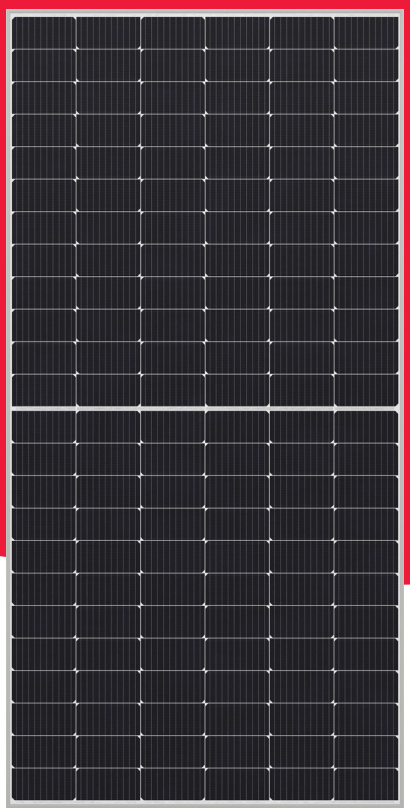
NB-JD Series

NB-JD545 / 550

545 / 550 W

The Project Solution

Bifacial



Powerful product features

- Max. system voltage 1,500 V
  Lower BOS costs by longer strings
- Module efficiency 21.1 / 21.3 %
  PERC monocrystalline silicon photovoltaic modules
- +% Guaranteed positive power tolerance (0/+5 %)
- MBB busbar technology
  Improved reliability
  Higher efficiency
  Reduced series resistance
- Half-cut cell
  Improved shading performance
  Lower internal losses
  Reduced hot spot risk
- Bifacial module
  Additional rear side power gain
- Tested and certified
  VDE, IEC/EN61215, IEC/EN61730
  Safety class II, CE
  Fire rating class A
- Robust product design
  PID resistance test passed
  Salt mist test passed (IEC61701)
  Ammonia test passed (IEC62716)
  Dust and sand test passed (IEC60068)

Your solar partner for life

- 60 YEARS 60 years of solar expertise
- 30 YEARS Linear power output guarantee
- 15* YEARS Product guarantee
- Local support team in Europe
- 50 MIL 50 million PV modules installed
- 1 TIER Tier 1 - BloombergNEF

Energy Solutions

SHARP
Be Original.

* Applicable for modules installed within the EU and additional listed countries.
Please check the guarantee conditions for your area before purchasing.

Electrical data (STC, NMOT)

		NB-JD545 (STC)	NB-JD545 (NMOT)	NB-JD550 (STC)	NB-JD550 (NMOT)	
Maximum power	P_{max}	545	406.79	550	410.52	W_p
Open-circuit voltage	V_{oc}	50.40	47.13	50.63	47.35	V
Short-circuit current	I_{sc}	13.77	11.12	13.83	11.17	A
Voltage at point of maximum power	V_{mpp}	42.25	39.38	42.44	39.55	V
Current at point of maximum power	I_{mpp}	12.90	10.33	12.96	10.38	A
Module efficiency	η_m	21.1		21.3		%
Bifaciality factor		70 ±5		70 ±5		%

STC = Standard Test Conditions: irradiance 1,000 W/m², AM 1.5, cell temperature 25 °C. Rated electrical characteristics are within ±10 % of the indicated values of I_{SC}, V_{OC} and 0 to +5 % of P_{max}. Reduction of efficiency from an irradiance change of 1,000 W/m² to 200 W/m² (T_{module} = 25 °C) is less than 3 %.
NMOT = Nominal Module Operating Temperature: 45 °C, irradiance 800 W/m², air temperature of 20 °C, wind speed of 1 m/s.

Bifacial Generation Data (STC)

		NB-JD545					NB-JD550					
Power gain rear side		5	10	15	20	25	5	10	15	20	25	%
Maximum power	P_{max}	572.49	599.53	626.99	654.03	681.49	577.61	605.19	632.36	659.94	687.53	W_p
Open-circuit voltage	V_{oc}	50.40	50.40	50.40	50.40	50.40	50.63	50.63	50.63	50.63	50.63	V
Short-circuit current	I_{sc}	14.46	15.15	15.84	16.52	17.21	14.52	15.21	15.90	16.60	17.29	A
Voltage at point of maximum power	V_{mpp}	42.25	42.25	42.25	42.25	42.25	42.44	42.44	42.44	42.44	42.44	V
Current at point of maximum power	I_{mpp}	13.55	14.19	14.84	15.48	16.13	13.61	14.26	14.90	15.55	16.20	A

Mechanical data

Length	2,278 mm
Width	1,134 mm
Depth	30 mm
Weight	32.5 kg

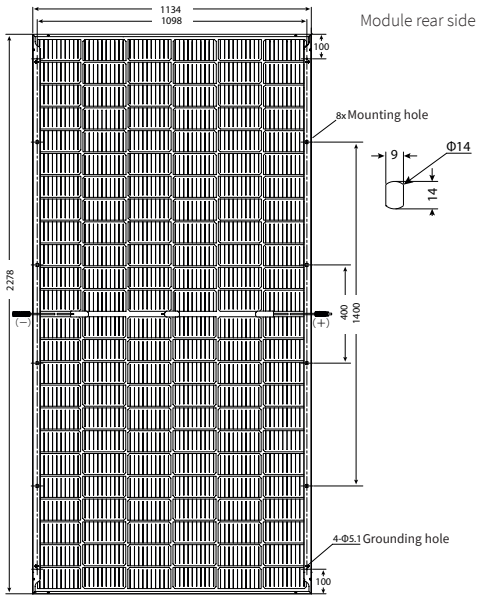
Temperature coefficient

P_{max}	-0.349 %/°C
V_{oc}	-0.267 %/°C
I_{sc}	0.049 %/°C

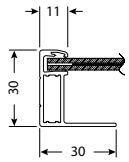
Limit values

Maximum system voltage	1,500 V DC
Over-current protection	30 A
Temperature range	-40 to 85 °C
Max. mechanical load (snow/wind)	2,400 Pa
Tested snow load (IEC61215 test pass*)	5,400 Pa

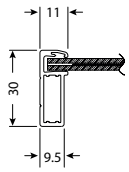
Dimensions (mm)



Module rear side view



Frame long side cross section



Frame short side cross section

*Please refer to SHARP's installation manual for details.

Packaging data**

Modules per pallet	36 pcs
Pallet size (L × W × H)	2.31 m × 1.12 m × 1.21 m
Pallet weight	Approx. 1.210 kg

**Special offloading requirements, please refer to QR code or: www.sharp.eu/NBJD-offloading

General data

Cells	Half-cut cell mono, 182 mm x 91 mm, MBB, 2 strings of 72 cells in series
Front glass	Anti-reflective high transmissive low iron tempered glass, 2 mm
Rear glass	Tempered glass, 2 mm
Frame	Anodized aluminium alloy, silver
Cable	ø 4.0 mm², length (+) 397 mm, (-) 50 mm [or on request (+)/(-) 1,500 mm]
Connection box	IP68 rating, 3 bypass diodes
Connector	C1, IP68

SHARP Electronics GmbH
Energy Solutions
Nagelsweg 33 – 35
20097 Hamburg, Germany
T: +49 40 2376 2436
E: SolarInfo.Europe@sharp.eu

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www.sharp.eu/solar-energy | @SHARPSolarEMEA

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