

SG2500HV-MV/SG3000HV-MV

Turnkey Station for 1500 Vdc System - MV Pad-mounted Transformer or Separate Transformer + RMU



High Yield

- Efficient three-level topology, max. inverter efficiency up to 99 %
- 1 or 2 MPPT, wide MPP voltage range
- Full power operation without derating at 50 °C
- One inverter unit fails, the other unit continues operation



Easy O&M

- Integrated zone current monitoring function for fast trouble shooting
- Module design and front service, easy for maintenance
- DC circuit breaker design for convenient maintenance



Saved Investment

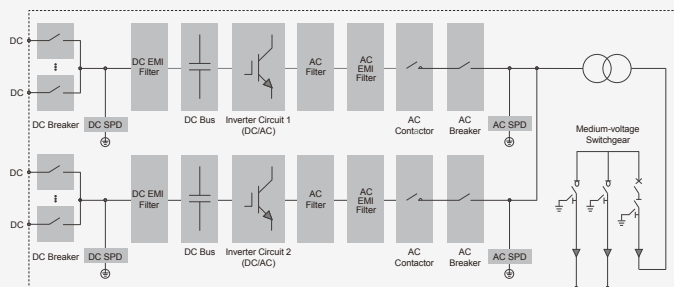
- DC 1500 V system, low system initial investment
- 20-foot container design, no need to build extra inverter house
- Integrated MV transformer and LV auxiliary power supply



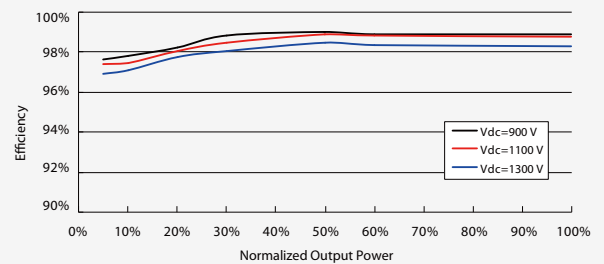
Grid Support

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

Circuit Diagram



Inverter Efficiency Curve



Input (DC)	SG2500HV-MV	SG3000HV-MV
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 or 2	
No. of DC inputs	16 – 24	
Max. PV input current	3508 A	
Max. DC short-circuit current	4210 A	
Output (AC)		
Nominal AC power	2500 kW (at 50 °C)	3000 kW (at 50 °C)
Max. AC output power at PF=1	2750 kW (at 45 °C)	3000 kW (at 50 °C)
Max. AC apparent power	2750 kVA (at 45 °C)	3000 kVA (at 50 °C)
Max. inverter output current	2886 A	
AC voltage range	10 – 35 kV	
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		
Inverter max. efficiency / Inverter Euro. efficiency	99.0 % / 98.7 %	
Transformer		
Transformer rated power	2500 kVA	3000 kVA
Transformer max. power	2750 kVA	3000 kVA
LV / MV voltage	0.55 kV / 10 – 35 kV	0.6 kV / 10 – 35 kV
Transformer vector	Dy11	
Oil type	Mineral oil (PCB free) or degradable oil on request	
Protection		
DC reverse connection protection	Yes	
DC input protection	Circuit breaker	
Inverter output protection	Circuit breaker	
AC output protection	Circuit breaker * / Load switch + fuse **	
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)	6058*2896*2438 mm	
Weight	17 T	
Degree of protection	IP54	
Auxiliary power supply	220 Vac, 2 kVA / Optional: 380 Vac, up to 15 kVA	
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	1000 m (standard) / > 1000 m (optional)	
Display	Touch screen	
Communication	Standard: RS485, Ethernet; Optional: optical fiber	
Compliance	CE, IEC 62109	
Grid support	LVRT, HVRT, active & reactive power control and power ramp rate control	
Type designation	SG2500HV-MV-S-10/SG2500HV-MV-C-10	SG3000HV-MV-S-10/SG3000HV-MV-C-10

*:available for SG2500HV-MV-S-10/SG3000HV-MV-S-10

**.:available for SG2500HV-MV-C-10/SG3000HV-MV-C-10

