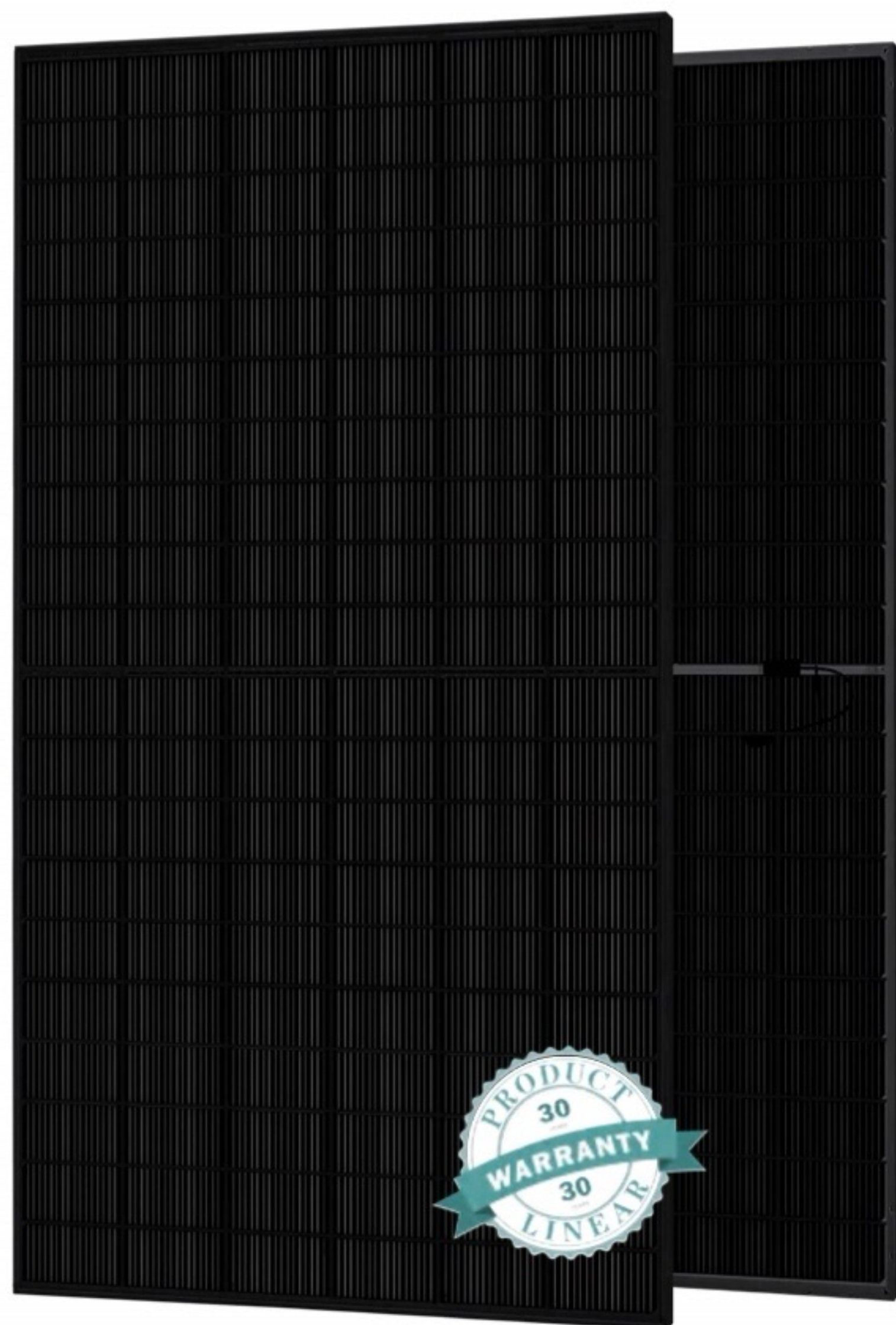


Mono N-Type 182mm 120 Cells

N-Topcon Double Glass

490/495/500/505/510/515 WP



APPLICATIONS >>



On-grid residential
roof-tops



On-grid commercial/
industrial roof-tops



New Technology Tailored
for European Distribution

N-TOPCON

- Full Black



30-year Lifespan

Wide range of applications for severe weather with a service life of over 30 years.



Lower Degradation

N-type solar technology gains slower power Degradation and excellent low-light performance.



Elegance

Full-black aesthetics, the best choice for BAPV. More excellent for snowy environments.



Adaptability

1/2-cut low-current cell technology adaptable to mainstream European inverters.



Safety

Higher fire safety, more suitable for high density residential areas.



High Power

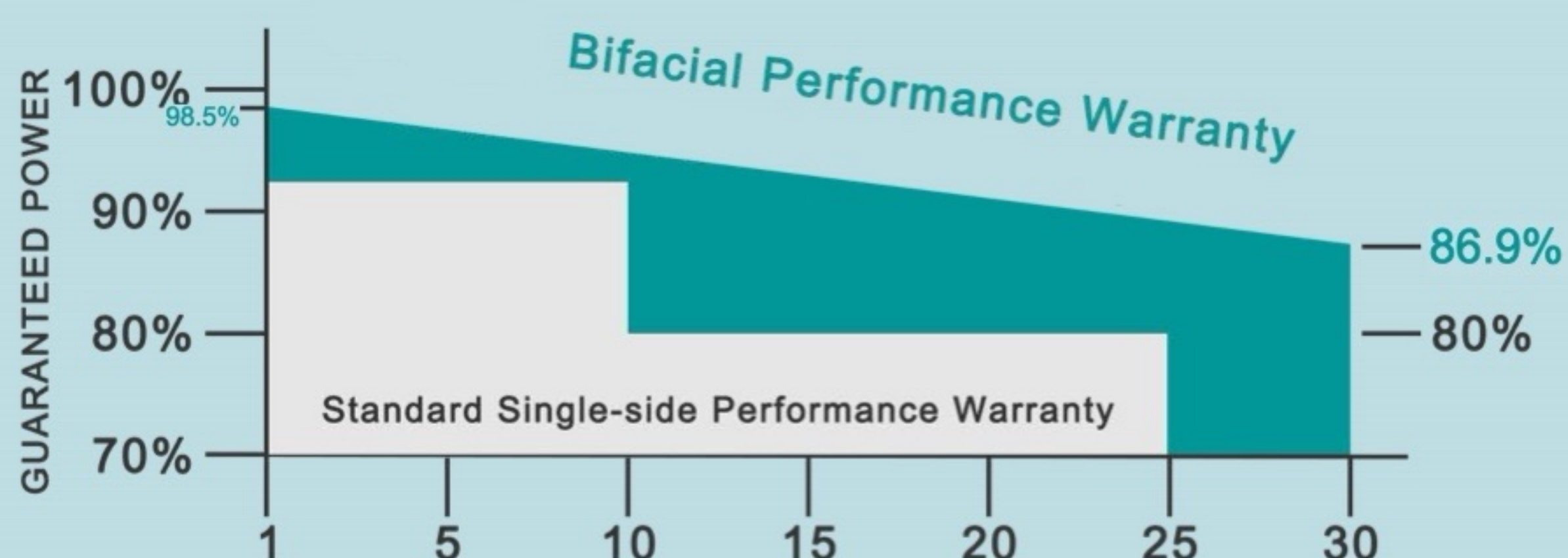
Bifacial power generation with 5%-30% increase in output for different conditions.

MAXIMUM EFFICIENCY

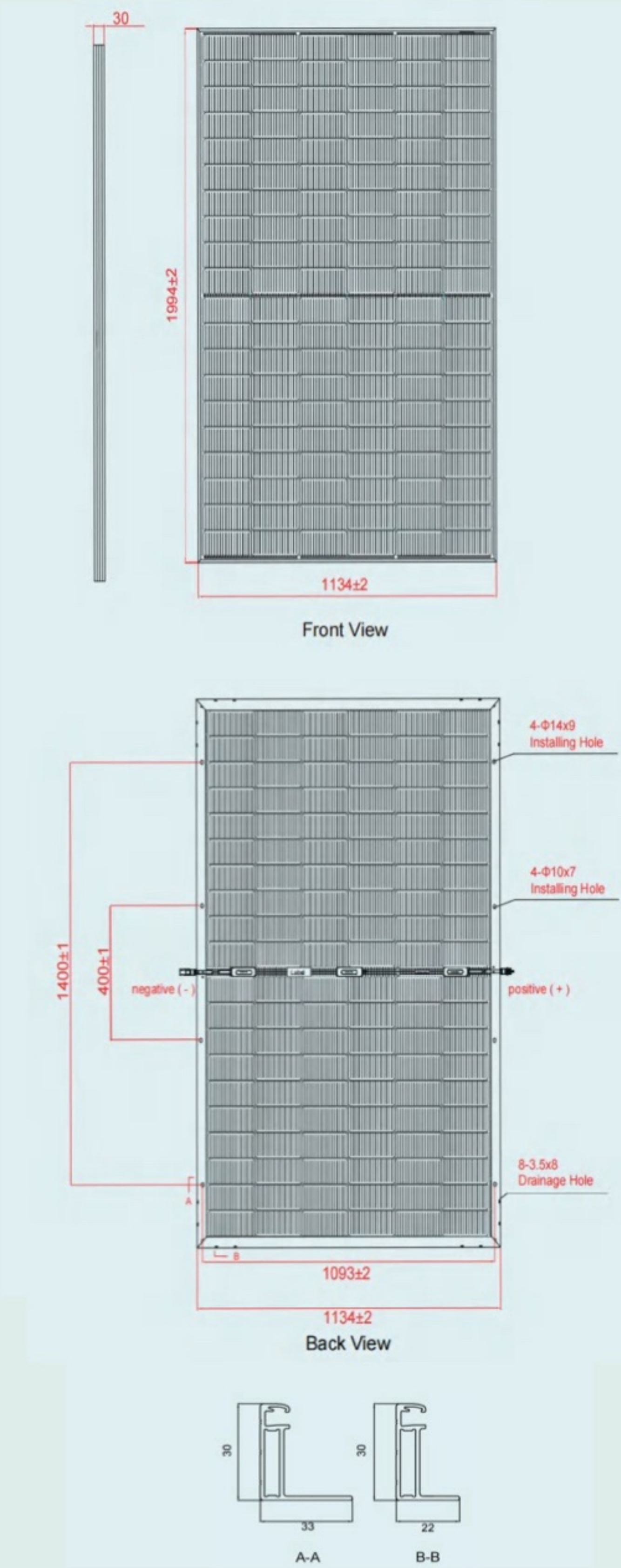
22.8%

POSITIVE POWER
TOLERANCE

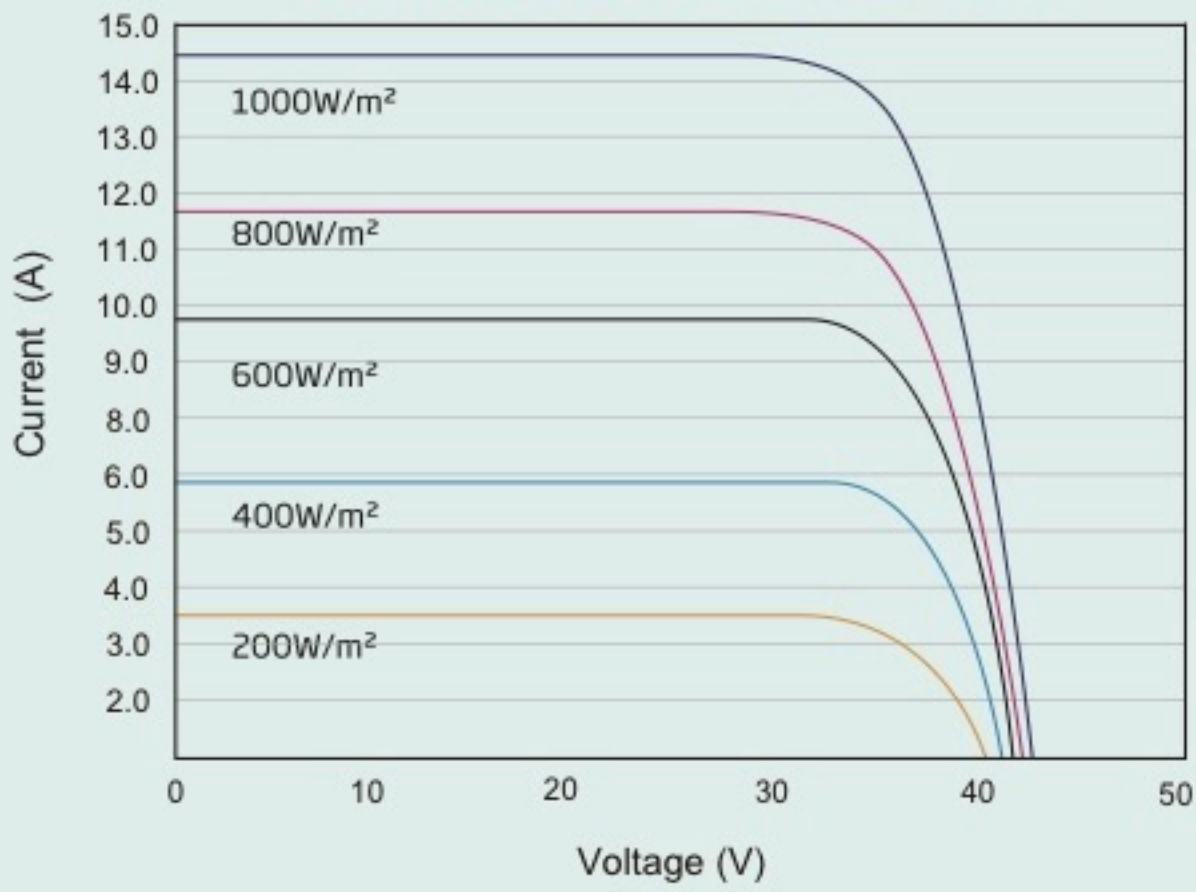
0 ~+5W



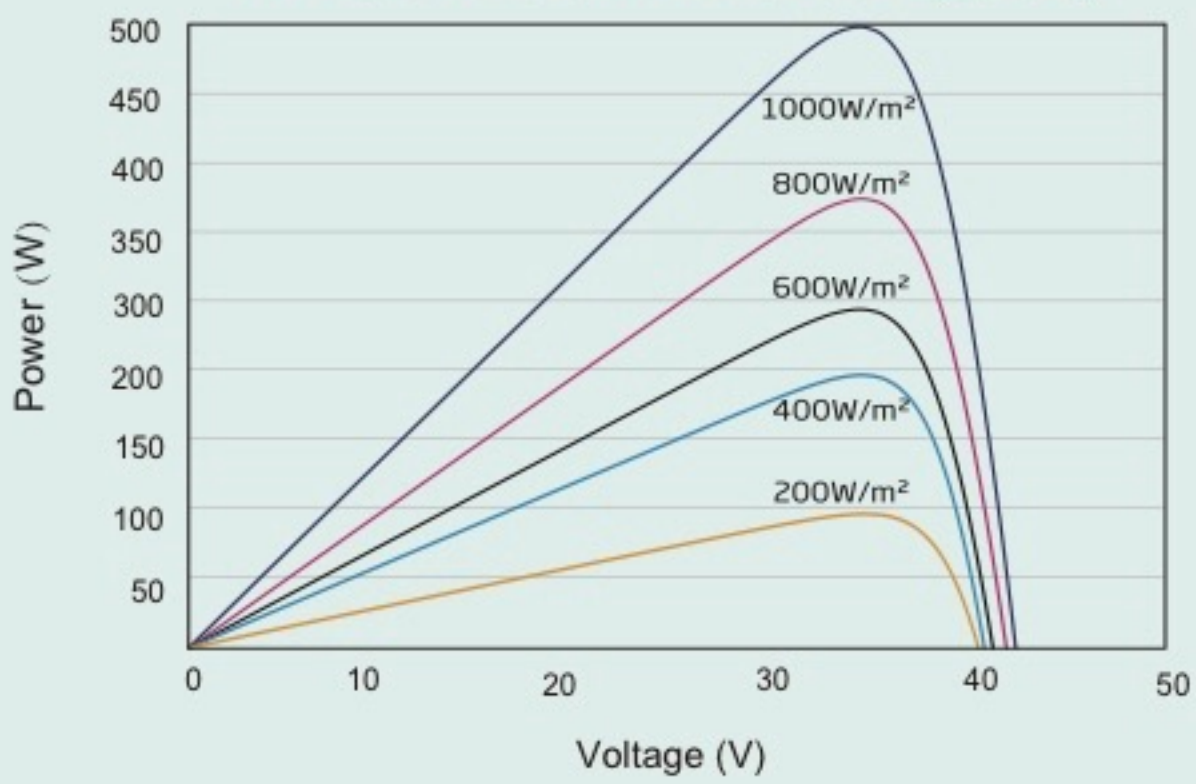
DIMENSIONS OF PV MODULE (mm)



I-V CURVES OF PV MODULE (500W)



P-V CURVES OF PV MODULE (500W)



ELECTRICAL DATA (STC)

Peak Power Watts- P_{MAX} (Wp)*	490	495	500	505	510	515
Power Tolerance- P_{MAX} (W)	0 ~ +5					
Maximum Power Voltage- V_{MPP} (V)	36.20	36.40	36.60	36.80	37.00	37.20
Maximum Power Current- I_{MPP} (A)	13.55	13.61	13.67	13.73	13.79	13.85
Open Circuit Voltage- V_{OC} (V)	42.80	43.00	43.20	43.40	43.60	43.80
Short Circuit Current- I_{SC} (A)	14.37	14.44	14.51	14.58	14.65	14.72
Module Efficiency η m (%)	21.70	21.90	22.10	22.30	22.60	22.80

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5.
*Measuring tolerance: ±3%.

Electrical characteristics with different rear side power gain

5% Maximum Power- P_{MAX} (Wp)	514.5	519.75	525	530.25	535.5	540.75
5% Module Efficiency η m (%)	22.79	23.00	23.21	23.42	23.73	23.94
15% Maximum Power- P_{MAX} (Wp)	563.5	569.25	575	580.75	586.5	592.25
15% Module Efficiency η m (%)	24.96	25.19	25.42	25.65	25.99	26.22
25% Maximum Power- P_{MAX} (Wp)	612.5	618.75	625	631.25	637.5	643.75
25% Module Efficiency η m (%)	27.13	27.38	27.63	27.88	28.25	28.50

Power Bifaciality: 80±5%.

ELECTRICAL DATA (NOCT)

Maximum Power- P_{MAX} (Wp)	371	374	378	382	386	389
Maximum Power Voltage- V_{MPP} (V)	34.20	34.40	34.60	34.80	35.0	35.20
Maximum Power Current- I_{MPP} (A)	10.83	10.88	10.93	10.98	11.03	11.07
Open Circuit Voltage- V_{OC} (V)	40.50	40.70	40.90	41.10	41.30	41.50
Short Circuit Current- I_{SC} (A)	11.59	11.64	11.70	11.76	11.81	11.87

NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

MECHANICAL DATA

Solar Cells	Monocrystalline, N-Topcon
Cell Orientation	120 cells (6 x 20)
Module Dimensions	1994 × 1134 × 30 mm
Weight	29.7 kg
Front Glass	2.0 mm, High Transmission, AR Coated Heat Strengthened Glass
Encapsulant material	POE
Back Glass	2.0 mm, Heat Strengthened Glass
Frame	30 mm Black, Anodized aluminium alloy
J-Box	IP 68 rated (3 bypass diodes)
Cables	Photovoltaic Technology Cable 4.0 mm² 1500 mm (+) / 1500 mm (-) or Customized Length
Connector	MC4 Compatible

*Please refer to regional datasheet for specific connector.

TEMPERATURE RATINGS

NOCT(Nominal Operating Cell Temperature)	44°C (±2°C)
Temperature Coefficient of P_{MAX}	-0.320% /°C
Temperature Coefficient of V_{OC}	-0.270% /°C
Temperature Coefficient of I_{SC}	+0.048% /°C

(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

WARRANTY

30 Years Product Warranty
30 Years Power Warranty
1.5% First Year Degradation
0.4% Annual Power Degradation

(Please refer to product warranty for details)

APPLICATION ENVIRONMENT

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC
Max Series Fuse Rating	(IEC) 25A
Mechanical Performance	P 5400 Pa/N 2400 Pa

PACKAGING CONFIGURATION

Modules per pallet: 36 pieces
Modules per 40' container: 720 pieces