


N-TOPCon series

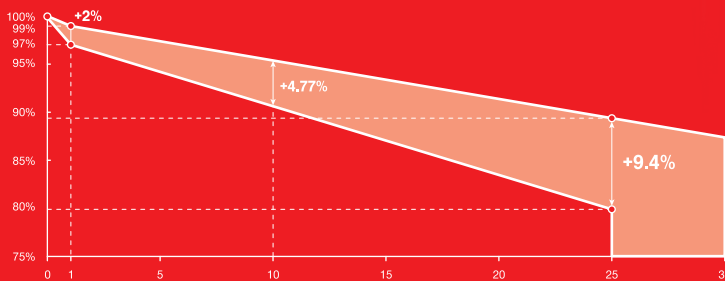
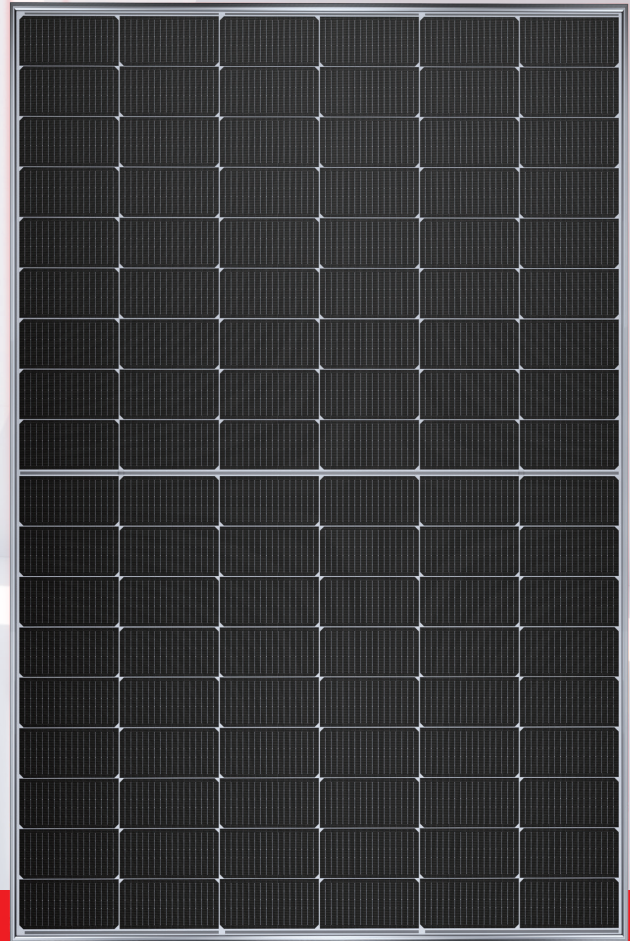
## 182 N-TOPCon Bifacial Module

415W ~ 430W

 **12** years product workmanship warranty








 **30** years linear power output warranty

 **1%** 1st-year degradation  
**0.40%** annual degradation



 Conventional  LESSO Solar Module

### FEATURES AND BENEFITS

-  N-TOPCon brings 10-30% additional power generation comparing with conventional P-type module.
-  N-TOPCon solar cell has no LID naturally which can increase power generation.
-  Higher bifaciality, higher power output and lower BOS cost.
-  Double sides power output to reach higher comprehensive efficiency and get more profit.
-  Higher power output even under low-light environments like on cloudy or foggy days.
-  Higher power generation under working conditions, thanks to passivating contact cell technology.
-  More application scenes like BIPV, vertical installation, snowfield, high-humid, windy and dusty area.

# LESSO 182 N-TOPCon Bifacial Module



Power Range  
**415W ~ 430W**



Power Output Tolerance  
**0W ~ +5W**

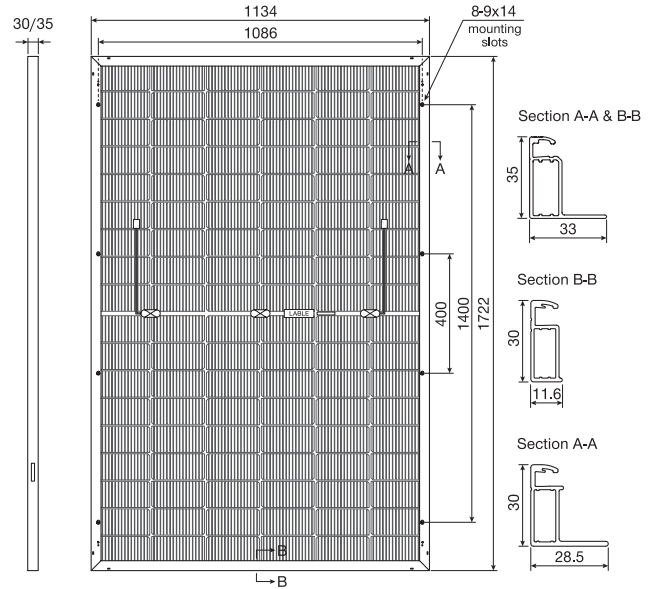


Maximum Efficiency  
**22.02%**

## Structure Performance

Solar Cell Type	182mm N-TOPCon Mono Cell (Half Cell)
Solar Cell Arrangement	108pcs(6×18)
Module Dimension	1722×1134×35mm/30mm
Weight	24.1kg(35mm) / 23.4kg(30mm)
Front Glass	2.0mm, highly transparent tempered glass with anti-reflective coating
Frame	Anodized Aluminum Alloy
Junction Box	IP68 rated
Cable	4mm <sup>2</sup> , portrait <sup>400mm (+)</sup> / <sub>200mm (-)</sub> , landscape <sup>1400mm (+)</sup> / <sub>1400mm (-)</sub> Length can be customized
Diode Quantity	3 pcs
Front side / Rear side	5400pa / 2400pa
Connector	MC4 Compatible
Per Pallet	31pcs(35mm) / 36pcs(30mm)
Per Container(40'HQ)	806pcs(35mm) / 936pcs(30mm)

(Unit: mm)



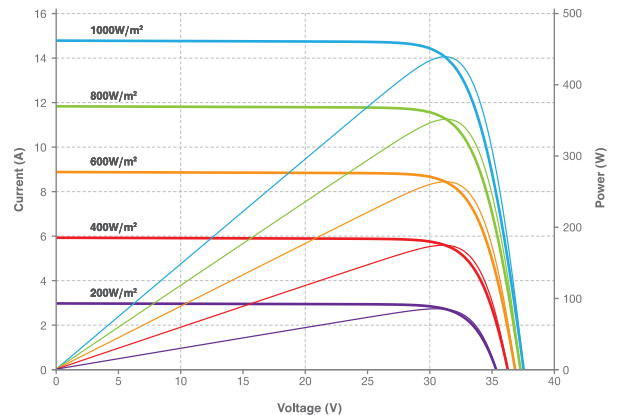
## Electrical Performance Parameters | STC

Model Type	415C(HBD) 54(182)	420C(HBD) 54(182)	425C(HBD) 54(182)	430C(HBD) 54(182)	
Nominal Max. Power	P <sub>max</sub> (W)	415	420	425	430
Max. Power Voltage	V <sub>mp</sub> (V)	31.18	31.42	31.65	31.88
Max. Power Current	I <sub>mp</sub> (A)	13.31	13.37	13.43	13.49
Open Circuit Voltage	V <sub>oc</sub> (V)	36.77	36.97	37.17	37.37
Short Circuit Current	I <sub>sc</sub> (A)	14.55	14.61	14.67	14.73
Module Efficiency	(%)	21.25	21.51	21.76	22.02
Power Output Tolerance	(W)	0~+5W			

\* STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5.

\* Power measurement tolerance ±3%.

## Current-Voltage & Power-Voltage Curve (435C)



## Electrical Performance Parameters | BNPI

Model Type	415C(HBD) 54(182)	420C(HBD) 54(182)	425C(HBD) 54(182)	430C(HBD) 54(182)	
Nominal Max. Power	P <sub>max</sub> (W)	311	315	319	323
Max. Power Voltage	V <sub>mp</sub> (V)	29.41	29.61	29.82	32.02
Max. Power Current	I <sub>mp</sub> (A)	10.58	10.64	10.70	10.76
Open Circuit Voltage	V <sub>oc</sub> (V)	34.30	34.49	34.68	34.87
Short Circuit Current	I <sub>sc</sub> (A)	11.80	11.85	11.90	11.95

NMOT: Irradiance 800W/m<sup>2</sup>, Cell Temperature 20°C, Wind Speed 1m/s.

\* Power measurement tolerance ±3%.

## Temperature Characteristics

Nominal Module Operating Temperature	44±2°C
Temperature Coefficient (I <sub>sc</sub> )	+0.043%
Temperature Coefficient (V <sub>oc</sub> )	-0.25%
Temperature Coefficient (P <sub>max</sub> )	-0.30%

## Maximum Parameters

Working Temperature	-40~+85°C
Maximum System Voltage	1500V DC
Nominal Maximum Fuse Current	30A