

## BYD's Dream All Human Hope

Changing human dependence on non-renewable energy as the starting point, with three green dreams of electric vehicle, energy storage station and solar farm, BYD looks forward to helping more countries and people to get rid of fossil energy over consumption crisis and environmental pollution, and strive to leave offspring a beautiful and clean world to live in.



In the daytime, solar panels capture solar energy like plants. At night, energy storage station transports the stored energy, like solar energy, wind energy, tidal energy, to thousands of families smoothly.

The electric vehicle, shuttling on the streets and lanes, is of zero emission, zero pollution.

Is this a dream?

This is the green dream of BYD and even all human beings.

Is this a dream?

No. We are already seeing it approaching us.





22.2%

Average cell efficiency up to 22.2%  
Excellent optical performance

0-5W

Power tolerance 0-5W  
Reliability for output performance

12  
Years

12 years for product  
25 years linear Warranty

Grid

Residential roof top systems  
On/Off-grid commercial systems  
On/Off-grid utility systems

3<sup>rd</sup>

Design loads: 3600 Pa for positive  
(downward) and 1600 Pa for  
negative (upward) Safety factors Ym: 1.5

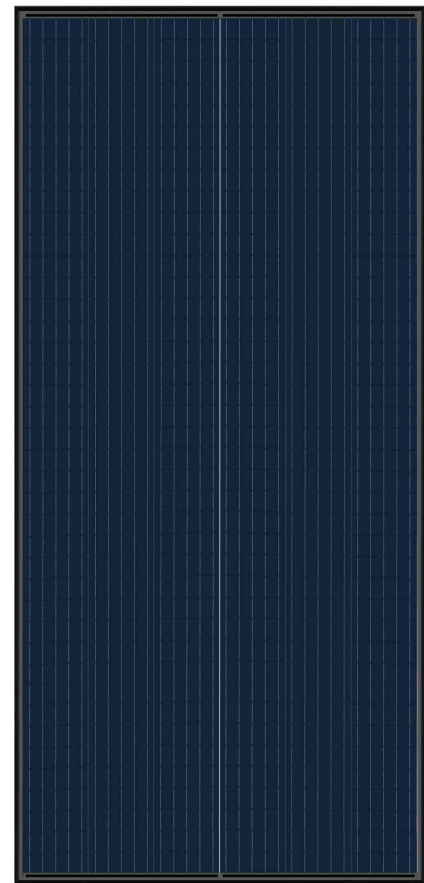
Corresponding to maximum snow and ice  
load 5400Pa, maximum wind load 2400Pa

Certification

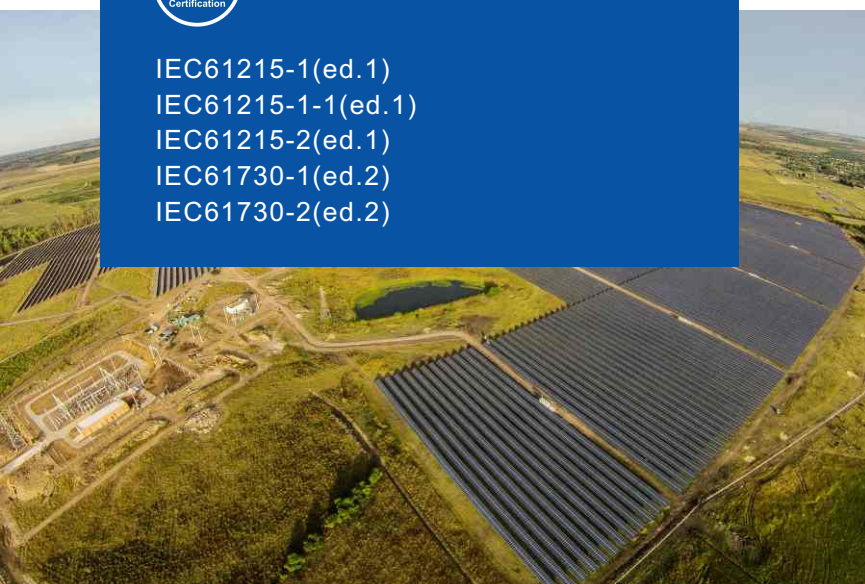
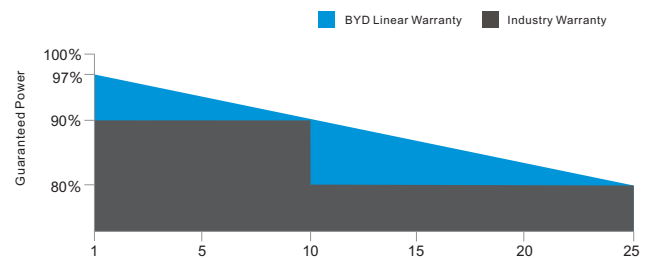
IEC61215-1(ed.1)  
IEC61215-1-1(ed.1)  
IEC61215-2(ed.1)  
IEC61730-1(ed.2)  
IEC61730-2(ed.2)

# BYD Monocrystalline Module

**BYD MTK-40-SERIES-5BB 420W-440W**



BYD PV Module 25 Years Linear Performance Warranty



# BYD MTK-40-SERIES-5BB 420W-440W

## Mechanical Properties

Cell Type	158.75mm 1/3 cut
Dimension of Module	2151*994*40mm
Weight	24Kg±5%
Front Glass	3.2mm tempered glass with AR Coating
Frame	Anodized aluminum alloy
Junction Box	IP67
Cable Length	+1200mm, -1200mm(4.0mm )
Connector	MC4 Compatible

## Temperature Coefficient

Peak Power Temperature Coefficient	-0.244%/°C
Open-Circuit Voltage Temperature Coefficient	-0.309%/°C
Short-Circuit Current Temperature Coefficient	0.047%/°C

## Packing Information

Packing Type	40' HQ
Piece/Pallet	27+31
Pallet/Container	10+10
Piece/Container	580

## Electrical Data (STC\*)

Module Type	BYD420MTK-40	BYD425MTK-40	BYD430MTK-40	BYD435MTK-40	BYD440MTK-40
Rate Maximum Power (Pmax)(W)	420Wp	425Wp	430Wp	435Wp	440Wp
Open Circuit Voltage (Voc) (V)	52.41V	52.61V	52.81V	53.01V	53.21V
Short Circuit Current (Isc) (A)	10.03A	10.11A	10.19A	10.27A	10.35A
Maximum Power Voltage (Vmp)(V)	44.13V	44.28V	44.43V	44.58V	44.73V
Maximum Power Current (Imp) (A)	9.52A	9.60A	9.68A	9.76A	9.84A
Module Efficiency (%)	19.64%	19.88%	20.11%	20.35%	20.58%

\* Standard Test Conditions (STC) : irradiance of 1000 W/m<sup>2</sup>, spectrum AM 1.5 and cell temperature of 25°C.

## Electrical Data (NMOT\*)

Module Type	BYD420MTK-40	BYD425MTK-40	BYD430MTK-40	BYD435MTK-40	BYD440MTK-40
Rate Maximum Power (Pmax)(W)	315Wp	318Wp	322Wp	326Wp	330Wp
Open Circuit Voltage (Voc) (V)	50.57V	50.80V	51.19V	51.57V	51.95V
Short Circuit Current (Isc) (A)	8.09A	8.13A	8.17A	8.21A	8.25A
Maximum Power Voltage (Vmp)(V)	41.62V	41.80V	42.10V	42.40V	42.70V
Maximum Power Current (Imp) (A)	7.57A	7.61A	7.65A	7.69A	7.73A

Nominal Module Operating Temperature (NMOT) : irradiance of 800 W/m<sup>2</sup>, spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

## Operational parameter

Operating Temperature (°C)	-40°C~+85°C
NOCT(Nominal operating cell temperature)	41°C±3°C
Maximum System Voltage (V)	1500 (VDC)
Maximun Fuse Current Rating (A)	15/20A
Power Tolerance	0-5W

