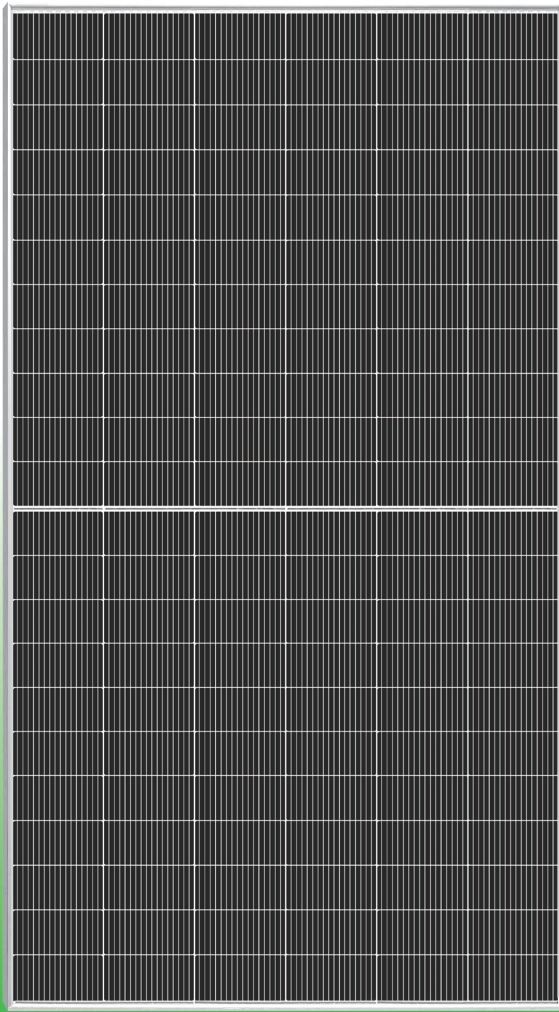




## ALPHA N-Type High-Efficiency Module Specification

Monocrystalline 6X22 Solar Modules

# 525Wp~555Wp



**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 6X22 Solar Modules

### 525-555Wp



### Electrical Data

| Model Name             |      |   | TS66-CMH-525 H1 | TS66-CMH-530 H1 | TS66-CMH-535 H1 | TS66-CMH-540 H1 | TS66-CMH-545 H1 | TS66-CMH-550 H1 | TS66-CMH-555 H1 |
|------------------------|------|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Max. power at STC      | Pmax | W | 525             | 530             | 535             | 540             | 545             | 550             | 555             |
| Max. power voltage     | Vmp  | V | 40.25           | 40.43           | 40.52           | 40.64           | 40.78           | 40.92           | 41.04           |
| Max. power current     | Imp  | A | 13.05           | 13.13           | 13.21           | 13.29           | 13.37           | 13.45           | 13.53           |
| Open circuit voltage   | Voc  | V | 46.78           | 46.97           | 47.16           | 47.35           | 47.54           | 47.73           | 47.92           |
| Short circuit current  | Isc  | A | 13.74           | 13.83           | 13.92           | 14.01           | 14.1            | 14.19           | 14.28           |
| Module Conversion Eff. | %    |   | 22.1%           | 22.3%           | 22.5%           | 22.8%           | 23.0%           | 23.2%           | 23.4%           |

\* 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 (132 pcs)                                     |
| Front            | PV Coated glass                                                                             |
| Encapsulant Film | Low water vapor transmission<br>rate (WVTR) material                                        |
| Rear             | Backsheet (Inner side foil white)                                                           |
| Frame            | Anodized aluminum silver                                                                    |
| 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 |

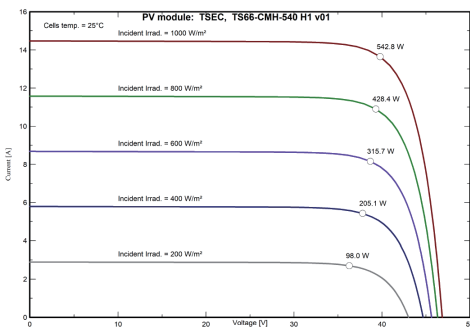
### Operation Conditions

|                                                      |              |
|------------------------------------------------------|--------------|
| 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 | 2093 x 1134 x 35 mm |
| Weight    | 25.5 Kg             |

### IV Curve

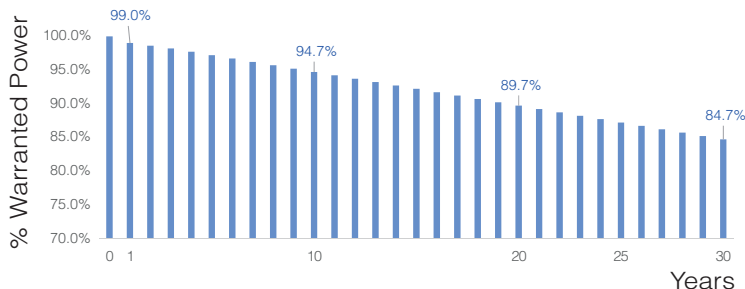
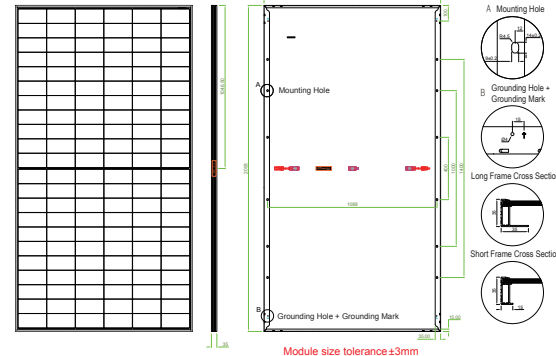


### Certifications

- 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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