

SG1250HV/SG1500HV

Indoor Inverter for 1500 Vdc System



High Yield

- Efficient three-level topology, max. efficiency up to 99 %
- Full power operation without derating at 55 °C
- Max. DC/AC ratio up to 1.4



Easy O&M

- Integrated zone current monitoring function for fast trouble shooting
- Modular design easy for maintenance



Saved Investment

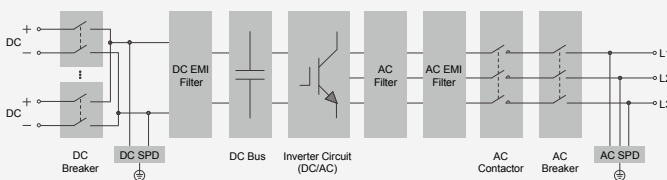
- DC 1500 V system, low system initial investment



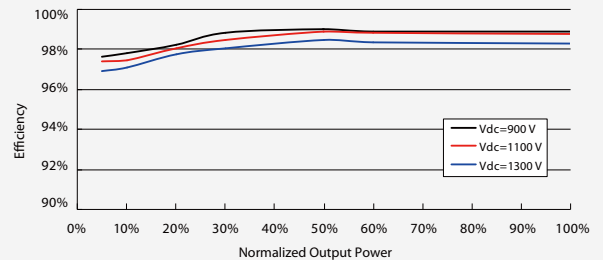
Grid Support

- Compliance with standards: CE, IEC 62109, IEC 61727, IEC 62116
- Low/High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control

Circuit Diagram



Efficiency Curve



Input (DC)	SG1250HV	SG1500HV
Max. PV input voltage	1500V	
Min. PV input voltage / Startup input voltage	800 V / 840 V	900 V / 940 V
MPP voltage range for nominal power	800 – 1300 V	900 – 1300 V
No. of independent MPP inputs	1	
No. of DC inputs	8 – 12	
Max. PV input current	1754 A	
Max. DC short-circuit current	2105 A	
Output (AC)		
AC output power	1375 kVA @ 50 °C / 1250 kVA @ 55 °C	1500 kVA @ 55 °C
Max. AC output current	1443 A	
Nominal AC voltage	550 V	600 V
AC voltage range	440 – 632 V	480 – 690 V
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz	
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 / Connection phases	3 / 3	
Efficiency		
Max. efficiency / Euro. efficiency	99.0 % / 98.7 %	
Protection		
DC reverse connection protection	Yes	
DC input protection	Circuit breaker	
AC output protection	Circuit breaker	
Overvoltage protection	DC Type II / AC Type II	
Grid monitoring / Ground fault monitoring	Yes / Yes	
Insulation monitoring	Yes	
Overheat protection	Yes	
Anti-PID function	Optional	
General Data		
Dimensions (W*H*D)	1805*1915*835 mm	
Weight	1650 kg	
Isolation method	Transformerless	
Degree of protection	IP21	
Night power consumption	< 20 W	
Operating ambient temperature range	-30 to 65 °C (> 55 °C derating)	
Allowable relative humidity range (non-condensing)	0 – 95 %	
Cooling method	Temperature controlled forced air cooling	
Max. operating altitude	4500 m (> 3500 m derating)	4000 m (> 2000 m derating)
Display	Touch screen	
Communication	RS485 / Modbus, Ethernet	
Compliance	IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, CE, CEA	
Grid support	LVRT, HVRT, active & reactive power control and power ramp rate control	
Type designation	SG1250HV-10	SG1500HV-10

