



## NOCTUA NF-F12 industrialPPC-24V-3000 Q100 IP67 PWM

120x120x25mm Fan

industrialPPC

Conceived for industrial heavy-duty applications that require enhanced cooling performance and advanced ingress protection, the NF-F12 industrialPPC (Protected Performance Cooling) is a ruggedised high-speed version of the award-winning retail model. The 24V Q100 variant uses Noctua's AEC-Q100 qualified wide input range NE-FD4 motor driver IC in order to support 24V-based industrial and automotive applications. Its sophisticated inrush current suppression and extreme electrical robustness with extended burst and surge immunity allow it to operate safely in sensitive or hostile electronic environments. Thanks to the outstanding aerodynamic efficiency of the NF-F12 design and the use of a novel three-phase motor, the industrialPPC version provides superior airflow and pressure capacity while keeping noise and power consumption at a moderate level as against comparable high-speed fans. While its fibre-glass reinforced polyamide construction and certified water and dust protection make the NF-F12 industrialPPC suitable for operation in challenging surroundings, the renowned SS02 bearing technology guarantees a MTBF of over 150,000hrs. Topped off with Noctua's trusted reliability and 6-year manufacturer's warranty, the NF-F12 industrialPPC is an ideal choice for highly demanding applications that require superior flow rates and ultimate dependability.

### NE-FD4 PWM IC with SCD

Supporting fully automatic PWM speed control, the fan uses Noctua's custom-designed NE-FD4 PWM IC for 24V three-phase motors. The NE-FD4 is AEC-Q100 qualified and integrates Noctua's proprietary Smooth Commutation Drive (SCD) technology, which suppresses PWM switching noise and thus makes the fan quieter at lower speeds.

### AEC-Q100 qualification

The 24V Q100 version's NE-FD4 motor driver IC complies with the Automotive Electronics Council's highly rigorous AEC-Q100 failure-mechanism-based stress test qualification for integrated circuits, which makes the fan ideal for use in automotive applications.

### High electrical robustness

Meeting the AEC-Q100 standard's stringent requirements for burst and surge protection, the 24V Q100 version's high electrical robustness permits the fan to be used not only in automotive projects but also in other harsh environments with transients from electric motors and other inductive switching loads.

### Inrush current suppression

The fan's voltage-stabilised inrush current suppression provides a smooth power-up and dramatically reduces power line transients that otherwise could affect other electronic components connected to the power line. This makes the fan safe to use in sensitive electronic environments.

Size	120 x 120 x 25 mm
Bearing	SS02
Blade geometry	Heptaperf™
Frame technology	FocusedFlow™
IP Rating / Connector	67 / 4-pin PWM
Input power / Operating voltage	4.32 W / 24 V
MTTF	> 150.000 h

Max. rotational speed 12V (+/-10%)	1600 RPM
Max. rotational speed 24V (+/-10%)	3000 RPM
Max. airflow	186.7 m³/h
Max. acoustical noise	43.5 dB(A)
Max. static pressure	7.63 mmH2O

Product name  
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EAN-No.  
9010018100198

UPC-No.  
841501110191

Packaging dimensions (HxWxD)  
180 x 170 x 34 mm

Weight incl. packaging  
270 gr

Warranty  
6 Years

MSPR  
29.90 EUR

Packaging unit  
20 Pcs.

Packaging dimensions / unit (HxWxD)  
380 x 360 x 200 mm

Weight incl. packaging / unit  
6.3 kg

Scope of delivery  
Fan, 4 Fan screws

