



## TRINA TSM-PC05, 200W to 220W Solar Photovoltaic Module

### TYPICAL ELECTRICAL CHARACTERISTICS

Type	TSM	200-PC05	210-PC05	220-PC05
Max-Power	P <sub>m</sub> (W)	200	210	220
Power Tolerance	(%)	±3	±3	±3
Max-Power Voltage	V <sub>m</sub> (V)	28.7	29.7	29.8
Max-Power Current	I <sub>m</sub> (A)	6.97	7.19	7.39
Open-Circuit Voltage	V <sub>oc</sub> (V)	36.0	36.4	36.8
Short-Circuit Current	I <sub>sc</sub> (A)	7.75	7.86	8.00
Max-System Voltage	(VDC)		1000	
Cell Efficiency	η <sub>c</sub> (%)	13.7	14.4	15.1
Module Efficiency	η <sub>m</sub> (%)	12.2	12.8	13.4
Number, type and arrangement of cells		60 pcs. Multi-Crystalline Silicon (6x10)		
Cell Size	(mm)		156 X 156	
No. of Bypass Diodes	(pcs.)		6	
Max. Series Fuse	(A)		11	
P <sub>m</sub> Temperature Coefficient	(%/°C)		- 0.45	
I <sub>sc</sub> Temperature Coefficient	(%/°C)		0.05	
V <sub>oc</sub> Temperature Coefficient	(%/°C)		- 0.35	
NOCT- Nominal Operating Cell Temperature	(°C)		47±2	

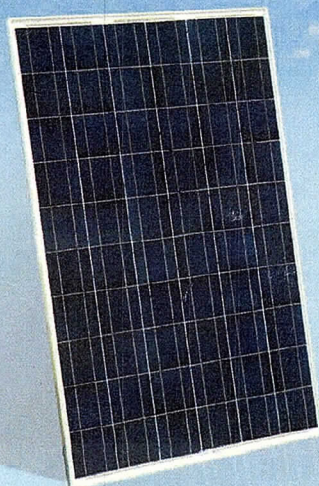
### STRENGTHS

- Tolerance ± 3%
- 3 Bus Bar Configuration
- Plug & Play Connectors
- High Transmission, Low Iron Tempered Glass

### WARRANTY

Manufacturing: 5 years  
Power production: 90% : 10 years  
80% : 25 years

### CERTIFICATIONS



High Efficiency Multicrystalline Solar Modules

### MECHANICAL CHARACTERISTICS

Cable type, Diameter and Length		4mm <sup>2</sup> , TÜV certified, 900mm
Type of Connector		Compatible Type III and Type IV
Dimension A*B*C	(mm)	1650*992*46
Weight	(Kg)	19.5
No. of Draining Holes In Frame		8
Glass, Type and Thickness		High Transmis., Low Iron, Tempered Glass 3.2mm.

### PACKAGING CONFIGURATION

Packing Configuration	2 pcs./box or 20 pcs./box
Quantity/Pallet	36 pcs/pallet or 20 pcs/pallet
Loading Capacity	504 pcs/40ft or 520 pcs/40ft(H)

### ABSOLUTE RATINGS

Dielectric Insulation Voltage	(VDC)	3000 max.
Operating Temperature	(°C)	-40~+85
Storage Temperature	(°C)	-40~+85

\*STC Conditions(1000W/m<sup>2</sup>; 1.5 AM and 25°C Cell temperature)



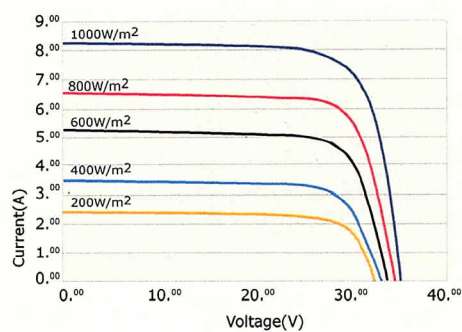
**Trina**solar

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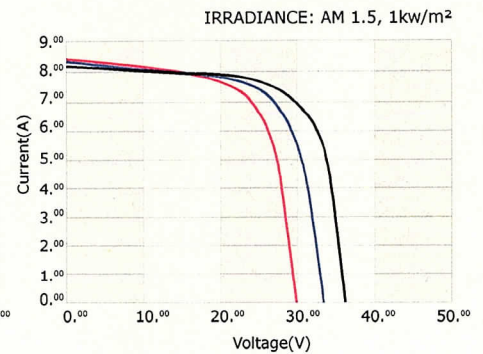
Solar Photovoltaic Module

### I-V Curves

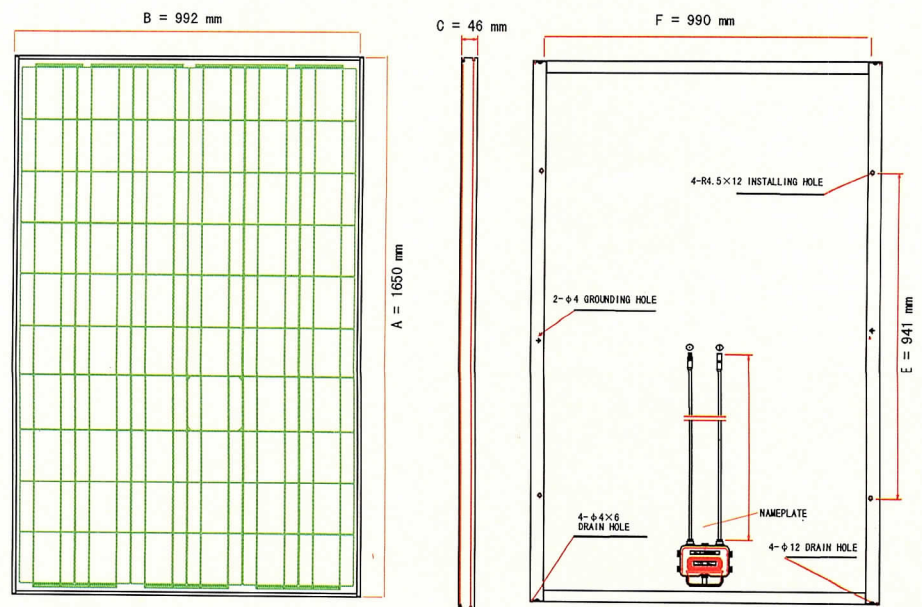
I-V Curves of PV module TSM-220-PC05



I-V Curves of Module TSM-220-PC05 at various cell temperatures



### Dimensions



Dimensions (mm)	A*B*C	1650*992*46
Installation Hole (mm)	E*F	990*941
Cable Length (mm)	G	1000

\* The company is not responsible for potential typing errors.