



# EMS-144MHD

## POWER RANGE

430W~460W

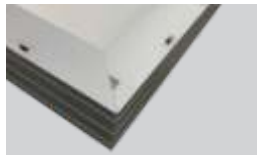
## CELL SIZE

166\*83mm



### JUNCTION BOX

Waterproof protection grade:IP67/IP68  
Safety Level: Class II  
Maximum System Voltage: 1500V  
outstanding waterproof level ·  
Effectively resist harsh environments



### Frame

Strong machanical load  
resistance up to 5400Pa  
Anodic oxidation layer resistant to  
chemical corrosion available  
in silver and black



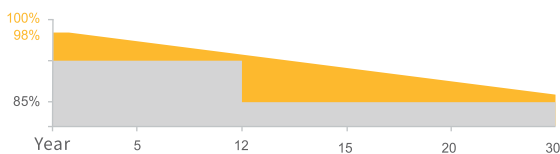
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## QUALIFICATIONS AND CERTIFICATES



· IEC61215 / · IEC61730

## WARRANTY



**12 YEARS** Guarantee on product material and workmanship

**30 YEARS** Linear Power output warranty



### Higher power

Double-sided power generation can significantly improve the equivalent power generation of solar panels.  
Higher power of solar panels can effectively reduce system BOS cost.



### Higher reliability

Suitable for areas with higher temperature and higher humidity, resistant to salt spray ammonia gas with firing rating in A.  
Anti-PID performance improvement through battery process optimization and material control.



### Higher generated energy

Excellent IAM and low light performance.  
More power generation by lower temperature coefficient and lower operating temperature.



### Easy installation

The conventional frame design makes the double-glass solar panels suitable for various mounting modes.  
Easy to hold, transport and install.



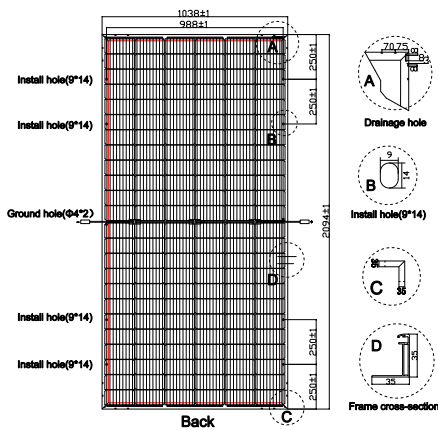
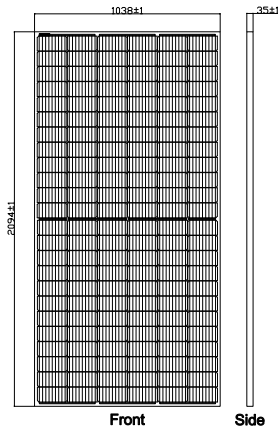
[www.eaplworld.com](http://www.eaplworld.com)

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## PV DRAWINGS

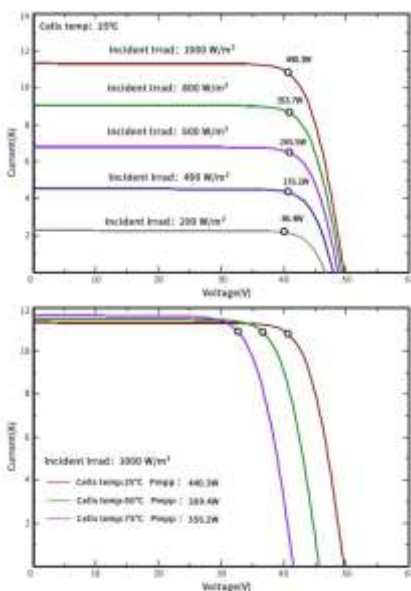
Unit:mm



## PACKING WAY

20FT container	5 Packages/155pcs
40HQ container	22 Packages/726pcs

## IV CURVE (440W)



## ELECTRICAL DATA (STC)

Model Type	EAG430-36V -MHD	EAG440-36V -MHD	EAG450-36V -MHD	EAG460-36V -MHD
Peak Power(Pmax)	430.00	440.00	450.00	460.00
Maximum Power Voltage(Vmp)	40.60	41.00	41.40	41.80
Maximum Power Current(Impp)	10.60	10.73	10.87	10.99
Open Circuit Voltage(Voc)	48.90±3%	49.20±3%	49.60±3%	50.00±3%
Short Circuit Current(Isc)	11.30±3%	11.45±3%	11.58±3%	11.72±3%
Module Efficiency( % )	19.78	20.24	20.70	21.16

\* STC: irradiance 1000 W/m<sup>2</sup>, AM 1.5, and cell temperature of 25°C

## ELECTRICAL DATA (NOCT)

Model Type	EAG430-36V -MHD	EAG440-36V -MHD	EAG450-36V -MHD	EAG460-36V -MHD
Peak Power(Pmax)	321.10	328.60	336.10	343.50
Maximum Power Voltage(Vmp)	37.90	38.20	38.60	39.00
Maximum Power Current(Impp)	8.49	8.60	8.70	8.81
Open Circuit Voltage(Voc)	45.80±3%	46.10±3%	46.40±3%	46.80±3%
Short Circuit Current(Isc)	9.13±3%	9.25±3%	9.36±3%	9.47±3%

\* NOCT: irradiance 800 W/m<sup>2</sup>, AM 1.5, ambient temperature 20°C, wind speed 1 m/s

## PARAMETER OF DOUBLE-SIDED POWER GENERATION (430W)

Pmax gain	Pmax/W	Vmpp/V	Impp/A	Voc/V	Isc/A
5%	452.00	40.60	11.13	48.90±3%	11.87±3%
15%	495.00	40.70	12.16	49.00±3%	12.96±3%
25%	538.00	40.70	13.22	49.00±3%	14.09±3%

## TEMPERATURE & MAXIMUM RATING

Maximum System Voltage (V)	1500 V
Maximum Series Fuse Rating (A)	25 A
Power Tolerance	0~+3 W
Pmax Temperature Coefficients (W/°C)	-0.350 %/°C
Voc Temperature Coefficients (V/°C)	-0.284 %/°C
Isc Temperature Coefficients (A/°C)	+0.050 %/°C
NOCT Nominal Operating Cell Temperature (°C)	45±2 °C
Operating and Storage Temperature (°C)	-40~+85 °C

## MECHANICAL CHARACTERISTICS

Cell Type	166*83 Mono
No. of Cells	144 (12*12)
Dimensions	2094*1038*35mm
Weight	27.50kg
Front glass	2.0mm coated high-transparent tempered glass
Back glass	2.0mm high-transparent glass
Frame	Anodized Aluminium Alloy
Junction box	IP67/IP68 3diodes
Output cables	4mm <sup>2</sup> cable 35cm (Including MC4 connector)
MaxWind Load/Snow Load	2400Pa/5400Pa

