

# SG2000-MV/SG2500-MV

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



### Cost Effective

- Integrated inverter, transformer and switchgear
- Lower transportation cost due to 20-foot container
- Efficient three-level topology, inverter efficiency up to 99 %



### Reliable

- Proven and intelligent cooling system
- IP54 protection degree suitable for harsh environment condition



### Easy Maintenance

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



### Flexible

- Applied to medium voltage grid from 10 kV to 35 kV
- Suitable for most environment conditions and local standards
- Integrated optional auxiliary power supply up to 15 kVA



Input (DC)	SG2000-MV	SG2500-MV
Max. input voltage	1000 V	
Start voltage	500 V	540 V
Min. working voltage	460 V	520 V
Max. input current	4880 A	5424 A
MPPT voltage range	460 - 850 V	520 - 850 V
No. of MPPTs	1 or 4	
No. of DC inputs	16 - 32	
<b>Output (AC)</b>		
MV Output Voltage	10 - 35 kV	
Nominal AC output power	2000 kW	2520 kW
Max. AC output apparent power	2200 kVA	2772 kVA
Max. inverter output current	4032 A	4444 A
Nominal grid frequency	50 / 60 Hz	
Grid frequency range	45 - 55 Hz / 55 - 65 Hz	
THD	< 3 % (at nominal power)	
DC current injection	< 0.5 % I <sub>n</sub>	
Power factor range	0.8 leading - 0.8 lagging	
<b>Efficiency</b>		
Inverter max. efficiency	99.00 %	
Inverter Euro. efficiency	98.70 %	
<b>Transformer</b>		
Transformer rated power	2000 kVA	2500 kVA
Transformer max. power	2200 kVA	2800 kVA
Input/Output 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	
<b>General Data</b>		
Dimensions(W*H*D)	6058*2896*2438 mm <b>238.5**114.0**96.0"</b>	6058*2896*2438 mm <b>238.5**114.0**96.0"</b>
Weight	< 16.5 T <b>36376.3 lb</b>	< 17T <b>37478.6lb</b>
Operating ambient temperature range	-35 to 60 °C (> 50 °C derating) <b>-31 to 140 °F(&gt;122 °F derating)</b>	
External auxiliary power supply	220 Vac, 2 kVA / Optional: 380 Vac, up to 15 kVA	
Cooling method	Temperature controlled air-forced cooling	
Ingress protection rating	IP54 <b>NEMA3R</b>	
Allowable relative humidity range	0 - 95 %, non-condensing	
Max. operating altitude	2000 m (standard) / > 2000 m (optional) <b>6561 ft (standard) / &gt; 6561 ft (optional)</b>	
Communication	Standard: RS485, Ethernet; Optional: Optical fiber	
<b>Protections &amp; Functions</b>		
Anti-PID function	Optional	
Grid support functions	LVRT, HVRT, ZVRT, anti-islanding, active & reactive power regulation, PF control, soft start/stop	
DC input protection	Circuit breaker	
Inverter output protection	Circuit breaker	
AC MV output protection	Load switch + fuse or circuit breaker	
DC overvoltage protection	Type II	
AC overvoltage protection	Type II	
Grid monitoring	Yes	
Ground fault monitoring	Yes	
Overheat protection	Yes	
Insulation monitoring	Yes	