

UNI-450-144BMH-DG

450W

Highest power output

20.24%

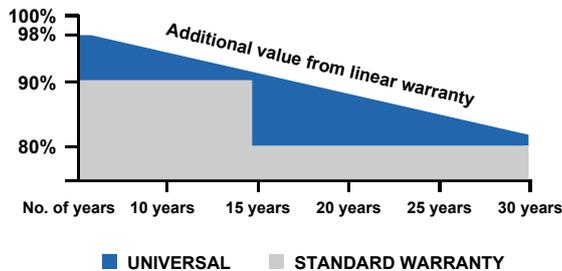
Module efficiency

12 years

Material & Workmanship warranty

30 years

Linear power output warranty

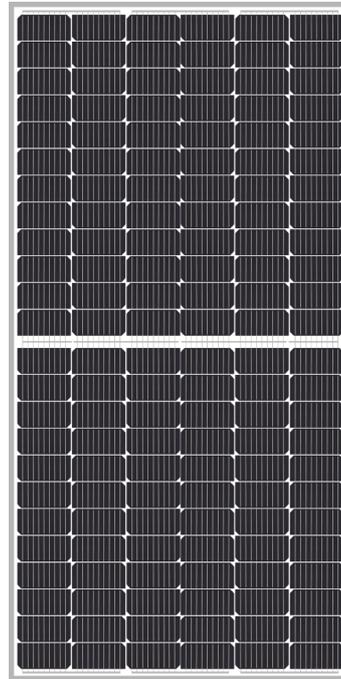


UNI-450-144BMH-DG

UNI-440-144BMH-DG

UNI-445-144BMH-DG

UNI-435-144BMH-DG



PERC cell technology



Higher output power



Lower risk of micro-crack



Positive tolerance offer



Lower risk of hot spot



Better shading tolerance



Certified for salt/ammonia corrosion resistance



Load certificates: wind to 2400Pa and snow to 5400Pa



Lower LCOE

Universal Solar is committed to providing readily available, high-quality, renewable energy products and services at competitive prices. This includes modules made in Panama, which are manufactured to the highest standards with all Tier 1 BOM, utilizing fully automated high-tech manufacturing lines and surpassing Tier 1 processes. Universal's modules are tariff-free, use WRO-compliant silicon, and can be delivered to any U.S. port in 5 days.



Electrical Characteristics at Standard Test Conditions (STC)

Module Type	UNI-450-144BMH-DG	UNI-445-144BMH-DG	UNI-440-144BMH-DG	UNI-435-144BMH-DG
Maximum Power - Pmax (W)	450	445	440	435
Open Circuit Voltage - Voc (V)	49.4	49.2	49.0	48.8
Short Circuit Current - Isc (A)	11.52	11.44	11.36	11.28
Maximum Power Voltage - Vmpp (V)	41.2	41	40.8	40.6
Maximum Power Current - Imp (A)	10.93	10.86	10.79	10.72
Module Efficiency	20.24%	20.01%	19.79%	19.56%

Standard Test Conditions(STC): irradiance 1,000W/m²; AM1,5; module temperature 25°C. Pmax Sorting: 0~5W. Measuring Tolerance: ±3%.

Remark: Electrical data do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.

Electrical Characteristics with different rearside power gain (reference to 445 front)

Pmax (W)	Voc (V)	Isc (A)	Vmpp (V)	Imp (A)	Pmax gain
468	49.2	12.01	41	11.40	5%
490	49.2	12.58	41	11.95	10%
533	49.30	13.73	40.90	13.03	20%
555	49.30	14.30	40.90	13.58	25%

Temperature Characteristics

NOCT	45°C (±2°C)
Voltage Temperature Coefficient	-0.26%/°C
Current Temperature Coefficient	+0.054%/°C
Power Temperature Coefficient	-0.32%/°C

Maximum Ratings

Maximum System Voltage [V]	1000/1500
Series Fuse Rating [A]	20
Bifaciality	70%±5%

Material Characteristics

Dimensions	2122 × 1048 × 35mm (L×W×H)
Weight	27.8kg
Frame	Silver anodized aluminum profile
Front Glass	High-transparency, antireflection-coated, semi-toughened safety glass, 2.0mm
Cell Encapsulation	EVA or POE
Back Sheet	Glazed & semi-toughened safety glass, 2.0mm
Cells	12×12 pieces monocrystalline solar cells series strings
Junction Box	IP68, 3 diodes
Cable & Connector	Potrait: 500mm (cable length can be customized), 1×4 mm ² , compatible with MC4

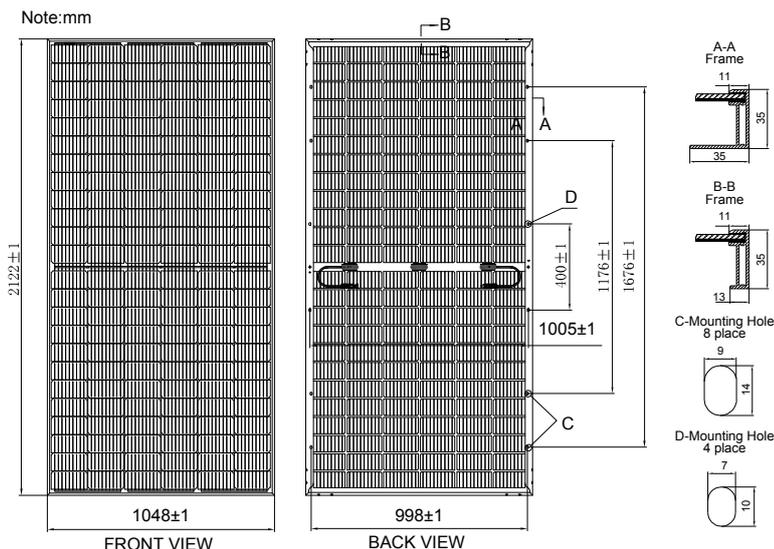
Packaging

Dimensions (L×W×H)	2170×1125×1181mm
Container 20'	150
Container 40'	330
Container 40'HC	660

System Design

Temperature Range	-40°C to +85°C
Withstanding Hail	Maximum diameter of 25mm with impact speed of 23 m/s
Maximum Surface Load	5,400 Pa
Application Class	class A

Dimensions



IV-Curves

