THE DUOMAX™
HALF-CELL DUAL GLASS 144 LAYOUT MODULE

144 LAYOUT
MONOCRYSTALLINE MODULE

430-455W
POWER OUTPUT RANGE

20.6%
MAXIMUM EFFICIENCY

0~+5W
POSITIVE POWER TOLERANCE

High power
• Up to 455W front power and 20.6% module efficiency with half-cut and MBB (Multi Busbar) technology bringing more BOS savings
• Lower resistance of half-cut and good reflection effect of MBB ensure high power

High reliability
• Ensured PID resistance through cell process and module material control
• Resistant to salt, acid and ammonia
• Proven to be reliable in high temperature and humidity areas
• Certificated to fire class A
• Minimizes micro-crack and snail trails
• Mechanical performance: Up to 5400 Pa positive load and 2400 Pa negative load

High energy generation
• Excellent IAM and low light performance validated by 3rd party with cell process and module material optimization
• Lower temp coefficient (-0.35%) and NMOT bring more energy leading to lower LCOE
• Better anti-shading performance and lower operating temperature

Easy to install
• Frame design makes module compatible with all racking and installation methods
• Easy to handle and install as normal framed module during transportation

Founded in 1997, Trina Solar is the world’s leading total solution provider for solar energy. With local presence around the globe, Trina Solar is able to provide exceptional service to each customer in each market and deliver our innovative, reliable products with the backing of Trina as a strong, bankable brand. Trina Solar now distributes its PV products to over 100 countries all over the world. We are committed to building strategic, mutually beneficial collaborations with installers, developers, distributors and other partners in driving smart energy together.

Comprehensive Products and System Certificates
IEC61215/IEC61730/IEC61701/IEC62716
ISO 9001: Quality Management System
ISO 14001: Environmental Management System
ISO14064: Greenhouse Gases Emissions Verification
ISO45001: Occupational Health and Safety Management System

Trina Solar’s DUOMAX Performance Warranty
144LAYOUT MODULE

WARRANTY
12 year Product Workmanship Warranty
30 year Power Warranty
2% first year degradation
0.45% Annual Power Attenuation
(Please refer to product warranty for details)

PACKAGING CONFIGURATION
Modules per box: 35 pieces
Modules per 40’ container: 770 pieces

MECHANICAL DATA
Solar Cells Monocrystalline
Cell Orientation 144 cells (6 x 24)
Module Dimensions 2111 x 1046 x 30 mm (83.11 x 41.18 x 1.18 inches)
Weight 28.6 kg (63.1 lb)
Front Glass 2.0 mm (0.08 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant material EVA
Back Glass 2.0 mm (0.08 inches), Heat Strengthened Glass
Frame 30 mm (1.18 inches) Anodized Aluminium Alloy
J-Box IP 68 rated
Cables Photovoltaic Technology Cable 4.0mm² (0.006 inches²), Portrait: 280/280 mm (11.02/11.02 inches)
Landscape: 1400/1400 mm (55.12/55.12 inches)
Connector MC4 EVO2 / TS4*

ELECTRICAL DATA (STC)

Peak Power Watts-PMAX (Wp)* 430 435 440 445 450 455
Power Tolerance-PMAX (W) 0 ~ +5
Maximum Power Voltage-VMP (V) 40.3 40.5 40.7 40.8 41.0 41.2
Maximum Power Current-IMP (A) 10.67 10.74 10.82 10.90 10.98 11.06
Open Circuit Voltage-VOC (V) 48.7 49.0 49.2 49.4 49.6 49.8
Short Circuit Current-ISC (A) 11.22 11.31 11.39 11.46 11.53 11.60
Module Efficiency η m (%) 19.5 19.7 19.9 20.2 20.4 20.6

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

ELECTRICAL DATA (NMOT)

Peak Power Watts-PMAX (Wp) 326 329 334 337 341 345
Maximum Power Voltage-VMP (V) 38.0 38.3 38.4 38.6 38.8 39.0
Maximum Power Current-IMP (A) 8.55 8.61 8.68 8.73 8.80 8.86
Open Circuit Voltage-VOC (V) 46.0 46.3 46.5 46.7 46.9 47.1
Short Circuit Current-ISC (A) 9.03 9.11 9.17 9.23 9.28 9.34

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

TEMPERATURE RATINGS

NMO (Nominal Module Operating Temperature) -41°C (±3°C)
Temperature Coefficient of PMAX -0.35%/°C
Temperature Coefficient of VOC -0.25%/°C
Temperature Coefficient of ISC 0.04%/°C

(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

MAXIMUM RATINGS
Operational Temperature -40°C ~ +85°C
Maximum System Voltage 1500V DC (IEC)
Max Series Fuse Rating 20A

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