


N series

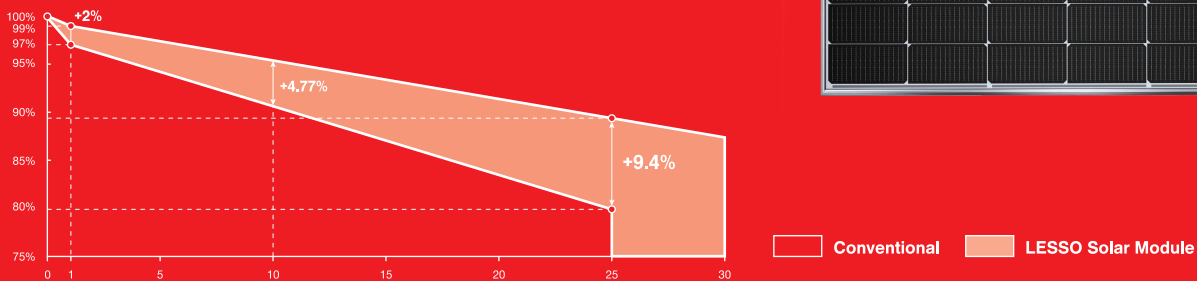
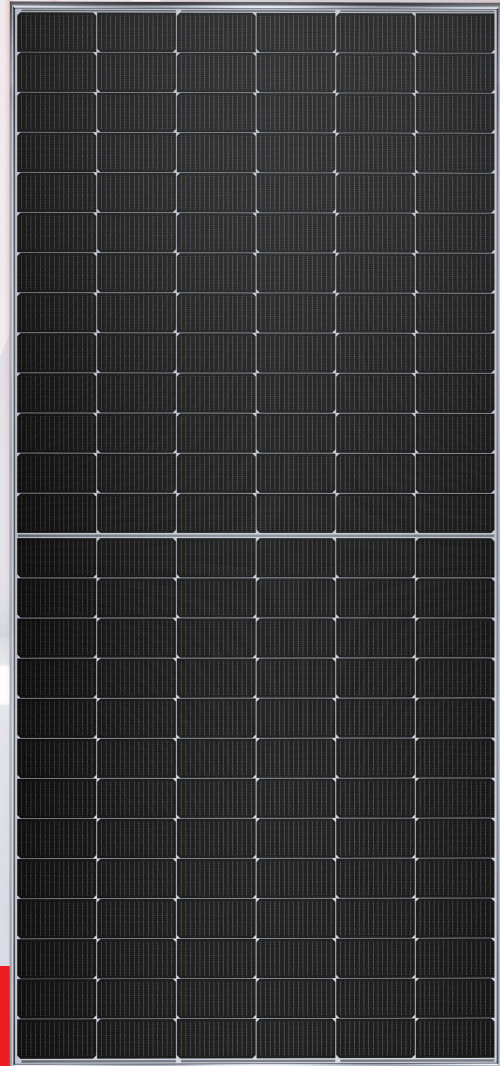
## 182 N-type Bifacial Module

630W ~ 650W

 **12** years product workmanship warranty

 **30** years linear power output warranty

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



### FEATURES AND BENEFITS



Topcon technology, higher power generation.



High density packaging, improving energy density.



Even cloudy or foggy days, better weak illumination response.



Zero LID, increase power generation.



Better temperature coefficient, more power generation.



Higher power output, lower bos cost.



Multiple weather, resistance tests, wider applicability.



Double-sided generation, powerfully energy boost.

# LESSO 182 N-type Bifacial Module (78)



Power Range  
**630W ~ 650W**



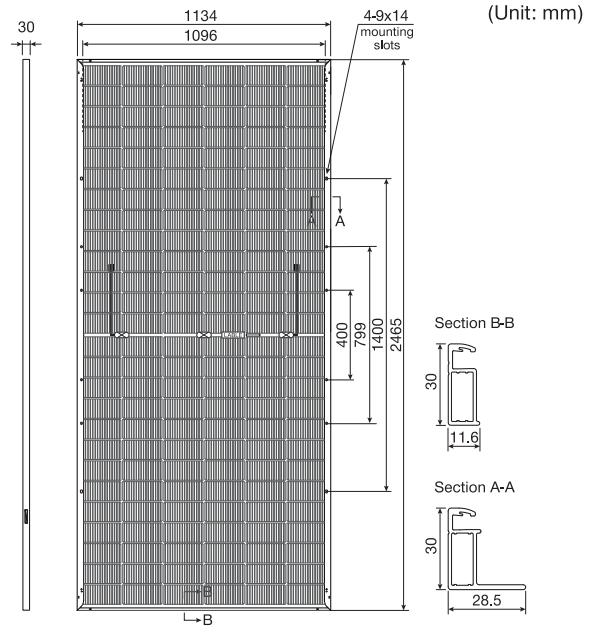
Power Output Tolerance  
**0W ~ +5W**



Maximum Efficiency  
**23.25%**

## Structure Performance

Solar Cell Type	182mm N-TOPCon Mono Cell (Half Cell)
Solar Cell Arrangement	156pcs(6x26)
Module Dimension	2465×1134×30mm
Weight	33.5kg
Front Glass	2.0mm, highly transparent tempered glass with anti-reflective coating
Frame	Anodized Aluminum Alloy / Polyurethane Composite Frame
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	36pcs
Per Container(40'HQ)	576pcs

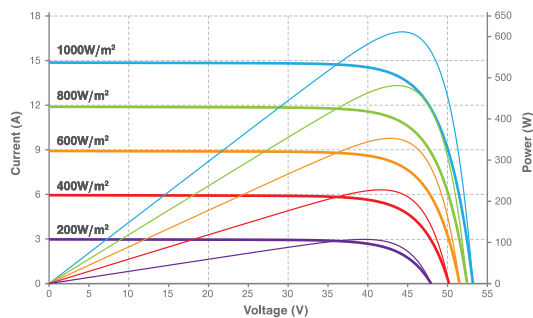


## Electrical Performance Parameters

Model Type	630C(HBD)78(182)		635C(HBD)78(182)		640C(HBD)78(182)		645C(HBD)78(182)		650C(HBD)78(182)	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Nominal Max. Power $P_{MAX}$ (W)	630	474	635	478	640	482	645	486	650	490
Max. Power Voltage $V_{MP}$ (V)	46.37	43.60	46.50	43.73	46.63	43.86	46.76	43.99	46.89	44.13
Max. Power Current $I_{MP}$ (A)	13.59	10.88	13.66	10.94	13.73	11.00	13.80	11.05	13.87	11.11
Open Circuit Voltage $V_{OC}$ (V)	55.26	52.49	55.41	52.63	55.56	52.77	55.71	52.92	55.86	53.06
Short Circuit Current $I_{SC}$ (A)	14.42	11.63	14.50	11.70	14.58	11.76	14.66	11.83	14.74	11.89
Module Efficiency (%)	22.54		22.72		22.90		23.07		23.25	

\* STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5; NMOT: Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, Air Mass AM1.5, Wind Speed 1m/s; Power measurement tolerance ±3%.

## Current-Voltage & Power-Voltage Curve (650C)



## Bifacial Output-rearside Power Gain

Gain	Maximum Power $P_{MAX}$ (W)		662		667		672		677		683	
	Module Efficiency (%)	(%)	23.66%	23.85%	24.04%	24.23%	24.42%					
5%	Maximum Power $P_{MAX}$ (W)	(W)	693	699	704	710	715					
	Module Efficiency (%)	(%)	24.79%	24.99%	25.19%	25.38%	25.58%					
10%	Maximum Power $P_{MAX}$ (W)	(W)	788	794	800	806	813					
	Module Efficiency (%)	(%)	28.17%	28.40%	28.62%	28.84%	29.07%					

## Temperature Characteristics

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

## Maximum Parameters

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