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geräuschoptimierte Premium-Komponenten
sound-optimised premium components

Designed in Austria, Noctua's premium cooling components are internationally renowned for their superb quietness, exceptional performance and thoroughgoing quality. Having received more than 1000 awards and recommendations from leading hardware websites and magazines, Noctua's fans and heatsinks are chosen by more than a hundred thousand satisfied customers around the globe. Mail: sales@noctua.at | Web: www.noctua.at



Dear customer,

Congratulations on choosing the Noctua NF-F12 PWM. This fan is the result of over two years of intensive development and our engineers have worked hard to create what is perhaps the most technically advanced Noctua fan for pressure demanding applications today. Each fan is double checked for flawless operation by our quality control team before it leaves the factory and I'm confident that you will be able to sense some of the research, attention and care we've put into making this product.

Enjoy your NF-F12!

Yours sincerely,

Roland Mossig, Noctua CEO

This document includes some instructions for installing, running and cleaning your NF-F12. Should you have any further questions, our support team (support@noctua.at) will be glad to assist you at any time.

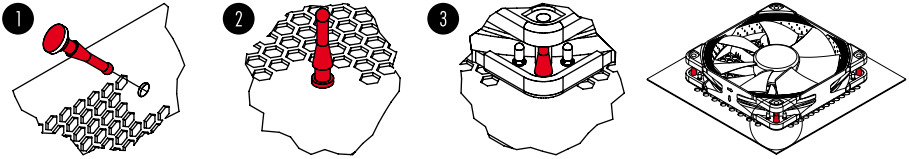


Please also have a look at the regularly updated FAQs on our website: <http://www.noctua.at/faqs>
This document is also available in other languages at the following URL: <http://www.noctua.at/manuals>

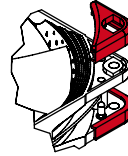
Installation

When installing the NF-F12 on a heatsink or radiator, please use the mounting mechanism supplied with your heatsink or radiator (fan clips, screws, etc.) as described in the respective manual.

When installing the NF-F12 as a case fan, you can either use proprietary clip systems (if your case features a clip system for fan installation) or the supplied mounting screws and silicone anti-vibration mounts. In order to install the fan using the silicone mounts, please first pull the silicone mounts through the mounting holes of the case. Then put the fan onto the silicone mounts and pull them through the mounting holes of the fan:



If necessary, you can easily remove the NF-F12's integrated anti-vibration pads:



Connection

The NF-F12 comes with a 4-pin PWM fan connector for fully automatic speed control via your mainboard's 4-pin PWM fan headers. Please note that the fan can also be connected to your mainboard's 3-pin fan headers though. When connected to 3-pin fan headers, the NF-F12 will run at full speed (unless the mainboard supports voltage based speed control).

If you're using multiple NF-F12 fans, you can use the supplied y-cable (NA-YC1) to connect several fans to one PWM fan header. This way, your mainboard will set all the connected fans to run at the same speed.

The NF-F12 features a short 20cm primary cable in order to help you minimise cable clutter in typical applications. If you need a longer cable, please add the supplied 30cm extension (NA-EC1). The NF-F12 comes with a Low-Noise Adaptor (NA-RC6) that allows you reduce the fan speed from 1500 to 1200rpm. You can either use the adaptor to set the fan to a fixed speed of 1200rpm (if speed control is deactivated) or to cap the maximum speed to 1200rpm during PWM speed control.

Cleaning and Maintenance

Fans inside computer cases tend to accumulate dust over longer periods of usage. In order to maintain maximum performance, please clean your fans regularly using a duster, slightly moist tissue or canned air. Please be careful not to use too much force in order to prevent any damage to the fan. Please don't use a vacuum cleaner as this may apply excessive force to the fan.

In order to ensure flawless operation over many years of usage, the NF-F12's premium grade SSO2 bearing is fully sealed to prevent the entering of fine dust particles. Please note that the fan is not designed to be taken apart by the user. Removing the impeller from the frame will break the sealing of the bearing and results in a loss of warranty.

Warranty and Support

Even with high-grade products and strict quality control, the possibility of defects cannot be eliminated entirely. Therefore, we aim at providing the highest possible level of reliability and convenience by offering a warranty period of 6 years and direct, fast and straightforward RMA service.

Should you encounter any problems with your NF-F12, please don't hesitate to contact our support team (support@noctua.at).

NF-F12 PWM

Noctua NF-F12 PWM Premium Fan



Teaming up eleven stator guide vanes with a specially conceived seven blade impeller, the NF-F12's Focused Flow system creates outstanding static pressure and focuses the airflow for superior performance on heatsinks and radiators. At the same time, a wide range of advanced aerodynamic design measures, second generation SSO-Bearing and Noctua's new, custom designed PWM IC for fully automatic control guarantee astounding quietness of operation. The NF-F12 comes with modular cabling, integrated anti-vibration pads and two speed settings for full flexibility. Its commanding performance, exhaustive set of features and Noctua's trusted premium quality make it an elite choice for use on air coolers, radiators and other pressure demanding applications.

Focused Flow™ frame

Designed for pressure demanding applications such as heatsinks and radiators, the Focused Flow™ frame features eleven stator guide vanes that straighten, channel and focus the airflow, which allows the NF-F12 to rival the performance of conventional fans running at much faster speeds.

Varying Angular Distance and Vortex Control Notches

The NF-F12's stator guide vanes are set out in Varying Angular Distance and feature Vortex-Control Notches. Both measures help to spread the noise emission over a broader frequency spectrum and thus make the fan's sound pattern more agreeable to the human ear.

Heptaperf™ Impeller

Custom designed for the new Focused Flow™ frame and to work in tandem with the eleven stator guide vanes, the NF-F12's seven blade Heptaperf™ impeller has been carefully optimised to achieve a perfect balance between power and quietness.

Stepped Inlet Design

Noctua's Stepped Inlet Design adds turbulence to the influx in order to facilitate the transition from laminar flow to turbulent flow, which reduces tonal intake noise, improves flow attachment and increases suction capacity, especially in space-restricted environments.

Integrated anti-vibration pads

Integrated anti-vibration pads made from extra-soft silicone minimise the transmission of minute vibrations while maintaining full compatibility with all standard screws and other mounting systems.

Low-Noise Adaptor

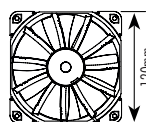
The NF-F12 is supplied with a (L.N.A.) that reduces the maximum fan speed from 1500 to 1200rpm. The L.N.A. can be used either to run the fan at a fixed speed of 1200rpm or to cap the maximum speed when using automatic PWM control.

Extensive cabling options

The fan's short 20cm primary cable minimises cable clutter in typical applications while the supplied 30cm extension provides extended reach when necessary. Both cables are fully sleeved and a 4-pin y-cable allows the connection of a second NF-F12 fan to the same PWM fan header for automatic control.

6-year manufacturer's warranty

Noctua fans are renowned for their impeccable quality and outstanding longevity. Like all Noctua fans, the NF-F12 features an MTTF rating of more than 150,000 hours and comes with a full 6-year manufacturer's warranty.



SPECIFICATIONS

Dimensions	120x120x25 mm
Bearing	SSO2-Bearing
Blade geometry	Heptaperf™
Frame Technology	Focused Flow™
Max. input power / voltage	0.6 W / 12 V
MTTF	> 150,000 h

NF-F12 PWM	w/o adaptor	with L.N.A.
Max. rotational speed (+/-10%)	1500 RPM	1200 RPM
Max. airflow	93.4 m³/h	74.3 m³/h
Max. acoustical noise	22.4 dB(A)	18.6 dB(A)
Max. static pressure	2.61 mmH ₂ O	1.83 mmH ₂ O

LOGISTIC DATA

Product name
Noctua NF-F12 PWM

EAN
4716123314660

UPC
842431014009

Packaging dimensions (HxWxD)
150x210x33 mm

Weight incl. packaging
314 g

Warranty
6 years

Packaging unit
36 pcs

Packaging dimensions / unit (HxWxD)
390x390x360 mm

Weight incl. packaging / unit
13.52 kg

SCOPE OF DELIVERY

NF-F12 PWM premium fan

Low-Noise Adaptor (L.N.A.)

4-pin y-cable

30cm extension cable

4x anti-vibration mounts

4x fan screws