UNIVERSAL SOLAR

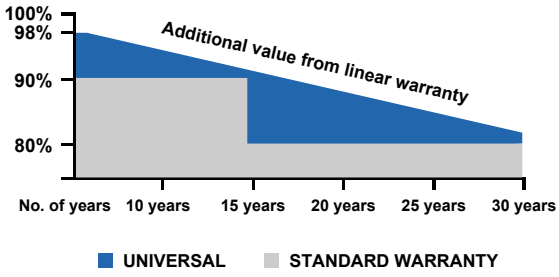
UNI-545-144BMH

545W
Highest power output

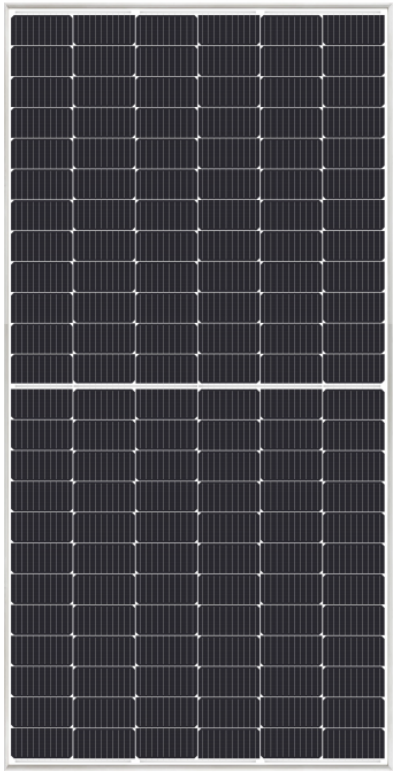
21.32%
Module efficiency

12 years
Material & Workmanship warranty

30 years
Linear power output warranty



UNI-545-144BMH **UNI-540-144BMH**
UNI-535-144BMH **UNI-530-144BMH**



- MBB technology with Circular Ribbon
- Higher output power
- Half-cell technology
- Positive tolerance offer
- Micro Gap
- Up to 30% extra power generation yield from the back side
- Certified for salt/ammonia corrosion resistence
- 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-545-144BMH	UNI-540-144BMH	UNI-535-144BMH	UNI-530-144BMH
Maximum Power - Pmax (W)	545	540	535	530
Open Circuit Voltage - Voc (V)	49.81	49.65	49.5	49.35
Short Circuit Current - Isc (A)	13.92	13.85	13.78	13.71
Maximum Power Voltage - Vmpp (V)	41.8	41.65	41.5	41.35
Maximum Power Current - Impp (A)	13.04	12.97	12.9	12.82
Module Efficiency	21.32%	21.13%	20.93%	20.74%

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)	Isa (A)	Vmpp (V)	Impp (A)	Pmax gain
567	49.65	14.54	41.65	13.62	5%
594	49.65	15.24	41.65	14.27	10%
648	49.75	16.62	41.61	15.56	20%
675	49.75	17.31	41.61	16.21	25%

Temperature Characteristics

NOCT	45°C (±2°C)
Voltage Temperature Coefficient	-0.27%/°C
Current Temperature Coefficient	+0.048%/°C
Power Temperature Coefficient	-0.32%/°C

Maximum Ratings

Maximum System Voltage [V]	1500
Series Fuse Rating [A]	30
Bifaciality	70%±10%

Material Characteristics

Dimensions	2256 × 1133 × 35mm (L×W×H)
Weight	28.6kg
Frame	Silver anodized aluminum profile
Front Glass	White toughened safety glass, 3.2mm
Cell Encapsulation	EVA or POE
Back Sheet	Transparent black mesh
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 mm2, compatible with MC4

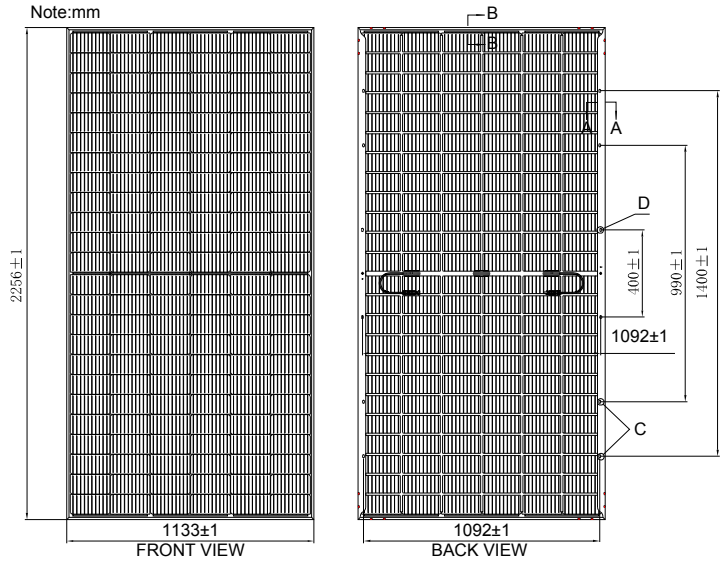
Packaging

Dimensions (L×W×H)	2290×1125×1253mm
Container 20'	155
Container 40'	310
Container 40'HC	620

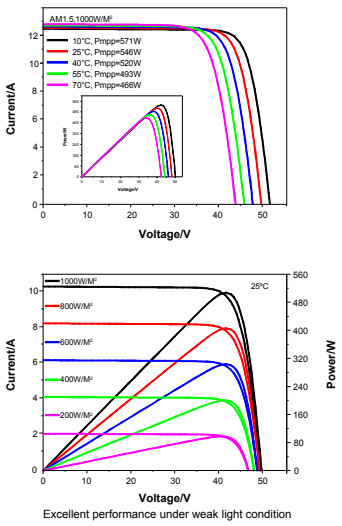
System Design

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



Excellent performance under weak light condition

Electrical Characteristics at Standard Test Conditions (STC)

Module Type	UNI-545-144BMH	UNI-540-144BMH	UNI-535-144BMH	UNI-530-144BMH
Maximum Power - Pmax (W)	545	540	535	530
Open Circuit Voltage - Voc (V)	49.81	49.65	49.5	49.35
Short Circuit Current - Isc (A)	13.92	13.85	13.78	13.71
Maximum Power Voltage - Vmpp (V)	41.8	41.65	41.5	41.35
Maximum Power Current - Impp (A)	13.04	12.97	12.9	12.82
Module Efficiency	21.32%	21.13%	20.93%	20.74%

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)	Isa (A)	Vmpp (V)	Impp (A)	Pmax gain
567	49.65	14.54	41.65	13.62	5%
594	49.65	15.24	41.65	14.27	10%
648	49.75	16.62	41.61	15.56	20%
675	49.75	17.31	41.61	16.21	25%

Temperature Characteristics

NOCT	45°C (±2°C)
Voltage Temperature Coefficient	-0.27%/°C
Current Temperature Coefficient	+0.048%/°C
Power Temperature Coefficient	-0.32%/°C

Maximum Ratings

Maximum System Voltage [V]	1500
Series Fuse Rating [A]	30
Bifaciality	70%±10%

Material Characteristics

Dimensions	2256 × 1133 × 35mm (L×W×H)
Weight	28.6kg
Frame	Silver anodized aluminum profile
Front Glass	White toughened safety glass, 3.2mm
Cell Encapsulation	EVA or POE
Back Sheet	Transparent black mesh
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 mm2, compatible with MC4

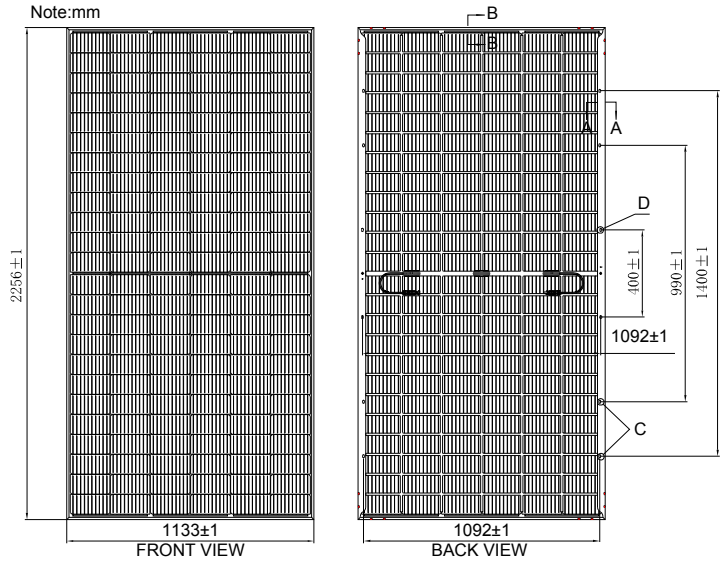
Packaging

Dimensions (L×W×H)	2290×1125×1253mm
Container 20'	155
Container 40'	310
Container 40'HC	620

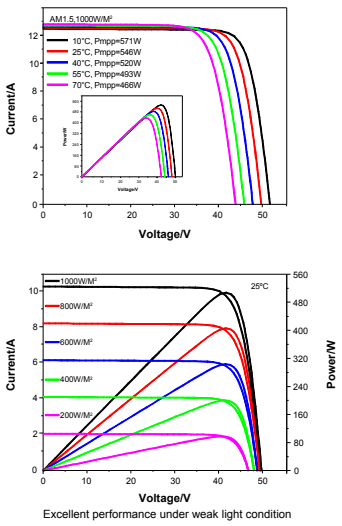
System Design

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



Excellent performance under weak light condition