



SOLARTRON

PUBLIC COMPANY LIMITED



140W/145W/150W Multicrystalline Silicon Solar Module

Module Efficiency is up to 15%, minimizing installation costs and maximizing the output of the system.
1505x677x46mm is suitable for residential and commercial on-grid system.

High Stability High Reliability and Low Degradation

Warranty

2 years Material and Workmanship Warranty
10 years on 90% of the minimum power output
25 years on 80% of the minimum power output

Standards and Certification

ISO 9001:2008, ISO 14001:2004, TIS 18001:1999 and OHSAS 18001:2007 certified factories
CE Mark (EMC-Directive 2004/108/EC) certificate of European Conformity
RoHS certified of directive on the restriction of the use of certain hazardous substances
TIS 1843-2553 Crystalline silicon terrestrial photovoltaic modules - design qualification and type approval, Thai Industrial Standards



TIS. 1843-2553

Mechanical Characteristics

Solar Cell :	36 Cells, 156x156 multicrystalline	Junction box :	IP65 Certified Junction Box
Dimension :	1505 x 677 x 46mm.	Diodes :	2 Schottky bypass diodes
Weight :	13 kg.	Connector :	MC3 compatible
Construction :	Front: High Transmission 3.2 mm. tempered glass; Rear: White Tedlar; Encapsulant: EVA	Output cables :	4.0 mm ² 12 AWG cable. Cable length 900 mm.

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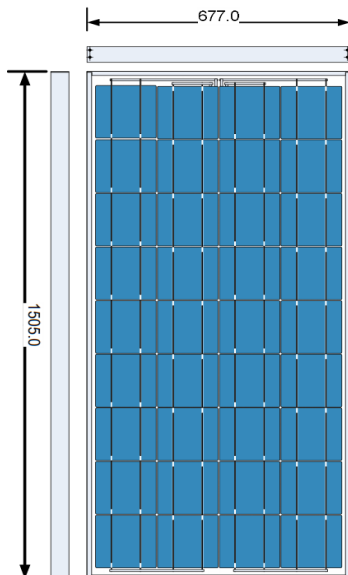
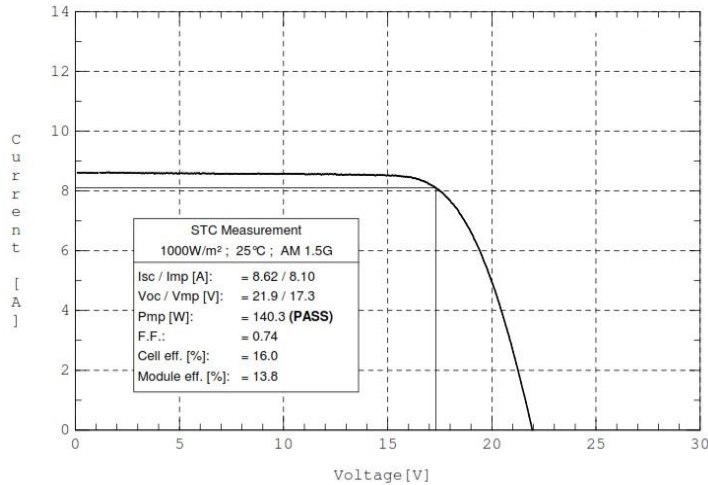
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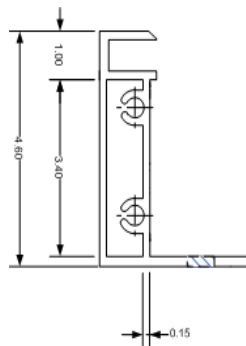
Electrical Characteristics

Characteristics	SP140E	SP145E	SP150E
Rated Power, Pm (W)	140	145	150
Maximum Power Tolerance (W.)	±3	±3	±3
Open Circuit Voltage, Voc (V.)	22.10	22.25	22.46
Short Circuit Current, Isc (A.)	8.46	8.62	8.73
Maximum Power Voltage, Vmp (V.)	17.84	17.88	18.21
Maximum Power Current, Imp (A.)	7.85	8.11	8.24
Module Efficiency (%)	13.74	14.23	14.72
Maximum System Voltage (V.)	1000		
Maximum Rated Current Series (A.)	12		
Temperature coefficients of Pmax	-0.43 % / °C		
Temperature coefficients of Voc	-0.31 % / °C		
Temperature coefficients of Isc	0.04 % / °C		
Nominal operating cell temperature (NOCT)	47.3 °C		

❖ Standard Test Conditions of Irradiance of 1,000 W/m², Spectrum 1.5 AM , Module Temperature 25 °C.



Module Drawing Diagram



Note : mm.

