

**PERC
MONOCRYSTALLINE
36-48PMFB12**

- ◆ TT240-48PMFB12 ◆ TT060-36PMFB12
- ◆ TT120-36PMFB12 ◆ TT045-36PMFB12
- ◆ TT090-36PMFB12



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

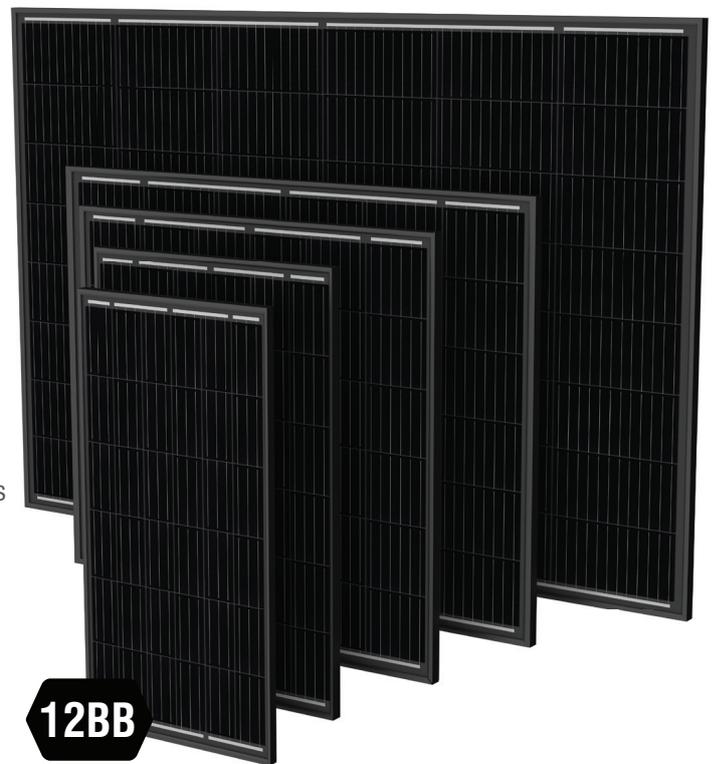


Excellent Durability
Wind load up to 2400 Pa, Snow load up to 5400 Pa

0~+5W **0~+5W Positive Power Tolerance**



Easy Installation



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



Model Type	TT045 36PMFB12	TT060 36PMFB12	TT090 36PMFB12	TT120 36PMFB12	TT240 48PMFB12
Peak Power (P _{max})	45 Wp	60 Wp	90 Wp	120 Wp	240 Wp
Maximum Power Voltage (V _{mp})	20.77	20.77	20.77	20.77	27.70
Maximum Power Current (I _{mp})	2.17	2.90	4.34	5.78	8.67
Open Circuit Voltage (V _{oc})	24.37	24.37	24.37	24.37	32.50
Short Circuit Current (I _{sc})	2.34	3.04	4.55	6.06	9.11
Cell per Module	36 (6x6)	36 (6x6)	36 (6x6)	36 (6x6)	48 (6x8)
Cell Dimensions (mm)	53x105	70 x 105	105 x 105	140 x 105	210x105
Panel Dimensions (mm)	362x692x20	464x692x20	674x692x20	884x692x20	931x1303x30
Weight (kg)	3.25	4.00	5.54	7.10	13.46
Operating Temperature	-40 ~ +85°C				

MECHANICAL SPECIFICATIONS

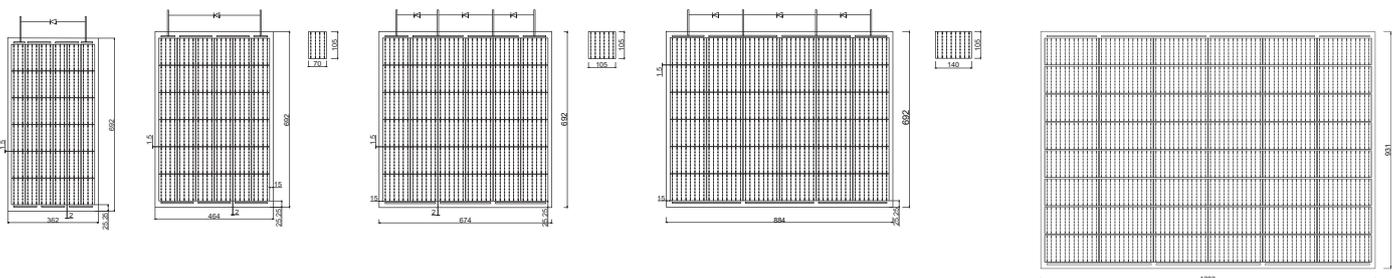
Solar Glass	3.2mm Low iron, Tempered Glass
Frame	Anodized Aluminum
IP Rating	IP67 / IP68
Cable Diameter	4mm ²
Cable Length	500mm

TEMPERATURE CHARACTERISTICS

Temp. Coeff. of (I _{sc})	0.050%/°C
Temp. Coeff. of (V _{oc})	-0.270%/°C
Temp. Coeff. of (P _{max})	-0.350%/°C

PHYSICAL CHARACTERISTICS

Unit: mm



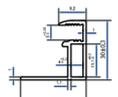
45 Wp

60 Wp

90 Wp

120 Wp

240Wp



* 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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