# SG3150/2500U-MV New

SUNGROW
Clean power for all

## Turnkey Station for North America 1500 Vdc System - MV Transformer Integrated

### HIGH YIELD

- Advanced three-level technology, max. inverter efficiency 98.8%, inverter CEC efficiency 98.5 %
- Max. DC/AC ratio more than 1.5

### EASY O&M

- Integrated current, voltage and MV parameters monitoring function for online analysis and fast trouble shooting
- Modular design, easy for maintenance
- Convenient external LCD

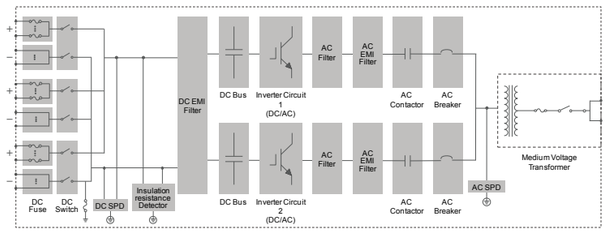
### SAVED INVESTMENT

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

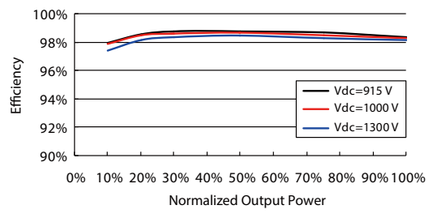
### GRID SUPPORT

- Complies with UL 1741, UL 1741 SA, IEEE 1547, Rule 21 and NEC 2014/2017
- Grid support including L/HVRT, L/HFRT, active & reactive power control and power ramp rate control

### CIRCUIT DIAGRAM




### EFFICIENCY CURVE (SG3150U)










| Type designation | SG3150U-MV | SG2500U-MV |
|---|---|---|
| **Input (DC)** | | |
| Max. PV input voltage | 1500V | |
| Min. PV input voltage / Startup input voltage | 915 V / 955 V | 800 V / 840 V |
| MPP voltage range for nominal power | 940 – 1300 V | 800 – 1300 V |
| No. of independent MPP inputs | 1 | |
| No. of DC inputs | 18 – 24 | 18 – 21 |
| Max. PV input current | 3420 A | 3508 A |
| Max. DC short-circuit current | 4800 A | |
| PV array configuration | Negative grounding | |
| **Output (AC)** | | |
| AC output power | 3150 kVA @ 45 ℃ (113 ℉) | 2750 kVA @ 45 ℃ (113 ℉) / 2500 kVA @ 50 ℃ (122 ℉) |
| Max. inverter output current | 2886 A | |
| AC voltage range | 34.5 kV | |
| Nominal grid frequency / Grid frequency range | 60 Hz / 55 – 65 Hz | |
| THD | < 3 % (at nominal power) | |
| DC current injection | < 0.5 % In | |
| Power factor at nominal power / Adjustable power factor | > 0.99 / 0.8 leading – 0.8 lagging | |
| Feed-in phases / Connection phases | 3 / 3 | |
| **Efficiency** | | |
| Inverter Max. efficiency | 98.8 % | |
| Inverter Euro. efficiency | 98.5 % | |
| **Transformer** | | |
| Transformer rated power | 3150 kVA | 2500 kVA |
| Transformer max. power | 3150 kVA | 2750 kVA |
| LV / MV voltage | 0.63 kV / 34.5 kV | 0.55 kV / 34.5 kV |
| Transformer vector | Dy1 | |
| Transformer cooling type | ONAN (Oil Natural Air Natural) | |
| Oil type | Mineral oil (PCB free) or degradable oil on request | |
| **Protection and Function** | | |
| DC input protection | Load break switch + fuse | |
| Inverter output protection | Circuit breaker | |
| AC MV output protection | Load break switch + fuse | |
| Overvoltage protection | DC Type II / AC Type II | |
| Grid monitoring / Ground fault monitoring | Yes / Yes | |
| Insulation monitoring | Optional | |
| Overheat protection | Yes | |
| **General Data** | | |
| Dimensions (W*H*D) | 6058 * 2896 * 2438 mm (238.5'' * 114.0'' * 96.0'') | |
| Weight | 18 T (39683.2 lbs) | |
| Degree of protection | NEMA 3R | |
| Auxiliary power supply | 120 Vac, 5 kVA / Optional: 480 Vac, 30 kVA | |
| Operating ambient temperature range | -30 to 60 ℃ (> 45 ℃ derating) (-22 to 140 ℉ (> 113 ℉ derating)) | -30 to 60 ℃ (> 50 ℃ derating) (-22 to 140 ℉ (> 122 ℉ derating)) |
| Allowable relative humidity range (non-condensing) | 0 – 95 % | |
| Cooling method | Temperature controlled forced air cooling | |
| Max. operating altitude | 1000 m (standard) / > 1000 m (optional) (3280.8 ft (standard) / > 3280.8 ft (optional)) | |
| Display | Touch screen | |
| Communication | Standard: RS485, Ethernet; Optional: optical fiber | |
| Compliance | UL 1741, IEEE 1547, UL1741 SA, NEC 2014/2017, CSA C22.2 No.107.1-01 | |
| Grid support | Q at night function (optional), L/HVRT, L/HFRT, active & reactive power control and power ramp rate control, Volt-var, Frequency-watt | |

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