

Mono

Multi

Solutions

# Honey<sup>M</sup> IN BLACK

## TSM-DC05A.05



### 60 CELL

MONOCRYSTALLINE MODULE

### 265–275W

POWER OUTPUT RANGE

### 16,8%

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](http://www.trinasolar.com)

**Trinasolar**  
Smart Energy Together



#### Great aesthetics for dark roofs

- Dark mono cells
- Black frame and backsheet



#### Maximize Limited Space with high efficiency

- Up to 168 W/m<sup>2</sup> power density
- Low thermal coefficients for greater energy production at high operating temperatures



#### Excellent low light performance on cloudy days, mornings and evenings

- Advanced surface texturing
- Back surface field
- Selective emitter



#### Highly reliable due to stringent quality control

- All modules have to pass electroluminescence (EL) inspection
- Over 30 in-house tests (UV, TC, HF, and many more)
- In-house testing goes well beyond certification requirements
- PID resistant

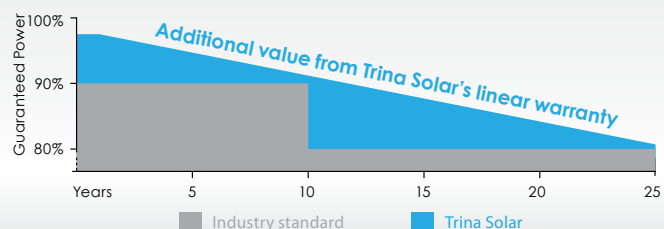


#### Certified to withstand challenging environmental conditions

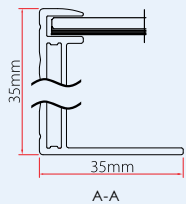
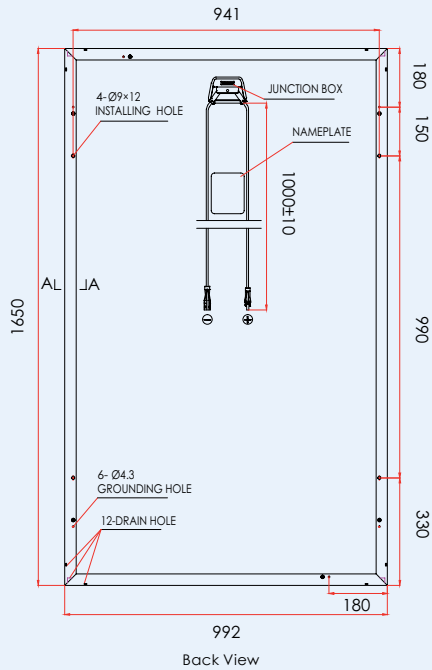
- 35 mm hail stones at 97 km/h
- Ammonia resistance
- Salt mist resistance
- Resistance to sand and dust abrasion

### LINEAR PERFORMANCE WARRANTY

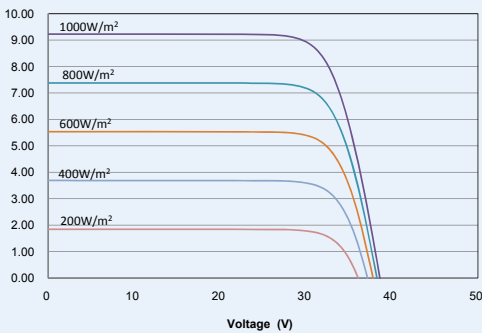
10 Year Product Warranty • 25 Year Linear Power Warranty



**DIMENSIONS OF PV MODULE TSM-DC05A.05**  
(unit:mm)



**I-V CURVES OF PV MODULE TSM-270 DC05A.05**



**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-265 DC05A.05	TSM-270 DC05A.05	TSM-275 DC05A.05
Peak Power Watts- $P_{MAX}$ (Wp)	265	270	275
Power Output Tolerance- $P_{MAX}$ (W)	0/+5	0/+5	0/+5
Maximum Power Voltage- $V_{MPP}$ (V)	30.7	30.8	31.2
Maximum Power Current- $I_{MPP}$ (A)	8.63	8.77	8.82
Open Circuit Voltage- $V_{OC}$ (V)	38.5	38.6	38.7
Short Circuit Current- $I_{SC}$ (A)	9.10	9.23	9.26
Module Efficiency $\eta_m$ (%)	16.2	16.5	16.8

STC: Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3. Average efficiency reduction of 4.5% at 200 W/m<sup>2</sup> according to EN 60904-1.

ELECTRICAL DATA @ NOCT	TSM-265 DC05A.05	TSM-270 DC05A.05	TSM-275 DC05A.05
Maximum Power- $P_{MAX}$ (Wp)	197	201	205
Maximum Power Voltage- $U_{MPP}$ (V)	28.6	28.8	29.1
Maximum Power Current- $I_{MPP}$ (A)	6.88	6.99	7.03
Open Circuit Voltage- $U_{OC}$ (V)	35.7	35.9	35.9
Short Circuit Current- $I_{SC}$ (A)	7.35	7.45	7.48

NOCT: Irradiance at 800 W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1 m/s.

**MECHANICAL DATA**

Solar Cells	Monocrystalline 156 x 156 mm
Cell Orientation	60 cells (6 x 10)
Module Dimensions	1650 x 992 x 35 mm
Weight	18.6 kg
Glass	High Transparency, Anti-Reflective, AR Coated and Heat Tempered Solar Glass - 3.2 mm
Backsheet	Black
Frame	Black Anodized Aluminium Alloy
J-Box	IP 65 or IP 67 rated
Cables	Photovoltaic Technology Cable 4.0 mm <sup>2</sup> , 1000 mm
Connector	MC4 Compatible

**TEMPERATURE RATINGS**

Nominal Operating Cell Temperature (NOCT)	44°C (±2K)
Temperature Coefficient of $P_{MAX}$	- 0.40%/K
Temperature Coefficient of $V_{OC}$	- 0.31%/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

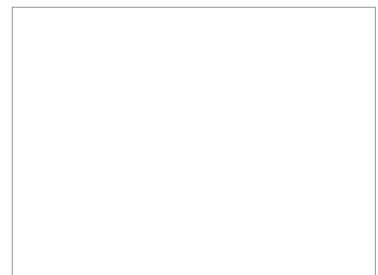
25 year Linear Performance Warranty

(Please refer to product warranty for details)

**PACKAGING CONFIGURATION**

Modules per box: 29 or 30 pieces

Modules per 40' container: 812 or 840 pieces



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