

EMMVEE Crystal (Off-grid Module)

20 Wp, 25 Wp, 40 Wp, 50 Wp, 60 Wp, 75 Wp, 100 Wp, 120 Wp, 125 Wp, 150 Wp



Electrical Data at 1000 W/m², 25°C and A.M 1.5 (STC in Accordance with EN 60904-3)

	20Wp	25Wp	40Wp	50Wp	60Wp	75Wp	100Wp	120Wp	125Wp	150Wp
Rated power at STC	20Wp	25Wp	40Wp	50Wp	60Wp	75Wp	100Wp	120Wp	125Wp	150Wp
Module efficiency at STC	12.01%	12.42%	12.53%	13.43%	13.67%	13.92%	14.25%	13.67%	14.24%	14.35%
Open Circuit Voltage - Voc (Volts)	21.60	21.60	21.60	21.60	21.60	21.60	21.60	21.60	43.20	21.60
Short Circuit Current - Isc (Amps)	1.20	1.52	2.45	2.99	3.59	4.42	5.98	7.17	3.73	8.76
Max Power Voltage - Vpm (Volts)	17.71	17.71	17.82	17.82	17.82	17.82	17.82	17.82	35.64	18.00
Max Power Current - Ipm (Amps)	1.13	1.41	2.24	2.81	3.37	4.21	5.61	6.73	3.51	8.33

The measurement tolerance of the rated power is ± 3%. The modules delivered are sorted in a range of ± 2.5 Wp. At low irradiance (200 W/m², 25° C and AM 1.5) the module yields at least 96% of the STC efficiency.

Electrical Data at 800 W/m², NOCT, 1 m/s Wind Speed and AM 1.5

rated power Pmax	14.55	18.18	29.09	36.36	43.64	54.55	72.73	87.28	90.91	110.1
open-circuit voltage Voc	19.95	19.95	19.95	19.95	19.95	19.95	19.95	19.95	39.91	20.5
short-circuit current Isc	0.98	1.24	1.99	2.43	2.91	3.59	4.86	5.83	3.04	7.17
rated voltage Vmpp	16.42	16.42	16.52	16.52	16.52	16.52	16.52	16.52	33.04	16.6
rated current Impp	0.89	1.11	1.76	2.20	2.64	3.30	4.40	5.28	2.75	6.62

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)	46° ± 2° C

Mechanical Data

	36 polycrystalline (cut cells)							72 polycrystalline (cut cells)	36 polycrystalline (full cells)	
number of cells and cell type										
module dimensions: length(a) x width (b) in mm	480 x 347	580 x 347	480 x 665	560 x 665	660 x 665	810 x 665	1055 x 665	1320 x 665	1320 x 665	1060 x 986
mounting dimensions: length(c) x width (d) in mm	320 x 318.6	380 x 318.6	320 x 636.6	380 x 636.6	440 x 636.6	540 x 636.6	705 x 636.6	880 x 636.6	880 x 636.6	700 x 957
frame thickness	30	30	30	30	30	30	30	30	30	30
weight	2.5 kg	3 kg	4 kg	4.5 kg	5.2 kg	6.2 kg	8 kg	10 kg	10 kg	10kg
front glass	3.2 mm high transmission, tempered glass									
embedding	EVA									
back sheet	composite film, white									
junction box	Protection class IP 65									
number of bypass diodes	1					2				
cables	N/A									
connectors	N/A									

Permissible Operating Conditions

operating temperature range	- 40° C to 85° C									
max. system voltage	600 V DC									
max. reverse current	3A	3A	6A	7A	8A	10A	14A	17A	9A	15A
maximum surface load capacity	5400 Pa									
resistance against hail	Max Ø 24 mm with impact speed of 83 km/h									
protection class	II									

Warranty and Certificates

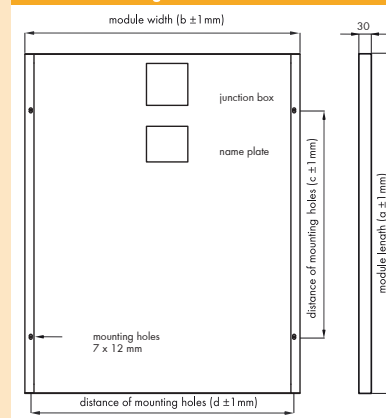
product warranty	5 years*									
performance warranty	90% up to 10 years and 80% up to 25 years*									
certifications	IEC 61215 Ed. 2, IEC 61730-1 & 2, IEC 61701:2011 (Severity-6)									

*Refer EMMVEE standard warranty terms and conditions.

Note1: The specifications/graphical representation made herein may deviate slightly and are not guaranteed. Due to ongoing innovation, research and product enhancement. We reserve the right to make any adjustments to the information contained herein at any time without notice. Always obtain the most recent revision of datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the products described herein.

Note2: It is mandatory to make negative grounding of modules in all installation to avoid PID issue.

Technical Drawing – All Dimensions in mm



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