



JHPVTECH

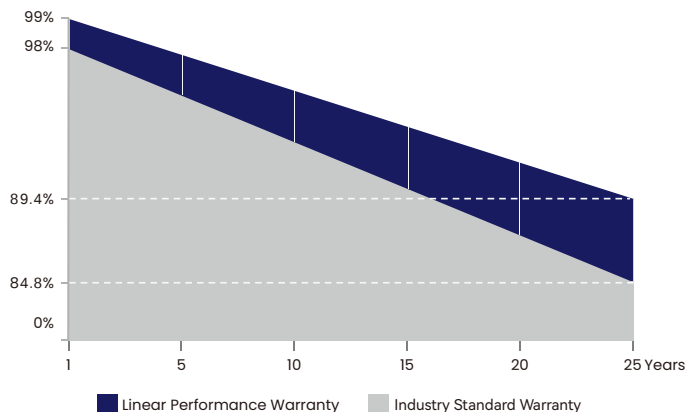
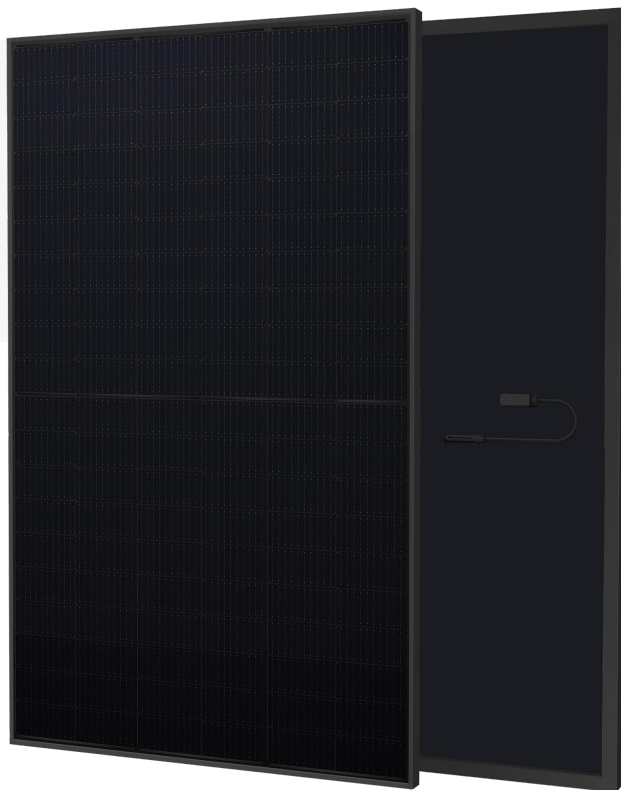
WWW.JHPVTECH.COM

JH-N120FM 440~460W

22.8% Efficiency

440~460W (182x169.2 mm Half-Cut Cell) 120 pcs

N-TYPE Full black monofacial



15 Years
Material & Craft
Quality
Assurance

30 Years
84.8% Output
Power
Guarantee

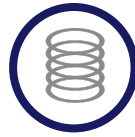
KEY FEATURES HIGHLIGHTS



Mono MBB half cut
Original European Parts



EU Standard
European Quality
Control



PID Resistance
High stability and torsion
free with Wave Shape

PRODUCT CERTIFICATIONS



Production process
reliability test
electro-luminance
inspection



AR coating
tolerance and lower
resistive loss



Excellent Durability
resistant to 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 Technology for
better Light trapping

JH-N120FM 440~460W



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 P _{max} (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 P _{max} V _{mpp} (V)	36.59 / 34.25	36.80 / 34.45	37.03 / 34.67	37.29 / 34.91	37.55 / 35.15
Current at P _{max} I _{mp} (A)	11.89 / 9.57	11.96 / 9.63	12.02 / 9.67	12.07 / 9.71	12.12 / 9.75
Open-circuit voltage V _{oc} (V)	43.18 / 40.76	43.46 / 41.02	43.72 / 41.27	44.06 / 41.59	44.31 / 41.83
Short-circuit current I _{sc} (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.

GENERAL CHARACTERISTICS

Dimensions (L / W / H)	1762 mm / 1134mm / 30 mm
Weight	24.2 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

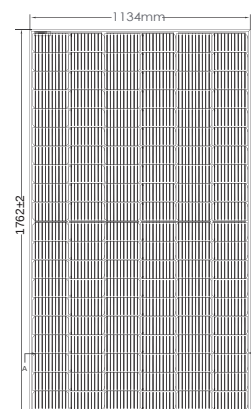
Max. system voltage	1500 Vdc
Max. series fuse rating*	25 A
Operating temperature range	- 40°C to 85°C
Max. static load, front (e.g., snow)	5400 Pa
Max. static load, back (e.g., wind)	2400 Pa
Max. hailstone impact (diameter/velocity)	25 mm / 23 m·s ⁻¹

*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 / 3.2 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 its entirety before handling, installing and operating Solar modules.



NINGBO JING HONG ENERGY TECHNOLOGY CO., LTD.

Email: Sales@jhpvtech.com

Web: <http://jhpvtech.com>

Address: No. 1 Xinsi Road, Xinbei District, Changzhou City, Jiangsu Province, P.R. China



▲ Due to continuous innovation, research and product improvement, the specifications in this product information sheet are subject to change without prior notice. The specifications may deviate slightly and are not guaranteed.