

NF-A12x25 G2 PWM Sx2-PP

Dual Fan Set for Push-Pull and Side-by-Side Applications



LOGISTIC DATA

Product name

Noctua NF-A12x25 G2 PWM Sx2 PP

EAN

9010018100716

UPC

841501110719

Packaging dimensions (HxWxD)

33x350x130 mm

Weight incl. packaging

576 g

Warranty

6 years

Packaging unit

20 pcs

Packaging dimensions / unit (HxWxD)

302x376x376 mm

Weight incl. packaging / unit

13.30 kg

SCOPE OF DELIVERY

NF-A12x25 G2 PWM PPA

NF-A12x25 G2 PWM PPB

2x NA-RC7 Low-Noise Adaptor (L.N.A.)

NA-YC1 4-pin PWM splitter cable

2x NA-EC1 30cm extension cable

8x NA-AV2 anti-vibration mounts

2x NA-AVG1 anti-vibration gasket for water cooling radiators

8x fan screws

The NF-A12x25 G2 PWM Sx2-PP is a set of two NF-A12x25 G2 PWM 120mm fans that are offset in speed, which can be beneficial in push-pull operation as well as in situations where two or more fans are operating side by side, such as in case cooling applications or on 240 and 360mm water cooling radiators. When two fans are running at almost the same, constant speed in a push-pull configuration or, albeit to a lesser extent, side by side, their acoustic interaction can lead to undesirable harmonic phenomena such as intermittent vibrations or periodic humming due to interference, which can be heard as beat frequencies. Therefore, the two NF-A12x25 G2 PWM fans contained in the Sx2-PP set are slightly offset in speed (+/- ~50rpm) in order to avoid such phenomena. This fine-tuning is made possible by the fans' novel etaPERF™ motor and its NE-FD6 driver IC that achieves extremely precise speed control and, thanks to its SupraTorque™ feature, can leverage extra torque headroom to keep the exact desired speed even when working against significant flow resistance such as on water cooling radiators and heatsinks. With one fan running ~50rpm slower (PPA) and one ~50rpm faster (PPB), the overall cooling performance can be kept the same while efficiently preventing intermittent vibrations or periodic humming. Since the perception of beat frequencies can vary depending on psychoacoustic preferences, users can easily further optimise acoustics by slowing the PPA fan down a little more through PWM control or the supplied Low-Noise-Adaptor, which will result in an even smoother sound signature due to the increased offset. If more than two fans are running side by side, customers can either combine multiple Sx2-PP sets or add a single NF-A12x25 G2 PWM fan and reduce its speed to the level of the PPA model (~1750rpm) using PWM control in order to make sure that neighbouring fans are never running at the same speed.

Dual fan set for push-pull and side-by-side usage

Bundling two NF-A12x25 G2 PWM fans that are speed-offset by +/- ~50rpm in order to avoid undesired acoustic interaction phenomena, the Sx2-PP set is the ideal choice for push-pull configurations as well as situations where two or more fans are operating side by side such as on 240 and 360mm radiators or in typical case cooling applications.

Next-generation performance

Building upon the success of the original NF-A12x25, the G2 version introduces a refined blade geometry and a novel motor design, both of which enable a significant boost in performance-to-noise efficiency. This enables the NF-A12x25 G2 to achieve superior results across various applications, including water cooling radiators, heatsinks, and case fan setups.

Highly optimised P/Q curve for all applications

The NF-A12x25 G2'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 G2 is a true jack-of-all-trades with excellent performance in both static pressure demanding and airflow demanding applications.

6-year manufacturer's warranty

Noctua fans are renowned for their impeccable quality and outstanding longevity. Like all Noctua fans, the NF-A12x25 G2 features an MTTF of more than 150,000 hours rating and comes with a full 6-year manufacturer's warranty.

NF-A12x25 G2 PWM FAN SPECIFICATIONS

Dimensions	120x120x25 mm	
Connector	4-pin PWM	
Bearing	SS02	
Blade geometry	Progressive-Bend impeller	
Frame technology	AAO (Advanced Acoustic Optimisation)	
Max. input power	1.8 W	
Voltage	12 V	
MTTF	> 150,000 h	

NF-A12x25 G2 PWM	without adaptor	with L.N.A.
Rotational speed (+/-10%)	1800 RPM	1500 RPM
Airflow (m³/h)	107.3 m³/h	87.2 m³/h
Acoustical noise dB(A)	22.5 dB(A)	18.1 dB(A)
Static pressure (mmH₂O)	3.14 mmH₂O	1.71 mmH₂O