

590W/595W/600W/605W

Cortex™ series of solar modules by Omnis 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 ,HJT, Multiple busbar, and bifacial. 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.



Lower Power Degradation

Ensured PID resistance through cell process and module material control to help harvest more. Cortex is guaranteed ONLY 0.55% annual power degradation is 25 years.



Warranty Extended Up To 20 Years

Cortex can provide additional 5 years warranty beside the basic 15 years which is in high level of the whole industry.



Durability In Extreme Conditions

Cortex is passed the test by salt mist, ammonia and mechanical loads up to 5400pa positive.

About Omnis Power

In the year of 2010, Omnis power was created by a group of passionate people in U.S who are dedicating into renewable energies. Since more than 10 Years, Omni Power has grown to become one of the most innovative and dependable solar product and solution provider. Omnis Power, with an annual capacity of 2 GW, 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 Power is committed to upholding the standards and responsibility that made us one of the best.

ELECTRICAL DATA(STC)

Part Number	OP590M60-P4	OP595M60-P4	OP600M60-P4	OP605M60-P4
Peak Power Watts- $P_{MAX}(Wp)^*$	590	595	600	605
Power Output Tolerance	0~5W			
Open Circuit Voltage- $V_{oc}(V)$	41	41.3	41.5	41.7
Short Circuit Current- $I_{sc}(A)$	18.42	18.47	18.52	18.57
Maximum Power Voltage- $V_{MPP}(V)$	34	34.2	34.4	34.6
Maximum Power Current- $I_{MPP}(A)$	17.35	17.4	17.44	17.49
Panel Efficiency (%)	20.8	21	21.2	21.4

STC:Irradiance 1000w/m²,Cell Temperature 25 °C *Power Binning:±5W Air Mass AM1.5

ELECTRICAL DATA(NOCT)

MaximunPower- $P_{MAX}(Wp)$	447	451	454	458
Open Circuit Voltage- $V_{oc}(V)$	38.7	38.9	39.1	39.3
Short Circuit Current- $I_{sc}(A)$	14.85	14.88	14.92	14.96
Maximun Power Voltage- $V_{MPP}(V)$	31.7	31.9	32	32.2
Maximum Power Current- $I_{MPP}(A)$	14.09	14.13	14.18	14.22

NOCT:Irradiance at 800W/m²,Cell Temperature 20 °C *Power Binning:±5W Air Mass AM1.5

MECHANICAL DATA

Panel Dimension(H/W/0)	2172 x1303 x 35mm
Weight	30.9kg
Cell Type	Monocrystalline
Cell Size	210x105 mm
Cell Number	120
Glass Type	Tempered,Anti-reflection Coating
Glass Thickness	3.2mm
Encapsulant Type	EVA /POE
Frame Type	Anodized Aluminium Alloy
Junction Box Diodes	3
Junction Box Protection Class	IP68
Connector Type	MC4 or MC 4 Compitable
Cable	1x4mm ² ,(+): 400mm , (-): 200mm or Customized Length

TEMPERATURE RATINGS

NOCT(Nominal Operating Cell Temperature)	41°C (±3°C)
Temperature Coefficient of P_{MAX}	-0.36%/°C
Temperature Coefficient of V_{oc}	-0.28%/°C
Temperature Coefficient of I_{sc}	+0.05%/°C

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

MAXIMUM RATINGS

Operational Temperature	-40~±85 °C
Wind Load	2400pa
Snow Load	5400pa
Max Series Fuse Rating	35A
Max System Voltage	1500V (IEC)

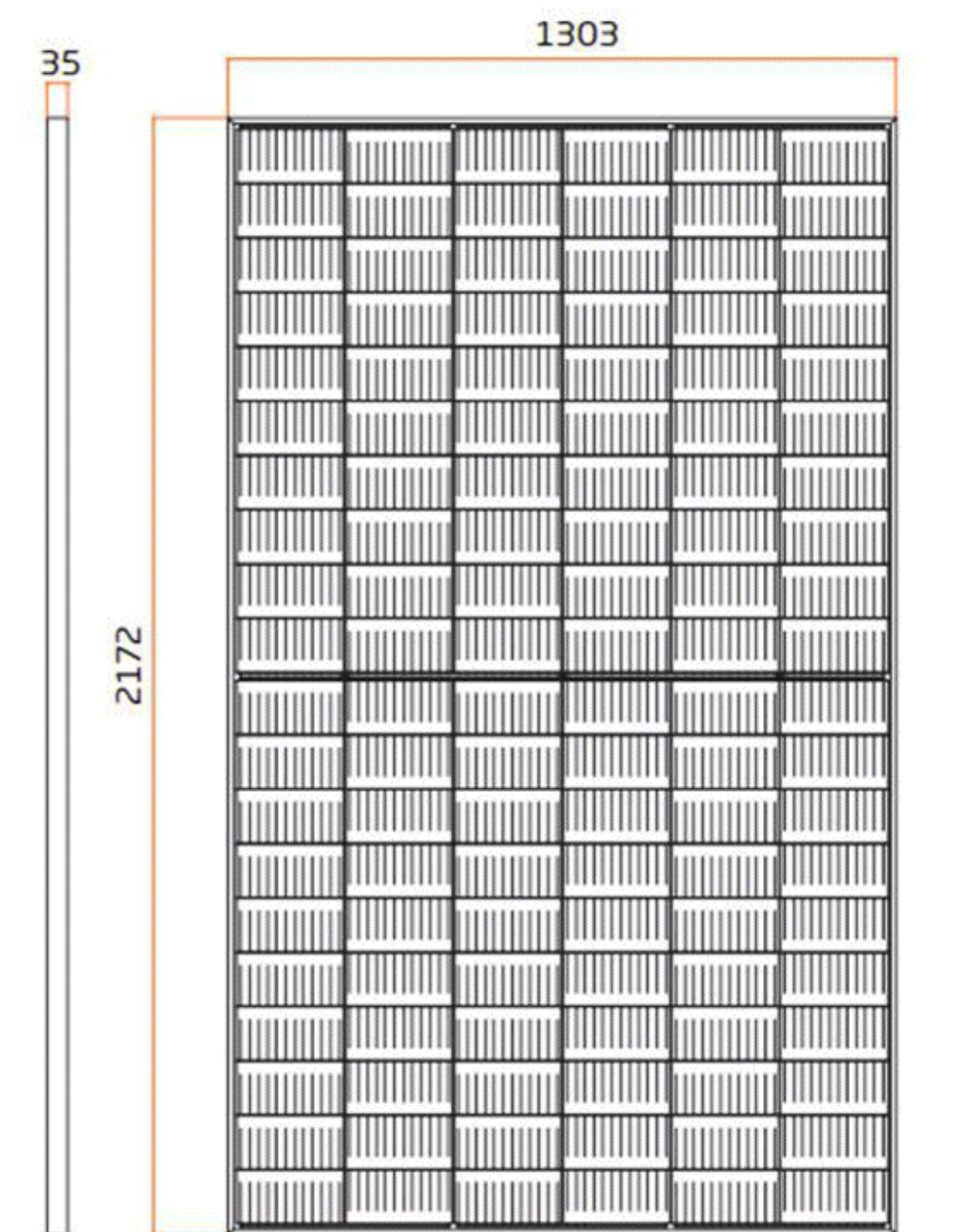
WARRANTY

15 years Product Workmanship Warranty
25 years Output Power Warranty

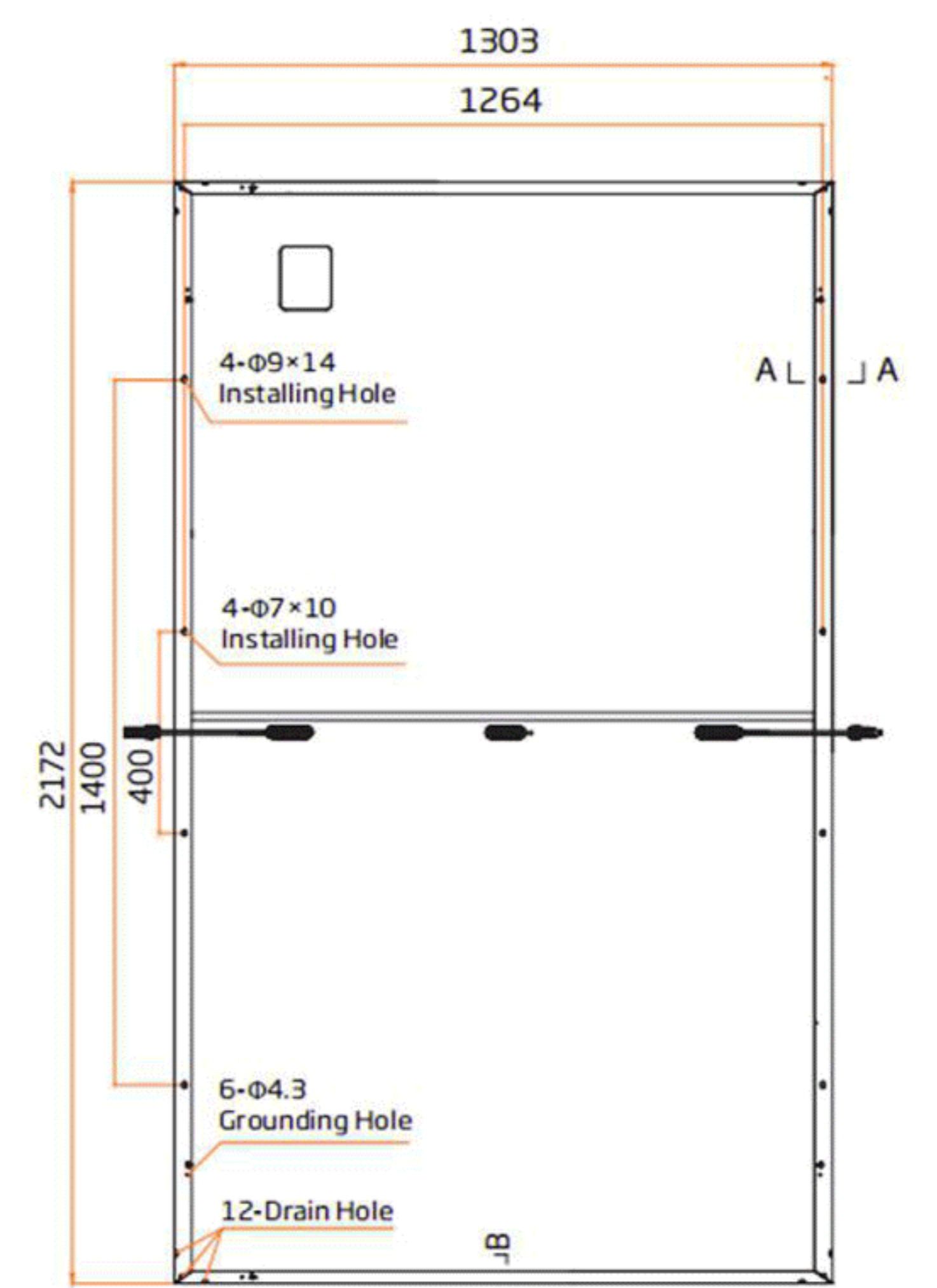
PACKAGING CONFIGURATION

Modules per box:31 pieces
Modules per 40'container:558 pieces

DIMENSIONS OF PV MODULE(mm)

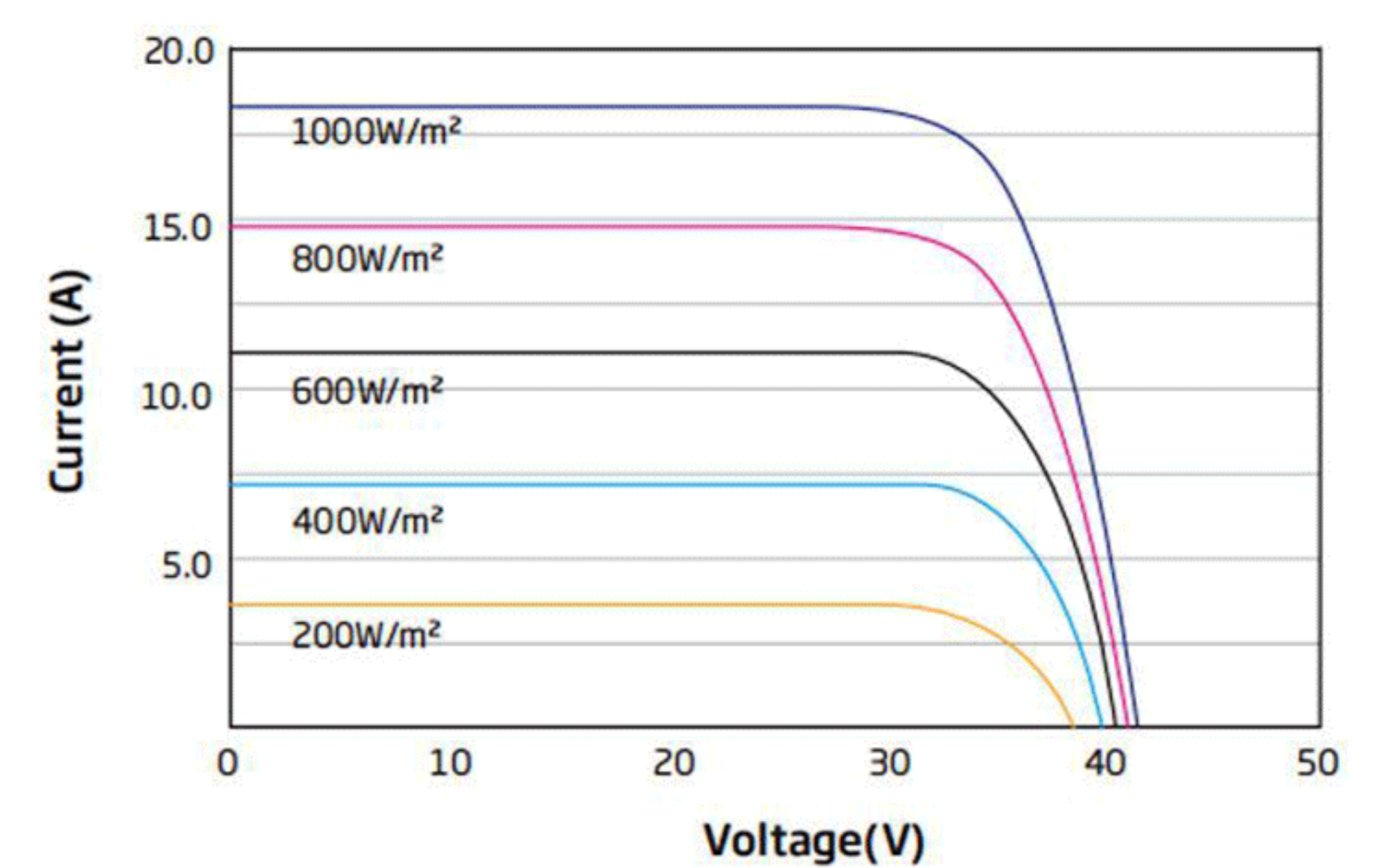


Front View



Back View

I-V CURVES OF PV MODULE(590W)



P-V CURVES OF PV MODULE(590W)

