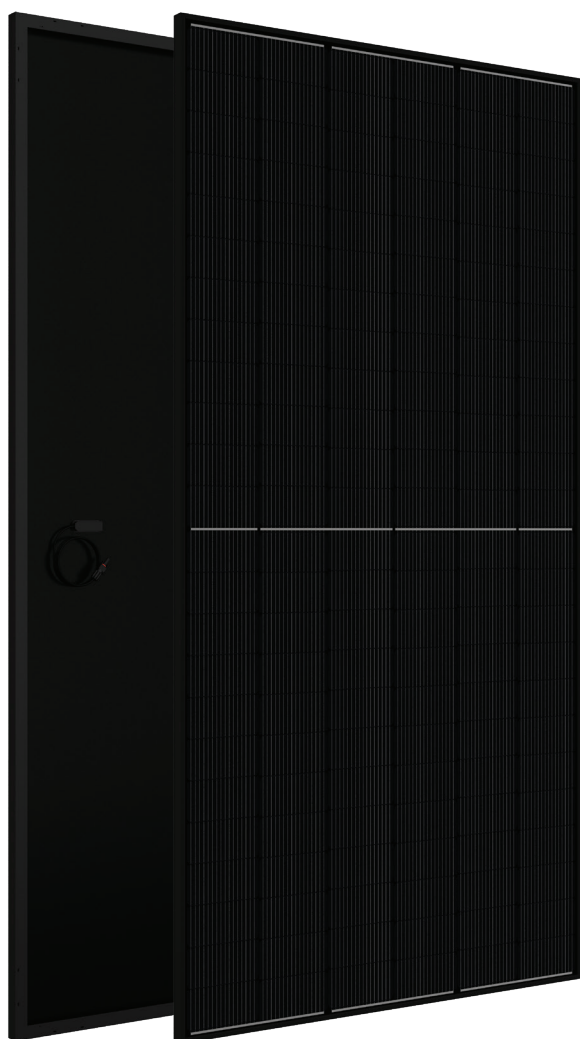
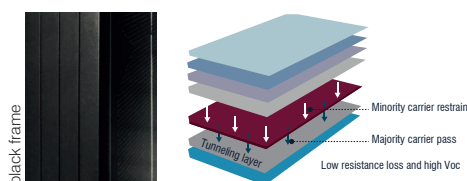


TOPCON MONOCRYSTALLINE 144TNFB10



Half Cut Multi-BB DARK SERIES



High Conversion Efficiency

High panel efficiency to guarantee high power output.



Self-Cleaning and Anti-Reflection Glass

Coating glass for self-cleaning reduces surface dust.

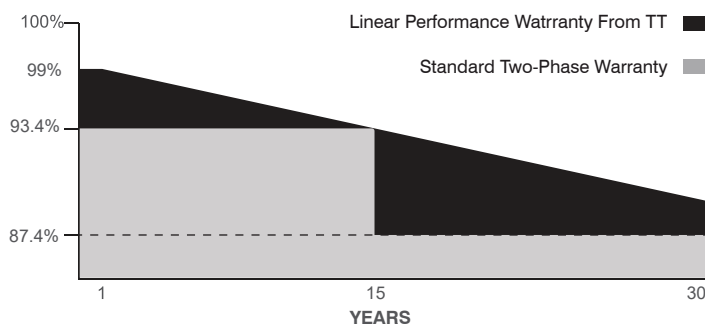


Outstanding Low Irradiation Glass

Outstanding panel performance even in weak light conditions.



Easy Installation



30 Years Performance Warranty



15 Years Product Warranty



IEC 61215, IEC 61730-1, IEC 61730-2
ISO 9001:2015, ISO 14001:2015, ISO 45001:2018



DARK SERIES

144TNFB10

Peak Power (Pmax)
Module Efficiency
Maximum Power Voltage (Vmp)
Maximum Power Current (Imp)
Open Circuit Voltage (Voc)
Short Circuit Current (Isc)
Power Tolerance
Maximum System Voltage
Operating Temperature
Protection Class
Maximum Series Fuse Rating

MECHANICAL SPECIFICATION

Cell Dimensions (mm)
Cells per Module (pcs)
Weight (kg)
Panel Dimensions (mm)
Max. Wind/Snow Load (Pa)
Junction Box
Junction Box Cable Length (mm)

TT590 144TNFB10	TT595 144TNFB10	TT600 144TNFB10	TT605 144TNFB10	TT610 144TNFB10	TT615 144TNFB10	TT620 144TNFB10
590 Wp	595 Wp	600 Wp	605 Wp	610 Wp	615 Wp	620 Wp
22.84	23.03	23.23	23.42	23.61	23.81	24.00
43.35	43.55	43.75	43.95	44.15	44.35	44.55
13.62	13.67	13.72	13.77	13.82	13.87	13.92
51.98	52.18	52.38	52.58	52.78	52.98	53.18
14.30	14.36	14.42	14.48	14.54	14.60	14.66
0~+5W						
1500V DC						
-40 ~ +85°C						
Class II						
30A						
182,2x91,8						
144 (6x24)						
29.0						
2278X1134X35						
2400/5400						
IP68						
300-1600						

TEMPERATURE CHARACTERISTICS

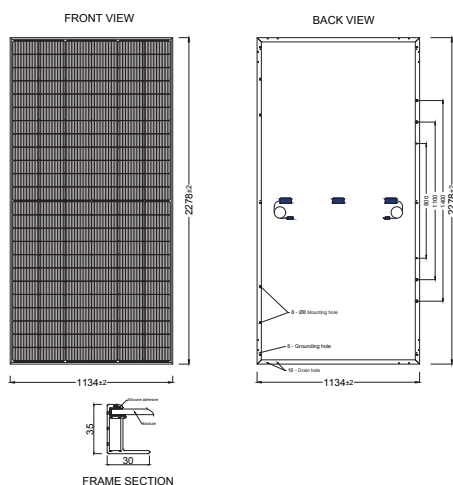
Temp. Coeff. of (Isc)	0.040%/°C
Temp. Coeff. of (Voc)	-0.260%/°C
Temp. Coeff. of (Pmax)	-0.30%/°C

PACKING CONFIGURATION

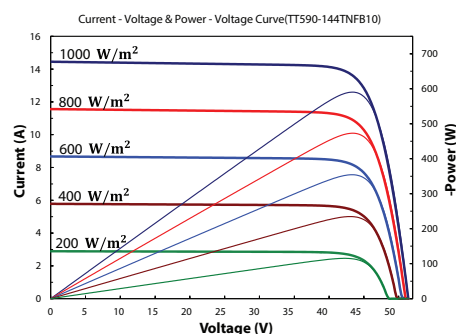
Container 40' GP

Pieces per Pallet	31
Pieces per Container	620
Pallets per Container	20

PHYSICAL CHARACTERISTICS



ELECTRICAL CHARACTERISTICS



* The specifications are obtained under the standard test conditions: 1000W/m2 solar irradiance, 1.5 Air Mass and cell temperature of 25°C. Measurement uncertainty for all panels is 6%. The actual transactions will be subject to the contracts. These parameters are for reference only and it is not a part of the contracts. The technical specifications in this document may vary. For more information, refer to the "Installation Manual".

* For roof, facades and installations on similar surfaces, solar panels should be mounted over a fire-resistant covering suitable for this application, with adequate ventilation between the back of the solar panels and the mounting surface. Improper installations are hazardous and may spark a fire. Solar panels must not be mounted on structures and roofs which are made of not fire-resistant materials such as plastic layer, transparent plastic, PVC or similar materials without any fire-protection layer. Usage and installation not in accordance with the guidelines as outlined in the installation manual will terminate the warranty. Please refer to the installation manual and the warranty documents for further details.

* TommaTech® GmbH reserves the right to change the specification of products without prior notice.

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