

SG3125/3400HV-30

Outdoor Inverter for 1500 Vdc System



HIGH YIELD

- Advanced three-level technology, max. inverter efficiency 99 %
- Effective cooling, full power operation at 50 °C (SG3125HV-30)

SMART O&M

- Integrated zone monitoring function for online analysis and trouble shooting
- Modular design, easy for maintenance
- Convenient external touch screen

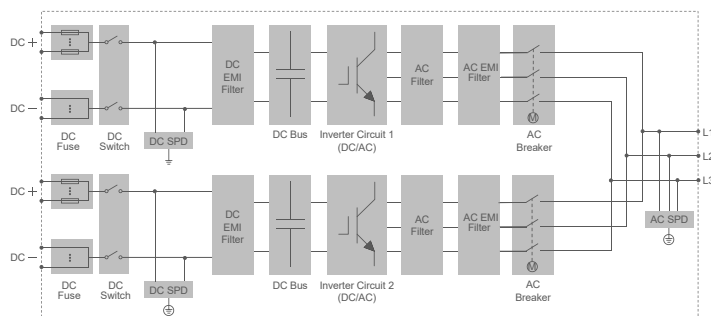
SAVED INVESTMENT

- Low transportation and installation cost due to outdoor design
- DC 1500 V system, low system cost
- Q at night function optional

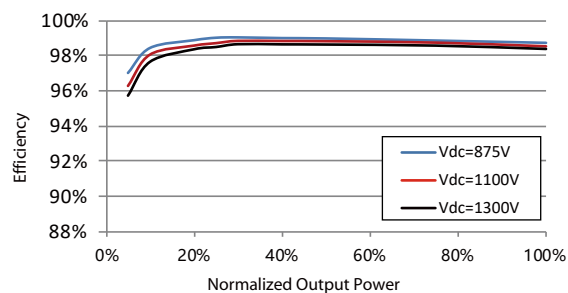
GRID SUPPORT

- Compliance with standards: IEC 61727, IEC 62116
- Low / High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG3125HV-30	SG3400HV-30
Input (DC)		
Max. PV input voltage	1500 V	
Min. PV input voltage / Startup input voltage	875 V / 915 V (875 V – 1300V settable)	
MPP voltage range	875 – 1300 V	
No. of independent MPP inputs	2	
No. of DC inputs	18(optional: 22/24 inputs negative grounding or floating; 28 inputs negative grounding)	
Max. PV input current	3997 A	
Max. DC short-circuit current	10000 A	
Output (AC)		
AC output power	3437 kVA @ 45 °C / 3125 kVA @ 50 °C	3437 kVA @ 45 °C
Max. AC output current	3308 A	
Nominal AC voltage	600 V	
AC voltage range	510 – 660 V	
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz	
Harmonic (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 – 0.8 lagging	
Feed-in phases / AC connection	3 / 3-PE	
Efficiency		
Max. efficiency	99.0 %	
European efficiency	98.7 %	
Protection		
DC input protection	Load break switch + fuse	
AC output protection	Circuit breaker	
Surge protection	DC Type I + II / AC Type II	
Grid monitoring / Ground fault monitoring	Yes / Yes	
Insulation monitoring	Yes	
Overheat protection	Yes	
Q at night function	Optional	
General Data		
Dimensions (W*H*D)	2280 * 2280 * 1600 mm	
Weight	3.2 T	
Topology	Transformerless	
Degree of protection	IP55 (optional: IP65)	
Night power consumption	< 200 W	
Operating ambient temperature range	-35 to 60 °C (> 50 °C derating)	-35 to 60 °C (> 45 °C derating)
Allowable relative humidity range	0 – 100 %	
Cooling method	Temperature controlled forced air cooling	
Max. operating altitude	4000 m (> 3000 m derating)	
Display	Touch screen	
Communication	Standard: RS485, Ethernet	
Compliance	CE, IEC 62109, IEC 61727, IEC 62116, IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, VDE-AR-N 4110:2018, VDE-AR-N 4120:2018, EN 50549-1/2, UNE 206007-1:2013, TED 749, UTE C15-712-1:2013, UL1741, UL1741SA, G99, CEI-016, IEEE1547, IEEE1547.1, CSA C22.2 107.1-01-2001, California Rule 21	
Grid support	Q at night function (optional), L/HVRT, active & reactive power control and power ramp rate control	

