

Solar Panel Comparison Guide

Specifications and features of Thermo King's solar panels versus competitive offerings.





	Thermo King	Competitor's Panel	Generic Panel
Size	13″ x 21″	40.5″ x 26.5″	14″ x 30″
Weight	6 lbs	4 lbs	10 lbs
Output	26 W peak output	28W peak output	30W peak output
Install time	30 minutes	90 minutes	At least 60 minutes
Panel Construction	Flexible polymer	Amorphous silicon	Polycrystalline (Glass)
Warranty	4 years - Full warranty	5 years - Limited warranty	Typically 1-2 years
Install Conditions	Any	Must be in shade, dry, and between 40°F-80°F	Any
Charge Controller Included and pre-wired	✓	✓	
Electrical Harness Included-No Splices required	✓	✓	
Complete Install Kit	1	✓	
Produces Power In low light	1	✓	
Automotive Rated			
Unit Mounted	\checkmark		

THERMO KING VALIDATION TESTS CONDUCTED

- ✓ Automotive Rated Tests: Electromagnetic Compatibility and Transient Susceptibility per SAE J1113 and SAE J1455 including:
 - Load Dump: Disconnecting the battery while being charged which causes a power surge
 - Reverse Polarity: Ensures the panel will withstand reverse connection situations without damage
 - ✓ Fast Transients: Tests for instantaneous power interruption that can causing electrical arcing
 - CISPR 25: Ensures no electronic signal interference from the panel when near other antennas
 - RF Immunity: Exposes the solar panel to high density, broad band radio waves
 - ESD: Tests for heavy static electricity discharges between the panel and other surfaces

☑ Operational Temperature Extremes (-40° to 185° F)

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- Liquid to Liquid Thermo Shock: Cycles between 32°F and 212°F to test for seal weaknesses
- Thermo Cycle: Long term exposure to extreme hot and cold environments
- ✓ Corrosion Testing: Simulates heavy corrosion environment over the life of the unit.
- High Velocity Wind & Driven Rain Test: Simulates Hurricane environment to ensure panel is weatherproof
- Accelerated Vibration: Simulates harsh vibration input over the life of the unit
- Hail Impact Testing: Simulates 0.5" hail up to 170mph impact
- Chemical Resistance Testing: Simulates exposure to high concentration acidic cleaners and fuel
- ✓ Pressure Wash Testing: Ensures the unit will stand up to 4000 psi close range pressure washing

