

MEDUSA MONO BLACK PV MODULE







ELECTRICAL CHARACTERISTICS

Type	Unit					
Max-Power	P(m) W	290	295	300	305	310
Power Tolerance	W			0~+5		
Max-Power Voltage	Vm (V)	32,0	32,2	32,4	32,6	32,8
Max-Power Current	Im (A)	9,1	9,2	9,3	9,4	9,5
Open-Circuit Voltage	Voc (V)	39,0	39,2	39,4	39,6	39,8
Short-Circuit current	Isc (A)	9,6	9,7	9,8	9,9	10
Cell-efficiency	n (%)	19,8	20,1	20,4	20,8	21,1
Module Efficiency	n (%)	18,3	18,6	18,9	19,2	19,5
Cells	Monocrystalline MWT					
Number of cells	60					
Test Condition	STC: AM 1.5, 1000 W/m ² , cells temperature 25 °C					
Operating module temperature range	- 40 °C ~ + 85 °C					
Maximum System Voltage	1.000 Volts					
Maximum Reverse current	20 Ampere					

PRODUCT CERTIFICATION-STANDARDS

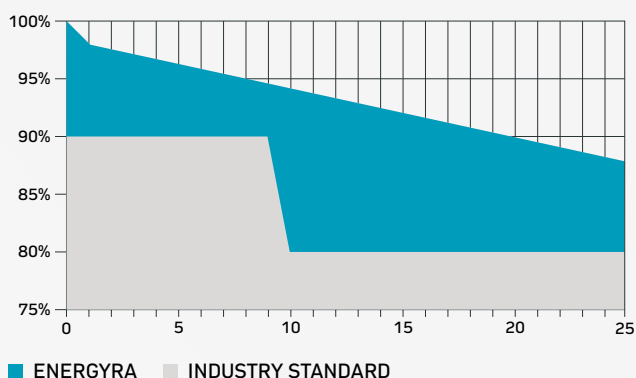
Standard:	Related to:
ISO9001, ISO14001	Factory
OHSAS18001	Labor health and safety
IEC61215 and IEC61730	Product
Salt mist, Ammonia corrosion, PID resistance, RoHS, LID resistant	Product, Additional

COMPANY STATEMENT

-  Produced in the EU under strict CSR conditions
-  Maximized KWh power harvest
-  Aesthetic, architectural product design
-  Minimized cell-to-module loss
-  Smaller footprint: more power harvest per project
-  Futureproof: All materials & components used are fully reclaimable

HIGHEST POWER OUTPUT WARRANTY

Energyra is offering the highest Power Output Warranty on the market today, limiting power degradation in year 1 to 2% max and in years 2 to 24 to 0.4% max per annum. In addition, the Materials & Workmanship Warranty covers 10 years.



MECHANICAL CHARACTERISTICS

Dimension (L x W x H)	1620 mm x 980 mm x 40 mm
Weight	18,0 Kg
Front Cover (material/Thickness)	Low Iron tempered & textured glass 3,2 mm, Anti-reflective (AR) coated
Cells (quantity/material type/dimensions)	60 cells, Monocrystalline MWT 6 " full square
Encapsulation Material	Polyolefin crosslinked encapsulant
Frame (material/color)	Anodized Aluminum alloy in Full black
Junction Box	IP67
Cable length	900 mm & 4 mm ² , cross section; double isolated; UV resistant

THERMAL CHARACTERISTICS

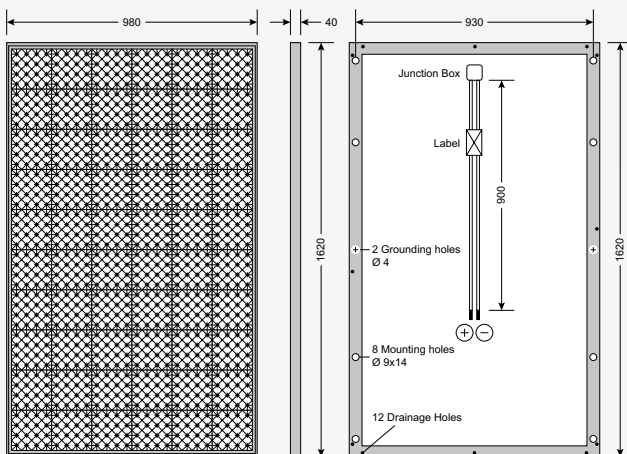
NOCT (Normal Operating Cell Temperature):	40 +/- 2 °C
Temperature Coefficient Voc:	$\alpha_{Voc} -0,31\% / K$
Temperature Coefficient Isc:	$\beta_{Isc} + 0,04\% / K$
Temperature Coefficient Pmax:	$\gamma_{Pmax} -0,41\% / K$

BILL OF MATERIAL, DETAILS

Relation to:		Results in:
Connections	Leadfree Interconnects (Silver epoxy glue)	No lead in interconnect
Weight	Below European demands for manual handling/lifting	Easy to install
Front Cover	Glass, textured	Environmentally harmless
Cells	Silicon with Silver and Aluminum contacts	No Cadmium Telluride
Encapsulation	Halogen free encapsulation material	Environmentally improved
Frame	Aluminum	Durability
Junction	Halogen free Junction Box (Copper and gold plated connectors)	Environmentally improved
Cables	Halogen free cables and connectors (Copper cores)	Environmentally improved

> All materials & components used are fully reclaimable

DIMENSIONS



I/V CURVES AT DIFFERENT IRRADIANCE

