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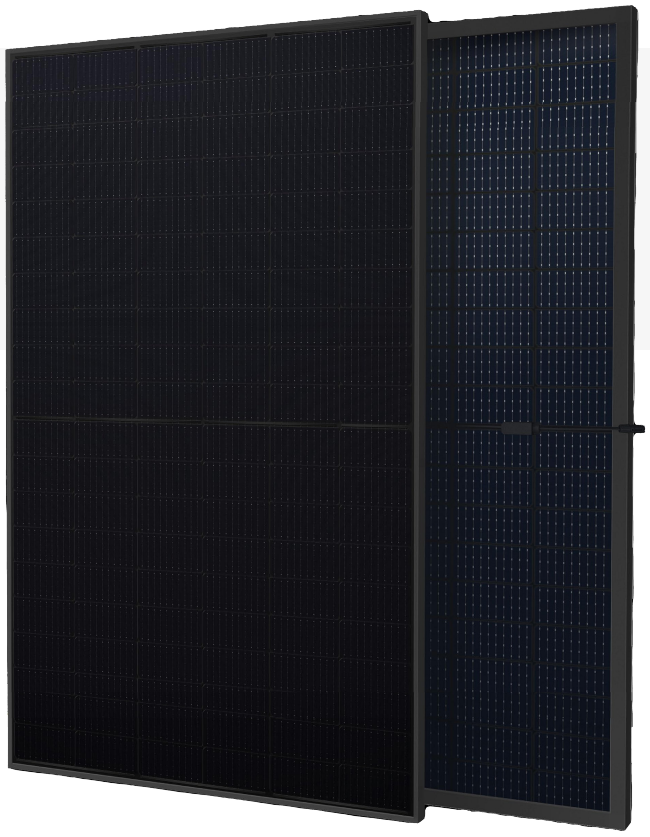
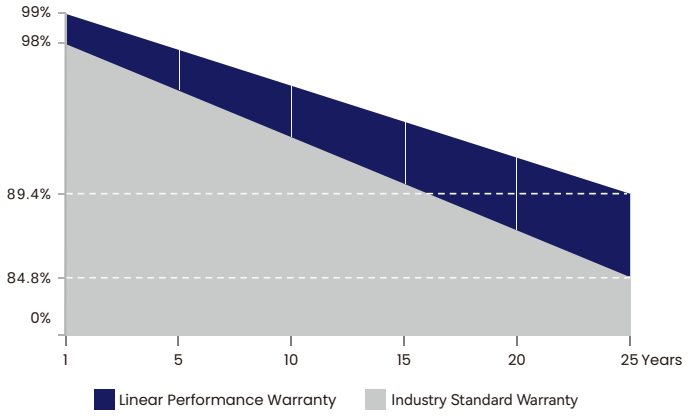
JH-N120FD 440~460W

22.8% Efficiency

440~460W (182x182 mm Half-Cut Cell) 120 pcs

N-TYPE Full black bifacial





15 Years
Material & Craft
Quality
Assurance

30 Years
84.8% Output
Power
Guarantee

KEY FEATURES HIGHLIGHTS

Mono MBB half cut
Original European Parts

EU Standard
European Quality Control

PID Resistance
High stablility and torsion free with Wave Shape

PRODUCT CERTIFICATIONS

Production process reliability test
electro-luminance inspection

AR coating
tolerance and lower resistive loss

Excellent Durability
resistantto salt mist, ammonia, dust and sand, snail trail.

Reduce BOS cost increase ROI
Low temp coefficient (PMax) for higher output

Wide Applications
Durability against Extreme Environmental Conditions

Lower Losses
Multi Busbar Technologyfor better Light trapping

JH-N120FD 440~460W

JHPVTECH

Electrical parameters at Standard Test Conditions (STC*) & Nominal Operating Cell Temperature (NOCT*)

Module Type	440W / 323W	445W / 328W	450W / 333W	455W / 338W	460W / 341W
Test Environment	STC / NOCT	STC / NOCT	STC / NOCT	STC / NOCT	STC / NOCT
Power output tolerances Pmax(W)	(0,+5)	(0,+5)	(0,+5)	(0,+5)	(0,+5)
Module efficiency(%)	21.8	22.0	22.3	22.5	22.8
Voltage at Pmax Vmpp(V)	36.59 / 34.25	36.80 / 34.45	37.03 / 34.67	37.29 / 34.91	37.55 / 35.15
Current at Pmax Impp(A)	11.89 / 9.57	11.96 / 9.63	12.02 / 9.67	12.07 / 9.71	12.12 / 9.75
Open-circuit voltage Vco(V)	43.18 / 40.76	43.46 / 41.02	43.72 / 41.27	44.06 / 41.59	44.31 / 41.83
Short-circuit current Ico(A)	12.53 / 10.12	12.58 / 10.16	12.64 / 10.21	12.68 / 10.24	12.73 / 10.29

*STC: 1000 W·m-2 irradiance, 25°C cell temperature, AM 1.5 spectrum according to EN 60904-
*NOCT: open-circuit module operation temperature at 800 W·m-2 irradiance, 20°C ambient temperature, 1 m·s-1 wind speed.
3.

GENERAL CHARACTERISTICS

Dimensions (L / W / H)	1762 mm / 1134mm / 30 mm
Weight	28 kg

PACKAGING SPECIFICATIONS

Number of modules per pallet	36
Number of pallets per 40' container	24

THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	45 ± 2
Temperature coefficient of P_{max}	γ	% / °C	-0.29
Temperature coefficient of V_{oc}	β	% / °C	-0.25
Temperature coefficient of I_{sc}	α	% / °C	0.045

*NOCT: open-circuit module operation temperature at 800 W·m-2 irradiance, 20°C ambient temperature, 1 m·s-1 wind speed.

OPERATING CONDITIONS

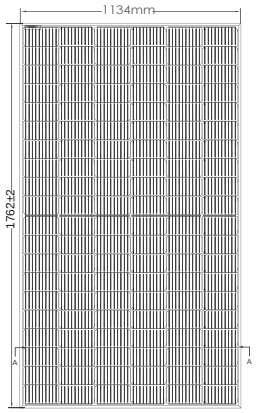
Max. system voltage	1500 VDC
Max. series fuse rating*	30 A
Operating temperature range	- 40°C to 85°C
Max. static load, front (e.g., snow)	5400 Pa
Max. static load, back (e.g., wind)	2400 Pa
Max. hailstone impact (diameter/velocity)	25 mm / 23 m·s^{-1}

*DO NOT CONNECT FUSE IN COMBINER BOX WITH TWO OR MORE STRINGS IN PARALLEL CONNECTION.

CONSTRUCTION MATERIALS

Cell (material / quantity)	monocrystalline silicon / 6 x 20
Glass (material / thickness)	low-iron tempered glass / 2 mm + 2 mm
Frame (material)	anodized aluminum alloy
Junction box (type / protection degree)	3 bypass diodes / ≥ IP68
Cable (length / cross-sectional area)	± 300 mm or customized length / 4 mm^2

BACK VIEW (Units: mm)



SECTION A-A

Warning: Read the Installation and User Manual in it's entirety before handling, installing and operating Solar modules.

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