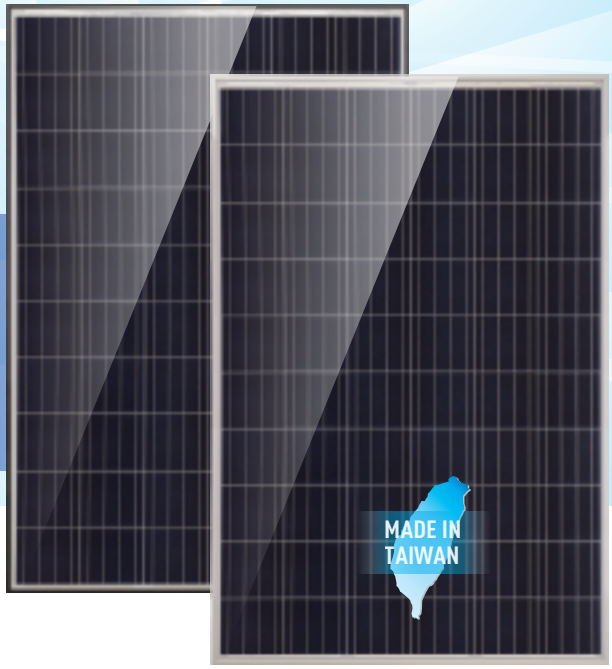
E-Series Modules

Polycrystalline Solar Modules

Peak Power:265-275Wp



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 and wind pressure(Mechanical loading) up to 5,400 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

- Current sorting for hot spot protection.
- 3-stage EL tests at pre-lamination, before framing and before delivery.

Module Characteristics

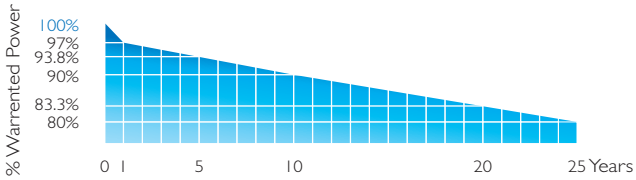
Dimension	1,649 x 993 x 40 mm
Weight	18.5 Kg

Certifications

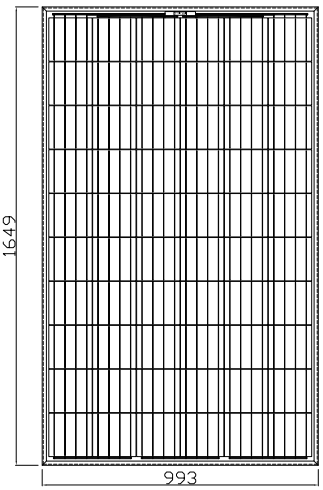
- TÜV Rheinland IEC 61215:2005、IEC 61730-1:2004&IEC 61730-2:2004
- CE / MCS / ETL UL-1703
- ISO 9001:2008 Quality management system
- ISO 14001:2004 Standards for environmental management system
- ISO 50001:2011 Energy management system
- OHSAS 18001:2007 International standards for occupational health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

Warranty

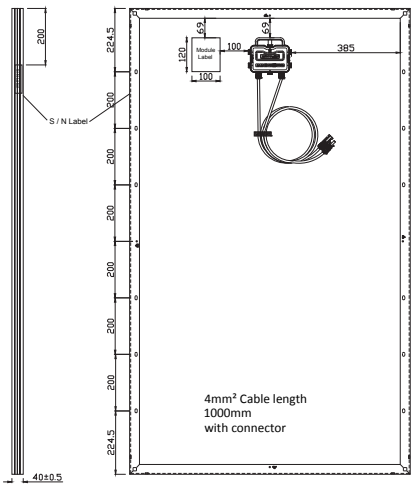
- 10-year materials and workmanship warranty.
- 25-year linear power warranty.

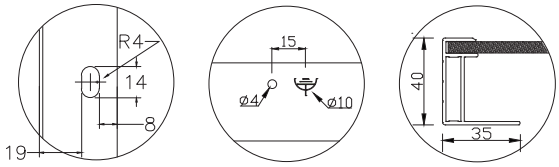


Module Front Side (4BB)



Module Rear Side





E-Series 275W

Polycrystalline Solar Modules

Make the best better.

www.tsecpv.com

Performance Under Standard Test Conditions

Model Name			TS60-6P3-265	TS60-6P3-270	TS60-6P3-275
Max. power at STC	P_{max}	W	265	270	275
Max. power voltage	V_{mp}	V	31.09	31.30	31.50
Max. power current	I_{mp}	A	8.53	8.63	8.74
Open circuit voltage	V_{oc}	V	38.60	38.82	39.04
Short circuit current	I_{sc}	A	9.12	9.21	9.29
F.F. (%)		%	75.33%	75.55%	75.91%
Module Conversion Eff.		%	16.18%	16.49%	16.79%
Module Effective Conversion Eff.		%	17.98%	18.31%	18.65%

* Standard Test Condition(1,000W/m²,25°C,AM 1.5)
* Module Conversion Eff. (%) = [Max power at STC(w) / (Solar Module Area(m^2) x 1000 (w/m^2))] x 100%
* Module Effective Conversion Eff. (%) =[Max power at STC(w) / (Solar Cell Total Area(m^2) x 1000 (w/m^2))]x 100%

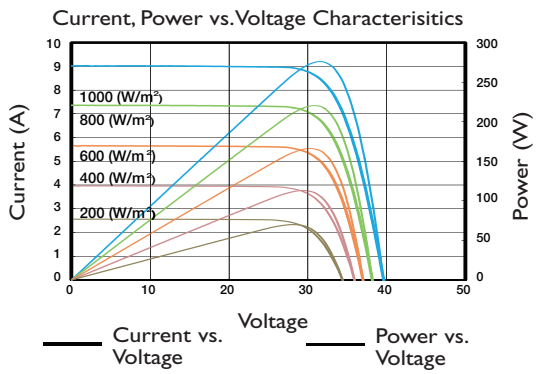
Thermal Characteristics

Normal Operating cell temperature	NOCT	°C	45±2
TC Isc	αIsc	%/ °C	+0.06
TC Voc	βVoc	%/ °C	- 0.31
TC Pmax	γ	%/ °C	- 0.41

Component Material

Cell type	Polycrystalline / 156.75 x156.75mm (156x156 mm)
Cell per module	4BB / 60 pcs
Front	Low-iron glass / Tempered
Encapsulant Flim	Ethylene Vinyl Acetate(EVA)
Rear	Backsheet
Frame	6063T5 Anodized aluminum (silver/black)
Junction Box	IP67
Connector	MC4 Compatible
Cable	1000mm / 12 AWG / 4mm²

IV Curve



System Integration Parameters

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

TSEC Corporation

Taipei Headquarters
8F., No.225, Sec3, Beixin Rd., Xindian Dist., New Taipei City 231, Taiwan, R.O.C T +886-2-2912-2199
F +886-2-2917-5399 M taiwan.sales@tsecpv.com(EPC Business)
epc@tsecpv.com(EPC Engineering)

Hsinchu Plant
No.85, Guangfu N. Rd., Hukou Township, Hsinchu County 30351, Taiwan, R.O.C. (Hsinchu Industrial Park)
T +886-3-696-0707 F +886-3-696-0708

Overseas Bases

TSEC America Inc.
1235 N Harbor Blvd Ste 240 Fullerton, CA 92832, U.S.A.
T 1-714-449-0966 M Occident@tsecpv.com

RiTS Solar B. V.
Keurmeesterstraat 24, 2984BA Ridderkerk, The Netherlands.
T +31-180-229180 F +31-180-229189 M info@rits-solar.com

TSEC Thailand Office
279, Srinakarin Rd., Nong Bon, Prawet, Bangkok 10250 Thailand.
(279 ถนนศรีนครินทร์ แขวงหนองบอน เขตประเวศ กรุงเทพฯ 10250)
T +66-2747-3999 ext.313 F +66-2747-3133 M southasia@tsecpv.com

Version: April 2017.