

P series

182 P-type Bifacial Module

450W ~ 460W



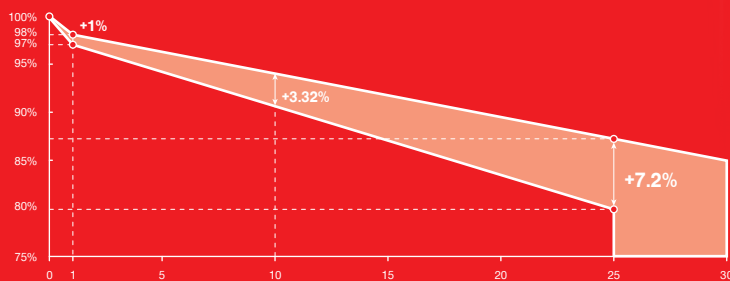
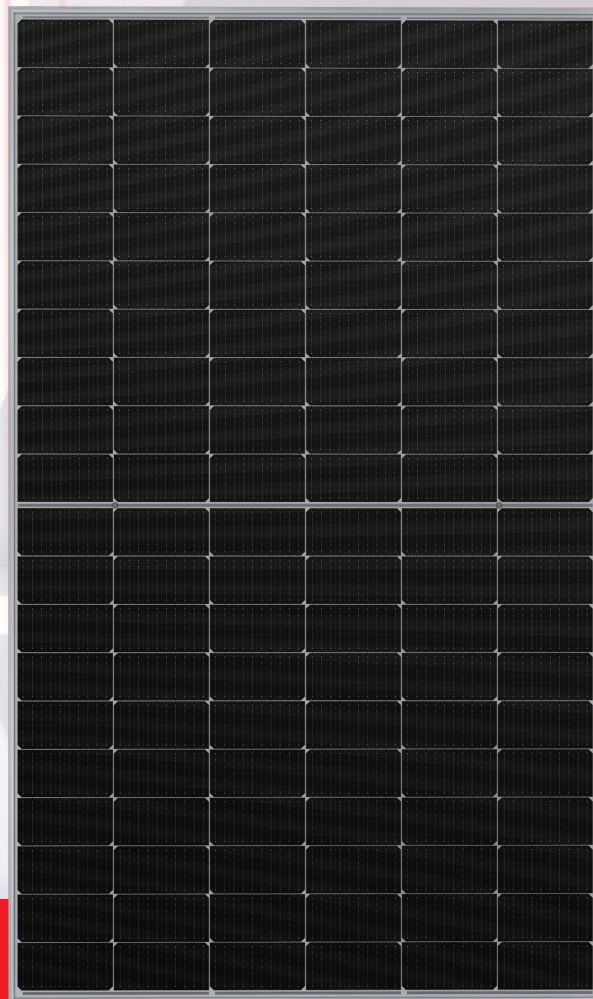
12 years product
workmanship warranty



30 years linear power output
warranty



2% 1st-year degradation
0.45% annual degradation



Conventional LESSO Solar Module

FEATURES AND BENEFITS



MBB technology reducing string & busbar loss.



Better temperature coefficient, more power generation.



Even cloudy or foggy days, better weak illumination response.



Zero LID, increase power generation.



High efficiency PERC, better resistance against PID.



Higher power output, lower bos cost.



Multiple weather, resistance tests, wider applicability.



Double-sided generation, powerfully energy boost.

LESSO 182 P-type Bifacial Module (60)



Power Range
450W ~ 460W



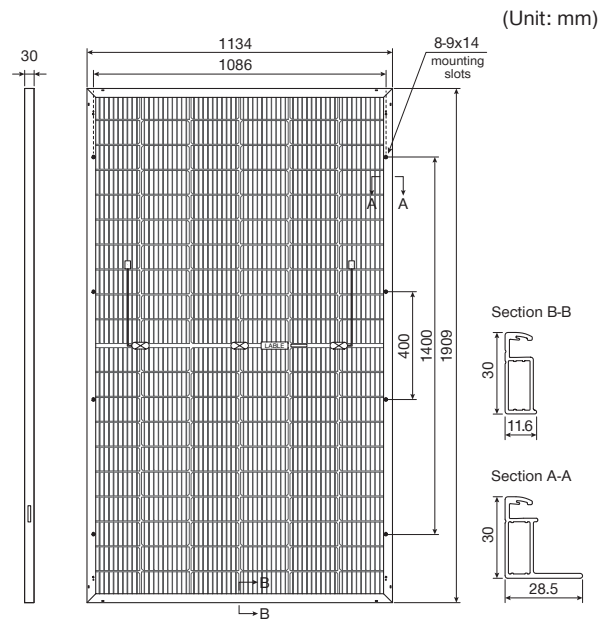
Power Output Tolerance
0W ~ +5W



Maximum Efficiency
21.25%

Structure Performance

Solar Cell Type	182mm Mono-crystalline (Half Cell)
Solar Cell Arrangement	120pcs(6×20)
Module Dimension	1909×1134×30mm
Weight	25.7kg
Front Glass	2.0mm, highly transparent tempered glass with anti-reflective coating
Frame	Anodized Aluminum Alloy
Junction Box	IP68 rated
Cable	4mm ² , portrait 400mm(+), 200mm(-), landscape 1400mm(+), 1400mm(-) Length can be customized
Diode Quantity	3 pcs
Front side / Rear side	5400pa / 2400pa
Connector	MC4 Compatible
Per Pallet	36pcs
Per Container(40'HQ)	864pcs

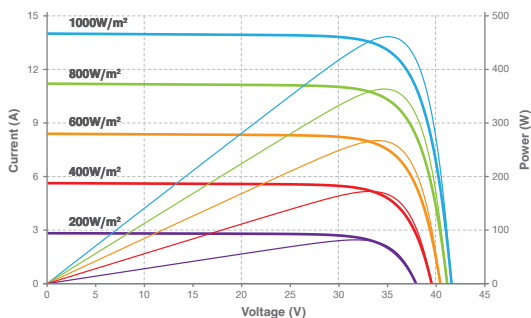


Electrical Performance Parameters

Model Type		450D(HBD)60(182)		455D(HBD)60(182)		460D(HBD)60(182)	
Testing Condition		STC	NMOT	STC	NMOT	STC	NMOT
Nominal Max. Power	P _{MAX} (W)	450	322	455	327	460	332
Max. Power Voltage	V _{MPP} (V)	34.78	30.91	34.97	31.27	35.17	31.62
Max. Power Current	I _{MPP} (A)	12.94	10.42	13.01	10.46	13.08	10.50
Open Circuit Voltage	V _{OC} (V)	41.20	38.90	41.32	39.02	41.46	39.14
Short Circuit Current	I _{SC} (A)	13.83	11.17	13.90	11.22	13.97	11.28
Module Efficiency	(%)	20.79		21.02		21.25	

* STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5; NMOT: Irradiance 800W/m², Ambient Temperature 20°C, Air Mass AM1.5, Wind Speed 1m/s; Power measurement tolerance ±3%.

Current-Voltage & Power-Voltage Curve (460D)



Bifacial Output-rearside Power Gain

	Maximum Power	P _{MAX} (W)	473	478	483
	Module Efficiency	(%)	21.83	22.07	22.31
5%	Maximum Power	P _{MAX} (W)	495	501	506
	Module Efficiency	(%)	22.87	23.12	23.37
10%	Maximum Power	P _{MAX} (W)	563	569	575
	Module Efficiency	(%)	25.98	26.27	26.56

Temperature Characteristics

Nominal Module Operating Temperature	44±2°C	Temperature Coefficient (V _{OC})	-0.26%
Temperature Coefficient (I _{SC})	+0.048%	Temperature Coefficient (P _{MAX})	-0.34%

Maximum Parameters

Working Temperature	-40 ~ +85°C
Maximum System Voltage	1500V DC
Nominal Maximum Fuse Current	25A