










## M Series 3R PLUS

235 / 240 / 245 / 250 / 255 / 260



### MODULE STRENGTHS

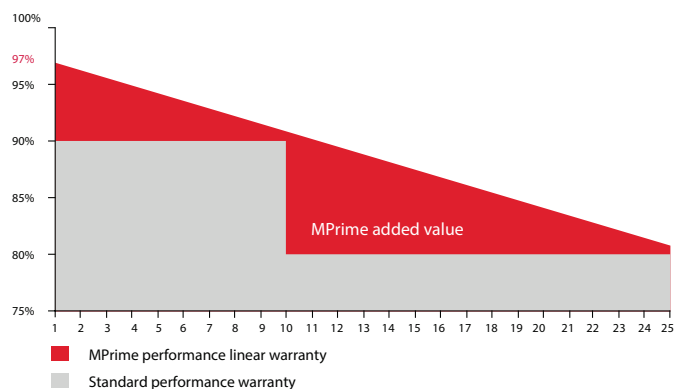
-  Efficiency and life performance due to linear warranty
-  4,99 Watts Positive power up to 4,99 Watts
-  4 mm 4 mm glass suitable for snow and windy climates
-  Internal textured surface that increase solar radiation absorption
-  714 kG Suitable under extreme mechanical loading pressure of 7000 Pa. (714 kgf/m<sup>2</sup>)
-  Produced in a fully automated and robotized factory allowing a PV module with the highest level of quality
-  100% PV modules tested and inspected by Electroluminescence system (E.L. Tester)
-  Manufacturing facility included by the certifications ISO 9001, ISO 14001 and OSHAS 18001
-  Long term yield security due to PID resistant materials \*optional

### Certified by



### WARRANTY

- Product warranty: 10 years.
- Performance warranty:  
25 years linear degradation:  
Year 1: ≤ 3,00%;  
Year 2 to year 25: ≤ 0,68% per year.



### CERTIFICATION

- TÜV Factory Inspection
- Qualified, IEC 61215
- Safety tested, IEC 61730.1, IEC 61730.2
- IEC 61701 (Salt Mist Corrosion)
- IEC 62716 (Ammonia tested)
- Kitemark® license (KM 566314)
- Conformity to CE
- Safety class II
- Heavy Snow Load tested 5400 Pa
- Mechanical Load tested 7000 Pa
- UNI 9177 (Reaction to fire test): Class 2
- Australian CEC (Clean Energy Council) approved

# ELECTRICAL SPECIFICATIONS\*

Nominal Power (Wp)	$P_{NOM}$	235	240	245	250	255	260
Average Power	$P_{MPP}$	237,8	242,6	247,8	251,8	257,5	262,7
Positive Power Tolerance		[ $P_{NOM}-0$ ; $P_{NOM}+4,99W$ ]					
MPP Current (A)	$I_{MPP}$	8,10	8,14	8,23	8,32	8,50	8,56
MPP Voltage (V)	$V_{MPP}/U_{MPP}$	29,36	29,81	30,11	30,25	30,30	30,71
Open Circuit Voltage (V)	$V_{OC}/U_{OC}$	36,28	36,77	37,21	37,32	37,38	37,81
Short Circuit Current (A)	$I_{SC}$	8,61	8,66	8,74	8,84	9,03	9,10
Module Efficiency	$\eta$ (%)	14,3	14,5	14,9	15,1	15,4	15,8
Maximum System Voltage (V)	$V_{SYS}$	+1000**					
Maximum Series Fuse Rating (A)	I	15					
Permitted module temperature on continuous duty		-40°C up to +85°C					
NOCT (°C)		45±3					
Temperature Coefficients:							
Power	$\gamma(P_{NOM})$	-0,420%/°C					
Voltage	$\beta(V_{OC})$	-0,313%/°C					
Current	$\alpha(I_{SC})$	+0,058%/°C					

Measurement tolerances STC: ± 3 % (PMPP); ± 10 % (I<sub>SC</sub>, V<sub>OC</sub>, I<sub>MPP</sub>, V<sub>MPP</sub>); Measurement tolerances NOCT: ± 5 % (PMPP); ± 10 % (I<sub>SC</sub>, V<sub>OC</sub>, I<sub>MPP</sub>, V<sub>MPP</sub>)

\* Values at Standard Test Conditions STC (air mass AM 1,5, irradiance 1000 W/sqm, cell temperature 25°C)

\*\* Positive Voltage

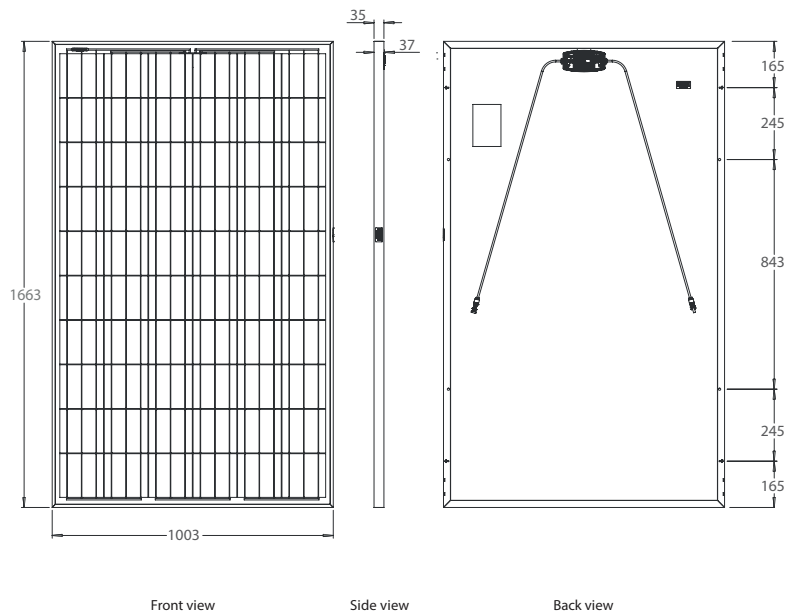
## MECHANICAL SPECIFICATIONS

Dimensions	1663 x 1003 x 35 mm
Weight	21 kg
Solar Cells	60 Multicrystalline 6 inch cells
Front Cover	Tempered and Textured 4mm Glass
Encapsulant	EVA (Ethylene Vinyl Acetate)
Back Cover	PPE (Polyester Polyester Primer) Black/blue/white/transparent
Frame	Anodized aluminium (silver/black)
Diodes	3 Bypass Diodes (10,5A)
Junction Box	IP 65 with 3 Bypass Diodes
Cable	2 Cables of 900 mm
Connectors	Weidmüller WM4 connector

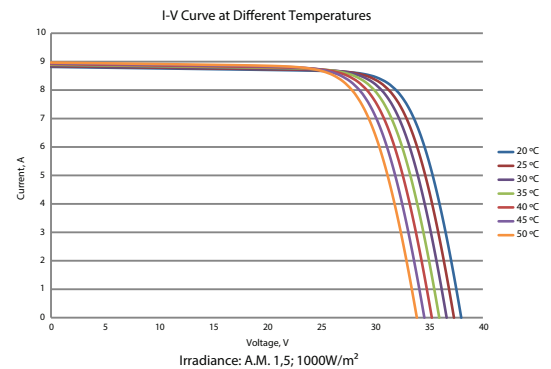
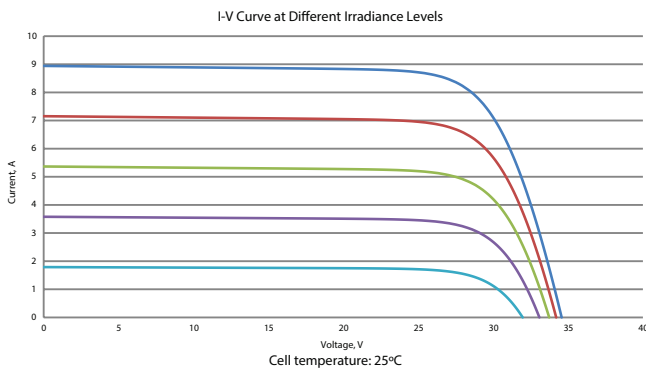
## PACKAGING

Modules per pallet	40 modules
Dimensions per pallet (WxLxH/W)	1100x1745x1920 mm/≈900kg

## DIMENSIONS All figures are in mm



## I-V CURVES (250W MODULE)



CAUTION: read safety and installation instructions before using the product. (available in [WWW.MPRIMESOLAR.COM](http://WWW.MPRIMESOLAR.COM)).

DISCLAIMER: specifications included in this datasheet are subject to change without notice from the company. In case of any conflicts/problems that may arise due to misinterpretation, prevailing conditions are the ones described in the original version (in English).

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