


Donkin Fans



**Fumax[®] Smoke
Extraction Fans**

DIRECT DRIVE CASED AXIAL

Fumax[®]

INTRODUCTION

FUMAX axial flow fans are manufactured in diameters ranging from 400mm to 1250mm and incorporate aerofoil section, aluminium bladed impellers mounted directly onto the motor shaft which is in the air stream. FUMAX fans are certified in accordance with BS EN 12101-3: 2002 Part 3 for 300C for 120 minutes and carry the CE marking declaring that the fans meet all the appropriate provisions of the relevant legislation implementing certain European Directives.

APPLICATIONS

The primary application of FUMAX fans is smoke control in the building service industry. FUMAX fans can also be used simultaneously for normal ventilation applications.

SIZES

The FUMAX range is available in the following diameters: 400, 500, 560, 630, 710, 800, 900, 1000 and 1250. The sizes vary in accordance with the preferred increments covered in ISO 497- 1973 (E) R20.

IMPELLERS

Die - cast aluminium alloy blades of aerofoil section clamped in split steel hubs (FUMAX 1250 H impellers have split aluminium cast hubs). All blades are x-rayed and dowelled in position with a steel spring pin.

BALANCING

Impellers are balanced to ISO 1940 grade G6.3.

CASINGS

Casings are hot-dip galvanized to ISO 4161 and cover the impeller and motor assemblies. External terminal boxes complete with terminal blocks are provided on the casings.

FLANGE DIMENSIONS AND DRILLINGS

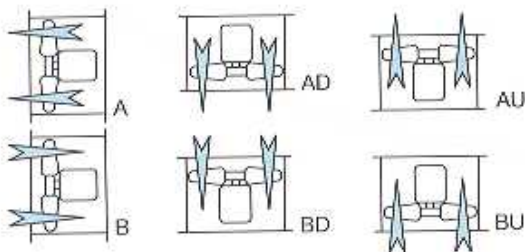
Flange dimensions and drillings are in accordance with BS 6339.

MOTORS

Motors are certified in accordance with BS EN 12101-3:2002. Voltage is 380-420V three phase, 50Hz. Enclosure is IP55 with Class H insulation.

DIRECTION OF AIRFLOW

Forms B, BD and BU are standard arrangements for direct drive fans, having motors mounted downstream of the fan impellers.



Forms A, AD and AU are non-standard arrangements but can also be used. Mechanical details and bearing selections on all FUMAX fans are suitable for any of these attitudes. However, impellers require changing from Form A to Form B running.

TEMPERATURE LIMITATIONS

The FUMAX range of fans has been tested in accordance with BS EN 12101-3:2002 Part 3 and are classified according to the following classes.

Class	Temperature [°C]	Minimum functioning period [minutes]
F200	200	120
F300	300	60

FUMAX fans were successfully tested and certified for **300C for 120 minutes** by BSRIA which exceeds classes F200 and F300.

FUMAX fans can also operate continuously at normal temperatures (5C to 50C) for ventilating applications.

PERFORMANCE AND SOUND DATA

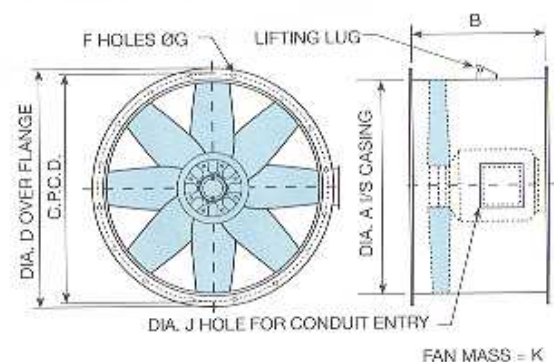
Selection and sound data is generally in accordance with MAJAX-2 brochures.

OPTIONAL FEATURES

Optional features include certified mounting feet, counter flanges, wire screens, conical inlets and high temperature flexible connections.



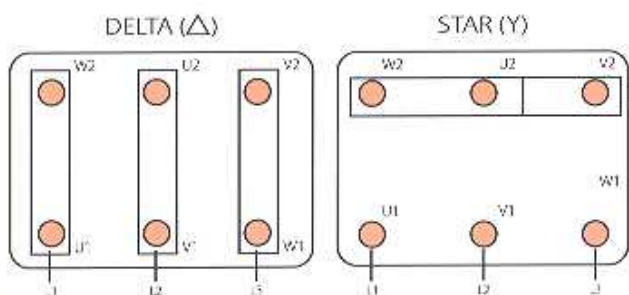
DIRECT DRIVE FANS



Fan Size A	Fan Speed - Motor Power [kW]				Motor Mounting Method	B	C	D	F	G	J	Mass K
	2 Pole	4 Pole	6 Pole	8 Pole								
400	1.5 to 2.2	1.1 to 1.5	-	-	Pad Pad Pad	400	450	485	8	13	22	38
	3.0	2.2 to 3.0	1.5	-							22	49
	4.0	4.0	2.2	-							32	61
500	1.5 to 2.2	1.1 to 1.5	-	-	Pad Pad Pad	400	560	607	12	13	22	48
	3.0	2.2 to 3.0	1.5	-							22	59
	4.0	4.0	2.2	-							32	71
560	1.5 to 2.2	1.1 to 1.5	-	-	Pad Pad Pad Pad	400	620	667	12	13	22	51
	3.0	2.2 to 3.0	1.5	-		400					62	
	4.0	4.0	2.2	-		400					74	
	5.5 to 7.5	5.5 to 7.5	3.0 to 5.5	3.0		500					106	
630	1.5 to 2.2	1.1 to 1.5	-	-	Pad Pad Pad Pad	400	690	737	12	13	22	54
	3.0	2.2 to 3.0	1.5	-		400					65	
	4.0	4.0	2.2	-		400					77	
	5.5 to 9.2	5.5 to 9.2	3.0 to 5.5	3.0		500					109	
710	-	1.1 to 1.5	-	-	Pad Pad Pad Pad	400	770	817	16	13	22	59
	-	2.2 to 3.0	1.5	-		400					70	
	-	4.0	2.2	-		400					82	
	-	5.5 to 7.5	3.0 to 5.5	3.0		500					115	
800	-	1.1 to 1.5	-	-	Pad Pad Pad Pad Pad	400	860	907	16	13	22	67
	-	2.2 to 3.0	1.5	-		400					78	
	-	4.0	2.2	-		400					90	
	-	5.5 to 9.2	3.0 to 5.5	3.0		500					156	
	-	11	7.5	4.0		710					189	
900	-	1.1 to 1.5	-	-	Pad Pad Pad Pad Pad	400	970	1039	16	13	22	87
	-	2.2 to 3.0	1.5	-		400					96	
	-	4.0	2.2	-		400					110	
	-	5.5 to 9.2	3.0 to 5.5	3.0		500					180	
	-	11.0 to 15.0	7.5 to 11.0	4.0 to 7.5		630					200	
1000	-	1.1 to 1.5	-	-	Pad Pad Pad Pad Pad Pad	400	1070	1141	16	15	22	97
	-	2.2 to 3.0	1.5	-		400					108	
	-	4.0	2.2	-		400					120	
	-	5.5 to 9.2	3.0 to 5.5	3.0		560					196	
	-	11.0 to 15.0	7.5 to 11.0	4.0 to 7.5		770					245	
	-	18.5 to 22.0	15.0	-		770					300	
-	30.0	-	-	850	378							
1250 H	-	11.0 to 15.0	7.5 to 11.0	4.0 to 7.5	Foot Foot Foot Foot	800	1320	1392	20	15	33 (2 OFF)	380
	-	18.5 to 22.0	15.0	11.0		800					436	
	-	30.0	18.5 to 22.0	15.0		850					522	
	-	37.0 to 45.0	30.0	18.5 to 22.0		1000					707	

All dimensions in millimetres, fan mass in kilograms.

TYPICAL ELECTRICAL CONNECTIONS

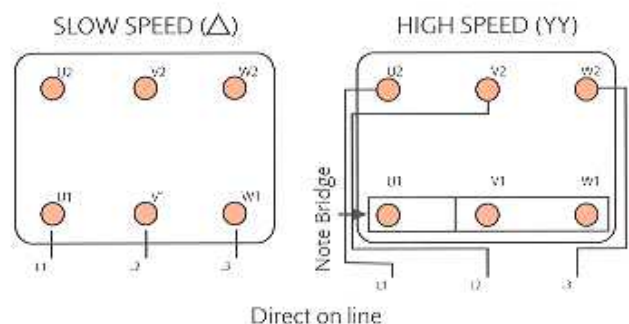


Frames 63 - 100L 380V
Frames 112M-355 380V
Frames 112M-355 400V

Note: Can be used on Star Delta Starters or direct on line

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Two-Speed motors (Dahlander Winding)



Direct on line



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