

THE Honey^M PLUS⁺ MODULE

TSM-DC05A.08 (II)



60 CELL

MONOCRYSTALLINE MODULE

280–290W

POWER OUTPUT RANGE

17.7%

MAXIMUM EFFICIENCY

0/+5W

POSITIVE POWER TOLERANCE

TRINA SOLAR: A STRONG AND RELIABLE PARTNER

As a leading global manufacturer of next generation photovoltaic products, Trina Solar is committed to building mutually beneficial alliances with installers, developers, distributors and technological partners as the backbone of our shared goal to drive Smart Energy Together. Thanks to an extensive sales and service network with local expert teams throughout Europe, Trina Solar is perfectly positioned to support your needs. With Trina Solar as your strong, bankable partner you can rest assured knowing that you've made the right choice.

www.trinasolar.com



Excellent low light performance on cloudy days, mornings and evenings

- PERC technology
- Advanced Honey surface texturing
- 5 bus bars



Maximize limited space with top-end efficiency

- Up to 177 W/m² power density
- Low thermal coefficients for greater energy production at high operating temperatures



Good aesthetics for residential applications

- Dark mono cells
- Black frame



Highly reliable due to stringent quality control

- Over 30 in-house tests (UV, TC, HF, and many more)
- In-house testing goes well beyond certification requirements

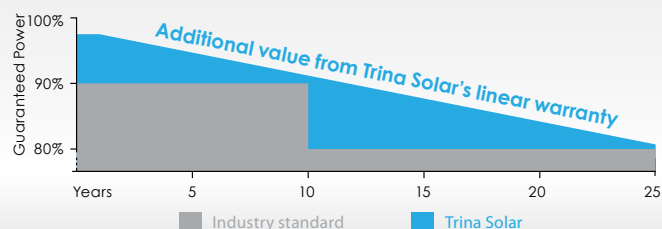


Certified to withstand challenging environmental conditions

- 2400 Pa wind load
- 5400 Pa snow load
- Ammonia resistance
- Salt mist resistance
- 35 mm hail stones at 97 km/h
- resistance to sand and dust abrasion

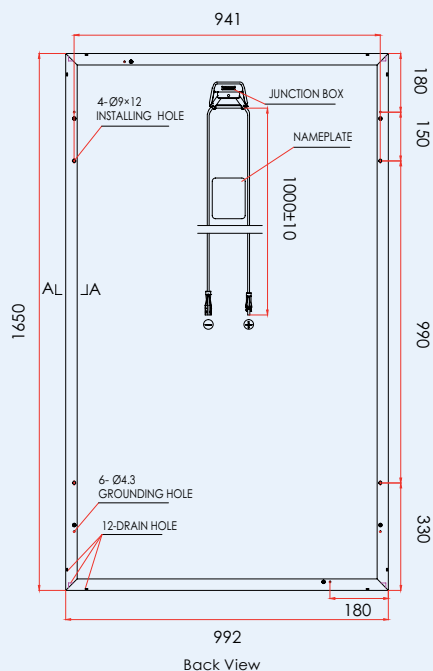
LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty • 25 Year Linear Power Warranty

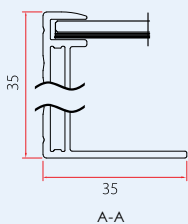


DIMENSIONS OF PV MODULE

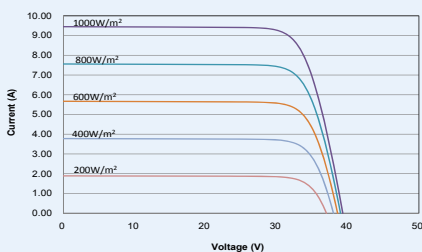
(unit:mm)



Back View



I-V CURVES OF PV MODULE (285 W)



CERTIFICATION

IEC61215/EN61215
IEC61730/EN61730
IEC 627162 PtG 1917/05.11
IEC 61701
DIN EN 60068-2-68 LC2
MCS BRE PV0183



ELECTRICAL DATA @ STC	TSM-280 DC05A.08 (II)	TSM-285 DC05A.08 (II)	TSM-290 DC05A.08 (II)
Peak Power Watts- P_{MAX} (Wp)	280	285	290
Power Output Tolerance- P_{MAX} (W)	0/+5	0/+5	0/+5
Maximum Power Voltage- V_{MPP} (V)	31.7	31.7	31.9
Maximum Power Current- I_{MPP} (A)	8.85	8.99	9.10
Open Circuit Voltage- V_{OC} (V)	39.1	39.3	39.5
Short Circuit Current- I_{SC} (A)	9.40	9.45	9.5
Module Efficiency η_m (%)	17.1	17.4	17.7

STC: Irradiance 1000 W/m², Cell Temperature 25 °C, Air Mass AM1.5 according to EN 60904-3. Typical efficiency reduction of 4.5% at 200 W/m² according to EN 60904-1.

ELECTRICAL DATA (NOCT)	TSM-280 DC05A.08 (II)	TSM-285 DC05A.08 (II)	TSM-290 DC05A.08 (II)
Maximum Power- P_{MAX} (Wp)	209	212	215.8
Maximum Power Voltage- V_{MPP} (V)	29.2	29.5	29.8
Maximum Power Current- I_{MPP} (A)	7.17	7.2	7.25
Open Circuit Voltage- V_{OC} (V)	36.3	36.5	36.6
Short Circuit Current- I_{SC} (A)	7.59	7.63	7.67

NOCT: Irradiance at 800 W/m², Ambient Temperature 20 °C, Wind Speed 1 m/s.

MECHANICAL DATA

Solar cells	Monocrystalline 156 × 156 mm
Cell orientation	60 cells (6 × 10)
Module dimensions	1650 × 992 × 35 mm
Weight	18.6 kg
Glass	3.2 mm, High Transmission, AR Coated Tempered Glass
Backsheet	White
Frame	Black anodized aluminium alloy
J-Box	IP 65 or IP 67 rated
Cables	Photovoltaic Technology cable 4.0 mm ² , 1000 mm
Connector	MC4 Compatible

TEMPERATURE RATINGS

Nominal Operating Cell Temperature (NOCT)	44K (± 2K)
Temperature Coefficient of P_{MAX}	- 0.40%/K
Temperature Coefficient of V_{OC}	- 0.29%/K
Temperature Coefficient of I_{SC}	0.05%/K

MAXIMUM RATINGS

Operational Temperature	-40 to +85°C
Maximum System Voltage	1000V DC (IEC)
Max Series Fuse Rating	15 A
Mechanical load	5400 Pa
Wind load	2400 Pa

WARRANTY

10 year Product Workmanship Warranty

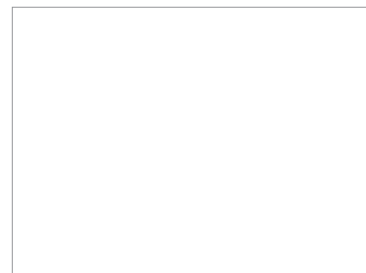
25 year Linear Power Warranty

(Please refer to product warranty for details)

PACKAGING CONFIGURATION

Modules per box: 30 pieces

Modules per 40' container: 840 pieces



TSM_EN_2015_D