TSM-PC05/PA05.10

Row Connector

Ballast Pan

Front & Rear Legs

Trina module + **Mounting system hardware** = **Trinamount system**

TSM_WW_2011_RevA_PC05/PA05.10 (available Q3/2011)

Trina Solar Limited
Trina Solar (Schweiz) AG
Leutschenbachstr. 45,
8050 Zurich, Switzerland

T +41 43 299 68 00
F +41 43 299 68 10
E europe@trinasolar.com

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.

Trinasolar
The power behind the panel

MONO MULTI DESIGN SOLUTIONS

Trinamount III - For flat roof

by Trinasolar

Trinamount III of Trina Solar offers the fastest and least expensive way to mount PV arrays on flat roofs. With a series of drop-in and quarter turn connections, Trinamount III greatly accelerates the process of commercial rooftop installation. Trinamount III eliminates the need for mounting rails, requires very few parts, and simultaneously accomplishes structural and grounding connections. With far less complexity than conventional systems, Trinamount III delivers both labor and logistics savings for commercial PV projects.

- Tool-free installation 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

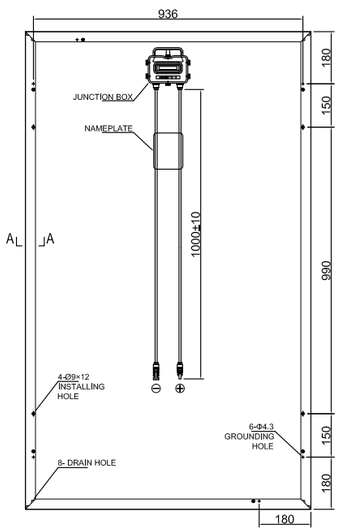
Applications:

- Flat roof

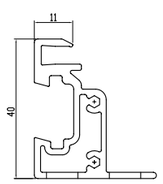
Trinasolar
www.trinasolar.com

Trinamount Ⅲ - For flat roof TSM-PC05/PA05.10

Dimensions of PV module TSM-PC05/PA05.10

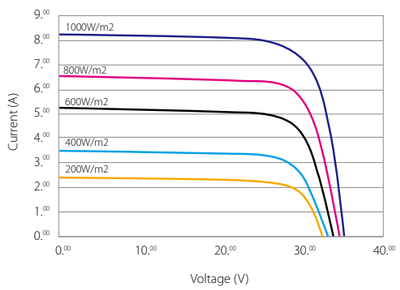


Back View



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 η_m (%)	13.4	13.7	14.1	14.4	14.7

Values at Standard Test Conditions STC (Air Mass AM1.5, Irradiance 1000W/m², 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 transperancy solar glass 3.2mm (0.13inches)
Frame	Anodized aluminium alloy
J-Box	IP 65 rated
Cables/Connector	Photovoltaic Technology cable 4.0mm² (0.006inches²), 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

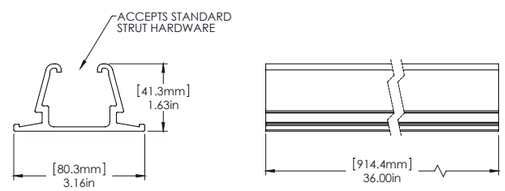
Packaging Configuration

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

Trinasolar
The power behind the panel

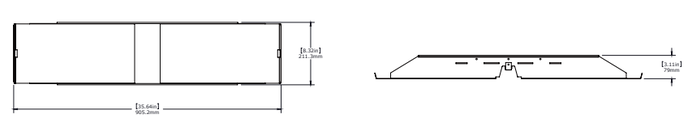
Basic Hardware

Row Connector



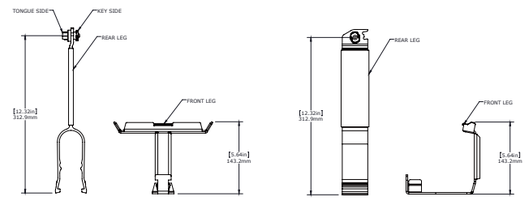
The row connector provides a point of attachment for the Front and Rear Legs and creates a rigid connection beween rows. The profile of the Row Connector accepts standard strut nuts for attaching standard strut or brackets for applications that require bracing for seismic and high wind applications.

Ballast Pan



The Ballast Pan installs, by hand, over the Row Connector and receives ballast blocks to add ballast weight to the system.

Front & Rear Legs



The Leg Set consists of a Front Leg and a Rear Leg which snap, by hand, into the Row Connectors. The Legs create an 11 degree array tilt angle.

Accessories

Wind Diffuser

The Spoiler is installed on the back side of each row and reduces uplift forces due to wind by redirecting air over and around the array, balancing air pressures across the upper and lower sides of the array.

Diffuser Support

The Spoiler Support provides additional rigidity along the upper edge of the module row and supports the ends of the Spoilers.

Ground Bolt

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

Trinasolar
www.trinasolar.com