Tesla
Photovoltaic Module

T420S, T425S, and T430S

Maximum Power
The Tesla module is one of the most powerful residential photovoltaic modules available. Our system requires up to 20 percent fewer modules to achieve the same power as a standard system. The module boasts a high conversion efficiency and a half-cell architecture that improves shade tolerance.

Beautiful Solar
Featuring our proprietary Zep Groove design, the all-black module connects easily with Tesla ZS components to keep panels close to your roof and close to each other for a blended aesthetic with simple drop-in and precision quarter-turn connections.

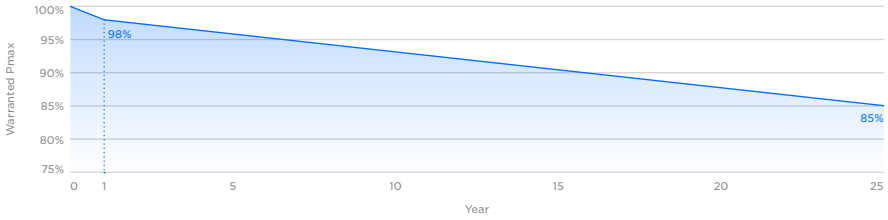
Reliability
Tesla modules are subject to automotive-grade engineering scrutiny and quality assurance, far exceeding industry standards. Modules are certified to IEC / UL 61730 - 1, IEC / UL 61730 - 2 and IEC / UL 61215.

Limited Warranty

Materials and Processing	25 years
Extra Linear Power Output	25 years

The maximum Pmax degradation is 2% in the 1st year and 0.54% annually from the 2nd to 25th year.

Linear Power Warranty



Module Specifications

Electrical Characteristics

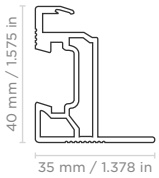
Power Class	T420S		T425S		T430S	
Test Method	STC	NOCT	STC	NOCT	STC	NOCT
Max Power, P_{MAX} (W)	420	313.7	425	317.4	430	321.1
Open Circuit Voltage, V_{OC} (V)	48.5	45.47	48.65	45.61	48.8	45.75
Short Circuit Current, I_{SC} (A)	11.16	9.02	11.24	9.09	11.32	9.15
Max Power Voltage, V_{MP} (V)	40.90	38.08	41.05	38.22	41.20	38.36
Max Power Current, I_{MP} (A)	10.27	8.24	10.36	8.3	10.44	8.37
Module Efficiency (%)	19.3		19.6		19.8	
STC	1000 W/m², 25°C, AM1.5					
NOCT	800 W/m², 20°C, AM1.5, wind speed 1m/s					

Temperature Rating (STC)

Temperature Coefficient of Isc	+0.040% / °C
Temperature Coefficient of V_{OC}	-0.260% / °C
Temperature Coefficient of P_{MAX} (W)	-0.331% / °C

Mechanical Loading

Front Side Design Load	3600 Pa | 75 lb/ft²
Rear Side Design Load	1600 Pa | 33 lb/ft²
Hailstone Test	25 mm Hailstone at 23 m/s



Mechanical Parameters

Cell Orientation	144 (6 x 24)
Junction Box	IP68, 3 diodes
Cable	4 mm² | 12 AWG, 1400 mm | 55.1 in. Length
Connector	Staubli MC4 or EVO2
Glass	3.2 mm ARC Glass
Frame	Black Anodized Aluminum Alloy
Weight	25.3 kg | 55.8 lb
Dimension	2094 mm x 1038 mm x 40 mm 82.4 in x 40.9 in x 1.57 in

Operation Parameters

Operational Temperature	-40°C - +85°C
Power Output Tolerance	-0 /+5 W
V_{OC} & I_{SC} Tolerance	+/- 3%
Max System Voltage	DC 1000 V (IEC/UL)
Max Series Fuse Rating	20 A
NOCT	45.7 +/- 2°C
Safety Class	Class II
Fire Rating	UL Type 1 or 2