

# Liquid Chiller Module LCM-1400

Compact, Lightweight, Industrial Reliability

Part# FP00066 & FP00102

## Background

Based on the success of the LCM-600 Aspen has expanded the product range to include the LCM-1400. These liquid chiller modules are used by customers that want to make use of Aspen's miniature refrigeration expertise, but also wanted a system which uses their own controls and coolant loop. The compact and lightweight LCM series provides purely the "core" of the refrigeration system and allows the end user to adapt the compact module directly into their system.

## System Definition

The LCM-1400 consists of a compact, hermetically sealed refrigeration system (including a miniature variable speed compressor and drive board, condenser, fans, thermostatic expansion valve, and an evaporator). The system is fully charged with R-134a, insulated and mounted to a baseplate to drop directly into the end application. The user connects their coolant loop to the evaporator.



## System Highlights

- » *Efficient operation*
- » *Lightweight*
- » *Compact footprint*
- » *Low noise*
- » *Easy to integrate*
- » *Low cost*



# Liquid Chiller Module, LCM-1400

high performance, liquid cooling module

| Specifications             | FP00066                                     | FP00102                                     |
|----------------------------|---|---|
| Cooling Capacity           | See Graph Below                             | See Graph Below                             |
| Compatible Fluids          | Water, Water/Glycol Mix                     | Water, Water/Glycol Mix                     |
| Coolant Temperature        | -15 °C to 50 °C                             | -15 °C to 50 °C                             |
| Maximum Compressor Power   | 480W at 48 VDC                              | 360W at 24 VDC                              |
| Voltage                    | 43-50 VDC                                   | 22 - 32 VDC                                 |
| Maximum Compressor Current | 10 A  | 15 A  |
| Noise                      | <53 dBA                                     | <53 dBA                                     |
| Dimensions (LWH)           | 335 x 228 x 212 mm<br>(13.2 x 9.0 x 8.4 in) | 335 x 228 x 212 mm<br>(13.2 x 9.0 x 8.4 in) |
| Weight                     | 5.5 kg (12 lb)                              | 5.5 kg (12 lb)                              |
| Orientation                | within 30° of flat                          | within 30° of flat                          |
| Operating Ambient Temp     | 0 °C to 50 °C (32 °F to 122 °F)             | 0 °C to 50 °C (32 °F to 122 °F)             |
| Storage Temp               | -20 °C to 50 °C (-4 °F to 122 °F)           | -20 °C to 50 °C (-4 °F to 122 °F)           |
| Fan Power                  | 19.4 W (at 48 VDC)                          | 18.4 W (at 24 VDC)                          |

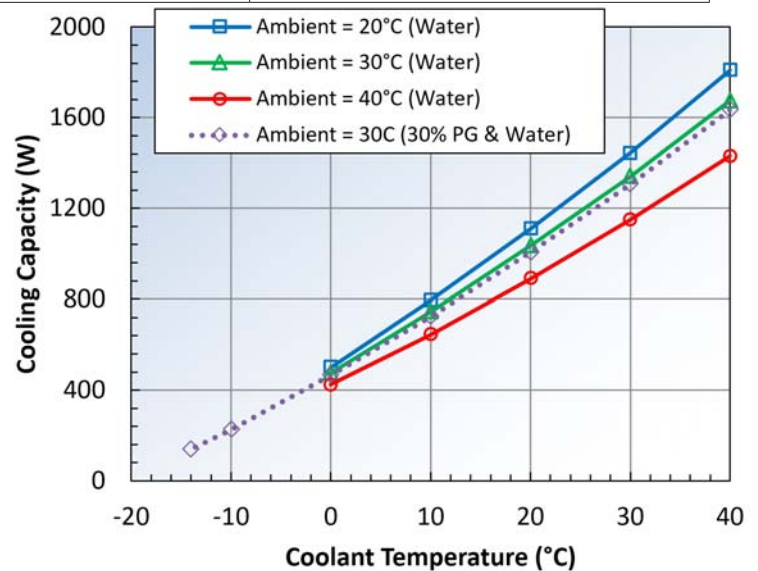
## Applications

- » Laser Cooling
- » Medical Devices
- » Medical Aesthetics
- » Electronics
- » Electric Vehicle Systems & Components
- » Laboratory Equipment
- » Bio-sample Analyzers
- » Patient Cooling
- » Sensors & Detectors
- » Data Centers, Communication Systems

Any application that requires small size, light weight or high efficiency.

## Custom Configurations

To satisfy customers' application requirements, Aspen Systems can custom-design air conditioning or cold plate cooling systems. Please contact one of our application engineers about your cooling requirements.



### Aspen Background

Aspen Systems is the world leader in miniature refrigeration systems. We have created refrigeration systems to meet specifications for dozens of customers with thousands of installations in personal cooling, manufacturing, mobile electronics, airborne electronics, lasers, military, and medical.

Contact us today for a free evaluation of your application:  
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