

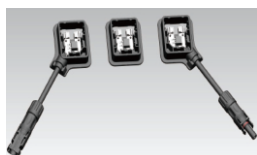
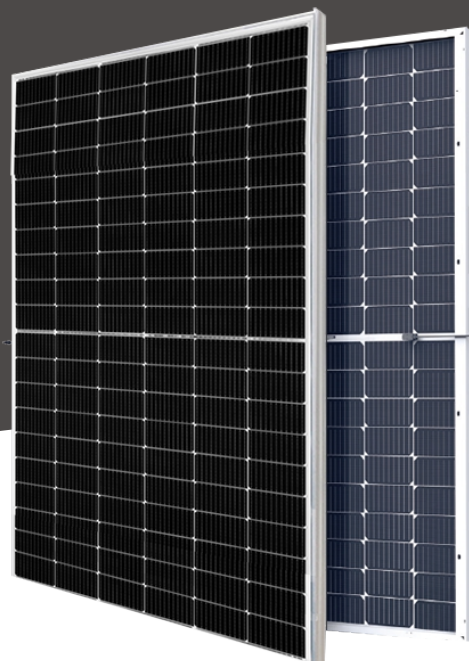
ODA-120MHD

POWER RANGE

440W~460W

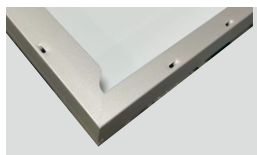
CELL SIZE

182*91mm



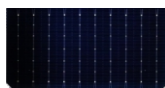
JUNCTION BOX

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



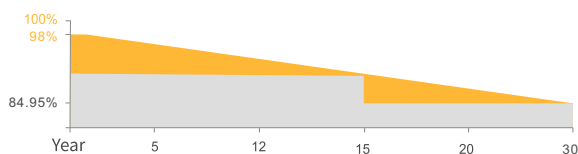
10BB

QUALIFICATIONS AND CERTIFICATES



· IEC61215 / · IEC61730

WARRANTY



15 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.

NINGBO OSDA SOLAR CO.,LTD
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	ODA440-30V-MHD	ODA445-30V-MHD	ODA450-30V-MHD	ODA455-30V-MHD	ODA460-30V-MHD
Peak Power(Pmax)	440.00	445.00	450.00	455.00	460.00
Maximum Power Voltage(Vmp)	34.47	34.63	34.79	34.95	35.11
Maximum Power Current(Imp)	12.77	12.86	12.94	13.02	13.11
Open Circuit Voltage(Voc)	41.00±3%	41.20±3%	41.40±3%	41.60±3%	41.80±3%
Short Circuit Current(Isc)	13.78±3%	13.87±3%	13.96±3%	14.05±3%	14.15±3%
Module Efficiency(%)	20.38	20.62	20.85	21.08	21.31

*STC: irradiance 1000W/m², AM1.5, and cell temperature of 25°C

ELECTRICAL DATA(NMOT)

Model Type	ODA440-30V-MHD	ODA445-30V-MHD	ODA450-30V-MHD	ODA455-30V-MHD	ODA460-30V-MHD
Peak Power(Pmax)	327.10	330.80	334.50	338.20	342.20
Maximum Power Voltage(Vmp)	31.97	32.13	32.29	32.45	32.61
Maximum Power Current(Imp)	10.24	10.30	10.36	10.43	10.50
Open Circuit Voltage(Voc)	38.41±3%	38.59±3%	38.77±3%	38.95±3%	39.14±3%
Short Circuit Current(Isc)	10.91±3%	10.99±3%	11.07±3%	11.15±3%	11.22±3%

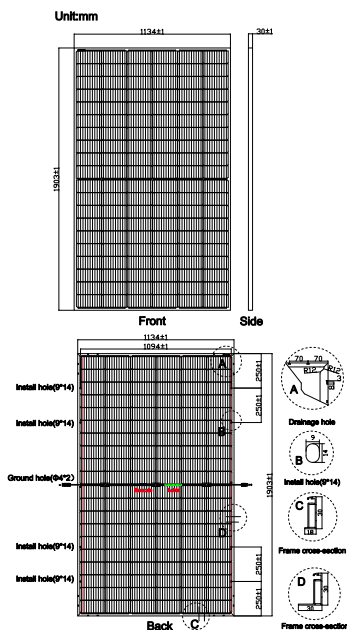
*NMOT: irradiance 800 W/m², AM 1.5, ambient temperature 20°C, wind speed 1 m/s

ELECTRICAL DATA(BNPI)

Model Type	ODA440-30V-MHD	ODA445-30V-MHD	ODA450-30V-MHD	ODA455-30V-MHD	ODA460-30V-MHD
Peak Power(Pmax)	482.00	487.00	493.00	498.00	503.00
Maximum Power Voltage(Vmp)	34.47	34.63	34.79	34.95	35.11
Maximum Power Current(Imp)	13.98	14.08	14.16	14.25	14.35
Open Circuit Voltage(Voc)	41.00±3%	41.20±3%	41.40±3%	41.60±3%	41.80±3%
Short Circuit Current(Isc)	15.21±3%	15.31±3%	15.41±3%	15.51±3%	15.62±3%

*BNPI: back irradiance 135W/m², AM1.5, and cell temperature of 25°C

PV DRAWINGS



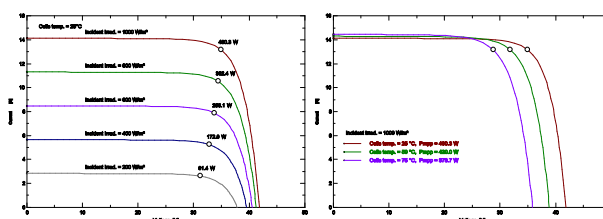
TEMPERATURE & MAXIMUM RATING

Maximum System Voltage (V)	1500
Maximum Series Fuse Rating (A)	30
Power Tolerance (W)	0~+3%
Pmax Temperature Coefficients (W/°C)	-0.350%
Voc Temperature Coefficients (V/°C)	-0.285%
Isc Temperature Coefficients (A/°C)	+0.045%
NMOT Nominal Module Operating Temperature (°C)	45±2
Operating and Storage Temperature (°C)	-40~+85

MECHANICAL CHARACTERISTICS

Cell Type	182*91 Bifacial Mono
No. of Cells	120 (12*10)
Dimensions	1903*1134*30mm
Weight	27.20kg
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 ² cable 35cm (Including MC4 connector)
MaxWind Load/Snow Load	2400Pa/5400Pa

IV CURVE (460W)



PACKING WAY

20FT container	6 Packages/222pcs
40HQ container	24 Packages/888pcs



We Are Seeking Agents And Partners!

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