



# SOLARTRON

PUBLIC COMPANY LIMITED

290W/295W/300W/305W/310W/315W/320W/325W/330W/  
335W/340W/345W/350W/355W/360W/365W/370W/375W/  
380W/385W/390W/395W/400W/405W/410W/415W

## Crystalline Silicon Solar Module

### Performance :

- > **Module Efficiency is up to 20%**,  
minimizing installation costs and maximizing the output of the system
- > **1002 x 1979 x 35 or 40 mm** is suitable for all solar power systems
- > **Higher Durability**, Certified to withstand 2400 Pa wind load and 5400 Pa snow load.
- > **Higher Output**, Improved ribbon layout and cable length, Enhanced fill factor,  
Increased power output up to 1% by reducing power loss.
- > **Water resistant Junction Box IP67**, bypass diode with IP68.

### Warranty :

- > 10 years Product Workmanship Warranty.
- > 25 years Linear Power Output Warranty :
  - > Output power shall not be less than 97.0 % in the first year.
  - > Loss shall not exceed 0.7% per year from year 2<sup>nd</sup> to 25<sup>th</sup>

### Standards and Certification :

- > ISO 9001:2015 Quality Standard Certified.
- > ISO 14001:2015 Environmental Standard Certified.
- > ISO 45001:2018 Occupational Health and Safety Standard Certified.
- > TIS 45001-2561 Occupational Health and Safety Standard Certified.
- > TIS 61215 No.1(1)-2561 / มท. 61215 เล่ม 1 (1) – 2561 เทียบเท่า IEC 61215-1-1:2016
- > TIS 2580 No.2-2562 / มท. 2580 เล่ม 2 – 2562 เทียบเท่า IEC 61730-2:2016
- > Green Industry, FIM Certified.
- > Made in Thailand, MiT Certified.



### Mechanical Characteristics

<b>Solar Cell :</b>	72 Cells, 158.75 x158.75 Polycrystalline	<b>Junction box :</b>	IP67 or IP68
<b>Dimension :</b>	1002 x 1979 x 35 or 40mm	<b>Diodes :</b>	IP67 or IP68 bypass diodes
<b>Weight :</b>	23 kg.	<b>Connector :</b>	MC4 compatible
<b>Construction :</b>	Front: High Transmission 3.2 mm. tempered glass; Rear: White PET; Encapsulant: EVA	<b>Output cables :</b>	4.0 mm <sup>2</sup> 12 AWG cable. PV1-F Double insulation.
<b>Frame :</b>	Anodized Aluminium Alloy	<b>Fire rating Class :</b>	C

#### SOLARTRON PUBLIC COMPANY LIMITED

#### SOLARTRON FACTORY

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## Electrical Characteristics

STC Performance	SP290	SP295	SP300	SP305	SP310	SP315	SP320	SP325	SP330	SP335	SP340	SP345	SP350
Maximum Power, Pm (W)	290	295	300	305	310	315	320	325	330	335	340	345	350
Open Circuit Voltage, Voc (V)	43.83	44.13	44.43	44.70	45.00	45.03	45.63	45.93	46.23	46.53	47.01	47.50	47.70
Short Circuit Current, Isc (A)	9.18	9.20	9.22	9.24	9.26	9.28	9.30	9.32	9.34	9.37	9.39	9.41	9.43
Maximum Power Voltage, Vmp (V)	35.40	35.60	35.90	36.20	36.40	36.70	36.95	37.17	37.39	37.61	38.02	38.42	38.72
Maximum Power Current, Imp (A)	8.20	8.30	8.37	8.45	8.52	8.59	8.69	8.74	8.83	8.91	8.94	8.98	9.04
Module Efficiency (%)	14.62	14.88	15.13	15.38	15.63	15.86	16.14	16.39	16.64	16.89	17.15	17.40	17.65

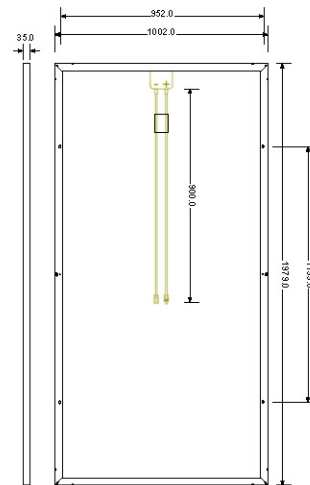
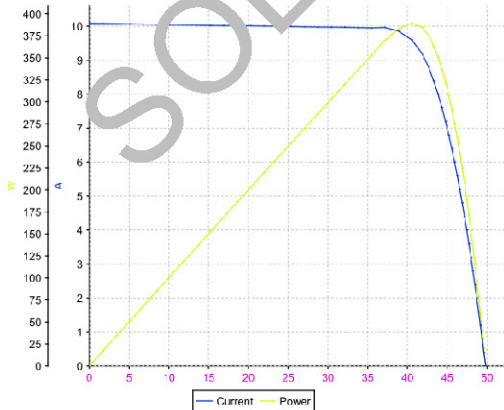
STC Performance	SP355	SP360	SP365	SP370	SP375	SP380	SP385	SP390	SP395	SP400	SP405	SP410	SP415
Maximum Power, Pm (W)	355	360	365	370	375	380	385	390	395	400	405	410	415
Open Circuit Voltage, Voc (V)	47.90	48.10	48.30	48.50	48.70	48.90	49.10	49.30	49.5	49.70	49.80	50.00	50.02
Short Circuit Current, Isc (A)	9.48	9.53	9.58	9.65	9.72	9.81	9.89	9.97	10.01	10.07	10.10	10.13	10.16
Maximum Power Voltage, Vmp (V)	39.01	39.30	39.60	39.90	40.24	40.50	40.75	41.1	41.45	41.71	42.01	42.32	42.66
Maximum Power Current, Imp (A)	9.10	9.16	9.22	9.27	9.32	9.39	9.45	9.49	9.53	9.59	9.64	9.69	9.73
Module Efficiency (%)	17.90	18.15	18.41	18.66	18.91	19.16	19.42	19.67	19.92	20.17	20.42	20.68	20.93

## TEMPERATURE COEFFICIENTS

Maximum Power Tolerance (%)	±5
Maximum System Voltage, (V)	1000/1500
Maximum Series Fuse Rating, (Amp)	20
Temperature coefficients of Pmax	-0.42 % / °C
Temperature coefficients of Voc	-0.32 % / °C
Temperature coefficients of Isc	+0.04 % / °C
Nominal operating cell temperature (NOCT)	45.0 °C (±2 °C)

❖ Standard Test Conditions of Irradiance : 1,000 W/m<sup>2</sup>, Spectrum 1.5 AM , Module Temperature 25 °C

## DIMENSION OF PV MODULE



## Packaging Configuration

Modules per box	31 pieces
Container 20' HC	310 pieces
Container 40' HC	620 pieces

