Up to 340 watt

WSP-MX Series

Performance and Class for your roof

SINCE 2008

WINAICO 25 YEARS PRODUCT WARRANTY

www.winaico.com

WINAICO®

Power to Perform

EUPD RESEARCH TOP BRAND PV MODULES GERMANY 2020

EUPD RESEARCH TOP BRAND PV MODULES AUSTRALIA 2020

WSP-MX **MONO FULL BLACK**

325-330 W / 60 Cells / Up to 18.8% EFFICIENCY

WSP-MX **MONO**

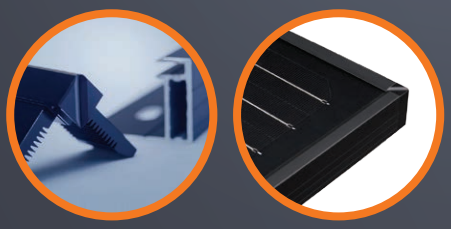
330/340 W / 60 Cells / 19.4% EFFICIENCY

A reliable investment
Linear performance guarantee for 25 years.

Advanced cell technology
For long term performance in all conditions.

Extendable 15 year product guarantee
25 Year Product warranty on Registration for greater peace of mind.

Patent water drainage design
To stop water and dust build up.



Greater Value

Premium quality from solar module specialists

A solar system is a long term investment, which should last for over 20 years. You want to be able to trust that the solar panels you install will perform for you for their whole life. With WINAICO modules, you can rely on products from a manufacturer that specialises in premium quality solar.

Greater Experience

Shared with thousands of satisfied system owners worldwide

Established in 2008 WINAICO is one of the world oldest solar manufacturers. Since inception we have focused on building close relationship with our customers through our international branches. WINAICO stands for quality, reliability and customer engagement, values we apply everyday in our business. Working closely with our customers builds trust and understanding, a feeling shared by thousands of satisfied customers worldwide.

Greater Investment Protection

Through superior quality – way above standards!

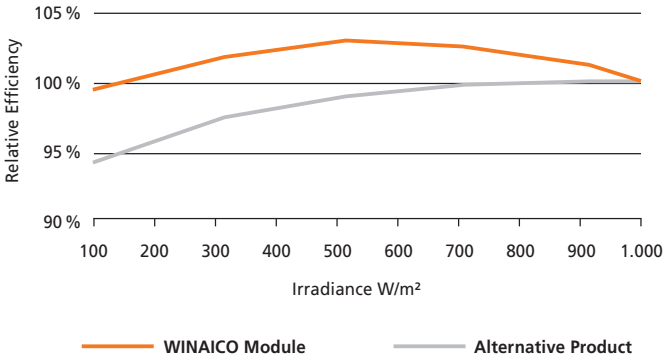
Regulations and standards are there to be exceeded. WINAICO modules go through all the relevant tests and significantly exceed the market requirements in all areas. The complete set of reliability tests imitate all variations of hazards experienced by the modules during their useful lifetime. As a result of WINAICO's evaluation, the modules can withstand heat, snow, wind, and other adversities much better and much longer.

Greater Quality
Excellent Independent Ratings

WINAICO is one of the few manufacturers to be awarded the EUPD Research "Top Brand PV" seal. The criteria for this award centres around customer satisfaction from the performance of their solar systems in the real world. This award shows that WINAICO's customers are happy with their decision for years to come.

Greater Performance
Leading Module Technology

WINAICO combines cutting edge components to build exceptional performance into every panel. Our advanced technology of light conducting ribbons maximises efficiency and minimises power loss to give you the best outcomes. We don't cut corners on quality, every piece of a WINAICO panel is designed for performance.



Greater Stability
Protection Against the Extremes

With extreme weather becoming more frequent solar modules need to have the ability to withstand whatever nature throws at them, whether it be extreme heat, wind, hail or snow. WINAICO's unique frame and patent L-key design protects the panels and keeps them working hard for you!

Greater Safety
Tested to the Limits

WINAICO's modules are tested above and beyond international standards. Aiming to use lab conditions to simulate 25 years of service life, we push our modules to withstand conditions far above what they will likely experience on your roof. Be confident that your WINAICO panels will last the tests of time.

Greater Quality Control
100 % Inspection

We examine all cells and finished laminates for internal damage with a special electroluminescence testing device. In doing so, we can virtually eliminate all micro-fissures, hot spots, solder defects and other faulty structures that cannot be seen with the naked eye. A type of "X-ray image" proves the 100% cell quality - for each individual module.

Beyond Industry Standard Testing

Thermal Cycling (TC) Cycles between –40°C and +85°C	IEC Standard	200 Cycles
	WINAICO	3 times IEC standard
Damp Heat (DH) Constant +85°C and 85% relative humidity	IEC Standard	1,000 Hours
	WINAICO	3 times IEC standard
Mechanical Load (ML)	IEC Standard	5,400 Pa
	WINAICO	6,500 Pa
Hail Impact	IEC Standard	25 mm ice ball at 83 km/h
	WINAICO	35 mm ice ball at 100km/h

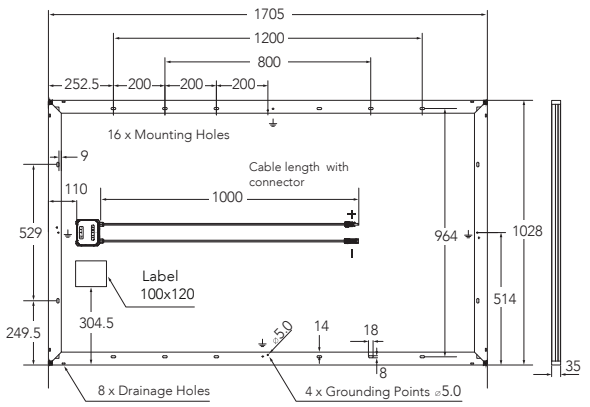
At WINAICO we believe that our customers deserve complete peace of mind which is why we test beyond the Industry testing standards.

Enhanced Voluntary Quality Testing

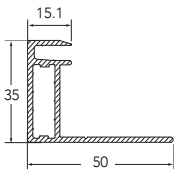
Potential Induced Degradation (PID)	300 hours	1,000 V, 85°C, 85% relative humidity
Light and elevated Temperature Induced Degradation (LeTID)	Non-sensitive to LeTID	0.55A, 75°C, 162 hours, 2 cycles
Dynamic Mechanical Load (DML)	2000 Pa	10 push to pull cycles/minute, for 1000 cycles
Salt Mist (IEC 61701:2011)	Severity 6	40°C Humid storage, 90% relative humidity , 56 days
Ammonia (IEC 62716:2013)	480 hours	20 cycles between 8 hrs of heating up and 16 hrs of cooling test sections

We voluntarily submit our modules to testing laboratories to push them to the absolute limits guaranteeing your safety and return on investment for the lifetime of the product.

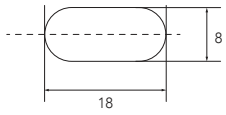
Dimensions



Unit: mm



Frame Cross Section



Mounting Hole

Mechanical Data WINAICO WSP-MX FULL BLACK

Cell	Monocrystalline Silicon Cells, 161.7 mm x 161.7 mm
Quantity and wiring of cells	60 in series
Dimensions	1,705 mm x 1,028 mm x 35 mm (67.13 x 40.47 x 1.38 in)
Weight	20.6 kg (45.8 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 IP68
Module fire performance	Type 1
Fire safety class	C

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Operating conditions	WINAICO WSP-MX FULL BLACK	WINAICO WSP-MX
Operating temperature	–40 °C to +85 °C / –40 °F to +185 °F	–40 °C to +85 °C / –40 °F to +185 °F
Maximum system voltage IEC/UL	1,000 V/1,000 V	1,000 V/1,000 V
Maximum series fuse	20 A	20 A
Maximum design load (+)/(–)	3,600 Pa/2,400 Pa	3,600 Pa/2,400 Pa
Maximum test load (+)/(–)	5,400 Pa/3,600 Pa	5,400 Pa/3,600 Pa
Nominal Module Operating Temperature NMOT	43.85 ± 3 °C	43.85 ± 3 °C
Temperature coefficient of P_{MAX}	–0.38 %/°C	–0.38 %/°C
Temperature coefficient of V_{OC}	–0.29 %/°C	–0.29 %/°C
Temperature coefficient of I_{SC}	0.04 %/°C	0.04 %/°C
Certifications	IEC 61215-1:2016, IEC 61215-2:2016, IEC 61730-1:2016, IEC 61730-2:2016, UL1703	

Electrical data (STC)		WSP-325MX	WSP-330MX	WSP-330MX	WSP-340MX	
Nominal performance	P_{MAX}	325	330	330	340	Wp
Voltage at maximum performance	V_{MP}	32.78	32.80	32.80	32.85	V
Current at maximum performance	I_{MP}	9.93	10.07	10.07	10.35	A
Open circuit voltage	V_{OC}	39.59	39.93	39.93	40.61	V
Short circuit current	I_{SC}	10.56	10.62	10.62	10.74	A
Module efficiency		18.54	18.83	18.83	19.40	%
Power tolerance		–0/+5		–0/+5		

The electrical data applies under standard test conditions (STC): solar radiation 1,000 W/m² with light spectrum AM 1.5, with cell temperature 25 °C. Measurement tolerance of P_{MAX} at STC: ±3%. Accuracy of other electrical data: ±10%.

Electrical data (NMOT)		WSP-325MX	WSP-330MX	WSP-330MX	WSP-340MX	
Nominal performance	P_{MAX}	237	240	240	248	Wp
Voltage at maximum performance	V_{MP}	30.12	30.14	30.14	30.18	V
Current at maximum performance	I_{MP}	7.87	7.98	7.98	8.20	A
Open circuit voltage	V_{OC}	37.30	37.62	37.62	38.26	V
Short circuit current	I_{SC}	8.35	8.40	8.40	8.49	A

The electrical data applies under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

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