



POWERFUL PERFORMANCE FOR A CLEANER PLANET

- ◆ MANUFACTURED IN MONTREAL, CANADA
- ◆ 20 YEAR LINEAR POWER WARRANTY
- ◆ 2 YEAR WORKMANSHIP WARRANTY
- ◆ OUTSTANDING LOW LIGHT PERFORMANCE
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- ◆ POSITIVE TOLERANCE 0/+3%

GMASOLAR introduces the new generation of solar modules. Providing - more power by utilizing high efficiency solar cells. Ideal for off grid systems thanks to their robust design proving reliability and high quality performance in isolated areas.

GMASOLAR Reliability. All our solar modules are manufactured according to UL and IEC standards. Each solar module is passed through several strict quality control tests before and after the lamination process. One of the many tests which include the Solar Cell and Module EL (Electroluminescence) Tester. The EL tester provides valuable information and overall the quality of the production process. With EL imaging, it detects every hidden defect and thus ensures an effective, accurate and high performance solar module.

GMASOLAR Flexibility. Our solar modules are designed to offer worry free use in the harshest weather climates. Our frame allows installation in multiple configurations, making an easy, safe and faster installation. The water drain holes prevent frame breakage due to freezing temperatures.



ELECTRICAL PARAMETERS @ STC

Module Type		GMA 4W-P
Peak Power	P _{max} (W)	4
Maximun Power Voltage	V _{mp} (V)	12.6
Maximun Power Current	I _{mp} (A)	0.32
Open-circuit voltage	V _{oc} (V)	15.7
Short-circuit current	I _{sc} (A)	0.4

Values at standard test conditions STC (Air mass AM1.5, Irradiance 1000W/sqm, Cell temperature 25°C)
Power Measurement Tolerance: 0 / +3%

MECHANICAL DATA

Solar Cell (type / dimension)	Mono-crystalline solar cells / 156 x 156 mm
Module Dimension (L x W x H)	220 x 185 x 18 mm
Weight	1.3 kg
Frame (material / colour)	Anodized aluminum / Silver
Front Glass (material / thickness)	High transmission low-iron tempered glass / 3.2mm
Backsheet (material)	Fluoropolymer coating / PET / polyolefin
Mechanical Load	227g stell ball fall down from 1m, and 60m/s wind
Junction Box (protection degree)	≥IP 65

TEMPERATURE COEFFICIENTS

Nominal Operating Cell Temp. (NOCT)	45 +/- 2 °C
Voltage Temperature Coefficient (VOC)	-0.31% / °C
Current Temperature Coefficient (Isc)	0.033% / °C
Power Temperature Coefficient (Pmax)	-0.42% / °C

MAXIMUM RATINGS

Operatonal Temperature	-40°C to +85°C
Maximun System Voltage	700V (IEC/UL)
Max Series Fuse Rating	1A

WARRANTY & CERTIFICATIONS

Fire Rating	Class C
Warranty	2 years workmanship, 10 years 90%, 20 years 80% Power Warranty



Note: The specifications are subject to change without notice.