

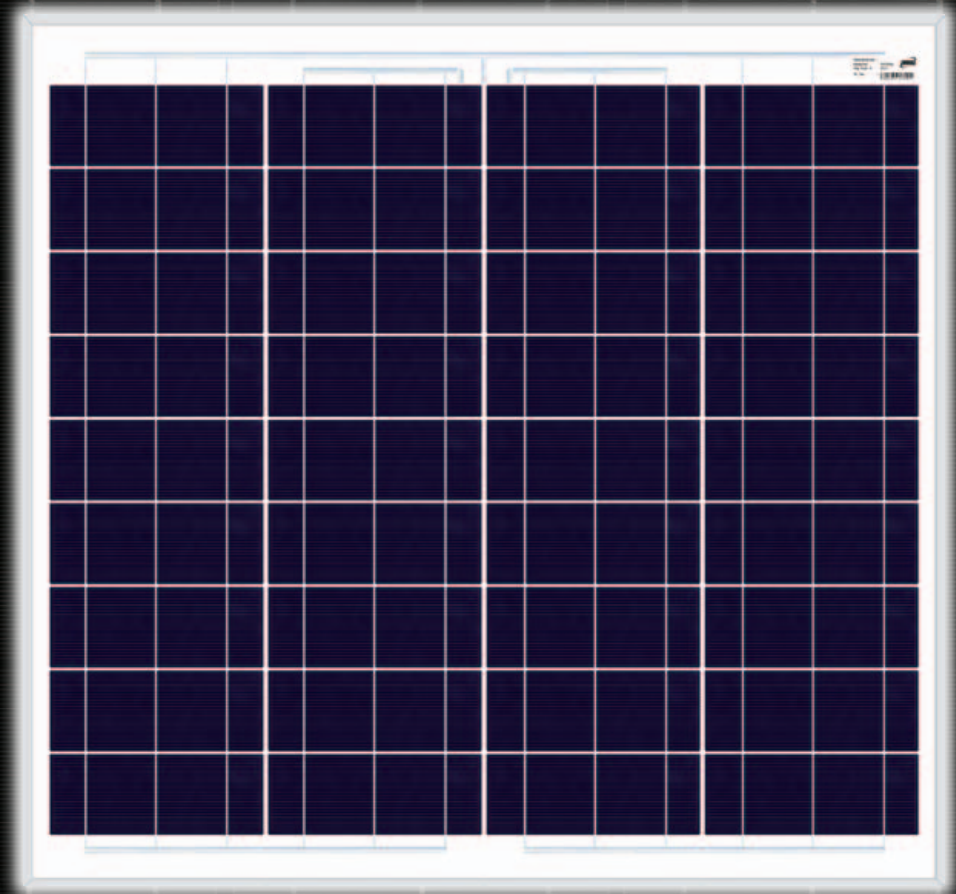
**EMMVEE**

**ES 25-100 P36**

**Photovoltaic Module**



**More  
Efficiency  
More  
Reliability**



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# EMMVEE

## ES 25-100 P36

### Photovoltaic Module



#### Electrical Data at 1000 W/m<sup>2</sup>, 25 °C and AM 1.5 (STC in Accordance with EN 60904-3)

rated power at STC <sup>1</sup>	25 Wp	37 Wp	50 Wp	75 Wp	100 Wp
module efficiency at STC <sup>2</sup>	11.0 %	11.2 %	12.2 %	11.8 %	12.0 %
open-circuit voltage V <sub>oc</sub>	21.6 V	21.6 V	21.6 V	21.6 V	21.6 V
short-circuit current I <sub>sc</sub>	1.52 A	2.39 A	2.99 A	4.42 A	5.98 A
rated voltage V <sub>mpp</sub>	17.71 V	17.82 V	17.82 V	17.82 V	17.82 V
rated current I <sub>mpp</sub>	1.44 A	2.27 A	2.84 A	4.20 A	5.68 A

<sup>1</sup> The measurement tolerance of the rated power is ± 3%.

<sup>2</sup> At low irradiance ( 200 W/ m<sup>2</sup>, 25 °C and AM 1.5 ) the module yields at least 97% of the STC efficiency.

#### Electrical Data at 800 W/m<sup>2</sup>, NOCT, 1m/s Wind Speed and AM 1.5

rated power P <sub>max</sub>	20.3 W	30.0 W	40.5 W	60.8 W	81.0 W
open-circuit voltage V <sub>oc</sub>	21.4 V	21.4 V	21.4 V	21.4 V	21.4 V
short-circuit current I <sub>sc</sub>	1.22 A	1.92 A	2.40 A	3.55 A	4.80 A
rated voltage V <sub>mpp</sub>	17.77 V	17.88 V	17.77 V	17.88 V	17.77 V
rated current I <sub>mpp</sub>	1.16 A	1.83 A	2.29 A	3.39 A	4.58 A

#### Thermal Data

temperature coefficient open-circuit voltage	-0.34%/K
temperature coefficient short-circuit current	+0.05%/K
temperature coefficient rated power	-0.43%/K
noct (normal operating cell temperature)	48 °C ± 2 °C

#### Mechanical Data

number of cells and cell type	36 polycrystalline solar cells				
module dimensions: length (a) x width (b) in mm	491 x 461	496 x 669	612 x 669	937 x 669	1242 x 669
mounting dimensions: length (a) x width (b) in mm	428 x 327	636 x 331	408 x 636	636 x 625	828 x 636
weight	3.11 kg	4.0 kg	4.95 kg	7.65 kg	11.23 kg
frame thickness	35 mm anodized aluminum				
front glass	3.2 mm high transmission, tempered glass				
embedding	EVA				
back sheet	composite film, white				
junction box	plastic, protection class IP 65				
number of bypass diodes	1	1	1	2	2
cables	no				

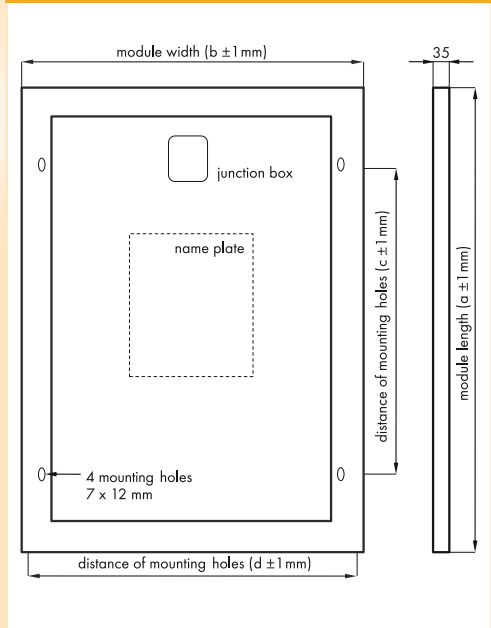
#### Permissible Operating Conditions

operating temperature range	- 40 °C to 85 °C				
max. system voltage	600 V DC				
max. reverse current	5A	5A	5A	15A	15A
maximum surface load capacity	5400 Pa or 550 kg /m <sup>2</sup>				
resistance against hail	maximum diameter of 24 mm with impact speed of 83 km/h				
protection class	II				

#### Warranty and Certificates

product warranty	5 years
performance warranty	90% up to 10 years
certifications	IEC 61215 Ed. II, IEC 61730

#### Technical Drawing – All Dimensions in mm



- Qualified, IEC 61215
- Safety tested, IEC 61730
- Periodic Inspection



Your Retailer:



Subject to errors and technical modifications within the scope of product improvement.

Datasheet according to EN 50380.

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