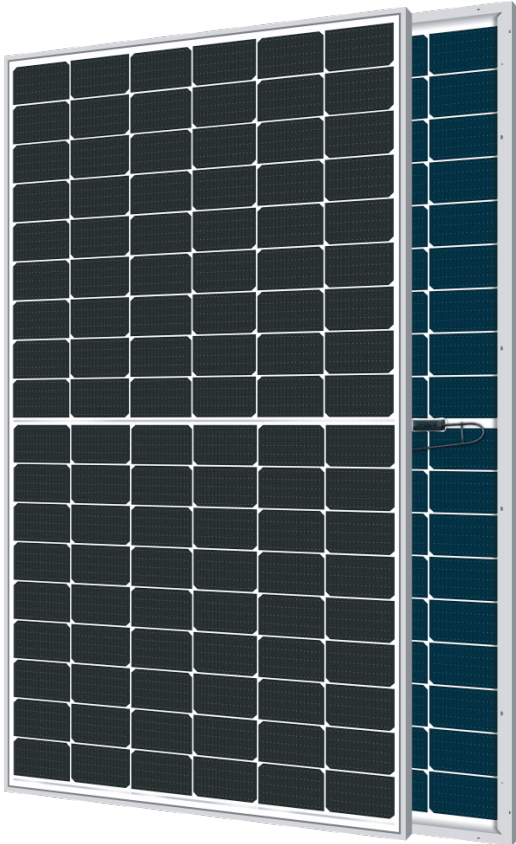


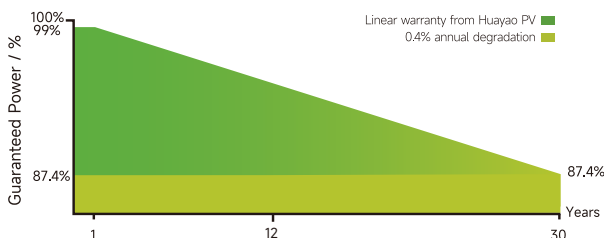
440~460W HY460-N108FDD



silver or black frame

LINEAR PERFORMANCE WARRANTY

- 15 Year Product Warranty
- 30 Year Linear Power Warranty



Hyper N54

N-TOPCon, Bi-facial
108-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



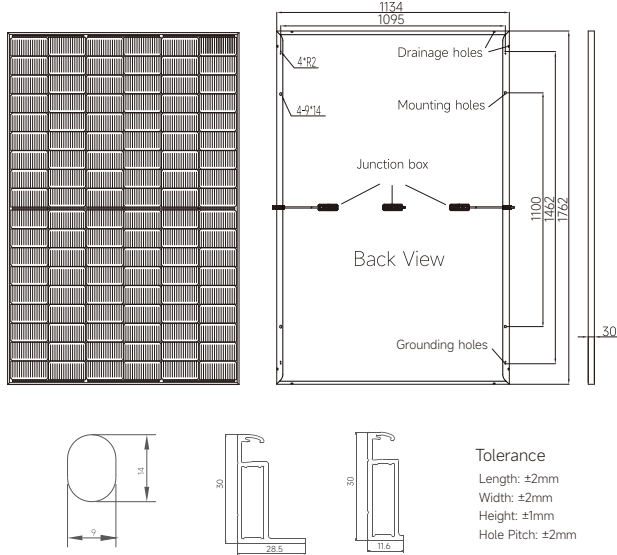
Fire resistance

Class of reaction to Class A

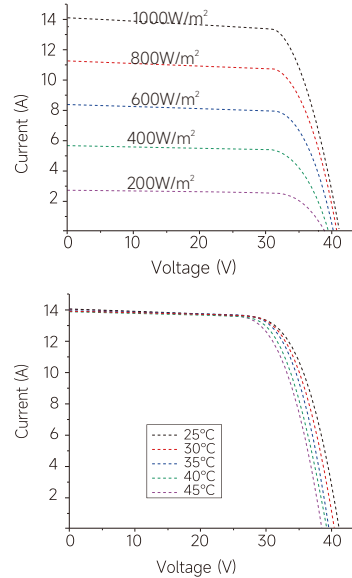
IEC 61215 (2016), IEC 61730 (2016)



Engineering Drawings



I-V Curves



Electrical Characteristics

	HY440-N108FDD	HY445-N108FDD	HY450-N108FDD	HY455-N108FDD	HY460-N108FDD
Pmax(W)	440	445	450	455	460
Vmp(V)	32.82	33.02	33.22	33.42	33.62
Imp(A)	13.41	13.48	13.55	13.62	13.69
Voc (V)	39.80	40.00	40.20	40.10	41.20
Isc(A)	13.82	13.87	13.94	14.01	14.08
Module efficiency(%)	22.02	22.27	22.52	22.77	23.02
Maximum system voltage(V)	1500				
Fuse Rating(A)	25				
Temperature coefficient Pmax(°C)	-0.30				
Temperature coefficient Isc(°C)	0.046				
Temperature coefficient Voc(°C)	-0.25				

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

Bifacial Output-Backside Power Gain

	Pmax(W)	484	489.5	495	500.5	506
10%	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

Packing Configuration

Pieces per pallet	36
Size of packing (mm)	1790*1130*1247
Weight of packing (kg)	909
Pieces per container	936
Size of container	40' HQ

Working Characteristics

	HY440-N108FDD	HY445-N108FDD	HY450-N108FDD	HY455-N108FDD	HY460-N108FDD
Pmax(W)	335	339	343	347	351
Vmp(V)	30.66	30.87	31.07	31.27	31.48
Imp(A)	10.93	10.98	11.04	11.10	11.15
Voc(V)	38.23	38.52	38.83	39.06	39.25
Isc(A)	11.16	11.20	11.25	11.31	11.36
Power tolerance(%)	0+3				
NOCT(°C)	44±2				

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

Mechanical Characteristics

Number of cells	108 pcs
Size of cell (mm)	182.2*94
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	4mm ² , 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

