



PERLIGHT SOLAR
Powering Possibilities

PERLIGHT BW BC 450W

PLM-450H8NB-108

HPBC Cell BW BC Module

23.04%
Efficiency

25-YEAR
Warranty

HPBC
CELL

MODULE FEATURES



Maximum Efficiency of 23.04%

Powered by advanced Back Contact cell technology that maximizes light absorption.



Seamless Look

The Back Contact design eliminates front-side busbars, offering a sleek, modern look that enhances the visual appeal of any installation.



Black / White design & Better Low-Light Performance

Enjoy reliable energy production even on cloudy or foggy days. The black and white design further maximises light capture, boosting power generation.



Superior Temperature Management

Benefit from a low temperature coefficient and better thermal management, ensuring consistent performance even in hot climates.



High Power Density and Versatile Installation

Maximize your energy output with high power density panels, ideal for installations with limited space.



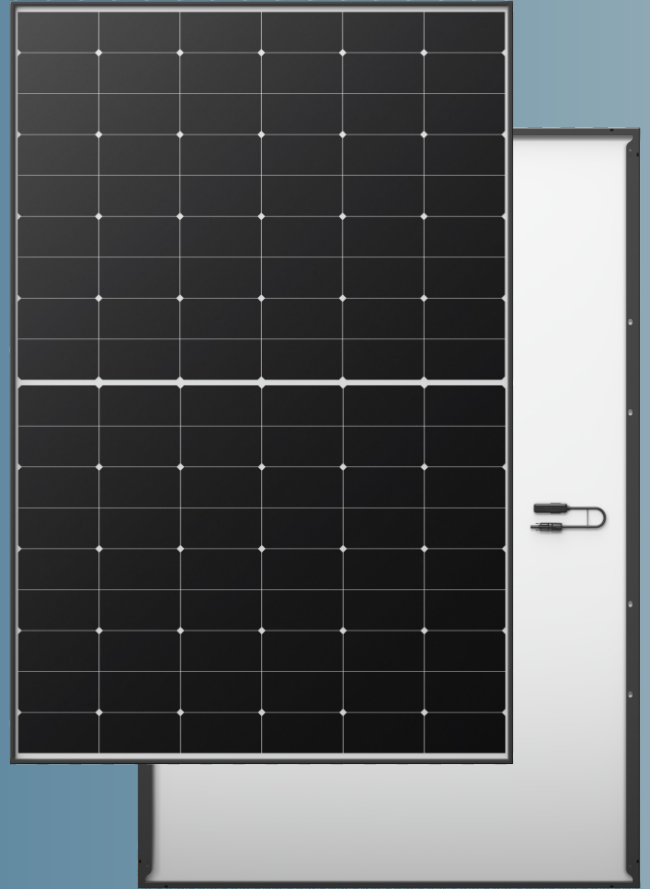
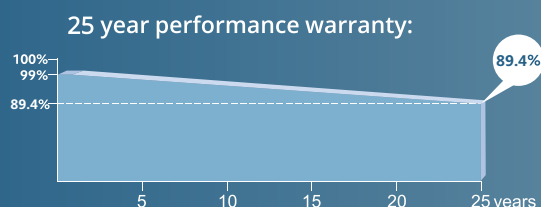
Enhanced Durability and Reliability

30-year warranty and reinforced structural integrity, these panels are built to last, offering long-term reliability and sustained performance.

EXTENDED POWER OUTPUT WARRANTY

12 years limited
product
warranty

25 years
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



EcoVadis is a globally recognized corporate sustainability performance assessment standard.





PERLIGHT SOLAR
Powering Possibilities



More Than 40 Years Manufacturing
Experience Of Baolite Group Since 1982

ELECTRICAL CHARACTERISTICS (STC)

Module Type:	PLM-450H8NB-108			
Maximum Power - Pm (W)	435	440	445	450
Open Circuit Voltage - Voc (V)	39.33	39.53	39.73	39.93
Short Circuit Current - Isc [A]	14.22	14.30	14.38	14.46
Maximum Power Voltage - Vm [V]	33.04	33.24	33.44	33.64
Maximum Power Current - Im [A]	13.17	13.24	13.31	13.38
Module Efficiency - η [%]	22.27	22.53	22.78	23.04

ELECTRICAL CHARACTERISTICS (NMOT)

Maximum Power - Pm (W)	325	329	332	336
Open Circuit Voltage - Voc (V)	36.93	37.11	37.29	37.48
Short Circuit Current - Isc [A]	11.49	11.55	11.61	11.67
Maximum Power Voltage - Vm [V]	30.15	30.33	30.51	30.69
Maximum Power Current - Im [A]	10.78	10.85	10.90	10.95

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 Pm: $\pm 3\%$; Measuring uncertainty of power: $\pm 3\%$; Performance deviation of Voc [V], Isc [A], Vm [V] and Im [A]: $\pm 3\%$

MECHANICAL PARAMETERS

Dimensions	1722 x 1134 x 30 mm
Weight	20.8 kg
Glass	Single Glass, 3.2mm Coated Tempered Glass
Frame	Anodized Aluminium Alloy
Cells	Half-Cell HPBC Mono Black
Number of Cells	108 (6 x 18)
Junction Box	IP 68 (3 Diode)
Cable	TUV 1x4.0 mm ² , (+):1200mm/(-):1200mm or Customized Length
Connector	Staubli MC4 EVO 2A

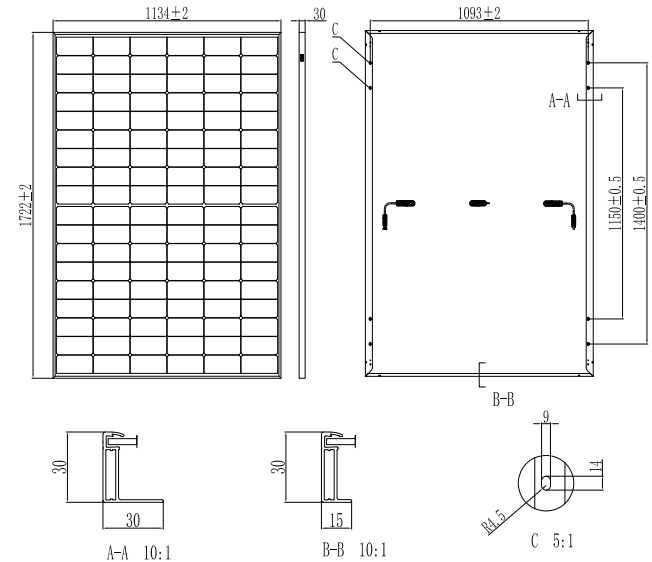
TEMPERATURE PARAMETERS

NOCT	45°C ($\pm 2^\circ\text{C}$)
Temperature Coefficient of Voc	-0.23%/°C
Temperature Coefficient of Isc	+0.05%/°C
Temperature Coefficient of Pm	-0.29%/°C

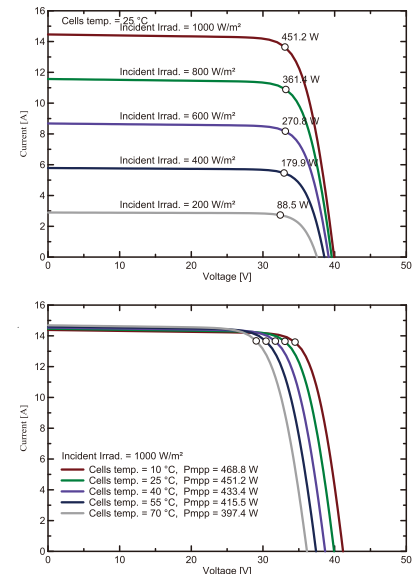
MAXIMUM RATINGS

Maximum System Voltage [V]	1500V DC (IEC)
Maximum Series Fuse Rating [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	$\pm 3\%$

DRAWINGS



I-V CURVE



PACKAGING CONFIGURATION

Packing Type	40'HQ
Piece / Pallet	36
Piece / Container	936

CLAMPING ZONES

Long Side	250mm to 350mm from edge
Short Side	150mm to 250mm from edge