AXIpremium XL HC

High performance solar module
144 halfcell, monocrystalline

- German-American-Engineering

The advantages:

15 years Manufacturer's warranty

High module performance through
Half-Cut-technology and selected materials

Guaranteed positive power tolerance
from 0-5 Wp by individual measurement

100% visual electroluminescence inspection
in production

High stability due to innovative frame design

High quality junction box
and connector systems

Exclusive linear AXITEC high performance guarantee!

- 15 years manufacturer's guarantee on 90% of the nominal performance
- 25 years manufacturer's guarantee on 85% of the nominal performance
AXIpremium XL HC 430 - 450 Wp

Electrical data (at standard conditions (STC) irradiance 1000 watt/m², spectrum AM 1.5 at a cell temperature of 25°C)

<table>
<thead>
<tr>
<th>Type</th>
<th>Nominal output (Wp)</th>
<th>Nominal voltage (V)</th>
<th>Nominal current (A)</th>
<th>Short circuit current (A)</th>
<th>Open circuit voltage (V)</th>
<th>Module conversion efficiency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC-430MH/144V</td>
<td>430</td>
<td>40.60</td>
<td>10.60</td>
<td>11.19</td>
<td>49.20</td>
<td>19.78</td>
</tr>
<tr>
<td>AC-435MH/144V</td>
<td>435</td>
<td>40.80</td>
<td>10.67</td>
<td>11.26</td>
<td>49.40</td>
<td>20.01</td>
</tr>
<tr>
<td>AC-440MH/144V</td>
<td>440</td>
<td>41.00</td>
<td>10.74</td>
<td>11.33</td>
<td>49.60</td>
<td>20.24</td>
</tr>
<tr>
<td>AC-445MH/144V</td>
<td>445</td>
<td>41.20</td>
<td>10.81</td>
<td>11.40</td>
<td>49.80</td>
<td>20.47</td>
</tr>
<tr>
<td>AC-450MH/144V</td>
<td>450</td>
<td>41.40</td>
<td>10.88</td>
<td>11.47</td>
<td>50.00</td>
<td>20.70</td>
</tr>
</tbody>
</table>

Design

Frontside: 0.13 inch (3.2 mm) hardened, low-reflection white glass
Cells: 144 monocrystalline high efficiency cells
Backside: Composite film
Frame: 1.38 inch (35 mm) silver aluminium frame

Mechanical data

L x W x H: 82.44 x 40.87 x 1.38 inch (2094 x 1038 x 35 mm)
Weight: 52.47 lbs (23.8 kg) with frame

Mechanical load

Design load (pressure/suction): 33.3 PSF / 33.3 PSF
Test load (pressure/suction): 50 PSF / 50 PSF

Power connection

Socket: Protection Class IP68
Wire: 47.24 inch, AWG 11
Plug-in system: Plug/socket IP68, Stäubli EVO2

Limit values

System voltage: 1500 VDC (UL) 1000 VDC (IEC)
Module Fire Performance: TYPE 1 (UL 1703) or CLASS C (IEC 61730)
NOCT (nominal operating cell temperature): 45°C +/- 2K
Reverse current feed IR: 20.0 A
Permissible operating temperature: -40°C to 85°C / -40°F to 185°F

(No external voltages greater than Vo may be applied to the module)

* NOCT, irradiance 800 W/m²; AM 1.5; wind speed 1 m/s; Temperature 20°C

Temperature coefficients

Voltage Uoc: -0.27 %/K
Current Isc: 0.048 %/K
Output Pmpp: -0.35 %/K

Low-light performance (Example for AC-450MH/144V)

<table>
<thead>
<tr>
<th>I-U characteristic curve</th>
<th>Current Ipp (A)</th>
<th>Voltage Upp (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 W/m²</td>
<td>2.22</td>
<td>39.84</td>
</tr>
<tr>
<td>400 W/m²</td>
<td>4.49</td>
<td>40.30</td>
</tr>
<tr>
<td>600 W/m²</td>
<td>6.70</td>
<td>40.62</td>
</tr>
<tr>
<td>800 W/m²</td>
<td>8.86</td>
<td>40.97</td>
</tr>
<tr>
<td>1000 W/m²</td>
<td>10.88</td>
<td>41.40</td>
</tr>
</tbody>
</table>

Packaging

Module pieces per pallet: 30
Module pieces per HC-container: 660

Technical data are subject to change without prior notice, errors excepted. The measurement tolerances are +/- 3%. Please be aware: All technical data provided in our data sheets are property of Axitec LLC and intended for information purposes for our customers only. We cannot accept any guarantee of completeness or accuracy. These data are prohibited for any kind of commercial use.