Tunnel Series Thermoelectric Cooler Assembly
The DA-011-05-02 is a thermoelectric based air conditioner designed to temperature control small chambers used in analytical and medical diagnostic instruments. The unique design offers premium fans pushing air across high-density heat sinks to minimize the number of airflow paths required to operate. The design utilizes custom thermoelectric modules to maximize cooling capacity with a high coefficient of performance. Moisture resistant insulation is used to keep condensation from penetrating the TEM cavity. The unit operates on DC and is designed for an indoor lab use environment. It has a maximum Qc of 10.2 Watts when ΔT = 0 and a maximum ΔT of 50 °C at Qc = 0.

Features
- Compact design
- Precise temperature control
- Reliable solid-state operation
- DC operation
- RoHS-compliant

Applications
- Thermoelectric Coolers and Assemblies for Medical Applications
- Liquid Cooling Options for PET and SPECT Scanners
- Peltier Cooling for Refrigerated Centrifuges
- High-Performance Liquid Chromatography (HPLC)
- Thermal Management Solutions for Beverage Cooling

ELECTRICAL AND THERMAL PERFORMANCE

Heat Pumped at Cold Side (Qc)
Tambient = 35°C | Tcontrol = 20°C

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SPECIFICATIONS

Operating Temperature Range
-10 °C to 55°C

Supply Voltage
5.0 VDC nominal / 5.5 VDC maximum

Current Draw
2.2 A running / 2.7 A startup

Power Supply
11.0 Watts

Performance Tolerance
10%

Fan MTBF
50,000 hours

Weight
0.20 kg

MOUNTING HOLE LOCATION

WIRING SCHEMATIC

Electrical Connections:
"TEM +": RED
"TEM -": BLACK
"F+": -RED
"F-": -BLACK OR BLUE

NOTES

1 For indoor use only

2 Thermal grease included

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