Noctua NF-A12x25 PWM Premium Fan



The NF-A12x25 PWM is a highly optimised next-generation 120mm fan that integrates Noctua's latest innovations in aerodynamic engineering in order to achieve an unprecedented level of quiet cooling performance. It takes state-of-the-art technologies such as the AAO (Advanced Acoustic Optimisation) frame or Flow Acceleration Channels and combines them with a record tight tip clearance of only 0.5mm, which is made possible by using the novel Sterrox® liquid-crystal polymer (LCP) compound as well as a metal-reinforced motor hub and axis for ultimate precision. Following the approach of Noctua's A-series, the NF-A12x25 PWM is a true all-rounder that yields superb results in all types of usage, regardless of whether it's in low-impedance, airflow-oriented applications such as case cooling, or high-impedance, pressure-demanding scenarios such as on heatsinks and watercooling radiators. The 4-pin PWM version supports fully automatic speed control via PWM fan headers and comes with a Low-Noise Adaptor to reduce the maximum speed from 2000 to 1700rpm. Topped off with exceptional running smoothness, Noctua's reference-class SSO2 bearing, a rich bundle of accessories and 6-year manufacturer's warranty, the NF-A12x25 PWM is a premium-quality product through and through. Its superior efficiency, cutting-edge construction and pioneering materials make it an elite choice for the most discerning demands.

Next-aeneration performance

Noctua's 120mm fans such as the NF-F12 and NF-S12A are renowned as being among the best on the market and have received more than 400 awards and recommendations from the international press. With its further improved efficiency and novel, state-of-the-art engineering, the NF-A12x25 PWM represents another step up in performance and manufacturing.

Highly optimised P/Q curve for all applications

The NF-A12x25 PWM's sophisticated aerodynamic design allows for a pressure to airflow (P/Q) curve that is extremely strong in the critical mid-section. This means that the NF-A12x25 PWM is a true jack-of-all-trades with excellent performance in both static pressure demanding and airflow demanding applications.

Excellent on-application acoustics

While many fans produce unpleasant, high-pitched noises when installed in typical applications such as on heatsinks or radiators, the NF-A12x25 PWM has been carefully fine-tuned for optimal on-application acoustics. It produces a smooth, pleasant frequency profile and surprisingly low sound pressure levels (SPL) when working against back pressure.

Ultra-tight tip clearance

The NF-A12x25 PWM has a record tight tip clearance (distance between the blade tips and the inside of the frame) of only 0.5mm. This highly ambitious design sets a new benchmark for 120mm fans and helps the NF-A12x25 PWM to work more efficiently against back pressure, such as on heatsinks or radiators, by reducing leak flows through the gap between impeller and frame.

Low-Noise Adaptor

The NF-A12x25 PWM is supplied with a Low-Noise Adaptor (L.N.A.) that reduces the maximum fan speed from 2000 to 1700rpm. The L.N.A can be used either to run the fan at a fixed speed of 1700rpm or to cap the maximum speed when using automatic PWM control.

Anti-vibration gasket for watercooling radiators

The NF-A12x25 PWM includes a silicone gasket that can be used when installing the fan on watercooling radiators or other applications that benefit from a tighter seal with the fan. The gasket helps to dampen minute vibrations and to reduce air loss between the fan and the radiator for optimal cooling performance.

6-year manufacturer's warranty

Noctua fans are renowned for their impeccable quality and outstanding longevity. Like all Noctua fans, the NF-A12x25 PWM features an MTTF of more than 150,000 hours rating and comes with a full 6-year manufacturer's warranty.

SCOPE OF DELIVERY

Packaging dimensions / unit (HxWxD)

375x380x380 mm

Weight incl. packaging / unit 14.76 kg

LOGISTIC DATA

9010018100396

841501110399
Packaging dimensions (HxWxD)
210x150x34 mm

Weight incl. packaging **362** g

Warranty

6 years
Packaging unit

36 pcs

Noctua NF-A12x25 PWM

NF-A12x25 PWM premium fan
Low-Noise-Adaptor (L.N.A.)
4-pin y-cable
30cm extension cable
4x anti-vibration mounts
4x fan screws

Anti-vibration gasket for watercooling

radiators

SPECIFICATIONS

Dimensions	120x120x25 mm
Bearing	SS02
Connector	4-pin
Blade geometry	A-Series with Flow Acceleration Channels
Max. input power / voltage	1.68 W / 12 V
MTTF	> 150,000 h

NF-A12x25 PWM	w/o adaptor	with L.N.A.
Max. rotational speed ($\pm/-10\%$)	2000 RPM	1700 RPM
Max. airflow	102.1 m ³ /h	84.5 m ³ /h
Max. acoustical noise	22.6 dB(A)	18.8 dB(A)
Max. static pressure	2.34 mmH ₂ 0	1.65 mmH ₂ 0

