

# SG250HX-US

Multi-MPPT String Inverter for 1500 Vdc System

**SUNGROW**  
Clean power for all



## HIGH YIELD

- 12 MPPTs with max. efficiency of 99%
- 30A MPPT compatible with 500Wp+ module
- Built-in anti-PID and PID recovery functions

## SMART O&M

- Touch free commissioning and remote firmware upgrade
- Fuse free design with smart string current monitoring

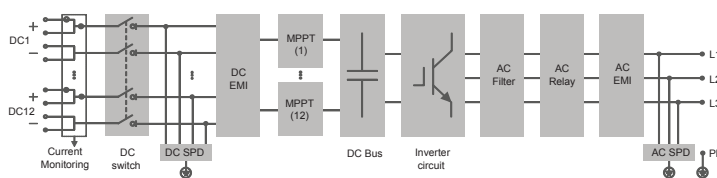
## LOW COST

- Compatible with Al and Cu AC cables
- DC 2 in 1 connection enabled
- Reactive power at night function

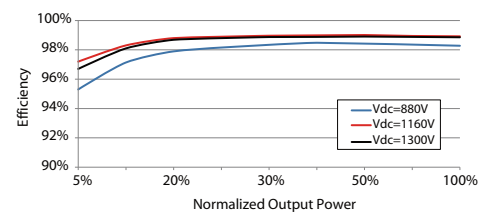
## PROVEN SAFETY

- Integrated Arc fault circuit protection
- NEMA 4X protection and C5 anti-corrosion grade
- Type II SPD for both DC and AC

## CIRCUIT DIAGRAM



## EFFICIENCY CURVE



Type designation	SG250HX-US
<b>Input (DC)</b>	
Max. PV input voltage	1500 V
Min. PV input voltage / Startup input voltage	500 V / 500 V
Nominal PV input voltage	1080 V
MPP voltage range	500 V – 1500 V
MPP voltage range for nominal power	860 V – 1300 V
No. of independent MPP inputs	12
Max. PV input current	30 A * 12
Max. DC short-circuit current	50 A * 12
<b>Output (AC)</b>	
AC output power	250 kVA @ 30 °C / 225 kVA @ 40 °C / 200 kVA @ 50 °C
Max. AC output current	180.5 A
Nominal AC voltage	3 / PE, 800 V
AC voltage range	680 – 880V
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 57 – 63 Hz
THD	< 3 % (at nominal power)
DC current injection	< 0.5 % In
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / connection phases	3 / 3
<b>Efficiency</b>	
Max. efficiency	99.0 %
CEC efficiency	98.5 %
<b>Protection</b>	
DC reverse connection protection	Yes
AC short circuit protection	Yes
Leakage current protection	Yes
Grid monitoring	Yes
Ground fault monitoring	Yes
DC switch	Yes
AC switch	No
Arc fault circuit interrupter (AFCI)	Yes
PV String current monitoring	Yes
Reactive power at night function	Yes
PID protection	Anti-PID or PID recovery
Overvoltage protection	DC Type II and AC Type II
<b>General Data</b>	
Dimensions (W*H*D)	1051 * 660 * 363 mm (41.4" * 26" * 14.3")
Weight	99 kg (218.25 lbs)
Isolation method	Transformerless
Ingress protection rating	NEMA 4X
Night power consumption	< 2 W
Operating ambient temperature range	-30 to 60 °C (-22 to 140 °F)
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	LED, Bluetooth+APP
Communication	RS485
DC connection type	MC4-Evo2 (Max. 10AWG)
AC connection type	OT / DT terminal (Max. 300 mm <sup>2</sup> 600 Kcmil)
Compliance	UL1741, UL1741SA, IEEE1547, IEEE1547.1, CSA C22.2 107.1-01-2001, California Rule 21, UL 1699B
Grid Support	Reactive power at night function, LVRT, HVRT, active & reactive power control and power ramp rate control, Volt/Watt, Frequency/Watt