency 98.0 %
- Long-term overload at 1.1 Pn
- Dual MPP trackers



Easy O&M

- Integrated string current monitoring function for fast trouble shooting
- Compact design and light weight for easy installation
- Plug-in design of fan and SPD, easy for on-site maintenance



Saved Investment

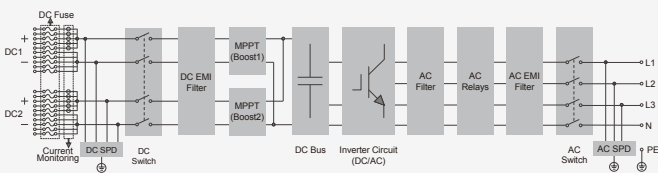
- Integrated DC combiner box, DC/AC switch and DC/AC overvoltage protection



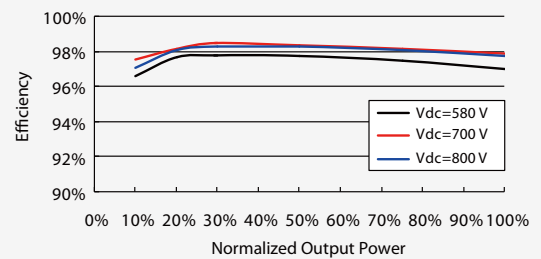
Grid Support

- Compliance with standards: UL1741, 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



CEC Efficiency Curve



Input (DC)

SG30KU

Max. PV input voltage	1000 V
Min. PV input voltage / Startup input voltage	280 V / 300 V
MPP voltage range	280 – 950 V
MPP voltage range for nominal power	480 – 850 V
No. of independent MPP inputs	2
Max. number of PV strings per MPPT	5
Max. PV input current	66 A (33 A / 33 A)
Max. current for input connector	12 A
Max. DC short-circuit current	120 A (60 A / 60 A)

Output (AC)

Nominal AC power (at 45 °C)	30000 W
Max. AC output power at PF=1 (at 45 °C)	33240 W
Max. AC apparent power (at 45 °C)	33240 VA
Max. AC output current	40 A
Nominal AC voltage	3 / N / PE or 3 / 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 _n
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading to 0.8 lagging
Feed-in phases / Connection phases	3 / 3

Efficiency

Max. efficiency / CEC efficiency	98.5 % / 98.0 %
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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 / Optional
DC fuse	Yes (positive and negative, 15 A)
PV string current monitoring	Yes
Arc fault circuit interrupter (AFCI)	Yes
Overvoltage protection	DC Type III (Type II optional) / AC Type III (Type II optional)

General Data

Dimensions (W*H*D)	24.5"*34.6"*9.8" 622*880*250 mm
Weight	143.3 lb 65 kg
Isolation method	Transformerless
Degree of protection	NEMA 4X
Night power consumption	< 1 W
Operating ambient temperature range	-13 to 140 °F (> 122 °F derating) -25 to 60 °C (> 50 °C derating)
Allowable relative humidity range (non-condensing)	0 – 100 %
Cooling method	Smart forced air cooling
Max. operating altitude	13123 ft (> 9843 ft derating) 4000 m (> 3000 m derating)
Display / Communication	Graphic LCD / RS485, I/O Dry contact
DC connection type	Screw terminals (10 AWG, Cu)
AC connection type	Spring clamp terminals (#4 AWG, Cu or Al)
Compliance	UL1741, IEEE 1547, IEEE1547.1, CSA C22.2 No.107.1-01
Grid support	LVRT, HVRT, active & reactive power control and power ramp rate control