SOMERA ULTIMA

Engineered to provide EXCELLENT LOW LIGHT and LONGER WAVELENGTH RESPONSE

EXTREMELY RELIABLE PRODUCT
suiting harsh environment conditions
withstanding 2400Pa Wind load,
5400Pa Snow load

Using highly efficient PASSIVATED Emitter Rear Contact Technology (PERC) cells

QUALITY AND SAFETY
♦ 27 years of linear power output warranty **
♦ Rigorous quality control meeting the highest international standards
♦ 100% EL tested to minimise micro crack

APPLICATIONS
♦ On-grid large scale utility systems
♦ On-grid rooftop residential and commercial systems
♦ Off-grid residential systems
TECHNICAL DATA
SOMERA ULTIMA

THIS DATASHEET IS APPLICABLE FOR: SOMERA VSM.60.AAA.03.04 (AAA=300-320)

Electrical Data\(^1,2\) **All data refers to STC**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>300</th>
<th>305</th>
<th>310</th>
<th>315</th>
<th>320</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Power P(_{max}) (Wp)</td>
<td>300</td>
<td>305</td>
<td>310</td>
<td>315</td>
<td>320</td>
</tr>
<tr>
<td>Power Tolerance: 0 ~ +4.99 Wp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Voltage V(_{oc}) (V)</td>
<td>32.7</td>
<td>32.9</td>
<td>33.1</td>
<td>33.3</td>
<td>33.5</td>
</tr>
<tr>
<td>Maximum Current I(_{sc}) (A)</td>
<td>9.18</td>
<td>9.27</td>
<td>9.37</td>
<td>9.47</td>
<td>9.55</td>
</tr>
<tr>
<td>Open Circuit Voltage V(_{oc}) (V)</td>
<td>40.3</td>
<td>40.5</td>
<td>40.7</td>
<td>40.9</td>
<td>41.2</td>
</tr>
<tr>
<td>Short Circuit Current I(_{sc}) (A)</td>
<td>9.68</td>
<td>9.80</td>
<td>9.91</td>
<td>10.02</td>
<td>10.07</td>
</tr>
<tr>
<td>Module Efficiency η(%)</td>
<td>18.44</td>
<td>18.75</td>
<td>19.05</td>
<td>19.36</td>
<td>19.67</td>
</tr>
</tbody>
</table>

\(^{1}\) STC: 1000 W/m\(^2\) irradiance, 25°C cell temperature, AM1.5G Spectrum according to EN 60904-3.
\(^{2}\) Measurement Tolerance at STC: P\(_{max}\) ±3%, Voc: ±5%, Isc: ±5%

Electrical Parameters at NOCT\(^3\)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Power (W)</th>
<th>223.6</th>
<th>227.1</th>
<th>231.0</th>
<th>234.9</th>
<th>238.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>VocP(_{max}) (V)</td>
<td>30.5</td>
<td>30.5</td>
<td>30.7</td>
<td>30.9</td>
<td>31.1</td>
<td></td>
</tr>
<tr>
<td>I(_{sc}) (A)</td>
<td>7.33</td>
<td>7.44</td>
<td>7.52</td>
<td>7.54</td>
<td>7.55</td>
<td></td>
</tr>
<tr>
<td>V(_{oc}) (V)</td>
<td>37.5</td>
<td>37.6</td>
<td>37.8</td>
<td>38.1</td>
<td>38.3</td>
<td></td>
</tr>
<tr>
<td>I(_{sc}) (A)</td>
<td>7.82</td>
<td>7.75</td>
<td>7.93</td>
<td>8.02</td>
<td>8.06</td>
<td></td>
</tr>
</tbody>
</table>

\(^3\) NOCT: Irradiance 800 W/m\(^2\), ambient temperature 20°C, AM 1.5G Spectrum, Wind Speed 1 m/sec

Temperature Coefficients [Tc]

- Tc of Open Circuit Voltage (β): -0.26%/°C
- Tc of Short Circuit Current (α): 0.046%/°C
- Tc of Power (γ): -0.36%/°C

Maximum System Voltage: 1000 V

NOCT: 45°C ± 2°C

Temperature Range: -40°C to +85°C

Mechanical Data

- Length x Width x Height: 1640 ± 2mm x 992 ± 2mm x 40 ± 1mm
- Weight: 18.50 kg ± 3%
- Junction Box: IP68/IP67, 3 Bypass diodes
- Cable Cross Section: 4mm\(^2\)
- Connectors: PVKST4-EVO2/xy_XR/PVKBT4-EVO 2/xy_XR , PV-JM608 , 05-8.
- Application Class: Class A (Safety class II)
- Superstrate: 3.2 mm (0.13 inches) high transmission low iron tempered glass, AR coated
- Cells: 60110=6 Mono PERC, 5BB solar cells
- Cell Encapsulant: EVA (Ethylene Vinyl Acetate)
- Back Sheet: Composite film
- Frame: Anodized aluminium frame with twin wall profile
- Maximum Static Load: Front: 3600Pa, 1.5. Back: 1600Pa, 1.5
- Maximum Series Fuse Rating: 20A (IEC)

Performance Warranty

**Product Warranty**: 12 years
**Performance Warranty**: Linear Power Warranty for 27 years with 3% for 1st year degradation and 0.65% from year 2 to year 27

Approvals and Certificates


Warranty and Certifications

- **Product Warranty**: 12 years
- **Performance Warranty**: Linear Power Warranty for 27 years with 3% for 1st year degradation and 0.65% from year 2 to year 27

**Refer to Vikram Solar’s warranty document for terms and conditions.**

CAUTION: READ SAFETY AND INSTALLATION MANUAL BEFORE USING THE PRODUCT.

Electrical data without guarantee. Please confirm your exact requirement with the company representative while placing your order.

*Vikram Solar and Somera are Trademarks of Vikram Solar Limited registered in India. Country of manufacturer: India

sales@vikramSolar.com  www.vikramSolar.com

VSL/ENG/SC/167