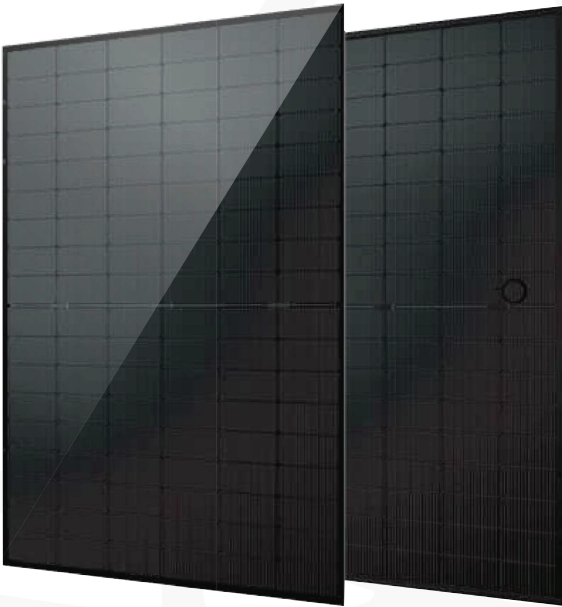




BHI-ESPSC470

Black Series | N-Type Full Black Monocrystalline

470W MAXIMUM POWER OUTPUT

0~+5W POSITIVE POWER TOLERANCE

22.79% MAXIMUM EFFICIENCY

470W
PRODUCT RANGE



MBB HALF-CUT SOLAR CELL

120 cells



HIGHER MODULE CONVERSION EFFICIENCY

Higher module output up to 470W with module efficiency up to 22.79%



TRANSPARENT DUAL-GLASS DESIGN

Excellent fire rating, with better temperature coefficient



LOW-LIGHT PERFORMANCE

Advanced glass and surface texturing allow for excellent performance in low-light environments



CERTIFICATIONS

Quality Management System and Product Certification

IEC61215(2021), IEC61730(2023), IEC61701

IEC61215-2(bifaciality): 2021

ISO9001:2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018: Occupational health and safety management systems



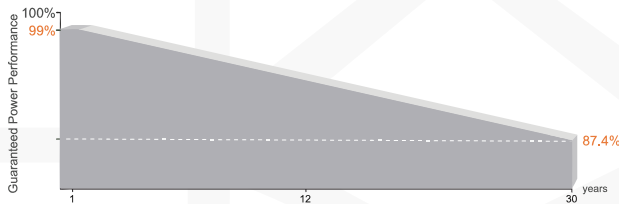
LINEAR PERFORMANCE WARRANTY

15 Year Product Warranty

30 Year Linear Power Warranty

<1% First Year Power Degradation

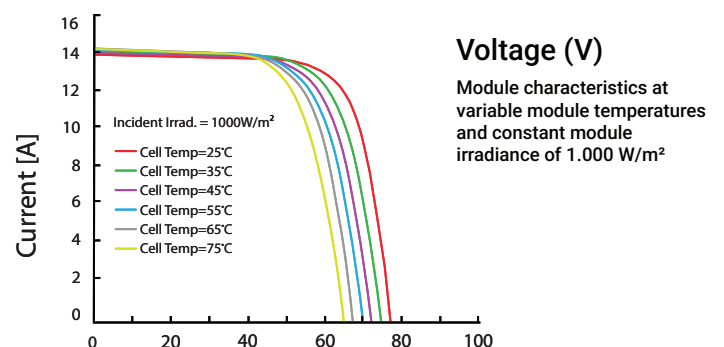
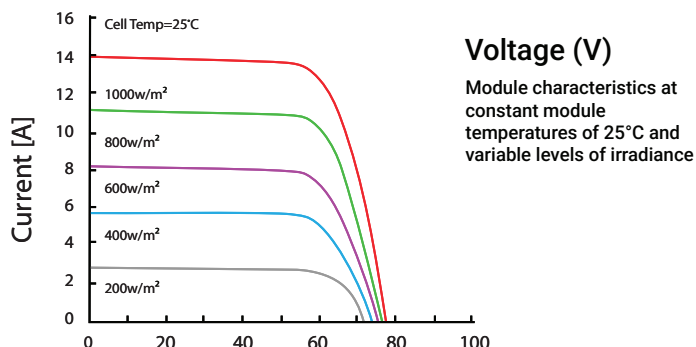
<0.4 % Year 2-30 Power Degradation



HIGHER POWER OUTPUT

Module power increases 5-25% generally, bringing significantly lower LCOE and higher IRR

CURRENT-VOLTAGE CURVES:



DOUBLE GLASS, 120-CELL HALF-CUT SERIES

ELECTRICAL PARAMETERS AT STC

Module Type: BHI-ESPSC470	
Maximum Power(Wp)	470W
Open Circuit Voltage(Voc)	86.5V
Short Circuit Current(Isc)	7A
Maximum Power Voltage(Vm)	70.15V
Maximum Power Current(Imp)	6.7A
Module Efficiency	22.79%
Maximum Series Fuse	10A
Watts Positive Tolerance	0~+5W
Number Of Diode	3
Standard Test Conditions	1000W/M², 25°C, AM1.5
Maximum System Voltage	1000V/DC (11 in series)
Temperature-Coefficient Isc	+0.043%/°C
Temperature-Coefficient Voc	-0.24%/°C
Temperature-Coefficient Pmpp	-0.30%/°C
Operating Temperature	-40°C...+85°C
Normal Operating Cell Temperature	45±2°C
Load Capacity For The Cover Of The Module (Glass)	5400Pa(IEC61215) (snow)
Load Capacity For The Front & Back Of The Module	2400Pa(IEC61215) (wind)

MECHANICAL CHARACTERISTICS

Front/Back Cover (Material / Thickness)	low-iron tempered glass / 2.0mm
Cell (Quantity / Material / Dimensions)	120(6x9x2) / monocrystalline silicon, bifacial
Frame (Material / Color)	aluminum hollow-chamber frame on each side anodized aluminum alloy / Black
Junction Box (Protection Degree)	≥IP68
Cables & Plug Connectors	4mm², 300mm in length, length can be customized
Module Dimensions (L / W / H)	1909x1134x49mm
Module Weight	22kg
Application Class	Class A
Electrical Protection Class	Class II
Fire Safety Class	Class A

PACKING

Container Size	Units/Pallet (PCS)	Weight/Pallet (KG)	Pallet Measurement (in)	Units/Container (PCS)
40HQ	21	825	69"x44"x45"	504

MODULE DIAGRAM

