

## TRINA TSM-D01, 160W to 180W

### Photovoltaic Solar Module

#### STRENGTHS

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

#### WARRANTY

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

#### CERTIFICATIONS



Suitable for On Grid and Off Grid Systems

#### TYPICAL ELECTRICAL CHARACTERISTICS

Typical Type	D01	TSM-160	TSM-165	TSM-170	TSM-175	TSM-180
Max-Power and Tolerance	Pm(W)	160	165	170	175	180
Power Tolerance	(%)	$\pm 3$	$\pm 3$	$\pm 3$	$\pm 3$	$\pm 3$
Max-Power Voltage	Vm(V)	34.9	35.6	35.8	36.2	36.8
Max-Power Current	Im(A)	4.60	4.65	4.76	4.85	4.90
Open-Circuit Voltage	Voc(V)	42.8	43.2	43.6	43.9	44.2
Short-Circuit Current	Isc(A)	5.15	5.20	5.25	5.30	5.35
Max-System Voltage	(VDC)	700 or 1000				
Cell Efficiency	$\eta_c$ (%)	15.0	15.4	15.9	16.4	16.8
Module Efficiency	$\eta_m$ (%)	12.5	12.9	13.3	13.7	14.1
Number, Type and Arrangement of Cells		72pcs. Mono-crystalline Silicon (6 X12)				
Cell Size	(mm)	125 X 125				
Cable type, Diameter and Length		4mm <sup>2</sup> , TÜV certified, 900mm				
Type of Connector		Compatible Type III and Type IV				
No. of Bypass Diodes		3 pcs.				
Max. Series Fuse	(A)	7				
Pm Temperature Coefficient	(%/°C)	- 0.45				
Isc Temperature Coefficient	(%/°C)	0.05				
Voc Temperature Coefficient	(%/°C)	- 0.35				
NOCT- Nominal Operating Cell Temperature	(°C)	47 $\pm$ 2				

#### MECHANICAL CHARACTERISTICS

Dimension	A*B*C	(mm)	1581*809*40
Weight		(Kg)	15.6
No. of Draining Holes In Frame			4
Front Glass, Type and Thickness			High Transmis., Low Iron, Tempered Glass 3.2mm.
Packing Configuration			2 in 1 or 23 in 1
Quantity/Pallet			38 pcs/pallet or 23 pcs/pallet
Loading Capacity			532 pcs/40ft or 644pcs/40ft(H)

#### ABSOLUTE RATINGS

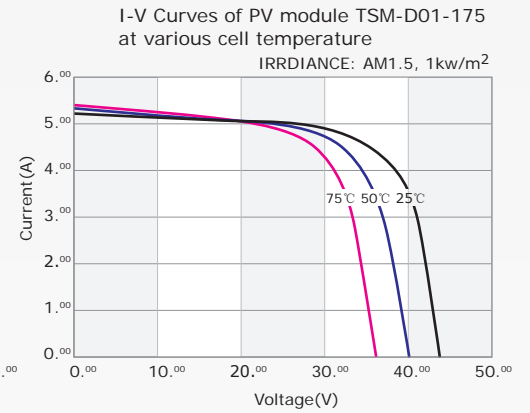
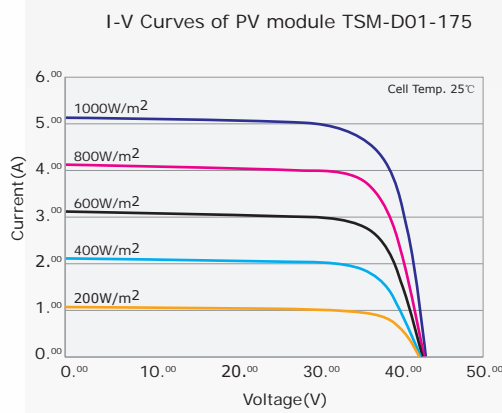
Dielectric Insulation Voltage	(VDC)	3000 max.
Operating Temperature	(°C)	-40~+85
Storage Temperature	(°C)	-40~+85

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

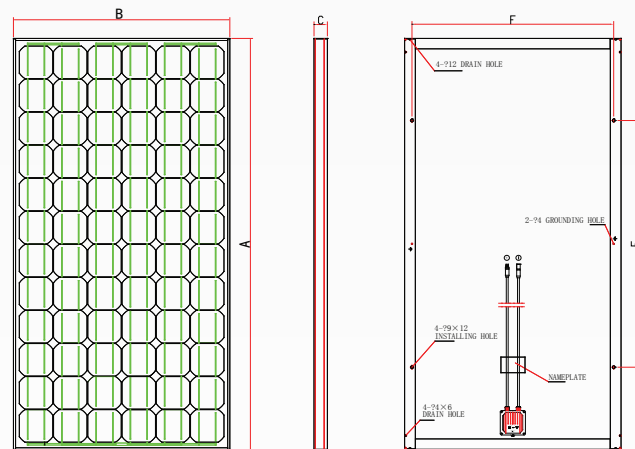
# TRINA TSM-D01, 160W to 180W Photovoltaic Solar Module



## I-V Curves



## Dimensions



Dimensions (mm) A*B*C	1581*809*40
Installation Hole (mm) E*F	948*754
Cable Length (mm) G	900
Diameter of the Hole (mm)	Φ9x12
Test Conditions	STC: AM=1.5, 1000W/m <sup>2</sup> , Cells Temperature 25°C