



# AFR-85

85-Watt Polycrystalline  
Photovoltaic Module

African Energy modules are made by some of the world's most sophisticated module manufacturers and are designed for Africa's off-grid solar charging and water pumping needs. The modules include efficient crystalline cells set in a solid aluminium frame and feature TÜV and IEC certification. With a 25 year warranty, these modules can provide power for several generations - and the quality is assured by African Energy's decade of experience in the solar industry.

## ELECTRICAL CHARACTERISTICS

Maximum Power at STC* (Pmax) [Wp]		85
Voltage at Pmax (Vmp) [V]		17.5
Current at Pmax (Imp) [A]		4.86
Open Circuit Voltage (Voc) [V]		21.6
Short Circuit Current (Isc) [A]		5.49A
Fuse Rating [A]		10
Maximum System Voltage		1000
Power Tolerance		-0, +3%

## PHYSICAL CHARACTERISTICS

Solar Cells (mm)		Poly - 125 x 125
Number of Cells		36
Junction Box Protection Class		Ip65
Connector		MC4 Compatible
Cables (Length [mm] / Section [mm <sup>2</sup> ])		600/4
Dimensions [mm]		920x670x35
Weight [kg]		7.76



## THERMAL CHARACTERISTICS

NOCT**		47 +/-2 °C
Temperature Coefficient of Pmax		-(0.5+/-0.05) / °C
Temperature Coefficient of Voc		-(2.23+/- 0.1)mv/°C
Temperature Coefficient of Isc		0.065+/-0.015 %/°C
Operating Temperature		-40 °C ~ +85 °C

STC\*: Irradiance of 1000W/m<sup>2</sup>, AM1.5 Spectrum and Cell Temperature of 25 °C. NOCT\*\*: Irradiance of 800W/m<sup>2</sup>, ambient temperature 20 °C and wind speed 1 m/s

