



#### **DESCRIPTION**

The Compact Series of Ex axial flow fans has been specifically designed to meet the needs of small ventilation applications in hazardous or explosive environments. They are ideal for wall mounting but can be mounted at any angle and on the ceiling if required.

There are 4 sizes in the range extending from 250 to 400mm diameter.

### Special note

These products have a Certificate of Conformity issued under the IEC Ex Certification Scheme for Explosion Protected Electrical Equipment.

This certificate, IECEx TSA 14.0024X, covers the electrical equipment for use in IIC T6 Gb atmospheres between the ambient temperature range of -20°C to +40°C.

According to AS/NZS 60079.14:2017 (Explosive atmospheres Design selection, erection and initial inspection) equipment certified to Ex d IIC T6 Gb may be suitable for use in:

All Group II Zones, except Zone 0

- Suitable for zones 1 and 2
- All Group II subdivisions
- Suitable for Groups IIA, IIB and IIC
- All Temperature Classifications
- Suitable for T1, T2, T3, T4, T5, and T6

The product must **NOT** be used in mines susceptible to fire damp, or where special conditions exist such as corrosion, water, dust or high levels of UV exist.

Under no circumstances shall a product be used outside of the limitations contained in the Certificate of Conformity as doing so would void the Ex certification. Please refer to the Certificate of Conformity and Installation and Users Guide for Specific Conditions of Use.

## **Typical Applications**

Fantech's Compact Ex fans can be used in most areas where the environment has been defined as being hazardous or explosive necessitating the use of Ex motors.

This may include areas such as spray booths, gas meter rooms or battery rooms.

#### **Features**

- Robust galvanised steel square plate with white powder-coated finish.
- Fan blades are anti-static GRP.
- Fitted with high strength guards to reduce the risk of objects entering fan.
- Designed for single-phase power supply.
- IP66 Ex d motor.

#### Construction

Galvanised steel square plate with a white powder-coated finish. Axial impellers have glass reinforced anti-static blades.

#### **Motors**

Type - squirrel cage induction motor.

Electricity Supply - 230V, single-phase, 50Hz.

Bearings - sealed-for-life, ball.

Maximum ambient temperature is 40 °C.

These motors are not speed-controllable.

See pages *O-5/7* for details on these motors.

# **Internal thermal Protection**

The motor is fitted with thermal protection to conform to the requirements of AS1359. IECEx certification and classification of T6 does not take into account abnormal operation such as locked rotor where the temperature of the surfaces may exceed 85°C. If this is an issue with your application, further protection should be fitted.

#### **Testing**

Air flow tests to ISO5801:1997, Type 'A' Installation (free inlet and outlet).

Noise tests to BS848:Part 2, 1985.

# Wiring Diagram

See section N

#### SUGGESTED SPECIFICATION

The fans shall be of the Compact Ex Square Plate Series, as designed and manufactured by Fantech Pty Ltd and be of the model numbers shown on the schedule/drawings.

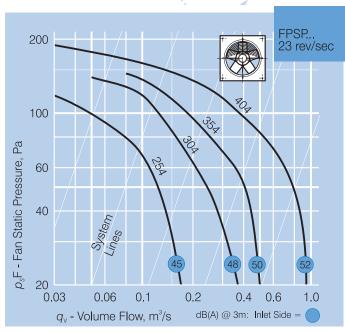
They shall be certified to Ex d IIC T6 Gb, have thermal protection that conforms to the requirements of AS1359 and be IP66 rated.

They shall have a galvanised steel square plate with a white powder-coated finish and be fitted with glass reinforced anti-static blades.

All data shall be based on tests to ISO5801:1997, Type 'A' Installation for air flow and to BS848:Part 2, 1985 for noise.

# FP - Ex motor SP - Square Plate Fan diameter in cm Fan speed, no. of poles

# **COMPACT EX SQUARE PLATE SERIES**



# **TECHNICAL DATA**

Model FPSP	Fan Speed rev/sec	dB(A) @ 3m	FPSP Watts	1 ph. Amps	Approx. wt. kg
254	23	45	120	1	12
304	23	48	120	1	13
354	23	50	120	1	14
404	23	52	120	1	16

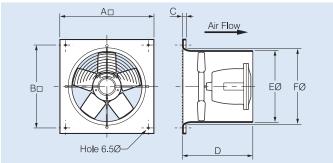
# **NOISE DATA**

In-duct Sound Power Levels

	L <sub>w</sub> dB re 1pW							
	63	125	250	500	1k	2k	4k	8k
Inlet	66	72	70	63	57	54	57	38
Inlet	66	78	68	67	61	58	54	48
Inlet	67	80	71	66	62	61	57	51
Inlet	72	72	68	66	69	67	63	50
	Inlet Inlet	63     66	63     125       Inlet     66     72       Inlet     66     78       Inlet     67     80	Inlet     63     125     250       Inlet     66     72     70       Inlet     66     78     68       Inlet     67     80     71	Inlet     63     125     250     500       Inlet     66     72     70     63       Inlet     66     78     68     67       Inlet     67     80     71     66	Inlet         66         72         70         63         57           Inlet         66         78         68         67         61           Inlet         67         80         71         66         62	Inlet         66         72         70         63         50         1k         2k           Inlet         66         72         70         63         57         54           Inlet         66         78         68         67         61         58           Inlet         67         80         71         66         62         61	Inlet         66         72         70         63         57         54         57           Inlet         66         78         68         67         61         58         54           Inlet         67         80         71         66         62         61         57

Sound Power Levels at 50% of peak pressure and on the Inlet Side of the unit.

#### DIMENSIONS



Model	Dimer	Dimensions, mm							
FPSP	A□	B□	С	D	ΕØ	FØ			
254	340	300	12	252	262	264			
304	420	380	12	252	313	325			
354	480	440	12	252	363	375			
404	540	490	12	252	410	420			



