


P series

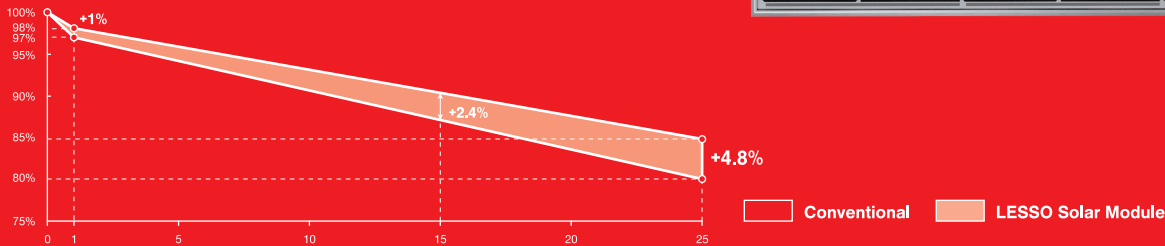
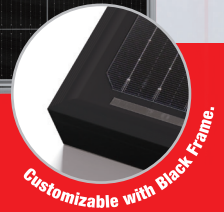
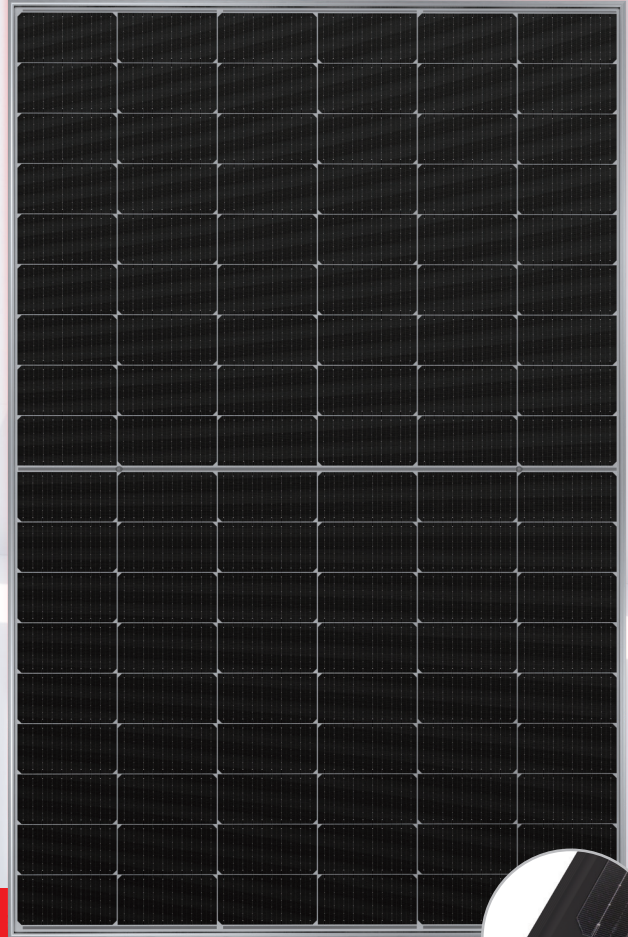
## 182 P-type Monofacial Module

405W ~ 415W

 **12** years product workmanship warranty

 **25** years linear power output warranty

 **2%** 1st-year degradation  
**0.55%** annual degradation



### FEATURES AND BENEFITS



MBB technology reducing string & busbar loss.



High efficiency PERC, better resistance against PID.



Better temperature coefficient, more power generation.



Zero LID, increase power generation.



Even cloudy or foggy days, better weak illumination response.



Multiple weather, resistance tests, wider applicability.

# LESSO 182 P-type Monofacial Module (54)



Power Range  
**405W ~ 415W**



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

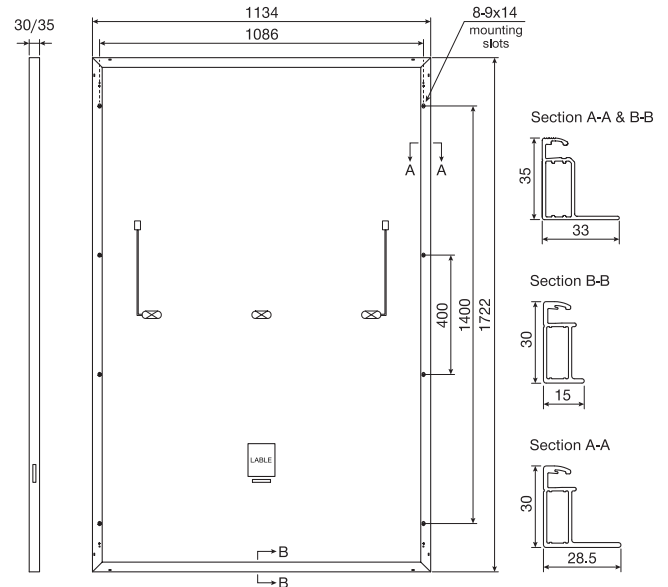


Maximum Efficiency  
**21.25%**

## Structure Performance

Solar Cell Type	182mm Mono-crystalline (Half Cell)
Solar Cell Arrangement	108pcs(6×18)
Module Dimension	1722×1134×35mm/30mm
Weight	21.7kg(35mm) / 20.6kg(30mm)
Front Glass	3.2mm, highly transparent tempered glass with anti-reflective coating
Back Sheet	White
Frame	Anodized Aluminum Alloy
Junction Box	IP68 rated
Cable	4mm <sup>2</sup> , portrait <sup>400mm (+)</sup> / <sub>230mm (-)</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	31pcs(35mm) / 36pcs(30mm)
Per Container(40'HQ)	806pcs(35mm) / 936pcs(30mm)

(Unit: mm)

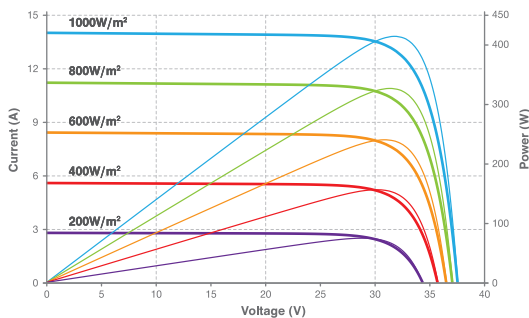


## Electrical Performance Parameters

Model Type	405D(HPM)54(182)		410D(HPM)54(182)		415D(HPM)54(182)	
	STC	NMOT	STC	NMOT	STC	NMOT
Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT
Nominal Max. Power $P_{MAX}$ (W)	405	300	410	305	415	310
Max. Power Voltage $V_{MP}$ (V)	31.15	28.38	31.35	28.72	31.55	28.88
Max. Power Current $I_{MP}$ (A)	13.01	10.58	13.09	10.62	13.16	10.74
Open Circuit Voltage $V_{OC}$ (V)	37.17	34.98	37.37	35.13	37.57	35.28
Short Circuit Current $I_{SC}$ (A)	13.87	11.19	13.95	11.24	14.03	11.32
Module Efficiency (%)	20.74		21.00		21.25	

\* 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 (415D)



## Temperature Characteristics

Nominal Module Operating Temperature	44±2°C
Temperature Coefficient ( $I_{SC}$ )	+0.048%
Temperature Coefficient ( $V_{OC}$ )	-0.26%
Temperature Coefficient ( $P_{MAX}$ )	-0.34%

## Maximum Parameters

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