



BLUE HORIZON
i n n o v a t i o n s

US CATALOG 2025



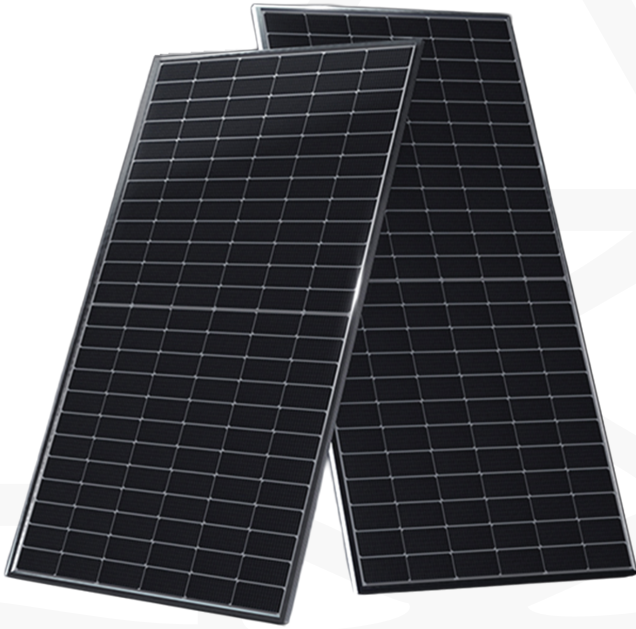
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BlueHorizon-Innovations.com



BHI-US440

High Efficiency N-Type TOPcon Bifacial

440W MAXIMUM POWER OUTPUT

(0,+4.99)W POSITIVE POWER TOLERANCE

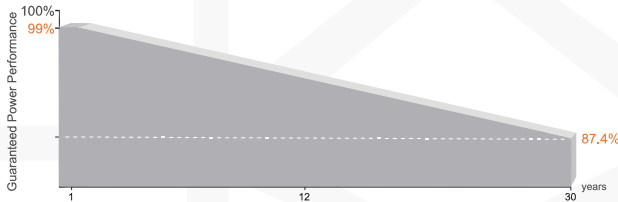
22.02% MAXIMUM EFFICIENCY

440W
PRODUCT RANGE



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



PRODUCED IN THE UNITED STATES

Assembled at our state-of-the-art facility in the USA, ensuring quality and reliability at every step



HIGHER MODULE CONVERSION EFFICIENCY

Higher module output up to 440W with module efficiency up to 22.02%



TOPcon BIFACIAL SOLAR CELLS

96 cells



LOW-LIGHT PERFORMANCE

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

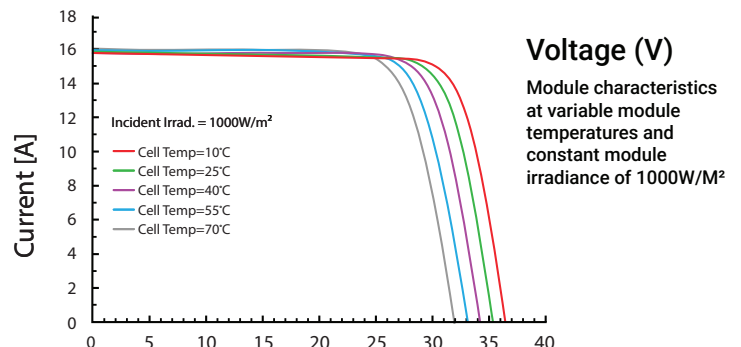
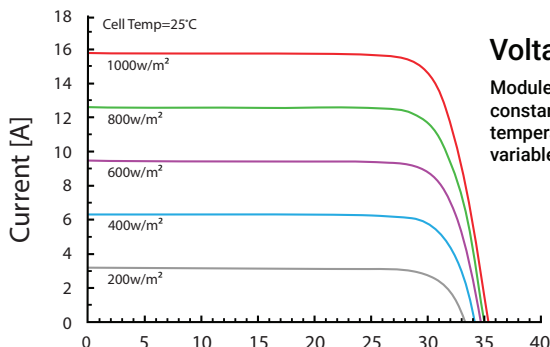


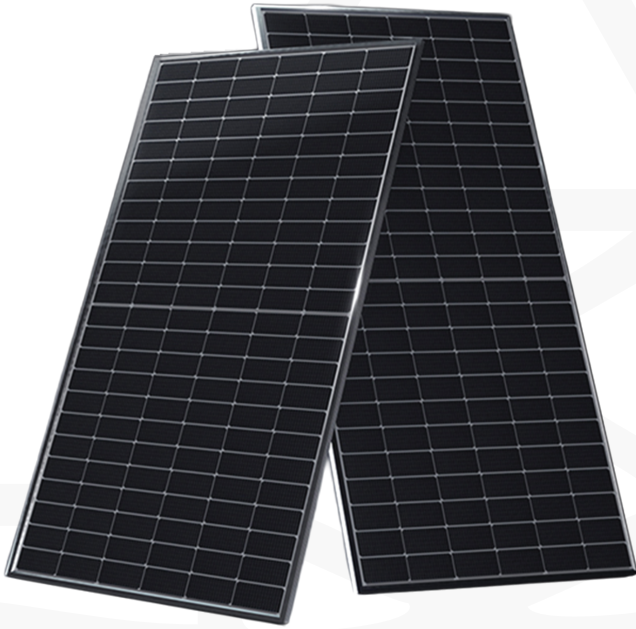
CERTIFICATIONS

Quality System and Product Certification
ISO9001 / ISO14001 / ISO45001



CURRENT-VOLTAGE CURVES:





BHI-US590

High Efficiency N-Type TOPcon Bifacial

590W MAXIMUM POWER OUTPUT

(0,+4.99)W POSITIVE POWER TOLERANCE

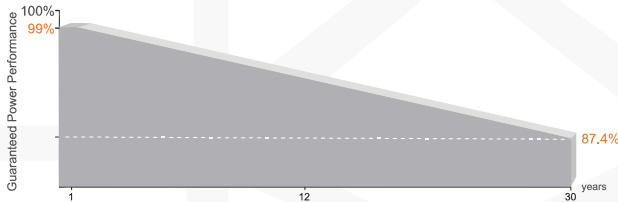
22.84% MAXIMUM EFFICIENCY

590W
PRODUCT RANGE



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



PRODUCED IN THE UNITED STATES

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HIGHER MODULE CONVERSION EFFICIENCY

Higher module output up to 590W with module efficiency up to 22.84%



TOPcon BIFACIAL SOLAR CELLS

144 cells



LOW-LIGHT PERFORMANCE

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

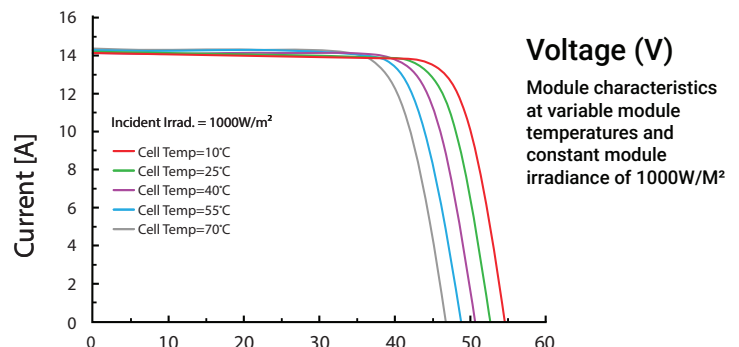
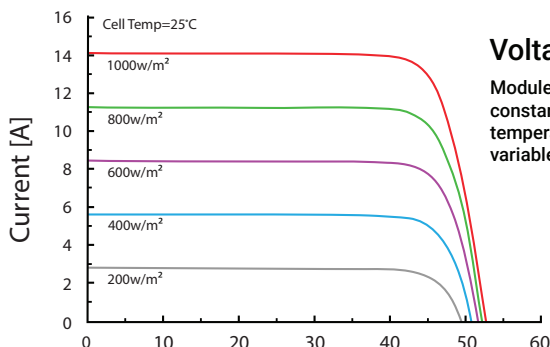


CERTIFICATIONS

Quality System and Product Certification
ISO9001 / ISO14001 / ISO45001



CURRENT-VOLTAGE CURVES:

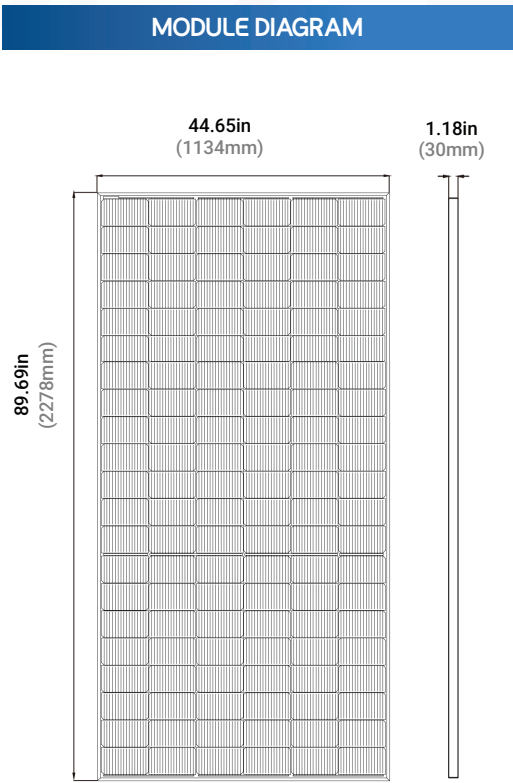


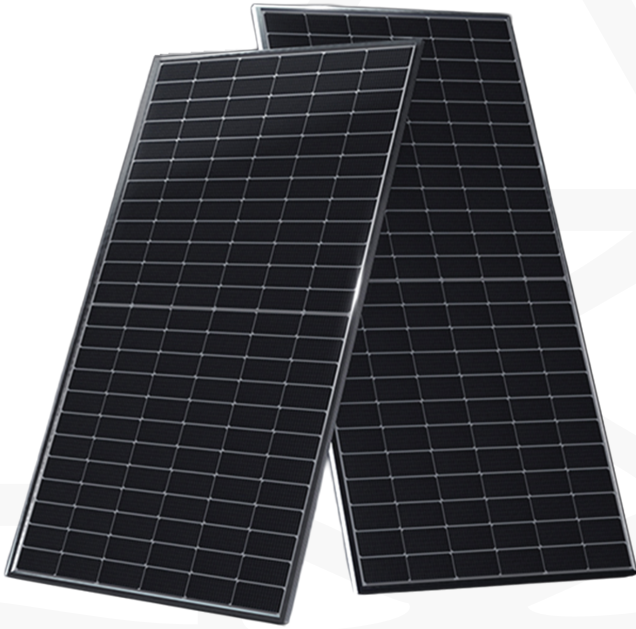
TOPcon 144-CELL BIFACIAL

ELECTRICAL PARAMETERS		
Module Type: BHI-US590	STC	BNPI
Maximum Power(Wp)	590W	647W
Open Circuit Voltage(Voc)	52.50V	52.58V
Short Circuit Current(Isc)	14.19A	15.55A
Maximum Power Voltage(Vm)	43.80V	43.88V
Maximum Power Current(Imp)	13.48A	14.74A
Module Efficiency	22.84%	
Maximum Series Fuse	25A	
Power Tolerance	(0, +4.99)W	
Number Of Diode	3	
Standard Test Conditions	1000W/M², 25°C, AM1.5	
Maximum System Voltage	1500V/DC	
Temperature-Coefficient Isc	+0.046%/°C	
Temperature-Coefficient Voc	-0.25%/°C	
Temperature-Coefficient Pmax	-0.29%/°C	
Operating Temperature	-40°C...+85°C	
Nominal Operating Cell Temperature	45±2°C	
Bifaciality	80%±5%	
Mechanical Load	5400 Pa (Front Side) 2400 Pa (Back Side)	

MECHANICAL CHARACTERISTICS	
Front/Back Cover (Material / Thickness)	AR coating low-iron semi-tempered glass /2.0mm
Cell (Quantity / Dimensions / Material)	144 / 182x105x2mm / N-Type TOPcon Bifacial
Frame	aluminum hollow-chamber frame on each side anodized aluminum alloy
Junction Box (Protection Degree)	≥IP68
Cables & Plug Connectors	4mm², 250mm(+)/350mm(-) in length, length can be customized
Module Dimensions (L / W / H)	2278x1134x30mm
Module Weight	32.0kg
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	36			720





BHI-US620

High Efficiency N-Type TOPcon Bifacial

620W

MAXIMUM POWER OUTPUT

(0,+4.99)W

POSITIVE POWER TOLERANCE

22.95%

MAXIMUM EFFICIENCY

620W

PRODUCT RANGE



PRODUCED IN THE UNITED STATES

Assembled at our state-of-the-art facility in the USA, ensuring quality and reliability at every step



HIGHER MODULE CONVERSION EFFICIENCY

Higher module output up to 620W with module efficiency up to 22.95%



TOPcon BIFACIAL SOLAR CELLS

132 cells



LOW-LIGHT PERFORMANCE

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



CERTIFICATIONS

Quality System and Product Certification

ISO9001 / ISO14001 / ISO45001



LINEAR PERFORMANCE WARRANTY

15 Year

Product Warranty

30 Year

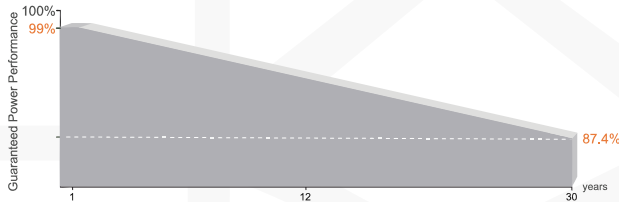
Linear Power Warranty

<1%

First Year Power Degradation

<0.4 %

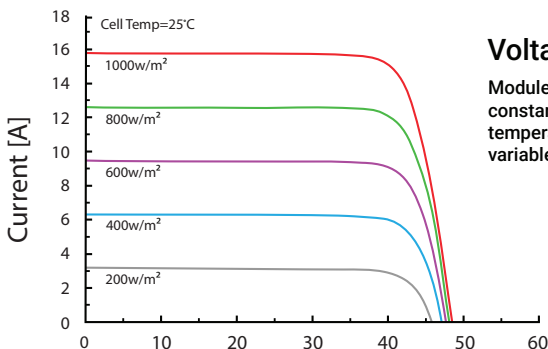
Year 2-30 Power Degradation



HIGHER POWER OUTPUT

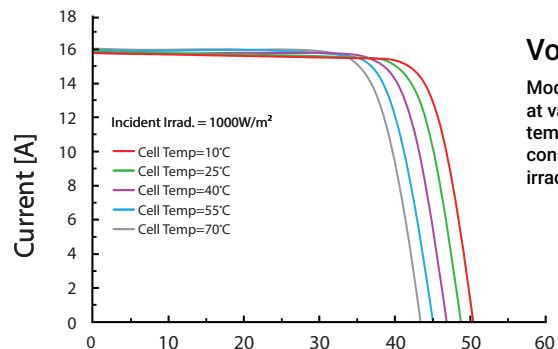
Module power increases 5-25% generally, bringing significantly lower LCOE and higher IRR

CURRENT-VOLTAGE CURVES:



Voltage (V)

Module characteristics at constant module temperatures of 25°C and variable levels of irradiance

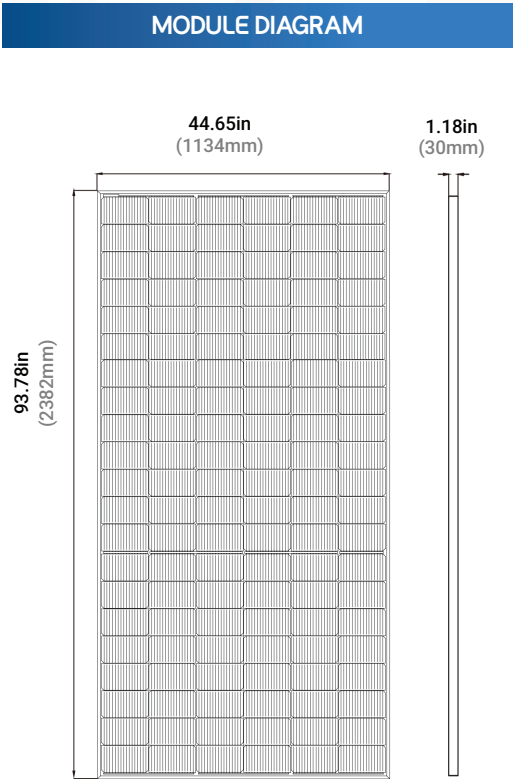


Voltage (V)

Module characteristics at variable module temperatures and constant module irradiance of 1000W/M²

TOPcon 132-CELL BIFACIAL

ELECTRICAL PARAMETERS		
Module Type: BHI-US620	STC	BNPI
Maximum Power(Wp)	620W	687W
Open Circuit Voltage(Voc)	49.32V	49.40V
Short Circuit Current(Isc)	15.97A	17.69A
Maximum Power Voltage(Vm)	41.11V	41.19V
Maximum Power Current(Imp)	15.09A	16.68A
Module Efficiency	22.95%	
Maximum Series Fuse	30A	
Power Tolerance	(0, +4.99)W	
Number Of Diode	3	
Standard Test Conditions	1000W/M², 25°C, AM1.5	
Maximum System Voltage	1500V/DC	
Temperature-Coefficient Isc	+0.046%/°C	
Temperature-Coefficient Voc	-0.25%/°C	
Temperature-Coefficient Pmax	-0.29%/°C	
Operating Temperature	-40°C...+85°C	
Nominal Operating Cell Temperature	45±2°C	
Bifaciality	80%±5%	
Mechanical Load	5400 Pa (Front Side) 2400 Pa (Back Side)	



MECHANICAL CHARACTERISTICS	
Front/Back Cover (Material / Thickness)	AR coating low-iron semi-tempered glass /2.0mm
Cell (Quantity / Dimensions / Material)	132 / 182x105x2mm / N-Type TOPcon Bifacial
Frame	aluminum hollow-chamber frame on each side anodized aluminum alloy
Junction Box (Protection Degree)	≥IP68
Cables & Plug Connectors	4mm², 250mm(+)/350mm(-) in length, length can be customized
Module Dimensions (L / W / H)	2382x1134x30mm
Module Weight	33.7kg
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	36			720



TOPcon 96-CELL BIFACIAL

ELECTRICAL PARAMETERS

Module Type: BHI-US440	STC	BNPI
Maximum Power(Wp)	440W	488W
Open Circuit Voltage(Voc)	35.38V	35.46V
Short Circuit Current(Isc)	15.80A	17.51A
Maximum Power Voltage(Vm)	29.41V	29.49V
Maximum Power Current(Imp)	14.97A	16.53A
Module Efficiency	22.02%	
Maximum Series Fuse	30A	
Power Tolerance	(0, +4.99)W	
Number Of Diode	3	
Standard Test Conditions	1000W/M², 25°C, AM1.5	
Maximum System Voltage	1500V/DC	
Temperature-Coefficient Isc	+0.046%/°C	
Temperature-Coefficient Voc	-0.25%/°C	
Temperature-Coefficient Pmax	-0.29%/°C	
Operating Temperature	-40°C...+85°C	
Nominal Operating Cell Temperature	45±2°C	
Bifaciality	80%±5%	
Mechanical Load	5400 Pa (Front Side) 2400 Pa (Back Side)	

MECHANICAL CHARACTERISTICS

Front/Back Cover (Material / Thickness)	AR coating low-iron semi-tempered glass /2.0mm
Cell (Quantity / Dimensions / Material)	96 / 182x105x2mm / N-Type TOPcon Bifacial
Frame	aluminum hollow-chamber frame on each side anodized aluminum alloy
Junction Box (Protection Degree)	≥IP68
Cables & Plug Connectors	4mm², 250mm(+)/350mm(-) in length, length can be customized
Module Dimensions (L / W / H)	1762x1134x30mm
Module Weight	24.9kg
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	36			936

MODULE DIAGRAM

