SG1100UD-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 45 ℃

SMART O&M

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

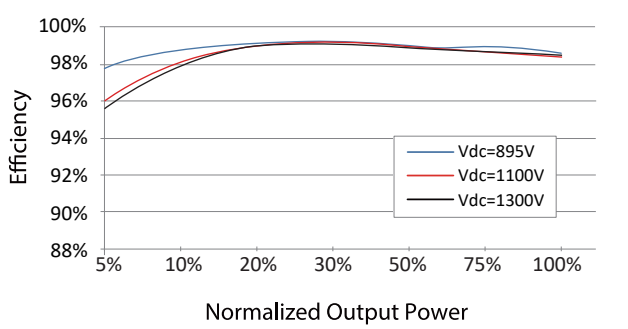
SAVED INVESTMENT

- Low transportation and installation cost due to 20-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 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	SG1100UD-MV
Input (DC)	
Max. PV input voltage	1500 V
Min. PV input voltage / Startup input voltage	895 V / 905 V
MPP voltage range	895 V – 1500 V
No. of independent MPP inputs	1
No. of DC inputs	5 (optional: 7)
Max. PV input current	1435 A
Max. DC short-circuit current	3528 A
PV array configuration	Negative grounding or floating
Output (AC)	
AC output power	1100 kVA @ 45 ℃, 1133 kVA @ 40 ℃, 1265 kVA @ 22.5 ℃
Max. inverter output current	1160 A
Max. AC output current	73 A
Rated voltage range	10 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 % / 98.8 %
Transformer	
Transformer rated power	1100 kVA
Transformer max. power	1265 kVA
LV / MV voltage	0.63 kV / (10 – 35) kV
Impedance	6.5 % (0 - ± 10 %) @ 1100 kVA
Transformer vector	Dy11
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	
Dimensions (W*H*D)	6058 mm * 2896 mm * 2438 mm
Weight	≤ 8.5 T
Degree of protection	Inverter: IP65 / Others: IP54
Auxiliary power supply	15 kVA (optional: max. 30 kVA)
Operating ambient temperature range *	-20 ℃ to 60 ℃ (optional: -30 ℃ to 60 ℃, > 45 ℃ 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, Ethernet + WebHMI
Communication	Standard: RS485, Ethernet
Compliance	CE, IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, VDE-AR-N 4110:2018, VDE-AR-N 4120:2018, EN 50549-2, UNE 206007-1:2013,NTS 631, UTE C15-712-1:2013

* The ambient temperature is determined as the average temperature obtained from at least four 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. If the ambient temperature is below -30°C, pls contact Sungrow.

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