


Pure Black **PRO** series

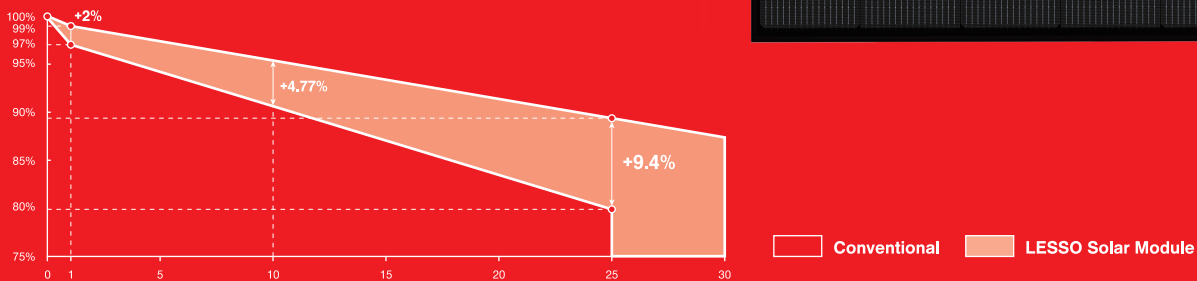
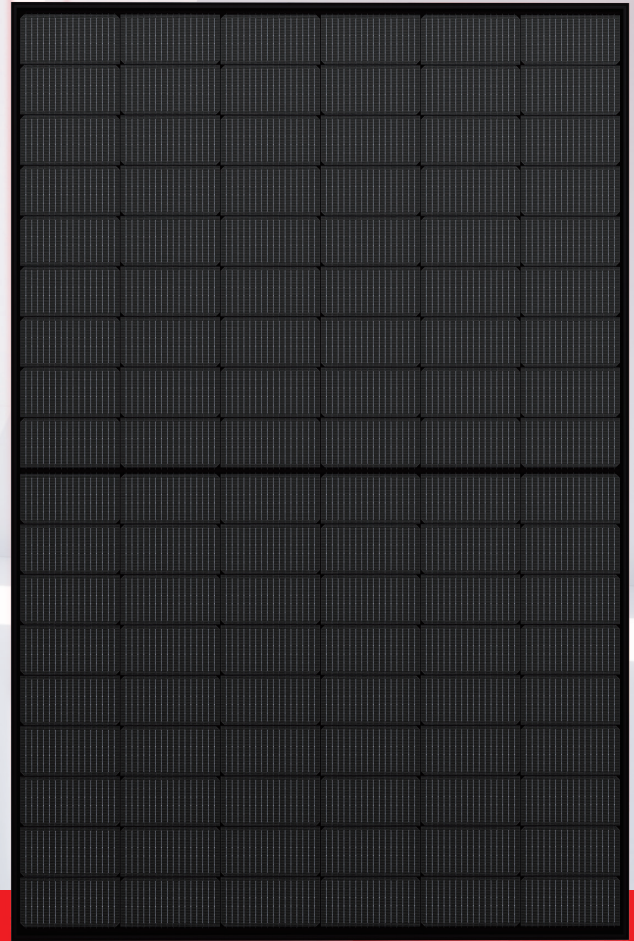
## 182 N-TOPCon Bifacial Single Glass Module

**430W ~ 435W**

 **12** years product workmanship warranty

 **30** years linear power output warranty

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



### FEATURES AND BENEFITS

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

# LESSO 182 Pure Black N-TOPCon Bifacial Single Glass Module



Power Range  
**430W ~ 435W**



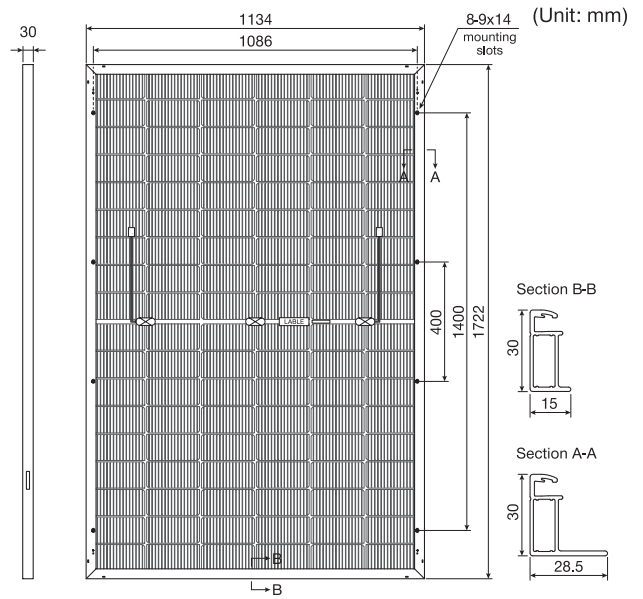
Power Output Tolerance  
**0W ~ +5W**



Maximum Efficiency  
**22.28%**

## Structure Performance

Solar Cell Type	182mm N-TOPCon Mono Cell (Half Cell)
Solar Cell Arrangement	108pcs(6×18)
Module Dimension	1722×1134×30mm
Weight	20.7kg
Front Glass	3.2mm, highly transparent tempered glass with anti-reflective coating
Back Sheet	Transparent with black grid
Frame	Anodized Aluminum Alloy (Black)
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	PV-01 (Guangdong Lesso Electric Co., Ltd.)
Per Pallet	36pcs
Per Container(40'HQ)	936pcs
Fire Rating	Class C



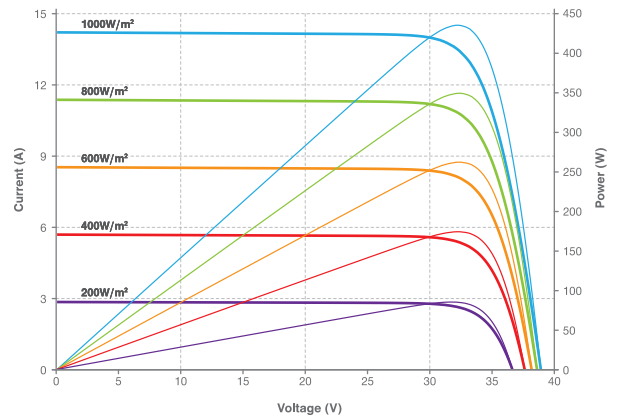
## Electrical Performance Parameters | STC

Model Type		430C(HBB) 54(182)	435C(HBB) 54(182)
Nominal Max. Power	$P_{max}$ (W)	430	435
Max. Power Voltage	$V_{mp}$ (V)	31.69	31.92
Max. Power Current	$I_{mp}$ (A)	13.57	13.63
Open Circuit Voltage	$V_{oc}$ (V)	40.13	40.28
Short Circuit Current	$I_{sc}$ (A)	14.82	14.88
Module Efficiency	(%)	22.02	22.28
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)



## Bifacial Nameplate Irradiance | BNPI

Model Type		430C(HBB) 54(182)	435C(HBB) 54(182)
Nominal Max. Power	$P_{max}$ (W)	467	472
Open Circuit Voltage	$V_{oc}$ (V)	40.20	40.35
Short Circuit Current	$I_{sc}$ (A)	16.36	16.43
BIFI		0.274	0.274

\* BiFi: rear irradiance driven power gain yield.

\* BNPI: Irradiance Front side 100W/m<sup>2</sup> Rear side 135W/m<sup>2</sup>, Ambient Temperature 25°C, Air Mass AM1.5.

\* Power measurement tolerance ±3%.

## Bifaciality Coefficient

Tolerance/ $\rho_{Isc}$	69.20±4%
Tolerance/ $\rho_{Voc}$	99.00±3%
Tolerance/ $\rho_{Pmax}$	70.70±3%

## Short Circuit Current at BSI

Tolerance/ $I_{sc}$ [A/c]	16.08±4%
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## Temperature Characteristics

Nominal Module Operating Temperature	44±2°C
Temperature Coefficient ( $I_{sc}$ )	+0.043%
Temperature Coefficient ( $V_{oc}$ )	-0.25%
Temperature Coefficient ( $P_{max}$ )	-0.30%

## Maximum Parameters

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