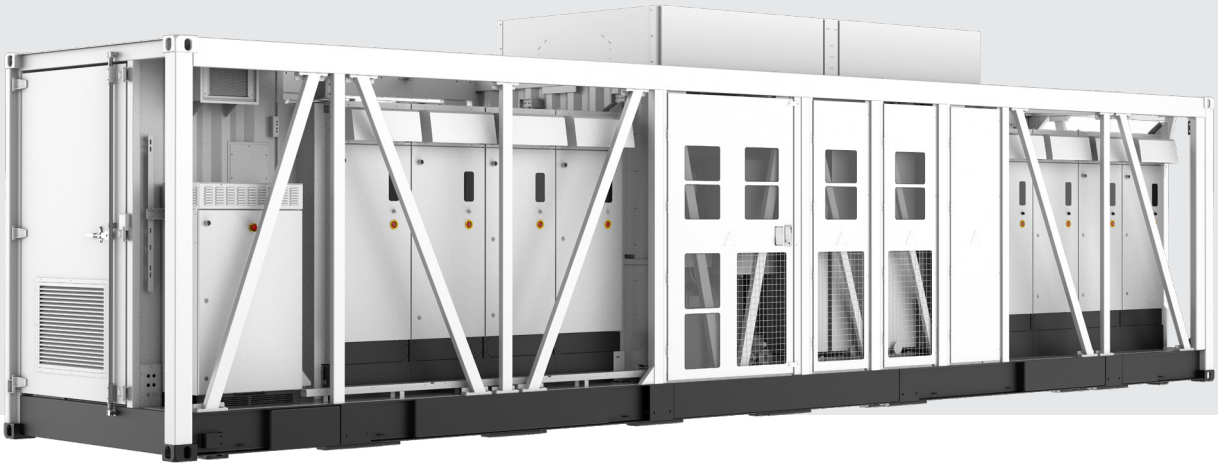
SG8800UD-MV-20

MV Grid-connected PV Inverter for 1500 Vdc System



HIGH YIELD

- Advanced three-level technology, max. inverter efficiency 99%
- Effective cooling, full power operation at 51 ℃

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

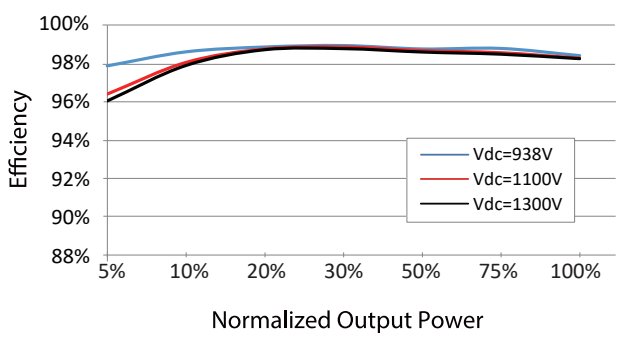
SMART O&M

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

GRID SUPPORT

- Compliance with standards: IEC 61727, IEC 62116, IEC 62271-202, IEC 62271-200, IEC 60076
- Low/High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control

EFFICIENCY CURVE



SUNGROW
Clean power for all

Type Designation	SG8800UD-MV-20
Input (DC)	
Max. PV input voltage	1500 V
Min. PV input voltage / Startup input voltage	938 V / 950 V
MPP voltage range	938 V – 1500 V
No. of independent MPP inputs	8
No. of DC inputs	40 (optional: 56)
Max. PV input current	8 * 1435 A
Max. DC short-circuit current	8 * 3528 A
PV array configuration	Negative grounding or floating
Output (AC)	
AC output power	8800 kVA @ 51 ℃, 10560 kVA @ 23 ℃
Max. inverter output current	8 * 1155 A
Max. AC output current	305 A
Rated voltage range	20 kV – 35 kV
Nominal grid frequency / Grid frequency range	50 Hz / 45 Hz – 55 Hz, 60 Hz / 55 Hz – 65 Hz
Harmonic (THD)	< 1.5 % (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
Efficiency	
Inverter max. efficiency / Inverter European efficiency	99.0 % / 98.7 %
Transformer	
Transformer rated power	8800 kVA
Transformer max. power	10560 kVA
LV / MV voltage	0.66 kV / 0.66 kV / (20 – 35) kV
Impedance	9.5 % (0 % - ± 10 %) @ 8800 kVA
Transformer vector	Dy11y11
Transformer cooling method	ONAN
Oil type	Mineral oil (PCB free)
Protection & Function	
DC input protection	DC load switch + fuse
Inverter output protection	AC circuit breaker
AC MV output protection	AC circuit breaker
Surge protection	DC Type II / AC Type II
Grid monitoring / Ground fault monitoring	Yes / Yes
Insulation monitoring	Yes
Overheat protection	Yes
Q at night function	Optional
General data	
Shipping dimensions (W*H*D)	12192 mm * 2896 mm * 2438 mm
Unfolding dimensions (W*H*D)	12192 mm * 3392 mm * 2438 mm
Weight	≤ 32 T
Degree of protection	Inverter: IP65 / Others: IP54
Auxiliary power supply	15 kVA (optional: max. 30 kVA)
Operating ambient temperature range *	-35 ℃ - 60 ℃ (> 51 ℃ derating)
Allowable relative humidity range	0 % – 100 %
Cooling method	Temperature controlled forced air cooling
Max. operating altitude	1000 m (standard) / > 1000 m (optional)
Display	LED Indicators, WLAN + WebHMI
Communication	Standard: RS485, Ethernet
Compliance	CE, IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, IEC62271-202

* The ambient temperature is determined as the average temperature obtained from at least four evenly distributed temperature monitoring points located at a distance of 1 meter from the equipment, at a height halfway up the machine. The temperature sensors must be shielded from airflow, thermal radiation, and rapid temperature fluctuations to prevent display inaccuracies

** The transformer can operate at full load for 8 hours at 51°C

 MEA