

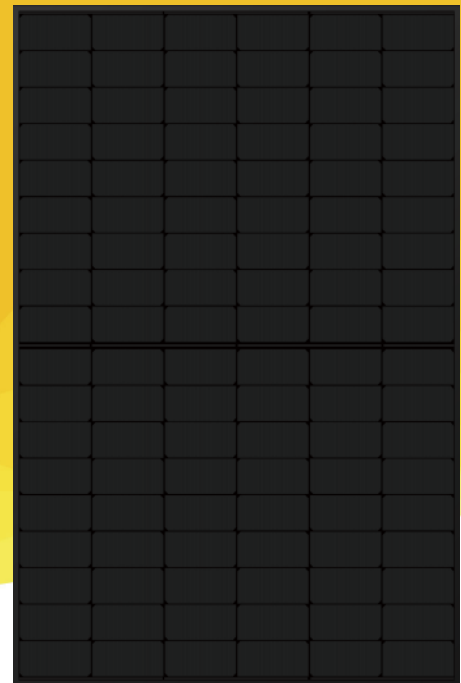


QNN182-HSFB-54

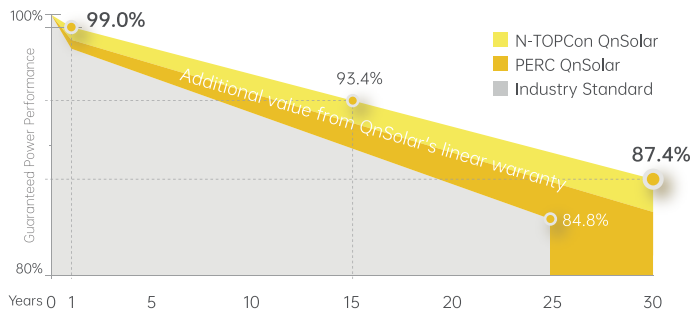
# 410-430W

Full Black N-Type TOPCon Monofacial Half-Cell Module

## Max Efficiency 22.02%



### LINEAR PERFORMANCE WARRANTY



Linear power guarantee over 87.4% power output after 30 years.

**30** years

Product materials and process warranty

**30** years

Linear power warranty

**< 1%**

First year power degradation

**< 0.4%**

Year 2-30 power degradation



Excellent lower temperature coefficient, 1%-2% more power generation than P-type modules in high temperature areas



Lower LCOE, 3.5% more power generation than PERC modules, greatly reduce the cost of power generation.



0~+5W positive power tolerance peak power output ensures the reliability of the module



The module shows excellent weak light performance in the morning, evening and cloudy days.



Improved cell technology and selected materials make the module has good PID resistance

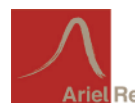
### COMPREHENSIVE CERTIFICATES



• IEC 61215, IEC 61730 • UNI9177 • ISO 9001:2015 • ISO 14001:2015 • ISO 45001:2018

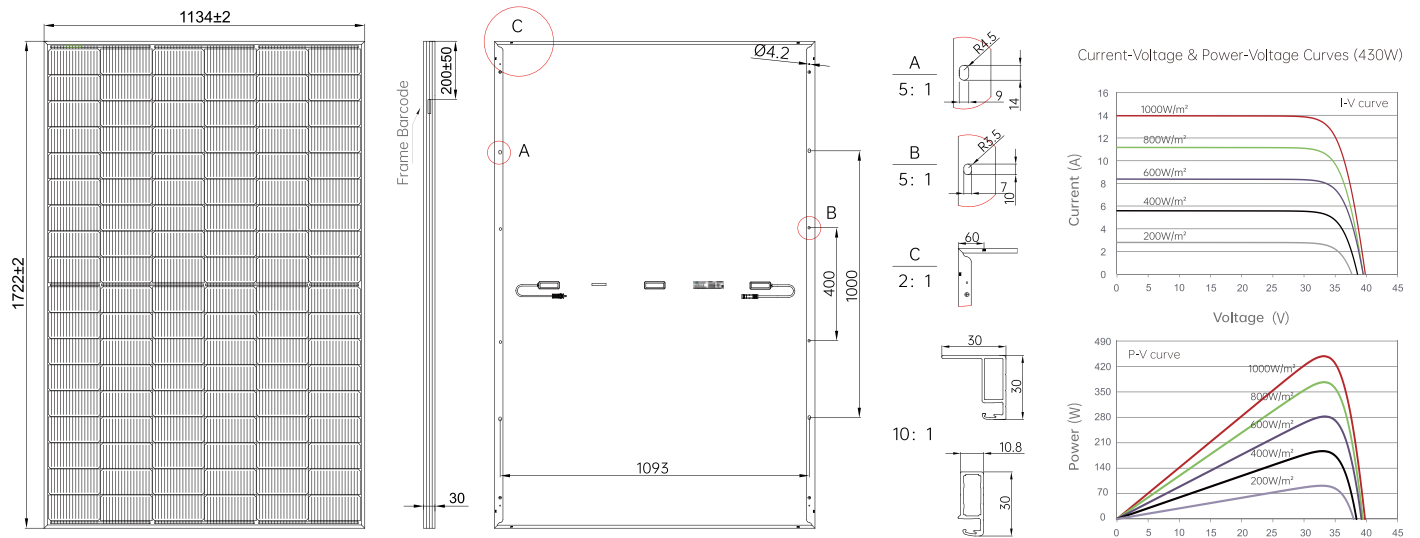
\* Different markets have different certification requirements. Also, the products are under rapid innovation. Please confirm the certification status with regional sales representatives.

### PERFORMANCE INSURANCE



Guardians of human health and the natural environment.

Qn-SOLAR PV LIMITED



ELECTRIC CHARACTERISTICS

Module Type	QNN182-HSFB410-54	QNN182-HSFB415-54	QNN182-HSFB420-54	QNN182-HSFB425-54	QNN182-HSFB430-54
STC Peak Power - <b>Pmax(Wp)</b>	410	415	420	425	430
Optimum Working Voltage - <b>Vmp(V)</b>	31.13	31.32	31.51	31.70	31.88
Optimum Working Current - <b>Imp(A)</b>	13.17	13.25	13.33	13.41	13.49
Open Circuit Voltage - <b>Voc(V)</b>	37.73	37.92	38.11	38.30	38.49
Short Circuit Current - <b>Isc(A)</b>	13.91	13.99	14.07	14.15	14.23
Module Efficiency (%)	21.00	21.25	21.51	21.76	22.02

STC (Standard Testing Conditions): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25 °C , Spectra at AM1.5.

MECHANICAL CHARACTERISTICS

Cell Type	N-type TOPCon Monocrystalline
Number of Half Cells	108 (2x54)
Module Size	1722mm × 1134mm × 30mm (35mm)
Weight	20.8kg (30mm Frame) / 21kg (35mm Frame)
Glass	3.2mm Coated tempered glass
Frame	Anodized aluminum alloy
Junction Box	IP68 standard (3 bypass diode)
Output Cable	TUV (2pfg1169:2007) 4mm <sup>2</sup> /1200mm
Connector	MC4 or (Compatible with MC4)
Hailstone Test	25mm Hailstone at the speed of 23m/s
Mechanical Load	Max. Snow load 5400 Pa, Max. Wind load 2400 Pa

NOCT : Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C , Spectra at AM1.5, Wind at 1m/s.

TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	45±2°C
Temperature Coefficient of <b>Pmax</b>	-0.29%/°C
Temperature Coefficient of <b>Voc</b>	-0.25%/°C
Temperature Coefficient of <b>Isc</b>	0.045%/°C
Power Tolerance (W)	0~+5W
Maximum Series Fuse Rating	25A
Maximum System Voltage	DC1500V
Operating Module Temperature	-40°C ~ +85°C

PACKING CONFIGURATION (40'HC)

936 pcs / container , 26 pallets , 36 pcs / pallet (30mm Frame)

806 pcs / container , 26 pallets , 31 pcs / pallet (35mm Frame)



Web: [www.qn-solarpv.com](http://www.qn-solarpv.com) E-mail: [info@qn-solarpv.com](mailto:info@qn-solarpv.com)

\* The technical parameters contained in this datasheet may deviate slightly, and OnSolar does not guarantee that they are completely accurate. Due to continuous innovation, research and development and product improvement, OnSolar reserves the right to adjust the information in this datasheet at any time without prior notice. The customer should obtain the latest version of datasheet when signing the contract and make it an integral part of the binding contract signed by both parties. The Chinese (or other language) translation files of this datasheet are for reference only. If there is any inconsistency between the English version and the Chinese version (or other language versions), the English version shall prevail.



View Our Web