TOPCON MONOCRYSTALLINE 120TNFB10

TOMMATECH GmbH

GERMAN-based company

120 cell

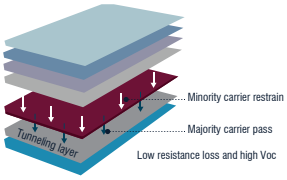
15 YEARS Product Warranty

30 YEARS Performance Warranty

HalfCut

Multi-BB

DARK SERIES



High Conversion Ef□cieny

High panel ef□ciency to guarantee high power output.

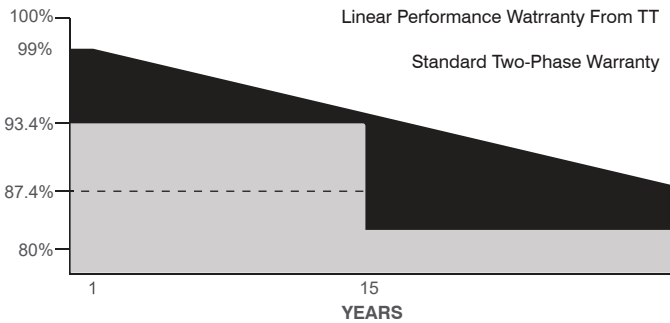
Self-Cleaning and Anti-Reflection Glass

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
IEC 62804 PID (POTENTIAL INDUCED DEGRADATION)
IEC 61701 SALT MIST CORROSION
IEC 62716 AMMONIA CORROSION
ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

SOMPO SiGORTA

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DARK SERIES

120TNFB10

	TT460 120TNFB10	TT465 120TNFB10	TT470 120TNFB10	TT475 120TNFB10	TT480 120TNFB10
Peak Power (Pmax)	460 Wp	465Wp	470Wp	475Wp	480 Wp
Module Efficiency	21.25	21.45	21.71	21.94	22.17
Maximum Power Voltage (Vmp)	35.26	35.46	35.66	35.86	36.07
Maximum Power Current (Imp)	13.05	13.12	13.19	13.25	13.32
Open Circuit Voltage (Voc)	41.90	42.10	42.30	42.50	42.70
Short Circuit Current (Isc)	13.86	13.93	14.00	14.08	14.14
Power Tolerance	0~+5W				
Maximum System Voltage	1500V DC				
Operating Temperature	-40 ~ +85°C				
Protection Class	Class II				
Maximum Series Fuse Rating	25A				

MECHANICAL SPECIFICATION

Cell Dimensions (mm)	182x91
Cells per Module (pcs)	120 (6x20)
Weight (kg)	24.6
Panel Dimensions (mm)	1909x1134x35
Max. Wind/Snow Load (Pa)	2400/5400
Junction Box	IP68
Junction Box Cable Length (mm)	350-1600

TEMPERATURE CHARACTERISTICS

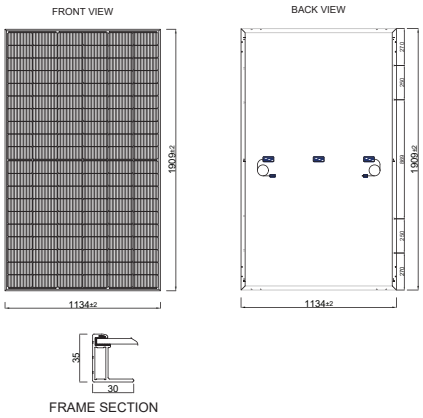
Temp. Coeff. of (Isc)	0.040%/°C
Temp. Coeff. of (Voc)	-0.260%/°C
Temp. Coeff. of (Pmax)	-0.30%/°C

PACKING CONFIGURATION

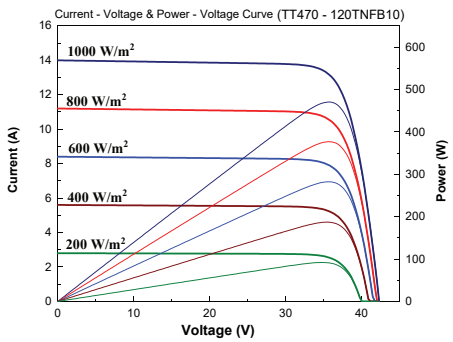
Container 40' GP

Pieces per Pallet	31
Pieces per Container	744
Pallets per Container	24

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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