

AC Unison PM250MA0

Photovoltaic Module
with Microinverter



High and Stable Energy Output



Harvests 5 to 25% more energy than traditional systems



Module level monitoring



Designed for 25-year reliability

Economic



Modular flexibility suits any budget or rooftop



Simplified PV system reduces installation costs



No high voltage DC means safe installation and ownership

State-of-the-art PV Module



Module complies with advanced loading tests to meet 5400 Pa loading requirements



Superior performance under weak light conditions such as dawn, dusk, and cloudy days



Enhance current transmission and module reliability



BenQ
Solar

AC Unison PM250MA0

AC Electrical Data

Maximum Continuous Power Output	225 W
Nominal Voltage	240 V
Nominal Frequency	60 Hz
Nominal Output Current	0.9375 A
Nominal Operating Voltage Range	211 ~ 264 V
Nominal Operating Frequency	59.3 ~ 60.5 Hz
Total Harmonic Distortion	< 5%
Maximum Units per 20A Branch	17 pcs
CEC Weighted Efficiency	94.50%
Peak Inverter Efficiency	95.50%

DC Temperature Coefficient

NOCT	46 ± 2 °C
Typ. Temperature Coefficient of P_N	-0.48% / K
Typ. Temperature Coefficient of V_{OC}	-0.36% / K
Temperature Coefficient of I_{SC}	0.03% / K

• NOCT: Normal Operation Cell Temperature, measuring conditions: irradiance 800 W/m², AM 1.5, air temperature 20 °C, wind speed 1 m/s

DC Electrical Data

Nominal Power Output	245 W, 250 W
Power Tolerance	0 / +3%

Mechanical Characteristics

Dimensions (L x W x H)	Overall module: 1651 x 992 x 40 mm (65.00 x 39.06 x 1.57 in) Height at Inverter location: 62 mm (2.44 in)
Weight	22 kg (48.50 lbs)
Front Glass	High transparent solar glass (tempered), 3.2 mm (0.13 in)
Cell	60 monocrystalline solar cells, 156 x 156 mm (6 x 6 in)
Cell Encapsulation	EVA
Back Sheet	Composite film, black
Frame	Anodized aluminum frame
AC cable length	Output cable: 696.1 mm (27.41 in) Extension cable: 1049 mm (41.30 in)
Module to Module AC Wiring	Fully-guarded, locking AC-connector
Ground Wiring	UL approved, equipment ground for module and inverter carried through internal inverter wiring - no external ground wires required

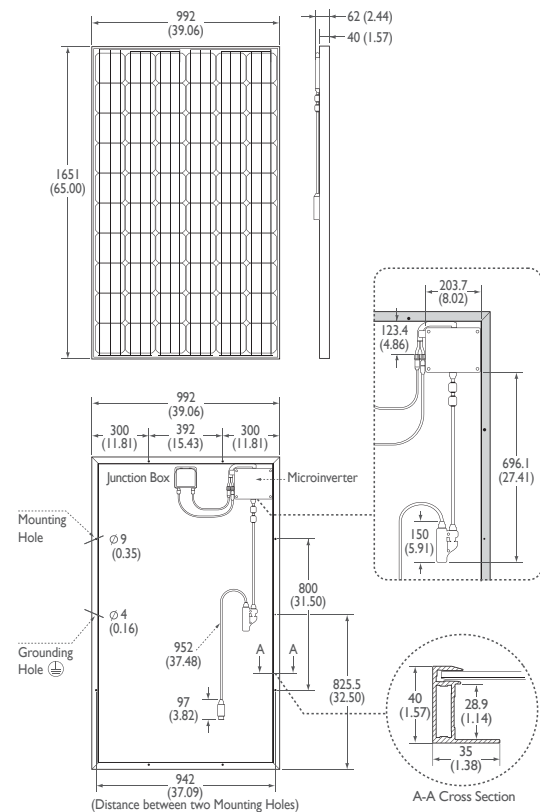
Operating Conditions

PV Module Operating Temperature	-40 ~ +85 °C
Microinverter Ambient Temperature	-40 ~ +65 °C
IP Protection Level	IP65
Maximum Surface Load Capacity	Tested up to 5400 Pa according to IEC 61215 (advanced test)

Warranties and Certifications

Product Warranty	10 years for material and workmanship
Performance Guarantee	Guaranteed output of 90% for 10 years and 80% for 25 years
PV Module Certifications	IEC 61215, IEC 61730, UL 1703 CEC listing (model: AUO PM250M00_□□□)
Microinverter Certifications	UL 1741, CEC listing (model: Solarbridge P235LV_240)

Dimensions mm (inch)



BenQ Solar AC Unison is a new breakthrough in solar photovoltaic (PV) technology. BenQ Solar combines its premium PV module with reliable microinverter technology to maximize PV benefits for installers and end users.

The integrated microinverter converts module DC to grid compliant AC at each module. This increases system performance by up to 25%, reduces shading losses, and makes PV safer to install and own. BenQ Solar AC Unison is installed, monitored, and maintained with ease.

All BenQ Solar PV products are manufactured under BenQ Solar's strict quality control standards. BenQ Solar AC Unison is designed for 25 years of efficient production.

Dealer Stamp



AU Optronics Corporation

No. 1, Li-Hsin Rd. 2, Hsinchu Science Park, Hsinchu 30078, Taiwan
Tel: +886-3-500-8899 E-mail: BenQSolar@auo.com www.BenQSolar.com



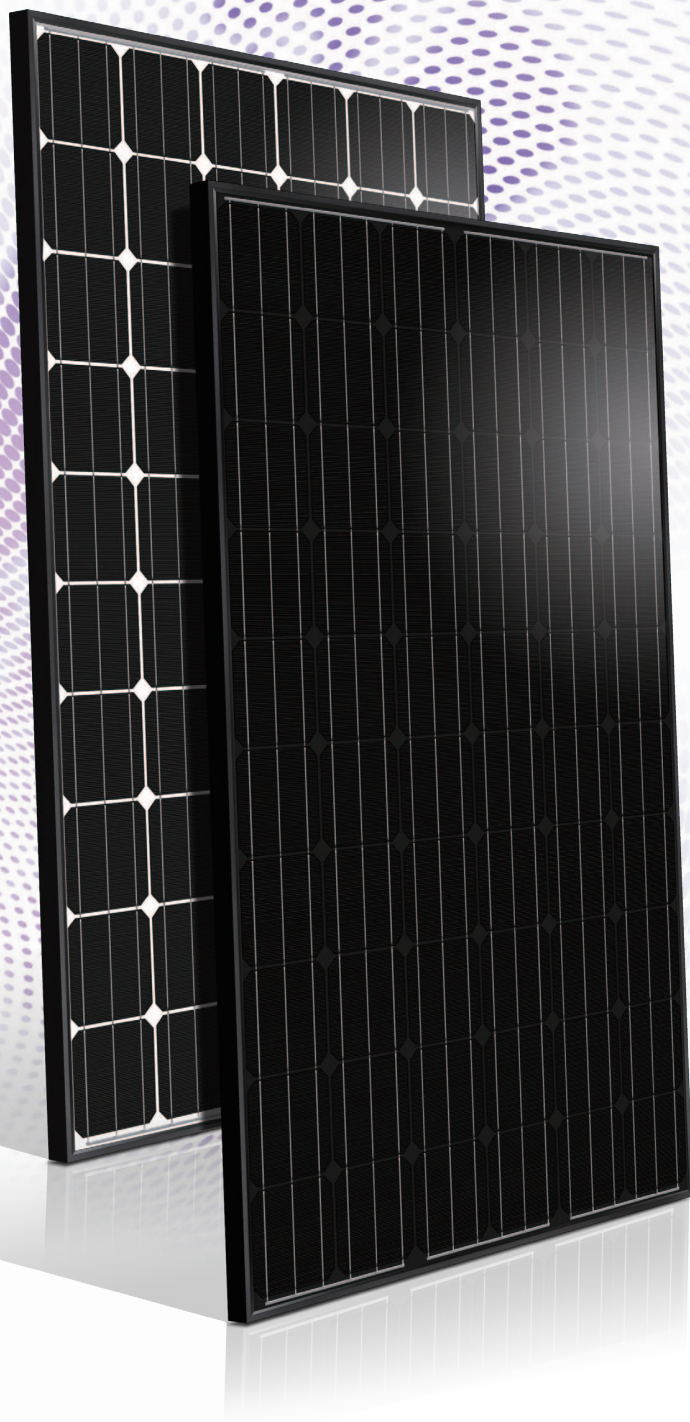
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BenQ
Solar

GreenTriplex PM250M01

Mono-Crystalline
Photovoltaic Module



255W_p
275W

Power Range
255 ~ 275 Wp



Highly Strengthened Design

Module complies with advanced loading tests to meet 5400 Pa loading requirements



Resistance to Salt Corrosion and Humidity

Module complies with IEC 61701: Salt Mist Corrosion Testing

Optional



AC Photovoltaic

Integrated with a Micro-inverter, the module has high and stable AC power output via panel level MPPT



PID Free



BenQ
Solar

Green Triplex PM250M01 (255~275 Wp)

Electrical Data

Typ. Nominal Power P_N	255 W	260 W	265 W	270 W	275 W
Typ. Module Efficiency	15.8%	16.1%	16.4%	16.8%	17.1%
Typ. Nominal Voltage V_{mp} (V)	30.3	30.8	31.3	31.8	32.3
Typ. Nominal Current I_{mp} (A)	8.42	8.45	8.47	8.50	8.52
Typ. Open Circuit Voltage V_{oc} (V)	37.8	38.0	38.2	38.5	38.7
Typ. Short Circuit Current I_{sc} (A)	8.94	8.96	8.98	9.01	9.03
Maximum Tolerance of P_N	0 / +3%				

- * Above data are the effective measurement at Standard Test Conditions (STC)
- * STC: irradiance 1000 W/m², spectral distribution AM 1.5, temperature 25 ± 2 °C, in accordance with EN 60904-3
- * The given electrical data are nominal values which account for basic measurements and manufacturing tolerances of ±10%, with the exception of P_N . The classifications is performed according to P_N
- * Black backsheet is utilized for power range 250~270W; White backsheet is for 250~275W

Temperature Coefficient

NOCT	46 ± 2 °C
Typ. Temperature Coefficient of P_N	-0.44% / K
Typ. Temperature Coefficient of V_{oc}	-0.30% / K
Temperature Coefficient of I_{sc}	0.06% / K

- * NOCT: Normal Operation Cell Temperature, measuring conditions: irradiance 800 W/m², AM 1.5, air temperature 20 °C, wind speed 1 m/s

Mechanical Characteristics

Dimensions (L x W x H)	1639 x 983 x 40 mm (64.53 x 38.70 x 1.57 in)
Weight	18.5kg (40.79 lbs)
Front Glass	High transparent solar glass (tempered), 3.2 mm (0.13 in)
Cell	60 monocrystalline solar cells, 156 x 156 mm (6" x 6")
Cell Encapsulation	EVA
Back Sheet	Composite film
Frame	Anodized aluminum frame
Junction Box	IP – 65 rated with 3 bypass diodes
Cables	1 x 4 mm ² (0.04 x 0.16 inch ²), length: each 1.0 m (39.37 in)
Connector Type	MC4 Compatible

Operating Conditions

Operating Temperature	-40 ~ +85 °C
Ambient Temperature Range	-40 ~ +45 °C
Max. System Voltage IEC/UL	1000 V / 600 V
Serial Fuse Rating	15 A
Maximum Surface Load Capacity	Tested up to 5400 Pa according to IEC 61215 (advanced test)

Warranties and Certifications

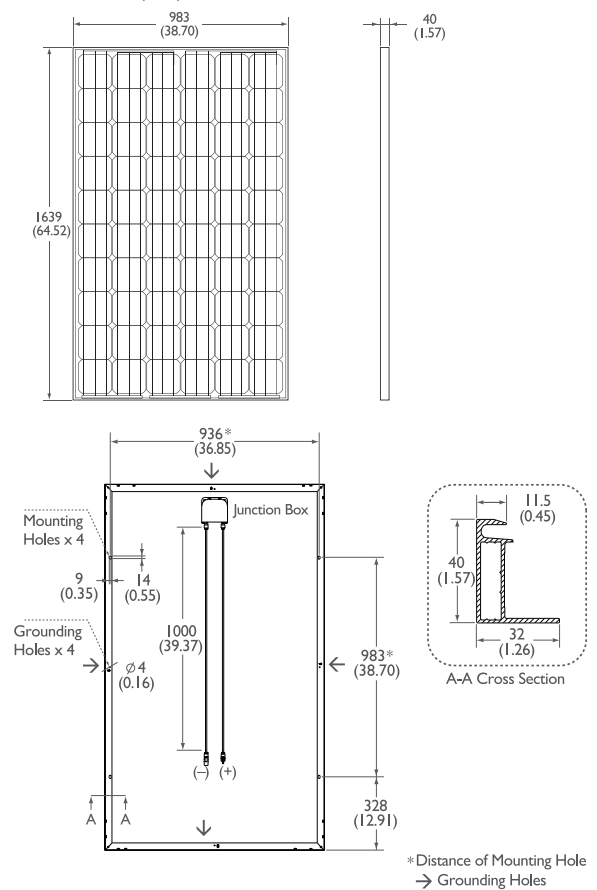
Product Warranty	Maximum 10 years for material and workmanship
Performance Guarantee	Guaranteed output of 90% for 10 years and 80% for 25 years
Certifications	According to IEC/EN 61215, IEC/EN 61730 and UL 1703 guidelines *

- * Please confirm other certifications with official dealers

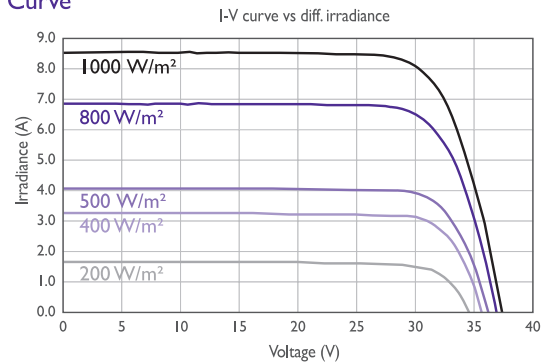
Packing configuration

Container	20' GP	40' GP	40' HQ
Pieces per pallet	26	26	26
Pallets per container	7	14	28
Pieces per container	182	364	728

Dimensions mm (inch)



I-V Curve



Current/voltage characteristics with dependence on irradiance and module temperature.

Dealer Stamp



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