Noctua NF-A14 industrialPPC-3000 PWM

Product Specifications

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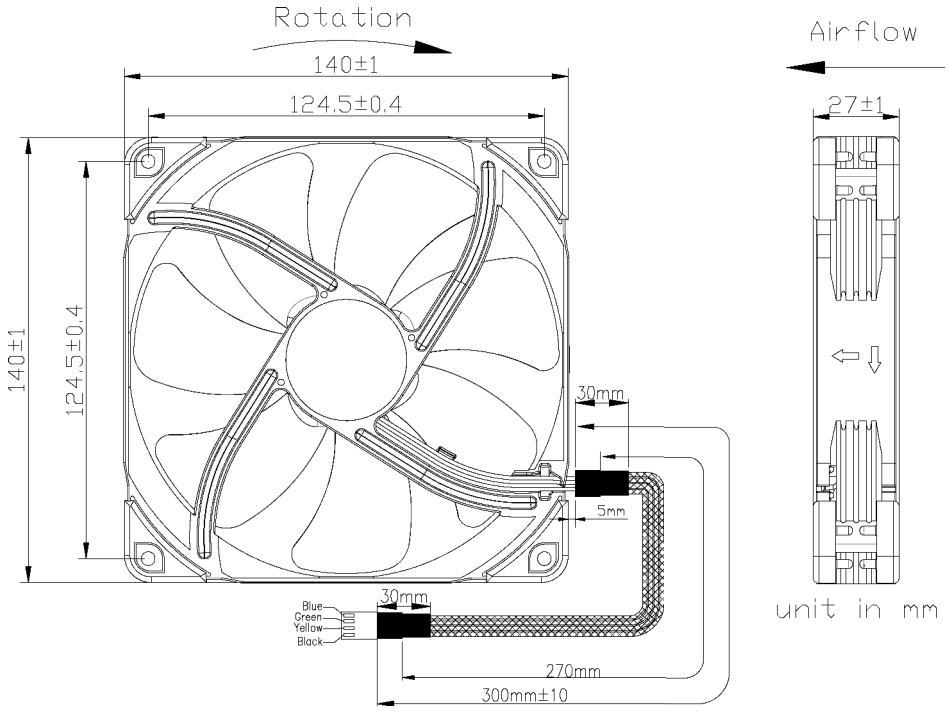
1. General Specifications

1.1. Mechanical Specifications

Format (without silicone corners)	139x139x25mm (± 0.5mm)
Format (with silicone corners)	140x140x27mm (± 0.5mm)
Wire Length	200mm (± 10mm)
Weight	190g (± 2g)
Rotational Direction	Counter-Clockwise

1.2. Dimensions



1.3. Parts & Materials

Plastic Type	PA66 + 30% GF
Bearing	SSO2 Bearing
Wire	UL 1007 / 26 AWG, Mesh-Sleeving
Connector	2543-4PIN (or equal)

1.4. Standards

Production Standards	Produced according to ISO9001 & ISO14001
Safety Standards	CE (EN 55022, EN 55024, EN 60950-1,
	EN 61000-6-3, EN 61000-6-1)
Environmental Standards	RoHS according to EU directive 2011/65/EU

1.5. Labels

Main Label

- Model Numer
- Rated Voltage
- Rated Power Consumption
- Rated Current
- Environmental & Safety Standards

Side Label

- Production Date
- Reference Numbers

1.6. Environmental Specifications

Operating Temperature	-40°C to +70°C
Operating Humidity	15% to 90%
Storage Temperature	-40°C to +75°C
Storage Humidty	15% to 90%
Protection Level - IP52	Per IEC Standard 529; Protection against water drops falling vertically over a 15 range.

2. Electrical Specifications

2.1. Wire Specifications

Black	GND
Yellow	Voltage (VCC)
Green	RPM Signal
Blue	PWM

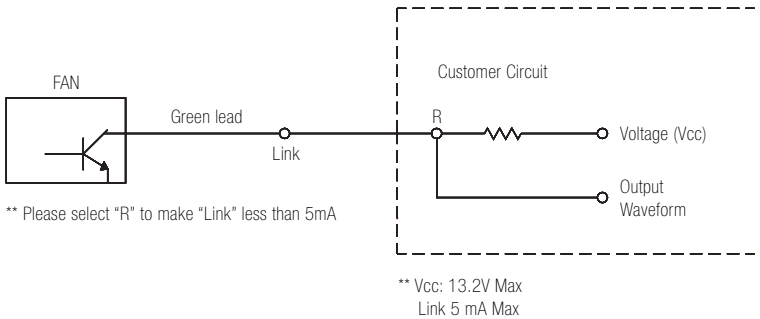
2.2. Motor Specifications

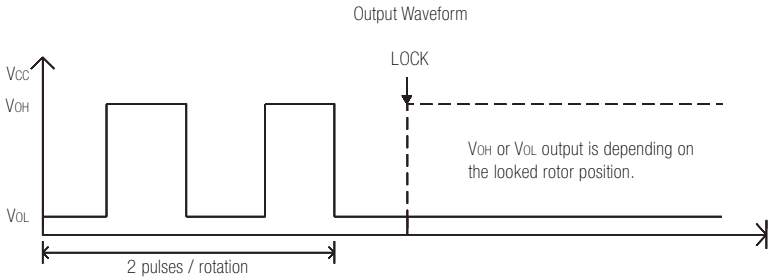
Number of Poles / Slots	4 / 6
Rated Voltage	DC 12V
Operating Voltage	DC 6V ~ DC 13V
Starting Voltage	DC 6V
Rated Current	0.55A (± 10%)
Rated Power Consumption	6.6W (± 10%)
Locked Rotor Protection	Auto power off after locked at rated voltage for 1sec, Autp power off, circuit attempt to restart in 2 to 6 sec
Polarity Protection	Open circuit when Vcc & GND are exchanged Circuit won't be burned within 5 sec when Vcc & GND are exchanged

2.3. Insulation

Insulation Resistance	10 MΩ / between unshielded wire and frame at 500 VDC/min
Dielectric Strength	5 mA Max. / measured between lead wire (+) and frame at 500 VAC/min

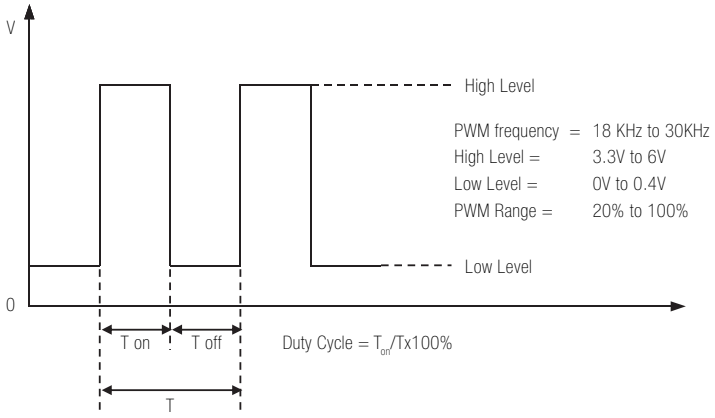
2.4. RPM Signal Specification





2.5. Speed Control System

PWM Control Input (W)

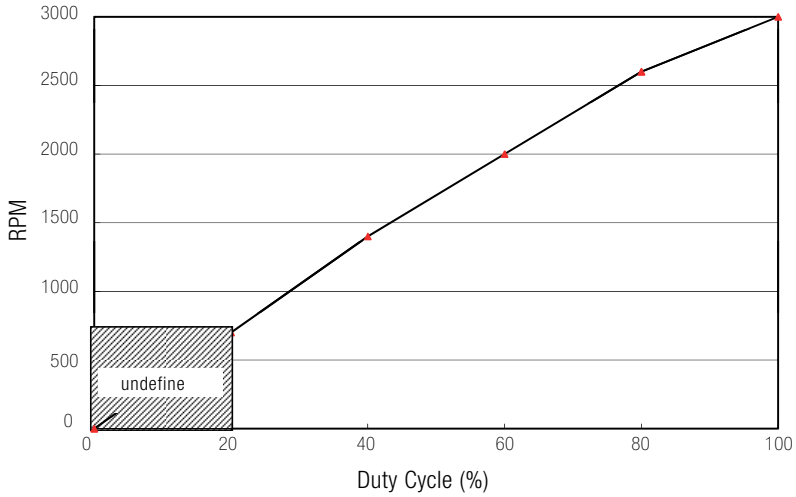


Control Mode: Pulse Width Modulation PWM

Duty Cycle (%)	0~20	20	100
rpm	undefined	700	3000
		± 300rpm	± 10%

1. Values on this table are all only for reference.
2. When 20% duty cycle are starting voltage must be same as rated voltage.

RPM v.s. Duty Cycle

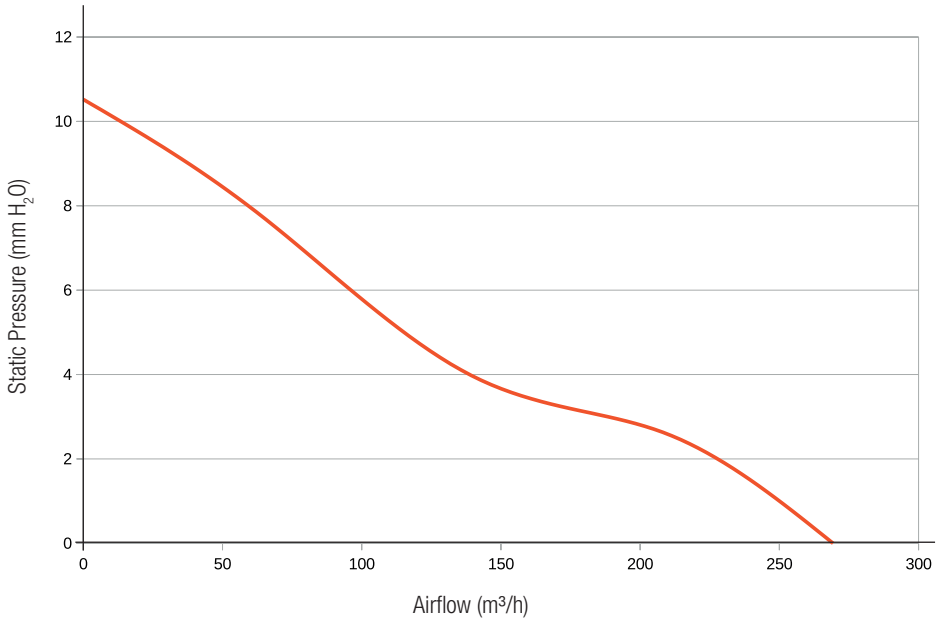


3. Performance Specifications

3.1. General Performance Specifications

Rotational Speed	3000 rpm
Airflow	269.3 m³/h
Acoustical Noise	41.3 dB(A)
Static Pressure	10.52 mm H2O
Tolerance	10%
MTBF	> 150.000h

3.2. Performance Curve



	Airflow	Pressure
1	269.3	0.0
2	208.2	2.63
3	139.3	3.98
4	65.7	7.67
5	0	10.52

4. Remarks

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Noctua doesn't take any responsibility if the product is used outside the specified parameters.

Specifications are obtained after 5 minutes of operation at 25°C and 65% humidity. The fan was mounted vertically in free air conditions.

Please note that excessive humidity can be harmful to the product and it should therefore be stored in cool, dry environments only. If the product was stored at less than 5°C for more than several hours, it should be stored at more than 20°C for at least 24 hours before use.

Handle the fan with care. Applying pressure or force upon the impeller or dropping the fan can result in damage. Take the necessary precautions (fan grills, etc.) to prevent injuries. Do not touch the fan blades during operation.

Please ensure the correct polarity. As the fan doesn't have a protection against reverse polarity, reverse connection can lead to damage.

Please make sure that the fan is properly mounted. Noctua cannot be held responsible for vibrations or other noises caused by improper installation.

If multiple fans are used in parallel, use a capacitor of at least 4.7 µF to avoid unstable power.