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# **EnergyPal**

**Solar Panel Guide  
Specification Data Sheet**

**Moser Baer Solar Limited  
Power Series QS  
Bin 90W**

Also available on the web at  
[EnergyPal.com/moser-baer-solar-limited-solar-panels/bin-90w](http://EnergyPal.com/moser-baer-solar-limited-solar-panels/bin-90w)

# Power Series QS Amorphous Silicon Thin Film Modules



## We are Moser Baer Solar

Power Series QS Amorphous Silicon Thin Film solar modules are manufactured in highly automated, state-of-the-art facilities. The frameless Glass-PVB-Glass modules are available in 1300x1100mm<sup>2</sup> (51.181x43.307") configuration offering a range of power outputs. Automated inspection and in-house technical expertise ensures tight tolerances and greater reliability with world-class quality. These modules provide cost-effective solar photovoltaic solutions that are ideal for large grid-connected and rooftop systems.

### Product Features

- Power Series QS Amorphous Silicon Thin Film solar modules are available from stabilized power of 84 W, 86 W, 88 W, 90 W & 92 W bins
- Frameless Glass-PVB-Glass modules with highly translucent and low iron front glass
- Modules are fitted with CE and UL approved MC junction box with Schottky by-pass diode
- Bonded rails comprises galvanized aluminium and come with pre-drilled holes and brackets for ease of mounting
- Made from non-toxic materials and are easily recyclable

### Performance

- Deliver stabilized power enabled by a high efficiency CVD process
- Offer robust performance under a diverse set of climatic conditions
- Excellent performance under diffuse (low) light and indirect sunlight conditions

### Quality

- 100% inspection for mechanical and visual defects with continued monitoring of electrical performance
- Six Sigma practices used in manufacturing line
- Certified as per: ISO 9001, ISO 14001, OHSAS 18001, SA 8000, Awarded a 5-Star Rating from TUV Rheinland along with 100% rating for Quality Systems
- Tested by leading international institutes and certified for reliability and safety
  - Certified for IEC 61646, IEC 61730, CE, UL 1703\*

### Warranty

- Defect-free material and workmanship with 5 year limited warranty
- Performance guarantee
  - 10 years at 90% of minimum stabilized rated output power
  - 25 years at 80% of minimum stabilized rated output power

\*Certification under way

\*Certifications have been issued under the product code of MBTF 85 / MBTF 100

# Power Series QS

## Amorphous Silicon Thin Film Modules

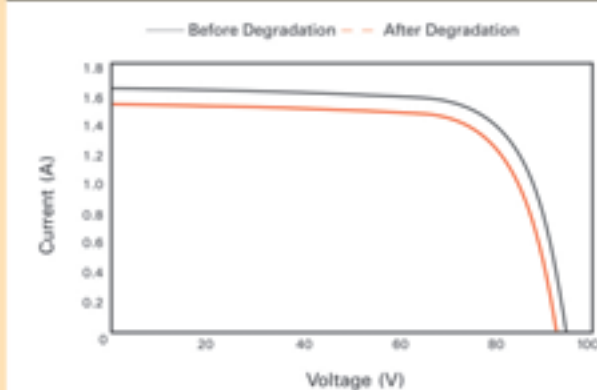
Electrical Characteristics	Bin 84 W	Bin 86 W	Bin 88 W	Bin 90 W	Bin 92 W
Maximum Power (Initial/Stabilized) (W)	101 / 84	103 / 86	105 / 88	108.04 / 90	110.32 / 92.0
Power Output Tolerance (%)	± 5	± 5	± 5	± 5	± 5
Open Circuit Voltage, $V_{oc}$ (V)	94.6 / 92.5	94.4 / 92.3	94.7 / 92.6	93.9 / 91.8	94.5 / 92.4
Short Circuit Current, $I_{sc}$ (A)	1.51 / 1.42	1.55 / 1.45	1.57 / 1.47	1.66 / 1.56	1.67 / 1.57
Maximum Power Voltage, $V_{mp}$ (V)	76.1 / 71.6	76.1 / 72.0	77.0 / 72.8	74 / 70	75.05 / 71.00
Maximum Power Current, $I_{mp}$ (A)	1.32 / 1.17	1.36 / 1.20	1.37 / 1.21	1.46 / 1.29	1.47 / 1.3
Maximum System Voltage (V)	1000	1000	1000	1000	1000

Mechanical Characteristics	Units	
Dimensions (LxW)	mm/inches	1300x1100/51.181x43.307
Surface Area	m <sup>2</sup> /inches <sup>2</sup>	1.43/2216.504
Thickness*	mm/inches	7.5/0.295
Weight**	Kgs/lbs	25/55

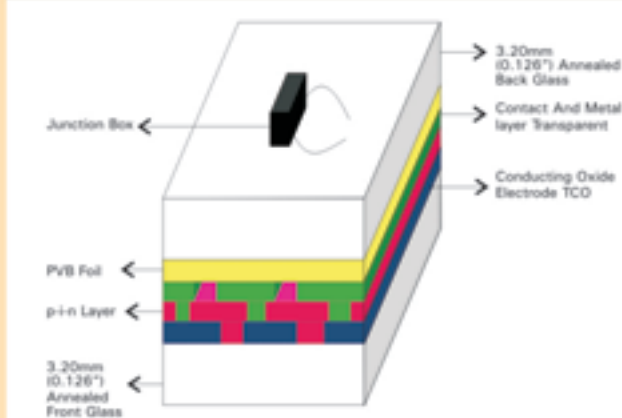
\* Without Junction Box

\*\* Without rails

Typical IV Characteristics (before and after degradation) measured at AM 1.5 and 25°C cell temperature



Cross-section of a-Si thin film module

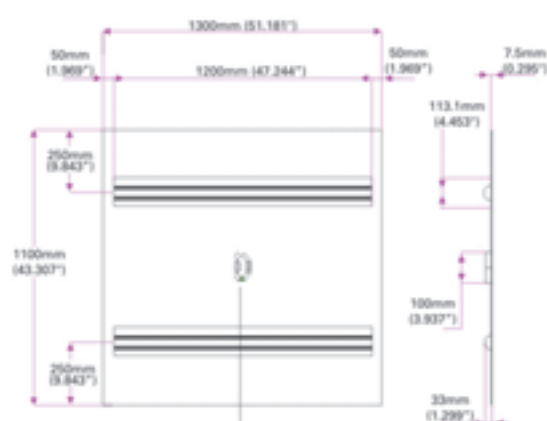


\* Thickness not to scale

Temperature Coefficient	Units	
Maximum Power	%/°C	-0.2
Open Circuit Voltage	%/°C	-0.33
Short Circuit Current	%/°C	0.09
Maximum Power Voltage	%/°C	-0.32
Maximum Power Current	%/°C	0.14

Operating temperature range: (-40°C to +105°C)

Dimensions of 1300x1100 mm<sup>2</sup>/51.181"x43.307" module



Zoom out view



\* Specifications are subject to change without notice