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# Solar Panel Guide Specification Data Sheet

Moser Baer Solar Limited Max Series 200-245 CAAP BB230

Also available on the web at EnergyPal.com/moser-baer-solar-limited-solar-panels/caap-bb230



**TÜV**Rheinland <mark>STAR</mark> Rated Company

\* \* \* \* for Quality

# Max Series (200 W<sub>p</sub> - 245W<sub>p</sub>) Model No: CAAP-BB



- High Energy Yields (kWh/kWp) Best-in-class diffused light response leading to less power degradation and delivering one of the lowest levelized costs
- Rigorous Quality Control The only solar company in the world to be awarded a 5-star rating for quality systems by TUV two years in a row
- Manufacturing Excellence Top-of-the-line manufacturing equipment from Europe and Japan backed by in-house reliability testing capabilities
- ▶ Highest Safety Standards Conform to IEC,UL & CE standards
- Robust Design Anodized frames ensure protection in allweather-conditions. High quality, low iron, high transmissivity, tempered and textured glass to ensure higher light absorption
- Extended Mechanical Warranty Modules come with 10 years mechanical warranty against manufacturing defects with performance warranty of 12 years at 90% of rated output power and 25 years at 80% of rated output power
- Ease of Installation UL and IEC approved IP65 rated junction box, pre-fitted with cables and plug & play connectors for quick and safe installation
- Superior aesthetics Uniform cell color and high quality anodization on the frames
- Certifications: IEC 61215 (Edition II), IEC 61730 (Safety Class II), UL (USA & Canada), CE, CEC Listed, JET, MCS, IEC 61701 (Salt mist corrosion test), Ammonia Resistance Test



Max Series modules are specifically designed to generate optimum energy from sunlight and can withstand the roughest of conditions. These can be used in a variety of applications suited for residential, commercial and industrial purposes.

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#### ELECTRICAL CHARACTERISTICS 200W 205W 210W 215W 220W 225W 230W 235W 240W 245W

Maximum Power, P <sub>max</sub> (W)	200	205	210	215	220	225	230	235	240	245
Voltage at Pmax, V <sub>mp</sub> (V)	28.02	28.29	28.58	28.79	29.03	29.27	29.50	29.83	30.16	30.67
Current at Pmax, I <sub>mp</sub> (A)	7.14	7.25	7.35	7.47	7.58	7.69	7.80	7.88	7.96	7.99
Open Circuit Voltage $V_{oc}$ (V)	36.05	36.25	36.38	36.50	36.64	36.95	37.25	37.41	37.65	37.77
Short Circuit Current I <sub>sc</sub> (A)	7.95	7.99	8.04	8.07	8.14	8.23	8.34	8.44	8.49	8.55
Temperature Coefficient of P <sub>max</sub> (%/K)	-0.45									
Temperature coefficients of $V_{oc}$ (%/K)	-0.35									
Temperature coefficients of I <sub>sc</sub> (%/K)	0.05									
Power Tolerance (%)	±3									
Maximum System Volatge (IEC/UL) (V DO	.) 1000/600									
Cells per By-pass Diode (Nos)	20									

• Standard Test Conditions (STC): Irradiance 1000 W/m<sup>2</sup>, Module temperature at 25°C and AM 1.5G Spectrum • Max Series fuse ratings: 15A • Operating Temperature (°C): (-)40 to (+)85

• NOCT (Nominal Operating Cell Temperature) (°C) 45.0±2

ENVIRONMENTAL TEST CONDITIONS

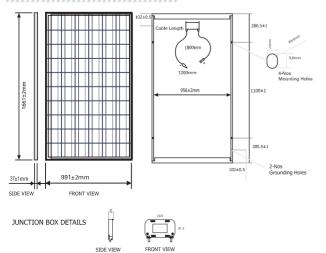
ENVIKUNMENIAL LEST CONDITIONS Operating Temperature (temperature cycling range): (-)40°C to (+)85°C for 200 cycles Static Load Front and Back (e.g. wind): 50 lbs/ft<sup>2</sup> or 2400 Pa Impact Resistance (e.g. hail): 25mm at 23 m/s at 11 impact locations Humidity Freeze, Damp Heat: 85°C and 85 % relative humidity for 1000 hours Front Loading (e.g. snow): 113 lbs/ft<sup>2</sup> or 5400 Pa

## MECHANICAL CHARACTERISTICS

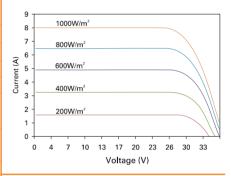
Number and Arrangement of Cells 156mmx156mm Multicrystalline Silicon Cells,

	6x10 configuration		
Dimensions (mm)	1661 x 991 x 37		
Weight (kgs)	18.7		
Frame	Anodized aluminum frame with twin-wall profile		
Anodization Thickness	17 µm		
Front Glass	High transmission, low iron, tempered and		
	textured glass, 3.2mm		
Junction Box	IEC/ UL approved IP65 rated 4 terminal junction		
	box with 3 by-pass diodes (15A, 45V)		
Output Cables	USE-2 Solar cables, 4mm <sup>2</sup> cross-section,		
	asymmetric length 800mm x 1200mm		
Type of Connector	Low resistance, IEC/UL approved (compatible		
	with MC4)		
Mounting Holes	Elliptical and 4 nos (9mm x 7mm)		
Grounding Hole	Circular and 2 nos (4mm dia) – In accordance with		
	NEC Article 250 (USA) or CEC (Canada)		

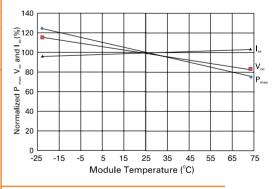
### ENGINEERING DRAWING



#### **IV CURVES AT VARIOUS IRRADIANCE LEVELS AT 25°C**



#### P<sub>MAX</sub>, V<sub>oc</sub>, I<sub>sc</sub> AS A FUNCTION OF **MODULE TEMPERATURE**



#### PACKAGING

1690 x 750 x 1163
18
42 (756 modules)
372

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