EMMVEE

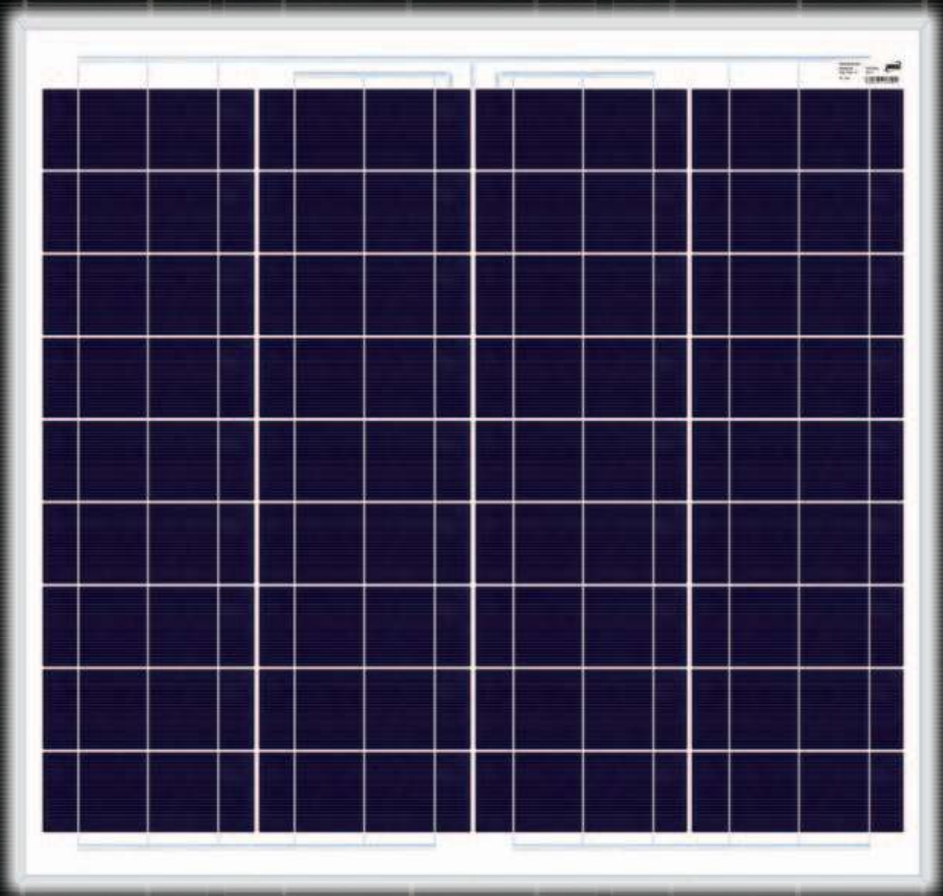
ES 25-100 P36

Photovoltaic Module

EMMVEE photovoltaics

More Efficiency

More Reliability





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EMMVEE
ES 25-100 P36
Photovoltaic Module

Electrical Data at 1000 W/m², 25 °C and AM 1.5 (STC in Accordance with EN 60904-3)					
rated power at STC [1]	25 Wp	37 Wp	50 Wp	75 Wp	100 Wp
module efficiency at STC [2]	11.0 %	11.2 %	12.2 %	11.8 %	12.0 %
open-circuit voltage V_{oc}	21.6 V	21.6 V	21.6 V	21.6 V	21.6 V
short-circuit current I_{sc}	1.52 A	2.39 A	2.99 A	4.42 A	5.98 A
rated voltage V_{mpp}	17.71 V	17.82 V	17.82 V	17.82 V	17.82 V
rated current I_{mpp}	1.44 A	2.27 A	2.84 A	4.20 A	5.68 A

[1] The measurement tolerance of the rated power is ± 3%.
[2] At low irradiance (200 W/ m² , 25 °C and AM 1.5) the module yields at least 97% of the STC effiiciency.

Electrical Data at 800 W/m², NOCT, 1m/s Wind Speed and AM 1.5					
rated power P_{max}	20.3 W	30.0 W	40.5 W	60.8 W	81.0 W
open-circuit voltage V_{oc}	21.4 V	21.4 V	21.4 V	21.4 V	21.4 V
short-circuit current I_{sc}	1.22 A	1.92 A	2.40 A	3.55 A	4.80 A
rated voltage V_{mpp}	17.77 V	17.88 V	17.77 V	17.88 V	17.77 V
rated current I_{mpp}	1.16 A	1.83 A	2.29 A	3.39 A	4.58 A

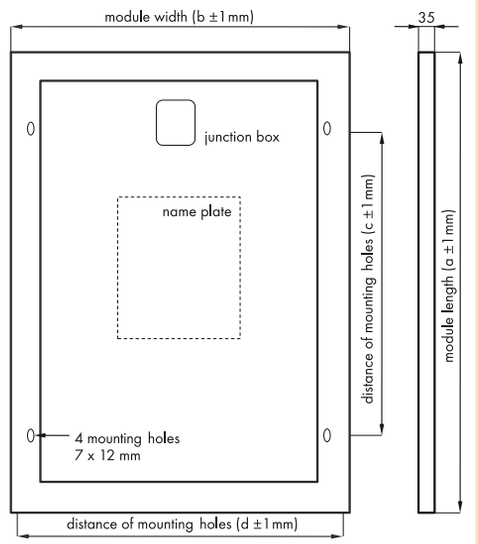
Thermal Data	
temperature coefficient open-circuit voltage	-0.34%/K
temperature coefficient short-circuit current	+0.05%/K
temperature coefficient rated power	-0.43%/K
noct (normal operating cell temperature)	48 °C±2 °C

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 /m²
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



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

Your Retailer:

Datasheet according to EN 50380.

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

16.07.2012

Emmvee Photovoltaic Power Pvt. Ltd.
#13/1, International Airport Road, Bettahalasur Post, Bengaluru - 562 157, India
Phone: +91 80 4323 3544 · info@emmvee.in

Emmvee Photovoltaics GmbH
Franz-Jacob-Str. 4a · 10369 Berlin, Germany
Phone: + 49 (0) 30 91 42 68 90 · info@emmveephotovoltaics.com