



# Noctua NF-F12 PWM chromax.black.swap 12V 1500RPM 120mm Fan

\$22.95

## Product Images



## Short Description

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Having received more than 100 awards and recommendations from international hardware websites and magazines, the [NF-F12](#) is one of Noctua's most renowned and popular 120mm fans. Its outstanding static pressure performance and the FocusedFlow™ frame make it ideal for use on heatsinks and radiators. The chromax.black.swap edition combines the NF-F12's signature quiet cooling performance with an attractive all-black design and a bundle of swappable red, white, blue, green, yellow and black anti-vibration pads that allow the colour-customisation of the fan to match individual build colour schemes.

For further customisation, a wide range of accessories such as coloured cables, additional anti-vibration pads and anti-vibration mounts are available separately. Topped off with Noctua's trusted premium-grade [SSO2 bearing](#), more than 150,000 hours MTTF and 6-year manufacturer's warranty, the NF-F12 PWM chromax.black.swap is the perfect choice for all users who value individual, focused build aesthetics just as much as class-leading quality and performance

## Features

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### Award-winning NF-F12 design

Having received more than 150 awards and recommendations from the international press, Noctua's NF-F12 has become a proven premium choice for 120mm cooling needs. Its renowned efficiency has convinced tens of thousands of customers all over the world.

### chromax.black.swap edition

Maximising colour choices, Noctua's chromax.black.swap edition fans can be colour-customised using the included swappable anti-vibration pads as well as optional anti-vibration mounts and cables. This makes them ideal for enthusiasts looking for true premium-grade fans that can be colour-coordinated with popular build themes such as all black, black & white or black & red.

## Swappable anti-vibration pads in 6 colours

The NF-F12 PWM chromax.black.swap comes with 4 black, white, red, blue, green and yellow NA-AVP1 anti-vibration pads respectively. By combining the various colours with black or leaving off the pads on one side, the fan can be coordinated with most popular build colour schemes out of the box. Additional NA-SAVP1 sets for outfitting both sides in one colour can be purchased separately.

## 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.

## Optional coloured cables

Noctua's chromax line fans use a modular cabling system and come pre-fitted with a fully sleeved black NA-EC1 30cm cable. For refined colour coordination, white, red, blue, green and yellow 30cm NA-EC1 cables plus corresponding NA-YC1 y-cables are available separately.

## Optional coloured anti-vibration mounts

To complement the coloured anti-vibration pads included with the fans, users can purchase chromax line NA-SAV2 anti-vibration mounts that enable the convenient, quick and vibration-free installation of fans in standard mounting holes for case fans.

## 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.

## AAO frame

Noctua's AAO (Advanced Acoustic Optimisation) frames feature integrated anti-vibration pads as well as Noctua's proprietary Stepped Inlet Design and Inner Surface Microstructures, both of which further refine the fan's performance/noise efficiency.

## 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.

## 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.

## Inner Surface Microstructures

With the tips of the fan blades ploughing through the boundary layer created by the Inner Surface Microstructures, flow separation from the suction side of the blades is significantly suppressed, which results in reduced blade passing noise and improved airflow and pressure efficiency.

## SSO2 bearing

The chromax line fans feature the further optimised second generation of Noctua’s renowned, time-tested SSO bearing. With SSO2, the rear magnet is placed closer to the axis to provide even better stabilisation, precision and durability.

## Metal bearing shell

In order to guarantee the highest possible degree of manufacturing precision, minimum tolerance and excellent long-term stability, the chromax edition fans sport a CNC milled bearing shell made entirely from brass.

## Custom-designed PWM IC with SCD

Supporting fully automatic PWM speed control, the chromax edition fans use Noctua’s custom-designed NE-FD1 PWM IC that integrates Smooth Commutation Drive (SCD) technology. By providing smoother torque impulses, SCD suppresses PWM switching noises and thus makes the fan quieter at low speeds.

## 6-year manufacturer’s warranty

Noctua fans are renowned for their impeccable quality and outstanding longevity. Like all Noctua fans, the chromax edition models feature an MTBF of more than 150,000 hours rating and come with a full 6-year manufacturer’s warranty.

## Specifications

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Model Number	NF-F12 PWM chromax.black.swap
Size	120x120x25 mm
Connector	4-pin PWM
Bearing	SSO2
Blade Geometry	Heptaperf
Frame Technology	Focused Flow
Rotational Speed (+/- 10%)	1500 RPM
Min. Rotational Speed (PWM)	300 RPM
Airflow	54.8 CFM
Acoustical Noise	22.4 dB(A)
Static Pressure	2.61 mm H2O
Max. Input Power	0.6 W

Max. Input Current	0.05 A
MTBF	> 150,000 h
Warranty	72 months

### Additional Information

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Brand	Noctua
SKU	NF-F12 PWM-CBW
Weight	0.7000
Color	Black
Fan Dimensions	120mm
Fan Width	25mm
Fan Connection	4-Pin PWM
Vendor SKU/EAN	9010018100402

