

# BIFACIAL TOPCON MONOCRYSTALLINE 120TNB12

**TOMMATECH**  
GmbH  
GERMAN-based company

- ◆ TT645-120TNB12 645 Wp
- ◆ TT625-120TNB12 625 Wp
- ◆ TT640-120TNB12 640 Wp
- ◆ TT620-120TNB12 620 Wp
- ◆ TT635-120TNB12 635 Wp
- ◆ TT615-120TNB12 615 Wp
- ◆ TT630-120TNB12 630 Wp



## 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



## Excellent Durability

Wind load up to 2400 Pa, Snow load up to 5400 Pa



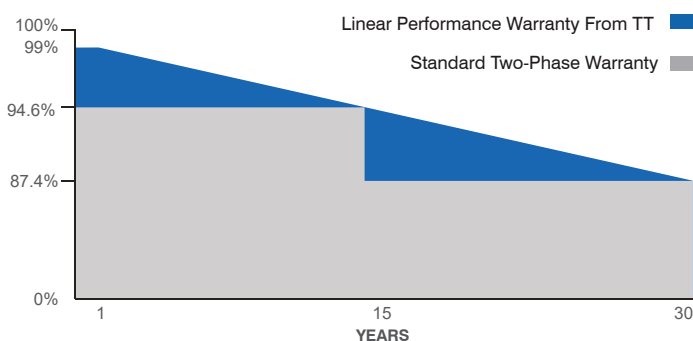
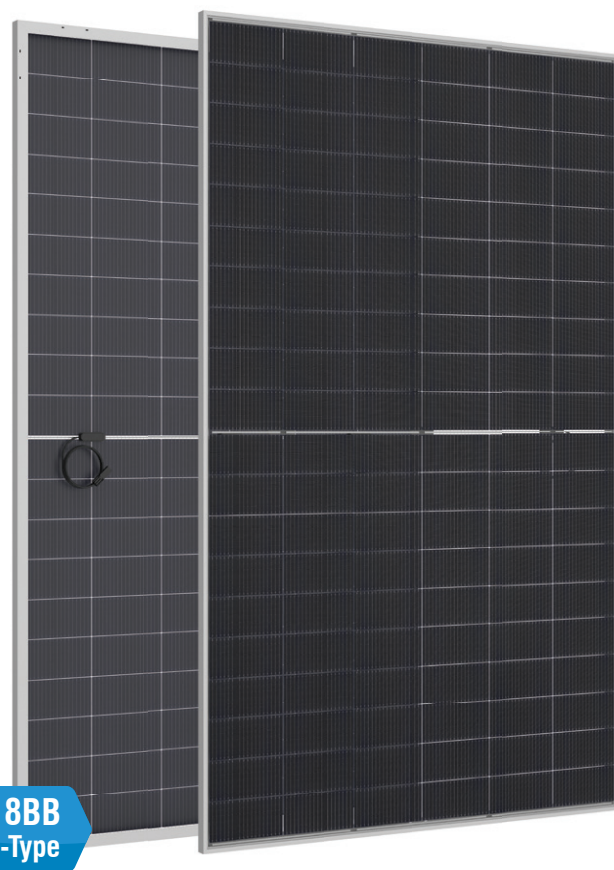
## 0~+5W Positive Power Tolerance



## Easy Installation



## Twice EVA Laminated Double Glass



30 Years Performance Warranty



15 Years Product Warranty

**Half-Cut**

DOUBLE GLASS



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



**SOMPO**  
INSURANCE

Model Type	TT615 120TNB12	TT620 120TNB12	TT625 120TNB12	TT630 120TNB12	TT635 120TNB12	TT640 120TNB12	TT645 120TNB12
Peak Power (P <sub>max</sub> )	615 Wp	620 Wp	625 Wp	630 Wp	635 Wp	640 Wp	645 Wp
Module Efficiency	21.73	21.95	22.08	22.26	22.44	22.65	22.79
Maximum Power Voltage (V <sub>mp</sub> )	35.56	35.76	35.96	36.16	36.36	36.56	36.76
Maximum Power Current (I <sub>mp</sub> )	17.30	17.34	17.39	17.43	17.45	17.51	17.55
Open Circuit Voltage (V <sub>oc</sub> )	42.78	42.98	43.18	43.38	43.58	43.78	43.98
Short Circuit Current (I <sub>sc</sub> )	18.24	18.30	18.35	18.40	18.46	18.52	18.57
Power Tolerance	0~+5W						
Maximum System Voltage	1500V DC						
Operating Temperature	-40 ~ +85°C						
Fire Safety Class	Class II						
Maximum Series Fuse Rating	35A						

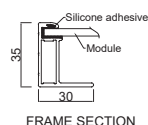
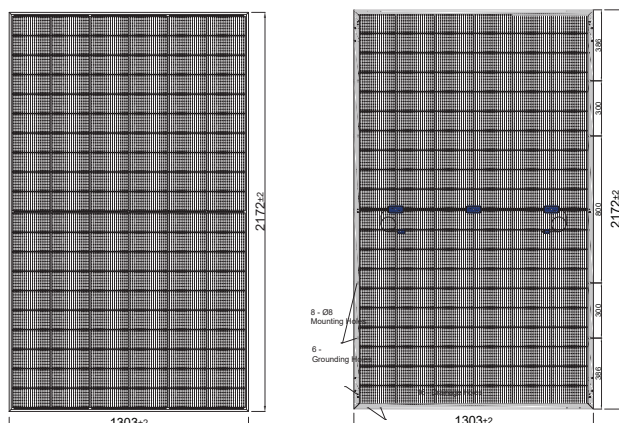
## MECHANICAL SPECIFICATIONS

Cell Dimensions(mm)	210x105
Cells per Module(pcs)	120 (6x20)
Weight(kg)	35.36
Panel Dimensions(mm)	2172x1303x35
Max. Wind/Snow Load(Pa)	2400/5400
Junction Box	IP68
Junction Box Cable Length(mm)	350-1600
Glass Thickness (mm)	2.0 / 2.0

## PHYSICAL CHARACTERISTICS

FRONT VIEW

BACK VIEW



FRAME SECTION

## REAR SIDE POWER GAIN

(645W Front Power Referenced)

Rear Power Gain	5%	10%	15%	20%	25%
Maximum Power (P <sub>max</sub> )	677.25	709.50	741.75	774.00	806.25
Short Circuit Current (I <sub>sc</sub> )	19.48	20.38	21.28	22.19	23.10
Open Circuit Voltage (V <sub>oc</sub> )	44.05	44.12	44.19	44.26	44.33
Maximum Power Current (I <sub>mp</sub> )	18.42	19.28	20.14	21.02	21.88
Maximum Power Voltage (V <sub>mp</sub> )	36.77	36.80	36.83	36.85	36.87

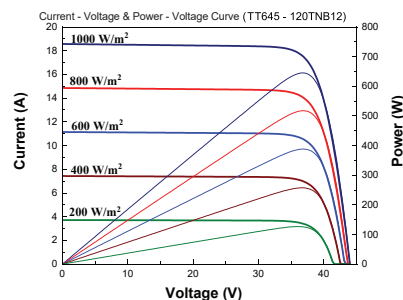
## TEMPERATURE CHARACTERISTICS

Temp. Coeff. of (I <sub>sc</sub> )	0.040%/°C
Temp. Coeff. of (V <sub>oc</sub> )	-0.260%/°C
Temp. Coeff. of (P <sub>max</sub> )	-0.320%/°C

## PACKING CONFIGURATION

Container	40' GP
Pieces per Pallet	31
Pieces per Container	527
Pallet Per Container	17

## ELECTRICAL CHARACTERISTICS



\* The specifications are obtained under the standard test conditions: 1000W/m<sup>2</sup> 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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