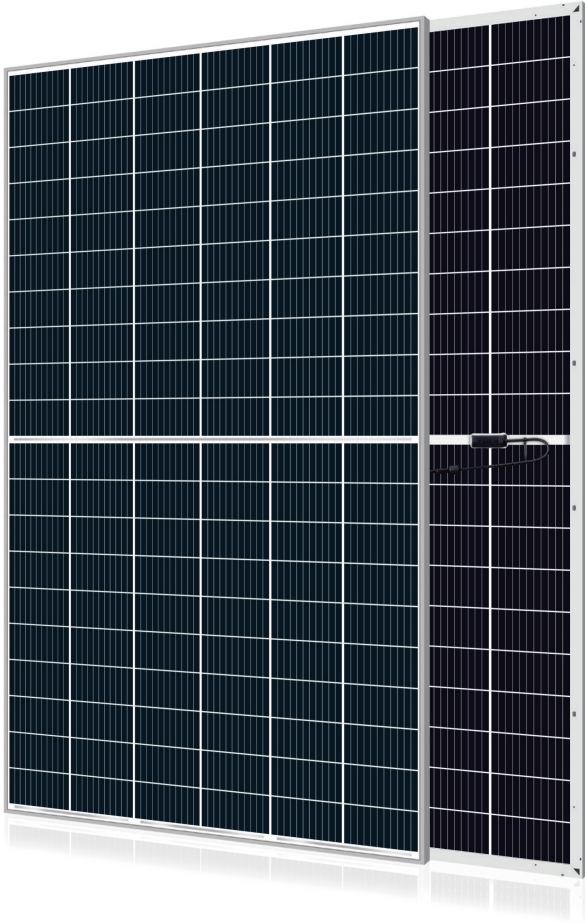


**440~460W** HY460-M120BDD



## Hyper M60

Mono-facial  
120-cell, MBB  
0~+3% positive tolerance

### KEY FEATURES



#### Mbb half cell design

Half-cut cells brings lower cell connection loss and lower thermal coefficients to ensures higher power output



#### More Power

Innovative 182mm big cell applied to ensure module power up to 460 Wp



#### High Reliability

Strict outsourcing BOM materials quality control and 100% in-house wafer and cell applied to module production



#### Excellent Low-light Performance

Advanced solar cell surface texturing technology allows for excellent performance in low-light environments



#### Highly Strengthened Design

Certified to withstand 5400Pa snow load and 2400Pa wind load



#### PID Resistant

Excellent PID resistance performance optimized by unique cell process design and BOM material control



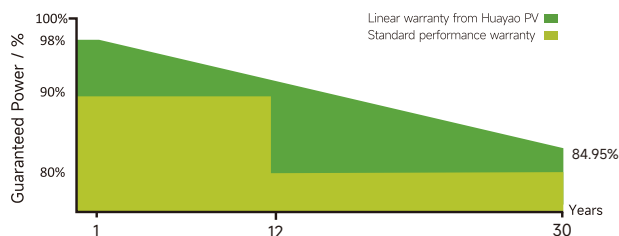
#### Fire resistance

Class of reaction to Class A

### LINEAR PERFORMANCE WARRANTY

**15** Year Product Warranty

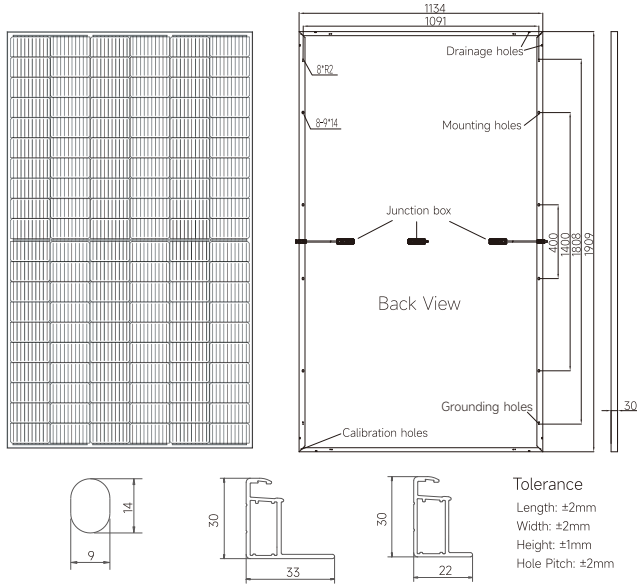
**30** Year Linear Power Warranty



IEC 61215 (2016), IEC 61730 (2016)



### Engineering Drawings



### Electrical Characteristics

	HY440-M120BDD	HY445-M120BDD	HY450-M120BDD	HY455-M120BDD	HY460-M120BDD
Pmax(W)	440	445	450	455	460
Vmp(V)	34.80	35.04	35.28	35.50	35.74
Imp(A)	12.65	12.71	12.76	12.82	12.87
Voc (V)	41.57	41.81	42.05	42.29	42.53
Isc(A)	13.40	13.46	13.52	13.58	13.64
Module efficiency(%)	20.32	20.55	20.79	21.02	21.25
Maximum system voltage(V)	1500				
Fuse Rating(A)	25				
Temperature coefficient Pmax(%°C)	-0.350				
Temperature coefficient Isc(%°C)	0.05				
Temperature coefficient Voc(%°C)	-0.275				

STC: Irradiance 1000W/m<sup>2</sup>, module temperature 25°C, AM=1.5

#### Bifacial Output-Backside Power Gain

	Pmax(W)	484	489.5	495	500.5	506
10%	Module efficiency(%)	22.36	22.61	22.86	23.12	23.37
20%	Pmax(W)	528	534	540	546	552
	Module efficiency(%)	24.39	24.67	24.94	25.22	25.50

### Packing Configuration

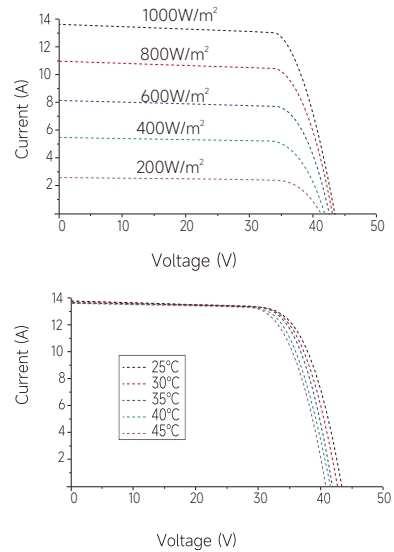
Pieces per pallet	36
Size of packing (mm)	1930*1120*1247
Weight of packing (kg)	994
Pieces per container	864
Size of container	40' HQ

Revised in Jan 2024 1st Edition

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Specifications included in this datasheet are subject to change without notice

### I-V Curves



### Working Characteristics

	HY440-M120BDD	HY445-M120BDD	HY450-M120BDD	HY455-M120BDD	HY460-M120BDD
Pmax(W)	331	335	340	343	346
Vmp(V)	31.99	32.25	32.57	32.73	32.86
Imp(A)	10.35	10.39	10.44	10.48	10.53
Voc(V)	38.63	38.85	39.08	39.30	39.53
Isc(A)	10.92	10.97	11.02	11.07	11.12
Power tolerance(%)	0~+3				
NOCT(°C)	44±2				

NOCT: Conditions: Irradiance 800W/m<sup>2</sup>, ambient temperature 20°C, wind speed 1m/s

### Mechanical Characteristics

Number of cells	120pcs
Size of cell (mm)	182*91
Type of cell	Mono
Thickness of glass (mm)	2.0
Type of frame	Anodized aluminum alloy
Junction box	IP68
Size of module (mm)	1909*1134*30
Weight (kg)	26.9
Cables/connectors	4mm <sup>2</sup> , MC4 compatible
Length of Cable	Portrait: +300mm/ -300mm

### Maximum Ratings

Operating Temperature(°C)	-40-85
Operating humidity(%)	5-85
Allowable Hail Load	25mm ice-ball with velocity of 23m/s

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