AE HALF LARGE CELL
MONOCRystALLine PV Modules
AE MD-108 Series 390W-410W
tested by Fraunhofer CSP

108 CELLS

TEMPERATURE
Hot spot temperature lower than 85°C
The IEC61215 test shows that with a zero percentage, a small and a 100 percentage of shaded area, respectively hot spots will not exceed 85°C, which is the maximum operating condition.

SAFETY
Instantly reduced temperature, thus eliminating material hazard and ensuring more safety of the module, preventing fire risks caused by hot spots.

GERMAN QUALITY
AE Solar photovoltaic modules are produced using high quality materials, automated robotic lines, German technology and standards.

PERFORMANCE GUARANTEE
AE Solar assures high investment, security and warranty claims by providing linear performance guarantee of 30 years and 12 years of product warranty.

RELIABILITY
Bypass diodes prevent cells mismatching at shaded areas. The lower temperature of hot-spot free modules will eliminate potential cause for back sheet degradation, hence enhancing reliability for longer term.

HIGH RETURNS
This new technology prevents instant falls in the module output, thus increasing the performance ratio up to 30% and return for all types of installations.

PLUS-SORTING
Higher yield due to plus-sorting from 0 up to +5 Wp guarantees the high system efficiency and yield stability.

CERTIFICATES
Lining with international standards, AE Solar Photovoltaic modules are tested and certified under extreme stress conditions and it can bear harsh environment influences.

OUR PERFORMANCE GUARANTEE

<table>
<thead>
<tr>
<th>Guaranteed Module Performance</th>
<th>AE Solar</th>
<th>Commercial Guarantee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Year</td>
<td>97%</td>
<td>97%</td>
</tr>
<tr>
<td>5 Years</td>
<td>95%</td>
<td>95%</td>
</tr>
<tr>
<td>10 Years</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>15 Years</td>
<td>85%</td>
<td>85%</td>
</tr>
<tr>
<td>20 Years</td>
<td>80%</td>
<td>80%</td>
</tr>
<tr>
<td>25 Years</td>
<td>80%</td>
<td>80%</td>
</tr>
<tr>
<td>30 Years</td>
<td>80%</td>
<td>80%</td>
</tr>
</tbody>
</table>

30 years Performance Guarantee
12 years Product Warranty
TECHNICAL DATA
AE MD-108 Series 390W-410W

SPECIFICATIONS

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Nominal Max. Power</td>
<td>390 W</td>
<td>395 W</td>
<td>400 W</td>
<td>405 W</td>
<td>410 W</td>
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<tr>
<td>Pmax (Wp)</td>
<td>30.81</td>
<td>31.08</td>
<td>31.35</td>
<td>31.62</td>
<td>31.88</td>
</tr>
<tr>
<td>Maximum power voltage</td>
<td>Voc (V)</td>
<td>12.66</td>
<td>12.71</td>
<td>12.76</td>
<td>12.81</td>
</tr>
<tr>
<td>Maximum power current</td>
<td>Voc (V)</td>
<td>37.02</td>
<td>37.36</td>
<td>37.69</td>
<td>38.02</td>
</tr>
<tr>
<td>Short-circuit current</td>
<td>Voc (V)</td>
<td>19.97</td>
<td>20.22</td>
<td>20.48</td>
<td>20.73</td>
</tr>
<tr>
<td>Module efficiency (%)</td>
<td>(%)</td>
<td>-0.350</td>
<td>-0.275</td>
<td>0.045</td>
<td>45±2</td>
</tr>
<tr>
<td>Operating temperature (°C)</td>
<td>(-40 to +85)</td>
<td>25</td>
<td>0 ~ +5</td>
<td>-0.350</td>
<td>-0.275</td>
</tr>
<tr>
<td>Maximum system voltage DC (V (IEC))</td>
<td>1500</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum series fuse rating</td>
<td>(%)</td>
<td>0 ~ +5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power tolerance (%)</td>
<td>-0.350</td>
<td>-0.275</td>
<td>0.045</td>
<td>45±2</td>
<td></td>
</tr>
<tr>
<td>Nom. Operating cell temp.(NOCT) (°C)</td>
<td>45±2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The electrical data apply to standard test conditions (STC): Irradiance of 1000 W/m² with spectrum AM 1.5 and a cell temperature of 25°C.

MATERIAL CHARACTERISTICS

Cell type Mono-crystalline 182 X 91 mm
No. of cells 108 Cells (54 Full Cells)
Dimensions 1724 X 1133 X 35 mm
Weight 21.5 kg
Junction box IP 68 rated (3 bypass diodes)
Output cable 1 x 4.0 mm², 350 mm length or customised
Connector type MC4 / MC4 compatible
Hall resistance Max. Ø 25 mm, at 23 m/s
Wind load 2400 Pa / 244 kg/m²
Mechanical load 5400 Pa / 550 kg/m²

PACKAGING INFORMATION

Packing configuration 62 pcs / double pallet
Loading Capacity 806 pcs / 40HQ
Size / pallet (mm) 1755 x 1140 x 2490 mm
Weight 1432 kg / double pallet

DIMENSIONS

CERTIFICATES

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