AXIblack premium HC
25 year Edition

120 cell monocrystalline
High performance solar module

German engineered – made for America

- 25 years manufacturer's warranty
  Five more years than industry standard
- Highest module performance through
  Half-Cut-technology and tested materials
- Positive power tolerance from 0-5 Wp
  Higher guaranteed yield
- Snow load of up to 113 psf
  Stable module for a long life in extreme conditions
- Axitec-Soft-Grip-Seam aluminum frame
  Higher stability and easier handling
- High quality junction box and connector
  system for a longer life time

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

AXITEC Warranty Added Value!

1 - 8% more power after 25 years

PHOTOVOLTAIC MODULE OVER 600 VOLTS) 5JK4 E487509
**AXIblack premium HC** 310 - 320 Wp

### Design
- **Frontside**: 0.13 inch (3.2 mm) hardened, low-reflection white glass
- **Cells**: 120 monocrystalline high efficiency cells
- **Backside**: Composite film
- **Frame**: 1.38 inch (35 mm) black aluminium frame

### Mechanical data
- **L x W x H**: 65.94 x 39.06 x 1.38 inch (1675 x 992 x 35 mm)
- **Weight**: 40.79 lbs (18.5 kg) with frame

### Power connection
- **Socket**: Protection Class IP68
- **Wire**: 43.3 inch, AWG 11
- **Plug-in system**: Plug/socket IP68, Stäubli MC4

### 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 Pmpp</th>
<th>Nominal voltage Umpp</th>
<th>Nominal current Impp</th>
<th>Short circuit current Isc</th>
<th>Open circuit voltage Uoc</th>
<th>Module conversion efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC-310MH/120S</td>
<td>310 Wp</td>
<td>32.58 V</td>
<td>9.52 A</td>
<td>9.95 A</td>
<td>39.58 V</td>
<td>18.66 %</td>
</tr>
<tr>
<td>AC-315MH/120S</td>
<td>315 Wp</td>
<td>32.79 V</td>
<td>9.61 A</td>
<td>10.04 A</td>
<td>39.74 V</td>
<td>18.96 %</td>
</tr>
<tr>
<td>AC-320MH/120S</td>
<td>320 Wp</td>
<td>33.03 V</td>
<td>9.69 A</td>
<td>10.13 A</td>
<td>39.92 V</td>
<td>19.26 %</td>
</tr>
</tbody>
</table>

### Limit values
- **System voltage**: 1000 VDC (UL) 1000 VDC (IEC)
- **Module Fire Performance**: TYPE I (UL 1703) or CLASS C (IEC 61730)
- **NOCT (nominal operating cell temperature)**: 45°C +/-2K
- **Max. load-carrying capacity**: 113 PSF
- **Reverse current feed IR**: 20.0 A
- **Permissible operating temperature**: -40°C to 85°C / -40F to 185F

(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**: -0.29 %/K
- **Current Isc**: 0.04 %/K
- **Output Pmppp**: -0.39 %/K

### Low-light performance (Example for AC-310M/120S)

<table>
<thead>
<tr>
<th>I-U characteristic curve</th>
<th>Current Ipp</th>
<th>Voltage Upp</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 W/m²</td>
<td>1.90 A</td>
<td>30.75 V</td>
</tr>
<tr>
<td>400 W/m²</td>
<td>3.86 A</td>
<td>31.34 V</td>
</tr>
<tr>
<td>600 W/m²</td>
<td>5.79 A</td>
<td>31.77 V</td>
</tr>
<tr>
<td>800 W/m²</td>
<td>7.67 A</td>
<td>32.28 V</td>
</tr>
<tr>
<td>1000 W/m²</td>
<td>9.52 A</td>
<td>32.58 V</td>
</tr>
</tbody>
</table>

### Packaging
- **Module pieces per pallet**: 30
- **Module pieces per HC-container**: 780

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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.