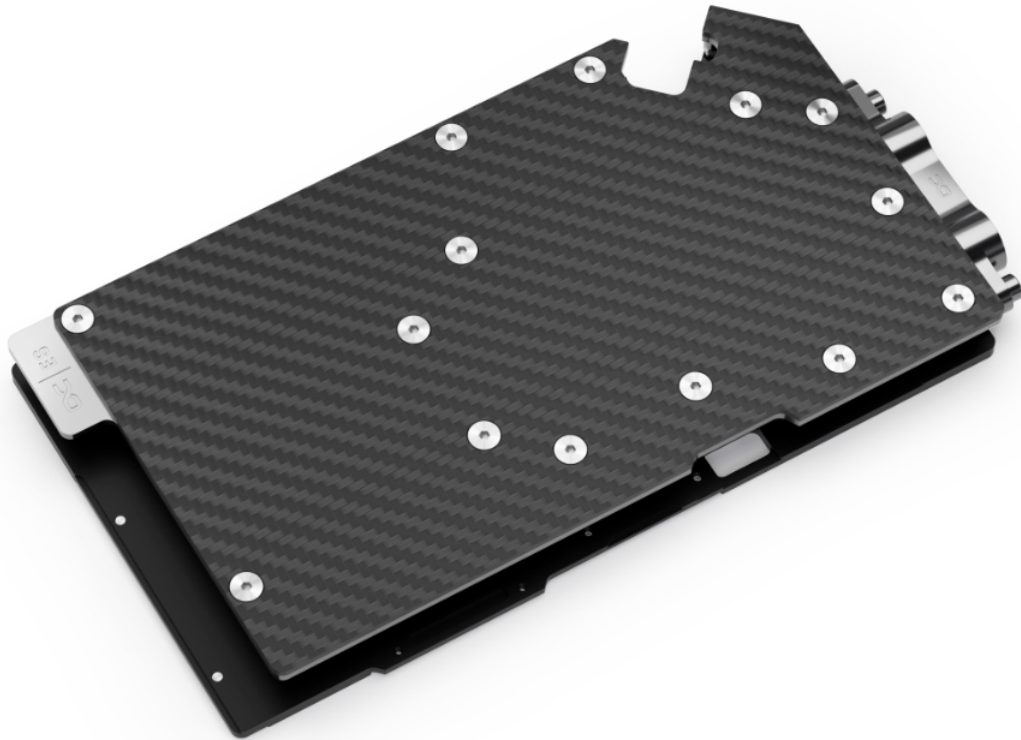


Alphacool ES RTX 6000 Pro Workstation Edition 1-Slot-Design

Alphacool article number: 5100433



Quick Info

The Alphacool ES 1-Slot GPU Water Block for the RTX Pro 6000 Blackwell Workstation Edition has been specifically developed for professional use in performance-optimized server and workstation environments. With its compact 1-slot design and carefully engineered port positioning, it meets the highest demands for cooling performance, reliability, and ease of installation – particularly in densely packed rack systems where space is limited.

- 1-Slot Design Cooler
- Fullcover water cooler
- Chrome-plated copper bottom
- For high performance in server and workstation systems

Compatibility

- Nvidia RTX PRO 6000 Blackwell Workstation-Edition, 96 GB GDDR7

Scope of delivery

1x Alphacool ES RTX 6000 Pro Workstation Edition 1-Slot-Design GPU Cooler	2x 8x8x1mm Pad
1x Backplate	1x Thermal Grease
6x M2x12mm Screw	1x Putty tool
5x 12x8x1mm Pad	2x 67.5x15x2mm Pad
2x 67.5x15x1mm Pad	1x 54x15x2mm Pad
1x 54x15x1mm Pad	2x 12x15x2mm Pad
2x 12x15x1mm Pad	1x PCI Bracket
1x 61.5x8x1mm Pad	2x M2x4mm Screw
1x 45x8x1mm Pad	

Technical data

Dimensions (L x W x H) (in mm)	231.10 x 121.82 x 19.90
Slot size	1
Material cooler	Chrome-plated copper (Cu-HCP)
Material cover	Aluminium (AlMg0,7Si)
Material terminal	Brass (CuZn39Pb3)
Threads	2x G 1/4
Material connection thread	Brass (CuZn39Pb3)
Maximum torque G1/4 thread (in Nm)	1.00
Maximum torque M2 thread (in Nm)	0.13
Maximum torque M2,5 thread (in Nm)	0.27
Maximum torque M4 thread (in Nm)	1.12
Maximum operating temperature (in °C)	60
Minimum operating temperature (in °C)	-20
Thickness of cooling fins (in mm)	0.40
Distance between cooling fins (in mm)	0.40
Cooling technology	Jet engine

Technical data thermalpads

Thermal conductivity of thermal pads (in W/mK)	7
Thermal pads Hardness ASTM 2240	35 Shore 00

Technical data Thermal paste

Volatilization Rate (24H@200°C)%	less than 0.5
Density (g/cc)	3.2 (Test method ASTM D792)
Viscosity (mPa.s)	150~200*10 ³ (Test method ASTM D2196)
Continuous Using Temperature (°C)	-40°C to 120°C
Breakdown Voltage (V/mil)	250 (Test method ASTM D149)
Thermal Impedance (°C in 2/W)	0.1 +/- 0.01 (Test method ASTM D5470)
Max. working pressure (psi)	40
Quantity	1g
Color	gray

Download links

Manual	5100433_Alphacool_ES_RTX_6000_Pro_Workstation_Edition_1-Slot-Design_Manual.pdf
Product pictures	5100433_Alphacool_ES_RTX_6000_Pro_Workstation_Edition_1-Slot-Design_pics.zip
EU-DoC / CE / RoHS	Alphacool_EuDoc_CE_RoHS_5100433.pdf

Packaging dimensions per unit

L x W x H	350 x 200 x 50 mm
Weight	1140 g

Other data

Certificates	CE, FC, RoHS
EAN	4070201004332
Customs code	84195080900
Guarantee	3 years

Article text

The Alphacool ES 1-Slot GPU Water Block for the RTX Pro 6000 Blackwell Workstation Edition has been specifically developed for professional use in performance-optimized server and workstation environments. With its compact 1-slot design and carefully engineered port positioning, it meets the highest demands for cooling performance, reliability, and ease of installation – particularly in densely packed rack systems where space is limited.

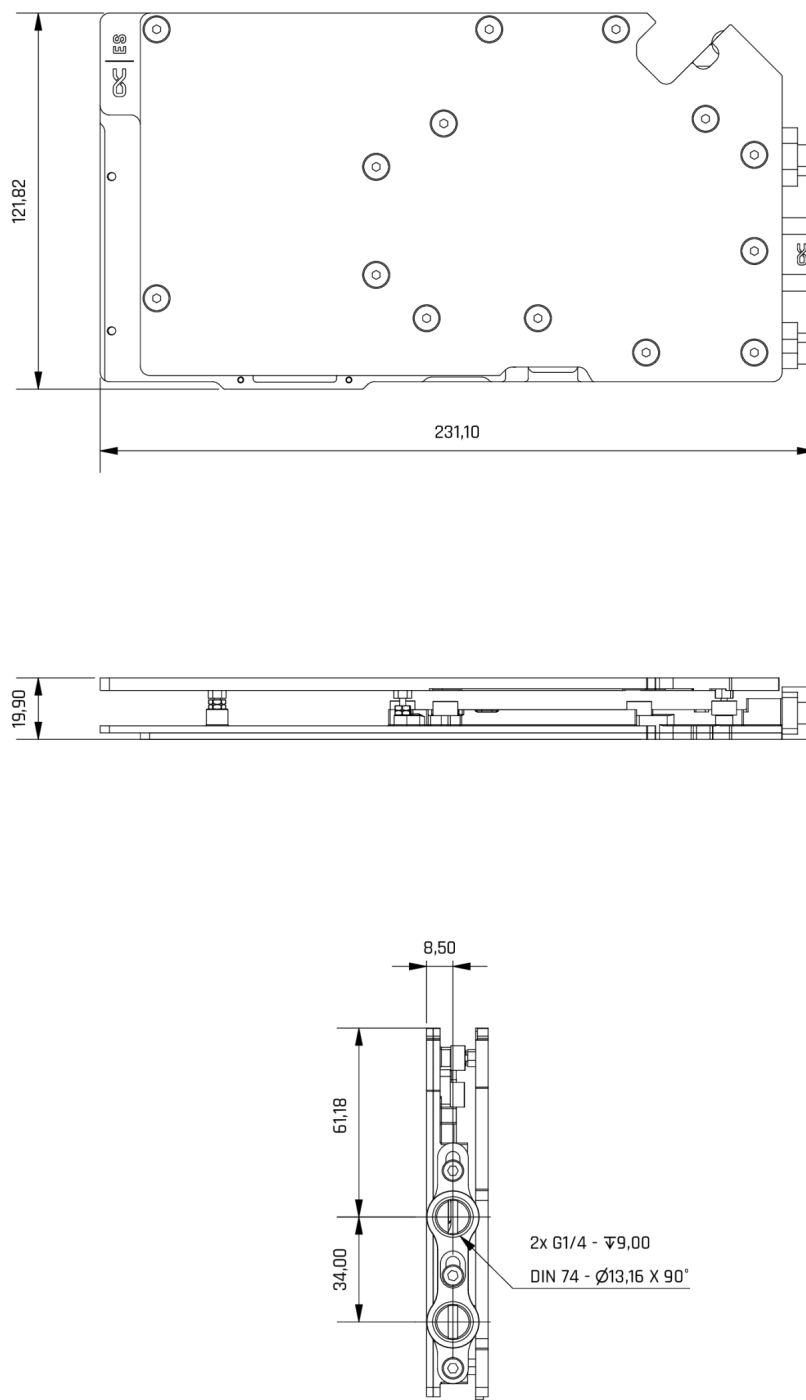
The top of the water block is made from lightweight, durable carbon fiber. This significantly reduces the overall weight of the cooler compared to conventional solutions. At the same time, the matte carbon finish provides a subtle, premium appearance that combines functionality with an elegant design. The cooling block itself is made entirely of chrome-plated copper. The chrome plating is considerably harder and more durable than conventional nickel plating and provides reliable protection against corrosion, scratches, and mechanical wear—making it ideal for long-term 24/7 operation.

The inlet and outlet ports are positioned on the rear of the cooler to save space. This port layout simplifies tubing installation and integration into existing cooling loops, even in highly compact server chassis. An optimized cooling channel structure ensures particularly efficient heat dissipation from the GPU, VRAM, and voltage regulators. Targeted internal channel routing provides an even flow of coolant across all relevant components.

The solid copper base ensures optimal heat absorption and transfer. Its robust chrome plating prevents flaking or damage under thermal stress.

The Alphacool ES 1-Slot GPU Water Block for the NVIDIA RTX Pro 6000 Blackwell Workstation Edition is an ideal solution for enterprise applications where performance, reliability, and efficient use of space are key priorities.

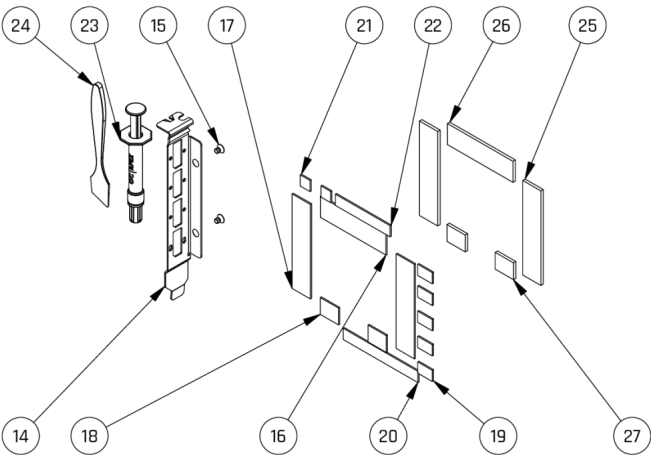
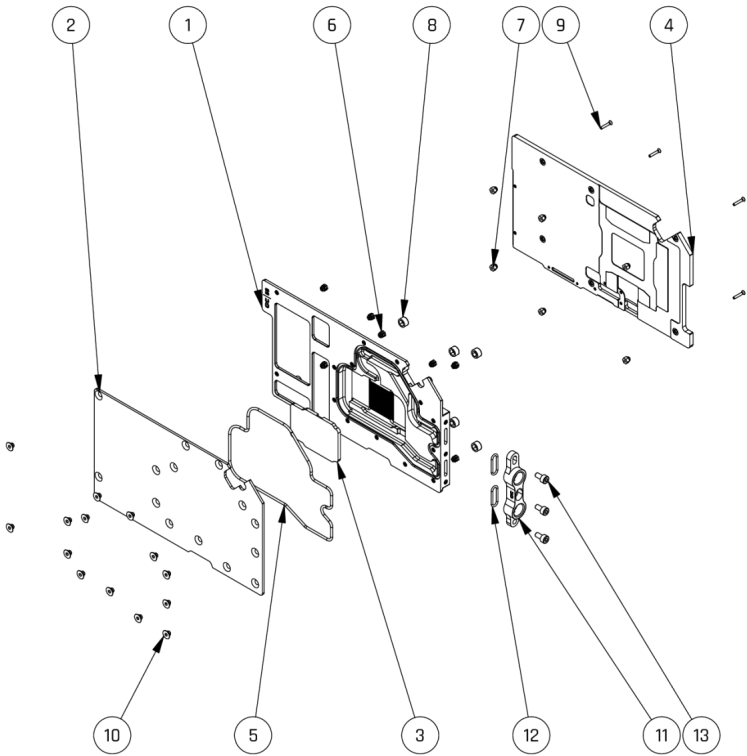
Figure (1)



General tolerance: $\pm 0,25$ mm
Dimension in millimeter

Figure (2)

Mechanical properties:			
Minimum temperature t min = -20°C	Working pressure p = 0,00 - 2,00	Maximum torque of M max = M2X0,4 = 0,13Nm M thread M2,5X0,45 = 0,27Nm DIN 13-1 Metric ISO standard thread M4X0,7 = 1,12Nm	
Maximum temperature t max = 60°C	Maximum pressure p max = 4,00		
	Maximum torque of G thread M max = G 1/4 = 1,00Nm ISO 228-1 Parallel Whitworth pipe thread BSPP (GB)		



5100433 Alphacool ES RTX 6000 Pro WS Edition 1SlotDesign			
Parts list			
Number	Quantity	Description	Material
1	1	Copperplate	Cu-HCP
2	1	Carbon Top	CFRP_
3	1	Engine insert	POM-C 4520
4	1	Backplate	AlMg0,7Si
5	1	O-Ring 127 x 2	NBR Shore 70
6	10	GPX Spacer SW5 M4X0,7-M2X0,4 x 3	CuZn39Pb3
7	6	GPX Spacer SW5 - M4X0,7 x 3	PA 66,GF25 FR(V-2)
8	7	PCB Spacer	PA 66,GF25 FR(V-2)
9	6	M2 x 12 countersunk screw	X10CrNi18-8
10	14	ISO 10642 - M4 x 4	X10CrNi18-8
11	1	Alphacool Universal GPU Terminal Straight	CuZn39Pb3
12	2	ORing 13,5 x 1,5	NBR Shore 70
13	3	M4 x 8 Cylinder head screws	X10CrNi18-8

Accessories			
Number	Quantity	Description	Material
14	1	IO-Bracket	Cr01
15	2	M3 x 4 countersunk screw	X10CrNi18-8
16	1	Pad 54 x 15 x 1	7W/mK - Shore-00 35 - 1.00 mm
17	2	Pad 67,5 x 15 x 1	7W/mK - Shore-00 35 - 1.00 mm
18	2	Pad 12 x 15 x 1	7W/mK - Shore-00 35 - 1.00 mm
19	5	Pad 12 x 8 x 1	7W/mK - Shore-00 35 - 1.00 mm
20	1	Pad 61,5 x 8 x 1	7W/mK - Shore-00 35 - 1.00 mm
21	2	Pad 8 x 8 x 1	7W/mK - Shore-00 35 - 1.00 mm
22	1	Pad 45 x 8 x 1	7W/mK - Shore-00 35 - 1.00 mm
23	1	Alphacool Apex Thermal grease 1g	-
24	1	Putty Tool	-
25	2	Pad 67,5 x 15 x 2	7W/mK - Shore-00 35
26	1	Pad 54 x 15 x 2	7W/mK - Shore-00 35
27	2	Pad 12 x 15 x 2	7W/mK - Shore-00 35