



## ALPHA N-Type High-Efficiency Module Specification

Monocrystalline 6X24 Solar Modules

# 570Wp~605Wp



**Zero light-induced degradation**



**Better low light response**



**Additional power gain**



**The highest Mechanical Load Test in PV Industry**



**Better temperature coefficient**



**Lower LCOE**



**The toughest Salt Mist Test in PV Industry**

Green Energy

Made in Taiwan



**Sustainable Development**



# ALPHA N-Type High-Efficiency Module Specification

## Monocrystalline 6X24 Solar Modules

### 570-605Wp



### Electrical Data

| Model Name             | TS72-CMH-570 H1    | TS72-CMH-575 H1 | TS72-CMH-580 H1 | TS72-CMH-585 H1 | TS72-CMH-590 H1 | TS72-CMH-595 H1 | TS72-CMH-600 H1 | TS72-CMH-605 H1 |
|------------------------|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Max. power at STC      | P <sub>max</sub> W | 570             | 575             | 580             | 585             | 590             | 595             | 600             |
| Max. power voltage     | V <sub>mp</sub> V  | 43.76           | 43.94           | 44.13           | 44.31           | 44.49           | 44.66           | 44.85           |
| Max. power current     | I <sub>mp</sub> A  | 13.03           | 13.09           | 13.15           | 13.21           | 13.27           | 13.33           | 13.39           |
| Open circuit voltage   | V <sub>oc</sub> V  | 51.08           | 51.28           | 51.48           | 51.68           | 51.88           | 52.08           | 52.28           |
| Short circuit current  | I <sub>sc</sub> A  | 13.73           | 13.79           | 13.85           | 13.91           | 13.97           | 14.03           | 14.15           |
| Module Conversion Eff. | %                  | 22.6%           | 22.8%           | 23.0%           | 23.2%           | 23.4%           | 23.6%           | 23.9%           |

\* Under Standard Test Condition(1,000W/m<sup>2</sup>,25°C,AM 1.5): Power Tolerance ±3%, Voc Tolerance ±3%, Isc Tolerance ±3%  
\* Module Conversion Eff. (%) = [Max power at STC(w) / ((Solar Module Area(m<sup>2</sup>) x 1000 (w/m<sup>2</sup>))] x 100%

### General Data

|                  |                                                                                             |
|------------------|---------------------------------------------------------------------------------------------|
| Cell type        | Monocrystalline<br>N-Type solar cell                                                        |
| Cell per module  | Mono-crystalline silicon<br>N-Type solar cell (144 pcs)                                     |
| Front            | PV Coated glass                                                                             |
| Encapsulant Film | Low water vapor transmission<br>rate (WVTR) material                                        |
| Rear             | Backsheet (Inner side foil black)                                                           |
| Frame            | Composites material frame                                                                   |
| Junction Box     | IP68<br> |
| Connector        | EVO-2 Compatible                                                                            |
| Cable            | 1500mm / 12 AWG / 4mm <sup>2</sup>                                                          |

### Temperature Coefficient

|                   |      |       |        |
|-------------------|------|-------|--------|
| Nominal Operating | NOCT | °C    | 45±2   |
| Cell Temperature  |      |       |        |
| TC Isc            | α    | %/ °C | 0.045  |
| TC Voc            | β    | %/ °C | - 0.25 |
| TC Pmax           | γ    | %/ °C | - 0.29 |

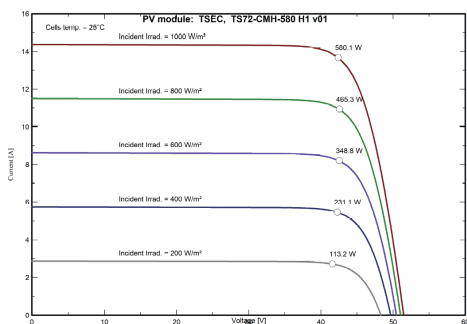
### Operation Conditions

|                                                      |              |
|------------------------------------------------------|--------------|
| Max. system voltage                                  | 1500V        |
| Module fire resistance class                         | Class C      |
| Protection Class (IEC 61140)                         | Class II     |
| Series fuse rating                                   | 30 A         |
| Number of bypass diodes                              | 3            |
| Temperature range                                    | -40 to +85°C |
| Max. mechanical load                                 | 5400 pa      |
| * Please follow installation manual provided by TSEC |              |

### Module Dimensions and Weight

|           |                     |
|-----------|---------------------|
| Dimension | 2278 x 1134 x 35 mm |
| Weight    | 27.5 Kg             |

### IV Curve

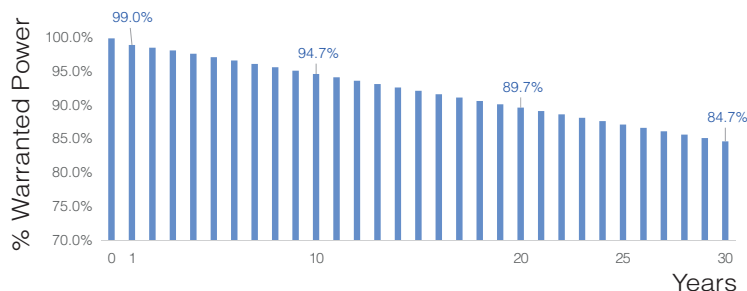
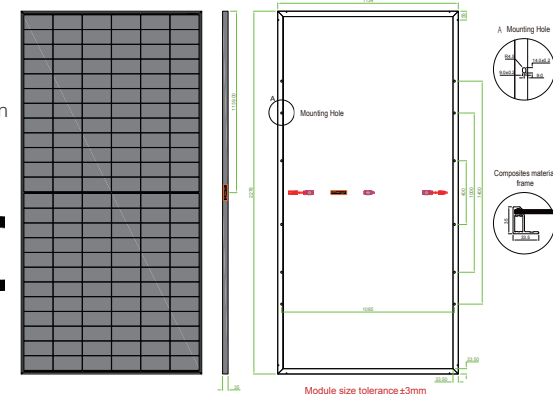


### Certifications

- IEC 61215:2021、IEC 61730-1:2021 & IEC 61730-2:2021、UL 61730
- ISO 9001:2015 Quality management system
- ISO 14001:2015 Environmental management system
- ISO 45001:2018 Occupational health and safety management system



### Engineering Drawing(mm)



### Warranty

- 12-year materials and workmanship warranty
- 30-year linear power warranty

Made in Taiwan

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

\* TSEC reserves the rights of final interpretation and revision of datasheet

\* Version : Rev.13, May 2025

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