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Alphacool ES RTX A4000 with Backplate

Alphacool article number: 10671

Quick Info

The Alphacool ES Copper/Carbon water cooler with backplate was developed for the Alphacool Enterprise Series. Due to the positioning of the connections, the hosing of the cooler in the server rack is significantly simplified. The top of the cooler is made of carbon. This makes the water cooler lighter compared to Alphacool's Eisblocks with acetal or acrylic tops. Thanks to the compact design, only 1 slot is needed to mount the cooler in the server rack instead of 1.5 slots as before. This additional space saving is one more argument for using the ES Copper/Carbon graphics card water cooler.

- Fullcover water cooler
- Chrome-plated copper bottom
- Noble material mix of carbon & copper

Compatibility

- PNY RTX A4000, 16GB GDDR6, 4x DP (VCNRTXA4000-PB)
- PNY RTX A4000, 16GB GDDR6, 4x DP, Smallbox (VCNRTXA4000-SB)

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Scope of delivery

1x ES RTX A4000 cooler	1x 65x8x1mm Pad
1x Backplate	2x 8x8x1mm Pad
2x 42x15x1mm Pad	1x Thermal Grease
1x 25x15x1mm Pad	1x Putty tool
1x 81x8x1mm Pad	8x M2x11mm Screw

Technical data cooler

Dimensions (L x W x H)	214,50 x 98,50 x 21,73mm
Material cooler	Chome-plated copper
Material cooler top	carbon
Threads	2 x G1/4"
Maximum working temperature	60 °C
Pressure tested	4 Bar
Color	black, carbon

Technical data backplate

Dimensions (L x W x H)	214,50 x 98,50 x 4mm
Material	aluminium
Color	black

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Manual	10671_Alphacool_ES_RTX_A4000_with_Backplate_Manual.pdf
Product pictures	10671_Alphacool_ES_RTX_A4000_with_Backplate_pics.zip
EU-DoC / CE / RoHS	Alphacool_EuDoc_CE_RoHS_10671.pdf

Packaging dimensions per unit

L x W x H	350 x 200 x 50 mm
Weight	1500 g

Other data

Certificates	CE, FC, RoHS
EAN	4250197106719
Customs code	84195080900
Guarantee	3 years

Article text

The Alphacool ES Copper/Carbon water cooler with backplate was developed for the Alphacool Enterprise Series. Due to the positioning of the connections, the hosing of the cooler in the server rack is significantly simplified. The top of the cooler is made of carbon. This makes the water cooler lighter compared to Alphacool's Eisblocks with acetal or acrylic tops. Thanks to the compact design, only 1 slot is needed to mount the cooler in the server rack instead of 1.5 slots as before. This additional space saving is one more argument for using the ES Copper/Carbon graphics card water cooler.

More performance!

Alphacool manages to position the cooler as close as possible to the components to be cooled. For this purpose, the heat conducting pads used are reduced to a thickness of 1mm. The maximum possible reduction in the thickness of the copper block and the optimization of the water flow inside the cooler allow all important components such as GPU, voltage converters and VRAMs to be cooled by water much better and more effectively. All of this provides a significant increase in cooling performance.

Chrome-plated copper

The cooler is made entirely of chrome-plated copper. A chrome plating is much harder than a nickel plating and therefore less sensitive to acids, scratches and damage. It completely eliminates the risk of chipping nickel plating. Additionally, chrome plating looks much more homogeneous and provides a shine that cannot be achieved by nickel plating. Chrome-plated coolers have previously only been used in the industrial sector in areas where extreme influences act on the coolers.

Connections on the back?

In order to save space in the width and height during installation, the water input and output have been moved to the back of the cooling block. This positioning of the connections makes hosing much easier. It enables easy integration of the GPU cooler into the water circuit even in the tightest server housings.

Copper or aluminum?

Alphacool uses only copper for all water-bearing parts. Copper has almost twice the thermal conductivity of aluminum and is therefore clearly the better choice of material for water cooling. The chrome-plated copper base is highly resistant to acid, which means that chipping of the chrome plating can be ruled out.

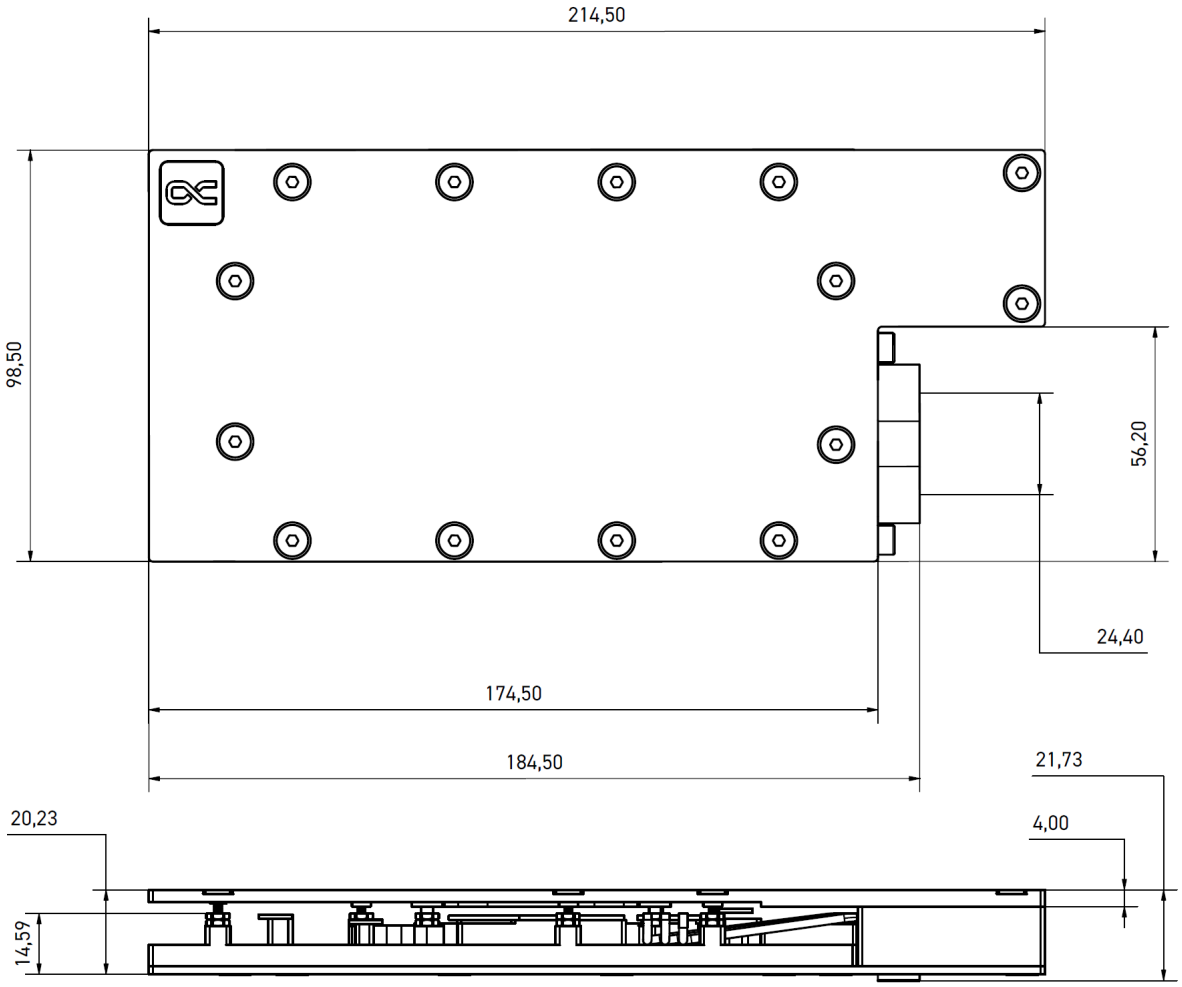
Thermal paste & thermal pads

The included thermal paste is Alphacool's Subzero with a thermal conductivity of 16 W/mK. The electrically non-conductive thermal paste is particularly well suited for high contact pressures, but can still be perfectly applied due to its viscosity of 850000 TF. For the thermal pads, Alphacool uses soft pads that fit perfectly to the components to be cooled and are very durable. The 2mm and 3mm thick pads have a thermal conductivity of 3 W/mK. The 1mm thick pads can dissipate 7 W/mK of heat.

Discreet appearance

The matte carbon finish gives the cooler a noble appearance. This makes it additionally interesting for private users who want to do without aRGB lighting.

Figure



General tolerance: ± 0,25mm
Dimension in millimeter