

TRINA TSM- P05, 200W to 220W Photovoltaic Solar Module

STRENGTHS

- Tolerance $\pm 3\%$
- High Transmission: Low Iron Tempered Glass
- 6 Bypass Diode Integrated
- Plug & Play Connectors

WARRANTY

- Product: 2 years
- Production: 90%-----10 years
80%-----25 years

CERTIFICATIONS



High Efficiency Multicrystalline Solar Modules

TYPICAL ELECTRICAL CHARACTERISTICS

Typical Type	P05	TSM-200	TSM-210	TSM-220
Max-Power and Tolerance	Pm(W)	200	210	220
Power Tolerance	(%)	± 3	± 3	± 3
Max-Power Voltage	Vm(V)	28.7	29.2	29.8
Max-Power Current	Im(A)	6.97	7.19	7.39
Open-Circuit Voltage	Voc(V)	36.0	36.4	36.8
Short-Circuit Current	Isc(A)	7.75	7.86	8.00
Max-System Voltage	(VDC)	1000		
Cell Efficiency	$\eta_c(\%)$	13.7	14.4	15.1
Module Efficiency	$\eta_m(\%)$	12.2	12.8	13.4
Type, Number and Array of Cells		Multi-Crystalline Silicon, 60 in series (6x10)		
Cell Size	(mm)	156 X 156		
Cable Type, Diameter and Length		4mm ² , TÜV certified, 1000mm		
Type of Connector		Compatible with Type III and Type IV		
No. of Bypass Diodes		6 pcs (2 in parrallel)		
Max. Series Fuse	(A)	11		
Pm Temperature Coefficient	(%/°C)	- 0.45		
Isc Temperature Coefficient	(%/°C)	0.05		
Voc Temperature Coefficient	(%/°C)	- 0.35		
Nom. Operating Temp. of Cells	(°C)	47 \pm 2		

MECHANICAL CHARACTERISTICS

Dimension	A*B*C	(mm)	1650*992*46
Weight		(Kg)	19.5
No. of Draining Holes In Frame			8
Front Glass, Type and Thickness			Low Iron Tempered Glass 3.2mm.
Packing Configuration			2 in 1 or 20 in 1
Quantity/Pallet			36 pcs/pallet or 20pcs/pallet
Loading Capacity			504 pcs/40ft or 520pcs/40ft(H)

ABSOLUTE RATINGS

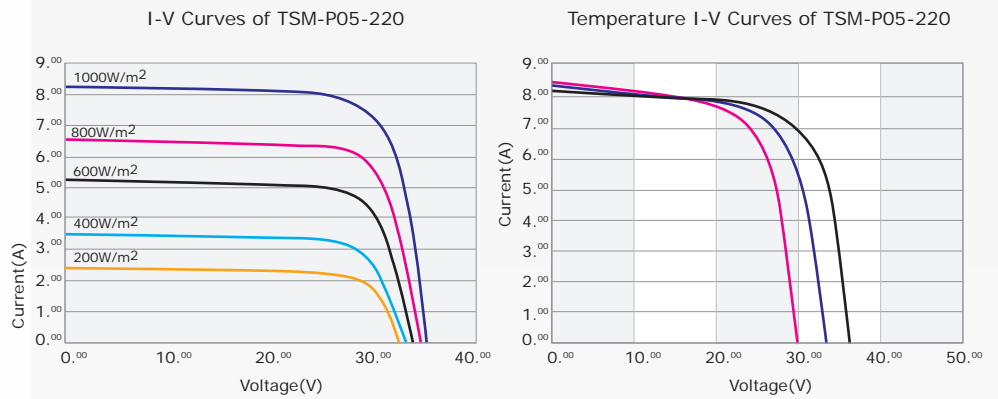
Dielectric Insulation Voltage	(VDC)	3000 max.
Operational Temperature	(°C)	-40~+85
Package Temperature	(°C)	-40~+85

*STC Conditions(1000W/m²; 1.5 AM and 25°C Cell temperature)

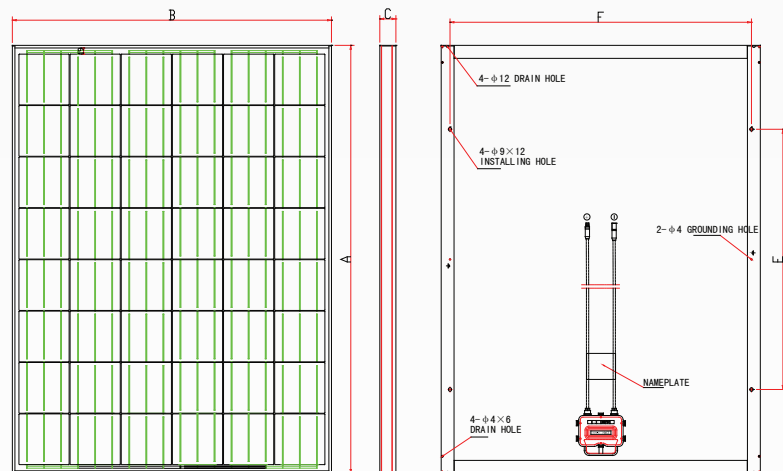


TRINA TSM- P05 200W to 220W Photovoltaic Solar Module

I-V Curves



Dimensions



Dimensions (mm) A*B*C	1650*992*46
Installation Hole (mm) E*F	990*941
Cable Length (mm) G	1000
Cable Diameter (mm)	Φ9×12
Test Conditions	STC:AM=1.5, 1000W/m ² , Cells Temperature 25°C