LESSO

# 182 N-TopCon Bifacial Half-cell Module

## 410W ~ 435W

**12** years product workmanship warranty

**30** years linear power output warranty

1st year power degradation no more than **1**%
Subsequent annual power degradation no more than **0.40**%

# LESSO 182 N-TopCon Bifacial Half-cell Module

| Power Range | Power Output Tolerance | Maximum Efficiency |
|---|---|---|
| 410W ~ 435W | 0W ~ + 5W | 22.25% |

## Features and Benefits

### 10-30% Additional Power Generation
30 years lifespan brings 10-30% additional power generation comparing with conventional P-type module.

### Better Weak Illumination Response
Higher power output even under low-light environments like on cloudy or foggy days.

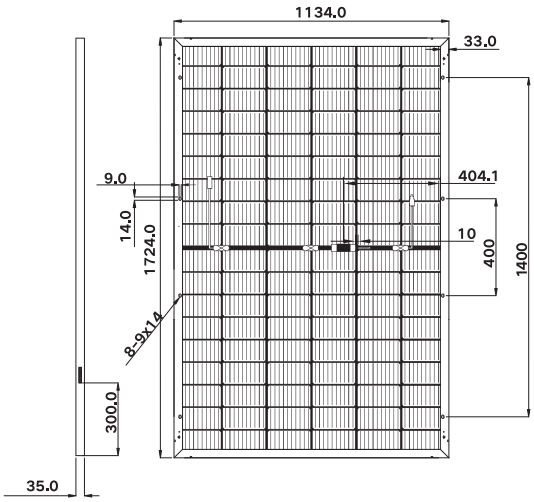
### ZERO LID (Light Induced Degradation)
N-type solar cell has no LID naturally which can increase power generation.

### Better Temperature Coefficient
Higher power generation under working conditions, thanks to passivating contact cell technology.

### Lower LCOE
Higher bifaciality, higher power output and lower BOS cost.

### Wider Applicability
More application scenes like BIPV, vertical installation, snowfield, high-humid, windy and dusty area.

(Unit: mm)




## Electrical Performance Parameters | STC

| Model Type | | 410C(HBD) 54(182) | 415C(HBD) 54(182) | 420C(HBD) 54(182) | 425C(HBD) 54(182) | 430C(HBD) 54(182) | 435C(HBD) 54(182) |
|---|---|---|---|---|---|---|---|
| Nominal Max. Power | Pmax(W) | 410 | 415 | 420 | 425 | 430 | 435 |
| Max.imum Power Voltage | Vmp(V) | 30.94 | 31.18 | 31.42 | 31.65 | 31.88 | 32.11 |
| Max.imum Power Current | Imp(A) | 13.25 | 13.31 | 13.37 | 13.43 | 13.49 | 13.55 |
| Open Circuit Voltage | Voc(V) | 36.57 | 36.77 | 36.97 | 37.17 | 37.37 | 37.57 |
| Short Circuit Current | Isc(A) | 14.49 | 14.55 | 14.61 | 14.67 | 14.73 | 14.79 |
| Module Efficiency | (%) | 20.97 | 21.23 | 21.48 | 21.74 | 21.99 | 22.25 |
| Power Output Tolerance | (W) | 0~+5W | | | | | |

* STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5.
* Power measurement tolerance ±3%.

## Electrical Performance Parameters | NMOT

| Model Type | | 410C(HBD) 54(182) | 415C(HBD) 54(182) | 420C(HBD) 54(182) | 425C(HBD) 54(182) | 430C(HBD) 54(182) | 435C(HBD) 54(182) |
|---|---|---|---|---|---|---|---|
| Nominal Max. Power | Pmax(W) | 307 | 311 | 315 | 319 | 323 | 327 |
| Max.imum Power Voltage | Vmp(V) | 29.20 | 29.41 | 29.61 | 29.82 | 30.02 | 30.23 |
| Max.imum Power Current | Imp(A) | 10.52 | 10.58 | 10.64 | 10.70 | 10.76 | 10.82 |
| Open Circuit Voltage | Voc(V) | 34.11 | 34.30 | 34.49 | 34.68 | 34.87 | 35.06 |
| Short Circuit Current | Isc(A) | 11.75 | 11.80 | 11.85 | 11.90 | 11.95 | 12.00 |

* NMOT: Irradiance 800W/m², Cell Temperature 20°C, Wind Speed 1m/s.
* Power measurement tolerance ±3%.

## Structure Performance

| | |
|---|---|
| Solar Cell Type | 182mm N-TopCon Mono Cell |
| Solar Cell Arrangement | 108pcs(6×18) |
| Module Dimension | 1724×1134×35mm |
| Weight | 24.2kg |
| Front Glass | 2.0mm, highly transparent tempered glass with anti-reflective coating |
| Frame | Anodized Aluminum Alloy |
| Junction Box | IP68 rated |
| Cable | 4mm², 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 | 31pcs |
| Per Container(40'HQ) | 806pcs |

## Temperature Characteristics

| | |
|---|---|
| Nominal Module Operating Temperature | 44±2℃ |
| Temperature Coefficient (Isc) | +0.043% |
| Temperature Coefficient (Voc) | -0.25% |
| Temperature Coefficient (Pmax) | -0.30% |

## Maximum Parameters

| | |
|---|---|
| Working Temperature | -40~85℃ |
| Maximum System Voltage | 1500V DC |
| Nominal Maximum Fuse Current | 30A |

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