



IN BLACK



MONOCRYSTALLINE MODULE

275-300W

POWER OUTPUT RANGE

18.3%

MAXIMUM EFFICIENCY

0/+5W

POSITIVE POWER TOLERANCE

Founded in 1997, Trina Solar is the world's leading comprehensive solutions provider for solar energy. We believe close cooperation with our partners is critical to success. Trina Solar now distributes its PV products to over 60 countries all over the world. Trina Solar is able to provide exceptional service to each customer in each market and supplement our innovative, reliable products with the backing of Trina Solar as a strong, bankable partner. We are committed to building strategic, mutually beneficial collaboration with installers, developers, distributors and other partners

Comprehensive Product And System Certificates

IEC61215/IEC61730/UL1703/IEC61701/IEC62716 Quality Management System ISO 14001: Environmental Management System IS014064:

Greenhouse Gas Emissions Verification OHSAS 18001: Occupational Health and Safety Management System





















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 183 W/m² 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



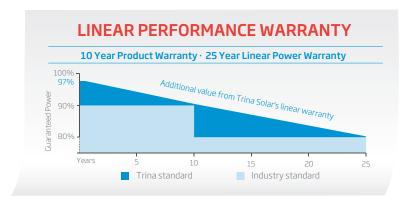
Highly reliable due to stringent quality control

- 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
- 1000 V UL/1000 V 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
- Salt mist resistance
- Resistance to sand and dust abrasion

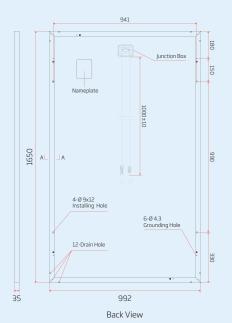


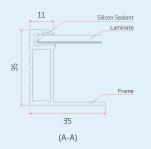




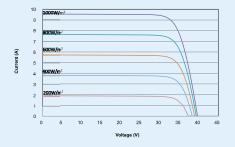
TSM-DD05A.05 (II)

DIMENSIONS OF PV MODULE TSM-DD05A.05(II) (unit: mm)

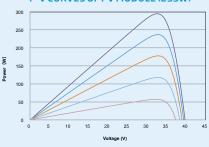




I-V CURVES OF PV MODULE (295W)



P-V CURVES OF PV MODULE (295W)



ELECTRICAL DATA @ STC	TSM-275 DD05A.05 (II)	TSM-280 DD05A.05 (II)	TSM-285 DD05A.05 (II)	TSM-290 DD05A.05 (II)	TSM-295 DD05A.05 (II)	TSM-300 DD05A.05 (II)
Peak Power Watts-PMAX (Wp)*	275	280	285	290	295	300
Power Output Tolerance-PMAX (W)	0/+5	0/+5	0/+5	0/+5	0/+5	0/+5
Maximum Power Voltage-V _{MPP} (V)	31.4	31.7	31.8	32.2	32.5	32.6
Maximum Power Current-Impp (A)	8.76	8.84	8.97	9.01	9.08	9.19
Open Circuit Voltage-Voc (V)	38.7	39.0	39.3	39.5	39.7	39.9
Short Circuit Current-Isc (A)	9.26	9.35	9.45	9.50	9.55	9.64
Module Efficiency η _m (%)	16.8	17.1	17.4	17.7	18.0	18.3

STC: Irradiance 1000 W/m², Cell Temperature 25 °C, Air Mass AM1.5 * Measuring tolerance: $\pm 3\%$

ELECTRICAL DATA @ NOCT	TSM-275 DD05A.05 (II)	TSM-280 DD05A.05 (II)	TSM-285 DD05A.05 (II)	TSM-290 DD05A.05 (II)	TSM-295 DD05A.05 (II)	TSM-300 DD05A.05 (II)
Maximum Power-P _{MAX} (Wp)	205	209	212	216	220	223
Maximum Power Voltage-Umpp (V)	29.2	29.4	29.6	29.9	30.2	30.4
Maximum Power Current-Impp (A)	7.02	7.10	7.17	7.23	7.28	7.35
Open Circuit Voltage-Uoc (V)	36.0	36.3	36.6	36.7	36.9	37.1
Short Circuit Current-Isc (A)	7.48	7.55	7.63	7.67	7.71	7.78

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

MECHANICAL DATA

Solar Cells	Monocrystalline 156.75 × 156.75 mm
Cell Orientation	60 cells (6 x 10)
Module Dimensions	1650 × 992 × 35 mm
Weight	18.6 kg
Glass	3.2 mm, high transparency, AR coated and heat tempered solar glass
Backsheet	Black
Frame	Black Anodized Aluminium Alloy
J-Box	IP 67 or IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm², 1000 mm
Connector	EU Countries: MC4 / UTX, Non-EU Countries: QC4

TEMPERATURE RATINGS

Nominal Operating Cell Temperature (NOCT)	44°C(±2K)
Temperature Coefficient of PMAX	- 0.39%/K
Temperature Coefficient of Voc	- 0.29%/K
Temperature Coefficient of Isc	0.05%/K

WARRANTY

10 year Product Workmanship Warranty 25 year Linear Performance Warranty (Please refer to product warranty for details)

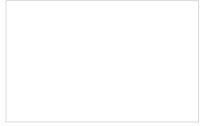
PACKAGING CONFIGURATION

30 pieces Modules per box: Modules per 40' container: 840 pieces

MAXIMUM RATINGS

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

*DO NOT connect fuse in combiner box with two or more strings



TSM_EN_2017_A

