Power Series FS
Amorphous Silicon Thin Film Modules

We are
Moser Baer Solar







Power Series FS Amorphous Silicon Thin Film Modules are manufactured in highly automated, state-of-the-art facilities. The frameless Glass-PVB-Glass modules are available in 2600mmx2200mm (102.362"x86.614") 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 FS Amorphous Silicon Thin Film Modules are available from stabilized power of 350 W, 360 W, 370 W, 380 W, 390 W & 400 W bins
- Single junction Amorphous Silicon (a-Si) Technology based modules with monolithic cell-to-cell serial connection enabled via laser technology
- Frameless Glass-PVB-Glass modules with highly translucent soda lime glass
- Modules are fitted with CE and UL approved MC junction box with Schottky by-pass diode
- Modules come with bonded back rails and rivets 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
- MBSL is certified as per: ISO 9001, ISA 14001, OHSAS 18001, SA 8000 Awarded a 5-star rating by TUV Rheinland with 100% rating for Quality Systems
- Tested by leading international institutes and certified for reliability and safety
  - o Certified for IEC 61646, IEC 61730, CE, UL 1703*, IEC 61701

Warranty

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

*Certification under way
*Certifications have been issued under the product code of MBTF 340 / MBTF 400

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Power Series FS
Amorphous Silicon Thin Film Modules

Electrical Parameters Initial / Stable	Units	Bin 350 W	Bin 360 W	Bin 370 W	Bin 380 W	Bin 390 W	Bin 400 W
Maximum Power	W	418 / 350	430 / 360	442 / 370	454 / 380	466 / 390	478 / 400
Power Output Tolerance	%	± 3	± 3	± 3	± 3	± 3	± 3
Open Circuit Voltage, V_{oc}	V	187.2 / 184.2	189.4 / 186.4	190.1 / 187.1	190.9 / 187.8	192.8 / 189.7	195.0 / 191.9
Short Circuit Current, I_{sc}	A	3.45 / 3.29	3.45 / 3.29	3.44 / 3.28	3.42 / 3.27	3.42 / 3.27	3.44 / 3.28
Maximum Power Voltage, V_{mp}	V	141.1 / 133.6	144.6 / 136.9	148.0 / 140.2	151.4 / 143.4	154.3 / 146.1	157.0 / 148.7
Maximum Power Current, I_{mp}	A	2.96 / 2.62	2.98 / 2.63	2.99 / 2.64	3.00 / 2.65	3.02 / 2.67	3.04 / 2.69
Maximum System Voltage	V	1000	1000	1000	1000	1000	1000

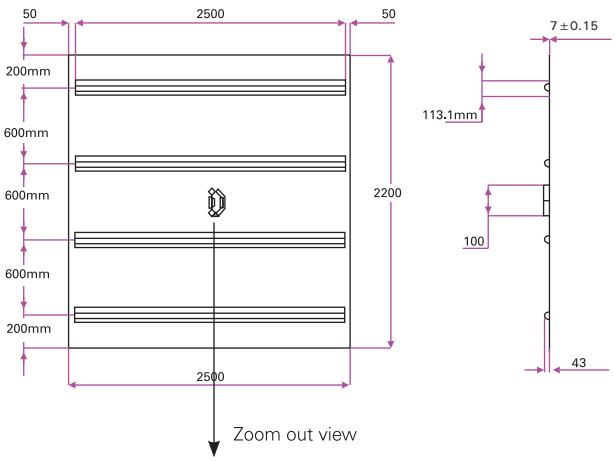
Mechanical Characteristics	Unit	
Dimensions (LxW)	mm	2600x2200
Surface Area	m^2	5.72
Thickness*	mm	7±0.15
Weight **	kgs	100

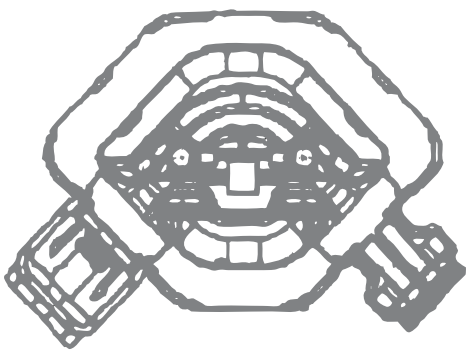
* Without Junction Box
** Without rails

Temperature Coefficient	Unit	
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

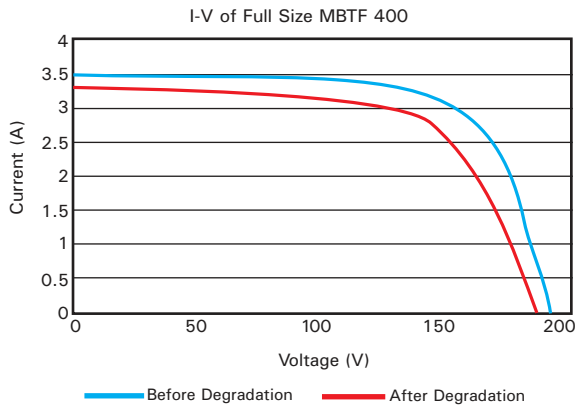
Operating temperature range: -40°C to +85°C

Dimensions for 2600mmx2200mm (102.362"x 86.614") module

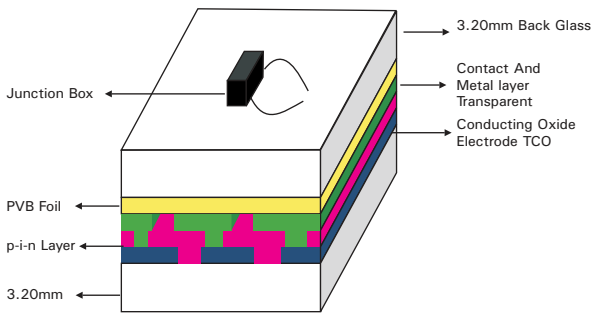




I-V Curve of a typical Full Size MBTF 400 taken at STC (before & after degradation)



Cross Section of a-Si Thin Film Photovoltaic Module



*Thickness not to scale

* Specifications are subject to change without notice