## SG3150U/SG2500U

**Turnkey Station for North America 1500 Vdc System**

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

### Saved Investment
- Low transportation and installation cost due to 10-foot container design
- 1500V DC system, low system cost
- Integrated LV auxiliary power supply

### Circuit Diagram

![Circuit Diagram](image)

### Efficiency Curve (SG3150U)

![Efficiency Curve](image)

### Type Designation

<table>
<thead>
<tr>
<th>Type Designation</th>
<th>SG3150U</th>
<th>SG2500U</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. PV input voltage</td>
<td>915 V / 955 V</td>
<td>940 – 1500 V</td>
</tr>
<tr>
<td>Min. PV input voltage / Startup input voltage</td>
<td>915 V / 840 V</td>
<td>800 V / 840 V</td>
</tr>
<tr>
<td>MPP voltage range for nominal power</td>
<td>940 – 1500 V</td>
<td>800 – 1500 V</td>
</tr>
<tr>
<td>No. of independent MPP inputs</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>No. of DC inputs</td>
<td>18 – 24</td>
<td>18 – 21</td>
</tr>
<tr>
<td>Max. PV input current</td>
<td>3420 A</td>
<td>3508 A</td>
</tr>
<tr>
<td>Max. DC short-circuit current</td>
<td>4800 A</td>
<td>4800 A</td>
</tr>
<tr>
<td>Output (AC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC output power</td>
<td>3500 KVA @ 45 °C (113 °F)</td>
<td>2750 KVA @ 45 °C (113 °F) / 2500 KVA @ 50 °C (122 °F)</td>
</tr>
<tr>
<td>Max. AC output current</td>
<td>2886 A</td>
<td>2886 A</td>
</tr>
<tr>
<td>Nominal AC voltage</td>
<td>630 V</td>
<td>550 V</td>
</tr>
<tr>
<td>AC voltage range</td>
<td>554 – 690 V</td>
<td>554 – 690 V / 484 – 605 V</td>
</tr>
<tr>
<td>Nominal grid frequency / Grid frequency range</td>
<td>60 Hz / 55 – 65 Hz</td>
<td>60 Hz / 55 – 65 Hz</td>
</tr>
<tr>
<td>THD</td>
<td>&lt; 3 %</td>
<td>&lt; 3 %</td>
</tr>
<tr>
<td>DC current injection</td>
<td>&lt; 0.5 % of nominal output current</td>
<td>&lt; 0.5 % of nominal output current</td>
</tr>
<tr>
<td>Power factor at nominal power / Adjustable power factor</td>
<td>0.99 / 0.8 leading – 0.8 lagging</td>
<td>0.99 / 0.8 leading – 0.8 lagging</td>
</tr>
<tr>
<td>Feed-in phases / Connection phases</td>
<td>5 / 3</td>
<td>5 / 3</td>
</tr>
</tbody>
</table>

### Efficiency
- Max. efficiency: 98.8%
- CEC efficiency: 98.5%

### Protection
- DC input protection: Load break switch + fuse
- AC output protection: Circuit breaker
- Overvoltage protection: DC Type II / AC Type II
- Grid monitoring / Ground fault monitoring: Yes / Yes
- Insulation monitoring: Optional
- Q at night function: Optional
- Overheat protection: Yes

### General Data
- Dimensions (W*H*D): 2991*2896*2438 mm (117.8’’*114.0’’*96.0’’)
- Weight: 6.9 T (15211.9 lbs)
- Isolation method: Transformerless
- Degree of protection: NEMA 3R
- Auxiliary power supply: 120 Vac, 5kVA / Optional: 480 Vac, 30 kVA
- Operating ambient temperature range: -30 to 45 °C (+ 45 °C derating) / -30 to 60 °C (+ 50 °C derating) / -22 to 140 °F (+ 113 °F derating) / -22 to 140 °F (+ 122 °F derating)
- Allowable relative humidity range (non-condensing): 0 – 95 %
- Cooling method: Temperature controlled forced air cooling
- Max. operating altitude: 4000 m (+ 2000 m derating) (13123 ft [+ 6561 ft derating])
- Display: Touch screen
- Communication: Standard: RS485, Ethernet; Optional: optical fiber
- Compliance: UL 1741, IEEE 1547, CE, 3C, C22.2 No.107.1-01
- Grid support: L/HVRT, L/HFRT, active & reactive power control and power ramp rate control, Volt-var, Frequency-watt

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### Notes
- SG3150U is designed for North American applications.
- Detailed specifications can be found in the user manual provided with the unit.

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