

SG3300UD-MV-20

Turnkey Station for 1500 Vdc System MV Transformer Integrated



HIGH YIELD

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



SMART O&M

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



SAVED INVESTMENT

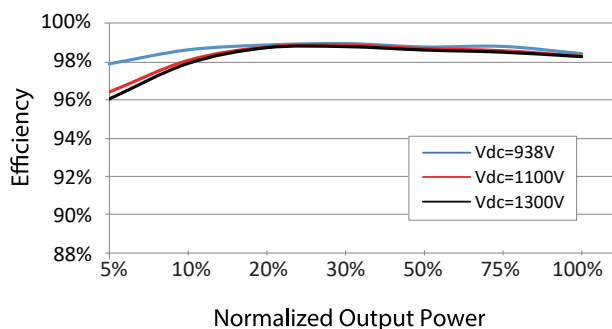
- Low transportation and installation cost due to 20-foot container design
- DC 1500V system, low system cost
- Integrated MV transformer, switchgear, and LV auxiliary power supply
- Q at night function optional



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



Type designation	SG3300UD-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 – 1500 V
No. of independent MPP inputs	3
No. of DC inputs	15 (optional: 18 / 21 inputs negative grounding)
Max. PV input current	3 * 1435 A
Max. DC short-circuit current	3 * 3528 A
PV array configuration	Negative grounding or floating
Output (AC)	
AC output power	3300 kVA @ 51 °C, 3960 kVA @ 23 °C
Max. inverter output current	3 * 1155 A
Max. AC output current	229 A
AC voltage range	10 kV – 35 kV
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 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
Efficiency	
Inverter max. efficiency / Inverter European efficiency	99.0 % / 98.7 %
Transformer	
Transformer rated power	3300 kVA
Transformer max. power	3960 kVA
LV / MV voltage	0.66 kV / 0.66 kV / (10 – 35) kV
Impedance	7% (0 ~ ± 10 %) @ 3300kVA
Transformer vector	Dy11
Transformer cooling type	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 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 * 2896 * 2438 mm
Weight	17.5 T
Degree of protection	Inverter: IP65 / Others: IP54
Auxiliary power supply	5 kVA (optional: max. 40 kVA)
Operating ambient temperature range	- 35 to 60 °C (> 51 °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	LED Indicators, WLAN + WebHMI
Communication	Standard: RS485, Ethernet; Optional: optical fiber, MPLC
Compliance	CE, IEC 62109, IEC 61727, IEC 62116, IEC 61727, IEC 62116, IEC 60068, IEC 61683, IEC62271-202
Grid support	Q at night (Optional), L/HVRT, active & reactive power control and power ramp rate control

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

SG4400UD-MV-20

Turnkey Station for 1500 Vdc System MV Transformer Integrated



HIGH YIELD

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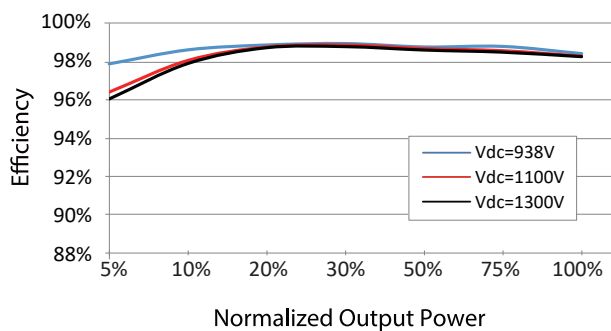
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- Integrated MV transformer, switchgear, and LV auxiliary power supply
- Q at night function optional



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



Type Designation	SG4400UD-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 – 1500 V
No. of independent MPP inputs	4
No. of DC inputs	20 (optional: 24 / 28 inputs negative grounding)
Max. PV input current	4 * 1435 A
Max. DC short-circuit current	4 * 3528 A
PV array configuration	Negative grounding or floating
Output (AC)	
AC output power	4400 kVA @ 51 °C, 5280 kVA @ 23 °C
Max. inverter output current	4 * 1155 A
Max. AC output current	305 A
AC voltage range	10 kV – 35 kV
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 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
Efficiency	
Inverter max. efficiency / Inverter European efficiency	99.0 % / 98.7 %
Transformer	
Transformer rated power	4400 kVA
Transformer max. power	5280 kVA
LV / MV voltage	0.66 kV / 0.66 kV / (10 – 35) kV
Impedance	8 % (0 – ±10 %) @ 4400 kVA
Transformer vector	Dy11
Transformer cooling type	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 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 * 2896 * 2438 mm
Weight	20 T
Degree of protection	Inverter: IP65 / Others: IP54
Auxiliary power supply	5 kVA (optional: max. 40 kVA)
Operating ambient temperature range	- 35 to 60 °C (> 51 °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	LED Indicators, WLAN+WebHMI
Communication	Standard: RS485, Ethernet; Optional: optical fiber, MPLC
Compliance	CE, IEC 62109, IEC 61727, IEC 62116, IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, IEC62271-202
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