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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

**Atersa Grupo  
A-280-295M GS  
A-295M GS**

Also available on the web at  
[EnergyPal.com/atersa-grupo-solar-panels/a-295m-gs](http://EnergyPal.com/atersa-grupo-solar-panels/a-295m-gs)



## ptimum *new range*



Solar module (60 cells 6")  
**A-xxxM GS** (280/285/290/295 W)

- **Optimize your instalations.**
- High module **efficiency** and stable power output based on leading process technology.
- **Outstanding electrical performance** under high-temperature conditions or low-irradiance conditions.
- Ease of installations due to the **innovative engineering design.**
- **Rigorous quality control** meets the highest international standard.
- **Warranty, 10-year** workmanship and **25-year** performance (80% power output).





**A-xxxM GS (ES)** (xxx = rated power)

Electrical characteristics	A-280M GS	A-285M GS	A-290M GS	A-295M GS
Maximum Power (Pmax)	280 W	285 W	290 W	295 W
Maximum Power Voltage (Vmp)	32.20 V	32.40 V	32.60 V	32.80 V
Maximum Power Current (Imp)	8.70 A	8.80 A	8.90 A	9.00 A
Open Current Voltage (Voc)	37.80 V	38.00 V	38.30 V	38.50 V
Short Circuit Current (Isc)	9.36 A	9.47 A	9.58 A	9.70 A
Module Efficiency (%)	17.21	17.51	17.83	18.13
Power Tolerance (W)			0/+5	
Maximum Series Fuse Ratings (A)			15	
Maximum System Voltage (TUV)			DC 1000 V	
Normal Operating Cell Temperature (°C)			45±2	

Electrical characteristics tested at Standard Test Conditions (STC), defined as: Irradiance of 1000 w/m<sup>2</sup>, spectrum AM 1.5 and temperature of 25 °C.  
 Tolerance measures STC: ±3% (Pmp); ±10% (Isc, Voc, Imp, Vmp).  
 Best in Class AAA solar simulator (IEC 60904-9) used, power measurement uncertainty is within +/- 3%

**Mechanical specifications**

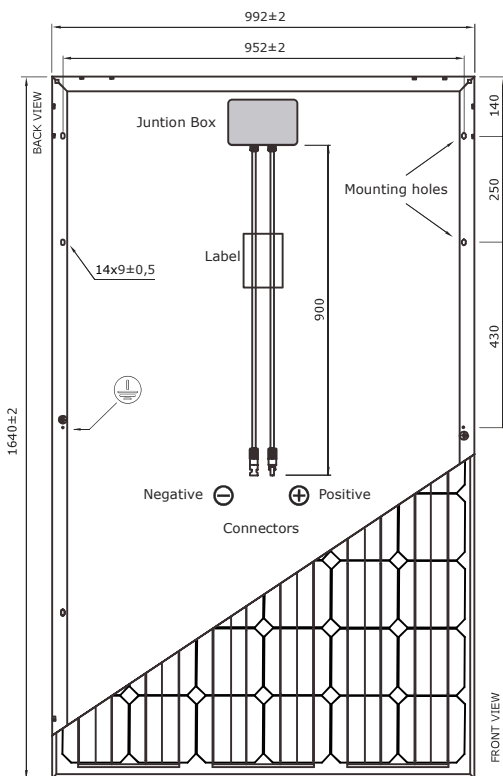
Dimensions (± 2 mm.)	1640x992x35 mm
Weight (± 0,5 kg)	17.75 kg
Max. static load, front (snow & wind)	5400 Pa
Max. static load, back (wind)	2400 Pa
Max. hailstone impact (diameter/velocity)	25 mm / 23 m/s

**Construction materials**

Front cover (material /type/thickness) (*)	Tempered Glass,High Transmission/Low Iron/3.2 mm
Cell (quantity/type/dimensions)	60 cells (6x10)/Monocrystalline/156.75 x 156.75 mm
Frame (material/color)	Anodized aluminium alloy /silver
Junction box (protection degree)	IP67
Cable (length/cross-section area)/Connector	900 mm / 4 mm <sup>2</sup> / Combinable MC4

(\*) With anti-reflective coating

**Panel construction generic view**



The drawing is not to scale

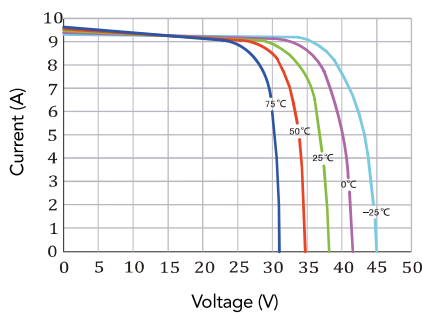
**Temperature characteristics**

Temp. Coeff. of Isc (TK Isc)	0.08558% /°C
Temp. Coeff. of Voc (TK Voc)	-0.29506% /°C
Temp. Coeff. of Pmax (TK Pmax)	-0.38001% /°C
Operating Temperature	-40 to +85 °C

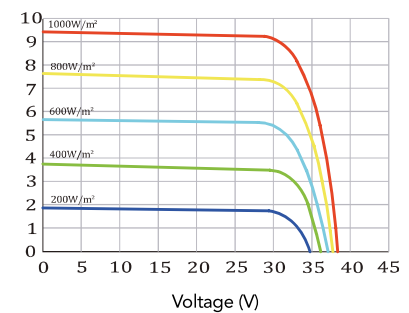
**Packaging**

Modules/pallet	30 pcs
Pallets/container 40' HQ	28 pallets
Modules/container 40' HQ	840 pcs
Pallets/container 20'	12 pallets
Modules/container 20'	360 pcs

**Various Temperature (A-290M GS)**



**Various Irradiance (A-290M GS)**



NB: The data contained in this documentation are subject to modification without prior notification.

