

ONYX

590-605W

 (Bifacial)

High Efficiency Half-Cell Mono PERC Module



Excellent low irradiance performance.



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



Industry leading lowest thermal co-efficient of power.



Optimized electrical design and lower operating current for reduced hot spot loss and better temperature coefficient.

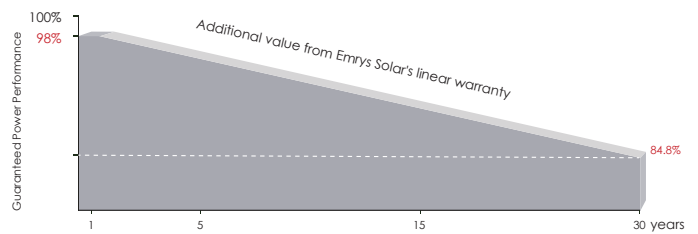


Certified to withstand: wind load (2400 Pa) and snow load (5400 Pa).



100% triple EL test enabling remarkable reduction of hidden crack rate of modules

LINEAR PERFORMANCE WARRANTY



30 years
Product Workmanship Warranty

30 years
Output Power Warranty

COMPREHENSIVE CERTIFICATES



ELECTRICAL DATA(STC)

Part Number	ES590M60-BF	ES595M60-BF	ES600M60-BF	ES605M60-BF
Peak Power Watts- $P_{MAX}(Wp)^*$	590	595	600	605
Power Output Tolerance	0~5W			
Open Circuit Voltage- $V_{oc}(V)$	41.00	41.30	41.50	41.70
Short Circuit Current- $I_{sc}(A)$	18.42	18.47	18.52	18.57
Maximum Power Voltage- $V_{MPP}(V)$	34.00	34.20	34.40	34.60
Maximum Power Current- $I_{MPP}(A)$	17.35	17.40	17.44	17.49
Panel Efficiency(%)	20.80	21.00	21.20	21.40

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

ELECTRICAL DATA(NOCT)

Maximum Power- $P_{MAX}(Wp)^*$	447	451	454	458
Open Circuit Voltage- $V_{oc}(V)$	38.70	38.90	39.10	39.30
Short Circuit Current- $I_{sc}(A)$	14.85	14.88	14.92	14.96
Maximum Power Voltage- $V_{MPP}(V)$	31.70	31.90	32.00	32.20
Maximum Power Current- $I_{MPP}(A)$	14.09	14.13	14.18	14.22

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

MECHANICAL DATA

Panel Dimension(H/W/O)	2172 x1303 x 35mm
Weight	35.3kg
Cell Type	Monocrystalline
Cell Size	210x105 mm
Cell Number	120
Glass Type	Tempered, Anti-reflection Coating
Glass Thickness	2.0mm +2.0mm
Encapsulant Type	EVA /POE
Frame Type	Anodized Aluminium Alloy
Junction Box Diodes	3
Junction Box Protection Class	IP68
Connector Type	MC4 or MC 4 Compatible
Cable	1x4mm ² ,(+): 350mm , (-): 350mm 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)

WARRANTY

30 years Product Workmanship Warranty
30 years Output Power Warranty

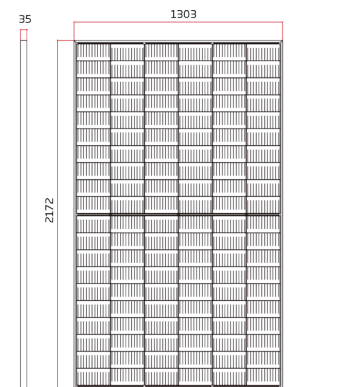
MAXIMUM RATINGS

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

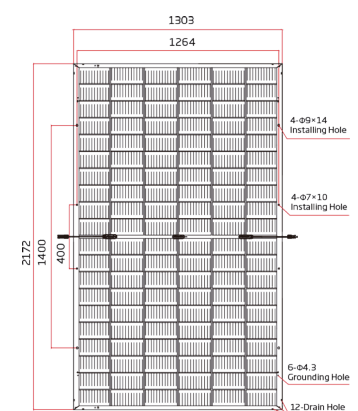
PACKAGING CONFIGURATION

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

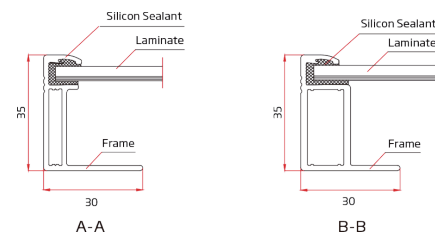
DIMENSIONS OF PV MODULE(mm)



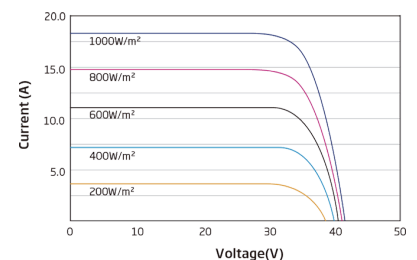
Front View



Back View



I-V CURVES OF PV MODULE



P-V CURVES OF PV MODULE

