Thermoelectric cooling unit for medical and industrial applications

The Liquid-to-Air Series thermoelectric assembly (TEA) offers dependable, compact performance by cooling objects via liquid to transfer heat. Heat is absorbed through a liquid heat exchanger and dissipated thru a high density heat sink equipped with an air ducted shroud and brand name fan. The thermoelectric modules are custom designed to achieve a high coefficient of performance (COP) to minimize power consumption. This product series is available in a wide range of cooling capacities and voltages. Custom configurations are available, however, MOQ applies.

FEATURES
- Compact form factor
- Precise temperature control
- Reliable solid-state operation
- DC operation
- RoHS compliant

APPLICATIONS
- Medical Diagnostics
- Industrial Lasers
- Medical Lasers
- Analytical Instrumentation
LA-075-24-02-00-00
Liquid-to-Air Thermoelectric Assembly

**SPECIFICATIONS**

**TECHNICAL**
- Technology: Thermoelectric based
- Cooling at \( \Delta T = 0^\circ C \): 71 W
- Voltage (nominal/maximum): 24/30 VDC
- Current draw, ±10% (nominal/startup): 3.4/4.3 A
- Weight: 2 kg
- MTBF (fans): 50,000 hours

**ENVIRONMENTAL**
- Temperature range: -10°C to +49°C (-40°F to +143°F)
- Over temp Thermostat: 75°C±5°C on hot side heat sink surface
Note:

- For overheating protection, the cooler is equipped with a bimetal thermostat. The maximum rating for the thermostat is 8 A dc. For systems with 8 A or less, the thermostat can be connected directly in series with the thermoelectric modules (TEMs). Otherwise, connect the TEMs to the power source through a relay of suitable rating which state is controlled with the bimetal thermostat.
- Turbulators are mounted inside liquid channels to turbulate flow
- Cold block requires insulation to minimize moisture buildup under dew point conditions.