



430 - 450 Wp

## 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



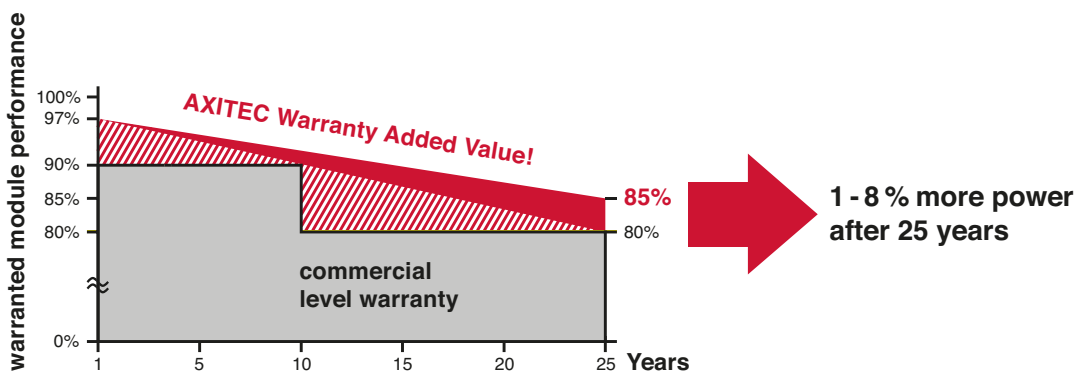
High quality junction box  
and connector systems



Fig. similar 144MHUSA210203A

### 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



(PHOTOVOLTAIC MODULE  
OVER 600 VOLTS) 5JK4  
E487509

# AXIpremium XL HC 430 - 450 Wp

**Electrical data** (at standard conditions (STC) irradiance 1000 watt/m<sup>2</sup>, spectrum AM 1.5 at a cell temperature of 25°C)

Type	Nominal output P <sub>mpp</sub>	Nominal voltage U <sub>mpp</sub>	Nominal current I <sub>mpp</sub>	Short circuit current I <sub>sc</sub>	Open circuit voltage U <sub>oc</sub>	Module conversion efficiency
AC-430MH/144V	430 Wp	40.60 V	10.60 A	11.19 A	49.20 V	19.78 %
AC-435MH/144V	435 Wp	40.80 V	10.67 A	11.26 A	49.40 V	20.01 %
AC-440MH/144V	440 Wp	41.00 V	10.74 A	11.33 A	49.60 V	20.24 %
AC-445MH/144V	445 Wp	41.20 V	10.81 A	11.40 A	49.80 V	20.47 %
AC-450MH/144V	450 Wp	41.40 V	10.88 A	11.47 A	50.00 V	20.70 %

## 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 / -40F to 185F
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(No external voltages greater than Vo may be applied to the module)

\* NOCT, irradiance 800 W/m<sup>2</sup>; AM 1.5; wind speed 1 m/s; Temperature 20°C

## Temperature coefficients

Voltage U <sub>oc</sub>	-0.27 %/K
Current I <sub>sc</sub>	0.048 %/K
Output P <sub>mpp</sub>	-0.35 %/K

## Low-light performance

 (Example for AC-450MH/144V)

I-U characteristic curve	Current I <sub>pp</sub>	Voltage U <sub>pp</sub>
200 W/m <sup>2</sup>	2.22 A	39.84 V
400 W/m <sup>2</sup>	4.49 A	40.30 V
600 W/m <sup>2</sup>	6.70 A	40.62 V
800 W/m <sup>2</sup>	8.86 A	40.97 V
1000 W/m <sup>2</sup>	10.88 A	41.40 V

## Packaging

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

