



SOLARTRON

PUBLIC COMPANY LIMITED

300W/305W/310W/315W/320W/325W Multicrystalline Silicon Solar Module



Module Efficiency is up to 16%, minimizing installation costs and maximizing the output of the system.

992 x 1956 x 40 mm is suitable for power plant system .

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.

Lower Junction Box Temperature, Separated junction box design, Better heat dissipation, Lower diode operating temperature and life time.

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 2nd to 25th

Standards and Certification

> ISO 9001:2015 Quality Standard Certified.

> ISO 14001:2015 Environmental Standard Certified.

> ISO45001:2018 and TIS45001-2561 Occupational Health and Safety Standard Certified.

> IEC61215 Crystalline silicon terrestrial photovoltaic modules.

> IEC61730 Photovoltaic module safety qualification.

> Green Industry, DIW Certified.

> Made in Thailand, MiT Certified.



Mechanical Characteristics

Solar Cell :	72 Cells, 156x156 multicrystalline	Junction box :	IP68 Certified Junction Box
Dimension :	992 x 1956 x 40 mm	Diodes :	3 Schottky bypass diodes
Weight :	21.4 kg.	Connector :	MC4 compatible
Construction :	Front: High Transmission 3.2 mm. tempered glass; Rear: White PET; Encapsulant: EVA	Output cables :	4.0 mm ² 12 AWG cable. Cable length 320 mm
Frame :	Anodized Aluminium Alloy	Fire rating Class :	C

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1000/65, 66, 67 P.B. Tower 16th Floor,
Sukhumvit 71 Road, North Khlongton, Wattana,
Bangkok 10110, Thailand.
Tel : +66 2 392 0224 (Auto 10 Lines),
Fax : +66 2 381 0936 , +66 2 381 2971
E-mail : support@solartron.co.th www.solartron.co.th

SOLARTRON FACTORY

88/8,9 Moo 10, Nongnamdang, Pakchong,
Nakonratchasima 30130, Thailand.
Tel : +66 44 938 972, +66 44 938 973
Tel : +66 44 938 974

SP72C5O3J-V3-220421-G



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Electrical Characteristics

STC Performance	SP300	SP305	SP310	SP315	SP320	SP325
Rated Power, Pm (W)	300	305	310	315	320	325
Open Circuit Voltage, Voc (V)	44.68	44.89	45.14	45.31	45.52	45.71
Short Circuit Current, Isc (A)	8.72	8.85	8.97	8.99	9.01	9.04
Maximum Power Voltage, Vmp (V)	36.26	36.59	37.13	37.45	37.60	37.75
Maximum Power Current, Imp (A)	8.28	8.34	8.37	8.41	8.50	8.58
Module Efficiency (%)	15.37	15.63	15.89	16.14	16.40	16.66
Maximum Power Tolerance	± 5 %					
Maximum System Voltage, IEC (V)	1000					
Maximum Series Fuse Rating, (Amp)	15					
Temperature coefficients of Pmax	-0.40 % / °C					
Temperature coefficients of Voc	-0.31 % / °C					
Temperature coefficients of Isc	0.06 % / °C					
Nominal operating cell temperature (NOCT)	45.0 °C (±2 °C)					

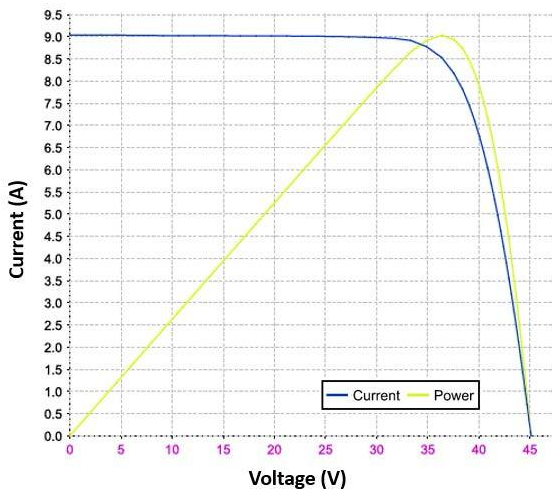
❖ Standard Test Conditions of Irradiance of 1,000 W/m², Spectrum 1.5 AM , Module Temperature 25 °C

❖ Weaklight Performance at 200 W/m²: Efficiency of module shall not be less than 95.5% of STC efficiency

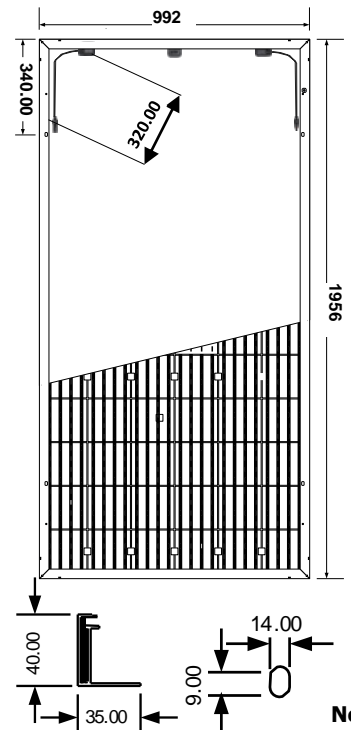
NOCT Performance	SP300	SP305	SP310	SP315	SP320	SP325
Maximum Power, Pmax (Watt)	222	226	230	233	237	241
Open Circuit Voltage, Voc (V)	43.14	43.31	43.36	43.40	43.60	43.81
Short Circuit Current, Isc (A)	7.23	7.25	7.34	7.39	7.46	7.54
Maximum Power Voltage, Vmp (V)	33.67	33.92	34.28	34.57	34.90	35.23
Maximum Power Current, Imp (A)	6.61	6.67	6.70	6.75	6.79	6.84

❖ NOCT: Irradiance of 800 W/m², Ambient Temperature 20 °C, Wind Speed 1m/s

I-V CURVES OF PV MODULE



DIMENSION OF PV MODULE



Note : mm

Packaging Configuration

Modules per box	25 pieces
Container 20' HC	250 pieces
Container 40' HC	600 pieces