

# Trinamount II - For pitched roof

by Trinasolar

Combining PV module expertise with a highly innovative mounting system solution, Trina Solar is introducing the Trinamount—the fastest, easiest and least expensive way to mount PV modules onto residential and commercial rooftops.

With a series of drop-in and quarter-turn connections on a specialized module frame, this mounting solution installs up to 5 times faster than conventional mounting systems.

Trinamount connects directly to the module frame, eliminating the need for long rails. By drastically reducing the number of parts, cost of materials and installation time, Trinamount offers the optimal solution for residential and commercial installations.



Fast and simple to install through drop in mounting solution



Low parts and SKU count in comparison to conventional mounting solutions



Superior aesthetic solution for residential rooftops



Long rail elimination reduces inventory and freight cost



Theft resistant and auto grounding hardware



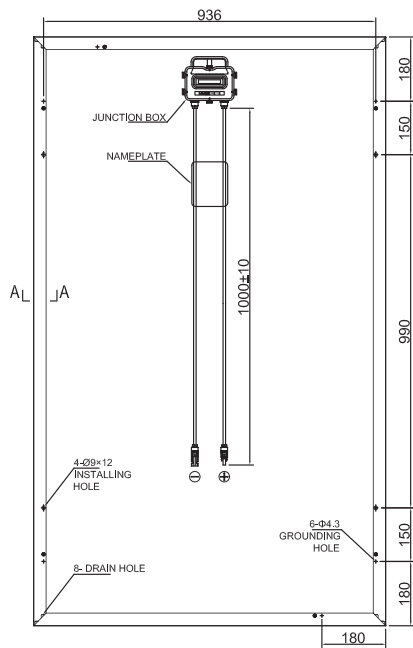
Compact packaging with module and mounting hardware delivered on pallet

Applications:

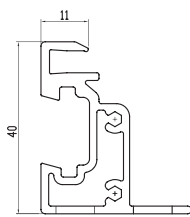
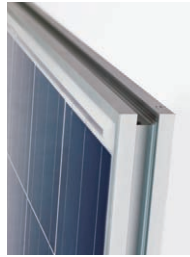
- corrugated metal

## Trinamount II - For pitched roof TSM-PC05/PA05.10

## Dimensions of PV module TSM-PC05/PA05.10

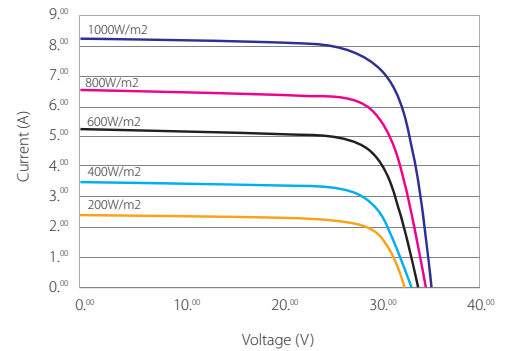


Back View



A-A

## I-V Curves of PV module TSM-230PC05/PA05.10



Efficiency up to 14.7%

Wattage up to 240W

Years warranty 25

## Certification (in progress)



in progress

Electrical Data @ STC	TSM-220 PC05/PA05.10	TSM-225 PC05/PA05.10	TSM-230 PC05/PA05.10	TSM-235 PC05/PA05.10	TSM-240 PC05/PA05.10
Peak Power Watts- $P_{MAX}$ (WP)	220	225	230	235	240
Power Output Tolerance- $P_{MAX}$ (%)	0/+3	0/+3	0/+3	0/+3	0/+3
Maximum Power Voltage- $V_{MAX}$ (V)	29.0	29.4	29.8	30.1	30.4
Maximum Power Current- $I_{MPP}$ (A)	7.60	7.66	7.72	7.81	7.89
Open Circuit Voltage- $V_{OC}$ (V)	36.8	36.9	37.0	37.1	37.2
Short Circuit Current- $I_{SC}$ (A)	8.15	8.20	8.26	8.31	8.37
Module Efficiency $\eta_m$ (%)	13.4	13.7	14.1	14.4	14.7

Values at Standard Test Conditions STC (Air Mass AM1.5, Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C)

## Mechanical Data

Solar cells	Multicrystalline 156 x 156mm (6 inches)
Cells orientation	60 cells (6x10)
Module dimension	1650 x 992 x 40mm (64.95 x 39.05 x 1.57inches)
Weight	19.5kg (43.0lb)
Glass	High transparency solar glass 3.2mm (0.13inches)
Frame	Anodized aluminium alloy
J-Box	IP 65 rated
Cables/Connector	Photovoltaic Technology cable 4.0mm <sup>2</sup> (0.006inches <sup>2</sup> ), 1000mm (39.4inches), MC4

## Temperature Ratings

Nominal Operating Cell Temperature (NOCT)	46°C (±2°C)
Temperature Coefficient of $P_{MPP}$	- 0.45%/°C
Temperature Coefficient of $V_{OC}$	- 0.35%/°C
Temperature Coefficient of $I_{SC}$	0.05%/°C

## Maximum Ratings

Operational Temperature	-40~+85°C
Maximum System Voltage	1000/600VDC
Max Series Fuse Rating	15A

## Warranty

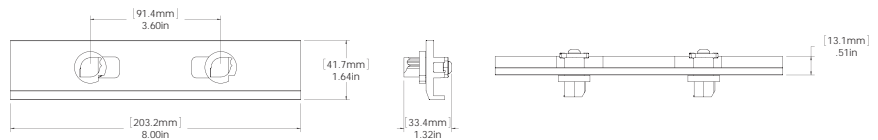
5 years workmanship warranty
10 years warranty, 90% power output
25 years warranty, 80% power output

## Packaging Configuration

Modules per box	25 pcs
Modules per 40' container	650pcs

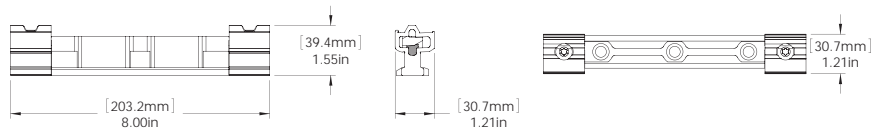
## Basic Hardware

### Interlock



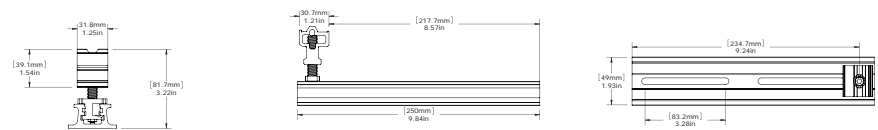
The Interlock provides north-south and east-west structural and ground bond connections creating a structurally contiguous hyper-bonded array. ETL Listed to UL1703

### Hybrid Interlock



The Hybrid Interlock functions as both Interlock and Leveling Foot for areas where the structural attachment falls at an Interlock location.

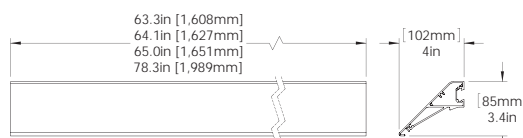
### Big Foot



For corrugated roof applications, the Big Foot provides a means of attachment between the PV array and the mounting surface and allows for easy array height adjustment.

## Accessories

### Array Skirt



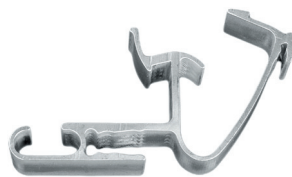
Enhancing both function and aesthetics, the Array skirt facilitates easy front-row installation while providing a clean look at the front of the PV array (available in both clear and black finish).

### Ground Bolt



Attaches to Groove. One Ground Bolt per every 72 modules max (see Installation Manual for instructions).

### Wire Clip



Clips into Groove for ultra-fast and easy management of PV wiring and micro-inverter cables.

### Trinamount Tool, Flat Tool



Trinamount Tool: 4 functions, 1 tool; Flat Tool: For inter-module removal.



TSM-PC05/PA05.10



Interlock



Big Foot



Ground Bolt



Trinamount Tool



Trina module



Mounting system hardware



Trinamount system

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Founded in 1997, Trina Solar is a vertically integrated PV manufacturer, producing everything from ingots to modules, using both mono and multicrystalline technologies. By the end of 2011, the company will have a nameplate module capacity of 1.9GW. Trina Solar's wide range of products are used in residential, commercial, industrial and public utility applications throughout the world.

Only by matching an efficient cost-structure with proven performance will we, as an industry, achieve grid parity. And at Trina Solar, we have both.