

SG6600UD-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



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



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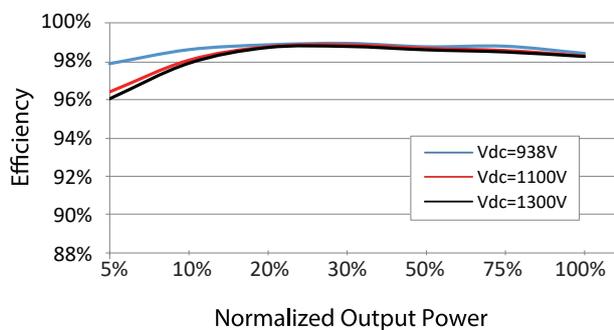
- Integrated zone monitoring and MV parameters monitoring function for online analysis and trouble shooting
- Modular design, easy for maintenance



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

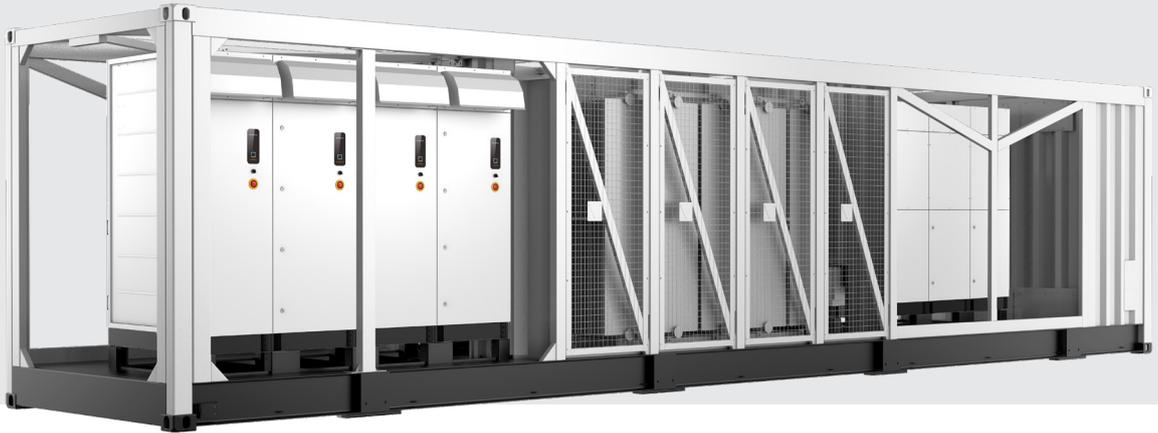


| Type Designation | SG6600UD-MV-20 |
|---|--|
| Input (DC) | |
| Max. PV input voltage | 1500 V |
| Min. PV input voltage / Startup input voltage | 938 V / 950 V |
| MPP voltage range | 938 – 1500 V |
| No. of independent MPP inputs | 6 |
| No. of DC inputs | 30 (optional: 36 / 42 inputs negative grounding) |
| Max. PV input current | 6 * 1435 A |
| Max. DC short-circuit current | 6 * 3528 A |
| PV array configuration | Negative grounding or floating |
| Output (AC) | |
| AC output power | 6600 kVA @ 51 °C, 7920 kVA @ 23 °C |
| Max. inverter output current | 6 * 1155 A |
| Max. AC output current | 229 A |
| AC voltage range | 20 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 | 6600 kVA |
| Transformer max. power | 7920 kVA |
| LV / MV voltage | 0.66 kV / 0.66 kV / (20 – 35) kV |
| Impedance | 8% (0 ~ ± 10 %) @ 6600 kVA |
| Transformer vector | Dy11y11 |
| Transformer cooling type | ONAN |
| 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) | 12192 * 2896 * 2438 mm |
| Weight | ≤ 28 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 |
| 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

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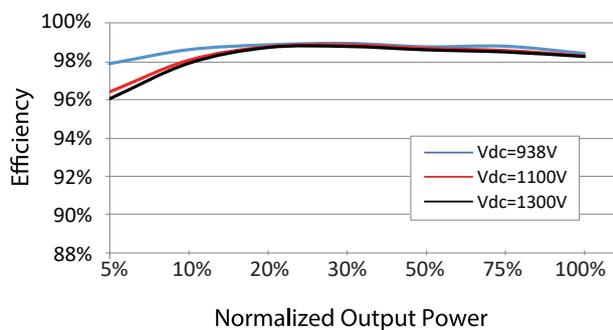
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- Low/High voltage ride through (L/HVRT)
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EFFICIENCY CURVE



| 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 – 1500 V |
| No. of independent MPP inputs | 8 |
| No. of DC inputs | 40 (optional: 48 / 56 inputs negative grounding) |
| 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 °C, 10560 kVA @ 23 °C |
| Max. inverter output current | 8 * 1155 A |
| Max. AC output current | 305 A |
| AC voltage range | 20 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 | 8800 kVA |
| Transformer max. power | 10560 kVA |
| LV / MV voltage | 0.66 kV / 0.66 kV / (20 – 35) kV |
| Impedance | 9.5 % (0 ~ ± 10 %) @ 8800kVA |
| Transformer vector | Dy11y11 |
| Transformer cooling type | ONAN |
| 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) | 12192 * 2896 * 2438 mm |
| Weight | ≤ 32 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 |
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