



V-Series Modules

Polycrystalline Solar Modules

Peak Power: 310-325Wp

High Quality

- Powered by TSEC premium grade solar cells.
- PID free by adopting TSEC PID free solar cells plus PID resistant materials.

High Reliability

- Snow Pressure(Mechanical loading) up to 10,000 pa (Optional)
- Snow Pressure(Mechanical loading) up to 5,400 pa
- Wind pressure up to 2,400 pa
- PID resistance up to 1000hrs by TÜV Rheinland.
- Salt mist corrosion testing up to 56 days by ITRI, follow severity 6 in IEC 60068-2-52 standard.

Strict Quality Control

- Positive power tolerance from 0 to 5W.
- Current sorting for hot spot protection.
- 3-stage EL tests at pre-lamination, before framing and before delivery.

Module Characteristics

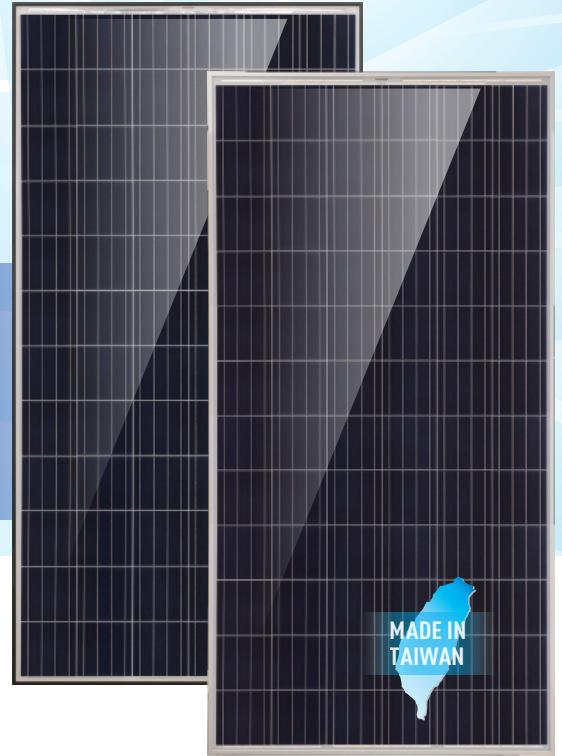
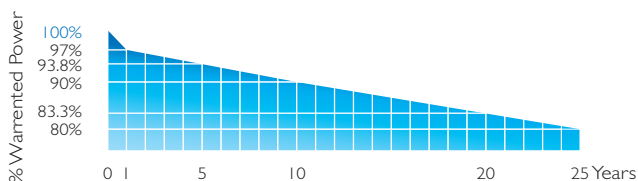
Dimension	1,965 × 993 × 39 mm
Weight	21.5 Kg

Certifications

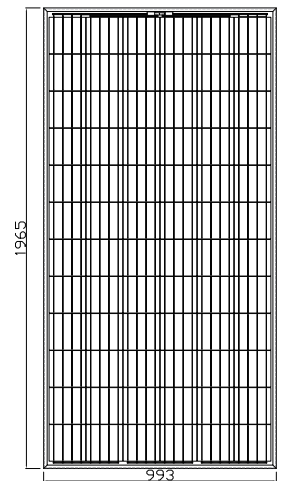
- TÜV Rheinland IEC 61215:2005、IEC 61730-1:2004&IEC 61730-2:2004
- CE / MCS / ETL UL-1703
- ISO 9001:2008 Quality management system
- ISO 14001:2004 Standards for environmental management system
- ISO 50001:2011 Energy management system
- OHSAS 18001:2007 International standards for occupational health and safety

Warranty

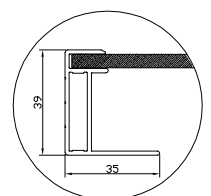
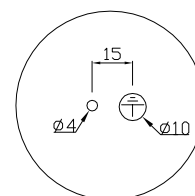
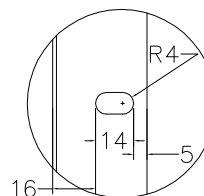
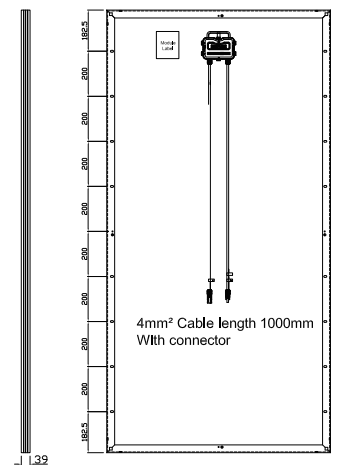
- 10-year materials and workmanship warranty.
- 25-year linear power warranty.



Module Front Side (4BB)



Module Rear Side



V-Series 325W

Polycrystalline Solar Modules



Make the best better.
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Performance Under Standard Test Conditions

Model Name			TS72-6P3-310	TS72-6P3-315	TS72-6P3-320	TS72-6P3-325
Max. power at STC	P_{max}	W	310	315	320	325
Max. power voltage	V_{mp}	V	37.36	37.61	37.39	37.59
Max. power current	I_{mp}	A	8.32	8.39	8.56	8.65
Open circuit voltage	V_{oc}	V	45.52	45.84	46.41	46.63
Short circuit current	I_{sc}	A	8.74	8.79	9.15	9.22
Power Tolerance	ΔP_{amx}	W	-0/+5 (Positive power classification)			
F.F. (%)	-	%	78.13%	78.31%	75.43%	75.64%
Module Conversion Eff.		%	15.89%	16.14%	16.40%	16.66%
Module Effective Conversion Eff.		%	17.69%	17.98%	18.26%	18.55%

* Standard Test Condition (1,000W/m², 25°C, AM 1.5)

* Module Conversion Eff. (%) = [Max power at STC(w) / (Solar Module Area(m²) × 1000 (w/m²))] × 100%

* Module Effective Conversion Eff. (%) = [Max power at STC(w) / (Solar Cell Total Area(m²) × 1000 (w/m²))] × 100%

Thermal Characteristics

Normal Operating cell temperature	NOCT	°C	45.1
TC I_{sc}	αI_{sc}	%/°C	+0.073
TC V_{oc}	βV_{oc}	%/°C	-0.310
TC P_{max}	γ	%/°C	-0.431

Component Material

Cell type	Polycrystalline / 156×156mm
Cell per module	72 pcs
Front	Low-iron glass / Tempered
Encapsulant Film	Ethylene Vinyl Acetate(EVA)
Rear	Backsheet
Frame	6063T5 Anodized aluminum (silver/black)
Junction Box	IP65
Connector	MC4 Compatible
Cable	1000mm / 12 AWG / 4mm ²

System Integration Parameters

Max. system voltage	1000V
Fire rating (UL790)	Class C
Application class (Safety class II)	Class A
series fuse rating	15 A
Number of bypass diodes	3
Max. mechanical load	5,400Pa (By TÜV Rheinland) 10,000Pa (By ITRI, Optional)
Temperature range	-40 to 85°C

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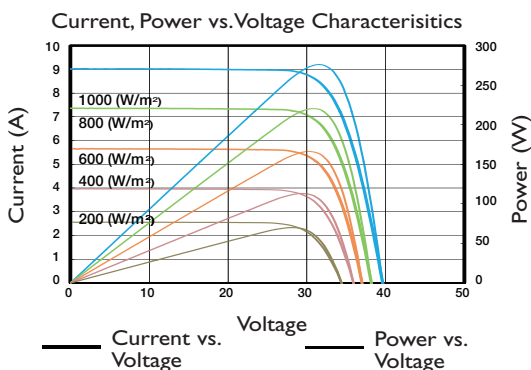
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IV Curve



* The information in this document is subject to change without notice.
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