

Alphacool Eisbaer Pro Aurora 240 CPU

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The Alphacool Eisbaer Pro Aurora offers a much higher cooling surface than the normal Eisbaer Aurora. It was developed specifically for extremely large CPU DIEs and covers processors such as the AMD Threadripper but also the AMD Ryzen CPUs completely. The Eisbaer Pro is also designed for the Intel Socket 3647 to ensure the best possible cooling performance of the entire CPU.

Eisbaer Pro Aurora 240



- Full copper radiator
- Virtually silent DC-LT pump
- Nickel-plated copper cooler
- Hose length 40 cm
- Digital RGB illuminated cooler
- Digital RGB 120 mm fan

# **Compatibility list**

AMD: AM4 / TR4 / sTRX4 / SP3 / sWRX8

Intel: 1700 / 2011 / 2011-3 / 2066 / 3647 Narrow & Square / LGA 4189

We assume no responsibility for any typing errors.

# Scope of delivery

1x Mounting set AMD TR4 / sTRX4 / SP3

- 1x Mounting set AMD AM4
- 1 x Mounting set Intel 2011 / 2011-3 / 2066
- 1 x Mounting set Intel 3647 Narrow & Square
- 1 x Mounting set Intel 1700
- 1 x Mounting set Intel 4189
- 8 x M3x5 case mounting screws
- 8 x M3x30 fan screws

- 2 x 120 mm Aurora Rise fans
- 1 x Y-Adaptor 4-Pin PWM
- 1 x Digital RGB Controller
- 1 x 3-Pin JST to 3-Pin 5V adaptor
- 1 x Thermal compound
- 1 x Screw plug Tool

| Data radiator             |                                |
|---------------------------|--------------------------------|
| L x W x H                 | 279 x 124 x 30 mm (+/- 3%)     |
| Material cooling fins     | Copper                         |
| Material chambers         | Copper                         |
| Material cooling channels | Copper                         |
| Material threads          | Brass                          |
| Material outer housing    | stainless steel                |
| G 1/4" threads            | 2 x for tubes                  |
| For fan size              | 120 mm                         |
| Fan mounting options      | 2 x one-sided / 4 x both-sided |

## Data cooler and pump

| L x W x H              | 64 x 79 x 54,3 mm               |
|------------------------|---------------------------------|
| Material cooler bottom | Nickel plated copper            |
| Material cooler top    | РММА                            |
| Threads                | 2 x G1/4" (+ 1x Fillport G1/4") |
| Pump typ               | DC-LT                           |
| Pump speed             | 2600 rpm (+/- 10%)              |
| Head of delivery       | 0,95 m                          |
| Maximum flow rate      | 75 L/h                          |
| Voltage                | 12V DC                          |
| Power consumption      | 4W                              |
| MTBF                   | 50.000 h                        |

| Data tube           |                          |
|---------------------|--------------------------|
| Length              | 40 cm                    |
| Material tube       | TPV (EPDM/PP)            |
| Color               | Matt black               |
| Tube size           | 12,7 / 7,6 mm            |
| Hardness grade      | 35 Shore-A to 50 Shore-D |
| Working temperature | -50 to +155 °C           |

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| Data fittings              |                      |
|----------------------------|----------------------|
| L x D straight fitting     | 24 x 18 mm           |
| Quantity straight fittings | 4x                   |
| For tube size              | 12,7 / 7,6 mm        |
| Material fittings          | Nylon                |
| Data Quick fasteners       |                      |
| LxD                        | 95 x 27 mm           |
| Material                   | Nylon                |
| For tube size              | 12,7 / 7,6 mm        |
| Colour                     | Black                |
| Data fan                   |                      |
| Speed                      | 0 - 2500 RPM         |
| Static pressure            | 3,17 mm H2O          |
| Air flow rate              | 119,8 m³/h           |
| Bearings                   | Sleeve bearing       |
| Fan connector              | 4-Pin PWM            |
| Connection Digital aRGB    | 3-Pin JST + 3-Pin 5V |
| Dimensions                 | 120 x 120 x 25 mm    |
| Net weight                 | 187 g                |
| Max working temperature    | 60 °C                |
| Certificates               | CE, FC, ROHS         |

| Download links |   |  |
|----------------|---|--|
| Product pics   | https://www.alphacool.com/download/1019573_Eisbaer_Pro_240_CPU_AIO_Pics.zip |  |
| Manual         | https://www.alpha   | cool.com/download/Alphacool_Eisbaer_Pro_Manual.pdf |

| Packaging dimensions 1 unit |                       |
|-----------------------------|-----------------------|
| L x B x H                   | 34,5 x 25,5 x 14,5 cm |
| Weight                      | 2,641 kg              |

| Other data   |               |
|--------------|---------------|
| Certificates | CE, FC, RoHS  |
| EAN          | 4250197117722 |
| Customs code | 84195080900   |

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## Article text

The Alphacool Eisbaer Pro Aurora CPU AlO water cooler is a special development for processors with particularly large CPU dies. These include the AMD Threadripper and Epyc processors and the Intel CPUs for the LGA 3647 socket. With the optional XPX Pro AM4 mounting bracket, the Alphacool Eisbaer Pro CPU cooler can also be used on AMD Ryzen processors.

## Large cooling surface

The cold plate bottom covers the entire surface of the respective processors. The area of the cooling fins exceeds all known processor cores with an area of around 55 x 42 mm. This ensures that all hotspots of a CPU are directly covered and thus optimally cooled. With the additionally available AM4 bracket, cooling an AMD Ryzen processor is also child's play. The cooling fins are 0.4 mm thick and also have an optimal distance of 0.4 mm between them. In total there are 58 cooling fins on the bottom of the cooler. The bottom of the cooler is only 3 mm thick, which allows the heat to reach the water and be dissipated as quickly as possible.

## **Copper radiator**

As per usual with Alphacool, the radiators are made of copper. Alphacool is the first manufacturer worldwide to use copper for all water bearing components such as the antechambers, the cooling fins and the cooling channels to which the fins are soldered. The connection threads are made of brass for strength reasons. In addition, the cooling fins are only lightly painted. On closer inspection the copper shimmers through a little. A thick lacquer coating would result in a reduction of the cooling capacity. The fin density is at optimal 15FPI. Therefore the radiator works perfectly even at low airflow. A too high fin density would require fans with higher speed to achieve the same cooling capacity. A lower fin density would no longer benefit from fast rotating fans. So the golden mean was chosen.

## **Real water cooling**

The Eisbaer Pro Aurora consists almost entirely of actual water cooling components. The extremely robust and durable TPV hoses are used in the enterprise products for servers and workstations. The hose connections also come from the Enterprise series from Alphacool and use the standard G1/4". This makes the Eisbaer Pro Aurora fully compatible with all common water cooling products. The quick-release fastener allows easy expansion of the AIO with additional components. The most important of these are the prefilled radiators and the Eiswolf GPU AIO water cooling system.

#### Fan and lighting

The entire Eisbaer Aurora Pro cooler is equipped with addressable digital RGB LEDs. This gives a real eye-catcher in the Case. The fan used is the Aurora Rise with 120mm. Due to the special blade design, the fan is extremely quiet and the addressable RGB LEDs provide brilliant illumination. The Alphacool Aurora Rise fan convinces with a max. statistical pressure of 3.17mm/ H2O and offers a max. air flow of 119.8m3/h. The PWM control allows the fan to be controlled over a wide speed range. In addition, it offers a zero control. It can therefore be regulated down to 0 rpm and then starts with approx. 350 rpm. Of course all Digital RGB LEDs can be controlled at will. Depending on the controller almost all effects are possible.

#### How to connect everything

The fans are normally controlled via a 4-pin PWM connector. An included Y-adapter for the fans makes it easy to connect them to the mainboard. This allows all fans to be controlled and regulated via one connector. Each fan has a 3-pin JST connector including Y-adapter for the LED illumination. This allows the fans to be connected directly together and can also be controlled simultaneously via a controller. For the connection to a typical 3-pin 5V connector a corresponding adapter is included. Alternatively, the included Digital RGB controller can be used. The pump of the Eisbaer Aurora uses a 3-pin Molex connector. This can also be connected to the mainboard.

The Eisbaer Pro Aurora is a true multi-talent. Expandable, fully compatible with DIY water cooling components and it is the optimal solution for the most powerful processors on the market.