

TP180 SERIES

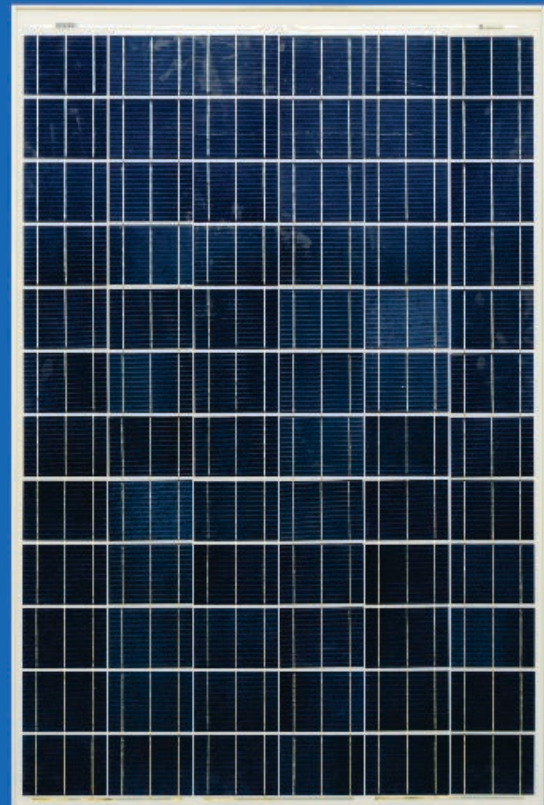
Multi-crystalline solar PV modules

Tata Power Solar, previously called Tata BP Solar, is the oldest integrated solar technology company in India. It was founded in 1989 as a joint venture between Tata Power and British Petroleum Solar. Tata Power Solar has shipped over 700 MW of solar modules till date with international certifications. It has also earned the distinction of being the "most preferred supplier" from many of its customers in Europe, USA, India and other countries. Tata Power Solar's modules have earned a reputation for their unmatched quality and reliability.

Headquartered in Bangalore, India, Tata Power Solar's state-of-the-art cell and module manufacturing facilities are capable of producing 200 MW modules per year in various sizes (upto 300 watts) and configurations (36, 60 and 72 cells). This also includes small and large area modules for multiple segments such as in large projects, industrial solutions and standard power packs. Their sophisticated 180 MW cell manufacturing lines can process both mono and multi-crystalline wafers of 125 mm and 156 mm size.

MODULE FEATURES

- ◆ High energy yield anti-reflective glass (ARC glass)
- ◆ High fill factor results in improved energy conversion efficiency
- ◆ Ultra-soft interconnect with stress relief helps enhance reliability
- ◆ Optimized edge clearance for high quality rugged design
- ◆ Torsion and corrosion resistant anodized aluminium frame
- ◆ Ability to withstand high wind pressure and snow loads
- ◆ Leading quality with unique output termination using spot soldering for improved product longevity and reliability
- ◆ Unique back sheet design enabling use even under corrosive environments



IEC & UL Certified*



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IEC61215 Edition2 and UL1703-2002 certified

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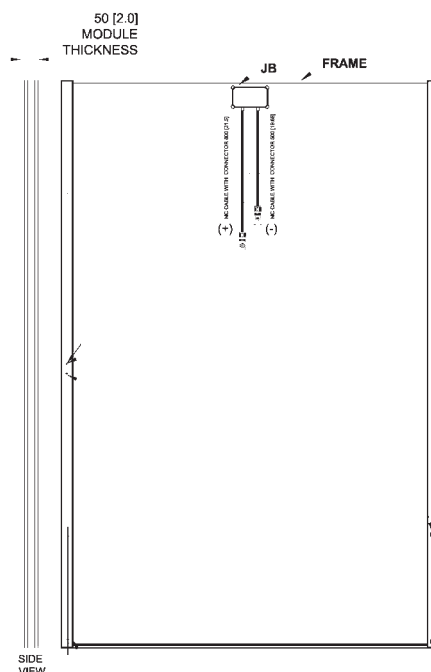
Electrical parameters at standard test conditions (STC)**						
PRODUCT RANGE	MODEL NO	TP180	TP185	TP190	TP195	TP200
POWER OUTPUT	P _{MAX} (W)	180	185	190	195	200
POWER TOLERANCE	P _{MAX} (W)	±10	±10	±10	±10	±10
MODULE EFFICIENCY	η (%)	12.0	12.3	12.6	13.0	13.3
VOLTAGE AT P _{MAX}	V _{MPP} (V)	35.8	36.0	36.2	36.4	36.6
CURRENT AT P _{MAX}	I _{MPP} (A)	5.03	5.14	5.25	5.36	5.46
OPEN-CIRCUIT VOLTAGE	V _{OC} (V)	43.6	43.8	44.0	44.2	44.4
SHORT-CIRCUIT CURRENT	I _{SC} (A)	5.48	5.55	5.62	5.68	5.79

Electrical parameters at NOCT**						
POWER OUTPUT, P _{MAX}	(W)	129.6	133.2	136.8	140.4	144.0
VOLTAGE AT P _{MAX} , V _{MPP}	(V)	31.8	32.0	32.2	32.4	32.6
CURRENT AT P _{MAX} , I _{MPP}	(A)	4.12	4.21	4.31	4.40	4.48
OPEN-CIRCUIT VOLTAGE, V _{OC}	(V)	38.8	39.0	39.2	39.3	39.5
SHORT-CIRCUIT CURRENT I _{SC}	(A)	4.49	4.55	4.61	4.66	4.75

Operating conditions**	
MAXIMUM SYSTEM VOLTAGE (UL & IEC) (V)	600 & 1000
OPERATING TEMPERATURE RANGE (°C)	-40 and +85
MAXIMUM STATIC LOAD, FRONT (SNOW OR WIND)	113 psf (5400 Pa)

Module general characteristics	
MODULE DIMENSIONS L/W/H-[mm]	1587 x 790 x 50
MODULE WEIGHT (APPROXIMATE) KG	16
NUMBER OF CELLS & SIZE	72 cells & 125mm
FRAME MATERIAL	Silver Anodized Aluminium
TEMPERED GLASS	3.2mm (ARC)
Substrate	PET White

TP180 Module Drawing, dimensions mm [inch]



junction box with flying leads and MC4 compatible connector