

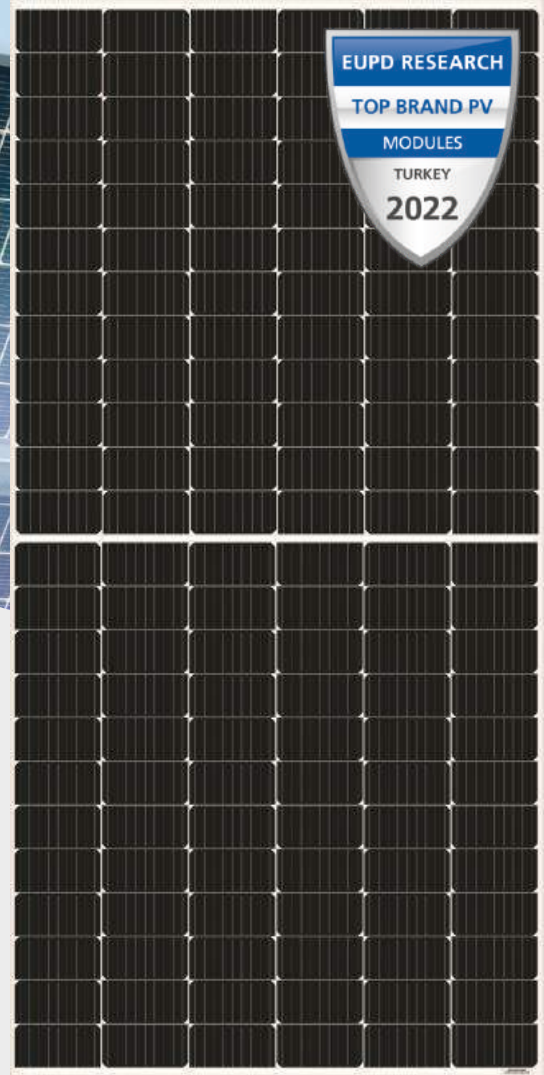
HIGH TECHNOLOGY
SOLAR MODULES

BIFACIAL

**HALF-CELL BIFACIAL
PV MODULE**


AS - MQ7 - BHC


435W - 455W





HIGH EFFICIENCY BIFACIAL SOLAR MODULES WITH HALF CELL TECHNOLOGY


0+5 Positive power tolerance (0+5W) guaranteed

 High performance under low light.
Works at cloudy, rainy days

 The monolithic perc cell structure technology (low resistance characteristics) is adopted (the maximum conversion efficiency of modules is up to 20.81%)

 EXTREME WEATHER RATING. High-tech aluminium alloy frame, certified for high snow (5400 Pa) and wind loads (3800 Pa)

 Reduced resistance between cells Less micro cracks, higher output power

 SUPER STRONG FRAME. The overflow tank is waterproof with double layers. Aluminum frame enhances the mechanical load strength by 10%



IEC61215 | IEC61730 | IEC61701 | IEC62716 | IEC62804 PID Free
ISO 9001 | ISO 14001 | ISO 45001 | OHSAS 18001 | CE

ELECTRICAL CHARACTERISTICS AT STC

Module Type	AS-MQ7-BHC-435W	AS-MQ7-440W	AS-MQ7-BHC-445W	AS-MQ7-BHC-450W	AS-MQ7-BHC-455W
Maximum Power (Pmax)	435W	440W	445W	450W	455W
Open Circuit Voltage (Voc)	49.6V	49.8V	50.0V	50.2V	50.4V
Short Circuit Current (Isc)	11.10A	11.16A	11.22A	11.28A	11.34A
Voltage at Maximum Power (Vmp)	41.2V	41.4V	41.6V	41.8V	42.0V
Current at Maximum Power (Imp)	10.56A	10.63A	10.70A	10.77A	10.84A
Module Efficiency (%)	19.90	20.13	20.36	20.58	20.81
Operating Temperature	-40° C to +85° C				
Maximum System Voltage	1000V DC/1500V DC				
Fire Resistance Rating	Class C				
Maximum Series Fuse Rating	25A				

STC: Irradiance 1000W/m², Cell temperature 25° C, AM1.5; Tolerance of Pmax: ±3%; Measurement Tolerance: ±3%

ELECTRICAL CHARACTERISTICS AT NOCT

Module Type	AS-MQ7-BHC-435W	AS-MQ7-440W	AS-MQ7-BHC-445W	AS-MQ7-BHC-450W	AS-MQ7-BHC-455W
Maximum Power (Pmax)	319W	323W	327W	331W	335W
Open Circuit Voltage (Voc)	45.4V	45.6V	45.8V	46.0V	46.2V
Short Circuit Current (Isc)	8.94A	8.99A	9.04A	9.09A	9.14A
Voltage at Maximum Power (Vmp)	37.2V	37.4V	37.6V	37.8V	38.0V
Current at Maximum Power (Imp)	8.58A	8.64A	8.70A	8.76A	8.82A

NOCT: Irradiance 800W/m², Ambient temperature 20° C, Wind Speed 1 m/s

ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN (EXAMPLE: AS-MQ7-BHC-450W)

Power Gain	Pmax	Voc	Isc	Vmp	Imp
10%	495W	50.2V	12.42V	41.8V	11.85A
15%	518W	50.2V	13.00A	41.8V	12.40A
20%	540W	50.2V	13.55V	41.8V	12.92V
25%	563W	50.2V	14.12A	41.8V	13.47A
30%	585W	50.2V	14.68A	41.8V	14.00A

MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline bifacial
Number of cells	144 (6x24)
Module dimensions	2102x1040x35mm
Weight	24kg
Front cover	3.2mm tempered glass with AR coating
Back Cover	Transparent backsheet
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Cable	4mm ² , Length: Portrait: 300mm; Landscape: 1400mm
Connector	MC4 compatible

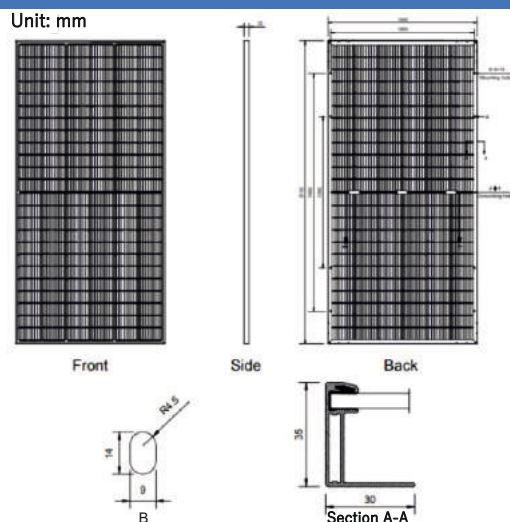
TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	42° C±2° C
Temperature Coefficients of Pmax	-0.36%/° C
Temperature Coefficients of Voc	-0.30%/° C
Temperature Coefficients of Isc	0.05%/° C

PACKAGING

Standard packaging	31 pcs/pallet
Module quantity per 20' container	155pcs
Module quantity per 40' container	715pcs (HQ)

ENGINEERING DRAWINGS



Specifications in this datasheet are subject to change without prior notice.

WARRANTY

12 YEARS
PRODUCT WARRANTY

30 YEARS
POWER WARRANTY



IV CURVES

