


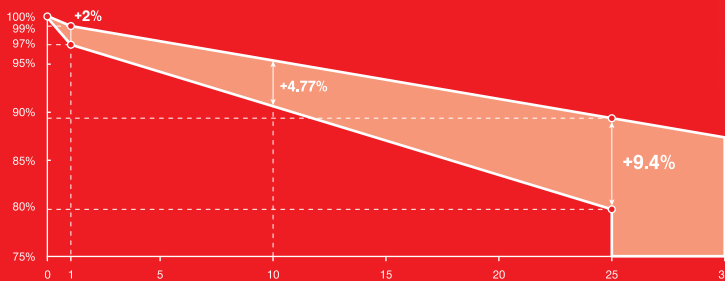
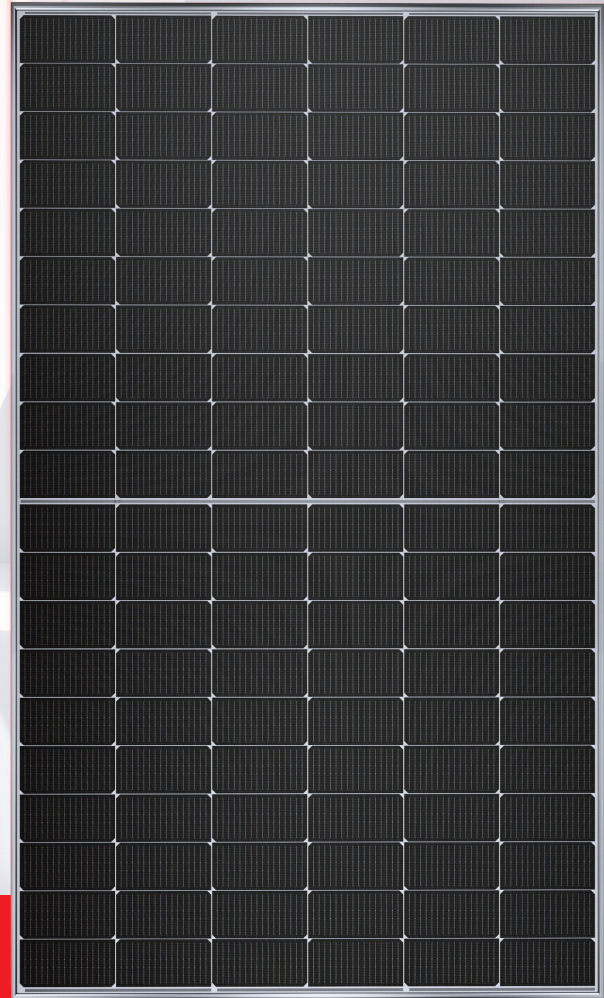
N series

182 N-type Bifacial Single Glass Module 465W ~ 485W

 **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



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 Single Glass Module (60)



Power Range
465W ~ 485W



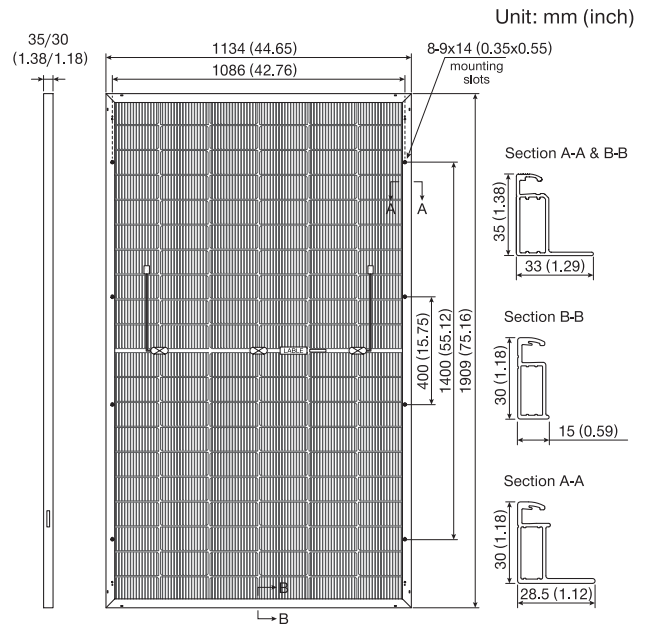
Power Output Tolerance
0W ~ +5W



Maximum Efficiency
22.40%

Structure Performance

Solar Cell Type	182mm N-TOPCon Mono Cell (Half Cell)
Solar Cell Arrangement	120pcs(6×20)
Module Dimension	1909×1134×35/30mm (75.16×44.65×1.38/1.18inches)
Weight	23.2kg (51.15lbs) (35mm (1.38 inches)) 22.1kg (48.72lbs) (30mm (1.18 inches))
Front Glass	3.2mm (0.13inches), highly transparent tempered glass with anti-reflective coating
Frame	Anodized Aluminum Alloy
Junction Box	IP68 rated
Cable	4mm ² (IEC), 12 AWG(UL) portrait 450mm (17.72in.) (+), 250mm (9.84in.) (-), landscape 1200mm (47.24in.) (+), 1200mm (47.24in.) (-) or customized
Diode Quantity	3 pcs
Front side / Rear side	5400pa / 2400pa
Connector	MC4 Compatible
Per Pallet	31pcs (35mm (1.38 inches)) / 36pcs (30mm (1.18 inches))
Per Container(40'HQ)	744pcs (35mm (1.38 inches)) / 864pcs (30mm (1.18 inches))

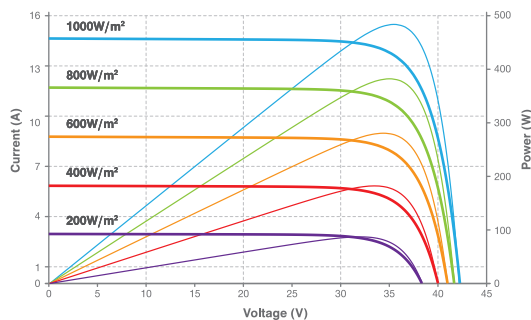


Electrical Performance Parameters

Model Type	465C(HWB)60(182)		470C(HWB)60(182)		475C(HWB)60(182)		480C(HWB)60(182)		485C(HWB)60(182)		
	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	
Nominal Max. Power	P_{MAX} (W)	465	513	470	518	475	524	480	529	485	535
Max. Power Voltage	V_{MP} (V)	34.84	34.91	35.05	35.12	35.27	35.34	35.48	35.55	35.69	35.76
Max. Power Current	I_{MP} (A)	13.35	14.70	13.41	14.76	13.47	14.83	13.53	14.90	13.59	14.96
Open Circuit Voltage	V_{OC} (V)	43.02	43.01	43.18	43.17	43.35	43.34	43.52	43.51	43.68	43.67
Short Circuit Current	I_{SC} (A)	14.43	15.93	14.49	16.00	14.55	16.06	14.61	16.13	14.67	16.20
Module Efficiency	(%)	21.48		21.71		21.94		22.17		22.40	

* STC: Irradiance 1000W/m² (0.65W/sq.in), Cell Temperature 25°C (77°F), Air Mass AM1.5; BNPI: Irradiance 1000W/m² (0.65W/sq.in) + ϕ * 135W/m² (0.09W/sq.in); Power measurement tolerance \pm 3%.

Current-Voltage & Power-Voltage Curve (485C)



Bifacial Output-rearside Power Gain

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

Temperature Characteristics

Nominal Module Operating Temperature	44 \pm 2°C (111.2 \pm 35.6°F)	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 (-40~+185°F)
Maximum System Voltage	1500V DC
Nominal Maximum Fuse Current	30A