

DESCRIPTION

The PowerLine Ultra EC Series of In-Line Mixed-Flow fans incorporate the latest state-of-the-art, energy saving EC motor technology and are most efficient where conditions vary during the course of the day. They feature fully integrated, infinitely variable speed control which eliminates the need for external VSDs, current overloads and motor phase protection.

Optional matching sensors monitor the ambient conditions and provide real time feedback to the fan. The fan's on-board microprocessor adjusts the speed and therefore modulates the ventilation rate to match the specific requirements of the area. The PowerLine Ultra EC fans are a simple "plug and play" system which means installers do not need to have specialised control programming knowledge.

They feature easy to fit 35mm TDF profile flange connections, a robust yet lightweight galvanised steel construction and are available in 8 sizes ranging from 280 to 630mm diameter.

Typical Applications

Commercial and industrial supply or exhaust applications such as shopping centres, office buildings, exhibition centres, hotels, health centres, schools and universities.

Features

- EC motor features reverse polarity protection, locked rotor protection and soft starting.
- No additional electrical protection such as contactors are required.
- All models supplied standard with 0-10V control input. Diameter sizes from 400mm and above can be pre-configured to suit specific sensors and specific applications.
- A full range of sensors are available including differential pressure, humidity, temperature, air velocity and pollutant.
- Can be run as an independent ventilation source or integrated into most building management systems.
- Robust, yet lightweight galvanised steel construction.
- Mixed-Flow impellers suit applications where medium to high air pressure is required.
- Easy to fit 35mm TDF profile flange connections.
- Can be mounted in any position.

Construction

Galvanised steel housings with 35mm TDF profile flange connections.

Mixed-Flow impellers are made from high performance injection moulded composite material.

Motors

Type - electronic commutated (EC) motor.

Electricity supply - 200-277V single-phase, 50/60Hz or 380-480V three-phase, 50/60Hz

Bearings - sealed-for-life, ball.

See page *O-7* for details on motors.

Integrated EC-Controller providing infinite speed control.

Internal Thermal Protection

Integral thermal overload protection is supplied as standard.

Testing

Air flow tests based on ISO 5801

Noise tests based on BS848: Part 2,1985 or ISO13347-3

Wiring Diagram

Scan the QR code on page *B-5* to view wiring diagrams online.

Special Note

Diameter sizes from 400mm and above can be pre-configured to suit specific sensors and specific applications. Please advise Fantech of these parameters at the time of order.

EC motors should be directly connected to their appropriate AC supply. EC motors should not be regularly power cycled.

SUGGESTED SPECIFICATION

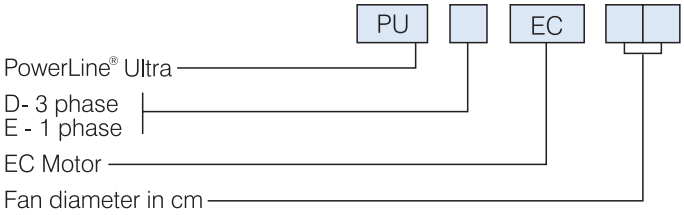
The duct mounted fans shall be of the In-line Mixed-Flow PowerLine Ultra EC Series as designed and manufactured by Fantech Pty Ltd. and be of the model numbers shown on the schedule/drawings.

Impellers shall be made from high performance injection moulded composite material. They shall be driven by EC external rotor motors with integrated EC controller and integral thermal overload protection. Diameter sizes from 400mm and above shall be pre-configured to suit the selected sensors and the required applications.

Housings shall be of galvanised steel with 35mm TDF profile flange connections.

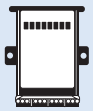
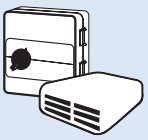
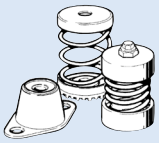
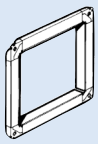
All performance data shall be for a complete assembled unit based on ISO5801 for air flow and BS848: Part 2 or ISO13347-3 for noise.

HOW TO ORDER

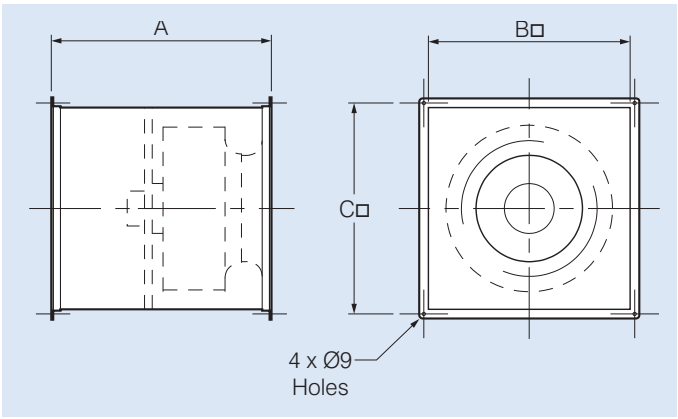


© FANTECH 2024

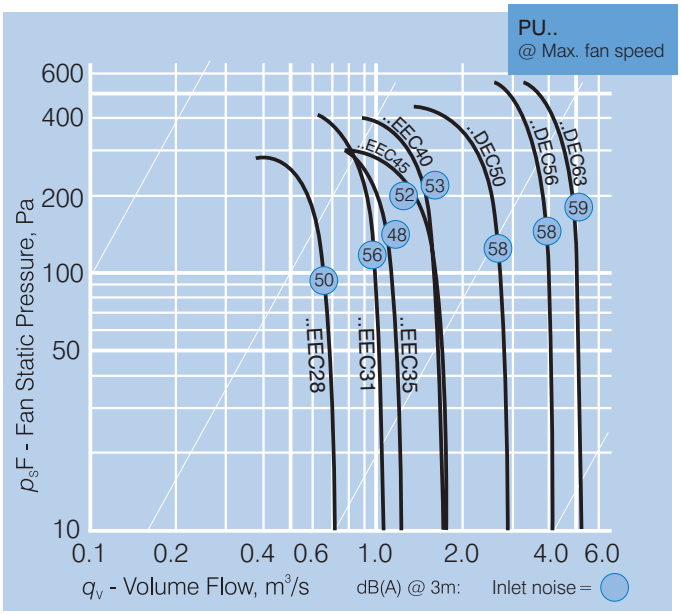
HOW TO ORDER

 DCV-CU - Premium Module on-board control pack *Ref. Section M*	 Controllers & Sensors *Ref. Section M*	 Vibration Isolators *Ref. Section I*
 POW - Matching Flanges *Ref. Section J*	 FT - Mounting Foot *Ref. Section J*	

DIMENSIONS



Model	Dimensions, mm A	B□	C□	Approx. weight kg.
PUEEC28	350	350	383	14
PUEEC31	400	400	433	17
PUEEC35	425	450	483	20
PUEEC40	450	500	533	25
PUEEC45	475	550	583	29
PUDEC50	500	650	683	32
PUDEC56	550	725	758	54
PUDEC63	550	800	833	68



TECHNICAL & Noise DATA

Model	* Max. Fan Speed rev/sec	Max. operating (Deg °C)	Avg. dB(A) @ 3m	PUEEC.. 1 ph. kW	Amps	PUDEC.. 3ph. kW	Amps
PUEEC28	34	60	50	0.29	1.26	-	-
PUEEC31	35	55	56	0.55	2.42	-	-
PUEEC35	28	55	48	0.50	2.19	-	-
PUEEC40	26	55	53	0.84	3.68	-	-
PUEEC45	20	60	52	0.65	2.84	-	-
PUDEC50	23	40	58	-	-	1.40	2.21
PUDEC56	24	60	58	-	-	2.65	4.05
PUDEC63	22	40	59	-	-	3.52	5.36

* The fan will maintain the set speed whether run on 50 or 60Hz supply.
Please use Fans by Fantech Selection Program for sound power levels.



Scan the QR Code to view more information online.



© FANTECH 2024