

PERLIGHT SOLAR
Powering Possibilities

PERLIGHT NTA 435W

PLM-435H8NB-108

Half-Cell N-Type Mono Black Module

22.28%
Efficiency

30-YEAR
Warranty

TOPCON

MODULE FEATURES



High Power Output

- Enhancing the ability to capture and collect light improves both the power output and reliability of the module.



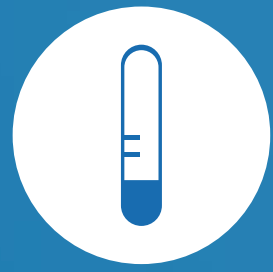
Outstanding Low Light Performance

- Produce greater power output when exposed to low-light conditions, such as during cloudy or foggy weather.



Zero LID (Light Induced Degradation)

- N-type solar cells do not suffer from LID, and therefore increase power generation compared to other types of cells.



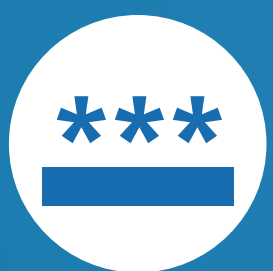
Better Temperature Coefficient

- Higher power generation under working conditions, thanks to passivating contact cell technology.



PID Resistance

- By optimising the process of mass production and controlling the materials, we ensure an outstanding performance in preventing PID (potential-induced degradation).



Enhanced Mechanical Load

- Certified to withstand: wind load (2400 Pa) and snow load (5400 Pa).



Withstanding Harsh Environments

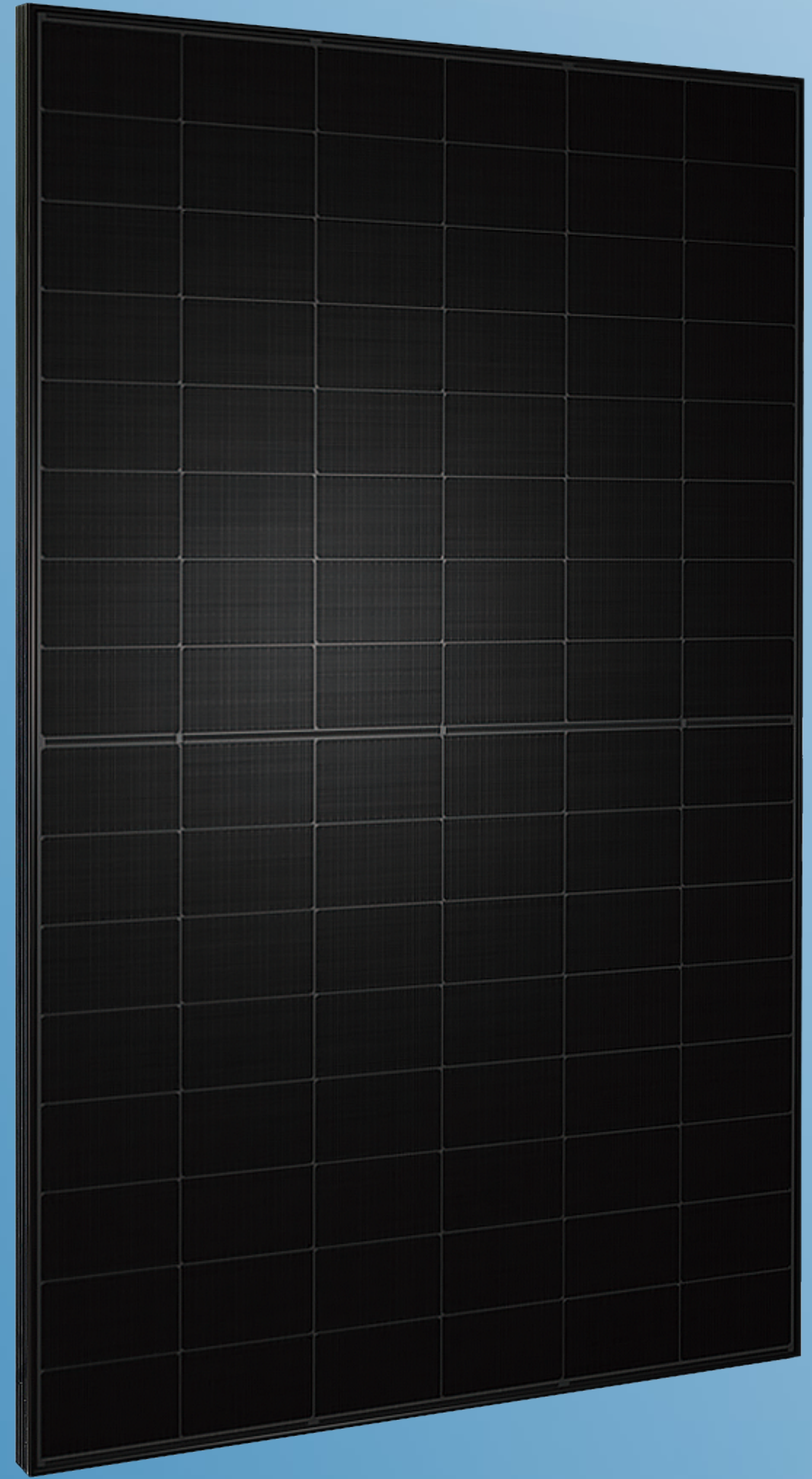
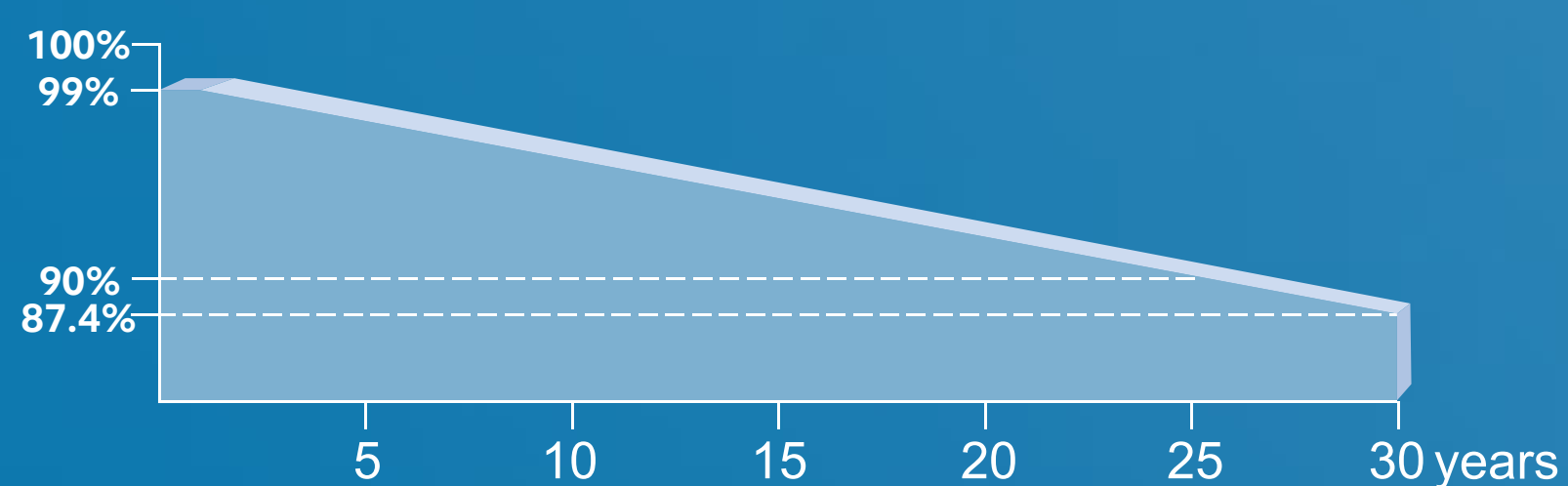
- The assurance of dependable quality results in enhanced sustainability, even in challenging environments such as deserts, farms, and coastlines.

EXTENDED POWER OUTPUT WARRANTY

30 years limited product warranty

30 years performance warranty

30 year performance warranty:



QUALITY MANAGEMENT SYSTEM AND PRODUCT CERTIFICATION

IEC61215/61730, IEC62804(PID), IEC61701 (Salt),
IEC62716 (Ammonia), IEC60068-2-68 (Sand)
ISO 9001:2015 / quality management system
ISO 14001:2015 / environmental management system
ISO 45001:2018 / occupation health safety management system
ISO 50001:2011 / energy management system
IEC TS 62941 - 2016 / PV industry quality management system

ETHICAL MANUFACTURING STANDARDS



The SA8000® Standard helps secure ethical working conditions for millions of workers globally. Established by Social Accountability International, the Standard leverages the power of businesses and consumers to purchase products or services from workplaces that enrich the livelihoods of people.

As a Sedex member we are committed to being a responsible business, sourcing responsibly, and improving ethical standards and working conditions within the supply chain.

Sedex Member





ELECTRICAL CHARACTERISTICS (STC)

| | |
|---|-----------------|
| Module Type: | PLM-435H8NB-108 |
| Maximum Power - P _m (W) | 435 |
| Open Circuit Voltage - Voc (V) | 39.30 |
| Short Circuit Current - I _{sc} [A] | 13.72 |
| Maximum Power Voltage - V _m [V] | 33.43 |
| Maximum Power Current - I _m [A] | 13.01 |
| Module Efficiency - η [%] | 22.28 |

ELECTRICAL CHARACTERISTICS AT NOCT

| | |
|---|-------|
| Maximum Power - P _m (W) | 327.8 |
| Open Circuit Voltage - Voc (V) | 37.33 |
| Short Circuit Current - I _{sc} [A] | 11.06 |
| Maximum Power Voltage - V _m [V] | 31.14 |
| Maximum Power Current - I _m [A] | 10.52 |

Note: 1. Standard Test Conditions (STC): irradiance 1000 W/m²; AM 1.5; cell temperature 25°C according to EN 60904-3;
2. NOCT: Irradiance 800 W/m²; wind speed 1 m/s, ambient temperature 20°C;
3. Tolerance of P_m: -/+3%, Measuring uncertainty of power: -/+3%. Performance deviation of Voc [V], I_{sc} [A], V_m [V] and I_m [A]: -/+3%

MECHANICAL PARAMETERS

| | |
|-----------------|--|
| Dimensions | 1722 x 1134 x 30 mm |
| Weight | 20.5 kg |
| Glass | High Transmission Glass 3.2mm |
| Frame | Anodized Aluminium Alloy |
| Cells | Half-Cell N-Type Mono Black 182mm x 91mm |
| Number of Cells | 108 [2× (9×6)] |
| Junction Box | IP68 (3 Diode) |
| Cable | TUV 1×4.0 mm ² , (+):1200mm/(-):1200mm or Customized Length |
| Connector | Staubli MC4 EVO 2A |

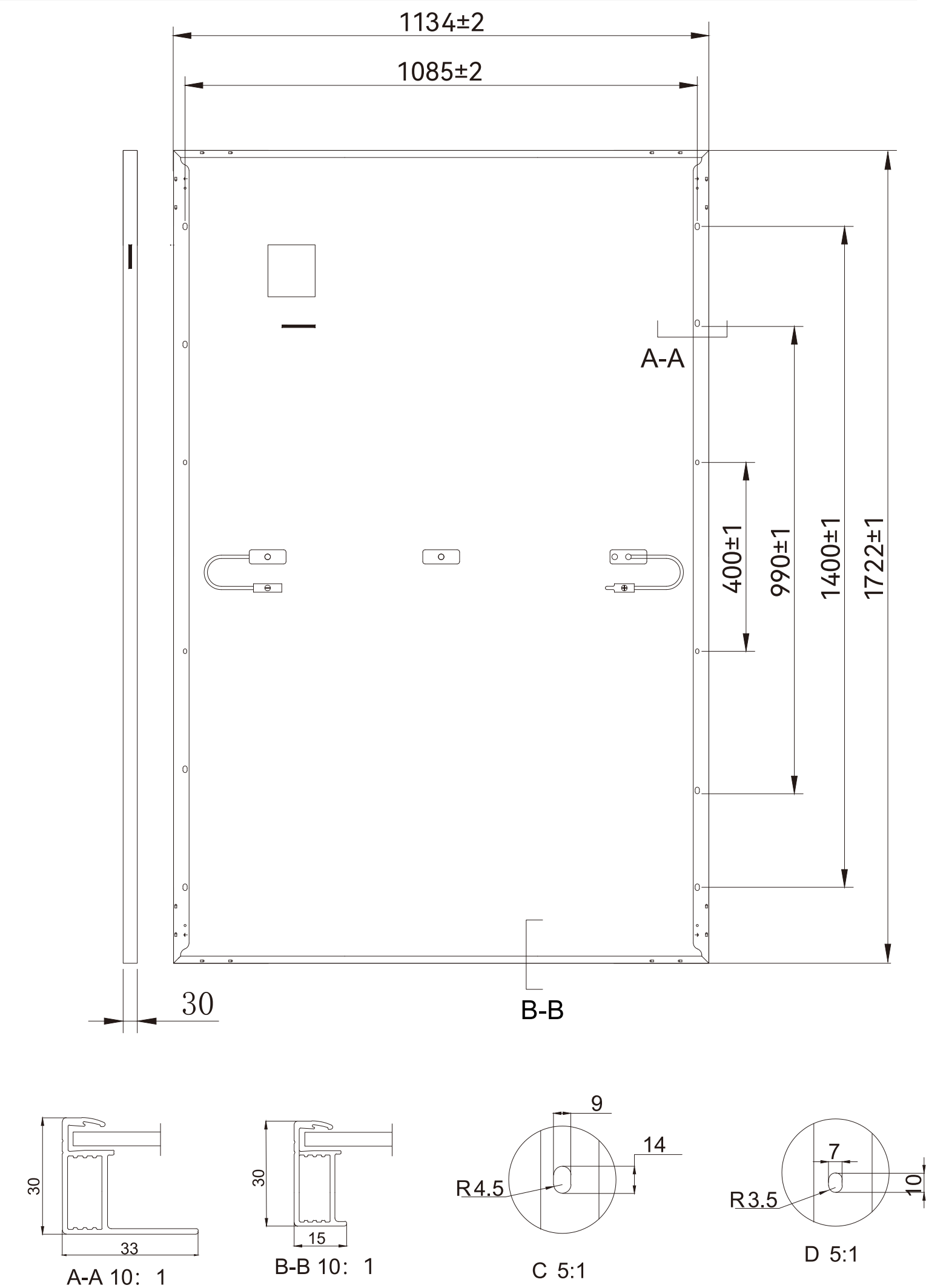
TEMPERATURE PARAMETERS

| | |
|--|-------------|
| NOCT | 45°C (±2°C) |
| Temperature Coefficient of Voc | -0.25%/°C |
| Temperature Coefficient of I _{sc} | +0.046%/°C |
| Temperature Coefficient of P _m | -0.30%/°C |

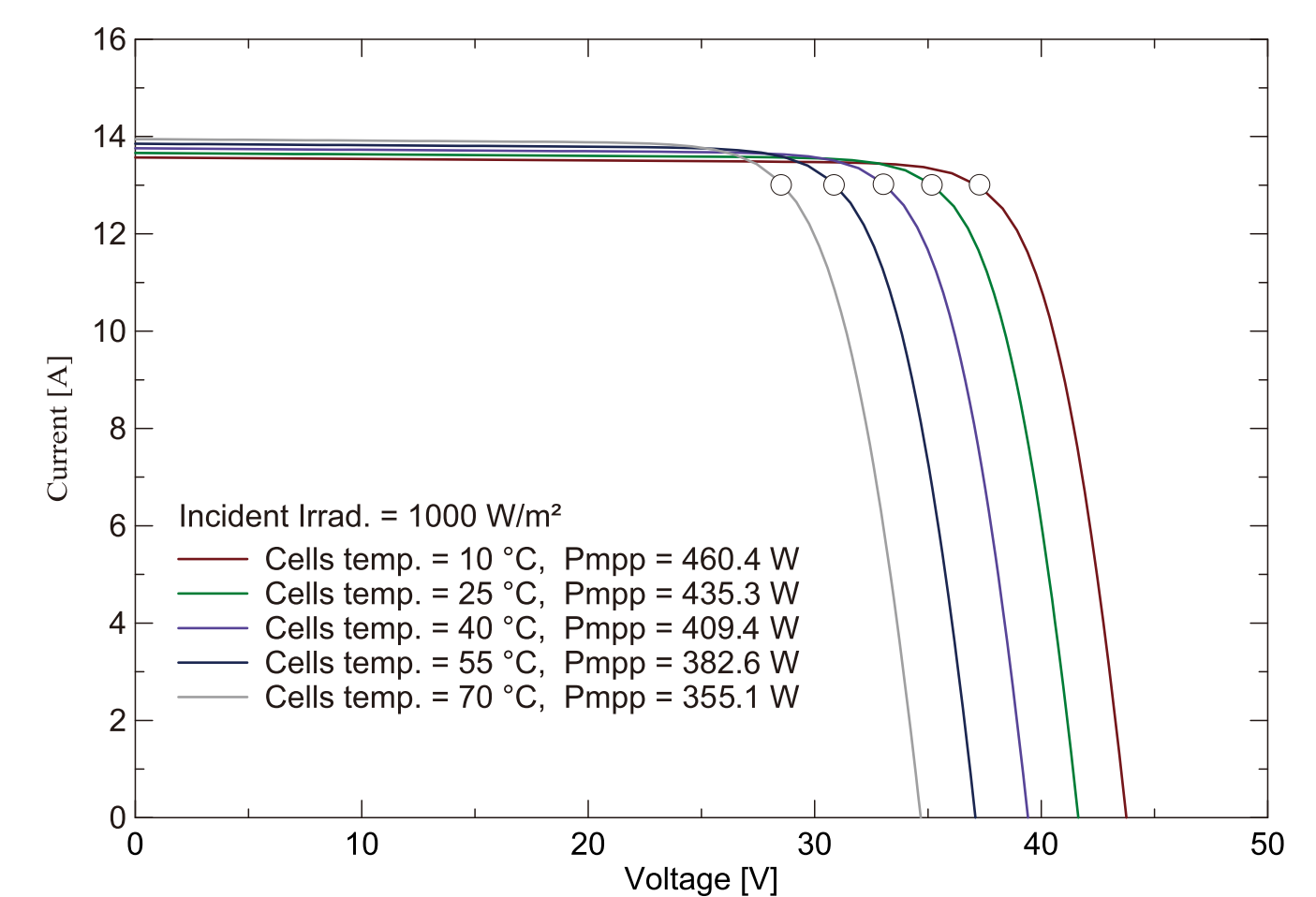
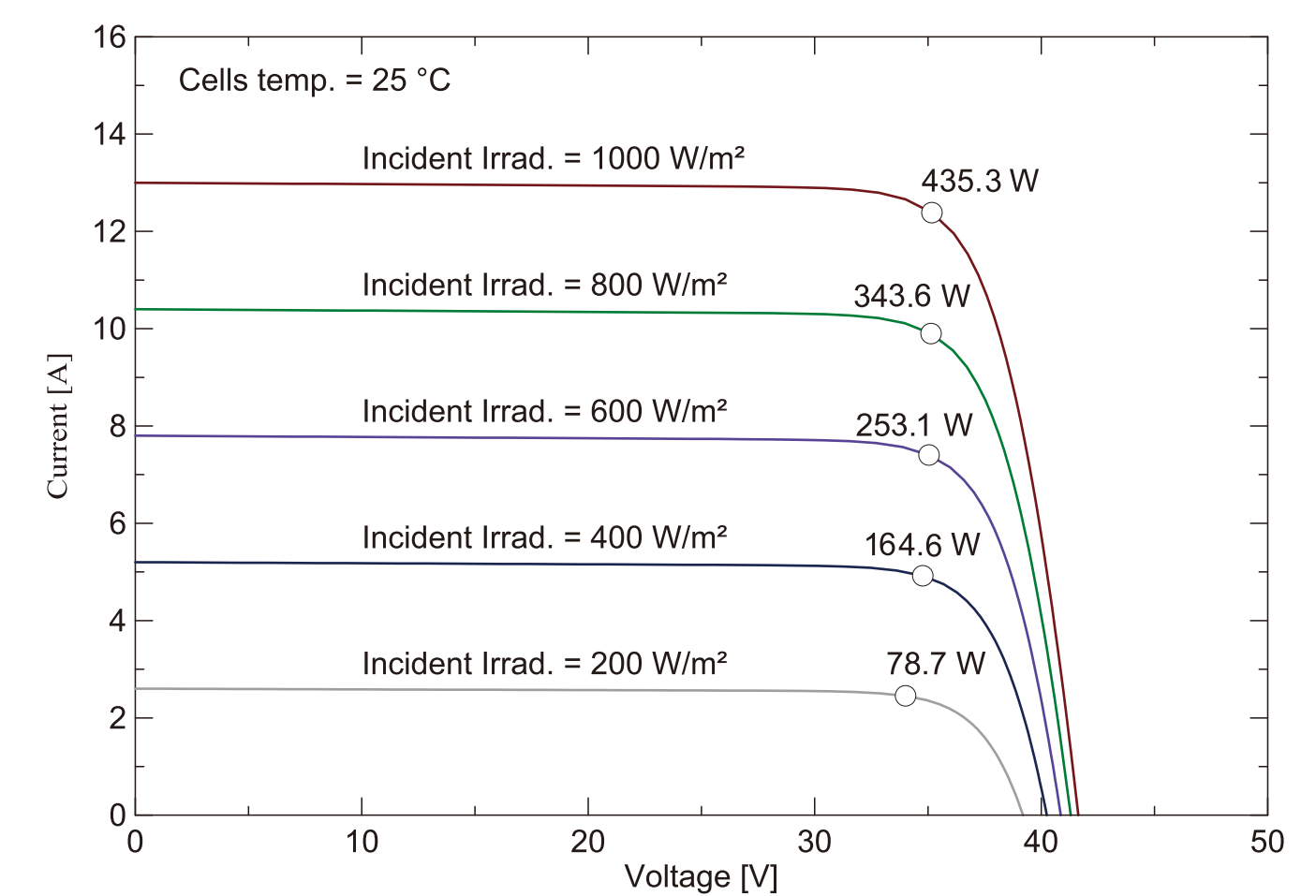
MAXIMUM RATINGS

| | |
|------------------------------------|---|
| Maximum System Voltage [V] | 1500V DC (IEC) |
| Limiting Reverse Current [A] | 25 |
| Maximum Surface Load Capacity [Pa] | Front 5400 / Back 2400 |
| Temperature Range [°C] | -40 ~ +85 |
| Withstanding Hail | Maximum diameter of 25 mm with impact speed of 23 m/s |
| Power Tolerance | ±3% |

DRAWINGS



I-V CURVE



CLAMPING ZONES

| | |
|------------|--------------------------|
| Long Side | 200mm to 480mm from edge |
| Short Side | 100mm to 240mm from edge |