CASED AXIAL
JM AEROFOIL BIFURCATED

PRODUCT FACTS

- Air flow up to 17.3 m^3/s
- Static pressures up to 995 Pa
- Motor protection and terminal block IP55
- Fans tested to ISO5801 and BS848
- Overheat protection available
- Motor is external to air stream
- DW172 compliant for solid fuel cooking applications

ELECTRICAL SUPPLY

380-420V/50Hz/3ϕ

1 phase is available via inverter drive - dependent on fan size

TEMPERATURE RANGE

Suitable for temperatures between 100°C and 200°C (continuous operation) - exempt from ErP legislation.

SIZES

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

IMPELLERS

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

Woods impellers are 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 IE1/IE3 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.

CASING

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'.

Bifurcated fans for external roof mounting, please ensure the motor tunnel in mounted vertically downwards to avoid water ingress.

TEMPERATURE RANGE

If the temperature of airflow within a bifurcated fan system is excessive, Woods recommend that the fan is allowed to overrun so that any 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.

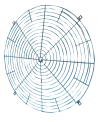
PRODUCT CODE

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 (Pages 230-227) - CONTROLLERS (Pages 249-297)


Damper


Guard


Bellmouth


Flange


Mounting Feet


Silencer


Spring AV's


Flexible Connector

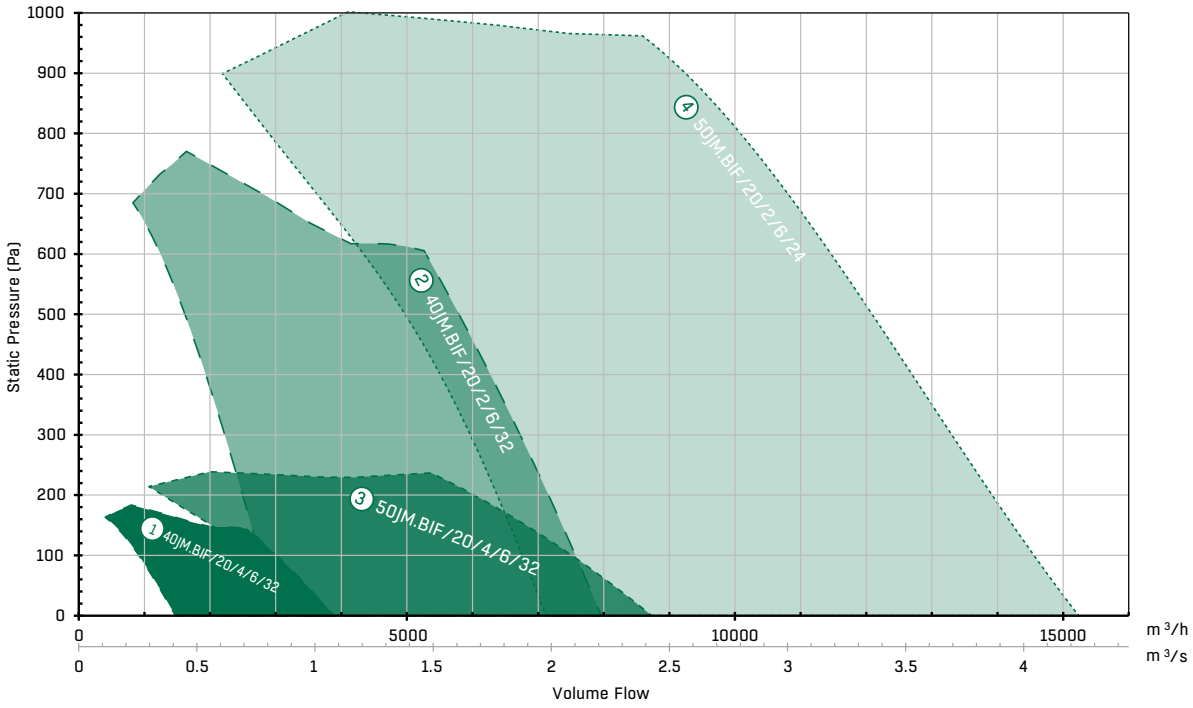

Controls Inverter


Rubber AV's

JM BIFURCATED PERFORMANCE AND ELECTRICAL DATA

380-420V/50HZ/3ϕ

PERFORMANCE CHART - 400-500 MM



As standard 3 phase JM Aerofoils are supplied at the maximum pitch angle, the envelope curve above illustrates the pitch angle range available on request.

PERFORMANCE TABLE - 400-500 MM

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 DETAILS - 400-500 MM

Ref	Product Code	Product Number	Pitch Angle (°)		Speed rev/min	Motor	Rating (kW)	Full Load Current (A)	Starting Current (A)	Wiring Diagram (CD)	Inverter 3-3Ph	Inverter 1-3Ph	Inlet Sound Levels
			Min	Max									
1	40JM.BIF/20/4/6/32	JN245011	8	32	1440	90S (IE1)	0.55	1.36	8.7	CD2416	IDDXF54-2.2	IEDXB20 4.2	58
3	40JM.BIF/20/2/6/32	JN245009	8	32	2950	90L (IE3)	2.2	4.58	30.2	CD2416	IDDXF54-5.3	IEDXB20 9.6	75
2	50JM.BIF/20/4/6/32	JN275012	8	32	1440	90S (IE3)	0.75	1.69	9.97	CD2416	IDDXF54-2.2	IEDXB20 4.2	62
4	50JM.BIF/20/2/6/24	JN275011	8	24	2950	112M (IE3)	4.0	7.72	50.2	CD2417	IDDXF54-9	-	80

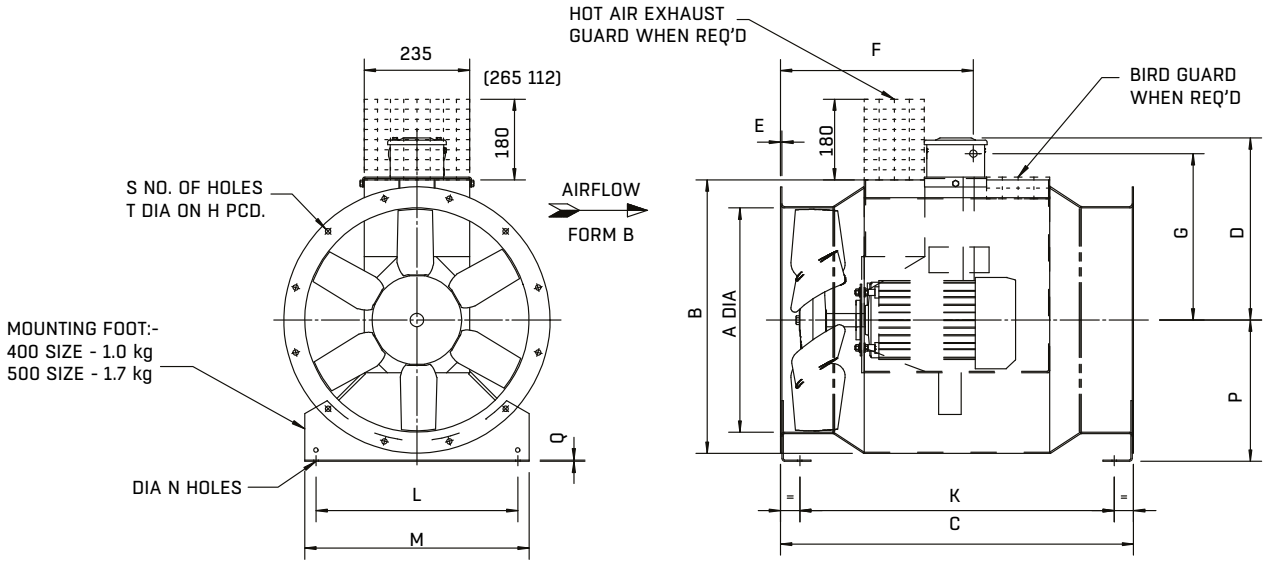
Sound pressure levels quoted are at the inlet, and are average dBA at 3m distance over a sphere at the mid point at the highest angle given, under free field conditions. These are presented for comparative purposes only. For speed controllers please see pages 250-297.

1 phase inverter drives are available on request, please contact our sales office for more information.

Please note the fan must be re-connected in Delta when using the 1-3 phase inverter drive.

Products in **bold** are available from our UK Distributors on next day delivery, if ordered by 4pm. Please call to confirm availability on 01206 222 580.

DRAWING - 40JM.BIF-50JM BIF



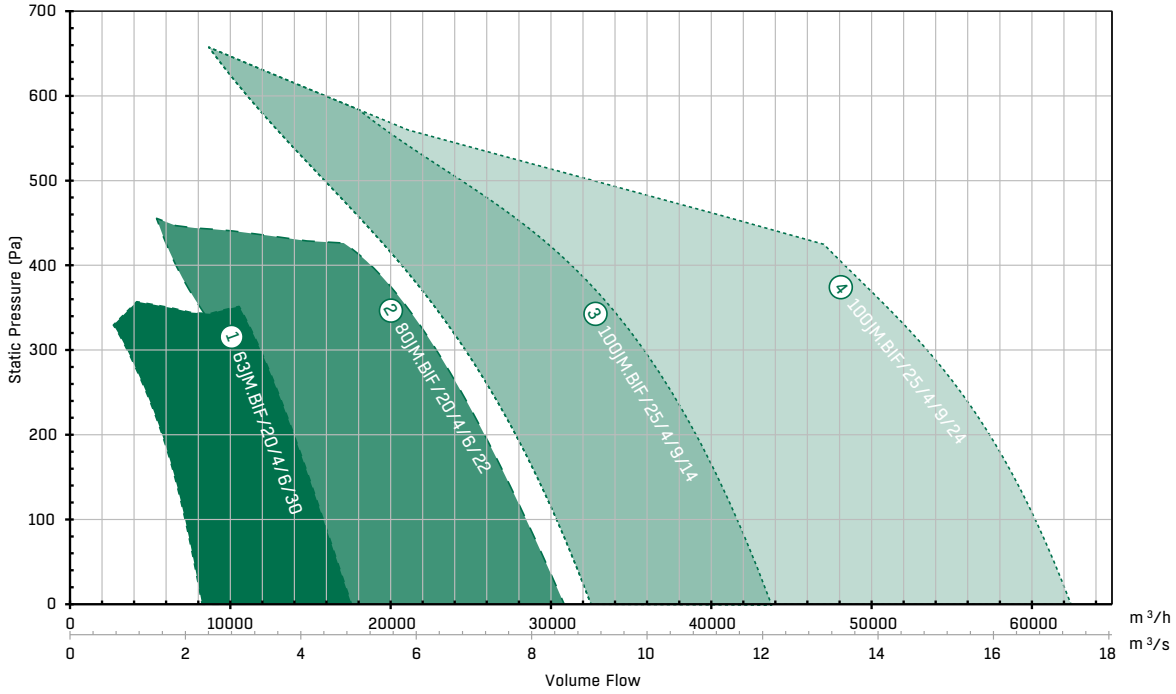
Product Code	Motor Range	A	B	C	D	E	F	G	H	K	L	M	N	P	Q	S	T	Max. Fan Weight (kg)
40JM.Bif/20/4/6/32	90S	400	524	726	334	3	407	356	450	641	350	400	10	250	3	8	12	55
40JM.Bif/20/2/6/32	90L	400	524	726	334	3	407	356	450	641	350	400	10	250	3	8	12	57
50JM.Bif/20/4/6/32	90S	500	610	787	383	3	397	361	560	691	450	500	10	315	3	12	12	62
50JM.Bif/20/2/6/24	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

380-420V/50HZ/3ϕ

PERFORMANCE CHART - 630-1000 MM



As standard 3 phase JM Aerofoils are supplied at the maximum pitch angle, the envelope curve above illustrates the pitch angle range available on request.

PERFORMANCE TABLE - 630-1000 MM

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 DETAILS - 630-1000 MM

Ref	Product Code	Product Number	Pitch Angle (°)		Speed rev/min	Motor	Rating (kW)	Full Load Current (A)	Starting Current (A)	Wiring Diagram (CD)	Inverter 3-3Ph	Inverter 1-3Ph	Inlet Sound Levels
			Min	Max									
1	**63JM.BIF/20/4/6/30**	**JN305003**	**10**	**30**	**1440**	**100L (IE3)**	**2.2**	**4.43**	**32.8**	**CD2416**	**IDDXF54-5.3**	**IEDXB20 9.6**	**72**
2	**80JM.BIF/20/4/6/22**	**JN839013**	**8**	**22**	**1440**	**112M (IE3)**	**4.0**	**8.11**	**49.5**	**CD2417**	**IDDXF54-9**	**-**	**72**
3	**100JM.BIF/25/4/9/14**	**JN139425**	**8**	**14**	**1470**	**132 (IE3)**	**7.5**	**14.1**	**101.5**	**CD2417**	**IDDXF54-15.5**	**-**	**84**
4	100JM.BIF/25/4/9/24	JN139430	8	24	1470	160 (IE3)	15	28.7	177.9	CD2417	IDDXF54-31	-	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. For speed controllers please see pages 250-297.

1 phase inverter drives are availabe on request, please contact our sales office for more information.

Please note the fan must be re-connected in Delta when using the 1-3 phase inverter drive, use CD2417.

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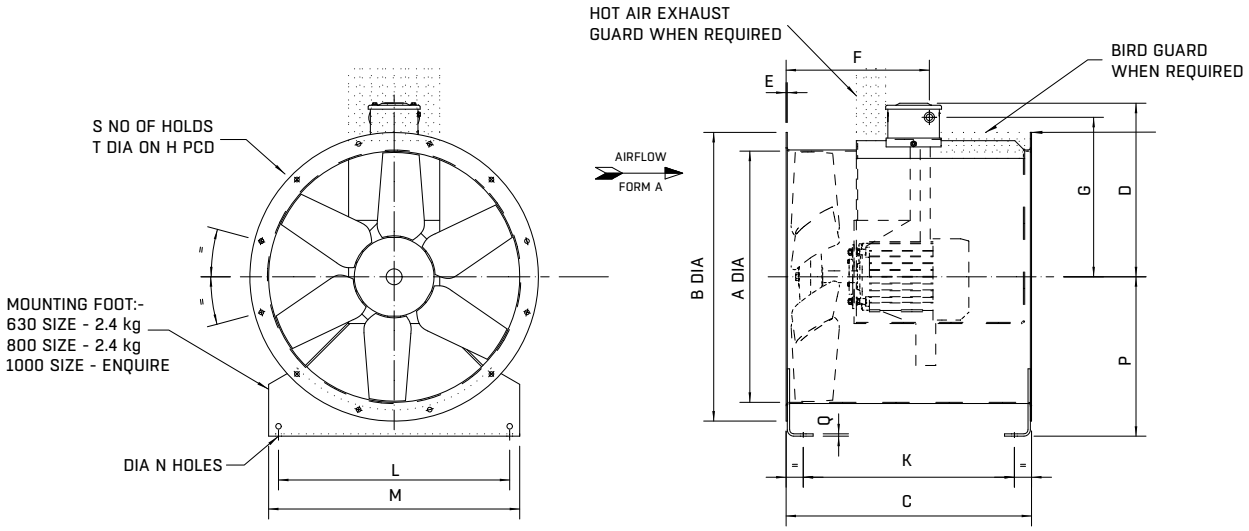
DRAWING - 63JM.BIF-100JM BIF

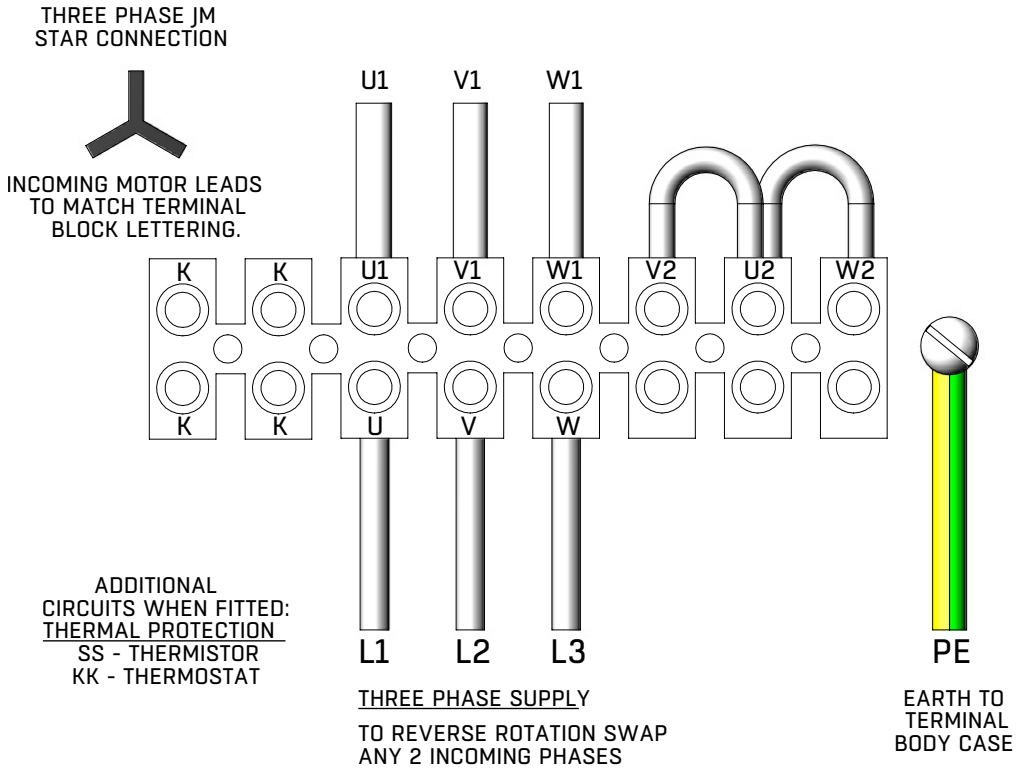


Product Code	Motor Range	A	B	C	D	E	F	G	H	K	L	M	N	P	Q	S	T	Max. Fan Weight (kg)
63JM.Bif/20/4/6/30	100L	630	724	616	412	3	390	434	690	530	580	630	10	400	3	12	12	71
80JM.Bif/20/4/6/22	112M	800	894	660	495	3	434	517	860	544	750	800	10	510	5	16	12	107
100JM.Bif/25/4/9/14	132L	1000	1138	800	650	5	492	608	1070	730	950	1000	12	630	6	16	15	280
100JM.Bif/25/4/9/24	160L	1000	1138	1000	689	5	536	604	1070	930	950	1000	12	630	6	16	15	335

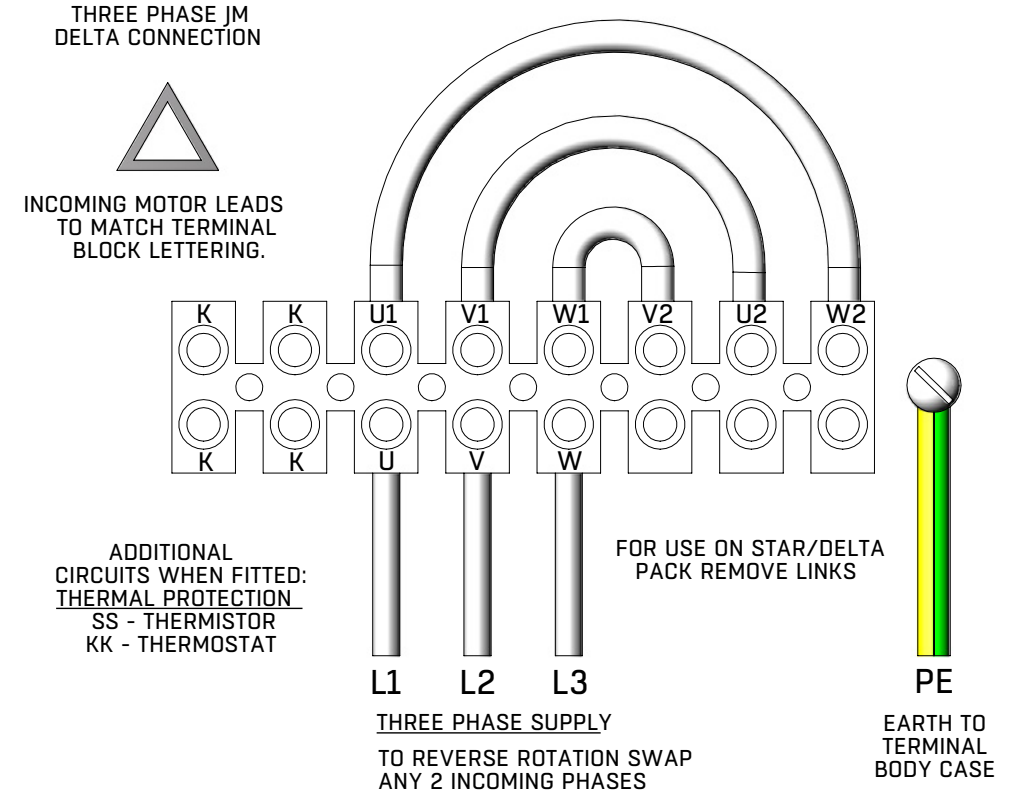
All dimensions in mm.

WIRING DIAGRAMS - JM BIFURCATED AEROFOIL

CD2416



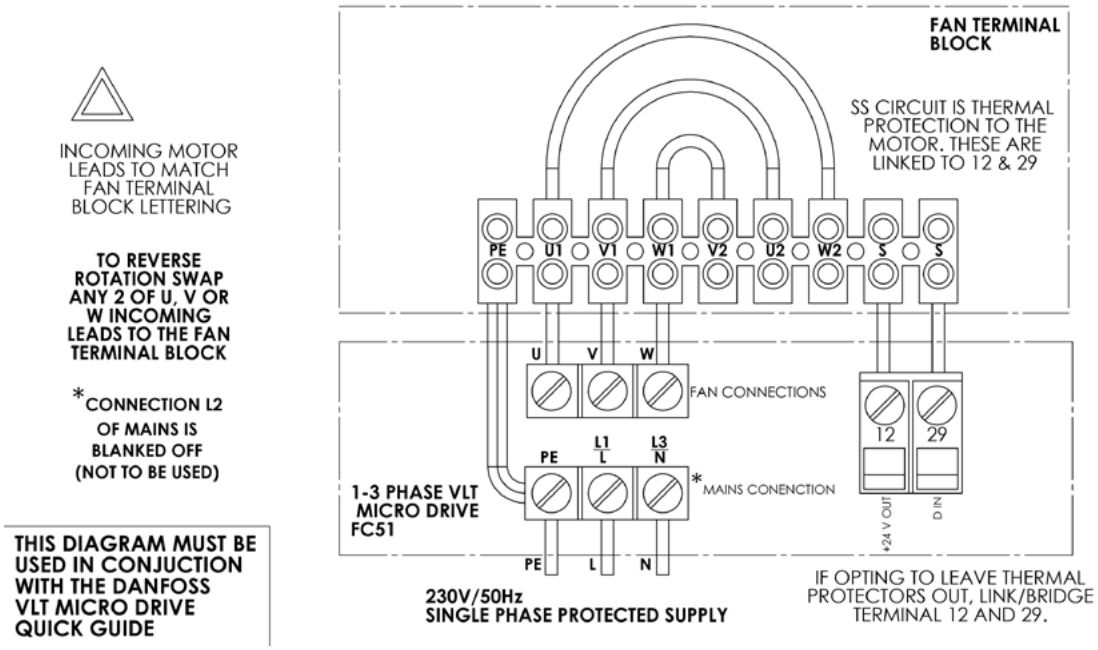
CD2417



WIRING DIAGRAMS

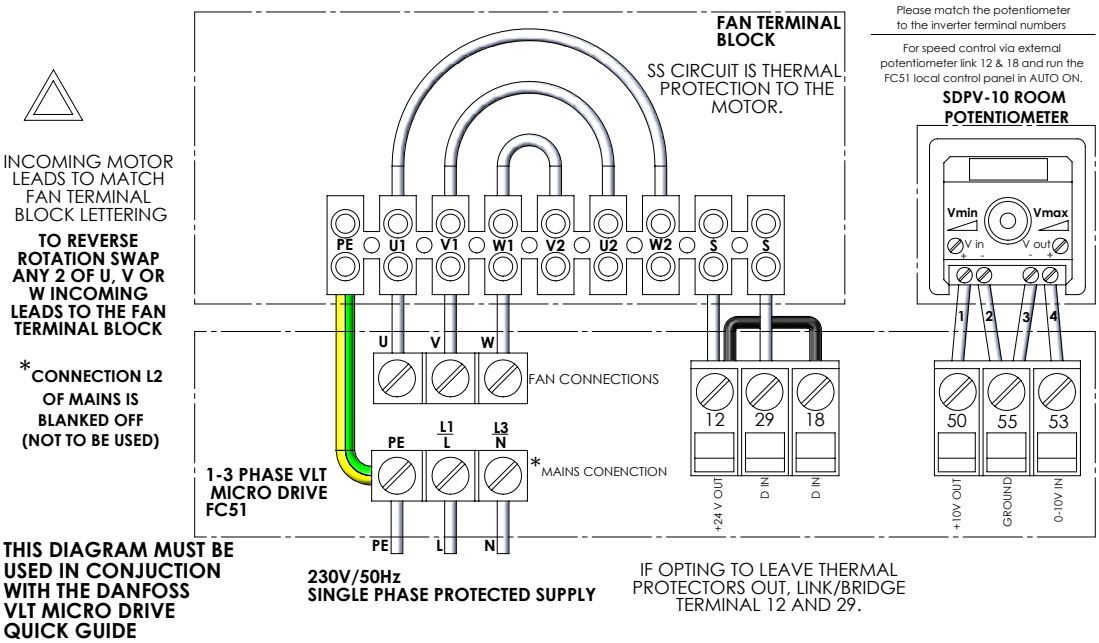
CD3042 - JM BIFURCATED CONNECTED VIA 1 PHASE INVERTER DRIVE

Mode - On hand (Speed controlled via the up and down arrows on key pad)



CD3043 - JM BIFURCATED CONNECTED VIA 1 PHASE INVERTER DRIVE INCLUDING POTENTIOMETER

Mode - Auto (Speed controlled via 0-10 volt potentionmeter)



It can also be fitted using a remote switch conntected between 12 & 18