



**19.8 % EFFICIENCY**

**UP TO 330 W**

**60 CELLS**



**EUPD RESEARCH**

**TOP BRAND PV**

**MODULES**

**GERMANY**

**2018**



**EUPD RESEARCH**

**TOP BRAND PV**

**MODULES**

**AUSTRALIA**

**2018**



**Exceeds the IEC standard 3 times over**  
Because standards are there to be surpassed.



**Protection against the weather and the elements**  
Because long term performance matters.



**PERC Technologie**  
Because a 3% increase in yield is better than nothing.



**25**  
★ ★ ★  
**15** **25 year linear performance guarantee**  
15 year product warranty.

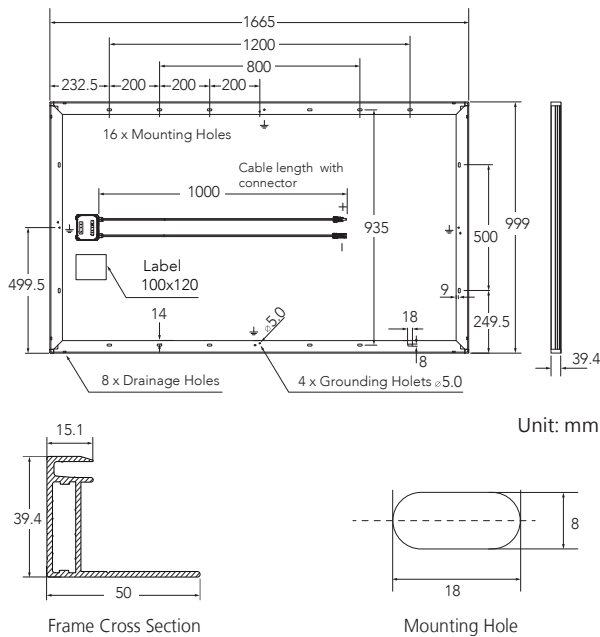


**10 years of WINAICO quality modules**  
WINAICO has been providing the global market with quality solar panels for over 10 years.



**Water drainage design**  
Avoid water and dust accumulation to prevent power degradation and hotspot problems.

**Dimensions**



**Mechanical data**

Cell	Monocrystalline 158.75 x 158.75 mm
Quantity and wiring of cells	60 in series
Dimensions	1,665 x 999 x 39.4 mm (65.55 x 39.33 x 1.55 in)
Weight	19.6 kg (43.2 lbs)
Glass thickness	3.2 mm (0.13 in)
Frame	Black anodised aluminium
Junction box	IP 67
Connector type	MC4 (PV-KBT4/PV-KST4) IP68; QC4.10 IP67
Module fire performance	Type 4
Fire safety class	C

**Operating conditions**

Operating temperature	-40 °C to +85 °C / -40 °F to +185 °F
Maximum system voltage IEC/UL	1,000V/1,000V
Maximum series fuse	20A
Maximum design load (+) / (-)	3,600Pa / 2,400Pa
Maximum test load (+) / (-)	5,400Pa / 3,600Pa
Nominal Module Operating Temperature NMOT	43.85 ± 3°C
Temperature coefficient of P <sub>MAX</sub>	-0.38%/°C
Temperature coefficient of V <sub>OC</sub>	-0.29%/°C
Temperature coefficient of I <sub>SC</sub>	0.04%/°C

**Certifications**

IEC 61215-1:2016, IEC 61215-2:2016, IEC 61730-1:2016, IEC 61730-2:2016

Electrical data (STC)		WSP-325M6	WSP-330M6	
Nominal performance	P <sub>MAX</sub>	325	330	Wp
Voltage at maximum performance	V <sub>MP</sub>	33.92	34.27	V
Current at maximum performance	I <sub>MP</sub>	9.59	9.64	A
Open circuit voltage	V <sub>OC</sub>	40.70	40.85	V
Short circuit current	I <sub>SC</sub>	10.37	10.48	A
Module efficiency		19.54	19.84	%
Power tolerance			-0/+5	W

The electrical data applies under standard test conditions (STC): solar radiation 1,000W/m<sup>2</sup> with light spectrum AM 1.5, with cell temperature 25°C. Measurement tolerance of P<sub>MAX</sub> at STC: ±3%. Accuracy of other electrical data: ±10%.

Electrical data (NMOT)		WSP-325M6	WSP-330M6	
Nominal performance	P <sub>MAX</sub>	237	240	Wp
Voltage at maximum performance	V <sub>MP</sub>	31.17	31.48	V
Current at maximum performance	I <sub>MP</sub>	7.60	7.64	A
Open circuit voltage	V <sub>OC</sub>	38.34	38.48	V
Short circuit current	I <sub>SC</sub>	8.20	8.28	A

The electrical data applies under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m<sup>2</sup>, spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.



This frame design, produced entirely from aluminium, guarantees maximum stability and protection against material fatigue. The rounded corners provide greater torsional stiffness and waterproofing in this critical area, where the material is at its weakest. In contrast to other corner connections that use mitered cuts or threaded connections, WINAICO's corner pieces guarantee the best possible transfer of tension across each section of the frame. The corner pieces are also designed with drainage channels, avoiding water and dust accumulation, which over time can cause cell shading, power degradation and hotspot problems.



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