

Technical Specifications - Multi Crystalline



60 CELLS MODULES

Electrical data at 1000W/m ² , 25°C and A.M 1.5 (STC in Accordance with IEC 60904-3)						
Rated power at STC ¹	250Wp	255Wp	260Wp	265Wp	270Wp	275Wp
Module efficiency at STC ²	15.40%	15.71%	16.01%	16.32%	16.63%	16.94%
Open circuit voltage - Voc (Volts)	37.6	37.8	38.0	38.3	38.60	38.90
Short circuit current - Isc (Amps)	8.66	8.78	8.92	9.04	9.17	9.29
Max power voltage - Vpm (Volts)	30.3	30.5	30.6	30.8	30.9	31.1
Max power current - Ipm (Amps)	8.25	8.37	8.50	8.61	8.74	8.85
¹ The measurement tolerance of the rated power is ± 3%. The modules delivered are sorted in a range of ± 2.5 Wp. ² At low irradiance (200 W/m ² , 25°C and AM 1.5) the module yields at least 96% of the STC efficiency.						
Electrical data at 800 W/m ² ; NOCT, 1 m/s wind speed and AM 1.5						
Rated power (Pmax)	186	189	193	197	200	204
Open-circuit voltage (Voc)	35.3	35.3	35.4	35.5	35.5	35.6
Short-circuit current (Isc)	7.10	7.17	7.27	7.35	7.41	7.47
Rated voltage (Vmpp)	28.1	28.2	28.4	28.6	28.7	29.0
Rated current (Impp)	6.63	6.71	6.81	6.89	6.97	7.03
Thermal data						
Temperature coefficient open-circuit voltage						- 0.34 %/K
Temperature coefficient short-circuit current						+ 0.05 %/K
Temperature coefficient rated power						- 0.4 %/K
NOCT (normal operating cell temperature)						46° ± 2°C
Mechanical data						
Number of cells and cell type	60 Multi crystalline solar cells (156.75 mm x 156.75 mm)					
Dimensions: length x width x height	1640 mm x 990 mm x 35mm					
Weight	18 kg					
Front glass	3.2 mm high transmission, tempered glass					
Embedding	EAV					
Back sheet	Composite film, white					
Junction box	protection class IP 65/67					
Number of bypass diodes	3					
Cables	4 mm ² solar cables, length 1200 mm					
Connectors	MC4 compatible					
Permissible operating conditions						
Operating temperature range	- 40°C to 85°C					
Max. System voltage	1000 V DC					
Max. Reverse current	20 A					
Maximum surface load capacity	5400 Pa					
Resistance against hail	Max Ø 24 mm with impact speed of 83 km/h					
Protection class	II					

* Refer Emmvee standard warranty terms and conditions.
** On availability of stock

Note 1: The specification - graphical representation made herein may deviate slightly and are not guaranteed due to on-going innovation, research and product enhancement. We reserve the right to make any modifications 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.

72 CELLS MODULES

Electrical data at 1000W/m ² , 25°C and A.M 1.5 (STC in Accordance with IEC 60904-3)						
Rated power at STC ¹	310Wp	315Wp	320Wp	325Wp	330Wp	335Wp
Module efficiency at STC ²	15.89%	16.15%	16.41%	16.66%	16.92%	17.18%
Open circuit voltage - Voc (Volts)	45.2	45.4	45.7	45.8	45.9	46.0
Short circuit current - Isc (Amps)	8.95	9.01	9.06	9.11	9.20	9.31
Max power voltage - Vpm (Volts)	36.4	36.7	37.1	37.4	37.7	37.8
Max power current - Ipm (Amps)	8.53	8.58	8.63	8.68	8.76	8.86
¹ The measurement tolerance of the rated power is ± 3%. The modules delivered are sorted in a range of ± 2.5 Wp. ² At low irradiance (200 W/m ² , 25°C and AM 1.5) the module yields at least 96% of the STC efficiency.						
Electrical data at 800 W/m ² ; NOCT, 1 m/s wind speed and AM 1.5						
Rated power (Pmax)	230	234	238	242	246	249
Open-circuit voltage (Voc)	42.2	42.3	42.5	42.6	42.7	42.9
Short-circuit current (Isc)	7.15	7.27	7.35	7.47	7.57	7.58
Rated voltage (Vmpp)	34.3	34.3	34.4	34.5	34.6	34.9
Rated current (Impp)	6.72	6.83	6.91	7.02	7.11	7.14
Thermal data						
Temperature coefficient open-circuit voltage						- 0.34 %/K
Temperature coefficient short-circuit current						+ 0.05 %/K
Temperature coefficient rated power						- 0.4 %/K
NOCT (normal operating cell temperature)						46° ± 2°C
Mechanical data						
Number of cells and cell type	72 Multi crystalline solar cells (156 mm x 156 mm)					
Dimensions: length x width x height	1970 mm x 990 mm x 35mm					
Weight	22 kg					
Front glass	3.2 mm high transmission, tempered glass					
Embedding	EVA					
Back sheet	Composite film, white					
Junction box	protection class IP 65/67					
Number of bypass diodes	3					
Cables	4 mm ² solar cables, length 1000 mm					
Connectors	MC4 compatible					
Permissible operating conditions						
Operating temperature range	- 40° C to 85° C					
Max. System voltage	1000 V DC					
Max. Reverse current	20 A					
Maximum surface load capacity	5400 Pa					
Resistance against hail	Max Ø 24 mm with impact speed of 83 km/h					
Protection class	II					

* Refer Emmvee standard warranty terms and conditions.
** On availability of stock

Note 1: The specification - graphical representation made herein may deviate slightly and are not guaranteed due to on-going innovation, research and product enhancement. We reserve the right to make any modifications 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.
Note 2: It is mandatory to make negative grounding of modules in all installation to avoid PID Issue.

