

DT-AR-C-035-012

Thermoelectric assembly

Data sheet

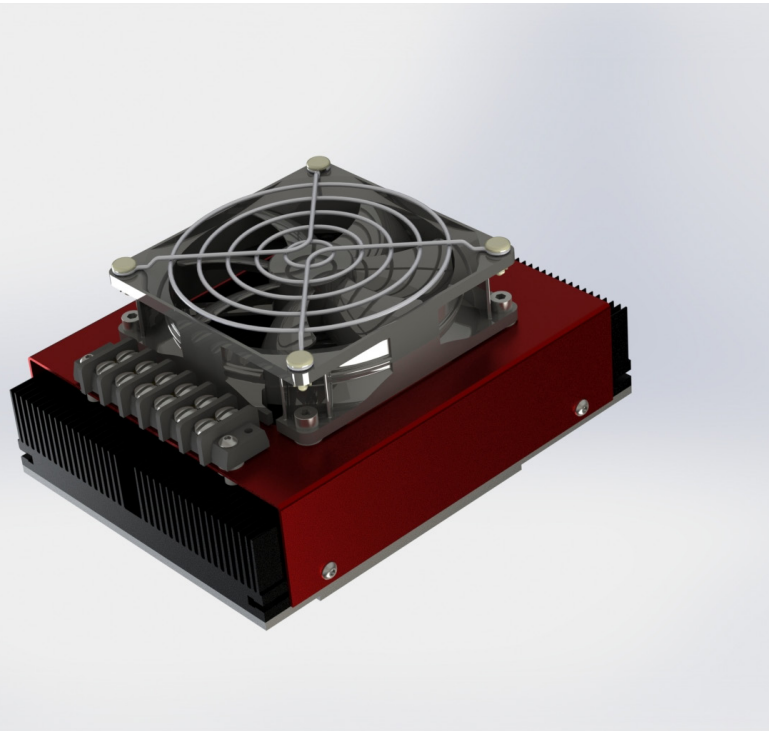
Maximum cooling power (W)	31
Nominal voltage (V)	12
Maximum voltage (V)	14
Rated current (A)	4.8
Power input (W)	58
Operating temperature (°C)	-10 to 54
Weight (kg)	1.2
Performance tolerance (%)	±10

Applications

- Electronics' cabinets
- Medical instrumentation
- Analytical diagnostics
- Industrial automation
- Food and beverage cooling
- Laser systems' cooling

Features

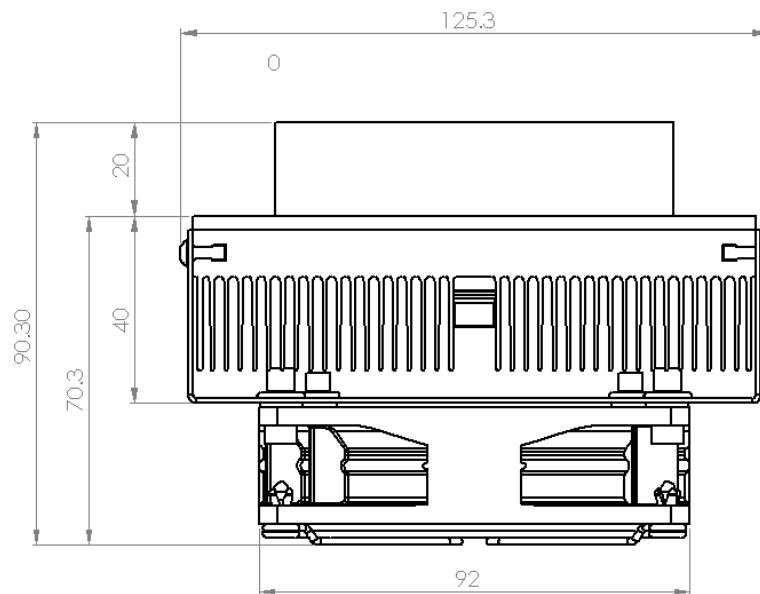
- Reliable
- Compact design
- Excellent temperature control
- DC operation (12V or 24V nominal input voltage)
- Thermoelectric modules with high Coefficient of Performance (COP)
- RoHS compliant



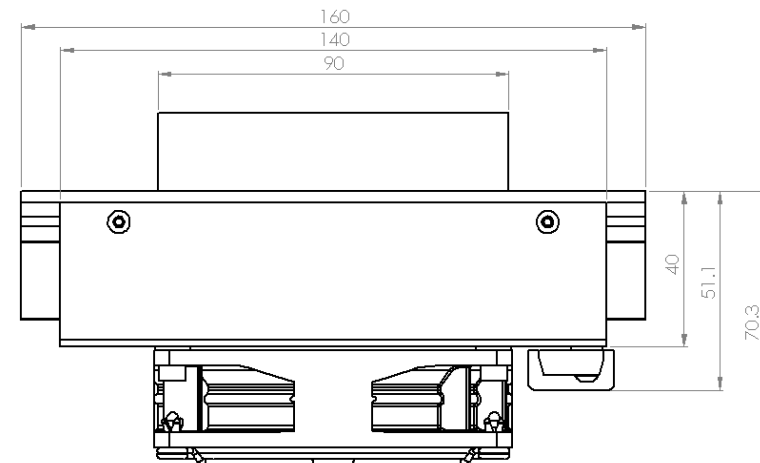
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End view



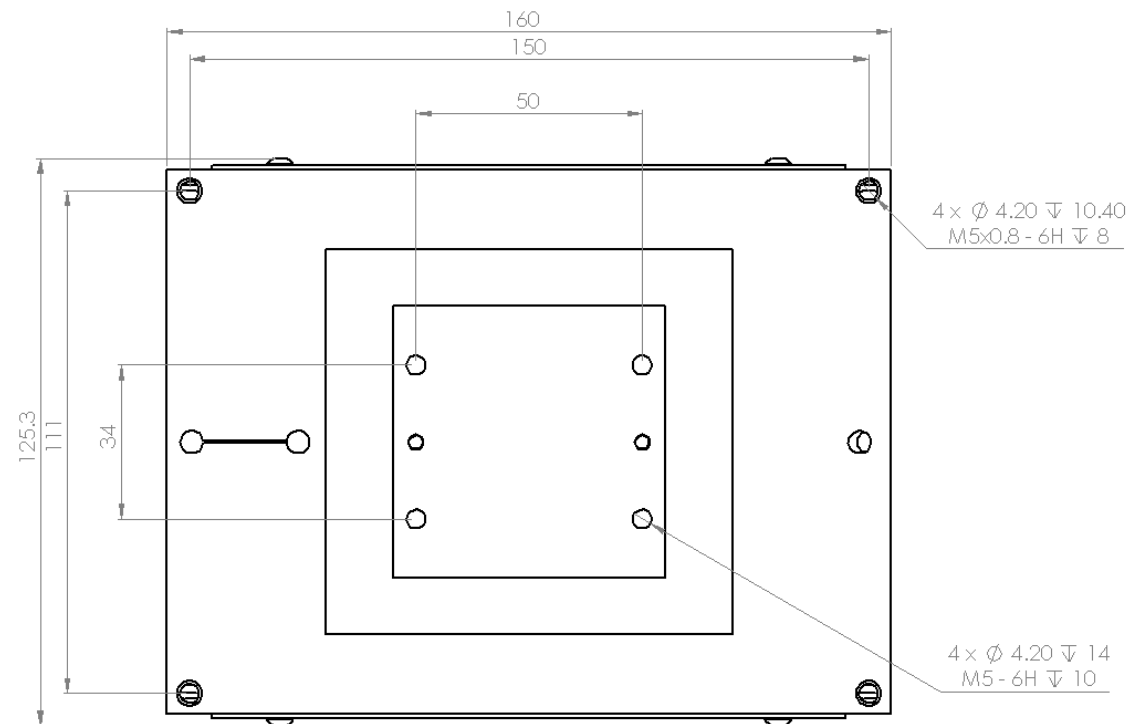
Side view



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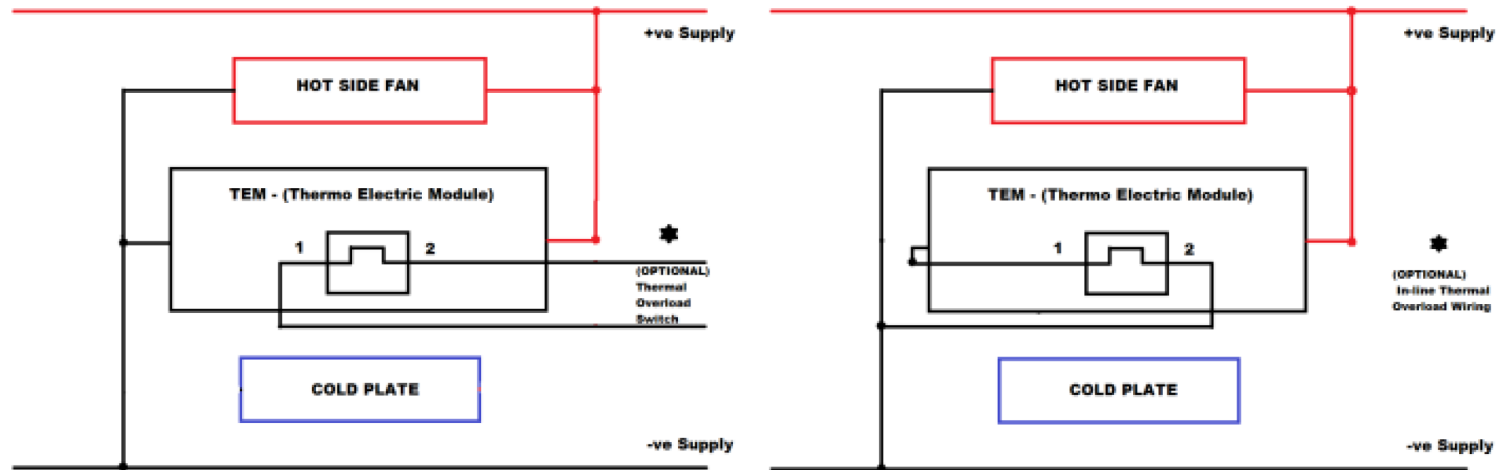
Location and dimensions of mounting holes



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Direct to Air Thermo Electric Assembly Wiring Diagram



- * OPTIONAL: Thermal Overload Switch (If fitted)
Can be configured as an In-Line circuit break or as an auxiliary control device.



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Details

The Direct-to-Air Thermoelectric cooling assemblies are compact devices that can be used to cool down objects through conduction. The objects to be cooled down are mounted onto the metallic plate at the 'cold side' of the assembly from where heat is pumped by Peltier thermoelectric modules and dissipated to the environment through the use of bespoke heat sinks and highly efficient DC fans at the hot side of the assemblies. The thermoelectric modules, whose reliability and maintenance-free operation has been proven by the years, are carefully selected for each assembly to ensure the best cooling performance and minimise power consumption.

Direct-to-air assemblies are available in a variety of cooling power outputs and either in 12V or 24V, as indicated by the part number (i.e. DT-AR-XXX-12 or DT-AR-XXX-24). The 'C' configuration indicates that the assembly has a cascade Peltier module inside.

Bespoke solutions/configurations are offered, as well as moisture protection options, however these are only available for large order quantities (minimum order quantities apply).

Notes

1. All dimensions are in mm.
2. Thermally conductive interface material is applied on the surface of the thermoelectric modules for more efficient heat transfer.
3. The assembly, with its current configuration is for indoor use only. An outdoor variant is available on request.

All assembly specifications are subject to change without prior notice.

