

EVOAQ
for your Home & Health

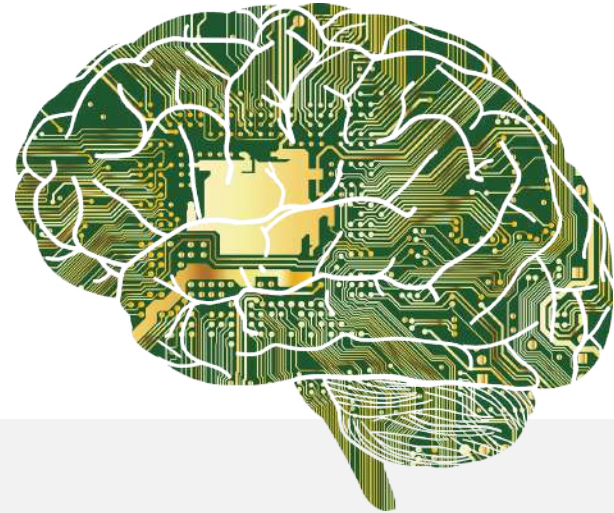
**EVOAQ Fan
Catalogue
2022-2023**



ABOUT US

EVOAQ technology was developed by a small team of engineers that wanted to simplify the all too-common issue of poor ventilation. These ventilation fans, and indeed systems, would have no fancy apps, complicated controllers or thick user manuals. Using fully controllable (and energy-efficient) fans and our own built-in controls we aim to get the most out of our fans with the least amount of effort (from the users' point of view, at least).

All technology for EVOAQ is developed by EvolutionFX (our parent company). EvolutionFX mostly provides product development services, with their area of expertise being air quality products and automation systems.



Extraction

Our extraction fans are designed to remove polluted air from the building. Controls are based around extracting air of undesirable quality, be it in terms of heat, humidity or other pollutants (VOC).

Ventilation

Our ventilation fans are designed to introduce fresh air into a building. Controls are based around supplying air of desirable quality. This also includes heat transfer (transferring heated air from one side to other side of the house based on temperature/excess heat).

NAVIGATION

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FAN APPLICATIONS

Not all fans can be used for the same application - this is due to differences in things such as airflows and power requirements.

Below is the standard applications available for each fan.

**Custom programs are available for all our fan types. Talk to us about your specific requirements; we will help you find the best solution.*

Extraction Fan Types	Axial 150mm	Mixed-Flow 125mm	Mixed-Flow 150mm	Mixed-Flow 200mm	Through-wall 150mm	Through-wall Axial 180mm
Set speed (no controls)	✓	✓	✓	✓	✓	✓
Manual control (knob)	✓	✗	✓	✓	✓	✓
Manual control (switch)	✓	✓	✓	✓	✓	✓
Bathroom extraction (<9m²)	✓	✓	✗	✗	✓	✓
Bathroom extraction (9-20m²)	✓	✓	✓	✗	✓	✓
Bathroom extraction (>20m²)	✗	✓	✓	✓	✗	✗
Laundry extraction	✓	✓	✓	✗	✓	✓
Kitchenette extraction	✓	✓	✗	✗	✓	✗
Kitchen extraction	✓	✗	✓	✗	✗	✓
Garage extraction	✗	✗	✓	✓	✗	✓
Custom application*	✓	✓	✓	✓	✓	✓

FAN APPLICATIONS *CONTINUED*

Ventilation Fan Types	Axial 150mm	Mixed-Flow 125mm	Mixed-Flow 150mm	Mixed-Flow 200mm	Through-wall Axial 180mm
Set speed (no controls)	✓	✓	✓	✓	✓
Manual control (knob)	✓	✓	✓	✓	✓
Standard ventilation, 1 room	✓	✓	✗	✗	✓
Standard ventilation, 2-3 room	✓	✓	✗	✗	✗
Standard ventilation, 3-6 room	✗	✗	✓	✗	✗
Standard ventilation, 6+ rooms	✗	✗	✗	✓	✗
Heat Transfer, 1 room	✓	✓	✗	✗	✓
Heat Transfer, 2-3 room	✗	✗	✓	✗	✗
Heat Transfer, 4-5 room	✗	✗	✗	✓	✗
Custom application*	✓	✓	✓	✓	✓



EVOAX/150EC

Axial fan; 150mm spigots

EC single phase DC motor

Bearing life 50000hrs

Suitable for most types of extraction



EVOMF/125EC

Mixed-flow fan; 125mm spigots

High-power EC 3-phase DC motor

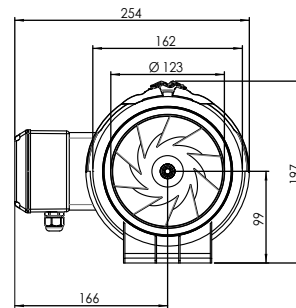
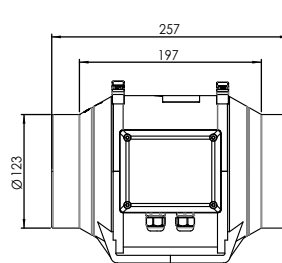
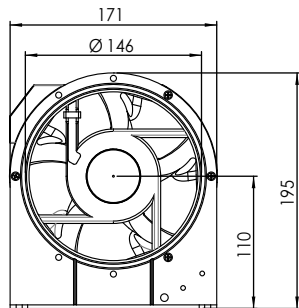
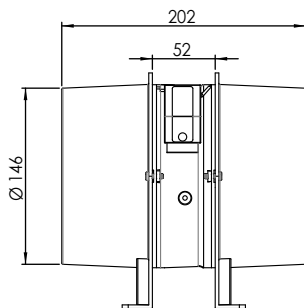
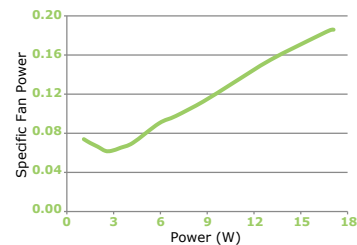
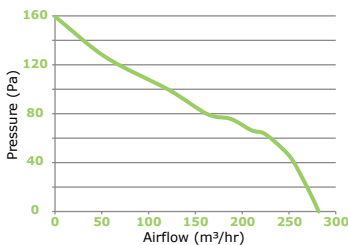
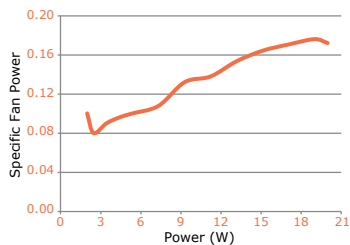
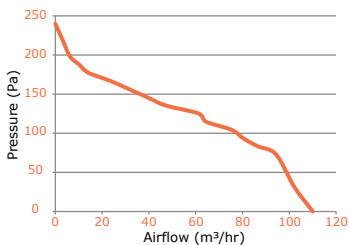
Bearing life 50000hrs

Suitable for smaller spaces



Model	Voltage	Power	Fan Speed	Air Flow	Pressure	Sound	Temp
	VAC/Hz	W	RPM	m ³ /hr	Pa	dB(A) Av.	°C
EVO101	230/50	2-20	500-3300	56 - 399	240	31	0 - 60

Model	Voltage	Power	Fan Speed	Air Flow	Pressure	Sound	Temp
	VAC/Hz	W	RPM	m ³ /hr	Pa	dB(A) Av.	°C
EVOMF/125EC	230/50	2 - 70	800 - 3800	60 - 561	513	31	0 - 60



EVOMF/150EC



Mixed-flow fan; 150mm spigots

EC 3-phase DC motor

Bearing life 50000hrs

Suitable for most house sizes

EVOMF/200EC



Mixed-flow fan; 200mm spigots

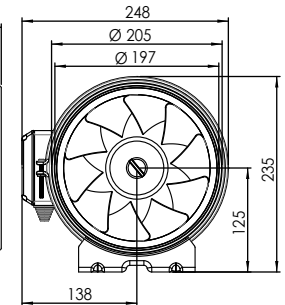
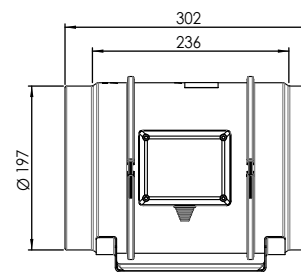
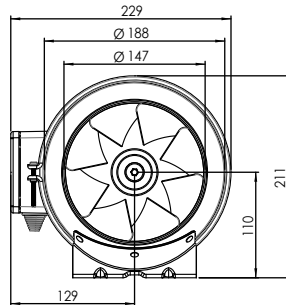
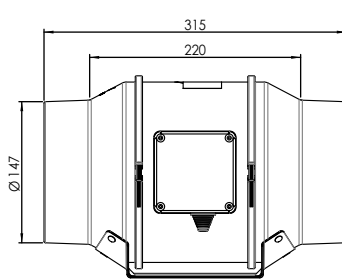
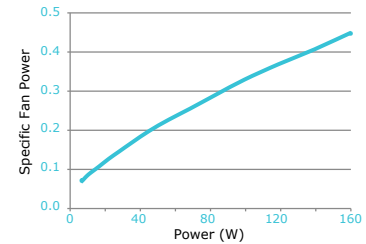
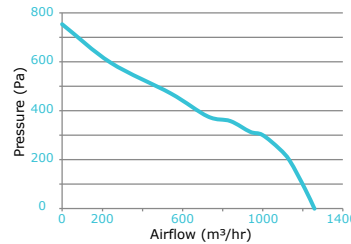
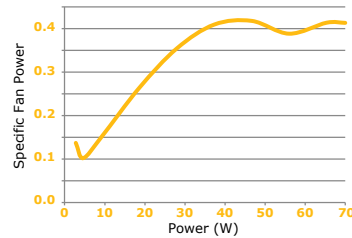
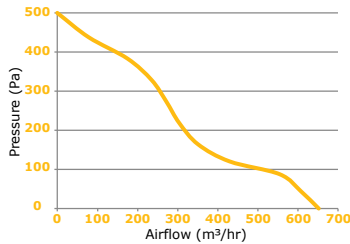
EC 3-phase DC motor

Bearing life 50000hrs

Suitable for very large spaces and houses

Model	Voltage	Power	Fan Speed	Air Flow	Pressure	Sound	Temp
	VAC/Hz	W	RPM	m ³ /hr	Pa	dB(A) Av.	°C
EVOMF/150EC	230/50	3-70	500-3000	65 - 647	503	31	0 - 60

Model	Voltage	Power	Fan Speed	Air Flow	Pressure	Sound	Temp
	VAC/Hz	W	RPM	m ³ /hr	Pa	dB(A) Av.	°C
EVOMF/200EC	230/50	4 - 165	500 - 3000	63 - 1250	746	38	0 - 60



EVTW150-EC

Through-wall fan; 150mm spigots

EC 3-phase DC motor

Bearing life 50000hrs

Only suitable for extraction in dry zones

Can also be used as through-ceiling fan



EVTW180-EC

Through-wall axial fan; 180mm spigot

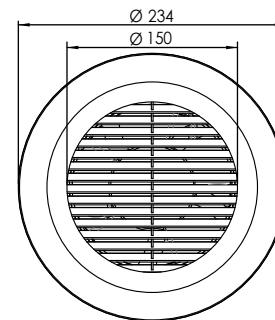
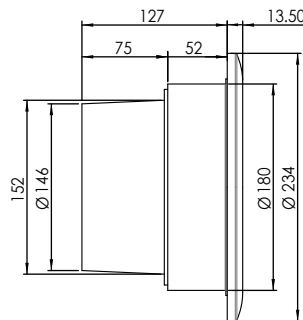
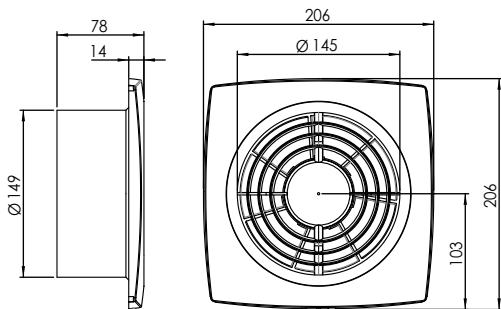
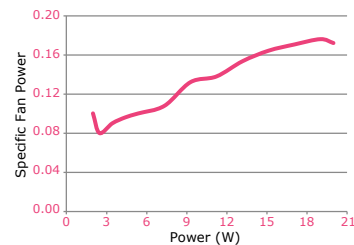
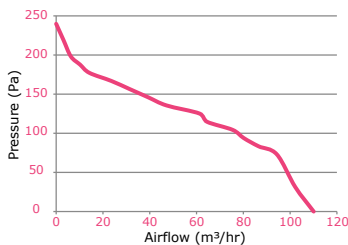
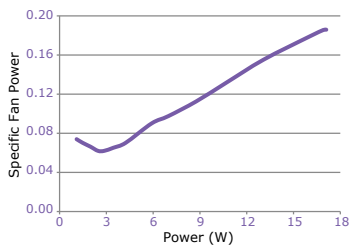
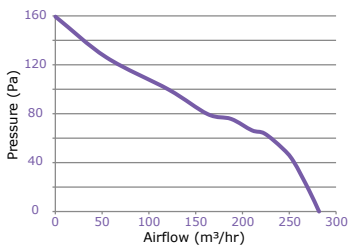
EC 3-phase DC motor

Bearing life 50000hrs

Suitable for large bathrooms and kitchens
180mm dia. inside, 150mm dia. outside spigot

Model	Voltage	Power	Fan Speed	Air Flow	Pressure	Sound	Temp
	VAC/Hz	W	RPM	m ³ /hr	Pa	dB(A) Av.	°C
EVTW150-EC	230/50	1-16	500-280	40 - 340	132	31	0 - 60

Model	Voltage	Power	Fan Speed	Air Flow	Pressure	Sound	Temp
	VAC/Hz	W	RPM	m ³ /hr	Pa	dB(A) Av.	°C
EVTW180-EC	230/50	2 - 20	500 - 3300	56 - 399	240	31	0 - 60



FAN CONTROLS *GENERAL*

Set Speed (no controls)

Most fans can be purchased as a set-speed fan - this means the fan does not contain any control electronics and will only run at a set speed (usually full speed but may be customized), to be turned on and off by wall switch.

Manual Control (knob)

The fan speed can be adjusted manually via a control knob (potentiometer). This is either supplied on the fan itself (standard option) or on a lead (for through-wall fans and other fans on request. The fan does not contain any other control electronics.

Manual Control (switch)

The fan runs at trickle speed continuously. A low-voltage switch wire is included with the fan, which, if shorted out, boosts the fan to go to full speed. When the switch is released, the fan runs on at full speed for a set time (usually 7 minutes), after which it returns to trickle speed.

This software is generally used for extraction from toilets etc. A 230VAC isolation switch may be available for interfacing with lights or occupation (PIR) sensors
Isolation switch order code R-EVO-AC-BST

FAN CONTROLS *EXTRACTION*

Bathroom Extraction

Using our main extraction software, our bathroom extraction fans use temperature and humidity sensors to detect when there is excess moisture in the bathroom - usually produced by someone having a shower - and speed up to extract this air. When there is no activity in the bathroom, the fan continues to run at very low speed to maintain low humidity levels in the bathroom.

Laundry Extraction

The laundry extraction software is based on our bathroom extraction software, but also includes heat extraction logic to avoid overheating in laundry spaces with non-vented (condenser) clothes dryers which produce a lot of heat.



FAN CONTROLS *VOC CONTROL*

Kitchenette Extraction

The kitchenette extraction software is a simplified version of the kitchen extraction, minus the VOC sensing part; it is mostly suitable for extracting steam and pollutants created by kitchenette use, such as boiling a jug or washing dishes.

Kitchen Extraction

The kitchen extraction software uses a combination of humidity and VOC sensors to detect cooking activity or excessive levels of pollutants in the kitchen area, and automatically extracts this polluted air, while maintaining air quality through low-level extraction at all other times.

Garage Extraction

Garage extraction combines heat and humidity extraction and VOC control to maintain the air quality inside your garage, whether you use it to keep your car dry, to wash and dry laundry, as a workshop or as a yoga studio.

****Custom Software***

We develop our own fan software and electronics, and with access to a range of sensors and fan controls we are able to develop custom solutions for many applications - some of our previous custom applications include spa room extraction and hydroponics extraction. Talk to us about your specific fan requirements and we will help you find the best solution.



FAN CONTROLS *VENTILATION*

Standard Ventilation

Our standard ventilation controls are the heart of EVOAQ technology. The controls use a combination of sensor readings to determine the quality of the supply air, and fan speed is adjusted to provide as much ventilation as possible without affecting the (mostly thermal) comfort of the indoor environment. The ventilation rate may be adjusted via a simple wall controller, however this is optional and not required for the fan to function.

Single-Room Ventilation

Single-room ventilation is a variation of our standard ventilation software, where the fan speed is limited to supply just enough air for a single outlet without being noisy and without blowing noticeably cold air into the room.



FAN CONTROLS *HEAT TRANSFER*

Standard Heat Transfer

The heat transfer software constantly monitors air extracted from the heat source room - the room heated by a heat source, usually a fireplace - and monitors this air for temperature changes. When it determines there is excess heat available the fan speeds up, to transfer heated air to the rest of the house. While there is still excess heat available, the fan continues to transfer the air even after the heat source is turned off, so as to get the most out of the heated air.

Single-Room Heat Transfer

Like the single-room ventilation software, this software is a variation of the heat transfer software designed specifically to transfer heat from one single room to another single room. This is mostly suitable for studio units and such, where the focus is less on heating and more on getting an equalizes temperature across the unit.



ORDER CODES (FANS ONLY)

	Order Code		Order Code
Axial Fan 150mm		Mixed-flow Fan 150mm	
Set speed (no controls)	R-EX-AX150EC	Set speed (no controls)	R-EX-MF150EC
Manual control (knob)	R-EX-AX150MC	Manual control (knob)	R-EX-MF150MC
Manual control (switch)	R-EX-AX150TF	Manual control (switch)	R-EX-MF150TF
Bathroom extraction	R-EX-AX150SF	Bathroom extraction	R-EX-MF150SF
Laundry extraction	R-EX-AX150LF	Laundry extraction	R-EX-MF150LF
Kitchenette extraction	R-EX-AX150SK	Kitchen extraction	R-EX-MF150KF
Kitchen extraction	R-EX-AX150KF	Garage extraction	R-EX-MF150GF
Ventilation	R-VNT-AX150SF	Ventilation	R-VNT-MF150SF
Heat transfer	R-HT-AX150SF	Heat transfer	R-HT-MF150SF
Mixed-flow Fan 125mm		Mixed-flow Fan 200mm	
Set speed (no controls)	R-EX-MF125EC	Set speed (no controls)	R-EX-MF200EC
Manual control (knob)	R-EX-MF125MC	Manual control (knob)	R-EX-MF200MC
Manual control (switch)	R-EX-MF125TF	Manual control (switch)	R-EX-MF200TF
Bathroom extraction	R-EX-MF125SF	Bathroom extraction	R-EX-MF200SF
Laundry extraction	R-EX-MF125LF	Garage extraction	R-EX-MF200GF
Kitchenette extraction	R-EX-MF125SK	Ventilation	R-VNT-MF200SF
Kitchen extraction	R-EX-MF125KF	Heat transfer	R-HT-MF200SF
Ventilation	R-VNT-MF125SF		
Heat transfer	R-HT-MF125SF		

ORDER CODES (*FANS ONLY*)

Order Code

Through-wall Fan 150mm

Set speed (no controls)	R-EX-TW150EC
Manual control (knob)	R-EX-TW150MC
Manual control (switch)	R-EX-TW150TF
Bathroom extraction	R-EX-TW150SF
Laundry extraction	R-EX-TW150LF
Kitchenette extraction	R-EX-TW150SK

Through-wall Axial Fan 180mm

Set speed (no controls)	R-EX-TW180EC
Manual control (knob)	R-EX-TW180MC
Manual control (switch)	R-EX-TW180TF
Bathroom extraction	R-EX-TW180SF
Laundry extraction	R-EX-TW180LF
Kitchen extraction	R-EX-TW180KF
Garage extraction	R-EX-TW180GF
Ventilation	R-VNT-TW180SF
Heat transfer	R-HT-TW180SF

Extraction Fan Add-Ons

230VAC Isolation Switch Box	R-EVO-AC-BST
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EvolutionFX reserves the right to change specifications or designs described in this document without notice and without obligation.

Visit our website for
more information

www.evoaq.co.nz