

N-TOPCon series

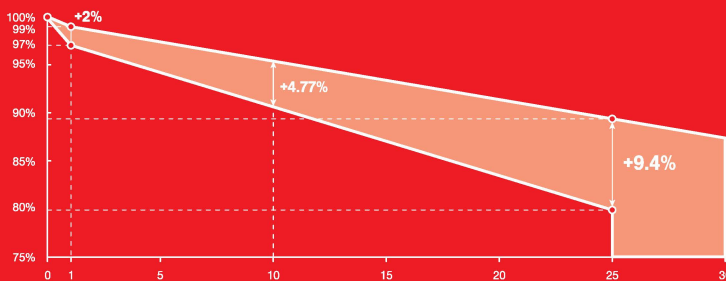
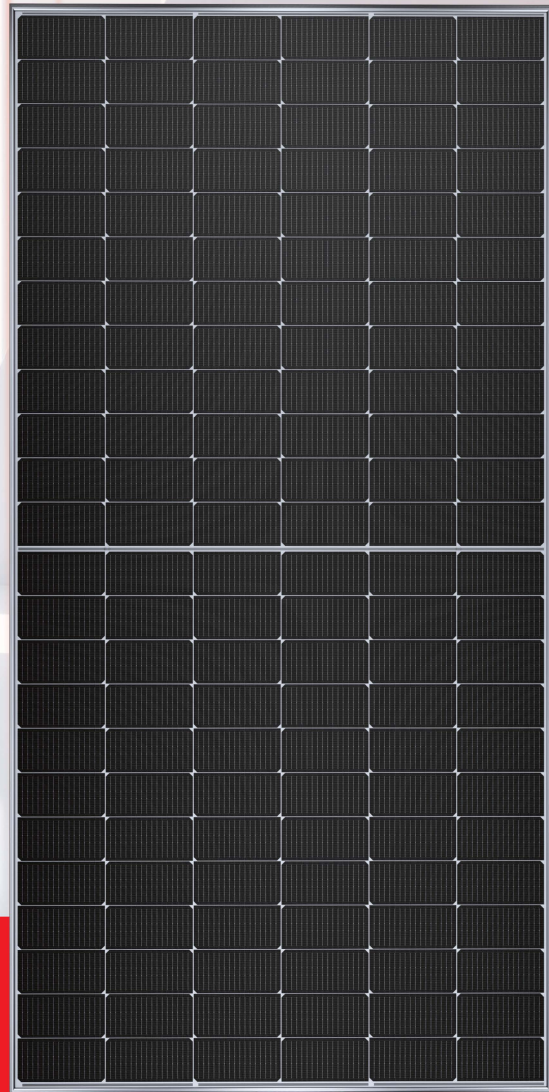
## 182 N-TOPCon Bifacial Module

580W ~ 600W

 **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  
**580W ~ 600W**



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

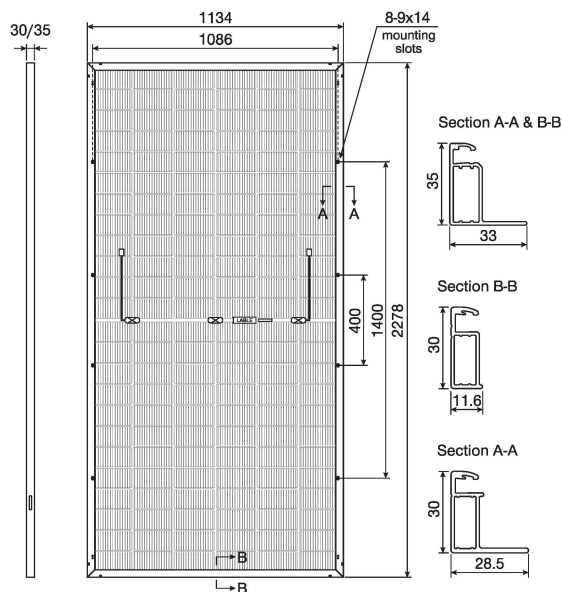


Maximum Efficiency  
**23.23%**

(Unit: mm)

## Structure Performance

Solar Cell Type	183.75R N-TOPCon Mono Cell (Half Cell)
Solar Cell Arrangement	144pcs(6×24)
Module Dimension	2278×1134×35mm/30mm
Weight	32.3kg(35mm) / 31.2kg(30mm)
Front Glass	2.0mm, highly transparent semi 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	PV-01 (Guangdong Lesso Electric Co., Ltd.)
Per Pallet	31pcs(35mm) / 36pcs(30mm)
Per Container(40'HQ)	620pcs(35mm) / 720pcs(30mm)
Fire Rating	Class A



## Electrical Performance Parameters | STC

Model Type	580C(HBD) 72(182)	585C(HBD) 72(182)	590C(HBD) 72(182)	595C(HBD) 72(182)	600C(HBD) 72(182)	
Nominal Max. Power	$P_{max}$ (W)	580	585	590	595	600
Max. Power Voltage	$V_{MP}$ (V)	42.75	42.89	43.04	43.18	43.33
Max. Power Current	$I_{MP}$ (A)	13.57	13.64	13.71	13.78	13.85
Open Circuit Voltage	$V_{OC}$ (V)	51.43	51.63	51.83	52.03	52.23
Short Circuit Current	$I_{SC}$ (A)	14.33	14.39	14.45	14.51	14.57
Module Efficiency	(%)	22.45	22.65	22.84	23.03	23.23
Power Output Tolerance	(W)	0~+5W				

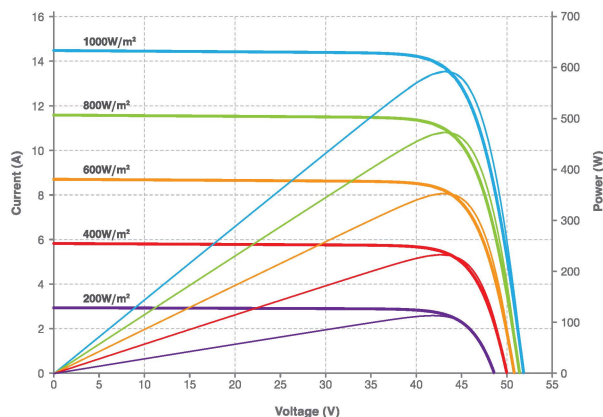
\* STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5.  
\* Power measurement tolerance ±3%.

## Bifacial Nameplate Irradiance | BNPI

Model Type	580C(HBD) 72(182)	585C(HBD) 72(182)	590C(HBD) 72(182)	595C(HBD) 72(182)	600C(HBD) 72(182)	
Nominal Max. Power	$P_{max}$ (W)	639	645	650	655	660
Max. Power Voltage	$V_{MP}$ (V)	42.84	42.98	43.11	43.25	43.39
Max. Power Current	$I_{MP}$ (A)	14.94	15.02	15.08	15.15	15.22
Open Circuit Voltage	$V_{OC}$ (V)	51.42	51.62	51.82	52.02	52.22
Short Circuit Current	$I_{SC}$ (A)	15.82	15.89	15.95	16.02	16.09
BIFI		0.437	0.444	0.444	0.444	0.444

\* 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%.

## Current-Voltage & Power-Voltage Curve (595C)



## Bifaciality Coefficient

Tolerance/ $\phi I_{sc}$	77.71±4%
Tolerance/ $\phi V_{oc}$	99.00±3%
Tolerance/ $\phi P_{max}$	77.32±5%

## Short Circuit Current at BSI

Tolerance/ $I_{sc}$ [A/c]	17.62±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