# cryoQOOL
# CPU Cooler for Servers


*Images for illustration purposes only.*

**Description:** Designed for cooling dense 2U applications using CPUs that fit the Intel™ LGA2011 square, LGA2066 (Socket R), and LGA 1366 sockets

**Heat Sink Type:** Heat Sink with High-Performance Fans

**Heat Sink Attachment:** Hardware Kit - ATS-HK349-R1

**Heat Sink Part Number:** ATS-UC-CRYQL-100

## Features & Benefits

« Ideal for 2U applications where space and airflow are restricted

« Designed for CPUs that fit the Intel™ LGA2011 square, LGA2066 (Socket R), and LGA 1366 sockets

« Mechanical attachment is PEM, screws and spring – for other types of attachments contact ATS

« Provided with Chomerics T670 thermal grease

« Hardware provides 21 psi of mounting pressure when installed on component in socket LGA2011

« PWM enabled fans: Voltage 12VDC (10.8 min – 12.6 max), Current 1.52A per fan

« Provides at least 50% improvement over comparable products on the market

« To apply this heat sink to other high power devices and processors contact ATS

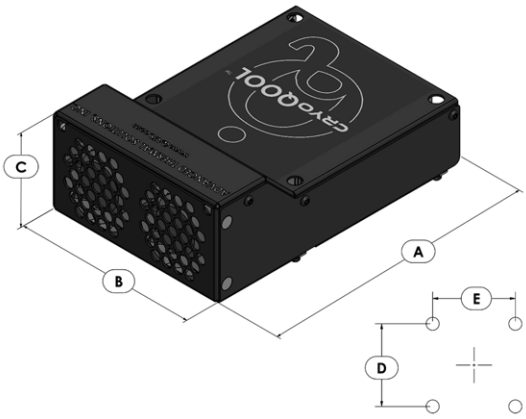
« ATS cryoQOOL heat sink technology is patent pending

## Product Details

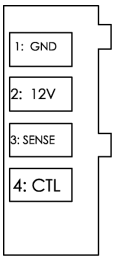
| DIMENSION A (LENGTH, mm) | DIMENSION B (WIDTH, mm) | DIMENSION C (HEIGHT, mm) | DIMENSION D (MOUNTING HOLE WIDTH, mm) | DIMENSION E (MOUNTING HOLE LENGTH, mm) | Fin Material | Finish | Weight (g) | HARDWARE KIT | TIM | LEAD WIRE PIN OUT |
|---|---|---|---|---|---|---|---|---|---|---|
| 137 | 97.6 | 47.8 | 80 | 80 | Copper | None | 1,610 | ATS-HK349-R1 | T670 Thermal Grease | 4 Wire |

## Thermal Performance (3)

| FAN RATED VOLTAGE (Vdc) | FAN OPERATING VOLTAGE RANGE (Vdc) | RATED SPEED (RPM) | RATED INPUT POWER (W) | RATED AIRFLOW (CFM) | NOISE LEVEL (dB) | AIR PRESSURE ($mmH_2O$) | R (°C/W) | MAX TDP (W) (2) | FAN LIFE EXPECTANCY ($L_{10}$) HOURS |
|---|---|---|---|---|---|---|---|---|---|
| 12 | 10.8 ~ 12.6 | 25,000 | 36.6 | 58.6 | 65 | 112 | 0.12 | 267 | 40,000 at 60° |




**FAN CONNECTOR**




**NOTES:**

1. Thermal performance data is provided for reference only. Actual performance may vary by application.
2. Thermal resistance data are for 40 x 40mm component.
3. Thermal performance is based on both fans running at 100% PWM duty cycle
4. The fan connector can be mated to a system in the following ways: via a computer motherboard"s included 4-pin header, to a standard 4-pin fan header such as the Molex 0470531000 or a standard 3-pin fan header. If a 3-pin header is used, the speed control option cannot be accessed.
5. Lead wires: Pin 1-Black (-), Pin 2-Red (+12V), Pin 3-Yellow (Tach), Pin 4-Blue (PWM)
6. Max TDP (thermal design power) – maximum amount of heat generated by component
7. ATS reserves the right to update or change its products without notice to improve the design or performance
8. RoHS-6 and REACH compliant

ATS ADVANCED THERMAL SOLUTIONS, INC.
Innovations in Thermal Management®

For further technical information, please contact Advanced Thermal Solutions, Inc.
89-27 ACCESS ROAD, NORWOOD, MA 02062 USA | T: 781.769. 2800 | WWW.QATS.COM | ATS-HQ@QATS.COM