

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

## TSM-DD05A.05 (II)

### 60 CELL

MONOCRYSTALLINE MODULE

### 265–275W

POWER OUTPUT RANGE

### 16,8%

MAXIMUM EFFICIENCY

### 0/+5W

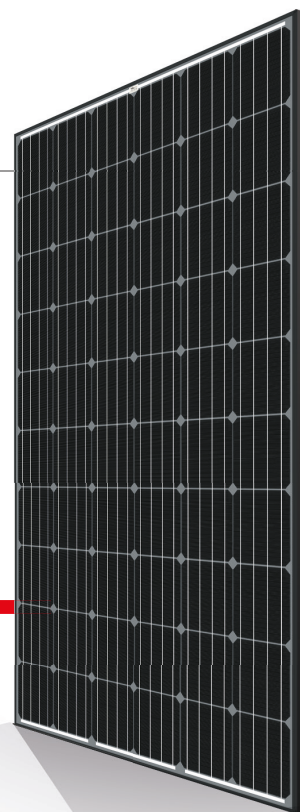
POSITIVE POWER TOLERANCE

#### 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.

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**Trina**solar  
Smart Energy Together



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

- Advanced surface texturing
- Back surface field
- Selective emitter



#### 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



#### Great aesthetics for dark roofs

- Dark mono cells
- Black frame and backsheet



#### 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 (ongoing)
- 1000V UL/1000V IEC certified

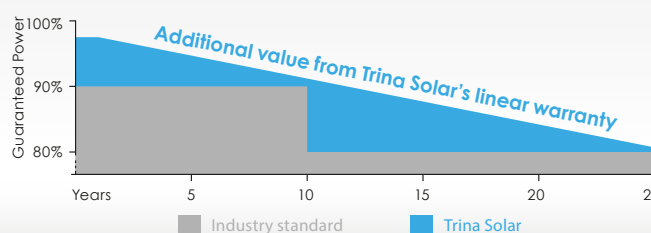


#### Certified to withstand challenging environmental conditions

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

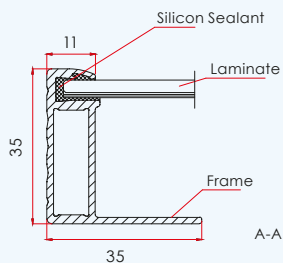
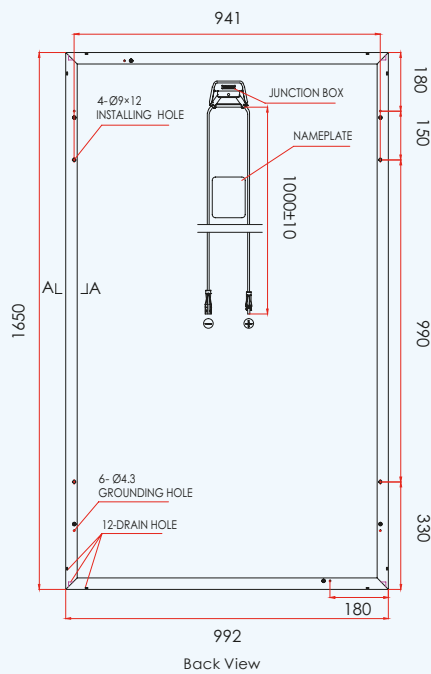
### LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty • 25 Year Linear Power Warranty

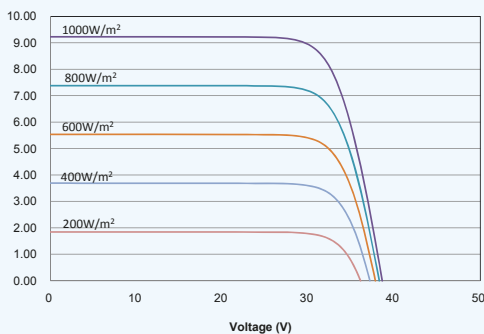


### DIMENSIONS OF PV MODULE TSM-DD05A.05 (II)

(unit:mm)



### I-V CURVES OF PV MODULE TSM-270 DD05A.05 (II)



### CERTIFICATION

IEC 61215/EN 61215  
IEC 61730/EN 61730  
IEC 627162 PFG 1917/05.11  
IEC 61701  
DIN EN 60068-2-68 LC2  
MCS BRE PV0183



### ELECTRICAL DATA @ STC

	TSM-265 DD05A.05 (II)	TSM-270 DD05A.05 (II)	TSM-275 DD05A.05 (II)
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	31.2	31.4
Maximum Power Current- $I_{MPP}$ (A)	8.63	8.66	8.76
Open Circuit Voltage- $V_{OC}$ (V)	38.5	38.4	38.7
Short Circuit Current- $I_{SC}$ (A)	9.10	9.18	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

### ELECTRICAL DATA @ NOCT

	TSM-265 DD05A.05 (II)	TSM-270 DD05A.05 (II)	TSM-275 DD05A.05 (II)
Maximum Power- $P_{MAX}$ (Wp)	197	201	205
Maximum Power Voltage- $U_{MPP}$ (V)	28.6	28.9	29.2
Maximum Power Current- $I_{MPP}$ (A)	6.88	6.96	7.02
Open Circuit Voltage- $U_{OC}$ (V)	35.7	35.7	36.0
Short Circuit Current- $I_{SC}$ (A)	7.35	7.41	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 $P_{MAX}$	- 0.39%/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) 1000V DC (UL)
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:	30 pieces
Modules per 40' container:	840 pieces