

Turnkey Station for North America 1500 Vdc System



HIGH YIELD

- Advanced three-level technology, max. efficiency 98.8%, CEC efficiency 98.5 %
- Max. DC/AC ratio more than 1.5



EASY O&M

- Integrated current and voltage monitoring function for online analysis and fast trouble shooting
- Modular design, easy for maintenance
- Convenient external LCD



SAVED INVESTMENT

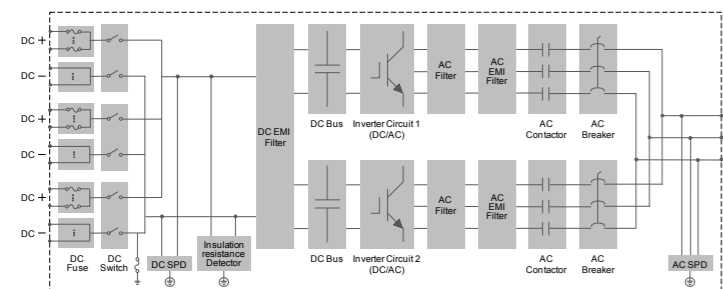
- Low transportation and installation cost due to 10-foot container design
- 1500V DC system, low system cost
- Integrated LV auxiliary power supply



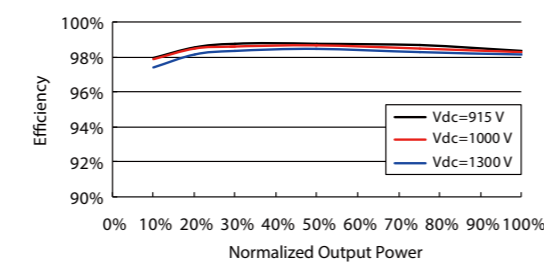
GRID SUPPORT

- Complies with UL 1741, UL 1741 SA, IEEE 1547, Rule 21 and NEC 2014/2017
- Grid support including L/HVRT, L/HFRT, power ramp rate control, active and reactive power support

CIRCUIT DIAGRAM



EFFICIENCY CURVE (SG3150U)



Type designation	SG3150U	SG2500U
Input (DC)		
Max. PV input voltage	1500V	
Min. PV input voltage / Startup input voltage	915 V / 955 V	800 V / 840 V
MPP voltage range for nominal power	940 – 1300 V	800 – 1300 V
No. of independent MPP inputs	1	
No. of DC inputs	18 – 24	18 – 21
Max. PV input current	3420 A	3508 A
Max. DC short-circuit current	4800 A	
Output (AC)		
AC output power	3150 kVA @ 45 °C (113 °F)	2750 kVA @ 45 °C (113 °F) / 2500 kVA @ 50 °C (122 °F)
Max. AC output current	2886 A	
Nominal AC voltage	630 V	550 V
AC voltage range	554 - 690 V	484 - 605 V
Nominal grid frequency / Grid frequency range	60 Hz / 55 – 65 Hz	
THD	< 3 % (at nominal power)	
DC current injection	< 0.5 % of nominal output current	
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	98.8%	
CEC efficiency	98.5 %	
Protection		
DC input protection	Load break switch + fuse	
AC output protection	Circuit breaker	
Overvoltage protection	DC Type II / AC Type II	
Grid monitoring / Ground fault monitoring	Yes / Yes	
Insulation monitoring	Optional	
Q at night function	Optional	
Overheat protection	Yes	
General Data		
Dimensions (W*H*D)	2991*2896*2438 mm (117.8"*114.0"*96.0")	
Weight	6.9 T (15211.9 lbs)	
Isolation method	Transformerless	
Degree of protection	NEMA 3R	
Auxiliary power supply	120 Vac, 5 kVA / Optional: 480 Vac, 30 kVA	
Operating ambient temperature range	-30 to 60 °C (> 45 °C derating) (-22 to 140 °F (> 113 °F derating))	-30 to 60 °C (> 50 °C derating) (-22 to 140 °F (> 122 °F derating))
Allowable relative humidity range (non-condensing)	0 – 95 %	
Cooling method	Temperature controlled forced air cooling	
Max. operating altitude	4000 m (> 2000 m derating) (13123 ft (> 6561 ft derating))	
Display	Touch screen	
Communication	Standard: RS485, Ethernet; Optional: optical fiber	
Compliance	UL 1741, IEEE 1547, UL1741 SA, NEC 2014 / 2017, CSA C22.2 No.107.1-01	
Grid support	L/HVRT, L/HFRT, active & reactive power control and power ramp rate control, Volt-var, Frequency-watt	

