



Pure Black series

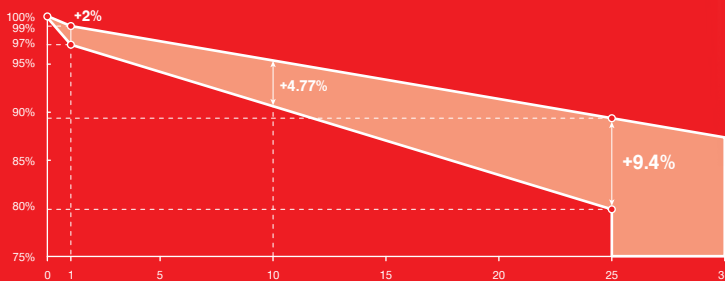
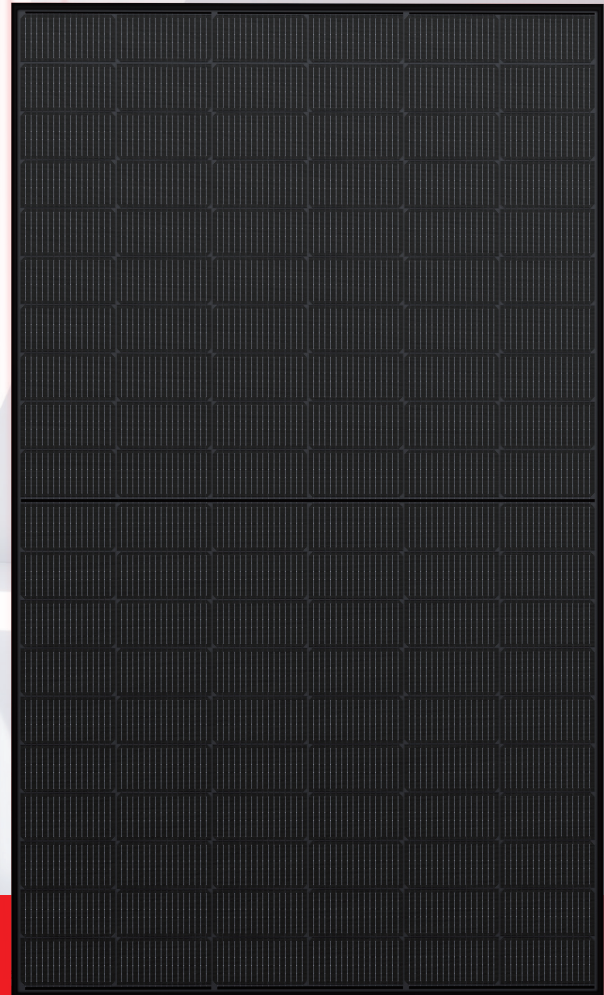
## 182 N-type Bifacial Module

465W ~ 485W

 **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.



Highly-resistant black, crystal material, modernity to buildings.



Even cloudy or foggy days, better weak illumination response.



Zero LID, increase power generation.



High density packaging, improving energy density.



Higher power output, lower bos cost.



Multiple weather, resistance tests, wider applicability.



Double-sided generation, powerfully energy boost.

# LESSO 182 Pure Black N-type Bifacial Module (60)



Power Range  
**465W ~ 485W**



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

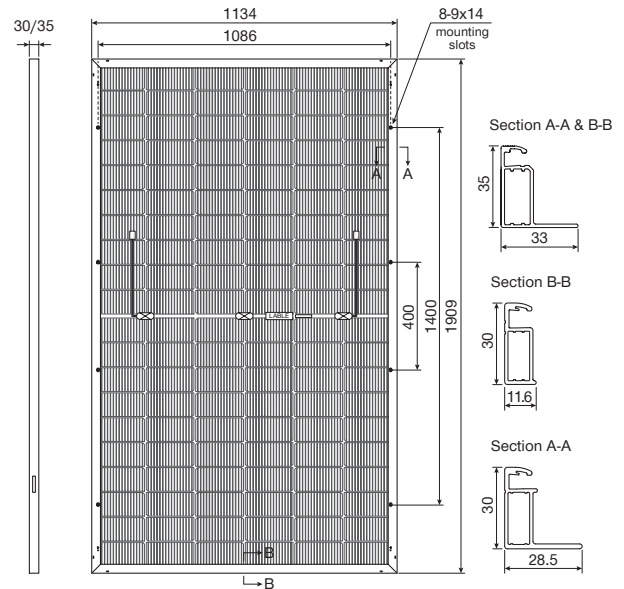


Maximum Efficiency  
**22.40%**

(Unit: mm)

## Structure Performance

Solar Cell Type	182mm N-TOPCon Mono Cell (Half Cell)
Solar Cell Arrangement	120pcs(6×20)
Module Dimension	1909×1134×35mm/30mm
Weight	26.9kg(35mm) / 25.7kg(30mm)
Front Glass	2.0mm, highly transparent tempered glass with anti-reflective coating
Frame	Anodized Aluminum Alloy (Black)
Junction Box	IP68 rated
Cable	4mm <sup>2</sup> , portrait $\frac{400\text{mm}(+)}{200\text{mm}(-)}$ , landscape $\frac{1400\text{mm}(+)}{1400\text{mm}(-)}$ 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)	744pcs(35mm) / 864pcs(30mm)

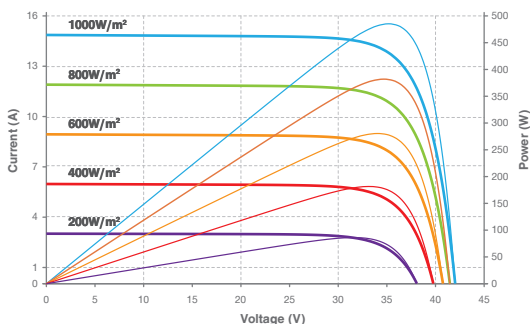


## Electrical Performance Parameters

Model Type	465C(BBD)60(182)		470C(BBD)60(182)		475C(BBD)60(182)		480C(BBD)60(182)		485C(BBD)60(182)	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Nominal Max. Power $P_{MAX}$ (W)	465	349	470	353	475	357	480	361	485	365
Max. Power Voltage $V_{MP}$ (V)	34.63	32.68	34.85	32.87	35.06	33.06	35.27	33.25	35.48	33.44
Max. Power Current $I_{MP}$ (A)	13.43	10.68	13.49	10.74	13.55	10.80	13.61	10.86	13.67	10.92
Open Circuit Voltage $V_{OC}$ (V)	41.22	38.73	41.42	38.92	41.62	39.11	41.82	39.29	42.02	39.48
Short Circuit Current $I_{SC}$ (A)	14.52	11.81	14.58	11.86	14.64	11.91	14.70	11.96	14.86	12.01
Module Efficiency (%)	21.48		21.71		21.94		22.17		22.40	

\* 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 (485C)



## Bifacial Output-rearside Power Gain

Gain	Maximum Power $P_{MAX}$ (W)		Power Gain (W)				
	485C	485C	485C	485C	485C	485C	
5%	488	494	499	504	509		
	Module Efficiency (%)	22.55%	22.80%	23.04%	23.28%	23.52%	
10%	512	517	523	528	534		
	Module Efficiency (%)	23.63%	23.88%	24.14%	24.39%	24.64%	
25%	581	588	594	600	606		
	Module Efficiency (%)	26.85%	27.14%	27.43%	27.72%	28.00%	

## 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