

WINAICO WSP-M6 PERC Series, Mono



About WINAICO

As a Taiwanese solar PV module manufacturer with subsidiaries across the globe, WINAICO is positioned amongst top-brand manufacturers with the highest level of service, supplying outstandingly high performing solar modules all from an automated production line.

The parent company, Win Win Precision Technology Co., Ltd. has its origins in the semiconductor sector, which is subject to the same quality management demands as those applied in the solar industry. With leading-edge system technology and process expertise originating from the semiconductor industry, WINAICO is setting qualitative benchmarks on the PV market.

Thousands of installed systems are proving this every day.

Advantages of the WINAICO WSP-M6 PERC modules

- + The WINAICO PERC modules set a new technological standard and are without competition. Using innovative backside passivation and selective emitter technology, the PERC module series combines highest efficiencies, increased performance at high temperatures and low light conditions along with the known longevity and quality of WINAICO
- + Linear performance guarantee over 25 years
- + 12-year product warranty
- + Anti-PID technology
- + Hot-Spot protection
- + Anti-reflective glass



AMMONIA RESISTANCE



ANTI-PID



DIRECT FROM THE MANUFACTURER



EL-CHECKED



HIGH YIELD



LOW DEGRADATION



HOT-SPOT PROTECTION

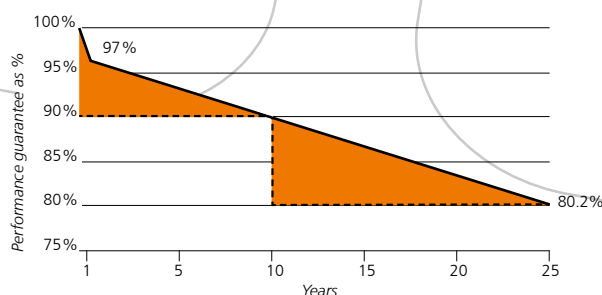


CONTROLLED GOODS FLOW



EXCELLENT WEAR-LIGHT PERFORMANCE

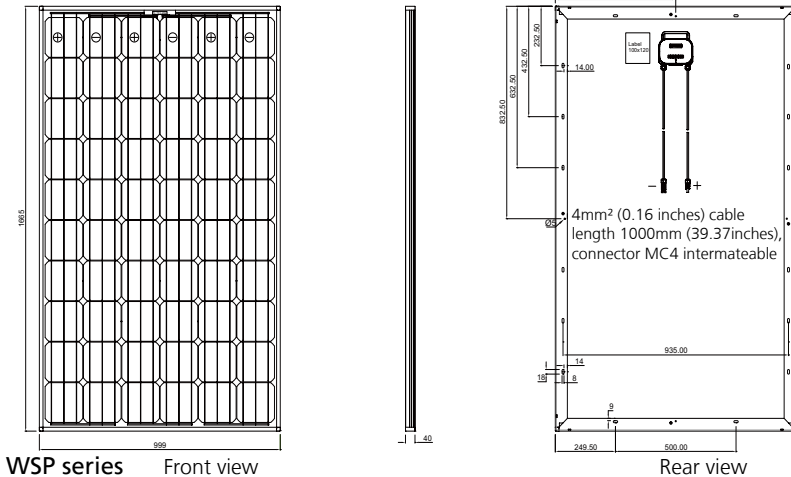
25-year linear performance guarantee



- Linear guarantee for WINAICO module performance
- - - Guarantee standard on the market
- Guarantee advantage for WINAICO customers

When you buy a WINAICO module, in the first year we guarantee a performance of at least 97% of rated performance.

For the following 24 years, WINAICO guarantees a maximum drop in performance of 0.7% of nominal performance per year. Through this promise, WINAICO guarantees the quality and performance of its own products and provides you with investment protection.


WSP series Front view

Rear view

Mechanical data

Cell	Monocrystalline 156 x 156 silicon cells
Quantity and wiring of cells	60 in series
Dimensions	1,665 x 999 x 40 mm (65.55 x 39.33 x 1.57 inches)
Weight	19.6 kg
Glass thickness	3.2 mm (0.13 inches)
Connection type	MC4 intermateable (IP 65)
Backsheet	Black or white

Limit values

Operating temperature	-40 to +85°C
Storage temperature	-40 to +85°C
Maximum system voltage	1,000 VDC
Maximum load	5,400 N/m²
Maximum reverse current	Voltages higher than V_{OC} of the module should not be applied
Maximum series fuse rating	15 A

Electrical data (STC)	WSP-270M6	WSP-275M6	WSP-280M6	WSP-285M6	WSP-290M6	
Module type	mono	mono	mono	mono	mono	
Nominal performance P_{max}	270	275	280	285	290	Wp
No-load voltage V_{OC}	38.06	38.25	38.45	38.64	38.83	V
Short circuit current I_{SC}	9.24	9.34	9.44	9.54	9.64	A
Voltage at max. performance V_{mpp}	30.59	30.98	31.37	31.76	32.12	V
Current at max. performance I_{mpp}	8.83	8.88	8.93	8.98	9.03	A
Module efficiency	16.24	16.54	16.84	17.15	17.44	%
Temperature coefficient performance P_{mpp}	-0.4371	-0.4371	-0.4371	-0.4371	-0.4371	%/°C
Temperature coefficient short circuit current I_{SC}	0.0466	0.0466	0.0466	0.0466	0.0466	%/°C
Temperature coefficient no-load voltage V_{OC}	-0.3094	-0.3094	-0.3094	-0.3094	-0.3094	%/°C

Reduction in the module efficiency rating from 1,000 W/m² to 200 W/m²: < 4%. The electrical data applies under standard test conditions (STC): Solar radiation 1,000 W/m² with light spectrum AM 1.5 with a cell temperature of 25 °C. Measurement tolerance of P_{MPP} under STC -3/+3%. Accuracy of other electrical data -10/+10%. Subject to specification changes.

Electrical data (NOCT)	WSP-270M6	WSP-275M6	WSP-280M6	WSP-285M6	WSP-290M6	
Nominal performance P_{max}	199.41	203.12	206.84	210.58	214.39	Wp
No-load voltage V_{OC}	34.86	35.03	35.22	35.39	35.57	V
Short circuit current I_{SC}	7.42	7.50	7.58	7.66	7.74	A
Voltage at max. performance V_{mpp}	27.89	28.25	28.60	28.96	29.32	V
Current at max. performance I_{mpp}	7.15	7.19	7.23	7.27	7.31	A
Module efficiency	11.99	12.21	12.44	12.66	12.89	%

The electrical data applies under standard operating conditions of the cells: 800 W/m²; 20 °C; AM 1.5; wind speed 1m/s. NOCT: 44.7°C (normal operating cell temperature). Subject to specification changes.



WINAICO is a trademark of Win Win Precision Technology Co., Ltd.

No. 96, 3F, Hsinho Road · Sinfong Township, Hsinchu County 304 · Taiwan R.O.C.
Tel + 886 3 568 8699 · Fax + 886 3 568 8580 · www.wwpt.com.tw · www.winaico.com