

440W/445W/450W/455W/460W

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.



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 25 Years

Cortex provide 25 years warranty of product materials and workmanship which is leading the whole industry.



Lower Power Degradation

Ensured PID resistance through cell process and module material control to help harvest more. Cortex is guaranteed ONLY 0.5% annual power degradation in 30 years.



Durability In Extreme Conditions

Cortex is passed the test by salt mist, ammonia and 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 | OP440M60-P3 | OP445M60-P3 | OP450M60-P3 | OP455M60-P3 | OP460M60-P3 |
|-------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Peak Power Watts- $P_{MAX}(Wp)^*$ | 440 | 445 | 450 | 455 | 460 |
| Power Output Tolerance | 0~±3% | | | | |
| Open Circuit Voltage- $V_{oc}(V)$ | 41.02 | 41.10 | 41.18 | 41.33 | 41.48 |
| Short Circuit Current- $I_{sc}(A)$ | 13.73 | 13.79 | 13.85 | 13.93 | 14.01 |
| Maximum Power Voltage- $V_{MPP}(V)$ | 33.72 | 33.82 | 33.91 | 34.06 | 34.20 |
| Maximum Power Current- $I_{MPP}(A)$ | 13.05 | 13.16 | 13.27 | 13.36 | 13.45 |
| Panel Efficiency(%) | 20.39 | 20.62 | 20.85 | 21.08 | 21.32 |

STC :Irradiance 1000w/m², Cell Temperature 25°C

Electrical Data (NOCT)

| | | | | | |
|-------------------------------------|-------|-------|-------|-------|-------|
| MaximumPower- $P_{MAX}(Wp)^*$ | 327 | 331 | 335 | 339 | 342 |
| Open Circuit Voltage- $V_{oc}(V)$ | 38.72 | 38.79 | 38.87 | 39.01 | 39.15 |
| Short Circuit Current- $I_{sc}(A)$ | 11.09 | 11.14 | 11.19 | 11.25 | 11.32 |
| Maximum Power Voltage- $V_{MPP}(V)$ | 31.39 | 31.56 | 31.73 | 31.91 | 32.07 |
| Maximum Power Current- $I_{MPP}(A)$ | 10.46 | 10.49 | 10.55 | 10.61 | 10.67 |

NOCT:Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s

Mechanical Data

| | |
|-------------------------------|--|
| Panel Dimension(H/W/O) | 1903x1134x30mm |
| Weight | 24.2kg |
| Cell Type | P type Mono-crystalline |
| Cell Number | 120 |
| Glass Type | 3.2mm, High Transmission tempering Glass |
| Front Glass | Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass |
| Encapsulant Type | EVA |
| Frame Type | Anodized Aluminium Alloy |
| Junction Box Protection Class | IP 68 |
| Connector Type | MC4 or MC 4 Compatible |
| Cables | 1x4mm ² , (+):350mm, (-):350mm or Customized Length |

Temperature Ratings

| | |
|--------------------------------------|------------|
| NOCT | 45°C(±2°C) |
| Temperature Coefficient of P_{MAX} | -0.35%/°C |
| Temperature Coefficient of V_{oc} | -0.28%/°C |
| Temperature Coefficient of I_{sc} | 0.048%/°C |

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

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 1(UN19177) |

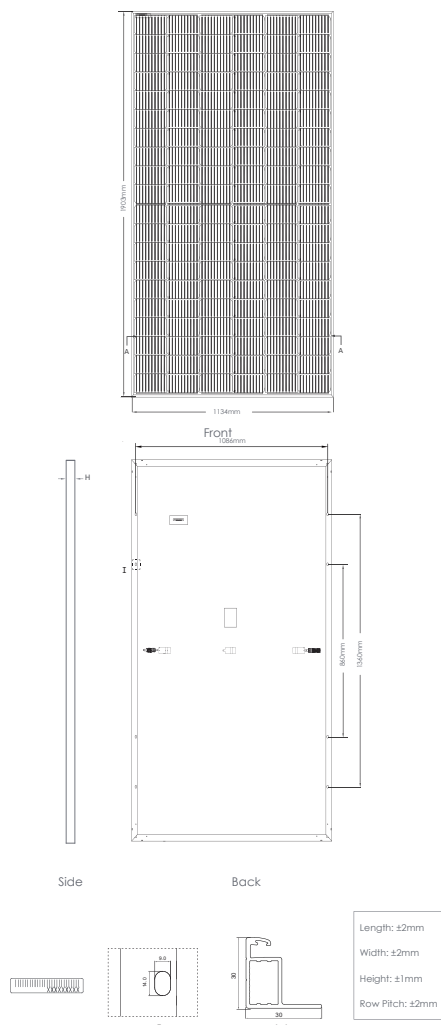
Warranty

| |
|---------------------------------------|
| 25 years Product Workmanship Warranty |
| 30 years Output Power Warranty |

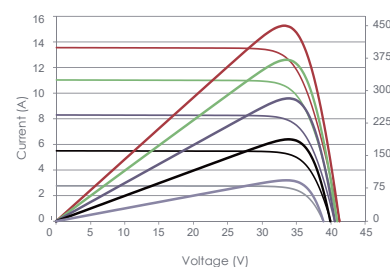
Packaging Configuration

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|--------------------------------------|
| Modules per box:36 pieces |
| Modules per 40' container:864 pieces |

DIMENSIONS OF PV MODULE(mm)



Current-Voltage & Power-Voltage Curves



Temperature Dependence of I_{sc} , V_{oc} , P_{max}

