

JM Aerofoil Bifurcated - Cased Axial Fans



Features

- 400 - 1000 mm diameter
- Volumes up to 62,280 m³/h (17.3 m³/s)
- Static pressures up to 980 Pa
- Motor protection IP55
- Fans tested to ISO5801 and BS848
- Overheat protection available

Electrical Supply

- 380-420V/50Hz/3 ϕ

Temperature Range

- Suitable for temperatures between 100 °C and 200°C (continuous operation)

Sizes

400, 500, 560, 630, 800 and 1000 mm

Impellers

A unique high efficiency aerofoil section blade with a purposely smoothed hub and clamp plate for adjustable pitch angle availability.

The Fläkt Woods impellers are all high pressure die cast to offer thin aerofoil sections for low generation of noise. Every component is X-rayed using Real Time Radiography inspection prior to assembly. The maximum pitch angles shown allow for speed control by frequency inverter.

Motors

All motors are totally enclosed fan cooled class F insulation with protection to IP55 and are IE2 compliant. All motors are supplied with sealed for life bearings or extended lubricators.

These motors are suitable for inverter speed control down to 20% of full speed.

Casings

Bifurcated fans are available long case only. Long casing covers impeller and motor and has duct mounted terminal box. The hot dipped galvanised casing gives a high resistance to corrosion.

Motor is mounted inside a tunnel, so is 'out of air stream'.

Only for use at 100°C or above, which makes it exempt from ErP legislation. If the temperature of airflow within a bifurcated fan system is above ambient, FWL recommend that the fan is allowed to overrun so that any excessive heat is removed from the system. Failure to do this could mean that heat will transfer via the shaft/casing to the motor tunnel, which could cause degradation of the grease and lead to premature failure.

Product Code

63JMBif/20/4/6/30

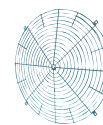
- 63 - denotes the fan impeller diameter in centimetres
- JM. Bif - denotes bifurcated variant
- 20 - denotes impeller hub diameter in centimetres
- 4 - denotes a nominal 8 pole speed
- 6 - denotes the number of blades
- 30 - denotes the pitch angle for the required duty

Accessories

Rubber anti-vibration mounts can be used, but only if the mounts are below the fan and the temperature at the anti-vibration mount is less than 80°C.



Damper



Guard



Bellmouth



Flange



Mounting Feet



Rubber AV's



Spring AV's



Flexible Connector



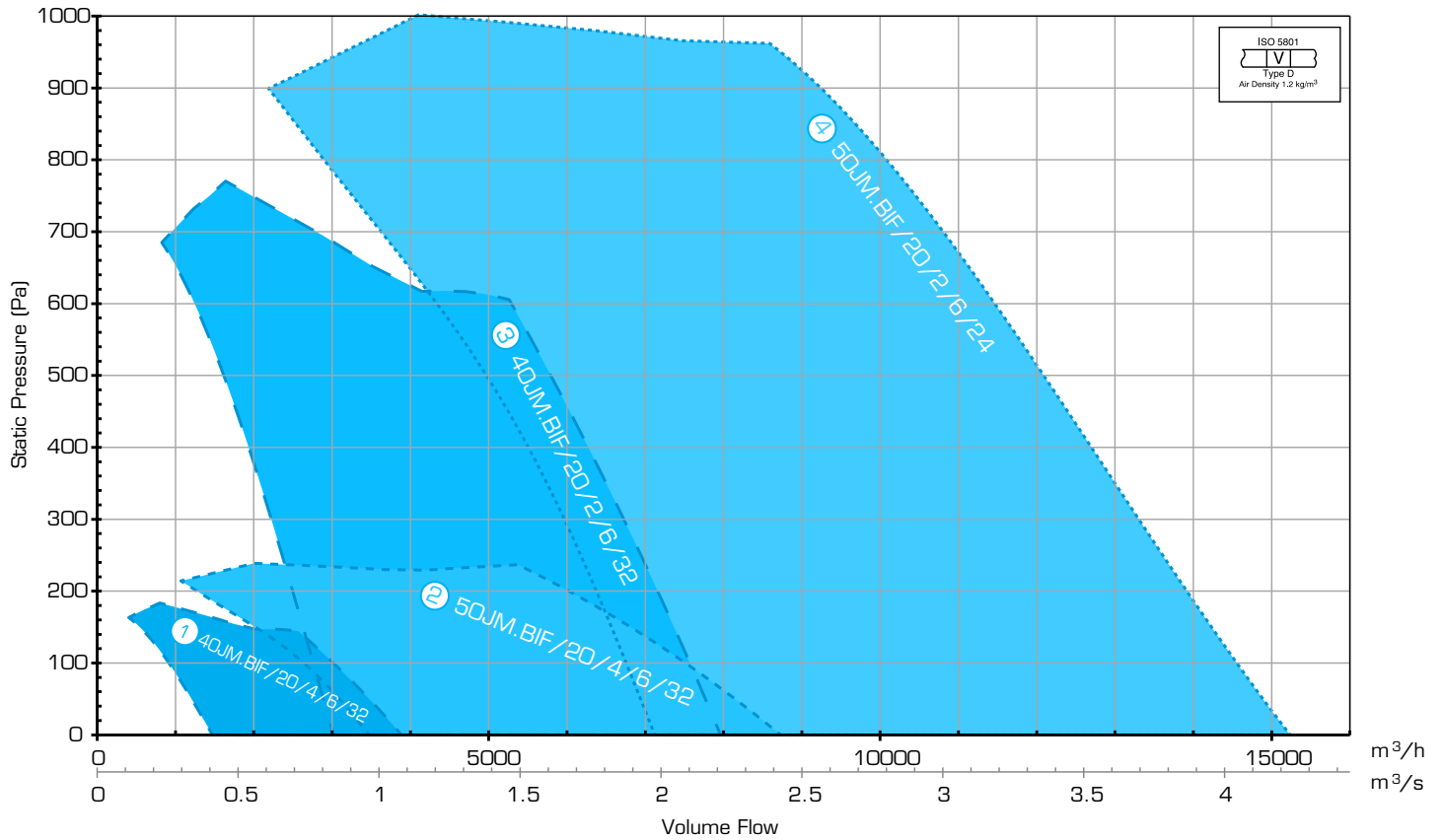
Silencer



Controls Inverter

JM Bifurcated Performance and Electrical Data

Performance Chart - 400-500 mm
380-420v/50Hz/3φ



Performance Table - 400-500 mm
380-420v/50Hz/3φ

Ref	Product Code	m³/s @ Pa (Static)													
		0	50	100	150	200	250	300	400	500	600	700	800	900	
1	40JM.BIF/20/4/6/32	1.07	0.96	0.83											
2	40JM.BIF/20/2/6/32	2.21	2.15	2.1	2.04	1.98	1.92	1.86	1.74	1.6	1.46				
3	50JM.BIF/20/4/6/32	2.42	2.26	2.08	1.89	1.67									
4	50JM.BIF/20/2/6/24	4.23	4.13	4.04	3.95	3.86	3.78	3.69	3.52	3.35	3.18	3	2.8	2.56	

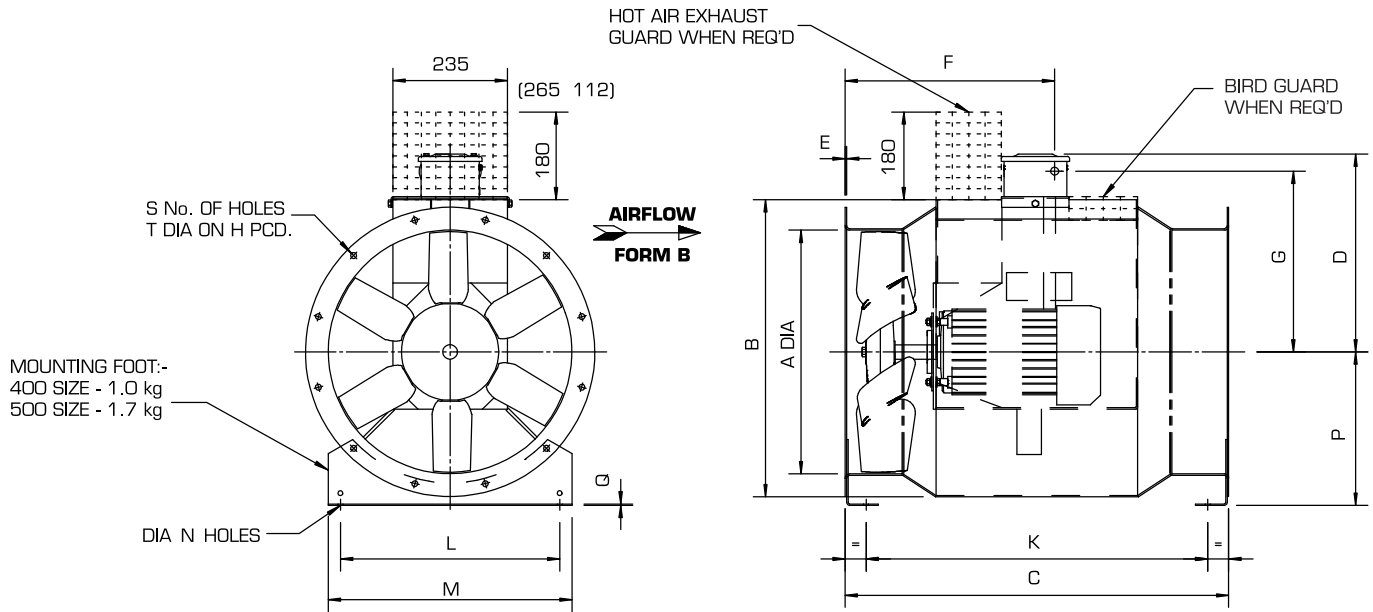
Product, Electrical and ErP Table - 400-500 mm
380-420v/50Hz/3φ

Ref	Product Code	Product Number	Pitch Angle (°)		Speed rev/min	Motor	Rating (kW)	Full Load Current (A)	Starting Current (A)	Wiring Diagram (CD)	Speed Controller		
			Min	Max							Electronic	Transformer	Inverter
1	40JM.BIF/20/4/6/32	JN245007	8	32	1440	90S (IE1)	0.55	1.36	8.7	CD2416	N/A	N/A	IDDXF54-2.2
3	40JM.BIF/20/2/6/32	JN245009	8	32	2950	90L (IE2)	2.2	4.58	30.2	CD2416	N/A	N/A	IDDXF54-5.3
2	50JM.BIF/20/4/6/32	JN275012	8	32	1440	90S (IE2)	0.75	1.69	9.97	CD2416	N/A	N/A	IDDXF54-2.2
4	50JM.BIF/20/2/6/24	JN275015	8	24	2950	112M (IE2)	4.0	7.72	50.2	CD2417	N/A	N/A	IDDXF54-9

Ref	Product Code	Product Number	Inlet Sound Levels	Efficiency Rating	Target	Grade
1	40JM.BIF/20/4/6/32	JN245007	58	-	-	-
3	40JM.BIF/20/2/6/32	JN245009	75	-	-	-
2	50JM.BIF/20/4/6/32	JN275012	62	-	-	-
4	50JM.BIF/20/2/6/24	JN275015	80	-	-	-

Sound pressure levels quoted are at the inlet, and are average dBA at 3m distance over a sphere at the mid point at the highest angle given, under free field conditions. These are presented for comparative purposes only.

Drawing - 40JM.Bif-50JM Bif

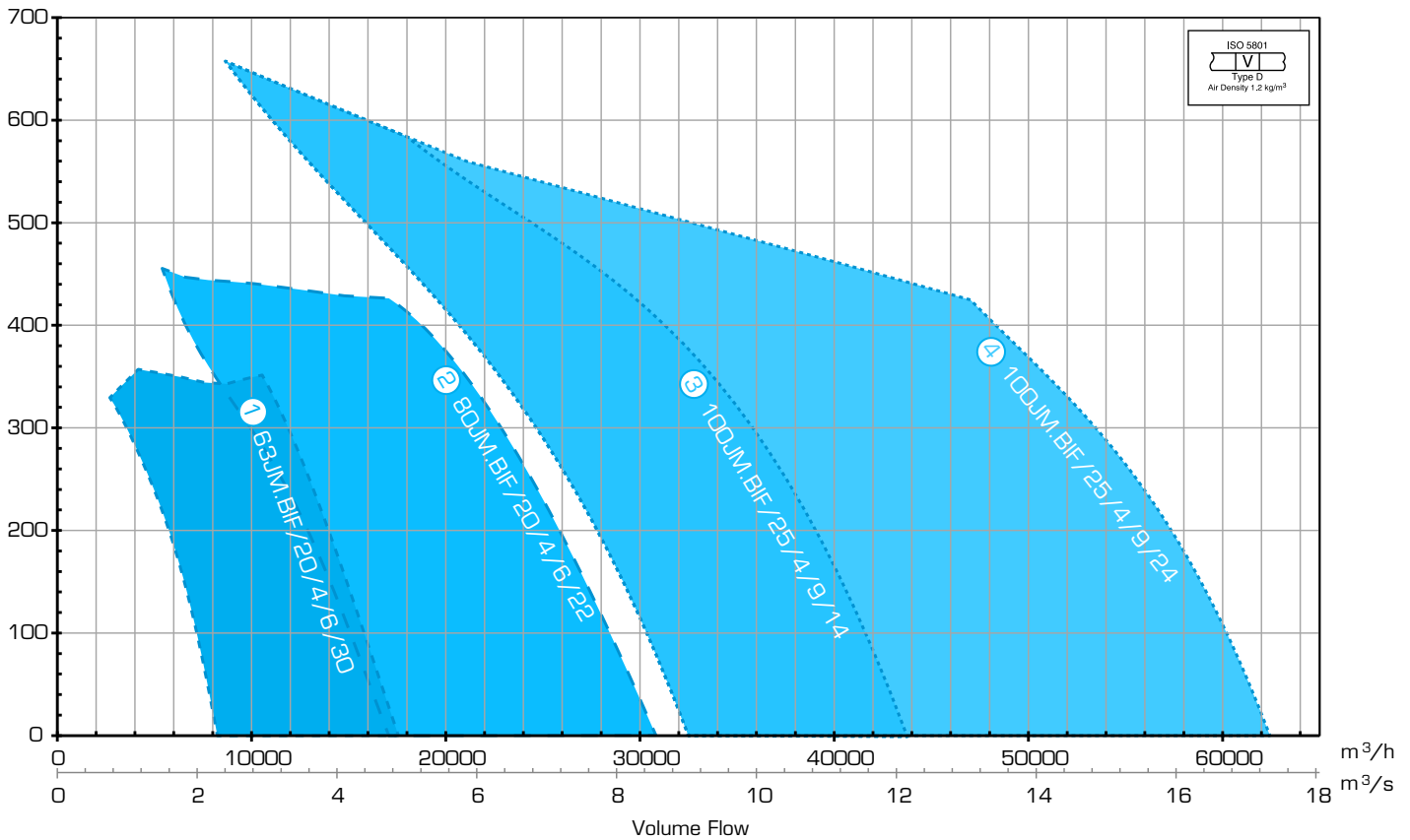


Product Code	Motor Range	A	B	C	D	E	F	G	H	K	L	M	N	P	Q	S	T	Max. Fan Weight (kg)
40JM.Bif/20/4/6/...	90S	400	524	726	334	3	407	356	450	641	350	400	10	250	3	8	12	55
40JM.Bif/20/2/6/...	90L	400	524	726	334	3	407	356	450	641	350	400	10	250	3	8	12	57
50JM.Bif/20/4/6/...	90S	500	610	787	383	3	397	361	560	691	450	500	10	315	3	12	12	62
50JM.Bif/20/2/6/...	112M	500	610	787	383	3	397	361	560	691	450	500	10	315	3	12	12	76

All dimensions in mm

JM Bifurcated Performance and Electrical Data

Performance Chart - 630-1000 mm
380-420v/50Hz/3φ



Performance Table - 630-1000 mm
380-420v/50Hz/3φ

Ref	Product Code	m³/s @ Pa (Static)								
		0	50	100	150	200	250	300	400	500
1	63JM.BIF/20/4/6/30	4.87	4.63	4.38	4.13	3.88	3.6	3.3		
2	80JM.BIF/20/4/6/22	8.56	8.23	7.9	7.55	7.18	6.78	6.34	5.21	
3	100JM.BIF/25/4/9/14	12.15	11.86	11.56	11.22	10.84	10.42	9.94	8.69	6.78
4	100JM.BIF/25/4/9/24	17.34	17.05	16.72	16.35	15.93	15.43	14.85	13.42	

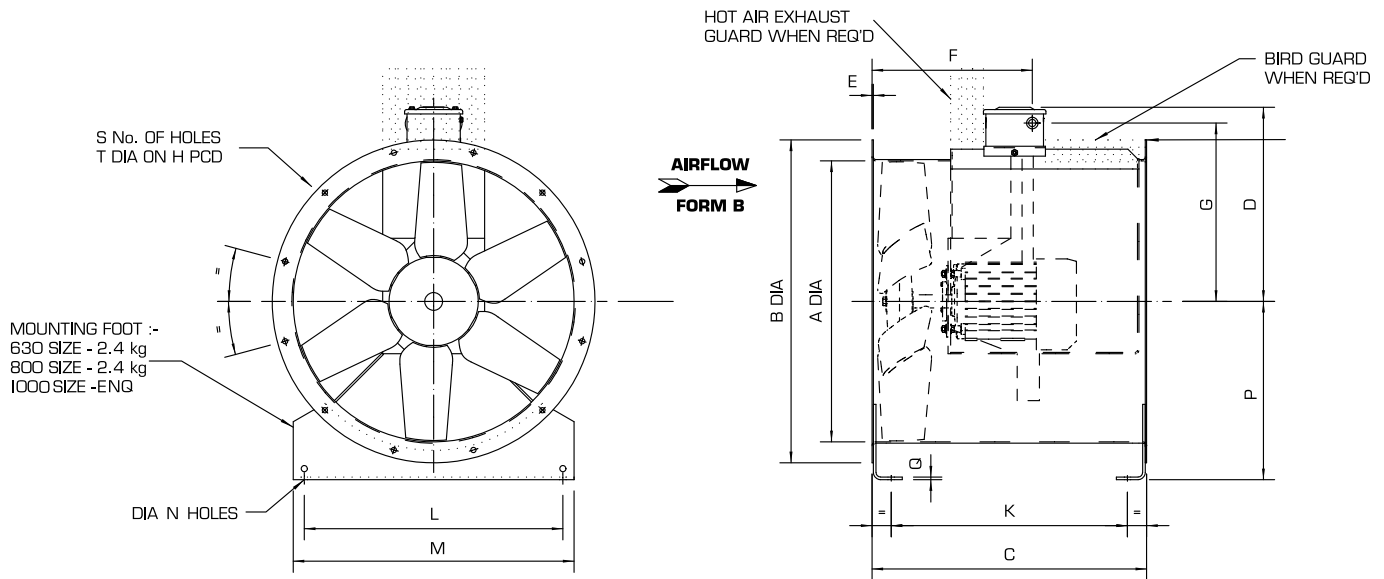
Product, Electrical and ErP Table - 630-1000 mm
380-420v/50Hz/3φ

Ref	Product Code	Product Number	Pitch Angle (°)		Speed rev/min	Motor	Rating (kW)	Full Load Current (A)	Starting Current (A)	Wiring Diagram (CD)	Speed Controller		
			Min	Max							Electronic	Transformer	Inverter
1	63JM.BIF/20/4/6/30	JN305005	10	30	1440	100L (IE2)	2.2	4.43	32.8	CD2416	N/A	N/A	IDDXF54-5.3
2	80JM.BIF/20/4/6/22	JN839013	8	22	1440	112M (IE2)	4.0	8.11	49.5	CD2417	N/A	N/A	IDDXF54-9
3	100JM.BIF/25/4/9/14	JN139420	8	14	1470	132 (IE2)	7.5	14.1	101.5	CD2417	N/A	N/A	IDDXF54-15.5
4	100JM.BIF/25/4/9/24	JN139425	8	24	1470	160 (IE2)	15	28.7	177.9	CD2417	N/A	N/A	IDDXF54-31

Ref	Product Code	Product Number	Inlet Sound Levels	Efficiency Rating	Target	Grade
1	63JM.BIF/20/4/6/30	JN305005	72	-	-	-
2	80JM.BIF/20/4/6/22	JN839013	72	-	-	-
3	100JM.BIF/25/4/9/14	JN139420	84	-	-	-
4	100JM.BIF/25/4/9/24	JN139425	88	-	-	-

Sound pressure levels quoted are at the inlet, and are average dBA at 3m distance over a sphere at the mid point at the highest angle given, under free field conditions. These are presented for comparative purposes only.

Drawing - 63JM.Bif-100JM Bif

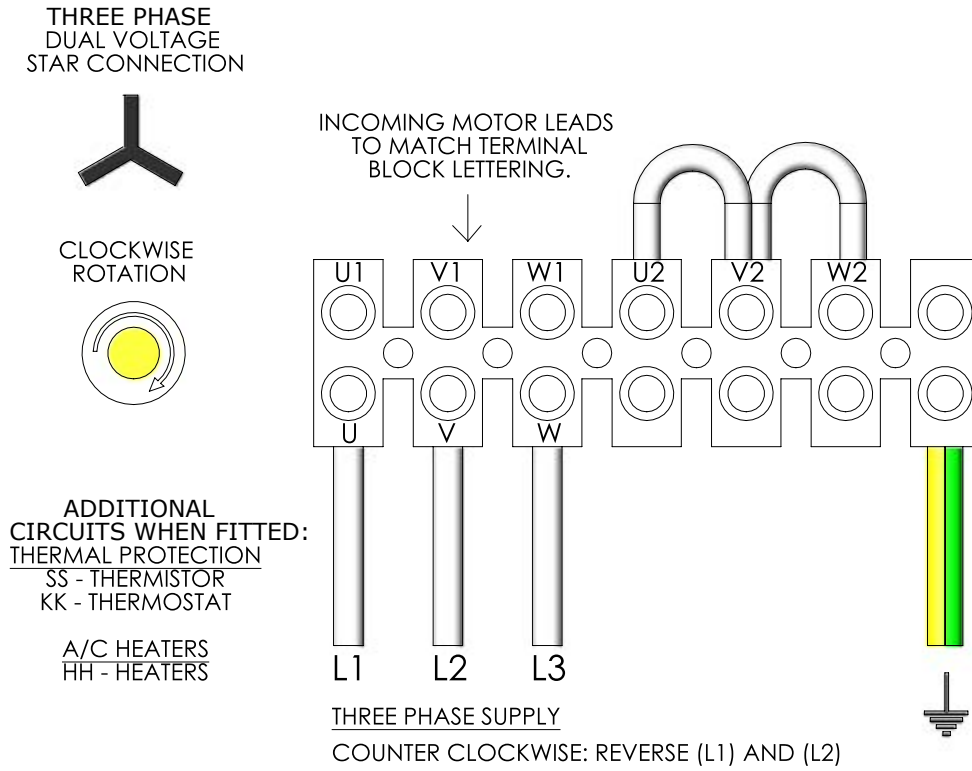


Product Code	Motor Range	A	B	C	D	E	F	G	H	K	L	M	N	P	Q	S	T	Max. Fan Weight (kg)
63JM.Bif/20/4/6/...	100L	630	724	616	412	3	390	434	690	530	580	630	10	400	3	12	12	71
80JM.Bif/20/4/6/...	112M	800	894	660	495	3	434	517	860	544	750	800	10	510	5	16	12	94
100JM.Bif/25/4/9/...	132L	1000	1138	800	650	5	492	608	1070	730	950	1000	12	630	6	16	15	280
100JM.Bif/25/4/9/...	160L	1000	1138	1000	689	5	536	604	1070	930	950	1000	12	630	6	16	15	335

All dimensions in mm

Wiring Diagrams - JM Bifurcated Aerofoil

CD2416



CD2417

