

SG4950HV-MV

MV Grid-connected PV Inverter for 1500Vdc System



HIGH YIELD

- Advanced three-level technology, max. inverter efficiency 99%
- Effective cooling, full power operation at 50 °C



SMART O&M

- Integrated zone monitoring and MV parameters monitoring function for online analysis and trouble shooting
- Modular design, easy for maintenance
- Convenient external touch screen



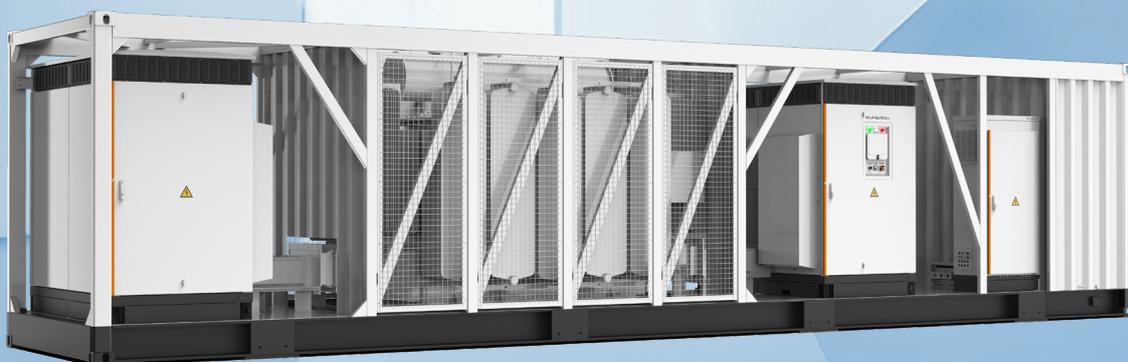
SAVED INVESTMENT

- Low transportation and installation cost due to 40-foot container design
- DC 1500V system, low system cost
- Integrated MV transformer, switchgear, and LV auxiliary power supply
- Q at night function optional



GRID SUPPORT

- Compliance with standards: IEC 62271-202, IEC 62271-200, IEC 60076
- Low/High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control



Type Designation		SG4950HV-MV
Input (DC)		
Max. PV input voltage	1500 V	
Min. PV input voltage / Startup input voltage	800 V / 840 V	
MPP voltage range	800 V – 1300 V	
No. of independent MPP inputs	4	
No. of DC inputs	32 / 36 / 44 / 48 / 56 (Max. 48 for floating system)	
Max. PV input current	2 * 3508 A	
Max. DC short-circuit current	2 * 10000 A	
PV array configuration	Negative grounding or floating	
Output (AC)		
AC output power	4950 kVA @ 50 °C	
Max. inverter output current	2 * 2887 A	
Max. AC output current	143 A	
AC voltage range	11 kV – 35 kV	
Nominal grid frequency / Grid frequency range	50 Hz / 45 Hz – 55 Hz, 60 Hz / 55 Hz – 65 Hz	
Harmonic (THD)	< 3 % (at nominal power)	
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging	
Feed-in phases / AC connection	3 / 3-PE	
Efficiency		
Inverter max. efficiency / Inverter European efficiency	99.0 % / 98.7 %	
Transformer		
Transformer rated power	4950 kVA	
Transformer max. power	4950 kVA	
LV / MV voltage	0.55 kV / 0.55 kV / (11 – 35) kV	
Transformer vector	Dy11y11	
Transformer cooling method	ONAN (Oil-natural, air-natural)	
Oil type	Mineral oil (PCB free) or degradable oil on request	
Protection & Function		
DC input protection	Load break switch + fuse	
Inverter output protection	Circuit breaker	
AC MV output protection	Circuit breaker	
Surge 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)	12192 mm * 2896 mm * 2438 mm	
Weight	27 T	
Degree of protection	Inverter: IP65 / Others: IP54	
Auxiliary power supply	5 kVA (optional: max. 40 kVA)	
Operating ambient temperature range	-35 °C – 60 °C (> 50 °C derating)	
Allowable relative humidity range	0 % – 100 %	
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, IEC 61727, IEC 62116, IEC 62271-202, IEC 62271-200, IEC 60076	
Grid support	Q at night (Optional), L/HVRT, active & reactive power control and power ramp rate control	

