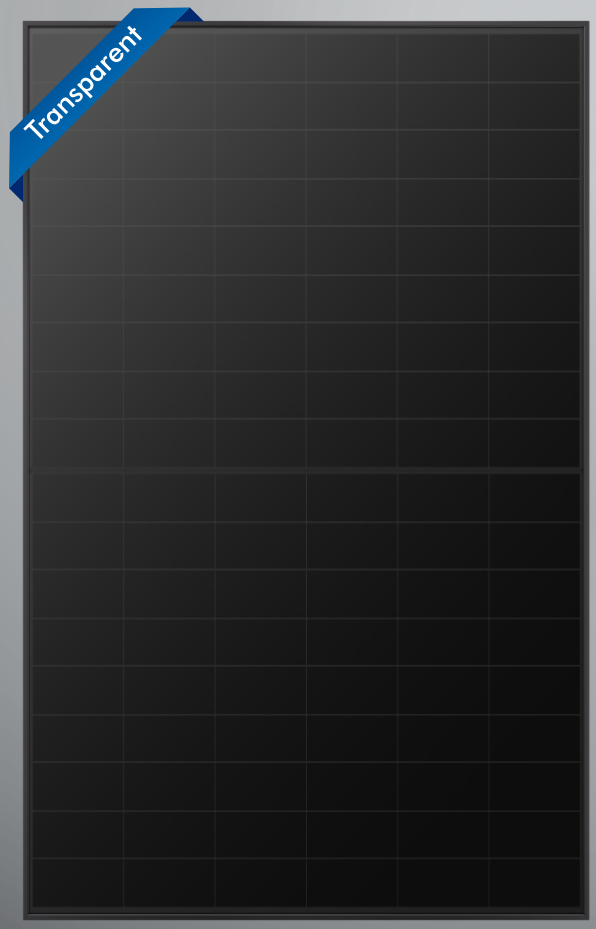
PERLIGHT SOLAR
Powering Possibilities

PERLIGHT DELTA BLACK TRANSPARENT 490W



PLM-490DH8NG-108

HPBC Cell Bifacial Dual Glass

24.00% STC Efficiency

26.55% BSTC Efficiency

30-YEAR Warranty

HPBC 2.0

MODULE FEATURES

High Power Output

Improved light trapping and current collection enhance module power output and long-term reliability.

Outstanding Low Light Performance

Excellent low-light performance ensures higher energy yield in cloudy, foggy, and early morning or late afternoon conditions.

Improved Temperature Coefficient

Optimised for stronger power generation and improved energy yield under high-temperature operating conditions.

PID Resistance

PID *Anti*

Excellent resistance to Potential Induced Degradation (PID) through optimised cell processing and strict material quality control.

Enhanced Mechanical Load

Certified to withstand wind loads of up to 2400 Pa and snow loads of up to 5400 Pa, ensuring reliable performance under demanding environmental conditions.

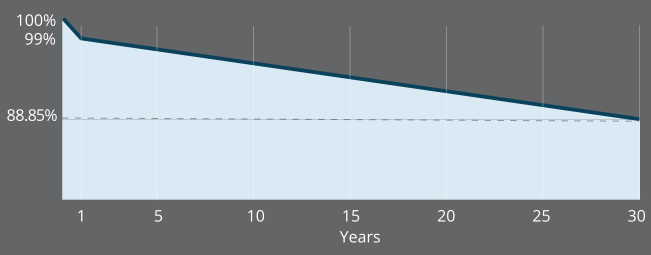
Bifacial Performance

Up to 26.55% module efficiency under BSTC, delivering up to 9.5% additional energy gain compared to standard front-side STC performance.

EXTENDED POWER OUTPUT WARRANTY

30 years limited product warranty | **30** years performance warranty

PERLIGHT'S LINEAR PERFORMANCE WARRANTY



QUALITY MANAGEMENT SYSTEMS & 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 / occupational health & safety management system
ISO 50001:2011 / energy management system
IEC TS 62941 - 2016 / PV industry quality management system

ETHICAL MANUFACTURING STANDARDS

SILVER | Top 15% ecovadis Sustainability Rating JAN 2026

SAI SA 8000

Sedex Member

Independently verified for ethical manufacturing, worker welfare, and responsible supply chains.

MCS CERTIFIED · TÜV SÜD · UKCA · CE

PERLIGHT SOLAR
Powering Possibilities

PLM-490DH8NG-108

ELECTRICAL CHARACTERISTICS	STC	BSTC	NOCT
Maximum Power - Pm (W)	490	537	373
Open Circuit Voltage - Voc (V)	40.75	40.75	38.74
Short Circuit Current - Isc [A]	15.18	16.62	12.19
Maximum Power Voltage - Vm [V]	33.73	33.73	32.06
Maximum Power Current - Im [A]	14.53	15.91	11.64
Module Efficiency - η [%]	24.00	26.30	

Note: 1. Standard Test Conditions [STC]: irradiance 1000 W/m²; AM 1.5; ambient temperature 25°C according to EN 60904-3;
2. Nominal Module Operating Temperature (NOCT): Irradiance 800 W/m²; wind speed 1 m/s, ambient temperature 20°C;
3. BSTC: Front side irradiation 1000W/m², back side reflection irradiation 135W/m², AM=1.5, ambient temperature25°C;
4. Tolerance of Pm: -/+3%, Measuring uncertainty of power: -/+3%. Performance deviation of Voc (V), Isc (A), Vm (V) and Im (A): -/+3%

MECHANICAL PARAMETERS

Dimensions	1800 x 1134 x 30 mm
Weight	25 kg±4%
Front Glass	2.0 mm High-transmittance, AR Tempered Glass
Rear Glass	2.0 mm Semi-tempered Glass
Frame	Anodized Aluminium Alloy
Cells	Half-Cell HPBC Mono Black
Number of Cells	108 [2x(9x6)]
Junction Box	IP 68 (3 Diode)
Cable	4 mm², 1200 mm or Customised Length
Connector	Staubli MC4 EVO 2A

TEMPERATURE PARAMETERS

NOCT	45°C (±2°C)
Temperature Coefficient of Voc	-0.200%/°C
Temperature Coefficient of Isc	+0.050%/°C
Temperature Coefficient of Pm	-0.260%/°C

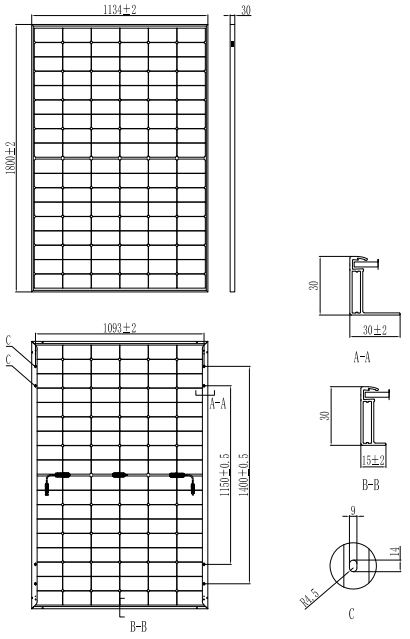
MAXIMUM RATINGS

Maximum System Voltage [V]	1500V DC (IEC)
Maximum Series Fuse Rating [A]	25±4%
Maximum Surface Load Capacity [Pa]	Front 5400 / Back 2400
Temperature Range [°C]	-40 ~ +85
Withstanding Hail	Max. diameter 25 mm with impact speed of 23 m/s
Power Tolerance	±3%

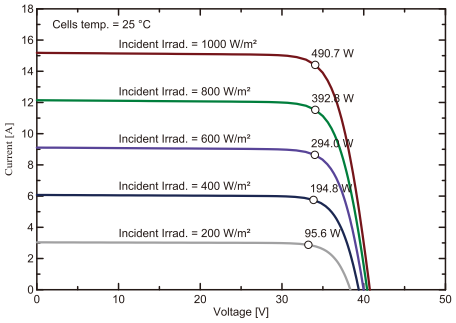
CLAMPING ZONES

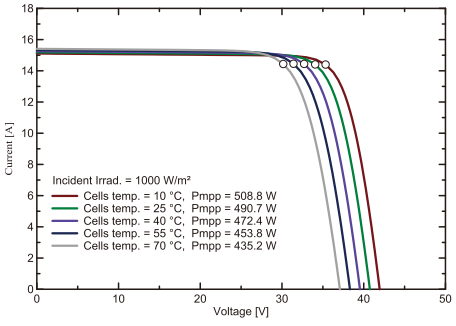
Long Side	250 mm to 350 mm from edge
Short Side	150 mm to 250 mm from edge

DRAWINGS



I-V CURVE





PACKAGING CONFIGURATION

Packing Type	40'HQ
Piece / Pallet	36
Piece / Container	864

PERLIGHT SOLAR CO.,LTD.
Add: Oufeng Rd, Muyu, Zeguo Town, Wenling, Zhejiang, China | www.perlight.com
+86-576-86477290 | enquiry@perlight.com | Version:PLM_EN_2026V1