

SG2000-MV/SG2500-MV

Turnkey Station - MV Pad-mounted Transformer or Separate Transformer + RMU



High Yield

- Efficient three-level topology, max. inverter efficiency up to 99 %
- 1 or 4 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

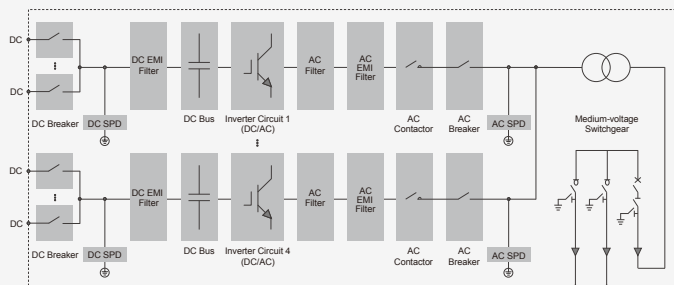
- 20-foot container design, no need to build extra inverter house
- Integrated MV transformer and LV auxiliary power supply



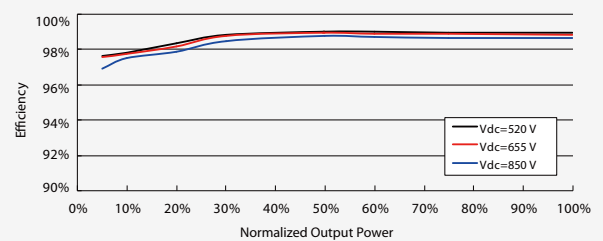
Grid Support

- 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)

	SG2000-MV	SG2500-MV
Max. PV input voltage	1000V	
Min. PV input voltage / Startup input voltage	460 V / 500 V	520 V / 540 V
MPP voltage range for nominal power	460 – 850 V	520 – 850 V
No. of independent MPP inputs	1 or 4	
No. of DC inputs	16 – 32	
Max. PV input current	4880 A	5424 A
Max. DC short-circuit current	5840 A	6780 A

Output (AC)

Nominal AC power (at 50 °C)	2000 kW	2520 kW
Max. AC output power at PF=1 (at 45 °C)	2200 kW	2772 kW
Max. AC apparent power (at 45 °C)	2200 kVA	2772 kVA
Max. inverter output current	4032 A	4444 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 % 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

Inverter max. efficiency / Inverter European efficiency	99.0 % / 98.7 %	
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Transformer

Transformer rated power	2000 kVA	2520 kVA
Transformer max. power	2200 kVA	2772 kVA
LV / MV voltage	0.315 kV / 10 – 35 kV	0.360 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	SG2000-MV-S-10/SG2000-MV-C-10	SG2500-MV-S-10/SG2500-MV-C-10

*:available for SG20000-MV-S-10/SG2500-MV-S-10

** :available for SG2000-MV-C-10/SG2500-MV-C-10

