

440W/445W

Cortex™ series of solar modules by Omnis Solar Power are very powerful which provide the world-class performance. The Cells and raw materials structure design ensures the maximized of sunlight and enhances the reliability. Cortex™ includes the most leading technologies of solar cells like PERC, N-Topcon, HJT, and shingled. After years of effort, Cortex is able to increase customer's value beyond the efficiency, the performance and durability under real conditions makes our customers succeed no matter in residential or commercial applications.



IEC 61215
IEC 61730
Regular Production
Surveillance
www.tuv.com
ID 1111281008



Highlight



Higher Efficiency

The leading high efficiency of solar cells ensures the high output power which making it more sufficient in limited space.



Warranty Extended Up To 30 Years

Cortex provide 30 years warranty of product materials and workmanship which is leading the whole industry.



Lower Power Degradation

Cortex is guaranteed 2% power degradation for first year and only 0.5% annual power degradation in 30 years.



Durability In Extreme Conditions

Mechanical loads up to 5400pa positive.

About Omnis Solar Power

In the year of 2010, Omnis Solar Power was created by a group of passionate people in U.S who are dedicating into renewable energies. Since more than 10 Years, Omnis Solar Power has grown to become one of the most innovative and dependable solar product and solution provider. Omnis Solar Power offers sustainability and brings the future to both commercial and residential applications worldwide with top-of-the-line solar products, solutions, and services. Being an qualified PV company means operating in a way that reflects our values and mission to provide our partners with the innovation and quality they deserve. Omnis Solar Power is committed to upholding the standards and responsibility that made us one of the best.

Electrical Data (STC)

Part Number	OP440M54-N3-BF	OP445M54-N3-BF
Peak Power Watts- $P_{MAX}(Wp)^*$	440	445
Power Output Tolerance	+/-3%	
Open Circuit Voltage- $V_{oc}(V)$	38.72	38.90
Short Circuit Current- $I_{sc}(A)$	14.56	14.66
Maximum Power Voltage- $V_{MPP}(V)$	32.05	32.21
Maximum Power Current- $I_{MPP}(A)$	13.73	13.82
Panel Efficiency(%)	22.53	22.79

STC :Irradiance 1000w/m²,Cell Temperature 25°C,Binning Tolerance: ±5W

Electrical Data (BNPI)

Part Number	OP485M54-N3-BF	OP490M54-N3-BF
MaximumPower- $P_{MAX}(Wp)^*$	485	490
Open Circuit Voltage- $V_{oc}(V)$	39.32	39.49
Short Circuit Current- $I_{sc}(A)$	15.82	15.92
Maximum Power Voltage- $V_{MPP}(V)$	32.62	32.78
Maximum Power Current- $I_{MPP}(A)$	14.87	14.95
Bifacial coefficient	ϕP_{max}	80±5%
	ϕV_{oc}	98.95%
	ϕI_{sc}	72.45%

STC :Irradiance 1000w/m²,Cell Temperature 25°C,Binning Tolerance: ±5W

Mechanical Data

Panel Dimension(H/W/O)	1722 x 1134 x 30mm (±2mm)
Weight	19.5kg±0.5kg
Cell Type	Topcon Mono Cell
Cell Number	108
Front / Back Glass	Double Glass AR coating semi-tempered glass
Frame Type	Black Anodized Aluminium Alloy
Junction Box Diodes	3
Junction Box Protection Class	IP68
Connector Type	Staubil MC4 /TL-Cable01S
Cable	4.0mm ² ,1100mm(+)/1100mm(-) or Customized Length

Temperature Ratings(STC and BNPI)

NOCT	42°C(±2°C)
Temperature Coefficient of P_{MAX}	-0.310%/°C
Temperature Coefficient of V_{oc}	-0.260%/°C
Temperature Coefficient of I_{sc}	+0.046%/°C

(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

Warranty

30 years Product Workmanship Warranty
30 years Output Power Warranty

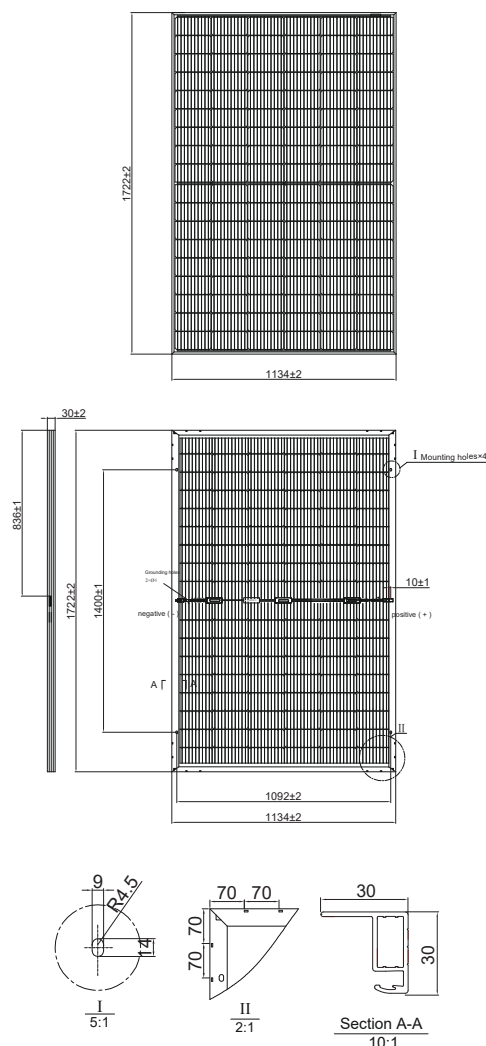
Maximum Ratings

Operational Temperature	-40~±85 °C
Front/Rear Side Load	5400/2400pa
Max Series Fuse Rating	25A
Max System Voltage	1500V (IEC)
Fire Rating	Class C

Packaging Configuration

Modules per box:39 pieces
Modules per 40' container:1014 pieces

DIMENSIONS OF PV MODULE(mm)



I-V CURVES OF PV MODULE

