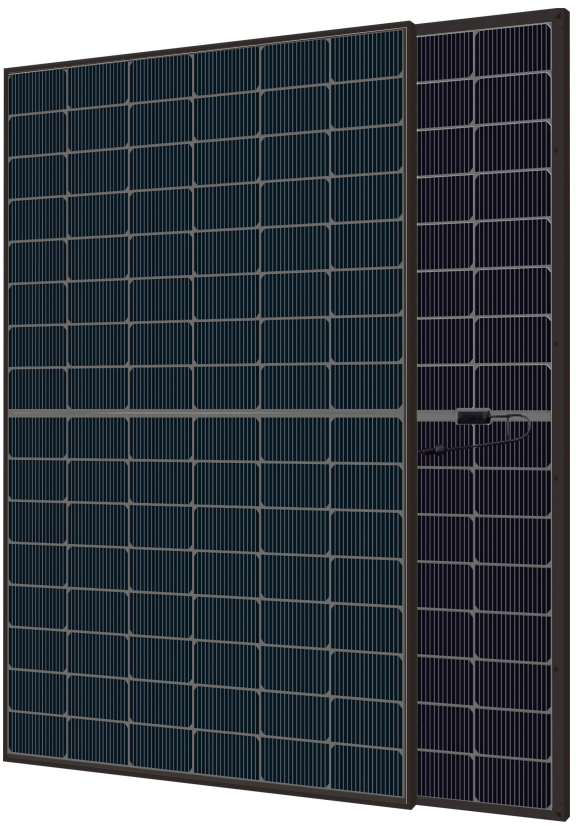
HuaYaoPV

Hyper N48

440~460W **HY460-N96EDD**

N-TOPCon, Bi-facial
96-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
Industry leading N-TOPCon technology applied to generate ultra-high power up to 460Wp with optimized temperature coefficient and lower working temperature

High Reliability
Strict outsourcing BOM materials quality control and 100% in-house wafer and the TOPCon cell performance boost the power warranty to 30 Year

Excellent Low-light Performance
Advanced N-TOPCon solar cell technology allows for excellent performance in low-light environments

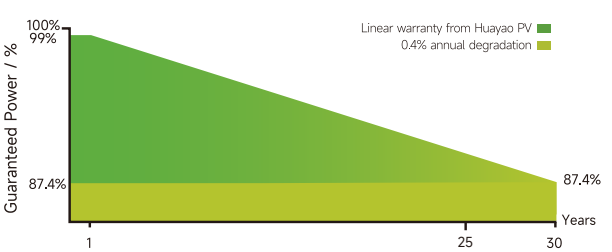
Highly Strengthened Design
Certified to withstand: 5400Pa snow load and 2400Pa wind load

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

25 Year Product Warranty
30 Year Linear Power Warranty



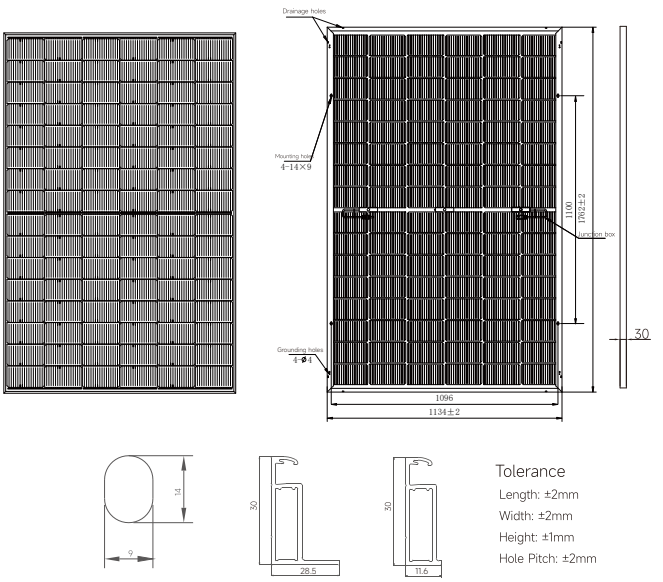
IEC 61215 , IEC 61730

WWW.HY-PV.COM

HY460-N96EDD

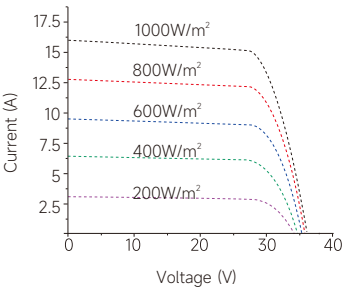
Hyper N48

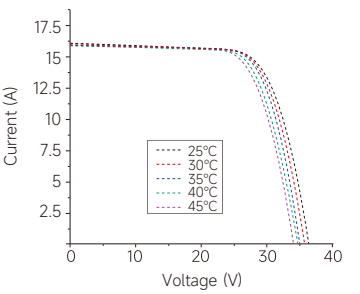
Engineering Drawings



Tolerance
Length: ±2mm
Width: ±2mm
Height: ±1mm
Hole Pitch: ±2mm

I-V Curves





Electrical Characteristics

	HY440-N96EDD	HY445-N96EDD	HY450-N96EDD	HY455-N96EDD	HY460-N96EDD
Pmax(W)	440	445	450	455	460
Vmp(V)	29.44	29.67	29.91	30.14	30.37
Imp(A)	14.95	15.00	15.05	15.10	15.15
Voc (V)	35.27	35.47	35.69	35.91	36.12
Isc(A)	15.77	15.81	15.85	15.89	15.93
Module efficiency(%)	22.02	22.27	22.52	22.77	23.02
Maximum system voltage(V)			1500		
Fuse Rating(A)			30		
Temperature coefficient Pmax(%/℃)			-0.30		
Temperature coefficient Isc(%/℃)			0.046		
Temperature coefficient Voc(%/℃)			-0.25		

STC: Irradiance 1000W/m², module temperature 25℃, AM=1.5

Bifacial Output-Backside Power Gain

10%	Pmax(W)	484	489.5	495	500.5	506
	Module efficiency(%)	24.22	24.50	24.77	25.05	25.32
20%	Pmax(W)	528	534	540	546	552
	Module efficiency(%)	26.42	26.72	27.02	27.32	27.62

Working Characteristics

	HY440-N96EDD	HY445-N96EDD	HY450-N96EDD	HY455-N96EDD	HY460-N96EDD
Pmax(W)	335	339	343	347	351
Vmp(V)	27.55	27.79	28.03	28.26	28.50
Imp(A)	12.16	12.20	12.24	12.28	12.32
Voc(V)	33.24	33.50	33.76	34.04	34.31
Isc(A)	12.72	12.75	12.78	12.81	12.84
Power tolerance(%)			0~+3		
NOCT(℃)			44±2		

NOCT: Conditions:Irradiance 800W/m², ambient temperature 20℃, wind speed 1m/s

Mechanical Characteristics

Number of cells	96pcs
Size of cell (mm)	182*105
Type of cell	N-Type Mono
Thickness of glass (mm)	2.0
Type of frame	Anodized aluminum alloy
Junction box	IP68
Size of module (mm)	1762*1134*30
Weight (kg)	24.6
Cables/connectors	4mm², MC4 compatible
Length of Cable	+300mm/-300mm

Packing Configuration

Pieces per pallet	36
Size of packing (mm)	1790*1120*1247
Weight of packing (kg)	909
Pieces per container	936
Size of container	40' HQ

Maximum Ratings

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

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