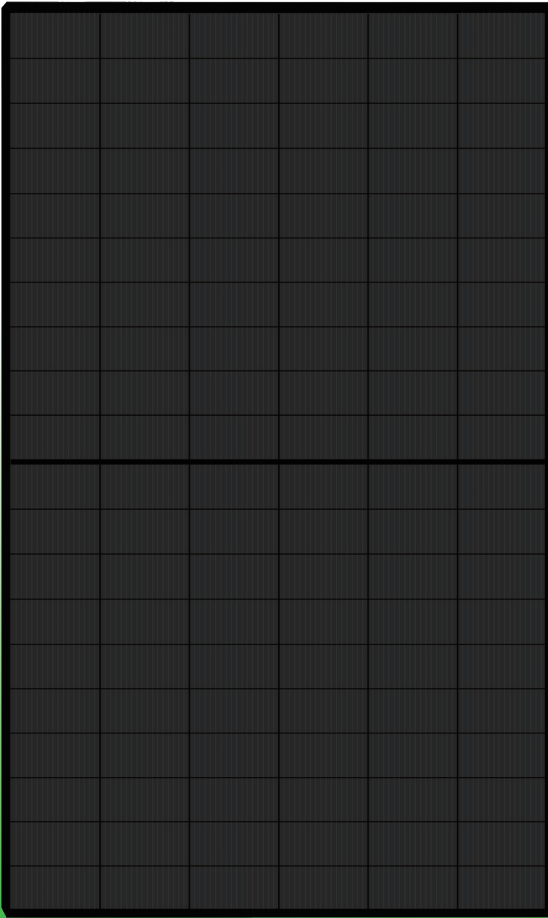




ALPHA TOPCon Module Specification

Monocrystalline 6X20 Solar Modules

182mm Solar Cell

475Wp~505Wp



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 TOPCon Module Specification(182mm Solar Cell)

Monocrystalline 6X20 Solar Modules

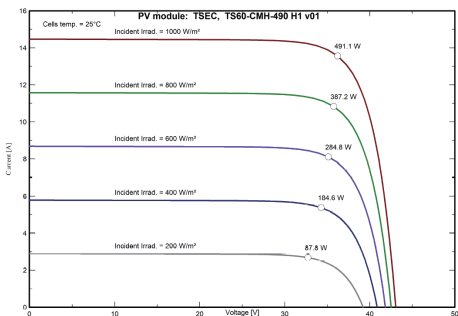
475-505Wp



Electrical Data										General Data											
Model Name		TS60-CMH-475 H1		TS60-CMH-480 H1		TS60-CMH-485 H1		TS60-CMH-490 H1		TS60-CMH-495 H1		TS60-CMH-500 H1		TS60-CMH-505 H1		Cell type	Monocrystalline TOPCon solar cell				
Max. power at STC		Pmax	W	475		480		485		490		495		500		505		Cell per module	Mono-crystalline silicon TOPCon solar cell (120 pcs)		
Max. power voltage		Vmp	V	36.12		36.26		36.45		36.64		36.83		37.02		37.2		Front	PV Coated glass		
Max. power current		Imp	A	13.16		13.24		13.32		13.4		13.48		3.56		13.64		Encapsulant Film	Low water vapor transmission rate (WVTR) material		
Open circuit voltage		Voc	V	42.54		42.73		42.92		43.11		43.3		43.49		43.68		Rear	Backsheet		
Short circuit current		Isc	A	13.83		13.92		14.01		14.10		14.19		14.28		14.37		Frame	Anti-Salt Mist frame		
Module Conversion Eff.			%	22.0%		22.2%		22.4%		22.6%		22.9%		23.1%		23.3%		Junction Box	IP68		
																					
* Under Standard Test Condition(1,000W/m²,25°C,AM 1.5): Power Tolerance ±3% * Module Conversion Eff. (%) = [Max power at STC(w) / ((Solar Module Area(m²) x 1000 (w/m²)))] x 100% * Product specifications and data are subject to change without prior notice.																					
Connector																				EVO-2 Compatible	
Cable																				1500mm / 12 AWG / 4mm²	

Temperature Coefficient				Operation Conditions		Module Dimensions and Weight	
Nominal Operating	NOCT	°C	45±2	Max. system voltage	1500V	Dimension	1908 x 1134 x 35 mm
Cell Temperature				Module fire resistance class	Class C		
TC Isc	α	%/ °C	+0.045	Protection Class (IEC 61140)	Class II	Weight	23.5 Kg
TC Voc	β	%/ °C	- 0.25	Series fuse rating	25 A		
TC Pmax	γ	%/ °C	- 0.29	Number of bypass diodes	3		
				Temperature range	-40 to +85°C		
				Max. mechanical load	5400 pa		
				* Please follow installation manual provided by TSEC			

IV Curve



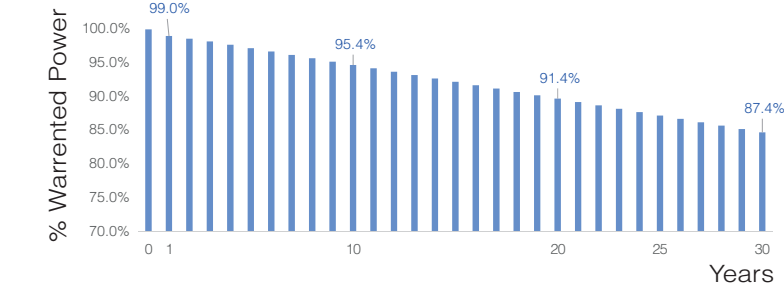
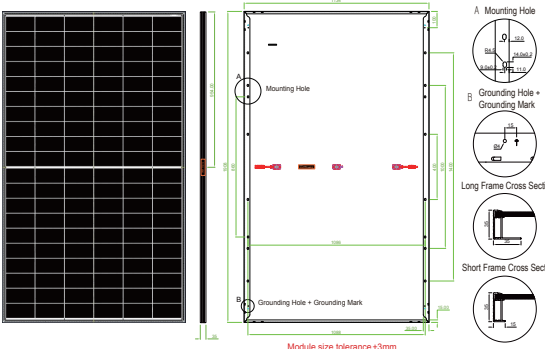
Certifications

- 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



★ Certification is in progress

Engineering Drawing(mm)



Warranty

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

★ The temporary data sheet is still under development.

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.10, November 2024

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