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Alphacool NexXxoS HPE-45 Full Copper 80mm Triple Radiator

Alphacool article number: 14438

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-45 Full Copper 80mm Triple Radiator, black
12x M3x30 Screws
12x M3 Washers
1x Allen Key

Technical data radiator

L x W x H	286 x 80 x 42 mm (+/- 3% tolerance in the range of the prechamber)
Quantity of cooling channels	16
Material cooling fins, pre-chambers & channels	copper
Material threads	brass
Material outer housing	stainless steel
Threads	2x G1/4" IN/OUT (max. 5mm thread length)
Possible fan size	80mm
Possible fan assembly	3x one-sided / 6x both-sided
Thread size fan mounting	M3
Pressure tested	0,8 Bar
Maximum working temperature	60°C
Fin density	16 FPI
Weight	630g
Color	black

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Product pictures	14438_Alphacool_NexXxoS_HPE-45_Full_Copper_80mm_Triple_Radiator_pics.zip
EU-DoC / CE / RoHS	Alphacool_EuDoc_CE_RoHS_14438.pdf

Packaging dimensions per unit

L x W x H	340 x 90 x 50 mm
Weight	766 g

Other data

Certificates	CE, FC, ROHS
EAN	4250197144384
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.

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 16 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 an IN & OUT connection with G1/4" thread. All screws for mounting the fans are included with the radiator. Additional screws are usually not 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.