



# SUNSYSTEM®

Energy from the sun

## SUNSYSTEM 230p - 235p - 240p Photovoltaic modules

Made in EU

Crystalline modules with fully positive tolerance.  
Yield guaranteed for 25 years.  
Individual flash test record for each module.

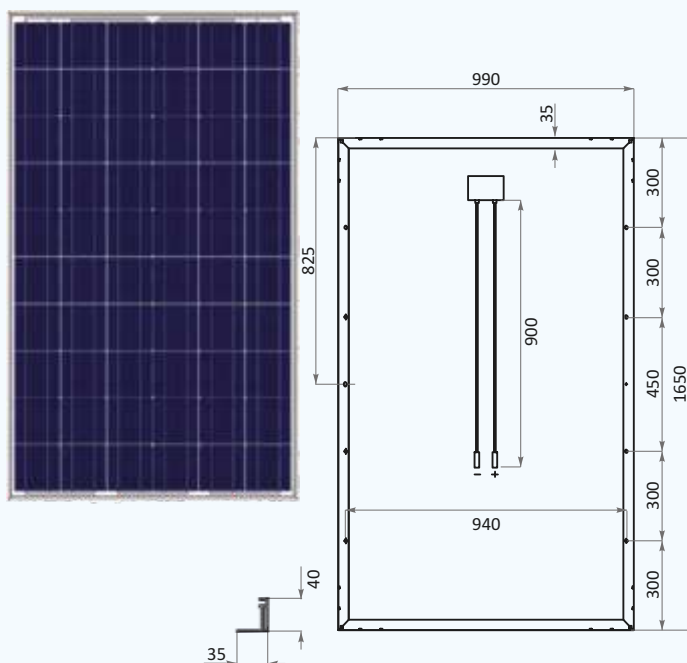
Electrical specifications:	230p	235p	240p
Maximum power Pmax	230 Wp	235 Wp	240 Wp
Tolerance	+ 3% - 0%	+ 3% - 0%	+ 3% - 0%
Voltage at max power Vmp	29,7 V	30,2 V	30,6 V
Current at max power Imp	7,74 A	7,78 A	7,84 A
Open circuit voltage Voc	36,23 V	36,7 V	37,2 V
Short circuit current Isc	8,48 A	8,50 A	8,52 A
Cell efficiency	15,8 %	16,1 %	16,4 %
Module efficiency	14,1 %	14,4 %	14,7 %

\* STC (Standard test conditions) : Irradiation 1000 W/m<sup>2</sup>, ambient temperature 25°C, Spectre AM 1.5

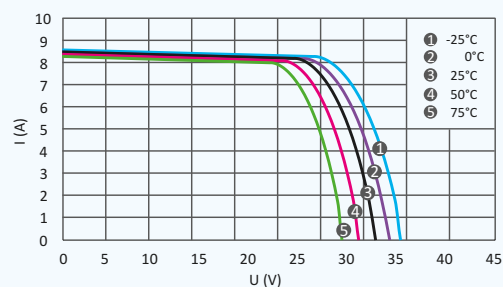
Physical specifications:	
Overall dimensions	1650 x 990 x 40 mm
Number of cells	60 ( 6 x 10 )
Size of cells	156 x 156 mm
Weight	19,5 kg
Type of cell	polycrystalline
Frame	aluminum
Junction box	TÜV certified
Back closing	TPT
Front closing	Tempered glass 3,2 mm
Length of cable	900 mm
Connector type	MC 4

Temperature coefficients:	
NOCT	48°C ± 2°C
Temp. coeff. of Pmax	- 0,45 % / °C
Temp. coeff. of Vmp	- 0,35 % / °C
Temp. coeff. of Imp	+ 0,05 % / °C
Temp. coeff. of Voc	- (0,3 ± 0,05) % / °C
Temp. coeff. of Isc	+ 0,065 % / °C

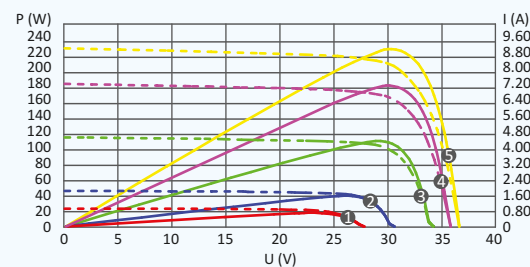
Limitations:	
Max. system voltage	1000 V DC
Temperature range	-40°C - +85/ °C
Max. physical load	2400 Pa



I-V characteristic of module temperature dependence



I-V and P-V characteristics with dependence on irradiance



### Warranty and certificates:

Workmanship and material 10 years

80% of the minimum peak power 25 years

Certified in accordance with IEC 61215:2005 & EN 61730:2007

