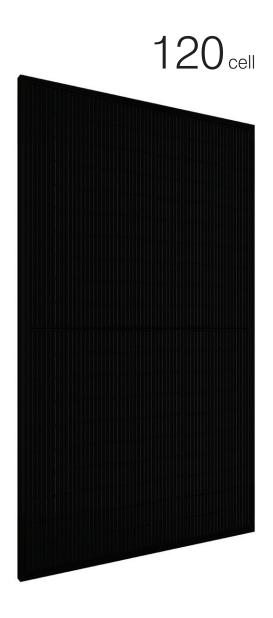
PERC MONOCRYSTALLINE 120PM10







Half **Cut** Multi-BB **DARK SERIES**





High Conversion Efficieny

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











30 Years Performance Warranty

100%

97.5%

90%

83.5%

80%



15 Years Product Warranty

Linear Performance Warranty From TT

Standard Two-Phase 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





YEARS

DARK SERIES



120PM10

Peak Power (Pmax)
Module Efficiency
Maximum Power Voltage (Vmp)
Maximum Power Current (Imp)
Open Circuit Voltage (Voc)
Short Circuit Current (Isc)
Power Tolerance
Maximum System Voltage
Operating Temperature
Protection Class
Maximum Series Fuse Rating

7 = 1 1 1 1	7.1	FICATI	ray e.i

Cell Dimensions (mm)
Cells per Module (pcs)
Weight (kg)
Panel Dimensions (mm)
Max. Wind/Snow Load (Pa)
Junction Box
Junction Box

TT440 120PM10	TT445 120PM10	TT450 120PM10	TT455 120PM10
440 Wp	445 Wp	450 Wp	455 Wp
20.50	20.80	21.00	21.20
34.20	34.40	34.60	34.80
12.84	12.90	12.96	13.02
41.00	41.20	41.40	41.60
13.58	13.63	13.68	13.73
	0~+	5W	
	1500	V DC	
	-40 ~ -	+85°C	
	Clas	ss II	
	15	A	
	182	x91	
	120 (60x2)	
	24	.0	
	1909x1	134x35	
	2400	5400	
	IP	68	
	12	20	

TEMPERATURE CHARACTERISTICS

Temp. Coeff. of (Isc)
Temp. Coeff. of (Voc)
Temp. Coeff. of (Pmax)

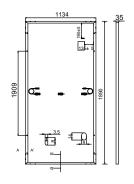
0.050%/°C
-0.280%/°C
-0.360%/°C

PACKING CONFIGURATION

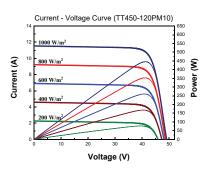
Container 40' GP

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".

Ver.2308.2

^{*} 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.

^{*} Please note that the color of PERC monocrystalline cells might vary slightly due to their natural structure. Consequently, there might be a color difference between the cells and between the cells and the backsheet.

^{*} TommaTech® GmbH reserves the right to change the specification of products without prior notice.