**Outdoor Inverter for 1000 Vdc System**

**HIGH YIELD**
- Efficient three-level topology, max. efficiency up to 99 %, European efficiency 99.7 %
- Full power operation without derating at 50 °C
- Long-time overload at 1.1 Pn
- DC/AC ratio up to 1:5

**EASY O&M**
- Integrated intelligent control unit for fast trouble shooting
- Modular design easy for maintenance
- IP65 protection

**SAVED INVESTMENT**
- Can be connected to double-winding transformer, saving transformer costs

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**CIRCUIT DIAGRAM**

**EFFICIENCY CURVE**

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**Type designation**

<table>
<thead>
<tr>
<th>Type designation</th>
<th>SG1250UD</th>
<th>SC1500UD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. PV input voltage</td>
<td>1100 V</td>
<td>1650 V, 50 °C / 500 V, 50 °C</td>
</tr>
<tr>
<td>Min. PV input voltage / Startup input voltage</td>
<td>520 V / 540 V</td>
<td>580 V / 600 V</td>
</tr>
<tr>
<td>MPPT voltage range for nominal power</td>
<td>520 – 850 V, 580 – 850 V</td>
<td></td>
</tr>
<tr>
<td>No. of independent MPPT inputs</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>No. of DC inputs</td>
<td>12 (Optional: 12 – 16)</td>
<td>14 (Optional: 12 – 18)</td>
</tr>
<tr>
<td>Max. PV input current</td>
<td>2 * 1550 A</td>
<td>2 * 1548 A</td>
</tr>
<tr>
<td>Max. DC short-circuit current</td>
<td>3200 A</td>
<td></td>
</tr>
<tr>
<td>Output (AC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC output power</td>
<td>1375 kVA @ 45 °C / 1250 kVA @ 50 °C</td>
<td>1650 kVA @ 45 °C / 1500 kVA @ 50 °C</td>
</tr>
<tr>
<td>Nominal AC voltage</td>
<td>350 V</td>
<td>400 V</td>
</tr>
<tr>
<td>AC voltage range</td>
<td>288 – 414 V</td>
<td>320 – 460 V</td>
</tr>
<tr>
<td>Nominal grid frequency / Grid frequency range</td>
<td>50 Hz, 55 Hz, 60 Hz, 55 – 65 Hz</td>
<td></td>
</tr>
<tr>
<td>THD</td>
<td>≤ 3.0 % (at nominal power)</td>
<td></td>
</tr>
<tr>
<td>DC current injection</td>
<td>≤ 0.5 % of nominal output current</td>
<td></td>
</tr>
<tr>
<td>Power factor at nominal power</td>
<td>≥ 0.99</td>
<td></td>
</tr>
<tr>
<td>Adjustable power factor</td>
<td>0.8 leading – 0.8 lagging</td>
<td></td>
</tr>
<tr>
<td>Feed-in phases / Connection phases</td>
<td>3 / 3</td>
<td></td>
</tr>
<tr>
<td>Max. efficiency</td>
<td>99.0 %</td>
<td>98.7 %</td>
</tr>
<tr>
<td>Euro. efficiency</td>
<td>99.0 %</td>
<td>98.7 %</td>
</tr>
</tbody>
</table>

**Protection**
- DC input protection: Circuit breaker
- AC output protection: Circuit breaker
- Overvoltage protection: DC Type II / AC Type II
- Grid monitoring / Ground fault monitoring: Yes
- Insulation monitoring: Yes
- Overheat protection: Yes
- Anti-PID function: Yes

**GRID SUPPORT**
- Compliance with standards: CE, IEC 62109, IEC61727, IEC62116
- Low/High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control

**General Data**
- Dimensions (W*H*D): 2150 * 2120 * 850 mm
- Weight: 1900 kg
- Transformerless
- IP65
- Yes
- Yes
- Yes
- 220 Vac, 2 kVA
- < 40 W
- < -35 to 60 °C (+ 50 °C derating)
- 0 – 95 %
- Temperature controlled forced air cooling
- 4500 m (> 3000 m derating)
- Touch screen
- IEC62109-1, IEC62109-2, IEC61727, IEC62116
- LVRT, HVRT, active & reactive power control and power ramp rate control

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