Up to 333 watt

WST-MG GEMINI Series

Top performance for all applications



WINAICO®

Power to Perform

EUPD RESEARCH TOP BRAND PV MODULES GERMANY 2020

EUPD RESEARCH TOP BRAND PV MODULES AUSTRALIA 2020

www.winaico.com.au

WST-MG GEMINI

333 W / 108 Cells



Stable long term investment
Reliability you can bank on for 25 years

Advanced cell technology
Better performance in any weather

High-density module technology
Half cell and multi-busbar design to increase power yield

Improved temperature performance
Reduced internal resistance and module degradation

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 their whole life. WINAICO specialises in premium quality solar that you can rely on.

Greater Customer Satisfaction

Thousands of satisfied system owners worldwide

Established in 2008 WINAICO is one of the world's 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.

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.

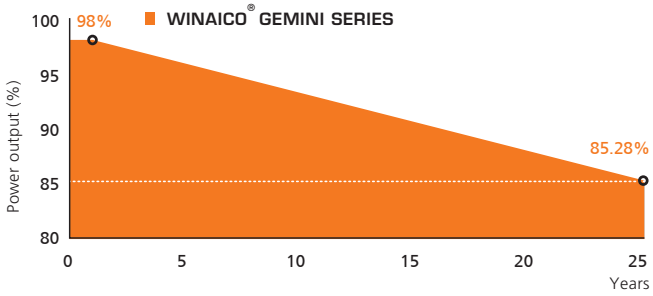
Ask your installer to check if you qualify for free complimentary insurance.

Greater Quality
Awarded By Customers

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 Performance
Leading Module Technology

WINAICO combines half cell, multi-busbar and reflective wire designs to maximise efficiency and reduce internal resistance. The result is higher energy yield, lower module degradation, and market-leading 25 year power guarantee.



No more than 0.53% degradation per year from 2nd year to 25th year.

Greater Durability
Reliable Long Term Investment

WINAICO's solar panels are designed to last for a long time. They are backed by industry-leading 25-year product warranty to give you reliable and consistent returns.

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 test of time.

Greater Quality Control
100% Inspection

We examine all cells and finished laminates for internal damage with a special electroluminescence test. 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, ensuring every WINAICO product is ready to perform on your roof.

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	Follow IEC standard
Hail Impact	IEC Standard	25 mm ice ball at 83 km/h
	WINAICO	35 mm ice ball at 100 km/h

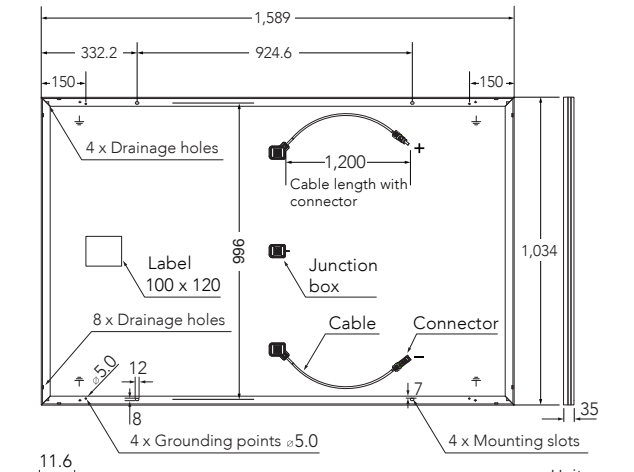
We test beyond the Industry testing standards because at WINAICO we believe that our customers deserve complete peace of mind.

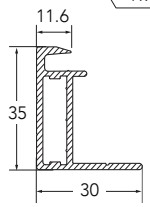
Enhanced Voluntary Quality Testing

Potential Induced Degradation (PID) (IEC TS 62804-1:2015)	96hours	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
Dynamic Mechanical Load (DML) (IEC TS 62782:2016)	1000 Pa	10 push to pull cycles/minute, for 1000 cycles
Salt Mist (IEC 61701:2020)	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

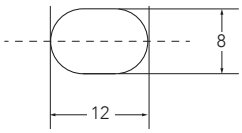
Our modules are voluntarily submitted to testing laboratories to push them to the absolute limits, guaranteeing your safety and return on investment.

Dimensions





Frame cross section



Mounting slot

Mechanical Data WINAICO WST-MG GEMINI

Cell	Monocrystalline silicon cells
Quantity of cells	6 strings x 18 cells
Dimensions	1,589 x 1,034 x 35 mm (62.56 x 40.71 x 1.38 in)
Weight	18.6 kg (41 lbs)
Glass thickness	3.2 mm (0.13 in)
Frame	Black anodised aluminium
Junction box	IP 68
Connector type	MC4 IP 68
Module fire performance	Type 4
Fire safety class	C

WINAICO PRODUCT WARRANTY

In order to activate our 25-year product warranty, please register your installation under https://www.winaico.com/warranty-registration/

Operating conditions	WINAICO WST-MG
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 (push/pull)	3,600 Pa/2,400 Pa
Maximum test load (push/pull)	5,400 Pa/3,600 Pa
Nominal module operating temperature NMOT	43.85 ± 3 °C
Temperature coefficient of P_{MAX}	–0.35 %/°C
Temperature coefficient of V_{OC}	–0.28 %/°C
Temperature coefficient of I_{SC}	0.04 %/°C
Certifications	IEC 61215-1:2016, IEC 61215-2:2016, IEC 61730-1:2016, IEC 61730-2:2016

Electrical data (STC)		WST-333MG	
Nominal performance	P_{MAX}	333	Wp
Voltage at maximum performance	V_{MP}	30.80	V
Current at maximum performance	I_{MP}	10.82	A
Open circuit voltage	V_{OC}	36.72	V
Short circuit current	I_{SC}	11.39	A
Module efficiency		20.27	%
Power tolerance		–0/+5	

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)		WST-333MG	
Nominal performance	P_{MAX}	243	Wp
Voltage at maximum performance	V_{MP}	28.28	V
Current at maximum performance	I_{MP}	8.59	A
Open circuit voltage	V_{OC}	34.60	V
Short circuit current	I_{SC}	9.00	A

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.

Specifications included in this datasheet are subject to change without notice. d625ZWST-333MG-AUS.1221/agentur-bernberg.de

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