

Outdoor Inverter for 1000 Vdc System



HIGH YIELD

- Efficient three-level topology, max. efficiency up to 99 %, European efficiency 98.7 %
- Full power operation without derating at 50 °C
- Long-time overload at 1.1 Pn
- DC/AC ratio up to 1.5



EASY O&M

- Integrated intelligent control unit for fast trouble shooting
- Modular design easy for maintenance
- IP65 protection



SAVED INVESTMENT

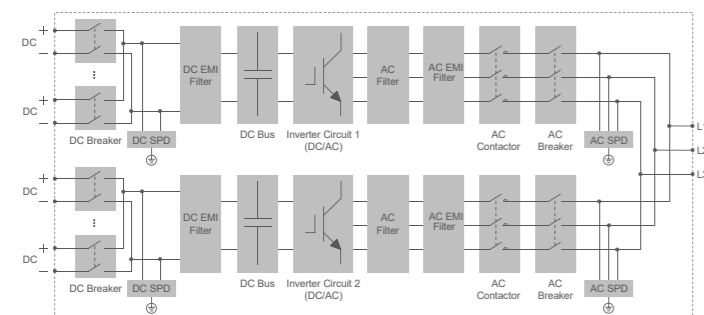
- Can be connected to double-winding transformer, saving transformer costs



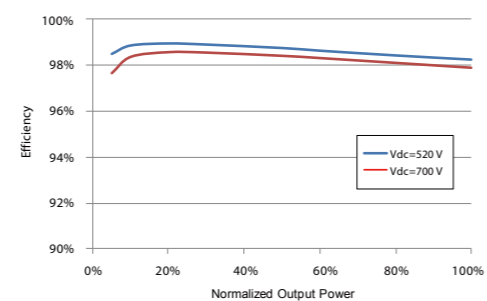
GRID SUPPORT

- Compliance with standards: CE, IEC 62109, IEC61727, IEC62116
- Low/High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG1250UD	SG1500UD
Input (DC)		
Max. PV input voltage	1100 V	
Min. PV input voltage / Startup input voltage	520 V / 540 V	580 V / 600 V
MPP voltage range for nominal power	520 – 850 V	580 – 850 V
No. of independent MPP inputs	2	
No. of DC inputs	12 (Optional: 12 – 18)	14 (Optional: 12 – 18)
Max. PV input current	2 * 1356 A	2 * 1448 A
Max. DC short-circuit current	3200 A	
Output (AC)		
AC output power	1375 kVA @ 45 °C / 1250 kVA @ 50 °C	1650 kVA @ 45 °C / 1500 kVA @ 50 °C
Max. AC output current	2222 A	2381 A
Nominal AC voltage	360 V	400 V
AC voltage range	288 – 414 V	320 – 460 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 % of nominal output current	
Power factor at nominal power	> 0.99	
Adjustable power factor	0.8 leading – 0.8 lagging	
Feed-in phases / Connection phases	3 / 3	
Efficiency		
Max. efficiency	99.0 %	
Euro. efficiency	98.7 %	
Protection		
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	Yes	
General Data		
Dimensions (W*H*D)	2150 * 2120 * 850 mm	
Weight	1900 kg	
Isolation method	Transformerless	
Degree of protection	IP65	
Auxiliary power supply	220 Vac, 2 kVA	
Night power consumption	< 40 W	
Operating ambient temperature range	-35 to 60 °C (> 50 °C derating)	
Allowable relative humidity range (non-condensing)	0 – 95 %	
Cooling method	Temperature controlled forced air cooling	
Max. operating altitude	4500 m (> 3000 m derating)	
Display	Touch screen	
Communication	RS485, Ethernet	
Compliance	IEC62109-1, IEC62109-2, IEC61727, IEC62116	
Grid support	LVRT, HVRT, active & reactive power control and power ramp rate control	

