


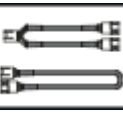

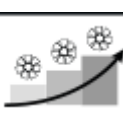
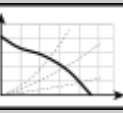







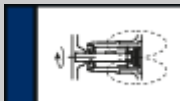



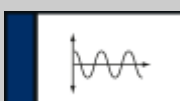



Details

	<p>Award-winning NF-A12x25 design</p> <p>First introduced in 2018, the NF-A12x25 has taken the hearts of quiet cooling enthusiasts around the world by storm and reshaped the common perception of what 120mm fans can do. With more than 100 awards and recommendations from the international press, it's widely considered to be the best 120mm fan on the market.</p>
	<p>chromax.black.swap edition</p> <p>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.</p>
	<p>Swappable anti-vibration pads in 7 colours</p> <p>The NF-A12x25 PWM chromax.black.swap comes with 4 white, red, blue, green, grey, yellow and black NA-AVP1 anti-vibration pads. By combining the various colours with black or going all black using the supplied NA-AVG1 anti-vibration gasket, 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.</p>
	<p>Optional coloured cables</p> <p>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.</p>
	<p>Optional coloured anti-vibration mounts</p> <p>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.</p>
	<p>Next-generation performance</p> <p>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 represents another step up in performance and manufacturing.</p>
	<p>Highly optimised P/Q curve for all applications</p> <p>The NF-A12x25'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 is a true jack-of-all-trades with excellent performance in both static pressure demanding and airflow demanding applications.</p>
	<p>Excellent on-application acoustics</p> <p>While many fans produce unpleasant, high-pitched noises when installed in typical applications such as on heatsinks or radiators, the NF-A12x25 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.</p>
	<p>Flow Acceleration Channels</p> <p>The NF-A12x25 impeller features suction side Flow Acceleration Channels. By speeding up the airflow at the crucial outer blade regions, this measure reduces suction side flow separation and thus leads to better efficiency and lower vortex noise.</p>
	<p>Ultra-tight tip clearance</p> <p>The NF-A12x25 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 to work more efficiently against back pressure, such as on heatsinks or radiators, by reducing leak flows through the gap between impeller and frame.</p>
	<p>Metal-reinforced motor hub</p> <p>The centrepiece of the NF-A12x25's motor hub is made entirely from steel and the axle mount is reinforced with an additional brass structure. In combination, both measures ensure ultimate precision and increased stability in the critical hub area.</p>

	<p>Sterrox® liquid-crystal polymer compound</p> <p>The NF-A12x25's impeller is made from Noctua's novel Sterrox® liquid-crystal polymer (LCP) compound that features extreme tensile strength, an exceptionally low thermal expansion coefficient and damping characteristics that are ideal for reducing resonance and vibration phenomena in advanced fan-blade designs.</p>
	<p>AAO frame</p> <p>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.</p>
	<p>Stepped Inlet Design</p> <p>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.</p>
	<p>Inner Surface Microstructures</p> <p>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.</p>
	<p>Anti-vibration gasket for watercooling radiators</p> <p>The NF-A12x25 chromax.black.swap includes a black 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 damp minute vibrations and to reduce air loss between the fan and the radiator for optimal cooling performance.</p>
	<p>SSO2 bearing</p> <p>The NF-A12x25 features 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.</p>
	<p>Metal bearing shell</p> <p>In order to guarantee the highest possible degree of manufacturing precision, minimum tolerance and excellent long-term stability, the NF-A12x25 sports a CNC milled bearing shell made entirely from brass.</p>
	<p>Custom-designed PWM IC with SCD</p> <p>Supporting fully automatic PWM speed control, the fan uses 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.</p>
	<p>Stops at 0% PWM</p> <p>When the fan is set to 0% PWM duty cycle by the motherboard or PWM fan controller, it will stop. This makes it ideal for creating setups with semi-passive cooling that automatically turn the fans off and thus run completely silent at idle if thermals allow.</p>
	<p>Smooth Commutation Drive 2</p> <p>The latest version of Noctua's advanced Smooth Commutation Drive system ensures superb running smoothness by eliminating torque variations and switching noises. This makes the fan remarkably quiet even at very close distances.</p>
	<p>Optional adaptor for 140mm watercooling radiators</p> <p>Thanks to its superior efficiency, the NF-A12x25 can outperform many 140mm fans. Combined with the optional NA-FMA1 adaptor frame that allows it to be installed on 140mm radiators, the NF-A12x25 is a great upgrade for 140mm-based watercoolers.</p>
	<p>6-year manufacturer's warranty</p> <p>Noctua fans are renowned for their impeccable quality and outstanding longevity. Like all Noctua fans, the NF-A12x25 features an MTTF of more than 150.000 hours rating and comes with a full 6-year manufacturer's warranty.</p>

FAN Specifications	
Size	120x120x25 mm
Mounting hole spacing	105x105 mm
Connector & pin-configuration	4-pin PWM
Cable length	2cm + 30cm NA-EC1 extension cable
Bearing	SSO2
Blade geometry	A-Series with Flow Acceleration Channels
Frame technology	AAO (Advanced Acoustic Optimisation)
Material	Sterrox® LCP
Rotational speed (+/- 10%)	2000 RPM
Min. rotational speed @ 20% PWM (+/-20%)	450 RPM
Airflow	102,1 m ³ /h
Acoustical noise	22.6 dB(A)
Static pressure	2.34 mm H ₂ O
Input power (typical)	1.2 W
Input power (max.)	1.68 W
Input current (typical)	0.1 A
Max. input current	0.14 A
Operating voltage	12 V
Voltage PWM signal	5 V
MTTF	> 150.000 h
Scope of delivery	<ul style="list-style-type: none"> • 4x NA-AVP1 chromax.black anti-vibration pads • 4x NA-AVP1 chromax.blue anti-vibration pads • 4x NA-AVP1 chromax.green anti-vibration pads • 4x NA-AVP1 chromax.red anti-vibration pads • 4x NA-AVP1 chromax.white anti-vibration pads • 4x NA-AVP1 chromax.yellow anti-vibration pads • 4x NA-AVP1 grey anti-vibration pads • NA-AVG1 chromax.black anti-vibration gasket for water cooling radiators • NA-EC1 chromax.black 30 cm extension cable • Fan Screws
Warranty	6 years

