

# ODA-108MHBD

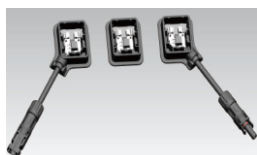
Topcon Technology

POWER RANGE

410W~440W

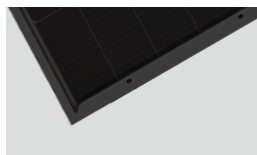
CELL SIZE

182\*91mm



### JUNCTION BOX

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



### Frame

Strong mechanical load  
 resistance up to 5400Pa  
 Anodic oxidation layer resistant to  
 chemical corrosion available



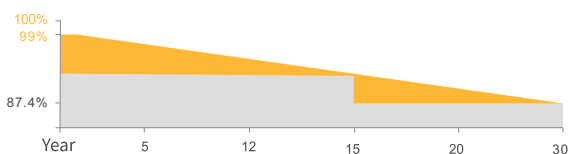
16BB

## QUALIFICATIONS AND CERTIFICATES



· IEC61215 / · IEC61730

## WARRANTY



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

**30 YEARS** Linear Power output warranty



### SMBB Technology

Better light trapping and current collection to improve module power output and reliability.



### PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



### Higher Power Output

Module power increases 5-25% generally, bringing significantly lower LCOE and higher IRR.



### Enhanced Mechanical Load

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).

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

OSDA Solar established in 2008, is a high-tech enterprise integrating R&D, production and sales of solar energy products. It is committed to the overall solution of distributed photovoltaic system and provides services from consulting, design, construction, financing to intelligent operation and maintenance.

OSDA has 3 production sites in China and branches and representative offices in more than 10 countries overseas. Products include solar cells, modules, On/Off grid solar system, solar pump and other solar related applications. Our products have passed many international certifications such as TÜV, MCS, CEC, IEC, ISO, CE, CQC and so on. With excellent quality, our products are exported to more than 100 countries of the world.

Since its establishment, OSDA has always followed the idea of "Smart energy · Lightening future". It has followed the steps of "the Belt and Road Initiative", we bring bright light to the countries and people who are short of electricity. Sharing the concept of modern civilization, and building a green home together.

## ELECTRICAL DATA(STC)

Model Type	ODA410-27V-MHBD	ODA415-27V-MHBD	ODA420-27V-MHBD	ODA425-27V-MHBD	ODA430-27V-MHBD	ODA435-27V-MHBD	ODA440-27V-MHBD
Peak Power(Pmax)	410.00	415.00	420.00	425.00	430.00	435.00	440.00
Maximum Power Voltage(Vmp)	31.13	31.32	31.51	31.70	31.88	32.06	32.24
Maximum Power Current(Imp)	13.17	13.25	13.33	13.41	13.49	13.57	13.65
Open Circuit Voltage(Voc)	37.73±3%	37.92±3%	38.11±3%	38.30±3%	38.49±3%	38.68±3%	38.87±3%
Short Circuit Current(Isc)	13.91±3%	13.99±3%	14.07±3%	14.15±3%	14.23±3%	14.31±3%	14.39±3%
Module Efficiency( % )	21.00	21.25	21.51	21.76	22.02	22.28	22.54

\*STC: irradiance 1000W/m<sup>2</sup>, AM1.5, and cell temperature of 25°C

## ELECTRICAL DATA(NMOT)

Model Type	ODA410-27V-MHBD	ODA415-27V-MHBD	ODA420-27V-MHBD	ODA425-27V-MHBD	ODA430-27V-MHBD	ODA435-27V-MHBD	ODA440-27V-MHBD
Peak Power(Pmax)	308.00	312.00	316.00	320.00	323.00	327.00	331.00
Maximum Power Voltage(Vmp)	29.06	29.21	29.34	29.50	29.63	29.76	29.91
Maximum Power Current(Imp)	10.61	10.68	10.76	10.83	10.91	10.99	11.07
Open Circuit Voltage(Voc)	35.84±3%	36.02±3%	36.20±3%	36.38±3%	36.56±3%	36.74±3%	36.92±3%
Short Circuit Current(Isc)	11.23±3%	11.29±3%	11.36±3%	11.42±3%	11.49±3%	11.56±3%	11.63±3%

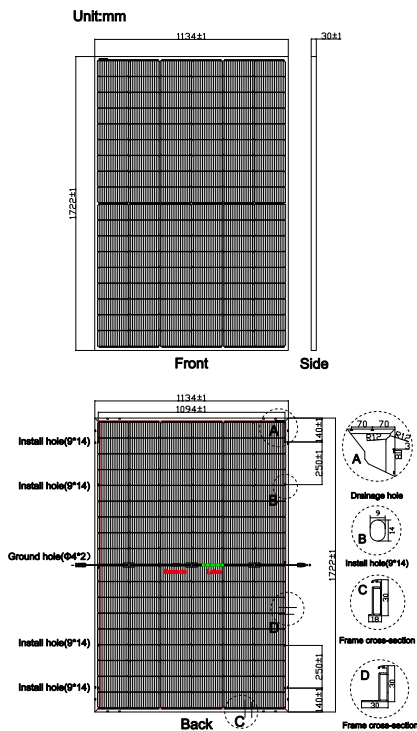
\*NMOT: irradiance 800 W/m<sup>2</sup>, AM 1.5, ambient temperature 20°C, wind speed 1 m/s

## ELECTRICAL DATA(BNPI)

Model Type	ODA410-27V-MHBD	ODA415-27V-MHBD	ODA420-27V-MHBD	ODA425-27V-MHBD	ODA430-27V-MHBD	ODA435-27V-MHBD	ODA440-27V-MHBD
Peak Power(Pmax)	454.00	460.00	465.00	471.00	476.00	482.00	488.00
Maximum Power Voltage(Vmp)	31.13	31.32	31.51	31.70	31.88	32.06	32.24
Maximum Power Current(Imp)	14.59	14.68	14.77	14.86	14.95	15.04	15.14
Open Circuit Voltage(Voc)	37.73±3%	37.92±3%	38.11±3%	38.30±3%	38.49±3%	38.68±3%	38.87±3%
Short Circuit Current(Isc)	15.41±3%	15.50±3%	15.59±3%	15.68±3%	15.77±3%	15.86±3%	15.94±3%

\*BNPI: back irradiance 135W/m<sup>2</sup>, AM1.5, and cell temperature of 25°C

## PV DRAWINGS



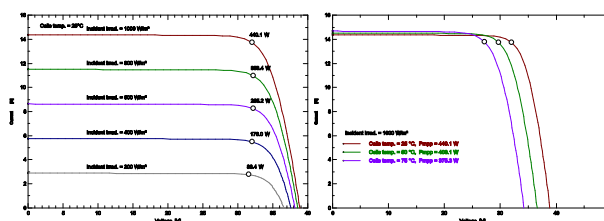
## TEMPERATURE & MAXIMUM RATING

Maximum System Voltage (V)	1500
Maximum Series Fuse Rating (A)	30
Power Tolerance (W)	0~+3%
Pmax Temperature Coefficients (W/°C)	-0.290%
Voc Temperature Coefficients (V/°C)	-0.250%
Isc Temperature Coefficients (A/°C)	+0.041%
NMOT Nominal Module Operating Temperature (°C)	45±2
Operating and Storage Temperature (°C)	-40~+85

## MECHANICAL CHARACTERISTICS

Cell Type	182*91 N Type Bifacial Mono
No. of Cells	108 (12*9)
Dimensions	1722*1134*30mm
Weight	24.70kg
Front Glass	2.0mm AR coating tempered glass
Back Glass	2.0mm Glazed Glass
Frame	Anodized Aluminium Alloy
Junction box	IP68 3diodes
Output cables	4mm <sup>2</sup> cable 35cm (Including MC4 connector)
MaxWind Load/Snow Load	2400Pa/5400Pa

## IV CURVE (440W)



## PACKING WAY

20FT container	6 Packages/222pcs
40HQ container	26 Packages/962pcs



We Are Seeking Agents And Partners!

ADD: 1-1, No. 136, Haichuan Road, Jiangbei Area, Ningbo City, Zhejiang Province, P.R. China

Tel: 86-574-87915068  
Call: 86-13566302808  
E-mail: sales@osdasol.com