

Pure Black **PRO** series

## 182 N-TopCon Bifacial Single Glass Module

**410W ~ 435W**



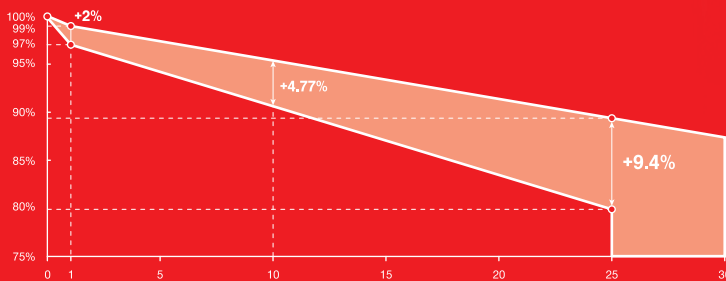
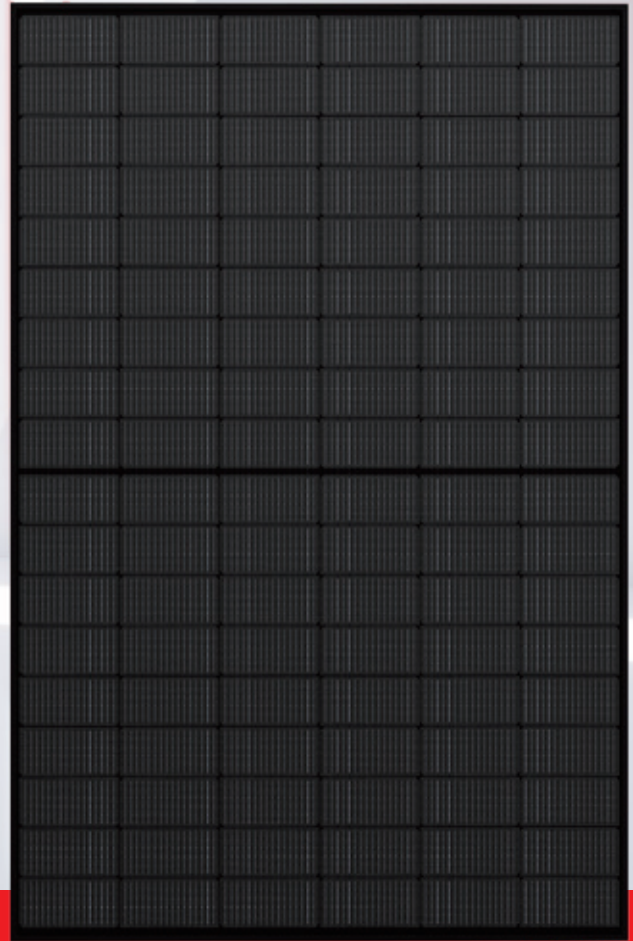
**12** years product  
workmanship warranty



**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.



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 Pure Black N-TopCon Bifacial Single Glass Module



Power Range  
**410W ~ 435W**



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

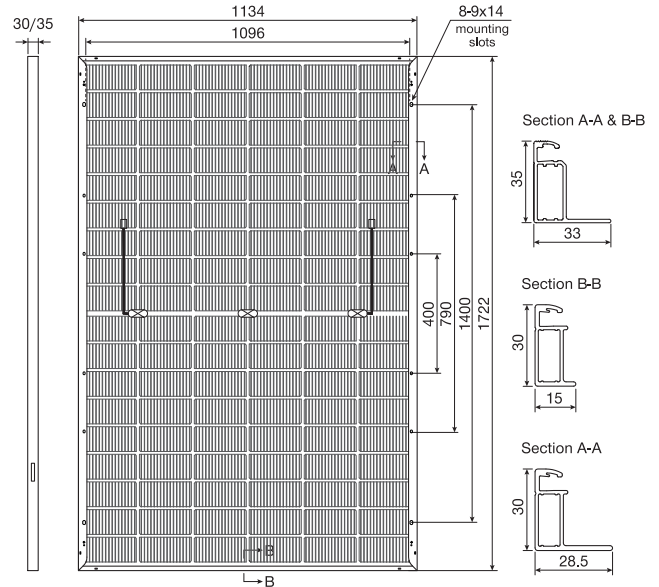


Maximum Efficiency  
**22.28%**

## Structure Performance

<b>Solar Cell Type</b>	182mm N-TopCon Mono Cell (Half Cell)
<b>Solar Cell Arrangement</b>	108pcs(6×18)
<b>Module Dimension</b>	1722×1134×35mm/30mm
<b>Weight</b>	21.7kg(35mm) / 20.6kg(30mm)
<b>Front Glass</b>	3.2mm, highly transparent tempered glass with anti-reflective coating
<b>Back Sheet</b>	Transparent Black Grid
<b>Frame</b>	Anodized Aluminum Alloy (Black)
<b>Junction Box</b>	IP68 rated
<b>Cable</b>	4mm <sup>2</sup> , portrait <sup>400mm (+)</sup> / <sub>300mm (-)</sub> , landscape <sup>1400mm (+)</sup> / <sub>1400mm (-)</sub> Length can be customized
<b>Diode Quantity</b>	3 pcs
<b>Front side / Rear side</b>	5400pa / 2400pa
<b>Connector</b>	MC4 Compatible
<b>Per Pallet</b>	31pcs(35mm) / 36pcs(30mm)
<b>Per Container(40'HQ)</b>	806pcs(35mm) / 936pcs(30mm)

(Unit: mm)



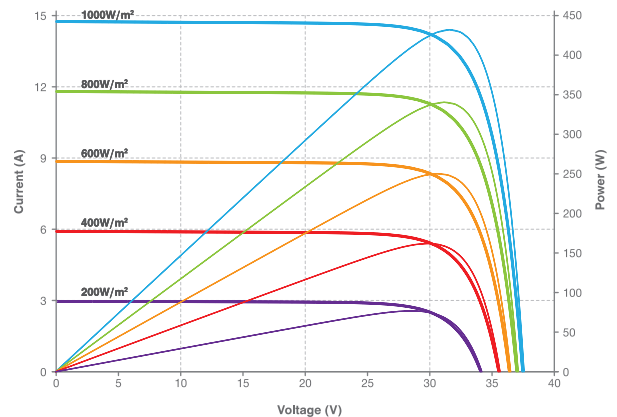
## Electrical Performance Parameters | STC

Model Type	410C(HBB) 54(182)	415C(HBB) 54(182)	420C(HBB) 54(182)	425C(HBB) 54(182)	430C(HBB) 54(182)	435C(HBB) 54(182)
<b>Nominal Max. Power</b> Pmax(W)	410	415	420	425	430	435
<b>Max. Power Voltage</b> Vmp(V)	30.94	31.18	31.42	31.65	31.88	32.11
<b>Max. Power Current</b> Imp(A)	13.25	13.31	13.37	13.43	13.49	13.55
<b>Open Circuit Voltage</b> Voc(V)	36.57	36.77	36.97	37.17	37.37	37.57
<b>Short Circuit Current</b> Isc(A)	14.49	14.55	14.61	14.67	14.73	14.79
<b>Module Efficiency</b> (%)	21.00	21.23	21.51	21.76	22.02	22.28
<b>Power Output Tolerance</b> (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 | NMOT

Model Type	410C(HBB) 54(182)	415C(HBB) 54(182)	420C(HBB) 54(182)	425C(HBB) 54(182)	430C(HBB) 54(182)	435C(HBB) 54(182)
<b>Nominal Max. Power</b> Pmax(W)	307	311	315	319	323	327
<b>Max. Power Voltage</b> Vmp(V)	29.20	29.41	29.61	29.82	30.02	30.23
<b>Max. Power Current</b> Imp(A)	10.52	10.58	10.64	10.70	10.76	10.82
<b>Open Circuit Voltage</b> Voc(V)	34.11	34.30	34.49	34.68	34.87	35.06
<b>Short Circuit Current</b> Isc(A)	11.75	11.80	11.85	11.90	11.95	12.00

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

\* Power measurement tolerance ±3%.

## Temperature Characteristics

<b>Nominal Module Operating Temperature</b>	44±2°C
<b>Temperature Coefficient (Isc)</b>	+0.043%
<b>Temperature Coefficient (Voc)</b>	-0.25%
<b>Temperature Coefficient (Pmax)</b>	-0.30%

## Maximum Parameters

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