



Figure 1. Physical Photo of ATECA104

FEATURES

High Output Power

High Efficiency: COP = 0.56

DESCRIPTION

The ATECA104 is a TEC assembly. It comes with 2 fans on the hot side, 2 fans on the cold side, 2 TECs, 3 heat sink plates, a star dust silver cover and an insulation pad.

SPECIFICATIONS

Input voltage: 12VDC \pm 5%

Max. input current: 8ADC

Thermal cooling power:

$Q_{load} = 60W @ DT_{AMCH} = -12^{\circ}C,$

where $DT_{AMCH} = T_{Ambient} - T_{Chamber}$

$Q_{load} = 60W @ DT_{HSCP} = 16^{\circ}C,$

where $DT_{HSCP} = T_{Heat-Sink} - T_{Cold-Plate}$



Figure 2. Top View of the ATECA104

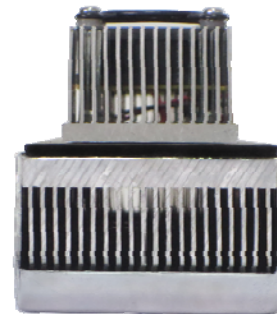


Figure 4. Front View of the ATECA104

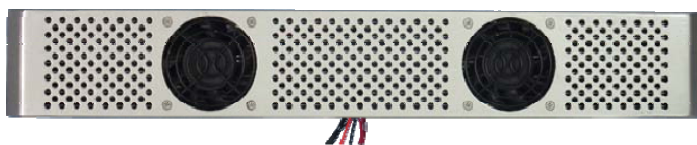


Figure 3. Bottom View of the ATECA104



Figure 5. Side View of the ATECA104

Thermal Load Characteristics

The thermal load characteristics were tested by using a thermal chamber with the following dimensions:

16.9 × 7.9 × 16.9 (inch) or 430 × 200 × 430 (mm).

$$DT_{AMCH} = T_{Ambient} - T_{Chamber}$$

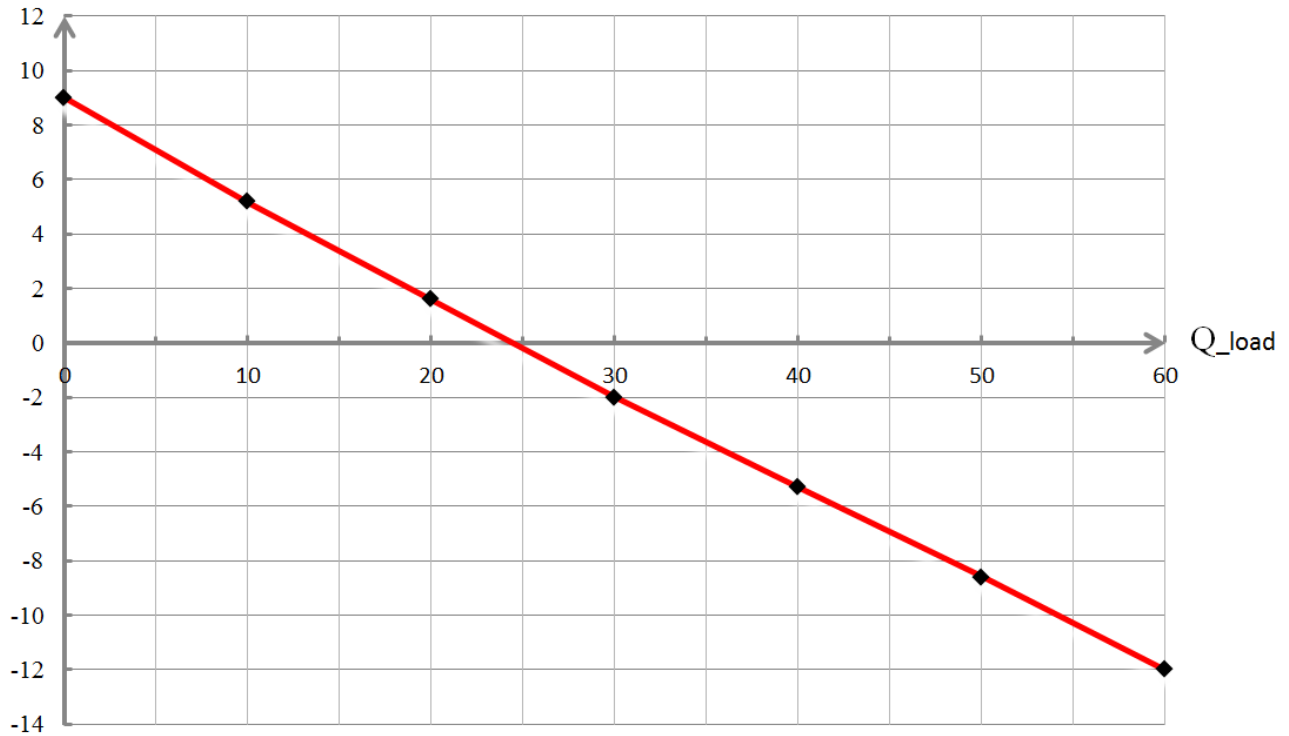


Figure 6. Ambient – Chamber Temperature Difference vs. Thermal Load

$$DT_{HSCP} = T_{Heat-Sink} - T_{Cold-Plate}$$

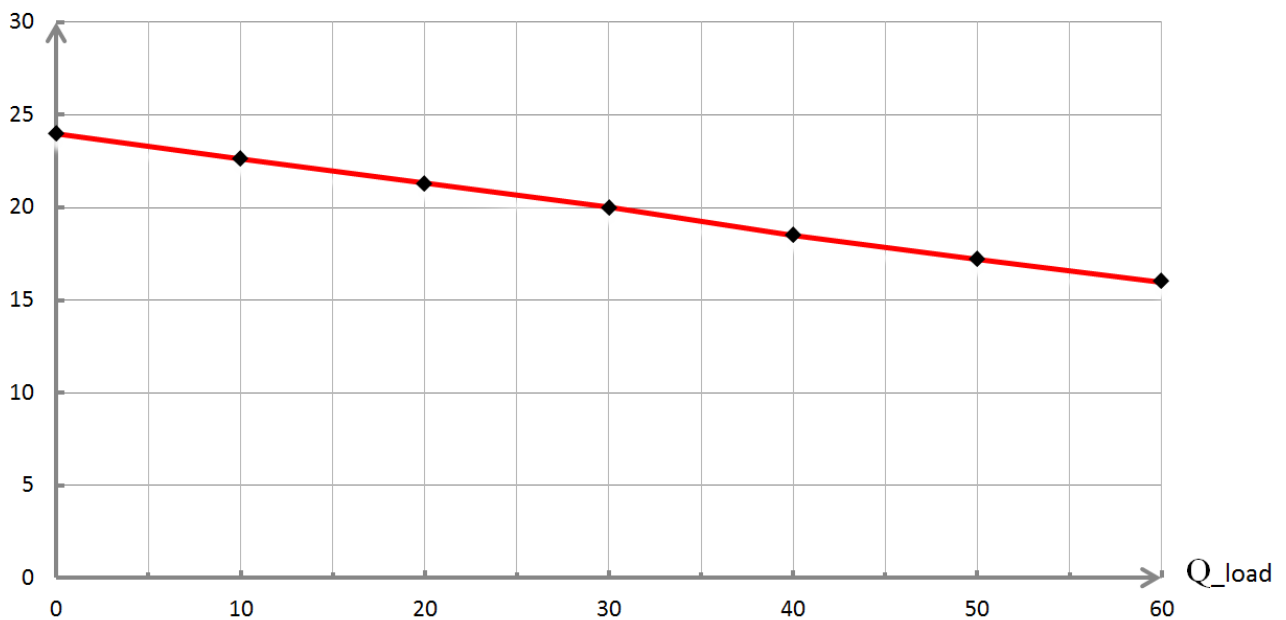
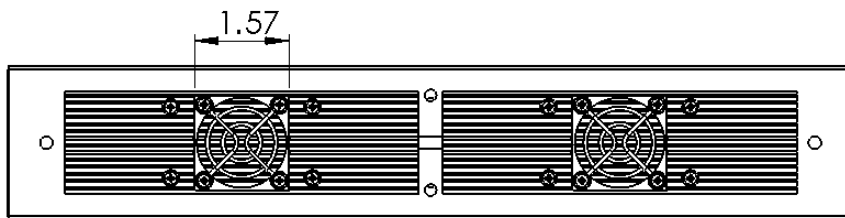
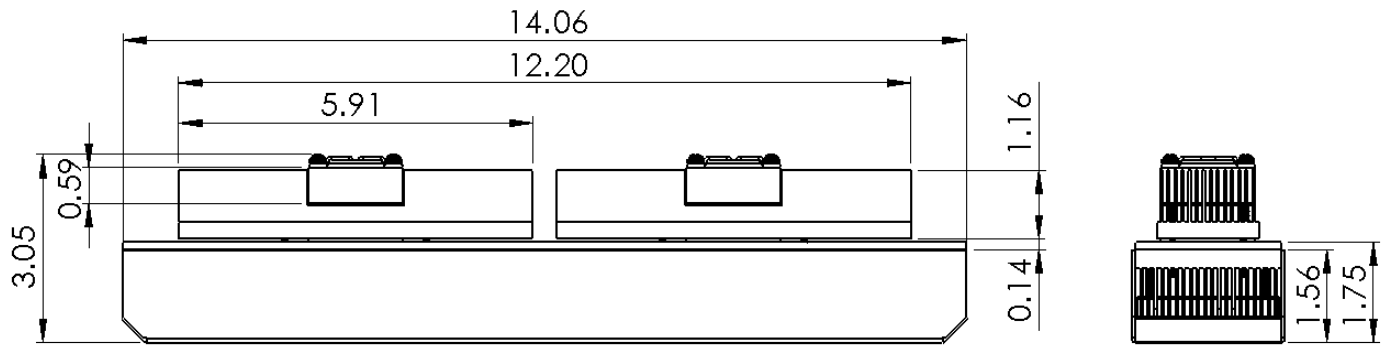


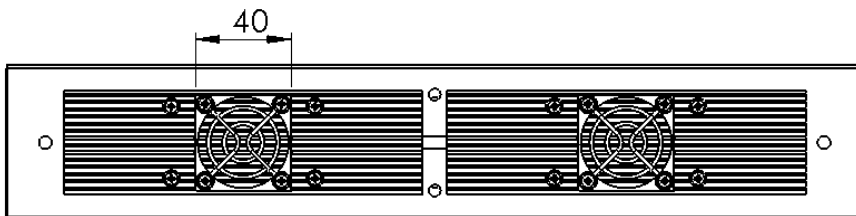
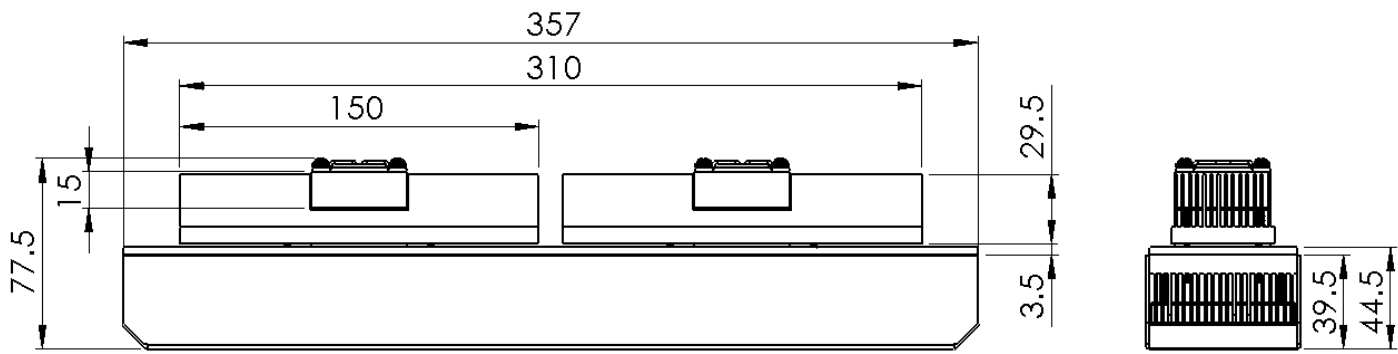
Figure 7. Heat Sink – Cold Plate Temperature Difference vs. Thermal Load

PACKAGE DIMENSIONS



Unit: inch

Figure 8. Mechanical Dimensions (inch)



Unit: mm

Figure 9. Mechanical Dimensions (mm)



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