# 340 watt WSP-MX Series

Performance and Class for your roof





EUPD RESEARCH TOP BRAND PV MODULES GERMANY 2020



www.winaico.com.au

### WSP-MX MONO 340 W / 60 Cells



**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 25-years. You want to be able to trust that the solar panels you install will perform for their whole life. With WINAICO you can rely on products from a manufacturer that specialises in premium quality solar.

## **Greater Experience** 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. WINAICO stands for quality, reliability and customer engagement, values we apply every day in our business. Working closely with our customers builds trust and understanding, a feeling shared by thousands of satisfied customers worldwide. We have been awarded the EuPD Top PV Brand Award three years in a row.

# **Greater Protection** 3 in 1 insurance for your complete system

Photovoltaic modules from WINAICO are characterised by outstanding quality, innovative design, durability and safety. In order to protect your system against property damage, operational interruption and reduced yields, we offer comprehensive all-round protection for your complete photovoltaic system when purchasing WINAICO modules.

Ask your installer and receive 2 years of free system protection.





WINAICO is one of the few manufacturers to be awarded the EUPD Research "Top Brand PV" seal. The award centres around customer satisfaction from the performance of their solar systems in the real world. The EUPD Seal reflects WINAICO's customer focus and the positive consensus on lifetime 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, be it extreme heat, wind, hail or snow. WINAICO's unique frame and rigid design protects the panels and keeps them working hard for you!

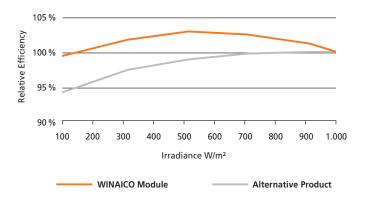


#### Greater Safety Tested to the Limits

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 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 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-cracks, hot spots, solder defects and other faults 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**

<b>Thermal Cycling (TC)</b> Cycles between –40°C and +85°C	IEC Standard	200 Cycles	
	WINAICO	3 times IEC standard	
<b>Damp Heat (DH)</b> Constant +85°C and 85% relative	IEC Standard	1,000 Hours	
humidity	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	

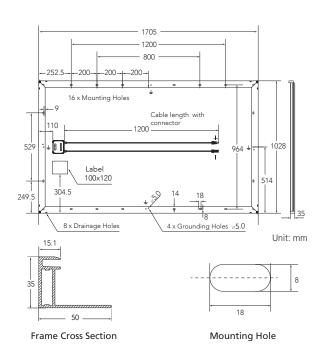
We test beyond the Industry testing standards because at WINAICO we believe that our customers deserve complete peace of mind.

### **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

Our modules are voluntarily submitted to testing laboratories to push them to the absolute limits, guaranteeing your safety and return on investment.

#### Dimensions



#### Mechanical Data WINAICO WSP-MX

Cell Quantity and wiring of cells Dimensions

Weight Glass thickness Frame Junction box Connector type Module fire performance Fire safety class

Monocrystalline Silicon Cells, 161.7 mm x 161.7 mm 60 in series 1,705 mm x 1,028 mm x 35 mm (67.13 x 40.47 x 1.38 in) 20.6 kg (45.8 lbs) 3.2 mm (0.13 in) Black anodised aluminium IP 67 MC4 (PV-KBT4/PV-KST4) IP68; QC4.10 IP68 Type 4 С

Operating conditions		WINAICO WSP-MX	
Operating temperature		-40°C to +85°C / -40°F to +185°F	
Maximum system voltage IEC/UL		1,000 V/1,000 V	
Maximum series fuse		20 A	
Maximum design load (+)/(-)		3,600 Pa/2,400 Pa	
Maximum test load (+)/(–)		5,400 Pa/3,600 Pa	
Nominal Module Operating Temperature NMOT		43.85 ± 3 °C	
Temperature coefficient of $P_{_{\text{MAX}}}$		-0.38 %/°C	
Temperature coefficient of $V_{oc}$		-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-340MX	
Nominal performance	P <sub>MAX</sub>	340	Wp
Voltage at maximum performance	V	32.85	V
Current at maximum performance	IMP	10.35	А
Open circuit voltage	V <sub>oc</sub>	40.61	V
Short circuit current	I <sub>sc</sub>	10.74	А
Module efficiency		19.40	%
Power tolerance		-0/+5	

Electrical data applies under standard test conditions (STC): solar radiation 1,000 W/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-340MX	
Nominal performance	P <sub>MAX</sub>	248	Wp
Voltage at maximum performance	V <sub>MP</sub>	30.18	V
Current at maximum performance	I <sub>MP</sub>	8.20	А
Open circuit voltage	V <sub>oc</sub>	38.26	V
Short circuit current	I <sub>sc</sub>	8.49	А

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.



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