

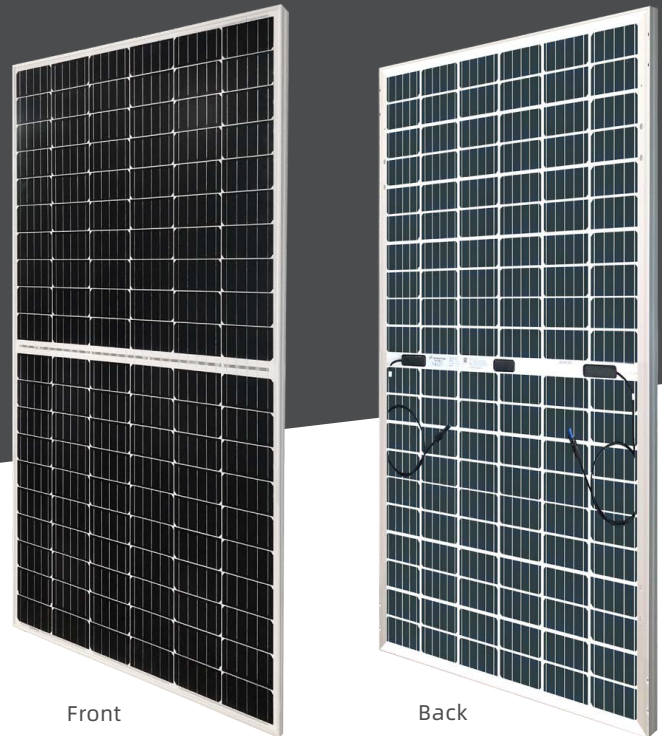
# ODA-144HCLM

POWER RANGE

**420W~460W**

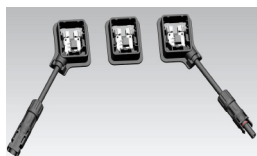
CELL FEATURE

**166\*83, 23.31%**



Front

Back



## JUNCTION BOX

High waterproof rating  
Protection Degree: IP67  
Safety Class: Class II  
Rated Voltage: 1500V



## FRAME

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



5BB



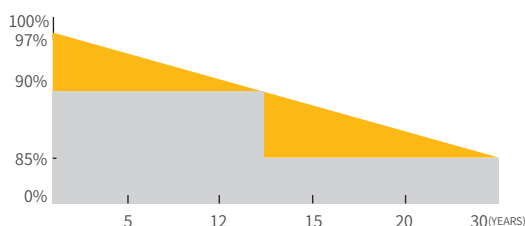
9BB

## QUALIFICATIONS AND CERTIFICATES



• IEC61215 / • IEC61730

## WARRANTY



12 YEARS

Guarantee on product material and workmanship

30 YEARS

Linear Power output warranty



### Higher power output

Resistance decreases and fill factor increases, then out put power increases by 5-10 watts



### Longer life span

Hot spot effect is reduced and modules life span is extended.



### Better durability

Perform excellently in low irradiance and other severe environment, such as salt mist, ammonia, sand blowing, etc. conditio



### PID Resistant

Perfect resistance against PID (PotentialInduced Degradation) to secure your investment.

NINGBO OSDA SOLAR CO.,LTD  
[www.osdasol.com](http://www.osdasol.com)

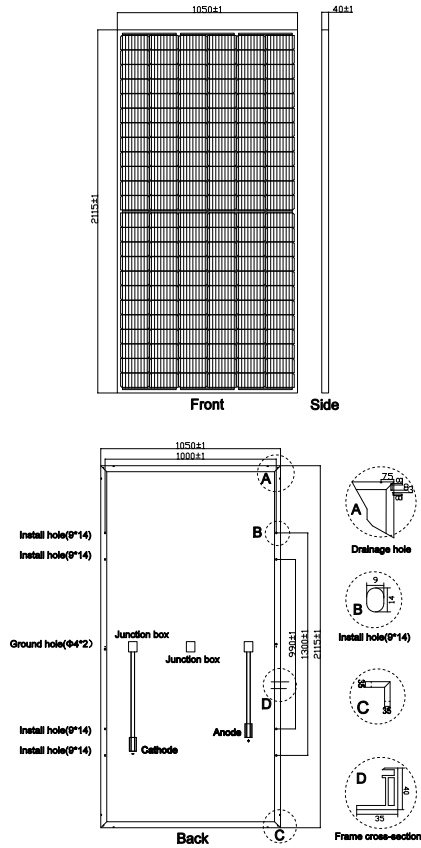
Osda Solar, established in 2009, is a high-tech enterprise specializing in R&D, production and sales of photovoltaic products, such as solar modules, silicon rods, cells, etc., as well as the investment and operation of solar power plant. The capacity of solar modules can reach 1 GW a year.

Located in Ningbo, Osda has a sound market network over Europe, America, Asia, Oceania and Africa. The subordinate branches and representative offices are located in more than 10 countries including Germany, Denmark, Bangladesh, Burma, India, etc.

Osda contributes to a cleaner and greener environment by helping people use alternative energy, which hopefully can lead to a brighter and more prosperous future for human being.

## PV DRAWINGS

Unit:mm



## ELECTRICAL DATA (STC)

Model Type	ODA420-36-MH	ODA430-36-MH	ODA440-36-MH	ODA450-36-MH	ODA460-36-MH
Peak Power(Pmax)	420.00	430.00	440.00	450.00	460.00
Maximum Power Voltage(Vmp)	40.20	40.60	41.00	41.40	41.80
Maximum Power Current(Imp)	10.45	10.60	10.74	10.87	11.01
Open Circuit Voltage(Voc)	48.80	49.20	49.60	50.22	50.70
Short Circuit Current(Isc)	11.04	11.19	11.33	11.48	11.63
Cells Efficiency( % )	21.28	21.79	22.30	22.80	23.31
Module Efficiency( % )	18.91	19.36	19.81	20.26	20.71

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

## ELECTRICAL DATA (NOCT)

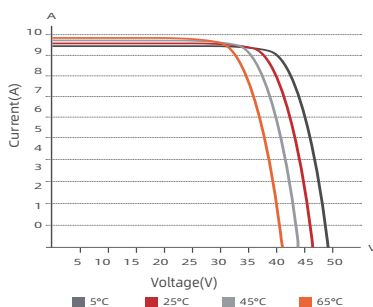
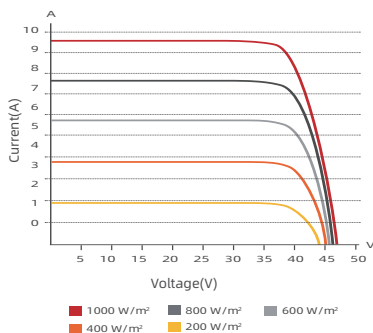
Model Type	ODA420-36-MH	ODA430-36-MH	ODA440-36-MH	ODA450-36-MH	ODA460-36-MH
Peak Power(Pmax)	311.10	318.50	326.00	334.00	342.00
Maximum Power Voltage(Vmp)	37.10	37.50	37.90	38.27	38.64
Maximum Power Current(Imp)	8.38	8.50	8.61	8.73	8.86
Open Circuit Voltage(Voc)	45.50	45.90	46.30	46.84	47.30
Short Circuit Current(Isc)	8.90	9.02	9.13	9.26	9.40

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

## TEMPERATURE & MAXIMUM RATING

Maximum System Voltage(V)	1500
Maximum Series Fuse Rating(A)	20
Power Tolerance	0 ~ +3 %
Pmax Temperature Coefficients(W/°C )	-0.370 %
Voc Temperature Coefficients(V/°C )	-0.286 %
Isc Temperature Coefficients(A/°C )	+0.057 %
NOCT Nominal Operating Cell Temperature(°C )	45±2
Operating and Storage Temperature(°C )	-40 ~ +85

## IV CURVE



## MECHANICAL CHARACTERISTICS

Cell Type	166x83 Mono
No. of Cells	144(12x12)
Dimensions	2115*1050*40
Weight	23.5kg
Front Glass	3.2mm high transmission, low iron, tempered glass
Frame	Anodized Aluminium Alloy
Junction box	IP68 3 diodes
Output cables	4mm <sup>2</sup> cable 90cm+mc4
MaxWind Load/Snow Load	2400Pa/5400Pa

## PACKING WAY

20FT container	5 Packages/135PCS
40HQ containe	22 Packages/594PCS



We Are Seeking Agents And Partners!

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