

Alphacool Core DDCzero 3300-4800rpm PWM Pump

Alphacool article number: 13867



Quick Info

The Alphacool DDCzero is a compact and powerful circulation pump designed for use in PC water-cooling systems, datacenter systems, and industrial applications. It ensures a reliable coolant supply while maintaining low power consumption. The pump speed can be monitored and controlled via a PWM signal using the 4-pin fan connector.

- Compact design - Ideal for SFF
- Speed range control of the pump via PWM
- High-performance with high flow rate

Scope of delivery

1x Alphacool Core DDCzero Pump, black
1x o-ring

Technical data

Product type	Circulation pump for computer cooling and datacenter applications
Areas of application	Server cooling, PC systems, automotive applications
Dimensions (L × W × H)	46 × 46 × 42.1 mm
Material pump housing	synthetic material
Material pump cover	synthetic material
Material axle	ceramics
Rotor material	Ferrite magnet (no neodymium magnets)
Connections	4-Pin PWM
PWM signal	PWM11
Connections	CAN H, CAN L, PWM, Tacho, GND, 12 V
Maximum power consumption	Approx. 7 W
Rotational speed	3300 - 4800 RPM
Operating voltage	8-12V DC
Starting voltage	12V DC
Maximum pumping head	1,42m
Maximum flow rate	220L/h
Media temperature	-40°C to +80°C
Ambient temperature (operation)	0°C to +60°C
Storage temperature	-15°C to +70°C
Cable lengths	117,7 mm
Maximum noise level	46 dB(A) at 30 cm measurement distance
Operational lifetime	50,000 hours (24/7 continuous operation)
Recommended coolant	Glycol-water mixture (50/50)
Weight	44 g
Color	black

Download links

Manual	13867_Alphacool_Core_DDCzero_3300-4800rpm_PWM_Pump_Manual.pdf
Product pictures	13867_Alphacool_Core_DDCzero_3300-4800rpm_PWM_Pump_pics.zip
EU-DoC / CE / RoHS	Alphacool_EuDoc_CE_RoHS_13867.pdf

Packaging dimensions per unit

L x W x H	70 x 80 x 75 mm
Weight	321 g

Other data

Certificates	CE, FC, RoHS
EAN	4250197138673
Customs code	84137081900
Guarantee	5 years

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Features

The DDCzero was developed for reliable and long-lasting continuous operation. Inside, a robust ceramic shaft works in combination with a rotor made of ferrite magnetic material.

Thanks to its compact dimensions and low weight, the pump can also be installed in systems with limited space. Both the pump housing and the pump cover are made of durable plastic. This makes it particularly suitable for server, datacenter, and industrial applications where high reliability and a long service life are required.

Performance

The pump offers high delivery performance and ensures a reliable coolant flow. Its speed can be flexibly adjusted across a wide control range to meet the specific requirements of the system.

Despite its compact design, the pump operates efficiently and is optimized for smooth and quiet operation.

Power Supply and Control

The Alphacool DDCzero is connected to the motherboard or a suitable controller via a 4-pin fan connector. This connector supplies power to the pump, enables PWM speed control, and transmits the speed signal.

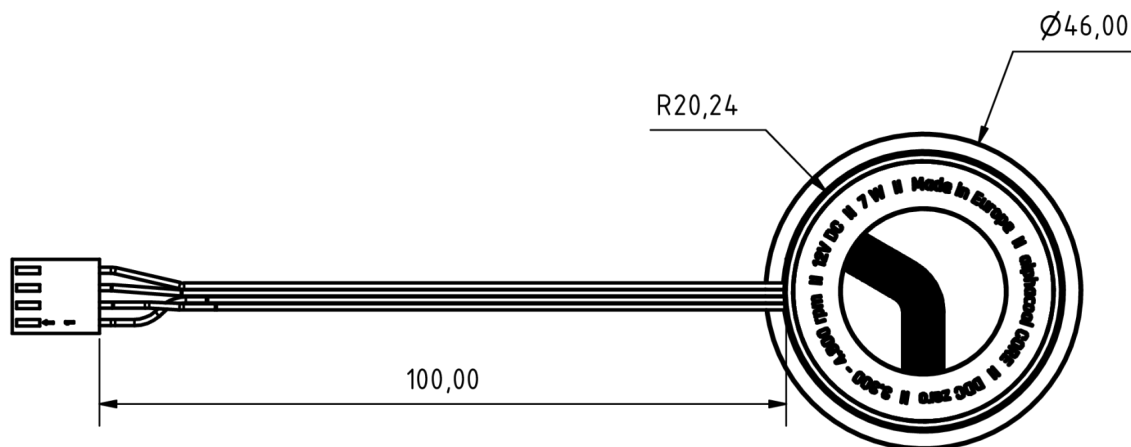
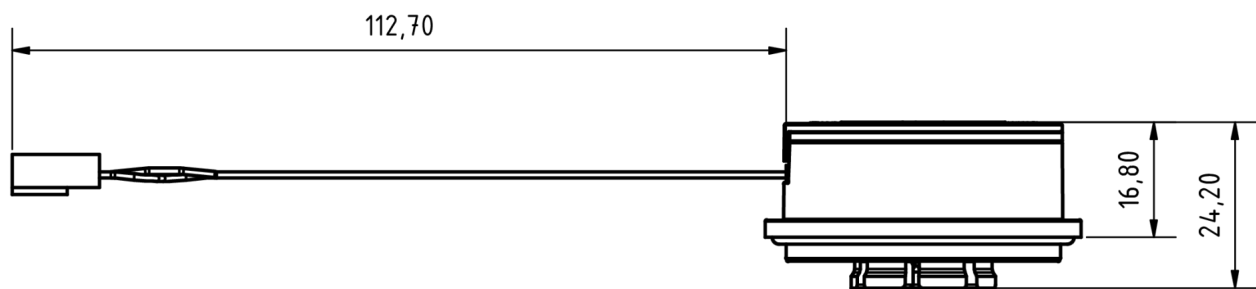
Areas of Application

The Alphacool DDCzero is suitable for a wide range of cooling systems. Thanks to its compact design, the pump can be flexibly integrated into various cooling and control concepts.

Compatibility

Due to the special design of the Alphacool Core DDCzero PWM pump, it is only compatible with pump tops and reservoirs specifically developed for the DDCzero.

Figure



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