Power Series ($5W_p$ – $140W_p$)

TÜVRheinland STAR* Rated Company
★★★★★ for Quality

Manufacturing excellence

- Certified as per ISO 9001, ISO 14001, OHSAS 18001, SA 8000
- The only solar company in the world to be awarded a 5-Star rating for quality systems by TUV Rhineland two years in a row
- Wide range from 5W to 140W modules

Robust Design

- High quality, low iron, high tranmissivity, tempered and toughened glass to ensure high light absorption
- Premium quality encapsulation material ensuring high quality lamination and field warranties

Highest Safety Standards

- All modules pre-fabricated with mounting holes to ensure highest safety standards

Rigorous Quality Control

- Top-of-the-line manufacturing equipment from Europe and Japan backed by in-house reliability testing capabilities
- Certified as per IEC 61215 standards, IEC 61730, IEC 61701 (Salt mist corrosion test)

Best-in-Class Warranty

- Mechanical warranty of 5 years and a performance warranty of 10 years at 90% of rated output power and 15 years at 85% rated output power

Applications

"Power Series" modules are specifically designed for 'standalone solar systems'. They are commonly used for battery back-up systems and perform very efficiently in charging various types of batteries for solar applications like lead acid tubular batteries, flat plate batteries or sealed maintenance-free batteries.

- Residences
- Water Pumps
- Centralised Power Grids
- Remote Telecom installation
- Street Lights
- Lanterns & Solar Home Systems
- Obstruction Lighting
- Standalone Power Packs
- Vaccine Refrigeration

Power Series modules are designed for versatility in usage and are suitable for residential, commercial, industrial and customized applications like water pumps, street lights, solar power packs, solar home systems, telecom, obstruction lights etc.

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moserbaer Solar

ELECTRICAL CHARACTERISTICS	1205P	1210P	1220P	1230P	1240P		1250P	1260P			1275P		1285P	1100P	12125P	12140P
Nominal Power at STC, P_{max} (W)	5	10	20	30	40	45	50	60	65	70	75	80	85	100	125	140
Power Max @16.4V			18		37		45				74					
Current at Pmax, I_{mp} (A)	0.29	0.59	1.18	1.76	2.35	2.65	2.94	3.53	3.82	4.12	4.41	4.71	5.00	5.88	7.18	7.68
Short Circuit Current, I_{sc} (A)	0.35	0.70	1.40	2.10	2.80	3.15	3.50	4.20	4.55	4.90	5.25	5.60	5.95	6.80	7.59	8.24
Voltage at Pmax , V_{mp} (V)	17														17.8	18.35
Open circuit voltage, V_{oc} (V)	21														21.6	22.40
NOCT (°C)	47														47	45 ± 2
Maximum System Voltage (VDC)	600														1000	1000
Temperature Coefficient of P_{max} (°K)	-0.43														-0.50	-0.45 ± 0.05
Temperature Coefficient of V_{oc} (°K)	-0.344														-0.35	-0.35 ± 0.05
Temperature Coefficient of I_{sc} (°K)	0.11														0.07	-0.115 ± 0.005
Operating Temperature (°C)	-40 to +85															
Storage Temperature (°C)	-40 TO +85															
Standard Test Conditions	Irradiance 1000 W/m², Module temperature at 25°C and AM 15G Spectrum															

MECHANICAL CHARACTERISTICS	1205P	1210P	1220P	1230P	1240P	1250P	1260P	1275P	1285P	1100P	12125P	12140P
Number of Cells	36	36	36	36	36	36	36	36	36	72	72	36
Arrangement of Cells	18x2	9x4	9x4	9x4	9x4	9x4	9x4	9x4	9x4	9x8	9x8	6x6
Cell Size in mm	15x78	26x78	52x78	33x156	52 x156	65 x156	78 x156	105 x156	104 x156	63 x156	78 x156	156x156
Cell Type	Multi Crystalline Cells											
Dimensions (LxWxT) (mm)	359x197x26	305x357x26	539x357x26	539x666x35	539x665x35	666x667x33	793x665x33	1014x666x33	1014x666x33	1353x813x40	1353x813x40	1025x991x37
Weight (kgs)	0.9	1.5	2.5	2.5	4.1	5.5	6.1	7.6	7.6	13.3	13.3	11.5
Frame	Anodized aluminium frame, single channel and screw-fitted											
Front Glass	Low iron, tempered and textured glass 3.2 mm (0.126")											
Junction box*	2/3 terminal junction box											IP 65 rated 4 terminal
Mounting hole	Elliptical and 4 nos (9x7mm)											

*2 terminal for (5Wp – 20Wp) and 3 terminal for (30Wp – 80Wp)

www.moserbaersolar.com
Email: pvinfo@moserbaer.in