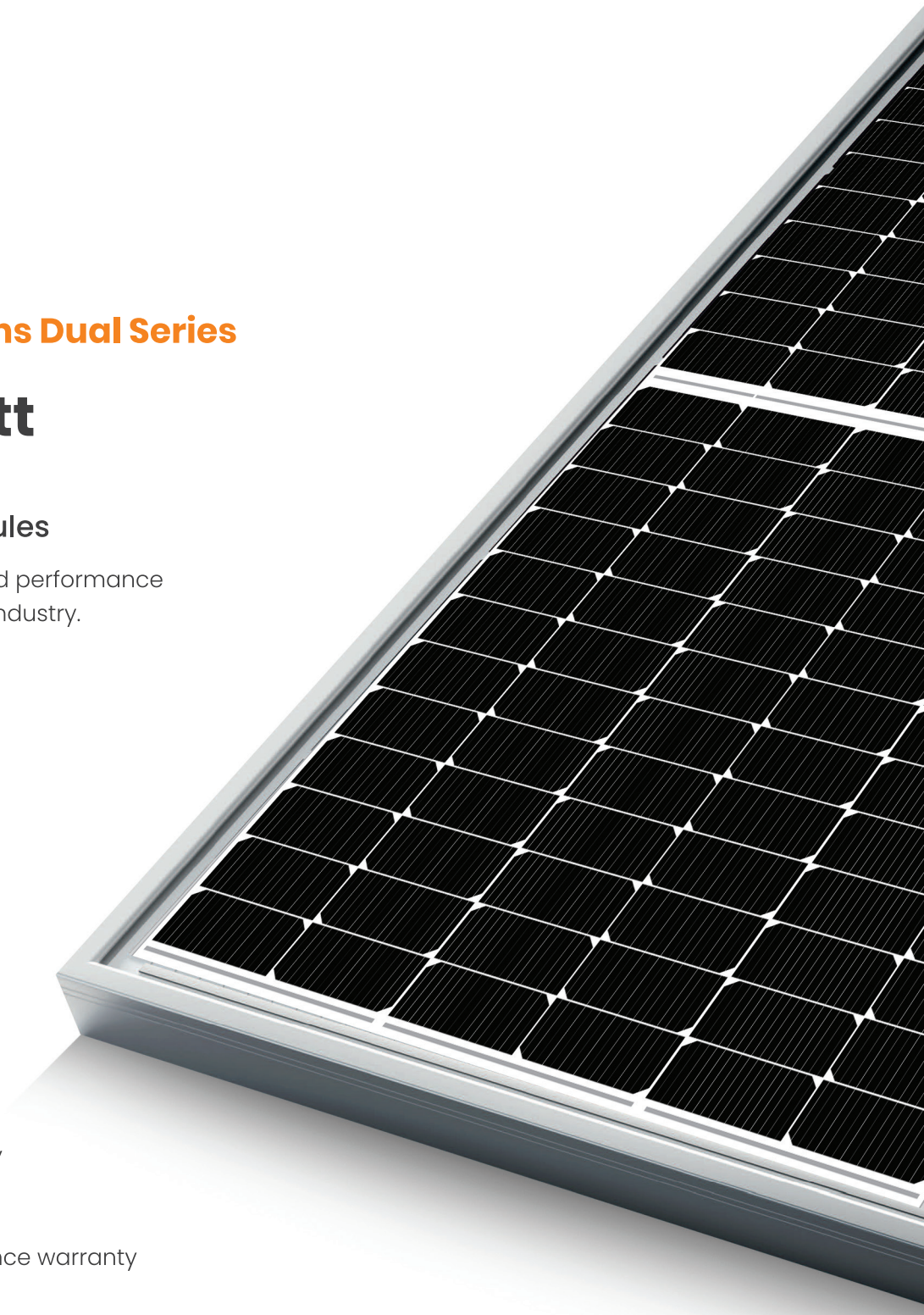
SOLEX ENERGY

# tapi Trans Dual Series

# 570-595 Watt



## N-Type Dual Glass Modules

The all-new era of efficiency and performance that sets new standards in the industry.

12 year product warranty

30 year linear performance warranty

**Product & System Certifications**

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018

R-72008125

IEC 61215-1 & 2: 2021
IEC 61730-1 & 2: 2023
UL 61730-1 & 2: 2022

Module Efficiency up to 23.03%

144 Half Cut Cell

Weather Resistant

Ideal For Urban Environment

**Quality & Reliability**

IP68-rated junction box designed for long-term weather endurance.

Manufactured using high-grade raw materials to ensure superior quality, durability, efficiency, and high throughput.

Module image is for reference only, actual appearance may vary.

# TAPI TRANS DUAL SERIES - TECHNICAL DATA

## TECHNICAL DATA FOR STGP144M10B16-AAA (570 - 595) N-TYPE TOPCON BI-FACIAL MODULE

### ELECTRICAL PARAMETER AT STC #1,2

| MODULE TYPE | STGP144M10B16-AAA (570-595) | | | | | |
|---|---|---|---|---|---|---|
| Capacity rating – Pmax (Wp) | 570 | 575 | 580 | 585 | 590 | 595 |
| Power Tolerance (Wp) | 0-4.99 | 0-4.99 | 0-4.99 | 0-4.99 | 0-4.99 | 0-4.99 |
| Open circuit voltage - Voc(V) | 51.08 | 51.28 | 51.48 | 51.68 | 51.40 | 51.50 |
| Short circuit current - Isc(A) | 14.24 | 14.30 | 14.36 | 14.42 | 13.80 | 13.87 |
| Rated voltage - Vmp(V) | 42.80 | 43.00 | 43.20 | 43.40 | 45.07 | 45.15 |
| Rated current - Imp(A) | 13.32 | 13.38 | 13.43 | 13.48 | 13.10 | 13.18 |
| Module efficiency (%) | 22.07 | 22.26 | 22.45 | 22.65 | 22.84 | 23.03 |

#1 Irradiance 1000 W/m², spectrum AM 1.5 and Module temperature of 25°C.
#2 Except Pmax other parameters have a tolerance of ± 3%

### BI-FACIAL OUTPUT - REAR SIDE POWER GAIN**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5% Gain | Maximum Power ( Pmax) | 599 | 604 | 609 | 614 | 619.50 | 624.75 |
| | Module Efficiency STC(%) | 23.17 | 23.37 | 23.57 | 23.78 | 23.98 | 24.18 |
| 15% Gain | Maximum Power ( Pmax) | 656 | 661 | 667 | 673 | 649.00 | 654.50 |
| | Module Efficiency STC(%) | 25.37 | 25.60 | 25.82 | 26.04 | 25.12 | 25.34 |
| 25% Gain | Maximum Power ( Pmax) | 713 | 719 | 725 | 731 | 737.50 | 743.75 |
| | Module Efficiency STC(%) | 27.58 | 27.82 | 28.07 | 28.31 | 28.55 | 28.79 |

**Additional power gain from the rear side depends on the albedo. Higher albedo results in higher power gain.

### ELECTRICAL PARAMETER AT NOCT #3

| | | | | | | |
|---|---|---|---|---|---|---|
| Power (W) | 429.55 | 433.32 | 437.09 | 440.86 | 460.06 | 456.29 |
| Vmp (V) | 40.31 | 40.48 | 40.68 | 40.88 | 42.51 | 42.44 |
| Imp (A) | 10.66 | 10.70 | 10.74 | 10.78 | 10.83 | 10.76 |
| Voc (V) | 48.53 | 48.72 | 48.91 | 49.10 | 48.97 | 48.88 |
| Isc (A) | 11.49 | 11.54 | 11.59 | 11.64 | 11.35 | 11.29 |

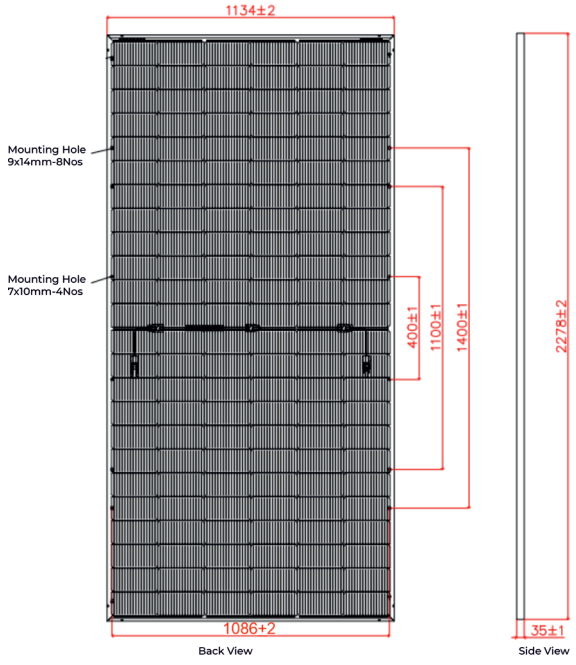
#3 NOCT irradiance 800 W/m2, ambient temperature 20°C, wind speed 1 m/s

### PRODUCT WARRANTY AND CERTIFICATIONS

| | |
|---|---|
| Product warranty** | 12 years |
| Performance guarantee** | 30 years Linear power warranty with degredation of 1% in 1st year and 0.40% thereafter till 30 years. |

**Applicable only when the module is installed as per Solex's installation manual.

### DRAWING (Measurements are in mm)




### MECHANICAL SPECIFICATION

| SPECIFICATION | DETAILS |
|---|---|
| Solar cells | N type Mono-crystalline Silicon, TOPCon |
| No. of cells | 144 Half Cut (12x6 \|\| 12x6) |
| Dimensions | (L) 2278 mm x (W) 1134 mm x (H) 35 mm |
| Backside | 2.0mm, Heat Strengthened Patterned Glass |
| Front glass | 2.0 mm, High Transmission, ARC Tempered Glass |
| Frame | Silver Anodized Aluminium Alloy |
| Weight | ~32 kg |
| J-box | IP 68 certified, 3 diodes junction box |
| Cable | Solar cable 400mm length or Customized Length, 4 mm² |
| Connectors | Compatible with MC4-type connectors |
| Application Class | Class A |
| Electrical Safety | Class II |
| Fire Safety | Class C (Type 1) |
| Surface load | Snow load 5400 Pa, wind load 2400 Pa |

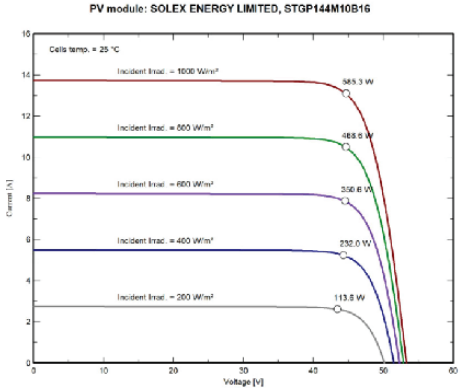
### TEMPERATURE COEFFICIENT (TC)

| | |
|---|---|
| Temperature Coefficient (Voc)** | -0.23%/°C |
| Temperature Coefficient (Isc)** | 0.03%/°C |
| Temperature Coefficient (Pmax)** | -0.30%/°C |

### PERMISSIBLE OPERATING CONDITIONS

| | |
|---|---|
| Temperature range | -40°C to +85°C |
| Maximum system voltage | 1500 VDC |
| NOCT | 45± 2°C |
| Hail resistance | Max. diameter of 25 mm with velocity 23 m/s |
| Maximum series fuse rating | 30A |
| Bifaciality Factor | 80±10% |

### IV CURVE




- For unpacking, handling, and installation instructions, please refer to Solex Energy's manual guidelines available on the company's website.
- Before placing an order, please confirm your requirements with our sales representative.
- The technical details, drawings, and I-V curves provided here are for reference purposes only.
- Due to continuous product improvements, Solex Energy Limited reserves the right to amend the above specifications without prior notice.
- Dispose of the product as e-waste at the end of its service life, in accordance with applicable regulations.

### PACKING CONFIGURATION

| | |
|---|---|
| Container | 40'HQ |
| Modules per Pallet | 31 |
| Pallets per Container | 20 |
| Modules per Container | 620 |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