

Liquid-to-Liquid Thermoelectric Assembly



Thermoelectric cooling unit for medical and industrial laser applications

The Liquid-to-Liquid Series thermoelectric assembly (TEA) offers dependable, compact performance by cooling objects via liquid to transfer heat. Heat is absorbed through one liquid heat exchanger and dissipated thru a second liquid heat exchanger. 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.

Heat exchangers are designed to accommodate distilled water with glycol. Corrosion resistant turbulators are enclosed inside channels to increase heat transfer. Mating port adaptors are sold separately.

FEATURES

- Compact form factor
- Reliable solid-state operation
- Precise temperature control
- Bi-metal thermostat for overheat protection
- RoHS compliant

APPLICATIONS

- Medical Diagnostics
- Industrial Lasers
- Medical Lasers
- Analytical Instrumentation

Americas: +1.919.597.7300

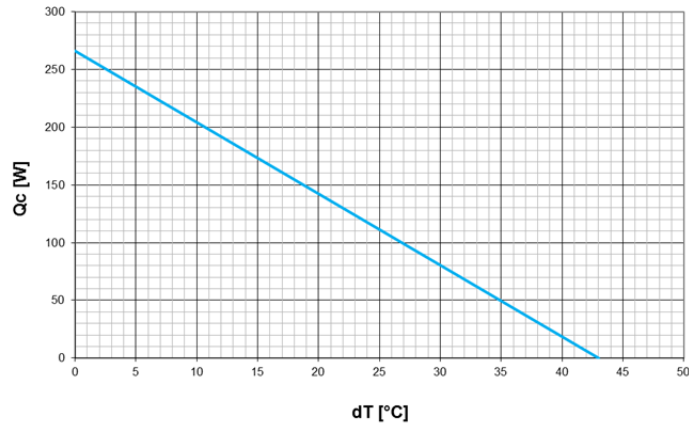
Europe: +46.31.420530

Asia: +86.755.2714.1166

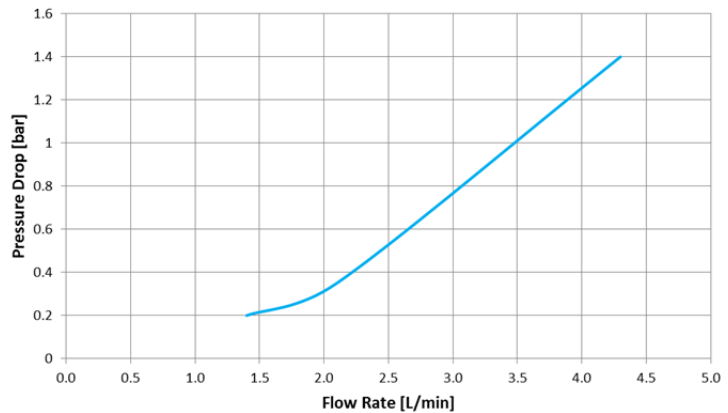
ets.sales@lairdtech.com

www.lairdtech.com

Qc vs dT



Flow Rate vs Pressure Drop



SPECIFICATIONS

TECHNICAL

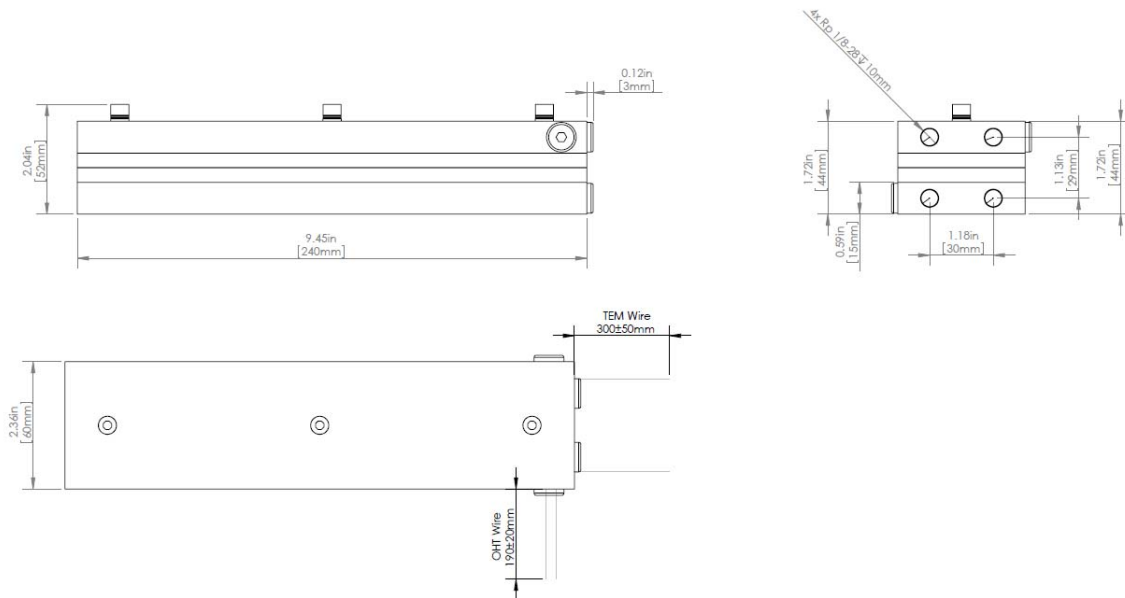
Technology	Thermoelectric modules, liquid cooling, closed loop (non-mixing), filterless, non-refrigerant
Cooling at $\Delta T = 0^{\circ}\text{C}$	266W (907 Btu/h)
Voltage (nominal / maximum) ¹	24/28 VDC
COP (Coefficient of Performance)	71%
Grounding (all voltages)	Positive or negative
Current draw, $\pm 10\%$ (nominal / startup)	7.9/8.5 A
Weight	1.4 kg (3.1 lbs)
Connector type (on unit / mating side)	TEM: Leads, 18 AWG, Red/Black OHT: Leads,

ENVIRONMENTAL

Temperature range	-40°C to +62°C (-40°F to +143°F)
Hi-pot testing	750 VDC
Over temp Thermostat	75°C \pm 5°C (167°F \pm 41°F) on hot side heat sink

1) Max ripple 5%

MECHANICAL DRAWING



For overheating protection, the cooler is equipped with a bimetal thermostat. The maximum rating for the thermostat is 8 A. 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.

Note: Cold side heat exchanger requires insulation to minimize moisture buildup under dew point conditions.

THR-DS-LL-210-24-00-00-00_082015

Any information furnished by Laird 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, Laird Technologies, Inc or any of its affiliates or agents shall not be liable for incidental or consequential damages of any kind. All Laird products are sold pursuant to the Laird Technologies' Terms and Conditions of sale in effect from time to time, a copy of which will be furnished upon request. © Copyright 2014 Laird Technologies, Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Logo, and other marks are trademarks or registered trademarks of Laird Technologies, 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.



LL-210-24-00-00-00

Liquid-to-Liquid Thermoelectric Assembly

THR-DS-LL-210-24-00-00-00_082015

Any information furnished by Laird 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, Laird Technologies, Inc or any of its affiliates or agents shall not be liable for incidental or consequential damages of any kind. All Laird products are sold pursuant to the Laird Technologies' Terms and Conditions of sale in effect from time to time, a copy of which will be furnished upon request. © Copyright 2014 Laird Technologies, Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Logo, and other marks are trademarks or registered trademarks of Laird Technologies, 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.

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9