Kingspan Renewables

SOLAMAX

powered by MITSUBISHI HEAVY INDUSTRIES LTD

THE RANGE

Solamax, Kingspan Renewables new Tandem Photovoltaic range represents the best product of its kind available today.

Kingspan offer the full service from system design to specification and installation though expert installation partners. This, together with high quality manufacturing by Mitsubishi using the best raw materials takes the Solamax Tandem range to a new level in photovoltaic product and service.

SOLAMAX – T

Solamax Tandem is a new generation of thin film photovoltaic, a major development in the solar market place.

Tandem technology guarantees high energetic yields, particulary in the most extreme situations. Factors that often hamper performance including widespread radiation, partial overshadow, high temperatures and less than perfect orientation are in most cases overcome. With Tandem technology these factors have little effect on performance.

In most cases Tandem technology guarantees yields of up to 10% more than silicon crystalline products.

Solamax Tandem offers a fast pay-back making it a sound economical investment.

THE SERVICE

Kingspan Renewables is part of the International Kingspan Group PLC. Renowned for its manufacture of building products, innovative technology and customer support, Kingspan Renewables and their specialist teams work in partnership with the customer from initial discussions to realisation of the project.

TECHNICAL SPECIFICATIONS

The frame is made of a crushproof aluminium alloy and has a special treatment against weather and corrosion. This makes the panel stable and permits a wide variation of mounting styles to suit various applications.

The front of the panel is made of thermically pre-compressed solar glass. This ensures high transparency, whilst also protecting against extreme weather conditions such as hail, snow and ice. A plastic (Tedlar™) membrane guarantees an effective seal for long life service.



SOLAMAX

SPECIFICATION

A. DIMENSION AND WEIGHT

- Dimension: Length 1,414mm x Width 1,114mm x Thickness 35mm
- Weight: Approx. 21kg

B. ELECTRICAL CHARACTERISTICS

(A) Power output properties

Specified condition: Module temperature 25 °C
Spectrum AM 1.5 Reference solar radiation
Irradiance 1000W/m²

	Stable* (After the initial degradation)			Initial (At the shipping)
	MT130	MT140	MT150	
Maximum power	130W±5%	140W±5%	150W±5%	Approx. 8% higher than stable value
Maximum power voltage	101V±10%	101V±10%	101V±10%	Approx. 3% higher than stable value
Maximum power current	1.29A±10%	1.39A±10%	1.48A±10%	Approx. 5% higher than stable value
Open circuit voltage	131V±10%	131V±10%	131V±10%	Approx. 1% higher than stable value
Short circuit current	1.53A±10%	1.65A±10%	1.77A±10%	Approx. 2% higher than stable value

* Stabilizing condition is MHI's acceleration test condition (Module temp. 30°C, Irradiance 5000W/m², 2 hours).

Note: Values may change during operation according to climate condition.
Generally, energy conversion efficiency tends to decrease in winter season.

(B) Temperature coefficients

	Temperature coefficient
Maximum power	-0.28%/°C
Maximum power voltage	-0.33%/°C
Maximum power current	+0.06%/°C
Open circuit voltage	-0.32%/°C
Short circuit current	+0.06%/°C

(C) Maximum system voltage

600V

(D) Diode

- Bypass diode: None
- Blocking diode: Included

	Rated value
Repetitive peak reverse voltage	600 V
Average rectified forward current	2 A

* No voltage at 600V or more shall be applied to PV module.

C. LIMITATION OF TEMPERATURE

	Temperature	Humidity
Ambient	-20°C ~ +50%	–
Working	-20°C ~ +85%	–
Storage	-20°C ~ +50%	~ 85%

D. QUALIFICATIONS AND CERTIFICATIONS

MT Series were awarded the following international certifications.

- IEC 61646
- Safety class II

All certificates were issued by TUV Rheinland.
Certificate No. : Q 60011903
TUVdotCOM-ID: 0211005400

Kingspan

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