# TOPCON MONOCRYSTALLINE 108TN10



- ◆ TT450-108TN10 450 Wp
- ◆ TT445-108TN10 445 Wp
- ◆ TT440-108TN10 440 Wp
- ◆ TT435-108TN10 435 Wp
- ◆ TT430-108TN10 430 Wp
- ◆ TT425-108TN10 425 Wp
- ◆ TT420-108TN10 420 Wp
- ◆ TT415-108TN10 415 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**

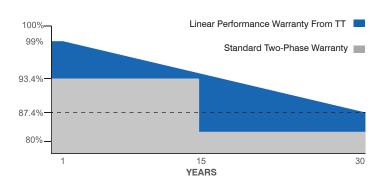
Wind load up to 2400 Pa, Snow load up to 5400 Pa



## 0~+5W Positive Power Tolerance



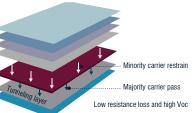
## **Easy Installation**



30 Years Performance Warranty







## **Half**Cut









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







Model Type	TT415 108TN10	TT420 108TN10	TT425 108TN10	TT430 108TN10	TT435 108TN10	TT440 108TN10	TT445 108TN10	TT450 108TN10
Peak Power (Pmax)	415 Wp	420 Wp	425 Wp	430 Wp	435 Wp	440 Wp	445 Wp	450 Wp
Module Efficiency	21.25	21.51	21.76	22.02	22.28	22.53	22.79	23.04
Maximum Power Voltage (Vmp)	31.74	31.94	32.14	32.34	32.54	32.74	32.94	33.14
Maximum Power Current (Imp)	13.08	13.15	13.23	13.30	13.37	13.44	13.51	13.58
Open Circuit Voltage (Voc)	37.71	37.91	38.11	38.31	38.51	38.71	38.91	39.11
Short Circuit Current (Isc)	13.88	13.95	14.03	14.10	14.17	14.24	14.31	14.38
Power Tolerance	0~+5W							
Maximum System Voltage	1500V DC							
Operating Temperature	-40 ~ +85°C							
<b>Protection Class</b>	Class II							
<b>Maximum Series Fuse Rating</b>	25A							

MECHANICAL SPECIFICATIONS				
Cell Dimensions(mm)	182x91			
Cells per Module(pcs)	108 (6x18)			
Weight(kg)	21.45			
Panel Dimensions(mm)	1722x1134x30			
Max. Wind/Snow Load(Pa)	2400/5400			
Junction Box	IP68			
Junction Box Cable Length(mm)	300-1600			

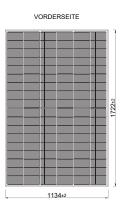
#### TEMPERATURE CHARACTERISTICS

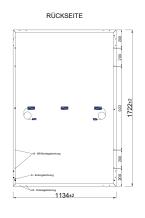
Temp. Coeff. of (Isc)	0.040%/°C
Temp. Coeff. of (Voc)	-0.260%/°C
Temp. Coeff. of (Pmax)	-0.30%/°C

#### **PACKING CONFIGURATION**

Container	40' HC
Pieces per Pallet	35
Pieces per Container	910
Pallet Per Container	26

#### PHYSICAL CHARACTERISTICS

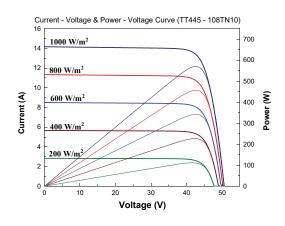






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#### **ELECTRICAL CHARACTERISTICS**



<sup>\*</sup> 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".

<sup>\*</sup> 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.