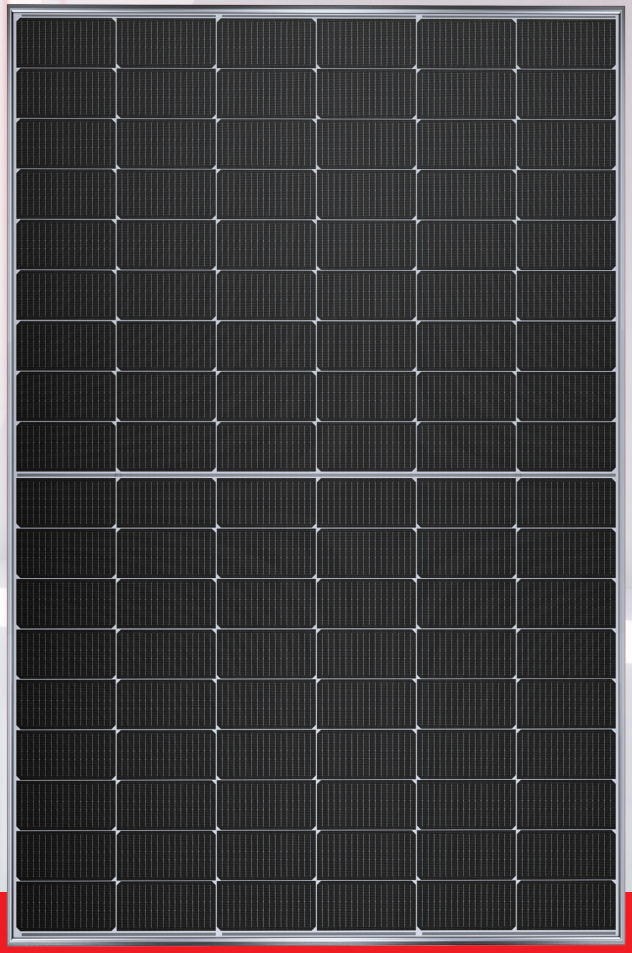
LESSO® America

LESSO GROUP
STOCK CODE: 2128.HK

N series

182 N-type Bifacial Module

415W ~ 435W

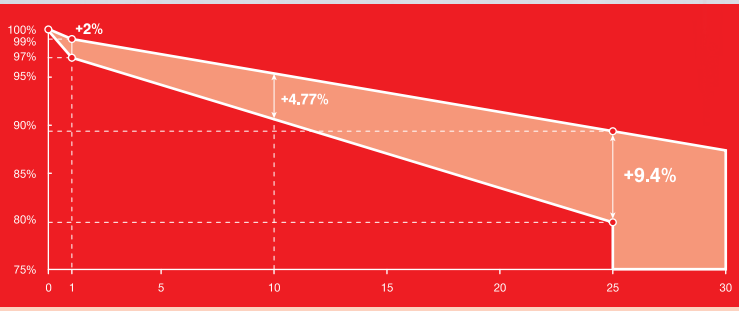


12 years product workmanship warranty

30 years linear power output warranty

1% 1st-year degradation

0.40% annual degradation



FEATURES AND BENEFITS

- Topcon technology, higher power generation.
- Better temperature coefficient, more power generation.
- High density packaging, improving energy density.
- Higher power output, lower bos cost.
- Even cloudy or foggy days, better weak illumination response.
- Multiple weather, resistance tests, wider applicability.
- Zero LID, increase power generation.
- Double-sided generation, powerfully energy boost.

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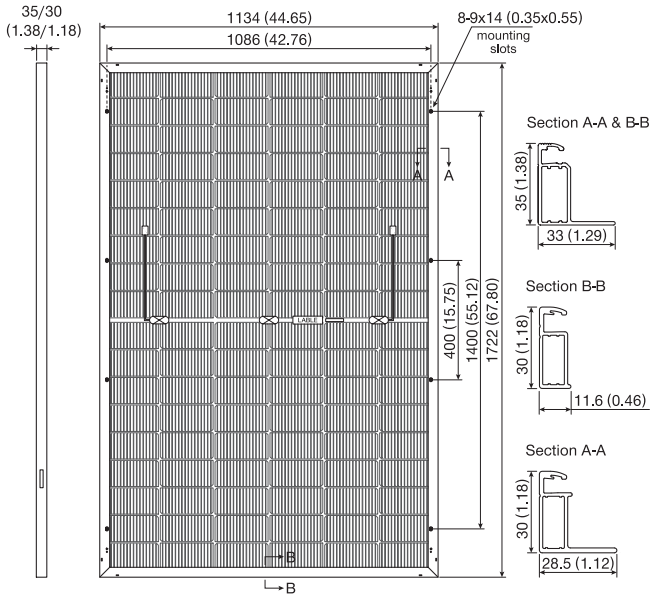
LESSO 182 N-type Bifacial Module (54)

Power Range	Power Output Tolerance	Maximum Efficiency
415W ~ 435W	0W ~ +5W	22.28%

Structure Performance

Solar Cell Type	182mm N-TOPCon Mono Cell (Half Cell)
Solar Cell Arrangement	108pcs(6×18)
Module Dimension	1722×1134×35/30mm (67.80×44.65×1.38/1.18inches)
Weight	24.1kg (53.13lbs) (35mm (1.38 inches)) 23.1kg (50.93lbs) (30mm (1.18 inches))
Front Glass	2.0mm (0.08inches), highly transparent tempered glass with anti-reflective coating
Frame	Anodized Aluminum Alloy
Junction Box	IP68 rated
Cable	4mm² (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)	806pcs (35mm (1.38 inches)) / 936pcs (30mm (1.18 inches))

Unit: mm (inch)

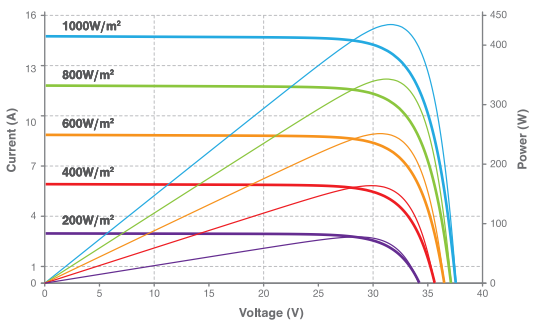


Electrical Performance Parameters

Model Type		415C(HBD)54(182)		420C(HBD)54(182)		425C(HBD)54(182)		430C(HBD)54(182)		435C(HBD)54(182)	
Testing Condition		STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI
Nominal Max. Power	P_{MAX} (W)	415	457	420	463	425	468	430	474	435	479
Max. Power Voltage	V_{MP} (V)	31.18	31.24	31.42	31.48	31.65	31.71	31.88	31.94	32.11	32.17
Max. Power Current	I_{MP} (A)	13.31	14.65	13.37	14.72	13.43	14.79	13.49	14.85	13.55	14.92
Open Circuit Voltage	V_{OC} (V)	38.57	38.56	38.72	38.71	38.87	38.86	39.02	39.01	39.17	39.16
Short Circuit Current	I_{SC} (A)	14.55	16.06	14.61	16.13	14.67	16.20	14.73	16.26	14.79	16.33
Module Efficiency	(%)	21.25		21.51		21.76		22.02		22.28	

* 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 ±3%.

Current-Voltage & Power-Voltage Curve (435C)



Bifacial Output-rearside Power Gain

5%	Maximum Power	P_{MAX} (W)	436	441	446	452	457
	Module Efficiency	(%)	22.31%	22.58%	22.85%	23.12%	23.39%
10%	Maximum Power	P_{MAX} (W)	457	462	468	473	479
	Module Efficiency	(%)	23.38%	23.66%	23.94%	24.22%	24.50%
25%	Maximum Power	P_{MAX} (W)	519	525	531	538	544
	Module Efficiency	(%)	26.57%	26.89%	27.21%	27.53%	27.85%

Temperature Characteristics

Nominal Module Operating Temperature	44±2°C (111.2±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

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