THE



FRAMED 60-CELL MODULE



MONOCRYSTALLINE MODULE

275-315W

**POWER OUTPUT RANGE** 

19.2%

**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 is able to provide exceptional service to each customer in each market and supplement our innovative, reliable products with the backing of Trina as a strong, bankable partner. We are committed to building strategic, mutually beneficial collaboration with installers, developers, distributors and other partners.

#### **Comprehensive Products And System Certificates**

IEC61215/IEC61730/UL1703/IEC61701/IEC62716 ISO 9001: Quality Management System ISO 14001: Environmental Management System ISO14064: Greenhouse gases Emissions Verification OHSAS 18001: Occupation Health and Safety Management System













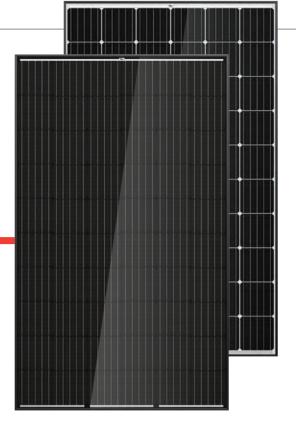














# Maximize limited space with top-end efficiency

- Up to 192W/m<sup>2</sup> power density
- Low thermal coefficients for greater energy production at high operating temperatures



# 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
- PID resistant
- 100% EL double inspection
- Selective emitter, advanced surface texturing



## Certified to withstand the most challenging environmental conditions

- 2400 Pa wind load
- 5400 Pa snow load
- 35 mm hail stones at 97 km/h

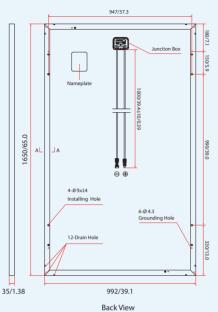


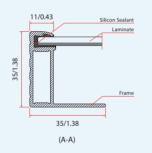


**PRODUCTS** TSM-DD05A.08(II) TSM-DD05A.05(II) POWER RANGE

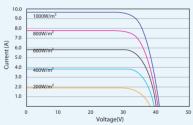
280-315W 275-310W

#### DIMENSIONS OF PV MODULE(mm/inches)

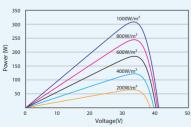




## I-V CURVES OF PV MODULE(305W)



#### P-V CURVES OF PV MODULE(305W)



#### **ELECTRICAL DATA (STC)**

Peak Power Watts-P <sub>MAX</sub> (Wp)*	275	280	285	290	295	300	305	310	315
Power Output Tolerance-P <sub>MAX</sub> (W)	0~+5								
Maximum Power Voltage-V <sub>MPP</sub> (V)	31.4	31.7	31.8	32.2	32.5	32.6	32.9	33.1	33.3
Maximum Power Current-IMPP (A)	8.76	8.84	8.97	9.01	9.08	9.19	9.28	9.37	9.46
Open Circuit Voltage-Voc (V)	38.4	38.4	38.5	38.9	39.6	39.8	40.0	40.2	40.5
Short Circuit Current-Isc (A)	9.24	9.42	9.51	9.66	9.68	9.77	9.85	9.94	10.0
Module Efficiency η <sub>™</sub> (%)	16.8	17.1	17.4	17.7	18.0	18.3	18.6	18.9	19.2

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

#### **ELECTRICAL DATA (NOCT)**

Maximum Power-P <sub>MAX</sub> (Wp)	205	209	212	216	220	223	227	231	235
Maximum Power Voltage-V <sub>MPP</sub> (V)	29.1	29.4	29.5	29.9	30.1	30.2	30.5	30.7	30.9
Maximum Power Current-Impp (A)	7.04	7.10	7.21	7.24	7.30	7.38	7.46	7.53	7.60
Open Circuit Voltage-Voc (V)	35.7	35.7	35.8	36.2	36.8	37.0	37.2	37.4	37.6
Short Circuit Current-Isc (A)	7.46	7.61	7.68	7.80	7.82	7.89	7.95	8.03	8.10

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

#### MECHANICAL DATA

Solar Cells	Monocrystalline 156.75 $\times$ 156.75 mm (6 inches)		
Cell Orientation	60 cells (6 × 10)		
Module Dimensions	1650 × 992 × 35 mm (65.0 × 39.1 × 1.38 inches)		
Weight	18.6 kg (41.0 lb)		
Glass	3.2 mm (0.13 inches), High Transmission, AR Coated Tempered Glass		
Backsheet	White [DD05A.08(II)];		
	Black [DD05A.05(II)]		
Frame	Black Anodized Aluminium Alloy [DD05A.08(II), DD05A.05(II)]		
J-Box	IP 67 or IP 68 rated		
Cables	Photovoltaic Technology Cable 4.0mm² (0.006 inches²),		
	1000 mm (39.4 inches)		
Connector	MC4		
Fire Type	Type 1 or Type 2		

#### **TEMPERATURE RATINGS**

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

#### **MAXIMUM RATINGS**

Operational Temperature	-40~+85°C
Maximum System Voltage	1000V DC (IEC)
	1000V DC (UL)
Max Series Fuse Rating	15A (Power ≤285W)
	20A (Power ≥290W)

(DO NOT connect Fuse in Combiner Box with two or more strings in parallel connection)

#### 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



CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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