

# SG350HX-US

Multi-MPPT String Inverter for 1500 Vdc System



## HIGH YIELD

- Up to 16 MPPTs with max. efficiency 99%
- 20A per string, compatible with 500Wp+ module
- Data exchange with tracker system, improving yield

## LOW COST

- Q at night function, save investment
- Power line communication (PLC)

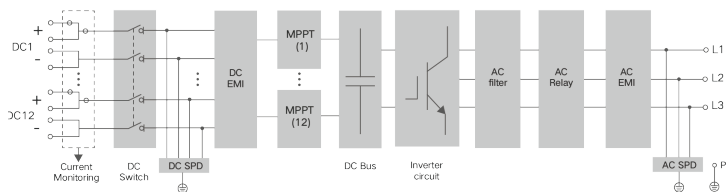
## GRID SUPPORT

- $SCR \geq 1.15$  stable operation in extremely weak grid
- Reactive power response time <30ms

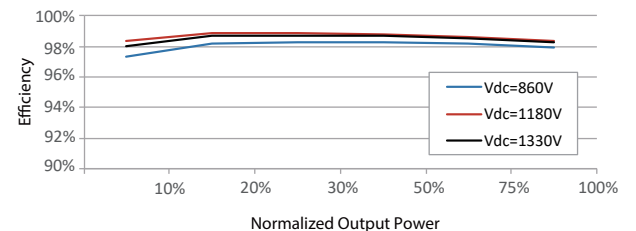
## PROVEN SAFETY

- 2 strings per MPPT, no fear of string reverse connection
- 24h real-time AC and DC insulation monitoring

## CIRCUIT DIAGRAM



## EFFICIENCY CURVE



Type designation	SG350HX-US
<b>Input (DC)</b>	
Max. PV input voltage	1500 V
Min. PV input voltage / Startup input voltage	500 V / 550 V
Nominal PV input voltage	1180 V
MPP voltage range	500 V – 1500 V
Full power MPP voltage range @ 40 °C	860 V – 1330 V *
No. of independent MPP inputs	12 ( Optional : 16 )
Max. number of input connector per MPPT	2
Max. PV input current	12 * 40 A ( Optional: 16 * 30 A )
Max. DC short-circuit current per MPPT	60 A
<b>Output (AC)</b>	
AC output power	352 kVA @ 30°C / 320 kVA @ 40 °C
Max. AC output current	254 A
Nominal AC voltage	3 / PE, 800 V
AC voltage range	704 V – 880 V
Nominal grid frequency / Grid frequency range	60 Hz / 55 Hz – 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
<b>Efficiency</b>	
Max. efficiency / CEC efficiency	99.02 % / 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 / AC switch	Yes / No
PV string current monitoring	Yes
Q at night function	Yes
Anti-PID and PID recovery function	Optional ( MVS3200-US / MVS4480-US )
Surge protection	DC Type II / AC Type II
<b>General data</b>	
Dimensions ( W * H * D )	1165 mm * 870 mm * 361 mm ( 45.9" * 34.3" * 14.2" )
Weight	≤ 122 kg ( ≤ 269 lbs )
Isolation method	Transformerless
Degree of protection	IP66 ( NEMA 4X )
Power consumption at night	< 6 W
Operating ambient temperature range	-30 °C – 60 °C ( -22 °F – 140 °F )
Allowable relative humidity range	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 / PLC
DC connection type	MC4 ( Max. 10AWG, optional 8AWG )
AC connection type	Support OT / DT terminal ( Max. 750 Kcmil )
Compliance	UL1741, UL62109-1, CSA C22.2 No.107.1-16, IEC61547-2018, IEC61547.1-2020, UL1741 SA/SB, California Rule21, HECO SRD V2.0, PRC-024, PRC-028, PRC-029
Grid Support	Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control, Q-U control, P-f control

\* Full power MPP range is temperature dependent, check the characteristic curve of the inverter for more information.