PLATIN PLUS

Powered by TOMMATECH GmbH

GERMAN-based company

15 YEARS Product Warranty

30 YEARS Performance Warranty

BIFACIAL TOPCON MONOCRYSTALLINE

132TNB12R (760-790 Wp)

Half Cut

DOUBLE GLASS 16BB



High Conversion Efficiency

High panel efficiency to guarantee high power output

Self-Cleaning And Anti-Reflection Glass

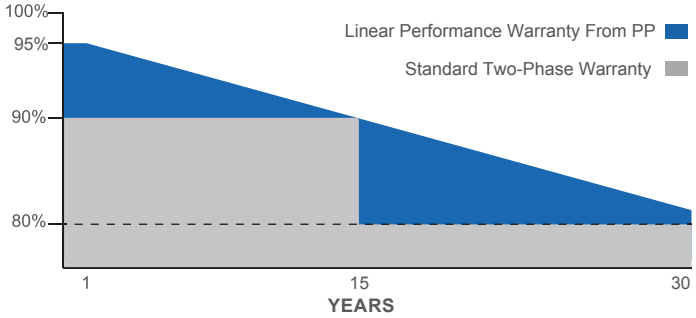
Coating glass for self-cleaning reduces surface dust

Outstanding Low Irradiation Glass

Outstanding panel performance even in weak light conditions

Easy Installation

Double Sided Power Generation



ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

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ELECTRICAL CHARACTERISTICS

Model Type	PP640 132TNB12R	PP645 132TNB12R	PP650 132TNB12R	PP655 132TNB12R	PP660 132TNB12R	PP665 132TNB12R	PP670 132TNB12R	PP675 132TNB12R	PP680 132TNB12R
Peak Power (Pmax)	640Wp	645Wp	650Wp	655Wp	660Wp	665Wp	670Wp	675Wp	680Wp
Module Efficiency	23,69	23,88	24,06	24,25	24,43	24,62	24,80	24,99	25,17
Maximum Power Voltage (Vmp)	41,82	42,02	42,22	42,42	42,62	42,82	43,02	43,22	43,42
Maximum Power Current (Imp)	15,31	15,35	15,4	15,45	15,49	15,54	15,58	15,62	15,67
Open Circuit Voltage (Voc)	49,79	49,99	50,19	50,39	50,59	50,79	50,99	51,19	51,39
Short Circuit Current (Isc)	16,26	16,32	16,38	16,44	16,5	16,56	16,62	16,68	16,74
Power Tolerance	±%10								
Maximum System Voltage	1500V DC								
Operating Temperature	-40° ~ +85°C								
Protection Class	Class II								
Maximum Series Fuse Rating	30A								

Rear Power Gain	5%	10%	15%	20%
Maximum Power (Pmax)(680Wp)	714.00	748.00	782.00	816.00
Module Efficiency% (680Wp)	26.43	27.69	28.95	30.20
Maximum Power (Pmax)(675Wp)	708.75	742.50	776.25	810.00
Module Efficiency% (675Wp)	26.24	27.49	28.74	29.99
Maximum Power (Pmax)(670Wp)	703.50	737.00	770.50	804.00
Module Efficiency% (670Wp)	26.04	27.28	28.52	29.76
Maximum Power (Pmax)(665Wp)	698.25	731.50	764.75	798.00
Module Efficiency% (665Wp)	25.85	27.08	28.31	29.54
Maximum Power (Pmax)(660Wp)	693.00	726.00	759.00	792.00
Module Efficiency% (660Wp)	25.65	26.87	28.09	29.32
Maximum Power (Pmax)(655Wp)	687.75	720.50	753.25	786.00
Module Efficiency% (655Wp)	25.46	26.67	27.89	29.10
Maximum Power (Pmax)(650Wp)	682.50	715.00	747.50	780.00
Module Efficiency% (650Wp)	25.26	26.47	27.67	28.87
Maximum Power (Pmax)(645Wp)	677.25	709.50	714.75	774.00
Module Efficiency% (645Wp)	25.07	26.27	27.46	28.66
Maximum Power (Pmax)(640Wp)	672.00	704.00	736.00	768.00
Module Efficiency% (640Wp)	24.87	26.06	27.24	28.43

MECHANICAL SPECIFICATIONS

Cell Dimensions(mm)	182.3x105
Cells per Module(pcs)	132 (6x22)
Weight(kg)	35.95
Panel Dimensions(mm)	2382x1134x35
Max. Wind/Snow Load(Pa)	2400/5400
Junction Box	IP68
Junction Box Cable Length(mm)	300-1600
Glass Thickness (mm)	2.0 - 2.0

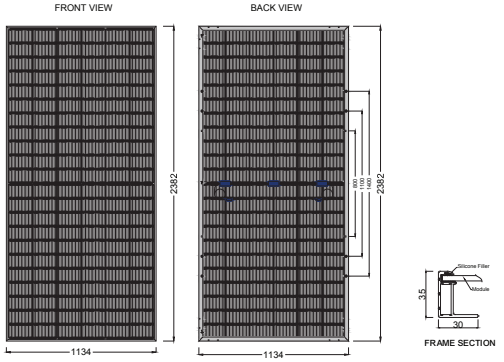
PACKING CONFIGURATION

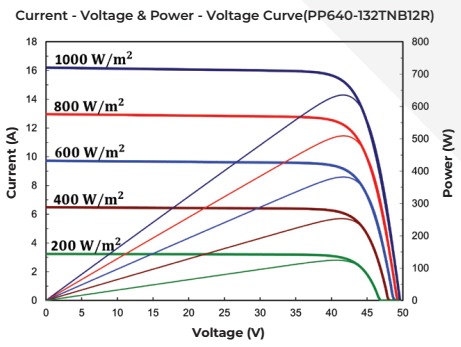
Container	40' GP
Pieces per Pallet	31
Pieces per Container	620
Pallet Per Container	20

TEMPERATURE CHARACTERISTICS

Temp. Coeff. of (Isc)	0.041%/°C
Temp. Coeff. of (Voc)	-0.250%/°C
Temp. Coeff. of (Pmax)	-0.290%/°C

PHYSICAL AND 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 10%. 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 specifications are subject to change without prior notice.

* 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 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.

* Reserves the right to change the specification of products without prior notice.