



Applications

- Photonics laser systems.
- Outdoor telecom cabinets
- Thermostat of biological assays.
- Medical diagnostics.
- Battery cabinets
- Industrial measuring instrument.
- Thermostabilization of electronic cabinets
- Analytical devices.
- Outdoor kiosks and displays
- Food and beverage cooling
- Others.

Thermoelectric assembly Air-to Air

TA-AA-40-12

Features

- Low current consumption.
- low noise pressure.
- Compact design.
- Small weight.
- Precise temperature control.
- Cooling and heating in the same unit
- Ease of installation and connection.
- DC operation of 10V or 14V voltage.
- Various positioning in space.
- Environmentally friendly solid state heat exchange operation with no CFC refrigerants.



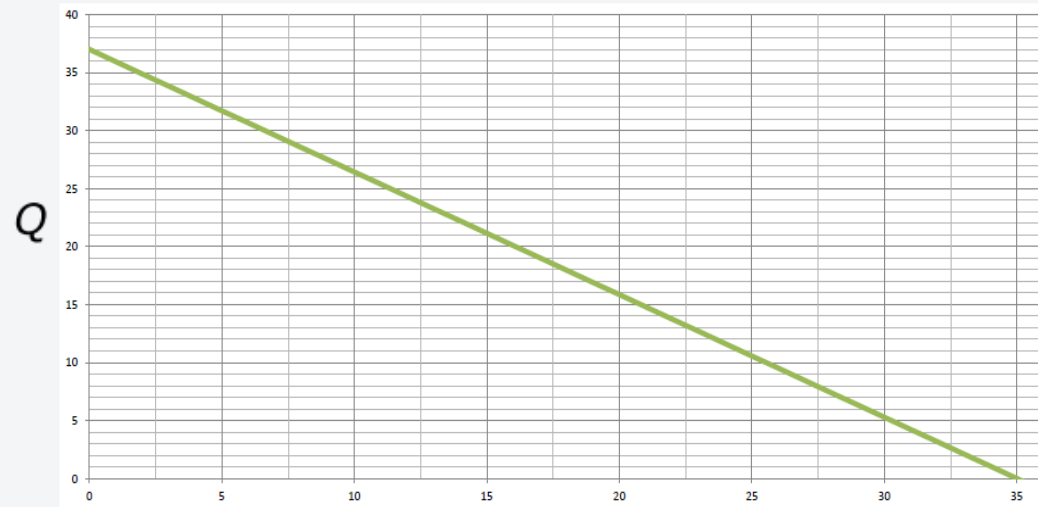
Type	TA-AA-40-12
Voltage (nominal /maximal)	12/14 VDC
Amperage $\pm 10\%$ (nominal/starting)	3.6A/4.6A (at 12VDC)
Max ripple	5%
Cooling capacity at $\Delta T = 0^{\circ}\text{C}$ and nominal voltage . ¹	37W
Heating ²	40W
Operating temperature of the heatsinks on the inner and outer side, not more than ³	85°C
Temperature range (external /internal)	-40°C to +60°C/-20°C to +60°C
Fans lifetime (at temperatures not higher than +40°C) and nominal voltage	$\geq 60,000$ hours
Sound pressure level (distance 1m.)	39dB(A)
Mode of operation	long-term
Protection of heatsinks	Anodizing film thickness of 10-20 microns
Overheat protection	by demand the customer (Additional option)
Type of connector	Dust and waterproof 6- pin female shoes
Weight $\pm 3\%$	1.1kg

- 1- Cooling capacity is rated at ambient temperature +35°C.
 - 2- Heating capacity is rated at external temperature of -40°C, nominal voltage, and $\Delta T = -45^{\circ}\text{C}$.
 - 3- Possibility of increase to 150°C - Additional option.
- NOTE!** A method of transferring heat - forced convection.
Not recommended to reduce airflow external and internal side.

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Performance Q[ΔT]



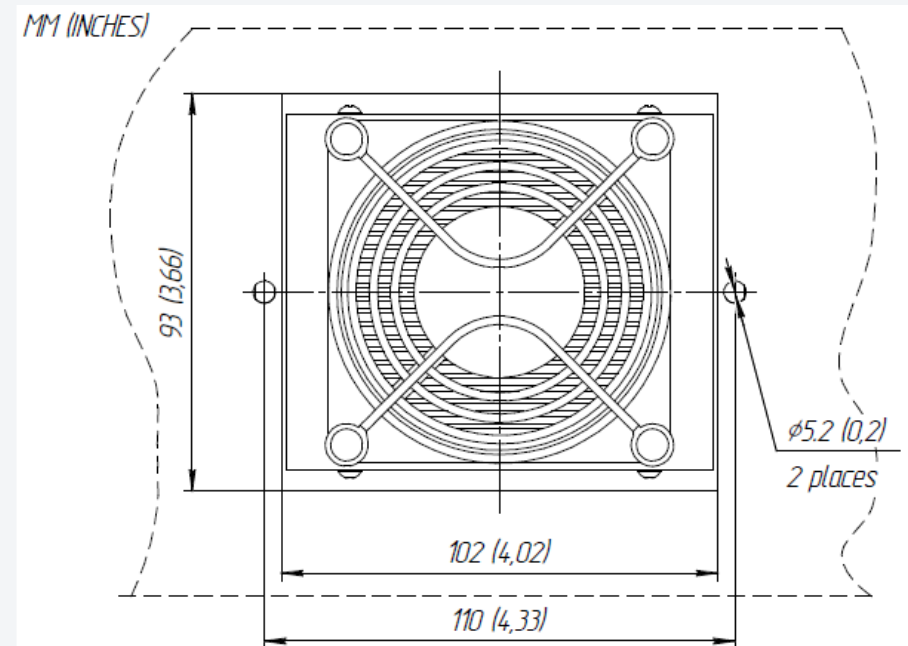
ΔT

$\Delta T^{\circ}\text{C} = T^{\circ}\text{ ambient} - T^{\circ}\text{ internal}$

Q - cooling capacity, W.

for ambient temperature +35 ° C and rated voltage

MOUNTING SCHEME



Dimensions of the assembly

