SG3150U

SUNGROW
Clean power for all

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

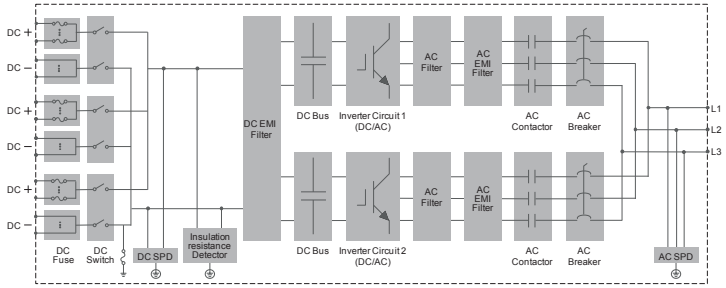
SAVED INVESTMENT

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

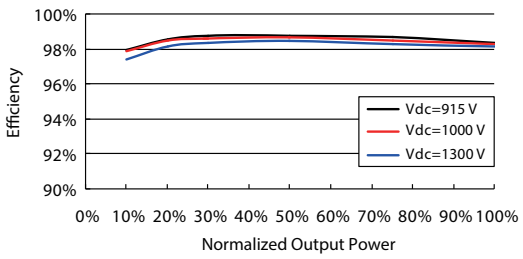
GRID SUPPORT

- 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



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Type designation	SG3150U
Input (DC)	
Max. PV input voltage	1500V
Min. PV input voltage / Startup input voltage	915 V / 955 V
MPP voltage range for nominal power	915 – 1300 V
No. of independent MPP inputs	1
No. of DC inputs	18 – 24
Max. PV input current	3510 A
Max. DC short-circuit current	4800 A
Output (AC)	
AC output power	3150 kVA @ 45 ℃ (113 ℉)
Max. AC output current	2886 A
Nominal AC voltage	630 V
AC voltage range	554 - 690 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	6900 kg (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 ℃ (> 45 ℃ derating) (-22 to 140 ℉ (> 113 ℉ 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

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