SG5KTL-D
Residential String Inverter

HIGH YIELD
- Higher yield with Max. efficiency 97.5%, European efficiency 97.1%

EASY AND USER FRIENDLY
- 11 kg compact design, plug and play installation
- Fast commissioning via LCD

SAFE AND DURABLE
- Built-in surge arresters and residual current protection
- High anti-corrosion with aluminum alloy die casting

CIRCUIT DIAGRAM

EFFICIENCY CURVE
<table>
<thead>
<tr>
<th><strong>Type designation</strong></th>
<th><strong>SG5KTL-D</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input (DC)</strong></td>
<td></td>
</tr>
<tr>
<td>Max. PV input voltage</td>
<td>600 V</td>
</tr>
<tr>
<td>Min. PV input voltage / Startup voltage</td>
<td>110 V / 120 V</td>
</tr>
<tr>
<td>Nominal input voltage</td>
<td>360 V</td>
</tr>
<tr>
<td>MPP voltage range</td>
<td>110 V – 560 V</td>
</tr>
<tr>
<td>MPP voltage range for nominal power</td>
<td>260 V – 480 V</td>
</tr>
<tr>
<td>No. of MPPTs</td>
<td>2</td>
</tr>
<tr>
<td>Max. number of PV strings per MPPT</td>
<td>1</td>
</tr>
<tr>
<td>Max. PV input current</td>
<td>20 A (10 A / 10 A)</td>
</tr>
<tr>
<td>Max. current for input connector</td>
<td>12 A</td>
</tr>
<tr>
<td>Max. PV short-circuit current</td>
<td>13 A</td>
</tr>
<tr>
<td><strong>Output (AC)</strong></td>
<td></td>
</tr>
<tr>
<td>Max. AC output power</td>
<td>5000 VA / 4990 VA* (Australia)</td>
</tr>
<tr>
<td>Max. AC output current</td>
<td>21.7 A</td>
</tr>
<tr>
<td>Nominal AC voltage</td>
<td>230 Vac</td>
</tr>
<tr>
<td>AC voltage range</td>
<td>180 – 276Vac</td>
</tr>
<tr>
<td>Nominal grid frequency</td>
<td>50 Hz / 60 Hz</td>
</tr>
<tr>
<td>Grid frequency range</td>
<td>45 – 55 Hz / 55 – 65 Hz</td>
</tr>
<tr>
<td>THD</td>
<td>&lt; 3 % (of nominal power)</td>
</tr>
<tr>
<td>DC current injection</td>
<td>&lt; 0.5 % (of nominal current)</td>
</tr>
<tr>
<td>Power factor</td>
<td>&gt; 0.99 / 0.8 leading – 0.8 lagging</td>
</tr>
<tr>
<td>Feed-in phases / Connection phases</td>
<td>1 / 1</td>
</tr>
<tr>
<td><strong>Efficiency</strong></td>
<td></td>
</tr>
<tr>
<td>Max. efficiency / European efficiency</td>
<td>97.5 % / 97.1 %</td>
</tr>
<tr>
<td><strong>Protection</strong></td>
<td></td>
</tr>
<tr>
<td>AC short circuit protection</td>
<td>Yes</td>
</tr>
<tr>
<td>Leakage current protection</td>
<td>Yes</td>
</tr>
<tr>
<td>DC reverse connection protection</td>
<td>Yes</td>
</tr>
<tr>
<td>Grid monitoring</td>
<td>Yes</td>
</tr>
<tr>
<td>PV string current monitoring</td>
<td>Yes</td>
</tr>
<tr>
<td>DC switch</td>
<td>No</td>
</tr>
<tr>
<td>Overvoltage protection</td>
<td>AC Type II</td>
</tr>
<tr>
<td><strong>System Data</strong></td>
<td></td>
</tr>
<tr>
<td>Dimensions (W<em>H</em>D)</td>
<td>300<em>390</em>133 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>11 kg</td>
</tr>
<tr>
<td>Isolation method</td>
<td>Transformerless</td>
</tr>
<tr>
<td>Ingress protection rating</td>
<td>IP65</td>
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<tr>
<td>Night power consumption</td>
<td>&lt; 1 W</td>
</tr>
<tr>
<td>Operating ambient temperature range</td>
<td>-25 to 60 °C (&gt; 45 °C derating)</td>
</tr>
<tr>
<td>Allowable relative humidity range</td>
<td>0 – 100 %</td>
</tr>
<tr>
<td>Cooling method</td>
<td>Natural cooling</td>
</tr>
<tr>
<td>Max. operating altitude</td>
<td>4000m (&gt; 2000 m derating)</td>
</tr>
<tr>
<td>Display</td>
<td>LED, LCD (Optional)</td>
</tr>
<tr>
<td>Communication</td>
<td>RS485, Wi-Fi (Optional)</td>
</tr>
<tr>
<td>DC connection type</td>
<td>MC4 (Max. 6mm²)</td>
</tr>
<tr>
<td>AC connection type</td>
<td>Plug and play connector (Max. 6mm²)</td>
</tr>
<tr>
<td>Certification</td>
<td>IEC61000-6-2, IEC61000-6-3, AS/NZS3110, AS4777.2, AS4777.3, IEC62109-1, IEC62109-2</td>
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