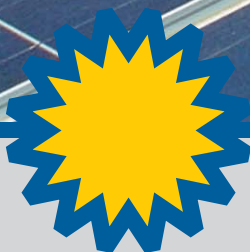


Energy Solutions produces photovoltaic panels of absolute quality and long term product value. This is ensured by the use of raw materials from leading suppliers in Europe and the US and a strict control of the manufacturing process.

It is our primary concern to produce a photovoltaic module that will keep its high level features throughout its active life.

The low iron solar glass transmits up to 96% of the sunlight to the solar cell. The solar cells include the latest advancements in crystalline technology and the EVA that is used for encapsulation is UV resistant, to avoid "browning" and energy losses after years of outdoor exposure. The tedlar is "bright white" in order to increase the modules' efficiency. Finally, the aluminium frame is anodized so that corrosion is avoided under any conditions. We can therefore guarantee that the products manufactured in our facilities will produce energy with high efficiency for many years.



Energy Solutions

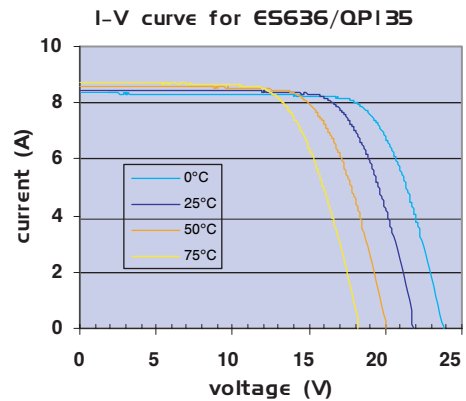
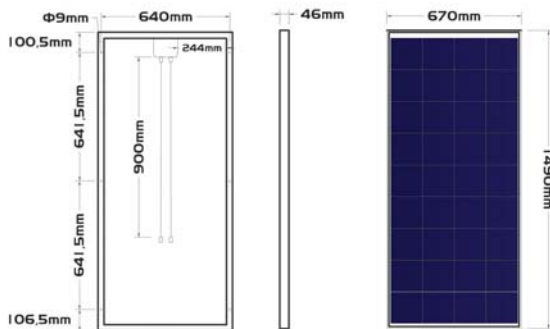
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Mechanical Characteristics

Dimensions	1,490 mm x 670 mm x 46 mm (ES636/QP - framed) 1,483 mm x 663 mm (ESL636/QP - laminate)
Cells	36 poly-crystalline cells 156mm x 156 mm by Q.Cells
Frame	Anodized Al (ES636/QP only)
Junction box	TYCO (120x90x20 mm) with 2 bypass diodes
Cabling	0.9 m with TYCO connectors
Weight	~13 kg



Electrical Characteristics *

Nominal power, P_{max}	120W	125 W	130 W	135 W
Power tolerance		+3% (-0%)		
Open circuit voltage, V_{oc}	21,9 V	21,8 V	21,8 V	21,9 V
Short circuit current, I_{sc}	8,08 A	8,11 A	8,35 A	8,52 A
Max power voltage, V_{mpp}	16,5 V	16,6 V	16,6 V	16,9 V
Max power current, I_{mpp}	7,49 A	7,55 A	7,79 A	8,00 A
System voltage	890 V Max.			
Temperature Coefficients	P_{MPP} : -0.43 [%/K] V_{oc} : -0.35 [%/K] I_{sc} : +0.07 [%/K]			
NOCT**	46,1 °C			
Certifications	IEC61215 and SC II issued by TÜV (ID:7452)			
Power guarantee	25 years (-20%)			
Product guarantee	5 years			

* measured at STC (Standard Test Conditions: 1000W/m², 25°C, 1,5AM)

** Normal Operating Cell Temperature: 800 W/m², 20°C, 1,5AM



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Please contact our Energy Solutions dealer: