

## PowerCool Series Thermoelectric Cooler Assembly

The AA-024-24-22 is an Air-to-Air Thermoelectric Cooler Assembly that uses impingement flow to transfer heat. It offers dependable, compact performance by cooling objects via convection. Heat is absorbed and dissipated through high density heat exchangers equipped with air ducted shrouds and brand name fans. The heat pumping action is created by thermoelectric modules, which are custom designed to achieve a high coefficient of performance (COP). It has a maximum Qc of 24 Watts when  $\Delta T=0$  and a maximum  $\Delta T$  of 35 °C at Qc = 0.

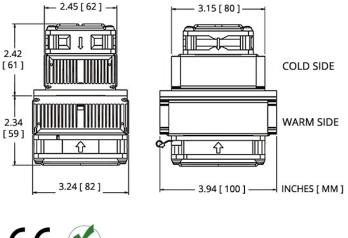


### **Features**

- Compact design
- Precise temperature control
- Reliable solid-state operation
- Low noise
- RoHS-compliant

## **Applications**

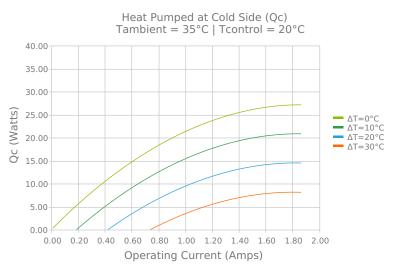
- Medical Diagnostic and Analytical Instrumentation
- Thermoelectric Coolers and Assemblies for Medical Applications
- Liquid Cooling Options for PET and SPECT Scanners
- Cooling for Centrifuges
- High-Performance Liquid Chromatography (HPLC)
- Heating and Cooling for Liquid Chromatography Systems

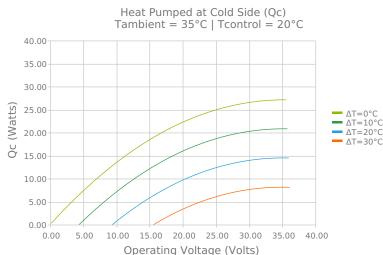






# **ELECTRICAL AND THERMAL PERFORMANCE**







0.00

0.0

5.0

10.0

15.0

20.0

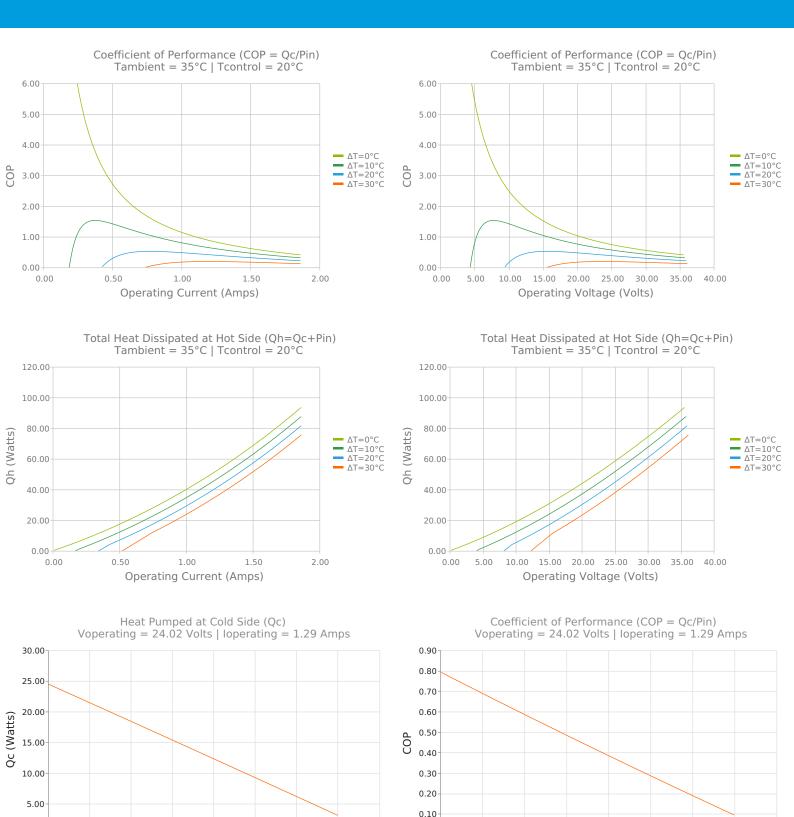
ΔT (°C)

25.0

30.0

35.0

40.0



0.00

0.0

5.0

10.0

20.0

ΔT (°C)

25.0

30.0

35.0

40.0



# **SPECIFICATIONS**

**Heat Transfer Mechanism, Cold Side** 

**Heat Transfer Mechanism, Hot Side** 

**Operating Temperature Range** 

**Supply Voltage** 

**Current Draw** 

**Power Supply** 

**Performance Tolerance** 

**Hi-Pot Testing** 

**Fan MTBF** 

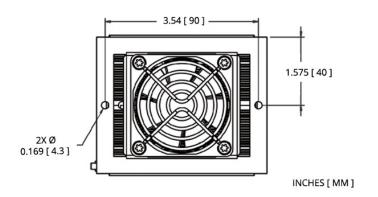
Weight

**Panel Mounting** 

Air - Forced Convection
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-10°C to 54°C
24.0 VDC nominal / 30.0 VDC maximum
1.5 A running / 1.5 A startup
36.0 Watts
10%
No Testing
50,000 hours
0.60 kg
Through



### MOUNTING HOLE LOCATION



#### **WIRING SCHEMATIC**

# **ELECTRICAL CONNECTIONS:**

TEM+: Pink TEM -: Green FAN+: Purple FAN -: Blue

Warning: Single supply not applicable in heating mode or with PWM-

regulation.

# **NOTES**

<sup>1</sup>For indoor use only

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