HIGH PERFORMANCE SOLAR MODULES

REC AE-SERIES

REC AE-Series modules are the perfect choice for building solar systems that combine long lasting product quality with reliable power output. REC combines high quality design and manufacturing standards to produce high-performance solar modules with uncompromising quality.

- Easy to install
- Robust and durable design
- Energy payback time of one year
- Optimized for all sunlight conditions
REC AE-SERIES

**IV CHARACTERISTICS 215W MODULE**

<table>
<thead>
<tr>
<th>Voltage (V)</th>
<th>Current (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>0.2</td>
</tr>
<tr>
<td>35</td>
<td>0.3</td>
</tr>
<tr>
<td>30</td>
<td>0.4</td>
</tr>
<tr>
<td>25</td>
<td>0.5</td>
</tr>
<tr>
<td>20</td>
<td>0.6</td>
</tr>
<tr>
<td>15</td>
<td>0.7</td>
</tr>
<tr>
<td>10</td>
<td>0.8</td>
</tr>
<tr>
<td>5</td>
<td>0.9</td>
</tr>
</tbody>
</table>

**GENERAL DATA**

- **Cell Type**: 156 x 156 mm multi-crystalline cells 60 in series - 3 strings of 20 cells
- **Glass**: High-transparency solar glass with antireflection surface treatment by Sunarc Technology
- **Back sheet**: Double layer high performance polyester
- **Frame**: Anodized aluminium
- **Connectors**: 2 x 0.94m solar cables with MCIII connectors

**WARRANTY**

- 10 years limited warranty of 90% power output
- 25 years limited warranty of 80% power output
- 63 months limited product warranty

**MAXIMUM RATINGS**

- **Operational Temperature**: -40 ... + 80°C
- **Maximum System Voltage**: 1000V
- **Maximum Load**: 551 kg/m² (5400 Pa)
- **Maximum Wind Speed**: 197 km/h (w/safety factor 3)
- **Max Series Fuse Rating**: 15A
- **Max Reverse Current**: 15A

**Certification**

- IEC 61215 AND IEC 61730
- ISO 9001

**MECHANICAL DATA**

- **Dimensions**: 1665 x 991 x 43 mm
- **Area**: 1.65 m²
- **Weight**: 22kg

**ELECTRICAL DATA @ STC**

<table>
<thead>
<tr>
<th>REC205AE</th>
<th>REC210AE</th>
<th>REC215AE</th>
<th>REC220AE</th>
<th>REC225AE</th>
<th>REC230AE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Power Watts - PMAX (Wp)</td>
<td>205</td>
<td>210</td>
<td>215</td>
<td>220</td>
<td>225</td>
</tr>
<tr>
<td>Watt Class Tolerance - PMIN (W)</td>
<td>0/+5</td>
<td>0/+5</td>
<td>0/+5</td>
<td>0/+5</td>
<td>0/+5</td>
</tr>
<tr>
<td>Watt Class Tolerance - PMIN (%)</td>
<td>0/+2</td>
<td>0/+2</td>
<td>0/+2</td>
<td>0/+2</td>
<td>0/+2</td>
</tr>
<tr>
<td>Maximum Power Voltage - VMPP (V)</td>
<td>276</td>
<td>279</td>
<td>282</td>
<td>285</td>
<td>287</td>
</tr>
<tr>
<td>Maximum Power Current - IMPP (A)</td>
<td>8.2</td>
<td>8.3</td>
<td>8.3</td>
<td>8.4</td>
<td>8.5</td>
</tr>
<tr>
<td>Open Circuit Voltage - VOC (V)</td>
<td>35.8</td>
<td>36.1</td>
<td>36.3</td>
<td>36.5</td>
<td>36.7</td>
</tr>
<tr>
<td>Short Circuit Current - ISC (A)</td>
<td>8.2</td>
<td>8.3</td>
<td>8.3</td>
<td>8.4</td>
<td>8.5</td>
</tr>
<tr>
<td>Module Efficiency (%)</td>
<td>12.4</td>
<td>12.7</td>
<td>13.0</td>
<td>13.3</td>
<td>13.6</td>
</tr>
</tbody>
</table>

Values at Standard Test Conditions STC (Air Mass AM1.5, Irradiance 1000 W/m², Cell temperature 25°C)

**TEMPERATURE RATINGS**

- **Nominal Operating Cell Temperature (NOCT)**: 45°C (±2°C)
- **Temperature Coefficient of PMIN**: -0.46%/°C
- **Temperature Coefficient of VMPP**: -0.34%/°C
- **Temperature Coefficient of IMPP**: 0.06%/°C

**TEMPERATURE RATINGS**

- **Operational Temperature**: -40 ... + 80°C
- **Temperature Coefficient of PMIN**: -0.46%/°C

**CERTIFICATION**

- IEC 61215 AND IEC 61730
- ISO 9001

**MECHANICAL DATA**

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REC is the leading vertically integrated player in the solar energy industry. REC Silicon and REC Wafer are among the world’s largest producers of polysilicon and wafers for solar applications. REC Solar is a rapidly growing manufacturer of solar cells and modules, and are also engaging in project development activities in selected segments of the PV market. REC had revenues of NOK 8191 million and an operating profit of NOK 2529 million in 2008. Close to 3000 employees work in REC’s worldwide organization.

For further information, contact your local distributor or visit our web site: www.recgroup.com

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