2025 V3

LEAPTON SOLAR

Monofacial | Bifacial

# LP182*182-M-54-NB

## N-Type TOPCon Dual Glass

Rated Power 440-470W



TIER 1 Bloomberg NEW ENERGY FINANCE

### N-Type MBB Cell
New circuit design N-type cells, can increase the output power of 10W~20W

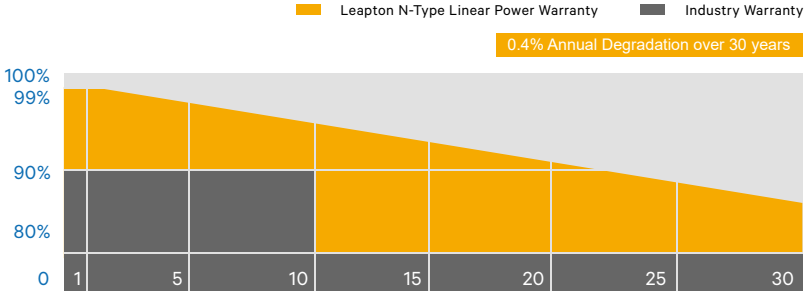
### Low Light Features
Higher performance under low light environment.

### Bifacial with dual glass
Module adopts 182*188mm half cells, bifacial module provide an additional 5%~25% output.

### PID Protection
Ensure the attenuation probability caused by PID phenomenon is minimized.

### Harsh Environmental Adaptability
Strict salt spray and ammonia corrosion test by TUV Nord.

### Load Capacity
Mechanical load tests including wind load 2400 Pa and snow load 5400 Pa done by TUV Nord.





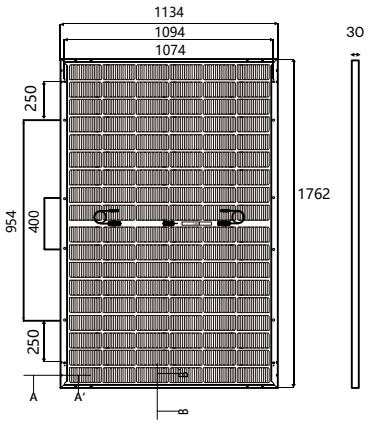
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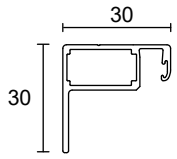

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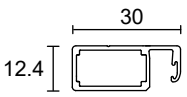
## MECHANICAL DIAGRAMS




Frame Cross Section A-A




Frame Cross Section B-B




## SPECIFICATIONS

| | |
|---|---|
| Weight | 25kg |
| Dimensions | 1762mm*1134mm*30mm |
| Cell Dimensions | 182*188mm |
| Cell Amount | 54*2 pcs |
| Maximum System Voltage | 1500V |
| Junction Box | IP68 |
| Front glass | 2.0mm, Anti-Reflection Coating |
| Back galss | 2.0mm, Heat Strengthened Glass |
| Frame | Aluminum Alloy |
| Cable | 4mm², N 1100mm/P 1100mm for Horizontal installation<br>4mm², N 300mm/P 300mm for Vertical installation |
| Connector | MC4 compatible |
| Bifaciality | 80±5% |

## ELECTRICAL PARAMETERS AT STC

| Power | 440W | 445W | 450W | 455W | 460W | 465W | 470W |
|---|---|---|---|---|---|---|---|
| Open Circuit Voltage | 39.38V | 39.53V | 39.68V | 39.83V | 39.98V | 40.13V | 40.30V |
| Short Circuit Current | 13.98A | 14.07A | 14.15A | 14.23A | 14.33A | 14.43A | 14.51A |
| Maximun Power Voltage | 32.57V | 32.72V | 32.87V | 33.02V | 33.18V | 33.34V | 33.52V |
| Maximum Power Current | 13.51A | 13.60A | 13.69A | 13.78A | 13.86A | 13.95A | 14.02A |
| Module Efficiency | 22.02% | 22.27% | 22.52% | 22.77% | 23.02% | 23.27% | 23.52% |

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m2, spectrum AM 1.5 and cell temperature of 25°C.

## ELECTRICAL PARAMETERS AT NMOT

| Power | 331W | 335W | 339W | 343W | 346W | 350W | 353W |
|---|---|---|---|---|---|---|---|
| Open Circuit Voltage | 37.38V | 37.53V | 37.68V | 37.83V | 37.99V | 38.15V | 38.32V |
| Short Circuit Current | 11.24A | 11.31A | 11.37A | 11.45A | 11.49A | 11.56A | 11.61A |
| Maximun Power Voltage | 30.37V | 30.54V | 30.68V | 30.82V | 30.98V | 31.15V | 31.33V |
| Maximum Power Current | 10.90A | 10.97A | 11.05A | 11.13A | 11.17A | 11.24A | 11.27A |

* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m2, spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

## ELECTRICAL PARAMETERS ( AT 10% BIFACIAL POWER OUTPUT )

| Output Power | 484W | 490W | 495W | 501W | 506W | 512W | 517W |
|---|---|---|---|---|---|---|---|
| Open Circuit Voltage | 39.38V | 39.53V | 39.68V | 39.83V | 39.99V | 40.14V | 40.31V |
| Short Circuit Current | 15.47A | 15.58A | 15.66A | 15.77A | 15.86A | 15.98A | 16.03A |
| Maximun Power Voltage | 32.57V | 32.71V | 32.87V | 33.01V | 33.18V | 33.35V | 33.52V |
| Maximum Power Current | 14.86A | 14.98A | 15.06A | 15.18A | 15.25A | 15.35A | 15.42A |

## TEMPERATURE CHARACTERISTICS

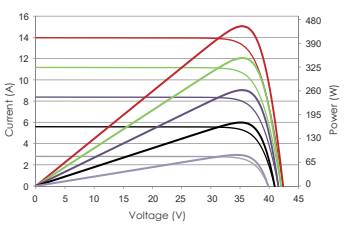
| | | | |
|---|---|---|---|
| NMOT | 41±3°C | Temp Coefficient of ISC | +0.046%/°C |
| Temp Coefficient of VOC | -0.25%/°C | Temp Coefficient of Pmax | -0.30%/°C |

## PACKING CONFIGURATION

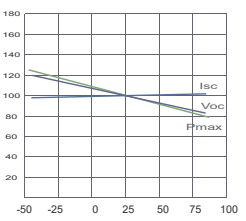
| | | | |
|---|---|---|---|
| Modules/Pallet | 37 Pieces | Modules/40'Container | 962 Pieces |
| Packing Description | 26 Pallets, Total=(37+37)x13=962 Pieces | | |

## CHARACTERISTICS

LP182*182-M-54-NB-460W




LP182*182-M-54-NB-460W




## MAXIMUM RATING

| | |
|---|---|
| Output Tolerance | 0~+5W |
| Operating Temperature | -40°C~+85°C |
| Wind Load/Snow Load | 2400pa/5400pa |
| Fuse Current | 25A |

25 YEARS Quality Warranty

30 YEARS Power Warranty


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