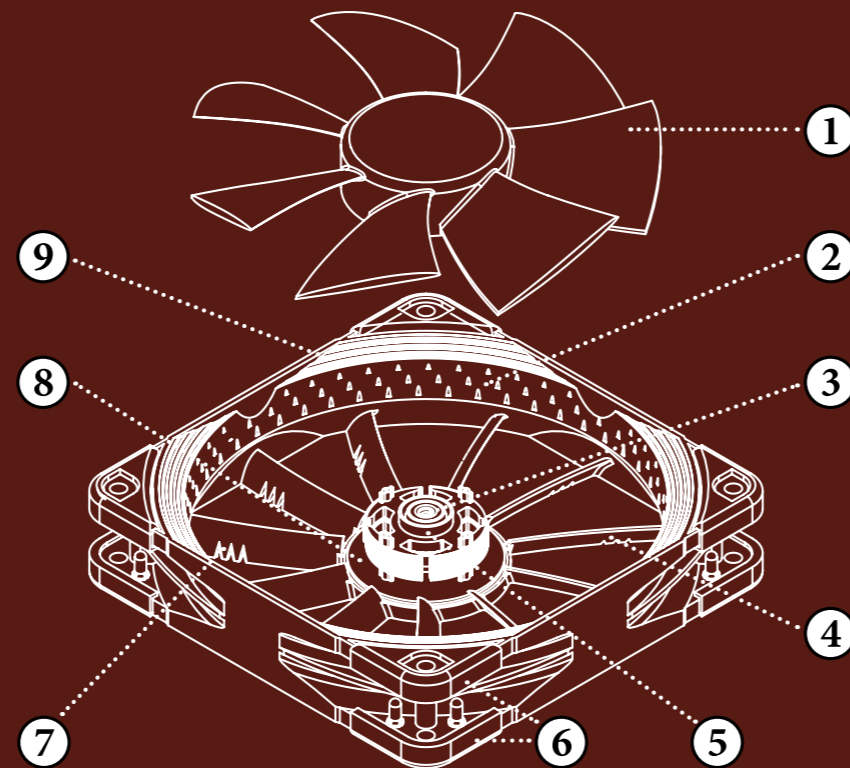


NF-F12 Focused Flow™ Fan

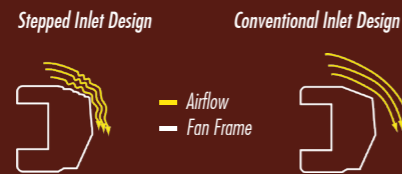
Next Generation Performance for Heatsinks and Radiators



9

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.

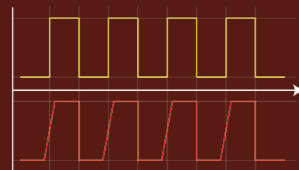


8

Custom designed PWM IC with SCD

Supporting fully automatic PWM speed control, the NF-F12 uses Noctua's novel, 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 lower speeds.

conventional fan driver IC



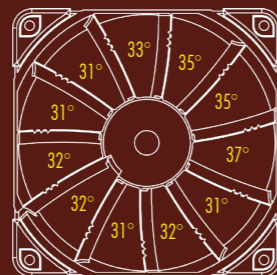
Noctua PWM IC with Smooth Commutation Drive technology

Comparison of PWM Output Signals of Fan Driver ICs

7

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.



6

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 mounting systems and fan clips used on heatsinks.

5

Metal bearing shell

In order to guarantee the highest possible degree of manufacturing precision, minimum tolerance and excellent long-term stability, the NF-F12 sports a CNC milled bearing shell made entirely from brass.

4

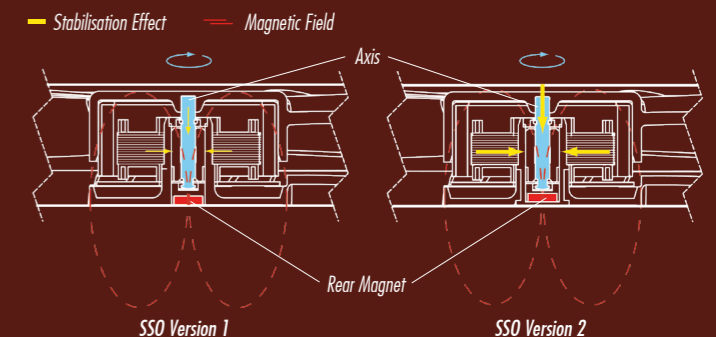
Focused Flow™ Frame

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.

3

SSO2 Bearing

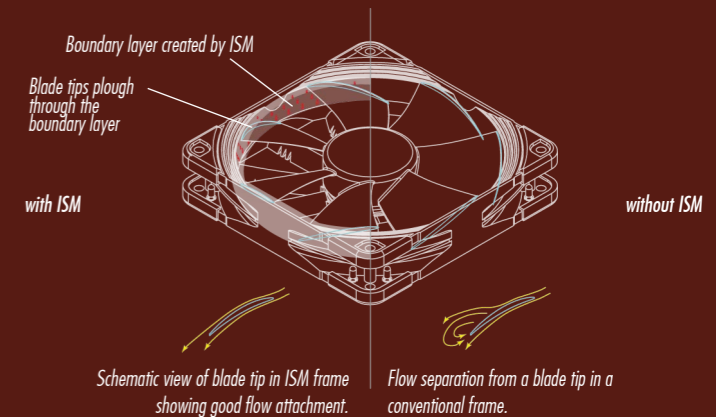
The NF-F12 is the first fan to feature the further optimised second generation of Noctua's renowned, time-tested SSO bearing. With SSO2, the rear magnet is placed closer to the axis to provide even better stabilisation, precision and durability.



2

Inner Surface Microstructures (ISM)

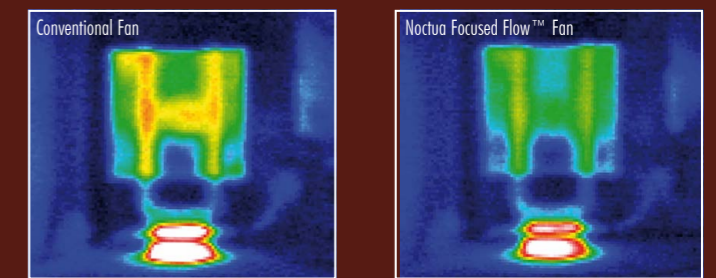
With the tips of the fan blades plunging through the boundary layer created by the Inner Surface Microstructures, flow separation from the suction side of the blades is significantly suppressed, which results in reduced blade passing noise and improved airflow and pressure efficiency.



1

Heptaperf Impeller

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



Thermal Performance