

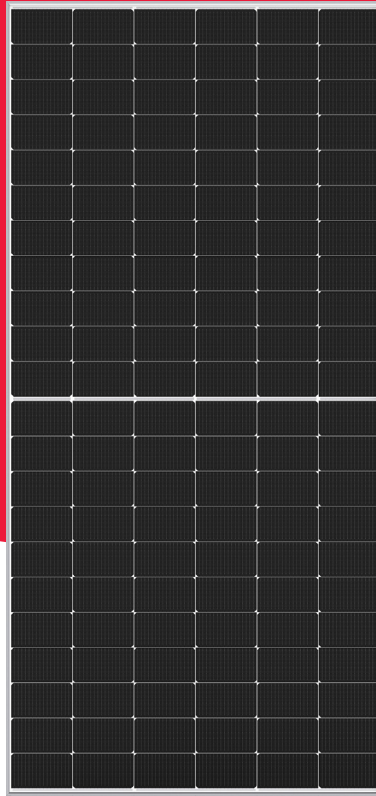
NBJE Series

NBJE610

610 W

The Project Solution

Bifacial



Powerful product features



Max. system voltage 1,500 V
Lower BOS costs by longer strings

MBB

MBB busbar technology
Improved reliability
Higher efficiency
Reduced series resistance



Tested and certified



VDE, IEC/EN61215, IEC/EN61730



Safety class II, CE, UKCA, (MCS under application)



Fire rating class C



Module efficiency 22.58%
N-Type TOPCon monocrystalline silicon photovoltaic modules



Half-cut cell
Improved shading performance
Lower internal losses



Robust product design

PID resistance test passed
Salt mist test passed (IEC61701)
Ammonia test passed (IEC62716)
Dust and sand test passed (IEC60068)



Guaranteed positive power tolerance (0/+5 %)



Bifacial module
Additional rear side power gain

Your solar partner for life

65
YEARS

65 years of solar expertise

30
YEARS

Linear power output guarantee

15*
YEARS

Product guarantee
not on roof



Local support team in Europe

50
MIL

50 million PV modules installed

25*
YEARS

Product guarantee
on roof



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)

| | | NBJE610 | | | |
|-----------------------------------|-----------|------------------------------|-----------------------------|-----------------------------|-------|
| Maximum power | P_{max} | | 610 | | W_p |
| Open-circuit voltage | V_{oc} | | 48.54 | | V |
| Short-circuit current | I_{sc} | | 16.00 | | A |
| Voltage at point of maximum power | V_{mpp} | | 40.56 | | V |
| Current at point of maximum power | I_{mpp} | | 15.04 | | A |
| Module efficiency | η_m | | 22.58 | | % |
| Bifaciality coefficient | ϕ | $\phi P_{max} = 80 (\pm 10)$ | $\phi V_{oc} = 99 (\pm 10)$ | $\phi I_{sc} = 80 (\pm 10)$ | % |

STC = Standard Test Conditions: irradiance 1,000 W/m², AM 1.5, cell temperature 25 °C.
Rated electrical characteristics are within $\pm 10\%$ of the indicated values of I_{sc} , V_{oc} and 0 to +5 % of P_{max} .

Electrical data (BNPI, BSI, Low Light)

| | | NBJE610 | | | |
|----------------------------|-----------|---------|--------|--|-------|
| Maximum power BNPI | P_{max} | | 674 | | W_p |
| Open-circuit voltage BNPI | V_{oc} | | 48.71 | | V |
| Short-circuit current BNPI | I_{sc} | | 17.70 | | A |
| Short-circuit current BSI | I_{sc} | | 19.84 | | A |
| Maximum power low light | P_{max} | | 120.23 | | W_p |

BNPI: Bifacial Nameplate Irradiance: 1,000 W/m² (front) and 135 W/m² (rear); BSI: Bifacial Stress Irradiance: 1,000 W/m² (front) and 300 W/m² (rear)
Low light conditions: irradiance 200 W/m², cell temperature of 25 °C
Rated electrical characteristics are within $\pm 10\%$ of the indicated values of I_{sc} , V_{oc} and 0 to +5 % of P_{max} .

Mechanical data

| | |
|--------|----------|
| Length | 2,382 mm |
| Width | 1,134 mm |
| Depth | 30 mm |
| Weight | 34 kg |

Temperature coefficient

| | |
|-----------|-------------|
| P_{max} | -0.290 %/°C |
| V_{oc} | -0.240 %/°C |
| I_{sc} | 0.047 %/°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 |

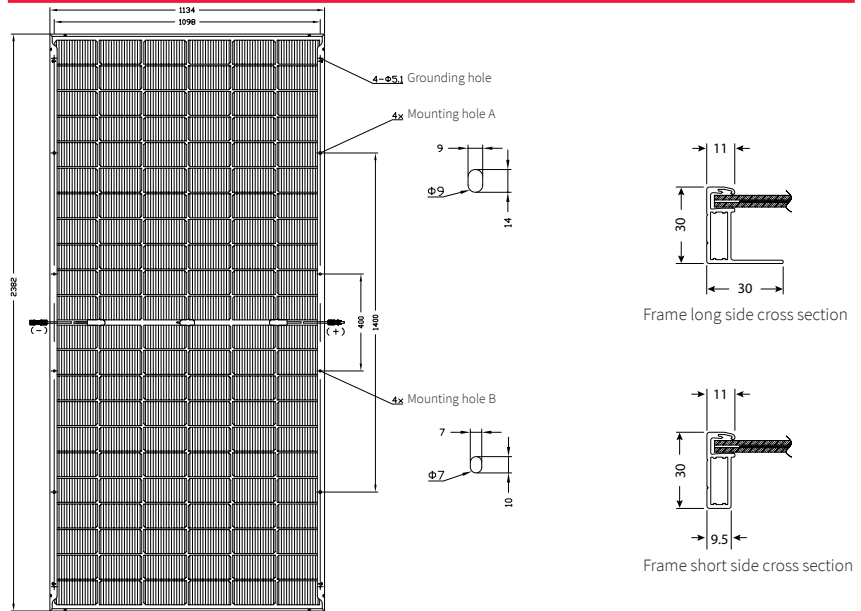
Packaging data**

| | |
|-------------------------|--------------------------|
| Modules per pallet | 36 pcs |
| Pallet size (L x W x H) | 2.39 m x 1.13 m x 1.25 m |
| Pallet weight | Approx. 1.290 kg |

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



Dimensions (mm)



General data

| | |
|----------------|---|
| Cells | Half-cut cell mono, 182 mm x 105 mm, MBB, 2 strings of 66 cells in series |
| Front glass | Anti-reflective high transmissive low iron semi-tempered glass, 2 mm |
| Rear glass | Semi-tempered glass, 2 mm |
| Frame | Anodized aluminium alloy, silver |
| Cable | \varnothing 4.0 mm ² , length 1.600 mm |
| Connection box | IP68 rating, 3 bypass diodes |
| Connector | Solargiga C1, IP68 |

Note: Technical data is subject to change without prior notice. Before using SHARP products, please request the latest data sheets from SHARP. SHARP accepts no responsibility for damage to devices which have been equipped with SHARP products on the basis of unverified information. The specifications may deviate slightly and are not guaranteed. Installation and operating instructions are to be found in the corresponding handbooks, or can be downloaded from www.sharp.eu. This module should not be directly connected to a load.