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Alphacool NexXxoS HPE-60 Full Copper X-Flow 80mm Quad Radiator

Alphacool article number: 14374

Quick Info

Alphacool is uncompromising in its choice of materials and is the only manufacturer in the world that uses only copper for all water-bearing parts in the radiator. The pre-chambers, cooling fins and cooling channels are made of pure copper. Only the fitting threads (made of brass) and the outer casing of the radiator (made of sheet steel) are made of other materials.

- High fin density allows for optimal air flow
- Additional cooling channels for more cooling performance
- Significant reduction of water temperature in push/pull mode

Scope of delivery

1x Alphacool NexXxoS HPE-60 Full Copper X-Flow 80mm Quad Radiator, black
16x M3x30 Screws
16x M3 Washers
1x Allen Key
1x plug tool

Technical data

L x W x H	367 x 80 x 60 mm (+/- 3% tolerance in the range of the prechamber)
Quantity of cooling channels	24
Material cooling fins, pre-chambers & channels	copper
Material threads	brass
Material outer housing	stainless steel
Threads	6x G1/4" IN/OUT (max. 5mm thread length)
Possible fan size	80mm
Possible fan assembly	4x one-sided / 8x both-sided
Thread size fan mounting	M3
Pressure tested	0,8 Bar
Maximum working temperature	60°C
Fin density	15 FPI
Weight	1003g
Color	black

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Product pictures	14374_Alphacool_NexXxoS_HPE-60_Full_Copper_X-Flow_80mm_Quad_Radiator_pics.zip

Packaging dimensions per unit

L x W x H	425 x 95 x 75 mm
Weight	1212 g

Other data

Certificates	CE, FC, ROHS
EAN	4250197143745
Customs code	84195080900
Guarantee	10 years

Article text

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HPE = High Performance

The HPE radiators are based on the NexXxoS series. But what is new? The HPE variant has additional cooling channels and a very high fin density. Due to the technical design, the cooling capacity increases significantly without restricting the water flow within the radiator. If the radiator is equipped with fans on both sides in push/pull operation, it is possible to achieve a significant temperature reduction compared to standard radiators.

X-Flow instead of U-Flow

The water flow in classic PC radiators is U-shaped. This means that the water inlet and outlet are on the same side on the radiator. This has certain advantages in the normal PC, however, it is difficult to set up a reasonable cooling loop like this in an extremely flat server. Due to the X-Flow technology, the input and output are located on the opposite sides. This makes it very easy to create a loop in the server rack. For example, you could go out from one side, directly into a CPU, then into one or more graphics cards and the pump, then back to the radiator on the other side.

Powerful cooling performance

To maximise the performance of the radiator, Alphacool reaches deep into its bag of tricks and uses pure copper for the cooling fins, cooling channels and pre-chambers. Due to the high thermal conductivity of 400 W/mK (in comparison: aluminium 236 W/mK). The high fin density of the radiator with a fin spacing of 15 FPI enables an optimal flow of air. All cooling fins are additionally equipped with small flaps. These are tiny wings that direct the airflow in the desired direction and ensure controlled air turbulence. This increases the cooling capacity and minimises the possible noise created by airflow.

Connection options & mounting

The NexXxoS HPE radiators each have three IN or OUT connections with G1/4" threads. All screws for mounting in the case and for mounting the fans are included with the radiator. Additional screws are not usually required.

Safety first

The NexXxoS HPE radiator has special protective plates placed under all mounting holes to prevent the screws from being screwed in too deeply. This protects the cooling fins and water channels underneath from damage.

Patented screw plugs

All NexXxoS HPE X-Flow radiators use Alphacool's patented stop fittings. Anyone who has mounted a radiator on the front or in the roof of a case is familiar with the fact that protruding stop fittings can stop the radiator from sitting flush. With the patented stop fittings, Alphacool offers an excellent solution. The stop fittings are completely recessed in the radiator and sit flush with its surface. This means that nothing stands in the way of a clean installation. Of course, the radiators also look much more elegant with the flat stop fittings.