

# SG3400/3125/2500HV-20

Turnkey Station for 1500 Vdc System



## HIGH YIELD

- Advanced three-level technology, max. inverter efficiency 99 %

## EASY O&M

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

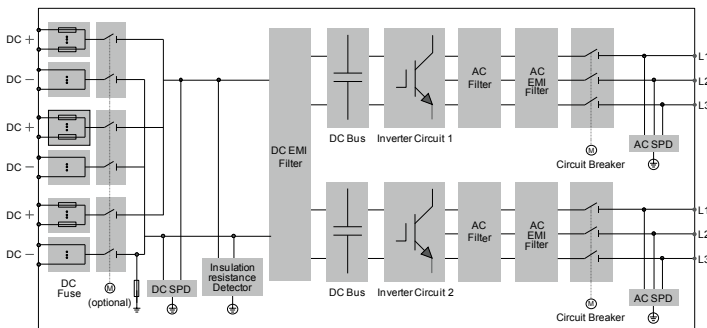
## SAVED INVESTMENT

- Low transportation and installation cost due to 10-foot container design
- DC 1500 V system, low system cost
- Q at night function optional

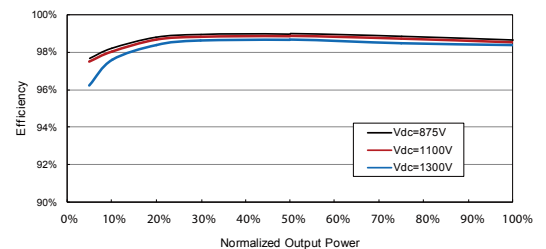
## GRID SUPPORT

- Compliance with standards: IEC 62116, IEC 61727
- Low/High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control

## CIRCUIT DIAGRAM



## EFFICIENCY CURVE (SG3400HV-20)



| Type designation  | SG3400HV-20   | SG3125HV-20   | SG2500HV-20                        |
|---|---|---|------------------------------------|
| <b>Input (DC)</b>                                       |   |   |                                    |
| Max. PV input voltage                                   |   | 1500 V  |                                    |
| Min. PV input voltage / Startup input voltage           | 875 V / 915 V   | 875 V / 915 V   | 800 V / 840 V                      |
| MPP voltage range for nominal power                     | 875 – 1300 V  | 875 – 1300 V  | 800 – 1300 V                       |
| No. of independent MPP inputs                           |   | 1   |                                    |
| No. of DC inputs  | 18(optional: 22/24 inputs negative grounding or floating; 28 inputs negative grounding) |   | 18 – 24                            |
| Max. PV input current                                   | 4178 A  | 4178 A  | 3508 A                             |
| Max. DC short-circuit current                           | 5000 A  | 5000 A  | 4800 A                             |
| <b>Output (AC)</b>                                      |   |   |                                    |
| AC output power   | 3593 kVA @ 25 °C / 3437 kVA @ 45 °C   | 3593 kVA@ 25 °C / 3437 kVA@ 45 °C / 3125 kVA@ 50 °C   | 2750 kVA@ 45 °C / 2500 kVA@ 50 °C  |
| Max. AC output current                                  | 3458 A  | 3458 A  | 2886 A                             |
| Nominal AC voltage                                      | 600 V   | 600 V   | 550 V                              |
| AC voltage range  | 480 – 690 V   | 480 – 690 V   | 495 – 605 V                        |
| Nominal grid frequency / Grid frequency range           |   | 50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz  |                                    |
| THD   |   | < 3 % (at nominal power)  |                                    |
| DC current injection                                    |   | < 0.5 % I <sub>n</sub>  |                                    |
| Power factor at nominal power / Adjustable power factor |   | > 0.99 / 0.8 leading – 0.8 lagging  |                                    |
| Feed-in phases / Connection phases                      |   | 3 / 3   |                                    |
| <b>Efficiency</b>                                       |   |   |                                    |
| Inverter Max. efficiency                                |   | 99.0%   |                                    |
| Inverter Euro. efficiency                               |   | 98.7%   |                                    |
| <b>Protection and Function</b>                          |   |   |                                    |
| DC input protection                                     |   | Load break switch + fuse  |                                    |
| AC output protection                                    |   | Circuit breaker   |                                    |
| Overvoltage protection                                  |   | DC Type I + 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)                                      |   | 2991*2591*2438 mm   |                                    |
| Weight  |   | 6.5 T   |                                    |
| Isolation method  |   | Transformerless   |                                    |
| Degree of protection                                    | IP55  | IP55  | IP54                               |
| Operating ambient temperature range                     | -35 to 60 °C<br>(> 45 °C derating)  | -35 to 60 °C<br>(> 50 °C derating)  | -35 to 60 °C<br>(> 50 °C derating) |
| Allowable relative humidity range (non-condensing)      |   | 0 – 95 %  |                                    |
| Cooling method  |   | Temperature controlled forced air cooling   |                                    |
| Max. operating altitude                                 | 4000 m<br>(> 2300 m derating)   | 4000 m<br>(>3000 m derating)  | 4000 m<br>(> 2000 m derating)      |
| Display   |   | Touch screen  |                                    |
| Communication   |   | Standard: RS485, Ethernet; Optional: optical fiber  |                                    |
| Compliance  |   | CE, IEC 62109, IEC 61727, IEC 62116   |                                    |
| Grid support  |   | Q at night function (optional), L/HVRT, active & reactive power control and power ramp rate control |                                    |

