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Thermal Resistance Calculator – Plate Fin Heat Sink

Your Input: Parametric Values

Material: Aluminum (extruded)
Width: 85 mm
Length: 127 mm

Height: 40 mm
Base Thickness: 5 mm

Fin Thickness: 2.1 mm
Number of Fins: 10

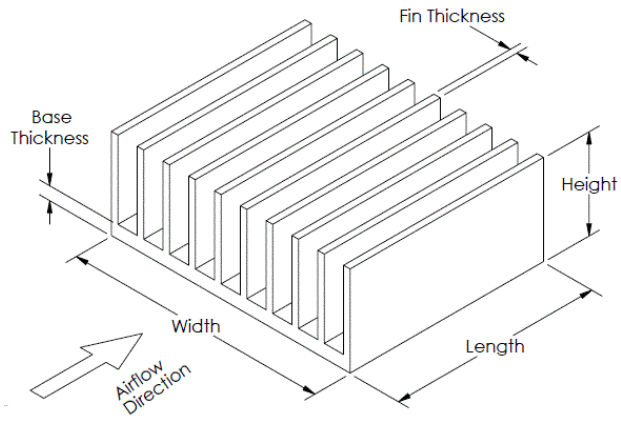
Calculation Result: Thermal Resistance & Pressure Drop

Airflow Rate	Thermal Resistance	Pressure Drop
0.5 m/s (~100 LFM)	0.83 °C/W	0.8 Pa (0.003 inH_2O)
1.0 m/s (~200 LFM)	0.62 °C/W	2.1 Pa (0.008 inH_2O)
1.5 m/s (~300 LFM)	0.52 °C/W	3.7 Pa (0.015 inH_2O)
2.0 m/s (~400 LFM)	0.46 °C/W	5.7 Pa (0.023 inH_2O)
2.5 m/s (~500 LFM)	0.42 °C/W	8.6 Pa (0.035 inH_2O)
3.0 m/s (~600 LFM)	0.39 °C/W	11.5 Pa (0.046 inH_2O)
3.5 m/s (~700 LFM)	0.37 °C/W	14.7 Pa (0.059 inH_2O)
4.0 m/s (~800 LFM)	0.35 °C/W	18.1 Pa (0.073 inH_2O)
4.5 m/s (~900 LFM)	0.33 °C/W	21.9 Pa (0.088 inH_2O)
5.0 m/s (~1,000 LFM)	0.32 °C/W	26.0 Pa (0.104 inH_2O)

Please note some assumptions were made in the calculation:
1. No flow bypassing;
2. Uniform heat spreading over base plate.
For problems involving flow bypassing and base spreading, please use our Advanced Calculator.

Please click here to request a quote for this heat sink.
The calculation result is for reference only. Customers are advised to build and test prototypes for all design projects.

Do the calculation again (or study the influence of individual parameters):



Material
Aluminum (extruded)

Width
85
mm

Length
127
mm

Height
40
mm

Base Thickness
5
mm

Fin Thickness
2.1
mm

Number of Fins
10

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Calculate

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