ELDORA GRAND ULTIMA SILVER

HIGHER OUTPUT OF MODULE POWER by reducing cell to module power loss

Designed for very HIGH AREA EFFICIENCY ideally suited for roof-top and ground-mounted applications

Extremely NARROW POWER BINNING TOLERANCE of +2.5 Wp to reduce current mismatch loss in single string

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

MAXIMUM SYSTEM VOLTAGE INCREASED TO 1500VDC (IEC & UL), increased string length, low BOS cost

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
- Excellent anti-PID performance
- Certified for salt mist corrosion resistance – severity VI
- Certified for ammonia resistance
- 3rd Party validated PAN file
- Certified for sand and dust test
- No negative tolerance

APPLICATIONS
- On-grid large scale utility systems
- On-grid rooftop residential, commercial and industrial roof top installations
- Off-grid residential systems
TECHNICAL DATA
ELDORA GRAND ULTIMA SILVER

THIS DATASHEET IS APPLICABLE FOR: ELDORA VSP.72.AAA.05 (AAA=320-340)

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

<table>
<thead>
<tr>
<th>Peak Power <strong>P</strong>(_{\text{max}}) (Wp)</th>
<th>320 322.5 325 327.5 330 332.5 335 337.5 340</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Voltage <strong>V</strong>(_{\text{mp}}) (V)</td>
<td>37.7 37.7 37.8 37.9 38 38.1 38.1 38.1 38.2</td>
</tr>
<tr>
<td>Maximum Current <strong>I</strong>(_{\text{mp}}) (A)</td>
<td>8.5 8.55 8.61 8.65 8.7 8.74 8.8 8.86 8.91</td>
</tr>
<tr>
<td>Open Circuit Voltage <strong>V</strong>(_{\text{o}}) (V)</td>
<td>46 46.1 46.2 46.2 46.3 46.4 46.5 46.6 46.7</td>
</tr>
<tr>
<td>Module Efficiency (\eta) (%)</td>
<td>16.52 16.65 16.78 16.90 17.03 17.16 17.29 17.42 17.55</td>
</tr>
</tbody>
</table>

1) STC:1000 W/m\(^2\) irradiance, 25°C cell temperature, AM1.5g spectrum according to EN 60904-3. 2) Power measurement uncertainty is within ±2.5%.

Electrical Parameters at NOCT\(^3\)

<table>
<thead>
<tr>
<th>Power (W)</th>
<th>237.6 239.5 241.3 243.2 245.0 246.9 248.5 250.6 252.2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>V</strong>(_{\text{mp}}) (V)</td>
<td>34.8 34.8 34.9 35.0 35.1 35.2 35.2 35.2 35.3</td>
</tr>
<tr>
<td><strong>I</strong>(_{\text{mp}}) (A)</td>
<td>6.82 6.86 6.91 6.94 6.98 7.02 7.06 7.11 7.15</td>
</tr>
<tr>
<td><strong>V</strong>(_{\text{o}}) (V)</td>
<td>42.6 42.7 42.8 42.8 42.9 43.0 43.1 43.2 43.3</td>
</tr>
<tr>
<td><strong>I</strong>(_{\text{sc}}) (A)</td>
<td>7.31 7.35 7.39 7.44 7.48 7.52 7.57 7.61 7.65</td>
</tr>
</tbody>
</table>

3) NOCT irradiance 800 W/m\(^2\), ambient temperature 20°C, wind speed 1 m/sec.

Temperature Coefficients (Tc) permissible operating conditions

| Tc of Open Circuit Voltage (\(\beta\)) | -0.29%/°C |
| Tc of Short Circuit Current (\(\alpha\)) | 0.057%/°C |
| Tc of Power (\(\gamma\)) | -0.38%/°C |

Mechanical Data

<table>
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<tr>
<th>Length × Width × Height</th>
<th>1955 × 991 × 40 mm (76.96 × 39.01 × 1.57 inches)</th>
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<tr>
<td>Weight</td>
<td>22 kg (48.50 lbs)</td>
</tr>
<tr>
<td>Junction Box</td>
<td>IP68/IP67, 3 bypass diodes</td>
</tr>
<tr>
<td>Cable &amp; Connectors</td>
<td>1200 mm (47.24 inches) length cables, MC4 Compatible/MC4 Connectors/Amphenol</td>
</tr>
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</table>

Application Class Class A (Safety class II)

Superstrate\(^*\) 3.2 mm (0.13 inches) high transmission low iron tempered glass, AR coated

Cells 72 Polycrystalline, SBB solar cells

Cell Encapsulant EVA (Ethylene Vinyl Acetate)

Back Sheet Composite film

Frame Anodized aluminium frame with twin wall profile

Mechanical Load Test 5400 Pa (Snow load), 2400 Pa (Wind load)

Maximum Series Fuse Rating 15 A

Performance Warranty

ci 100% 90% 80% 70% 60% 1 YEAR 27 YEARS

Typical I-V Curves\(^4\)

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<tr>
<th>Current (A)</th>
<th>0 5 10 15 20 25 30 35 40 45 50</th>
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<tr>
<td>Voltage (V)</td>
<td>0 5 10 15 20 25 30 35 40 45 50</td>
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4) Average relative efficiency reduction of 5% at 200 W/m\(^2\) according to EN 60904-1.

Dimensions in mm

<table>
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<tr>
<th>991</th>
<th>499</th>
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<tr>
<td>991</td>
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<tr>
<td>949</td>
<td>16</td>
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Performance Warranty

Warranty and Certifications

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<th>Product Warranty**</th>
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<td>Performance Warranty**</td>
<td>Linear power warranty for 27 years with 2.5% for 1st year degradation and 0.67% from year 2 to year 27</td>
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<td>Approvals and Certificates</td>
<td>IEC 61215 Ed2, IS/IEC 61730, UL 1703, IEC 61701, IEC 62716, IEC 60608-2-68, IEC 62804, MCE, CE, CAN/CSA 61730, CEC (California)^, PV Cycle ^, IS 14286</td>
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Warranty and Certifications

| Warranty** | 10 years |
| Performance | Linear power warranty for 27 years with 2.5% for 1st year degradation and 0.67% from year 2 to year 27 |
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CAUTION: READ SAFETY AND INSTALLATION MANUAL BEFORE USING THE PRODUCT.
Specifications included in this datasheet are subject to change without notice. Electrical data without guarantee. Please confirm your exact requirement with the company representative while placing your order.

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