

TSM-DC01A TSM-DA01A

THE **Comax** SOLUTION
by TrinaSolar



15.6%
MAX EFFICIENCY

200W
MAX POWER OUTPUT

10 YEAR
PRODUCT WARRANTY

25 YEAR
LINEAR POWER WARRANTY

Founded in 1997, Trina Solar is one of the world's leading PV companies. Since its IPO on the NYSE in 2006, Trina Solar has developed a vertically integrated business model, with in-house production of ingots, wafers, cells and solar panels in both mono and multicrystalline technologies. Its manufacturing capacity for solar panels will be 2.4GW by the end of 2012, making it one of the largest solar manufacturers in the world. Trina Solar's extensive portfolio includes panels for all kinds of applications- residential, utility, offgrid, BIPV as well as innovative system solutions.

With 20 branch offices around the world, Trina Solar is serving leading installers, distributors, utilities and developers in all major PV markets. Trina Solar is committed to driving down the cost of solar and making it more affordable for all.

Trina Solar Limited
www.trinasolar.com



Module can bear snow loads up to **5400Pa** and wind loads up to **2400Pa**



Guaranteed power output **0~+3%**



High performance under low light conditions
Cloudy days, mornings and evenings



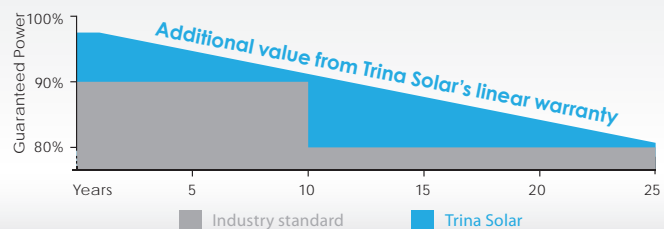
Manufactured according to International Quality and Environment Management System Standards **ISO9001, ISO14001**



Approved **original MC4** Photovoltaic connector used with highest reliability

LINEAR PERFORMANCE WARRANTY

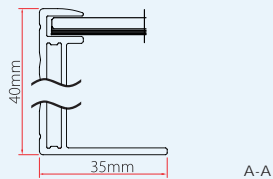
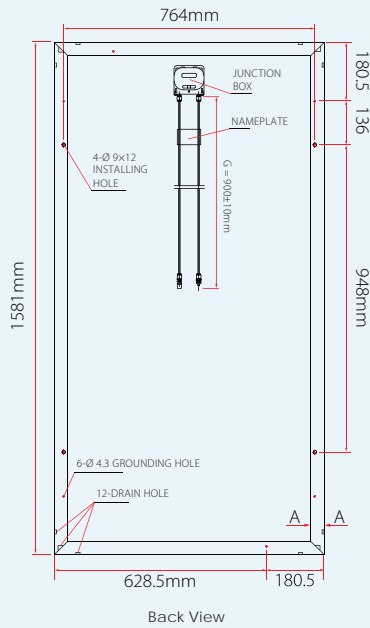
10 Year Product Warranty • 25 Year Linear Power Warranty



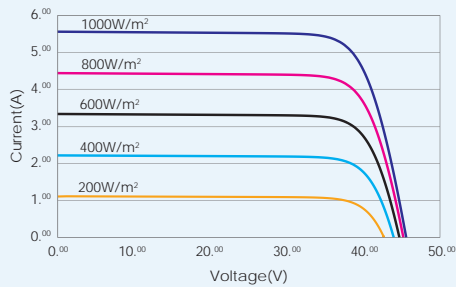
TSM-DC01A / TSM-DA01A THE Comax SOLUTION

by **TrinaSolar**

DIMENSIONS OF PV MODULE TSM-DC/DA01A



I-V CURVES OF PV MODULE TSM-195 DC/DA01A



Average efficiency reduction of 4.5% at 200W/m² according to EN 60904-1.

CERTIFICATION




ELECTRICAL DATA @ STC	TSM-190 DC/DA01A	TSM-195 DC/DA01A	TSM-200 DC/DA01A
Peak Power Watts-P _{MAX} (Wp)	190	195	200
Power Output Tolerance-P _{MAX} (%)	0/+3	0/+3	0/+3
Maximum Power Voltage-V _{MPP} (V)	36.6	37.1	37.6
Maximum Power Current-I _{MPP} (A)	5.19	5.25	5.32
Open Circuit Voltage-V _{OC} (V)	45.1	45.6	46.0
Short Circuit Current-I _{SC} (A)	5.52	5.56	5.60
Module Efficiency η _m (%)	14.9	15.2	15.6

Values at Standard Test Conditions STC (Air Mass AM1.5, Irradiance 1000W/m², Cell Temperature 25°C). Power measurement tolerance: ±3%

ELECTRICAL DATA @ NOCT	TSM-190 DC/DA01A	TSM-195 DC/DA01A	TSM-200 DC/DA01A
Maximum Power-P _{MAX} (Wp)	140	143	147
Maximum Power Voltage-V _{MPP} (V)	33.8	34.3	34.8
Maximum Power Current-I _{MPP} (A)	4.14	4.18	4.23
Open Circuit Voltage (V)-V _{OC} (V)	41.7	42.2	42.5
Short Circuit Current (A)-I _{SC} (A)	4.44	4.47	4.5

NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s. Power measurement tolerance: ±3%

MECHANICAL DATA

Solar cells	Monocrystalline 125 × 125mm (5 inches)
Cell orientation	72 cells (6 × 12)
Module dimensions	1581 × 809 × 40mm (62.24 × 31.85 × 1.57 inches)
Weight	15.6kg (34.4 lb)
Glass	High transparency solar glass 3.2mm (0.13 inches)
Frame	Anodized aluminium alloy
J-Box	IP 65 rated
Cables	Photovoltaic Technology cable 4.0mm ² (0.006 inches ²), 900mm (35.4 inches)
Connector	MC4 

TEMPERATURE RATINGS

Nominal Operating Cell Temperature (NOCT)	45°C (±2°C)
Temperature Coefficient of P _{MAX}	-0.40%/°C
Temperature Coefficient of V _{OC}	-0.30%/°C
Temperature Coefficient of I _{SC}	0.023%/°C

MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1000V DC(IEC)/600V DC(UL)
Max Series Fuse Rating	10A

WARRANTY

10 year workmanship warranty

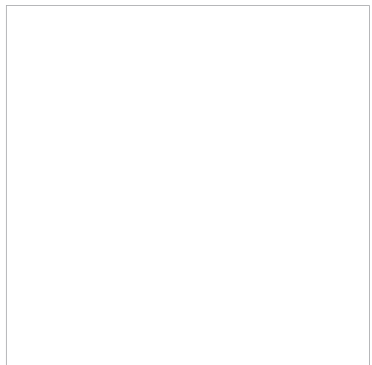
25 year linear performance warranty

(Please refer to product warranty for details)

PACKAGING CONFIGURATION

Modules per box: 23 pcs

Modules per 40' container: 644 pcs



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