



The SuperCool Series Air-to-Air thermoelectric assembly is a high performance thermoelectric based air conditioner. It is designed to temperature control small chambers used in medical diagnostics or sample storage compartments in analytical instrumentation. This unique design offers a high performance hot side heat dissipation mechanism that convects heat more efficiently than conventional heat exchanger technologies. The design utilizes custom thermoelectric modules to maximize cooling capacity and premium grade fans to reduce noise. Moisture resistant insulation is used to keep condensation from penetrating into the Thermoelectric module cavity. This unit operates at 24 VDC and is designed for indoor lab use environment. Custom configurations available upon request.

Laird Manufacturer Part Number: 387000612

Patent Pending

FEATURES

- High Performance
- Compact Form Factor
- Reliable solid-state operation
- RoHS compliant

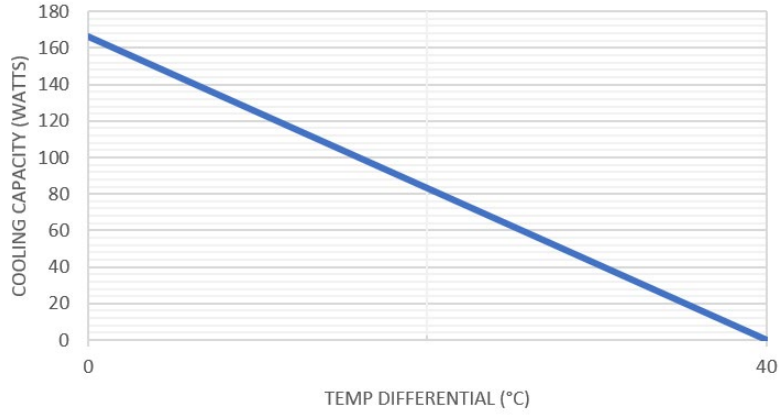
APPLICATIONS

- Analytical storage compartment temperature control
- Medical diagnostic chamber refrigeration

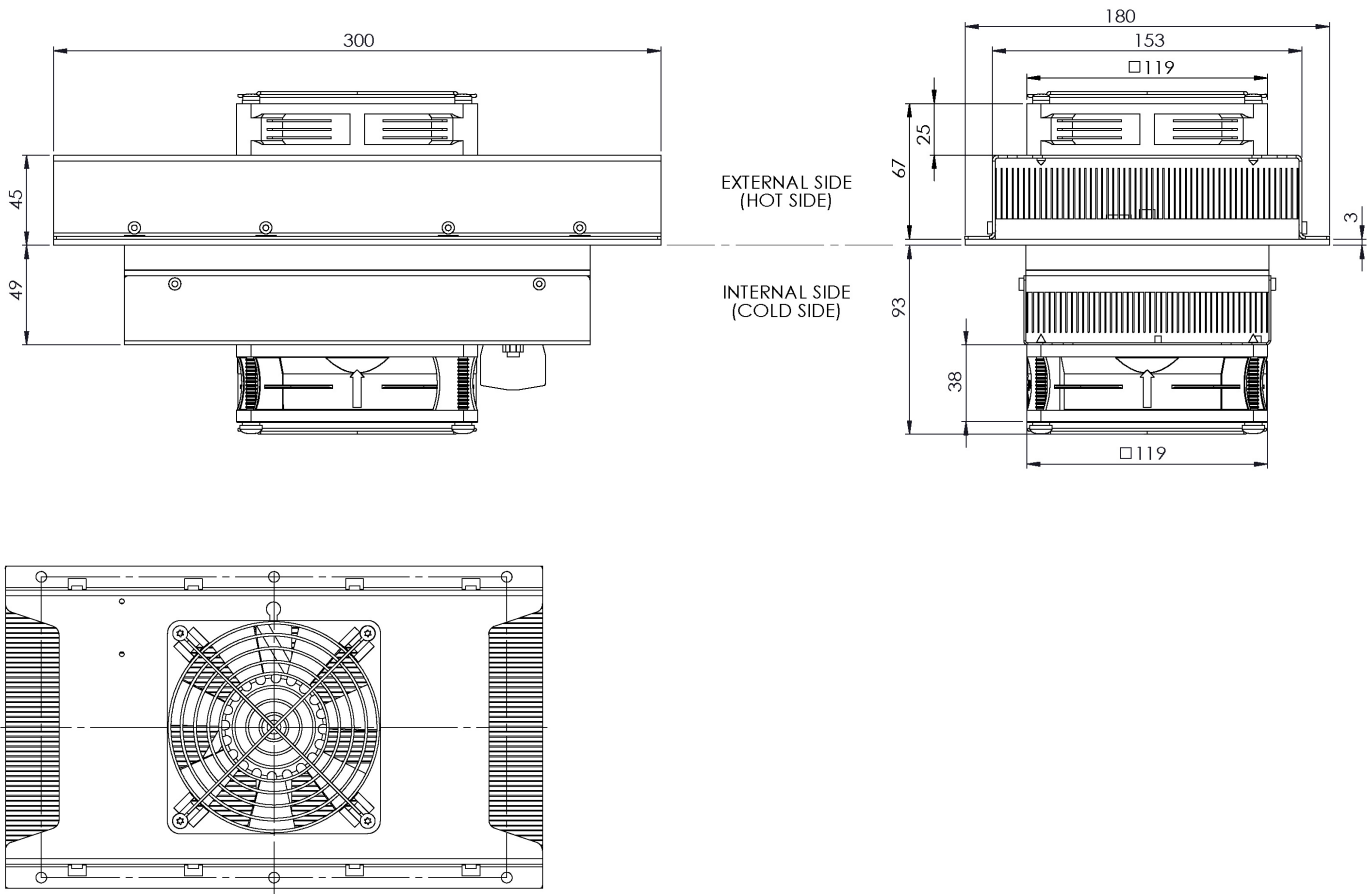
TECHNICAL SPECIFICATIONS	
TEA Model	SAA-170-24-22-00-00
Heat Transfer, Cold Side	Air
Heat Transfer, Hot Side	Air
Cooling Power at dT 0°C and Ta=35°C ±10% – W	166
TEM Input Power	
Voltage, nominal - VDC	24
Current, nominal / initial at dT 0°C ±10% – A	6.9/8.1
Fan Input Power	
Voltage, nominal – VDC	24
Current, nominal, Cold side – A	0.2
Current, nominal, Hot side – A	0.5
Fan Noise – dBA	62.6
Dimensions (L x W x H) – mm	300 x 180 x 163
Weight – kg	4.5
Operating Temperature – °C	-20 to +60
Packaging	Individual cardboard box

PERFORMANCE QC VS ΔT

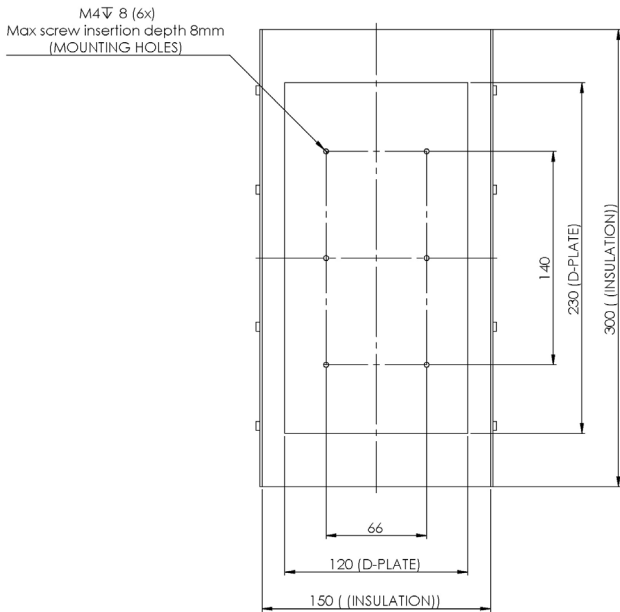
Thermoelectric Assembly performance at Ta=35°C



ISOMETRIC DRAWINGS



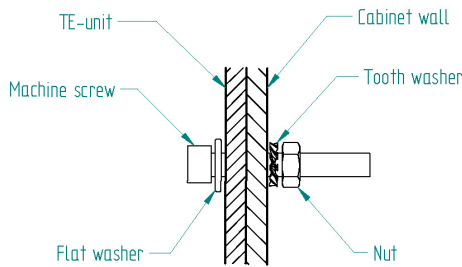
INSTALLATION INSTRUCTIONS



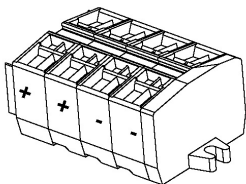
Installation

1. Mount with “hot side” external to chamber wall.
2. Cutout should be approximately 124 x 232 mm.
3. Unit should be fastened as shown in diagram with gasket material sealing around cutout.
4. For operation below dew point, recommend to position unit in vertical direction with wires facing down to allow for condensation run off. Drop tray may be required to collect moisture from surfaces at temperatures below dew point.
5. TEA should not be used as part of the structure and is recommended to be protected from external forces.
6. The input power to TEA should be protected with fuse. Fuse rating should withstand 150% of nominal current rating for 60 seconds. This is valid for Ta=26°C. Fuse rating for alternate ambient temperatures can be calculated by Ta.
7. Max ripple current on supply power should be ≤ 5%.
8. Switching power to TEMs at frequencies between 0.01Hz to 5KHz may degrade reliability and shorten life.

Units are generally maintenance free, however occasionally it is recommended to clean the heat sinks and fans of debris. This is best done with compressed air



WIRING SCHEMATIC



OBJECT	COLOR	POLE
TEM +	Red	1
TEM -	Black	2
FAN COLD SIDE +	Red	3
FAN COLD SIDE -	Black	4
FAN HOT SIDE +	Red	5
FAN COLD SIDE -	Black	6

Warning:

Do not reverse current or use PWM-regulation on fan supply.



Laird warrants to the original end user customer of its products that its products are free from defects in material and workmanship. Subject to conditions and limitations Laird will, at its option, either repair or replace any part of its products that prove defective because of improper workmanship or materials. This limited warranty is in force for the useful lifetime of the original end product into which the Laird product is installed. Useful lifetime of the original end product may vary but is not to exceed five (5) years from the original date of the end product purchase.

Any information furnished by Laird Inc. and its agents is believed to be accurate and reliable. All specifications are subject to change without notice. Responsibility for the use and application of Laird materials rests with the end user, since Laird and its agents cannot be aware of all potential uses. Laird makes no warranties as to the fitness, merchantability or suitability of any Laird materials or products for any specific or general uses. Laird shall not be liable for incidental or consequential damages of any kind. All Laird products are sold pursuant to the Laird Terms and Conditions of sale in effect from time to time, a copy of which will be furnished upon request.

© Copyright 2019 Laird Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Logo, and other marks are trademarks or registered trademarks of Laird Inc. or an affiliate company thereof. Other product or service names may be the property of third parties. Nothing herein provides a license under any Laird or any third party intellectual property rights.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)
Email: org@lifeelectronics.ru