

# SG4400UD-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

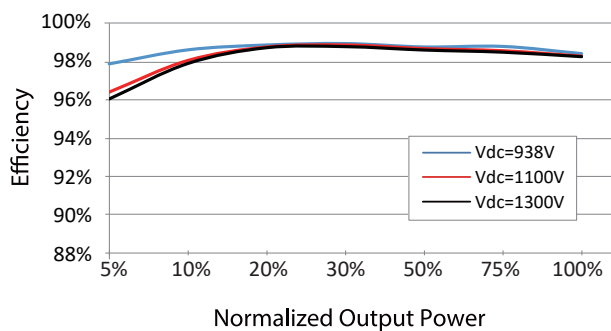
## SAVED INVESTMENT

- 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	SG4400UD-MV-20
<b>Input (DC)</b>	
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	4
No. of DC inputs	20 (optional: 28 )
Max. PV input current	4 * 1435 A
Max. DC short-circuit current	4 * 3528 A
PV array configuration	Negative grounding or floating
<b>Output (AC)</b>	
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 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
<b>Efficiency</b>	
Inverter max. efficiency / Inverter European efficiency	99.0 % / 98.7 %
<b>Transformer</b>	
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 method	ONAN ( Oil-natural, air-natural )
Oil type	Mineral oil ( PCB free )
<b>Protection &amp; Function</b>	
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
<b>General data</b>	
Dimensions (W*H*D)	6058 mm * 2896 mm * 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 °C 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
Compliance	CE, IEC 62109, 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