SUN2000-36KTL
Smart PV Controller

Smart
8 strings intelligent monitoring

Efficient
Max. efficiency 98.6%

Safe
Fuse free design

Reliable
Type II surge arresters for DC & AC

Efficiency Curve
SUN2000-36KTL @400 V

Circuit Diagram
SUN2000-36KTL
### Technical Specification

#### SUN2000-36KTL

<table>
<thead>
<tr>
<th>Efficiency</th>
<th>98.8% @480 V, 98.6% @380 V / 400 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Efficiency</td>
<td>98.6% @480 V, 98.4% @380 V / 400 V</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Input</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Input Voltage</td>
<td>1,100 V</td>
</tr>
<tr>
<td>Max. Current per MPPT</td>
<td>22 A</td>
</tr>
<tr>
<td>Max. Short Circuit Current per MPPT</td>
<td>30 A</td>
</tr>
<tr>
<td>Start Voltage</td>
<td>250 V</td>
</tr>
<tr>
<td>MPPT Operating Voltage Range</td>
<td>200 V ~ 1,000 V</td>
</tr>
<tr>
<td>Rated Input Voltage</td>
<td>620 V @380 V / 400 V, 720 V @480 V</td>
</tr>
<tr>
<td>Number of Inputs</td>
<td>8</td>
</tr>
<tr>
<td>Number of MPP Trackers</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Output</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated AC Active Power</td>
<td>36,000 W</td>
</tr>
<tr>
<td>Max. AC Apparent Power</td>
<td>40,000 VA</td>
</tr>
<tr>
<td>Max. AC Active Power (cosφ=1)</td>
<td>40,000 W</td>
</tr>
<tr>
<td>Rated Output Voltage</td>
<td>220 V / 380 V, 230 V / 400 V, default 3W + N + PE; 3W + PE optional in settings</td>
</tr>
<tr>
<td>Rated AC Grid Frequency</td>
<td>50 Hz / 60 Hz</td>
</tr>
<tr>
<td>Rated Output Current</td>
<td>54.6 A @380 V, 52.2 A @400 V, 43.4 A @480 V</td>
</tr>
<tr>
<td>Max. Output Current</td>
<td>60.8 A @380 V, 57.8 A @400 V, 48.2 A @480 V</td>
</tr>
<tr>
<td>Adjustable Power Factor Range</td>
<td>0.8 LG ... 0.8 LD</td>
</tr>
<tr>
<td>Max. Total Harmonic Distortion</td>
<td>&lt;3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Protection</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Input-side Disconnection Device</td>
<td>Yes</td>
</tr>
<tr>
<td>Anti-islanding Protection</td>
<td>Yes</td>
</tr>
<tr>
<td>AC Overcurrent Protection</td>
<td>Yes</td>
</tr>
<tr>
<td>DC Reverse-polarity Protection</td>
<td>Yes</td>
</tr>
<tr>
<td>PV-array String Fault Monitoring</td>
<td>Yes</td>
</tr>
<tr>
<td>DC Surge Arrester</td>
<td>Type II</td>
</tr>
<tr>
<td>AC Surge Arrester</td>
<td>Type II</td>
</tr>
<tr>
<td>DC Insulation Resistance Detection</td>
<td>Yes</td>
</tr>
<tr>
<td>Residual Current Resistance Monitoring Unit</td>
<td>Yes (Optional)</td>
</tr>
<tr>
<td>Arc Fault Protection</td>
<td>Yes (Optional)</td>
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<thead>
<tr>
<th>Communication</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Display</td>
<td>LED Indicators, APP</td>
</tr>
<tr>
<td>RS485</td>
<td>Yes</td>
</tr>
<tr>
<td>USB</td>
<td>Yes</td>
</tr>
<tr>
<td>MBUS</td>
<td>Yes (isolation transformer required)</td>
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</table>

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<thead>
<tr>
<th>General Data</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Dimensions (W x H x D)</td>
<td>930 x 550 x 283 mm (36.6 x 21.7 x 11.1 inch)</td>
</tr>
<tr>
<td>Weight (with mounting plate)</td>
<td>62 kg (136.7 lb.)</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-25°C ~ 60°C (-13°F ~ 140°F)</td>
</tr>
<tr>
<td>Cooling Method</td>
<td>Natural Convection</td>
</tr>
<tr>
<td>Max. Operating Altitude</td>
<td>4,000 m (13,123 ft.)</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>0 ~ 100%</td>
</tr>
<tr>
<td>DC Connector</td>
<td>Amphenol Helios H4</td>
</tr>
<tr>
<td>AC Connector</td>
<td>Cable Gland + OT Terminal</td>
</tr>
<tr>
<td>Protection Degree</td>
<td>IP65</td>
</tr>
<tr>
<td>Topology</td>
<td>Transformerless</td>
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<tr>
<td>Night Time Power Consumption</td>
<td>&lt; 2.5 W</td>
</tr>
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### Standard Compliance (more available upon request)

- Safety EN 62109-1/-2, IEC 62109-1/-2
- Grid Connection Standards IEC 61727, IEC 62116, EN 50530, IEC 60068, IEC 61683, AS/NZS 4777.2, G59/3, PEA, MEA, Philippine Resolution No.7, VDE 0126-1-1

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