

## ESPMC

### Polycrystalline Solar Module



#### High-quality

With 60 cells and 3 bypass diodes in power classes from 215 to 245 Wp for grid connected systems.



#### Reliable

The high quality level of ERA SOLAR guarantees long life-time and high earnings.



#### Solid

An Aluminium hollow-chamber frame on each side combined with low-iron and tempered solar glass ensures high load capacity resistance.



#### Performance guarantee

ERA SOLAR grants a power guarantee of 90% of nominal power output up to 12 years and 80% up to 30 years.



WATTS  
POSITIVE  
TOLERANCE



YEARS  
PRODUCT  
WARRANTY



YEARS  
PERFORMANCE  
GUARANTEE 90%



YEARS  
PERFORMANCE  
GUARANTEE 80%



# ESPMC

## Polycrystalline Solar Module

### SPECIFICATIONS

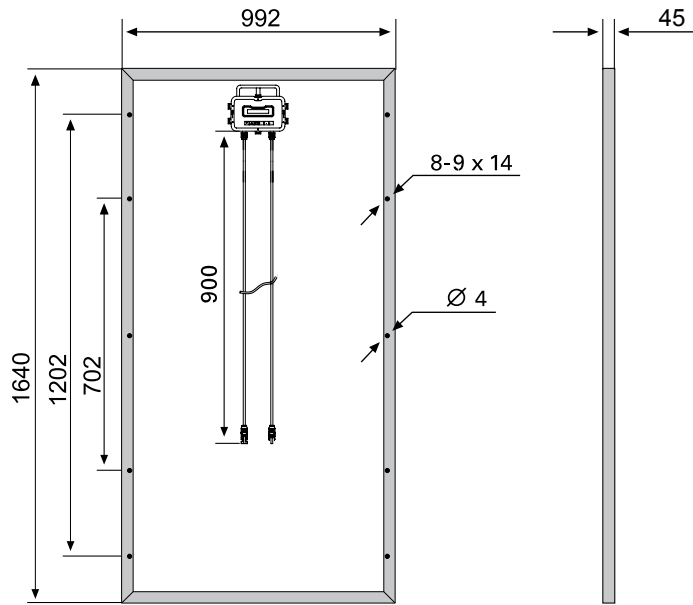
Dimensions	1640 x 992 x 45 mm
Weight	19.5 kg
Frame	Aluminium hollow-chamber frame on each side
Glass	Low-iron and tempered glass 3.2 mm
Cells	60 pcs multicrystalline Si-cells (156 x 156 mm)
Cell Embedding	EVA
Back-Foil	TPT / TPE / BBF
Junction Box	TÜV certified
Cable	4 mm <sup>2</sup> solar cable 2 x 900 mm
Temperature Range	-40°C ... +85°C
Load Capacity	5400 Pa (IEC 61215)
Power Guarantee	12 years 90% 30 years 80%
Pallet Size	1.69 x 1.04 x 1.2 m
Units	23 pcs. / pallet
Weight	483 Kg / pallet

### CHARACTERISTICS

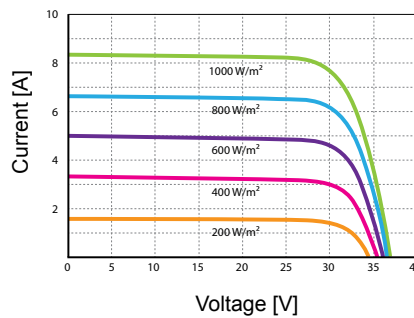
Max. System Voltage	1000V/DC
Temperature-Coefficient $I_{SC}$	+0.07%/°C
Temperature-Coefficient $U_{OC}$	-0.36%/°C
Temperature-Coefficient $P_{mpp}$	-0.43%/°C
NOCT***	45°C

### CERTIFICATES

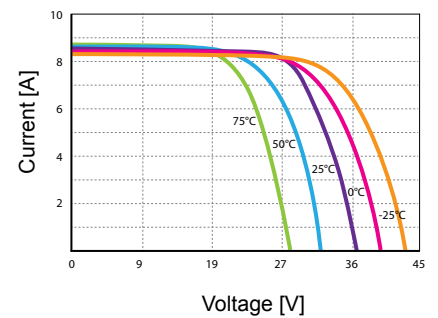
IEC 61215 edition 2 (TÜV Rheinland)  
IEC 61730 UL CSA MCS



### CURRENT-VOLTAGE CURVES



Module characteristics at constant module temperatures of 25°C and variable levels of irradiance



Module characteristics at variable module temperatures and constant module irradiance of 1.000 W/m<sup>2</sup>

ESPMC TYPE	215	220	225	230	235	240	245
Power Class	215W	220W	225W	230W	235W	240W	245W
Max. Power Voltage ( $U_{mpp}$ )* at STC**	29.2V	29.5V	29.8V	30.1V	30.3V	30.5V	30.7V
Max. Power Current ( $I_{mpp}$ ) at STC	7.33A	7.46A	7.55A	7.64A	7.75A	7.86A	7.97A
Open Circuit Voltage ( $U_{OC}$ ) at STC	34.7V	35.1V	35.5V	35.8V	36.0V	36.2V	36.4V
Short Circuit Current ( $I_{SC}$ ) at STC	7.91A	8.05A	8.15A	8.25A	8.37A	8.48A	8.69A
Module Efficiency	13.2 %	13.5 %	13.8 %	14.1 %	14.4 %	14.8 %	15.1 %

\* MPP: Maximum Power Point

\*\* STC (Standard Test Conditions): 1000W/m<sup>2</sup>, 25°C, AM 1.5

\*\*\* Normal Operating Cell Temperature

