

SG5000UD/SG5000UD-20

Turnkey Station for 1500 Vdc System



HIGH YIELD

- Advanced three-level technology, max. efficiency 99 %
- Max. DC/AC ratio up to 1.7

EASY O&M

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

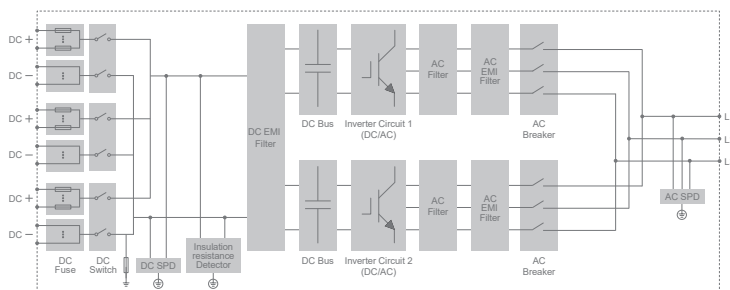
SAVED INVESTMENT

- DC 1500 V system, low system cost
- Integrated LV auxiliary power supply
- IP65 Protection
- Q at night function optional

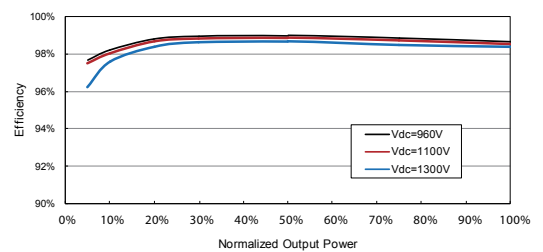
GRID SUPPORT

- 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	SG5000UD	SG5000UD-20
Input (DC)		
Max. PV input voltage	1500 V	
Min. PV input voltage / Start-up input voltage	900 V / 915 V	960 V / 990 V
MPP voltage range for nominal power	900 – 1300 V	960 – 1300 V
No. of independent MPP inputs	1	
No. of DC inputs	28 (optional: 36)	28(optional: 36 inputs)
Max. PV input current	5669 A	6112 A
Max. DC short-circuit current	10000 A	
Output (AC)		
AC output power	5000 kVA @ 45 °C	5750 kVA @ 25 °C / 5500 kVA @ 45 °C / 5000 kVA @ 50 °C
Max. AC output current	4812 A	5030 A
Nominal AC voltage	600 V	660 V
AC voltage range	510 – 660 V	561 – 726 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 % In	
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	99.0%	
European efficiency	98.7 %	
Protection		
DC input protection	Load break switch + fuse	
AC output protection	Circuit breaker	
Overvoltage 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)	5020 * 2400 * 1100 mm	
Weight	6 T	
Isolation method	Transformerless	
Degree of protection	IP65	
Auxiliary power supply	415 V, 5 kVA (max. 15kVA)	
Operating ambient temperature range	-35 to 60 °C (> 45 °C derating)	-35 to 60 °C (> 50 °C derating)
Allowable relative humidity range (non-condensing)	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	
Grid support	Q at night, L / HVRT, active & reactive power control and power ramp rate control	