

**GMASOLAR** introduces the new generation of solar modules. Providing more power by utilizing high efficiency solar cells. Their outstanding performance on energy yield helps our customers to maximize returns on investment specially on grid tie applications.

**GMASOLAR** Reliability. All our solar modules are manufacture according to UL and IEC standards. Each module goes to a strict quality verification on through an EL testing process The EL tester works like a X-ray scanner that immediately exposes every possible hidden defect in the solar panel. This way you get a crystal clear picture of the good operation of the solar panel.

**GMASOLAR** Flexibility. Our solar modules are designed to offer worry free used in the harshest climates. For example, the strong and robust 45mm frame allows installation in multiple configurations, making an easy, safe and faster installation in harshest climates. The water drain holes prevent frame breakage due to freezing temperatures.







## GMA72-P Series GMA280, GMA290, GMA300, GMA310



ELECTRICAL DATA						
Mechanical Data	GMA 280M-72	GMA 290M-72	GMA 300M-72	GMA 310M-72		
Nominal Peak Power (Wp)	280 W	290 W	300 W	310 W		
Nominal Voltage (Vmp)	36.0 V	36.2 V	36.4 V	36.6V		
Nominal Current (Imp)	7.78 A	8.01 A	8.24 A	8.47A		
Open Circuit Voltage (Voc)	44.8 V	45.0 V	45.2 V	45.4V		
Short Circuit Current (Isc)	8.45 A	8.60 A	8.85 A	8.98 A		
Module Efficiency (%)	14.4 %	15.0 %	15.50 %	16.00 %		
Operating Temperature degC	-40 to +85					
Maximum System Voltage	600 VDC (UL) 1000 VDC (IEC)					
STC: 1000 W/m2 , 25°C, AM= 1.5						

TEMPERATURE COEFFICIENTS		MECHANICAL DATA	
NOCT	45+/-2	Solar Cell	72 Polycrystalline 156mm x 156 mm
Voltage Temperature Coefficient (Voc)	-0.36%	Front Glass	4.0 Tempered
Current Temperature Coefficient (Isc)	+0.033%	Junction Box	Certified Junction Box
Power Temperature Coefficient (Pmpp)	+0.44%	Output Cables	900 mm length with connectors
Minimum Power Tolerance	-0/+5%	Frame	Anodized Aluminum
NOCT: Nominal Operating Cell Temperature -40°C to + 95°		Weight	24kg
		Dimensions	1956 mm x 992 x 45 mm

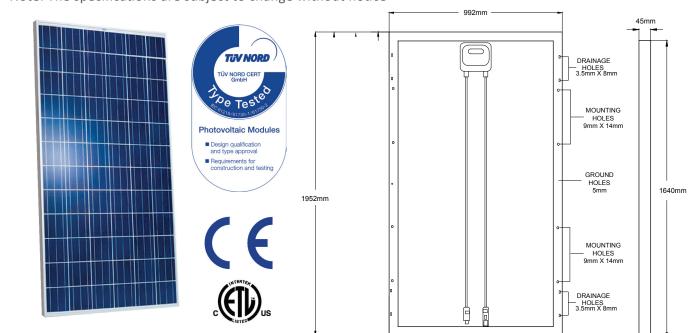
## WARRANTY & CERTIFICATIONS

Warranty

Certifications

12 Year Workmanship, 12 Year 90%, 25 Year 80% Power Warranty UL 1730, IEC 61215, IEC 61730, CE, cETLus

Note: The specifications are subject to change without notice



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