# **ZOO - COOLING AND DE-STRATIFICATION FANS**



# DESCRIPTION

The stylish ZOO (Zone Of Occupancy) Fan destratifies by producing a gentle, precise column of air that draws warm air from the ceiling and forces it down to floor level. By doing this it helps to create a more pleasant and comfortable indoor environment for workers and customers. It can also help to lower a building's operating costs by reducing the energy consumption of a heating system in cooler weather.

Available in AC and EC configurations with fan diameters of 250mm and 300mm.

## **Typical Applications**

Ideal for buildings that are heated and have high ceilings such as warehouses, airports, churches, school halls, greenhouses, and shopping centres. Particularly effective when used in aisles due to their narrow band of air and variable speed control motor that provides air flow adjustment. Can be also used as a quiet and unobtrusive cooling fan in warmer weather.

#### **Features**

- Helps to create a more productive, more comfortable environment that has the potential to reduce energy consumption.
- Can be installed so its air flow avoids or targets areas.
- Adjustable air flow using a speed controller.
- EC ZOO fans used as a demand control destratification system with EC speed controller and two temperature sensors.
- Model with finger guards on inlet and outlet available (See special note).
- Pivoting handle allows quick change to airflow direction.
- Fire resistant (5VB), UV-treated PC ABS plastic.
- Fitted with Gripple attachments that make it quick and easy to install.

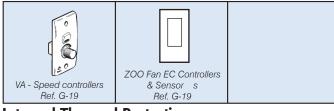
### Construction

UV-treated PC ABS plastic housing that is fire resistant (5VB). Fitted with an easy to reach IP44 terminal box.

### **Motors**

AC type - external rotor, squirrel cage induction motors. EC type - Electronically commutated motor. Electricity supply - 230V single-phase, 50/60Hz. Bearings - sealed-for-life, ball. Speed-controllable. Motor Protection IP44. See pages O-2/3 for details on AC motors. See page O-7 for details on EC motors.

# **DIMENSIONS**



# Internal Thermal Protection

Auto-reset thermal protection

#### Testing

Air flow tests to DIN24166, Class1 Noise tests to DIN3745, Class1

#### Wiring Diagram

See page N-8, diagram ER4

#### **Special Note**

Finger guards must be fitted to fans if being mounted less than 2.1 metres from floor level.

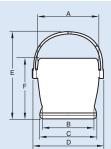
### **Suggested Specification**

The destratification fans shall be of the ZOO (Zone Of Occupancy) Series as supplied by Fantech Pty Ltd and be of the model number shown on the schedule/drawings.

They shall be constructed from fire resistant (5VB), UV-treated PC ABS plastic and include a robust pivoting handle. They shall be fitted with a speed-controllable motor and an IP44 terminal box. Wire finger guards (if fitted) shall be of zinc plated wire.

All models shall be fully tested to DIN24166, Class1 for air flow and DIN3745, Class1 for noise.

# DIMENSIONS



Model	Dime	Approx Weight							
Num.	Α	В	С	D	E	F	kg.		
ZFH25	379	300	352	445	539	378	270	270	9
ZFH30	379	300	352	443	229	370	7		
ZFH50	453	367	421	533	656	460	11		
ZFH60	405	307	421	000	000	400	10		

Add G to the end of code if finger guards on inlet and outlet are required.

# HOW TO ORDER

Zoo Cooling & Destratification
25 30 50 60
EC - EC motor
G - With finger guards

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# **ZOO - COOLING AND DE-STRATIFICATION FANS**

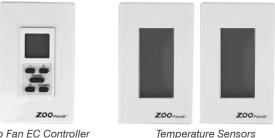
#### **VELOCITY PROFILE** Distance from fan in metres 6 8 10 12 ZFH25EC 1.2m/s 0.8m/s 0.6m/s 0.3m/s 0.2m/s 1.6m/s 1.5m Distance from fan in metres 10 4 6 8 ZFH30 1.9m/s 1.0m/s 0.4m/s 0.3m/s 0.2m/s 1.5m Distance from fan in metres 10 12 18 6 8 16 2 4 14 ZFH50EC 2.4m/s 1.5m/s 1.3m/s 0.9m/s 0.7m/s 0.6m/s 0.3 m/s0.2m/s2 0m 0.5 m/sDistance from fan in metres 2 4 6 8 10 12 14 16 18 ZFH60 2.0m $\square$ 2.6m/s 2.1m/s 1.6m/s 1.2m/s 1.0m/s 0.6m/s 0.4m/s 0.3m/s 0.2m/s

# **TECHNICAL DATA & NOISE LEVEL**

Model	Fan Size	Nom. Speed,	Max Operating	Free Air				d Powe @ Ceil		,		
ZFH	(mm)	rev/sec	Temp (°C)	m <sup>3</sup> /s	kW	Amps	6m	8m	10m	12m	15m	18m
25EC	250	36	60	0.31	0.06	0.50	55.4	52.9	51.0	-	-	-
30	250	22	55	0.32	0.05	0.23	44.4	41.9	40.0	-	-	-
50EC	300	31	60	0.59	0.11	0.87	-	-	-	49.4	46.9	45.9
60	300	22	60	0.54	0.10	0.42	-	-	-	40.4	38.5	36.9

# ZOO AUTO EC SPEED CONTROLLER AND SENSORS

(Code: ZF-BRT-T601)



Zoo Fan EC Controller (Code: ZF-BRT-F606)

## Description

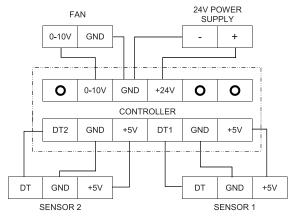
This intuitive EC ZOO controller can be used to manually control fan speed, or create a flexible demand control destratification system. When set to auto operation it will adjust air flows according to the temperature difference between two temperature sensors typically placed near the floor and the ceiling.

Model Number	Permissible Temperature Range	Mounting	Dimensions, mm			
ZF-BRT-F606	0 to 50 <sup>0</sup> C	Recess	72W x 115H x 35D			
ZF-BRT-T601	01050°C	Recess	72W X 115H X 35D			

### Features

- Dynamic control for quiet, variable speed operation
- Automatically controlled fan speed and air flow is based on the delta T and entered ceiling height
- Dynamic management of fan speed via the auto function typically results in fans running at lower speeds overall, while still maintaining thermal equilibrium in the space

# Wiring Diagram



# COOLING AND DE-STRATIFICATION FANS G-19