



HIGH PERFORMANCE CASED AXIAL MAXFAN COMPAC

PRODUCT FACTS

- Volumes up to 4.9m³/s
- Static Pressures up to 900 Pa (Non-stalling characteristic)
- Fans tested to ISO5801 and BS848
- High efficiency energy saving IE2 motor
- Low breakout noise levels
- Motor protection and terminal block IP55 (DW172 & Defra Compliant)
- Ambient temperatures up to 80°C (dependent on size)
- Overheat protection as standard
- Compact robust light weight construction
- Galvanised casing for high corrosion resistance
- Full inverter control and flexibility

ELECTRICAL SUPPLY

230v/50Hz/1 Ph (3 Ph Motor) - L Type

TEMPERATURE RANGE

Suitable for temperatures up to 80°C*

*dependent on the fan size, please refer to the specific fan technical page.

SIZES

315, 355, 400, 450, 500, 560 and 630 mm

IMPELLERS

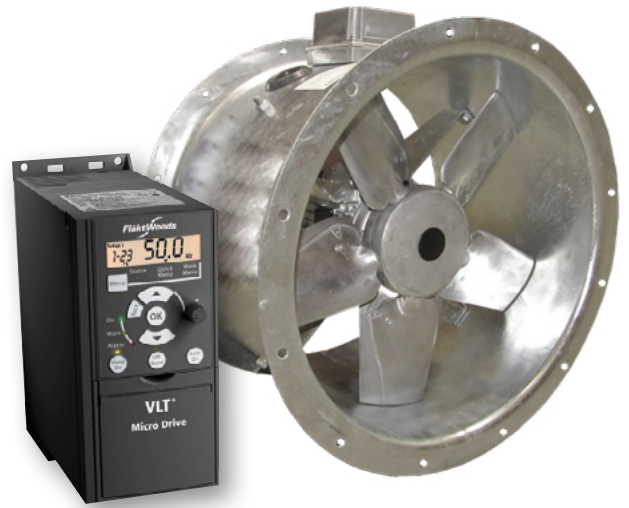
A unique high efficiency aerofoil section blade with a smoothed hub and clamp plate offers a high efficiency solution.

Woods impellers are all high pressure die cast to offer thin aerofoil sections for low generation of noise. Every cast aluminium component is X-ray examined 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 air stream rated with class F insulation. Constructed from aluminium or cast iron as standard with special pad mounted fixings. Although this product incorporates a three phase electric motor, by using a matched inverter solution it is suitable for use with a single phase electrical supply on site. In addition, using a frequency inverter allows the speed to be turned down to 20% of maximum speed. Suitable for horizontal or vertical shaft operation. Supplied IP55, with removable drain plugs.

Sealed for life bearings lubricated with wide temperature range grease. The complete range of motors are fitted with Thermistor OHP as standard. Motors are IE2 efficiency class as standard.



CASING

The MaXfan Compac is available with a galvanised casing, complete with an externally mounted pre-wired electrical terminal box. Casings are spun from sheet steel with integral pre-drilled and radiused inlet flanges. The galvanised finish gives a high resistance to corrosion and is ideal for external as well as internal use.

PRODUCT CODE

40 MaXfan Compac

- 40 - denotes the fan impeller diameter in centimetres

ACCESSORIES (Pages 230-237) - CONTROLLERS (Pages 249-297)



Mounting Feet



Rubber AV's



Flexible Connector & Clips



0-10V Potentiometer



Silencer B1D/B2D Standard & Melinex



Matching Flange



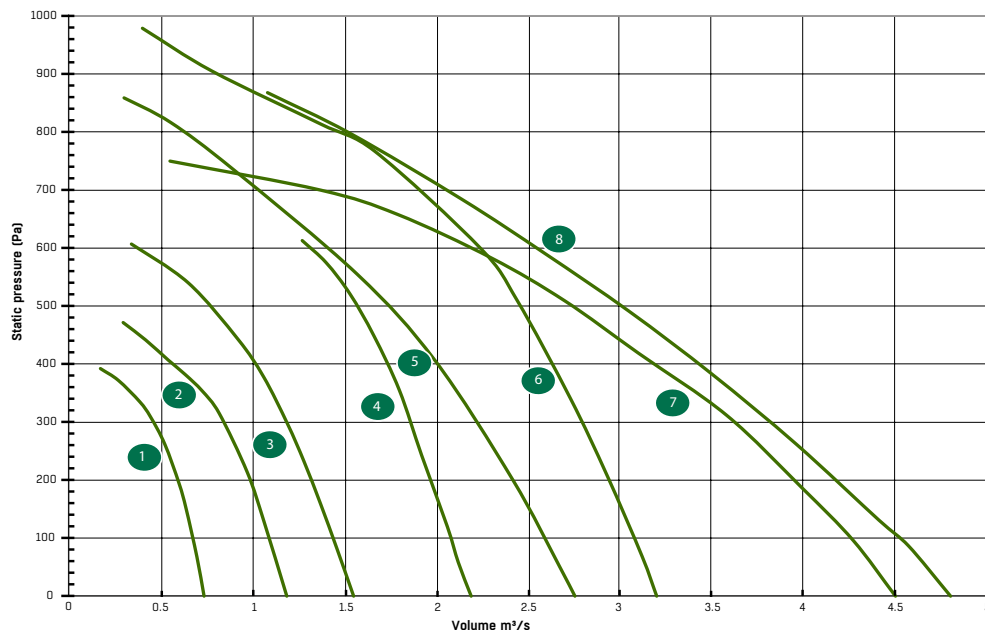
Damper



Acoustic Jacket

MAXFAN COMPAC PRODUCT PERFORMANCE & ELECTRICAL DATA

220-240V/50HZ/1 ϕ L TYPE PERFORMANCE CHART



PERFORMANCE TABLE

Ref	Part Number	Fan Description	m ³ /s @ Pa (Static)											
			0	50	100	200	300	400	500	600	700	800	900	
1	EJ313266	31 MaXfan Compac	0.74	0.71	0.68	0.59	0.46							
2	EJ353266	35 MaXfan Compac	1.19	1.14	1.09	0.99	0.85	0.57						
3	EJ413456	40 MaXfan Compac	1.55	1.49	1.44	1.31	1.18	1.02	0.78	0.41				
4	EJ463266	45 MaXfan Compac	2.19	2.14	2.07	1.98	1.87	1.74	1.58	1.33	0.89	0.6	0.35	
5	EJ513255	50 SC MaXfan Compac	2.77	2.67	2.59	2.42	2.23	1.99	1.72	1.4	1.04	0.61		
6	EJ513266	50 MaXfan Compac	3.21	3.15	3.09	2.97	2.78	2.64	2.47	2.25	2.00	1.48	0.81	
7	EJ563236	56 MaXfan Compac	4.54	4.4	4.22	3.96	3.62	3.24	2.78	2.25	1.33			
8	EJ623236	63 MaXfan Compac	4.87	4.66	4.52	4.19	3.81	3.44	3.00	2.51	2.1	1.53	0.79	

PRODUCT AND ELECTRICAL TABLE

Ref	Part Number	Fan Description	Temperature (°C)	Frame	kW	Max Input Amps	FLC (A)	SC (A)	Phase	Voltage	Inverter Model	Wiring Diagram	Breakout Sound Level dB(A) @ 3m	Fan Weight (kg)	Casing Length (mm)
1	EJ313266	31 MaXfan Compac	80	80	0.9	11.6	3.3	18.7	1	230	4.2	CD3042	45	33	375
2	EJ353266	35 MaXfan Compac	80	80	0.9	11.6	3.3	18.7	1	230	4.2	CD3042	45	33	375
3	EJ413456	40 MaXfan Compac	80	80	1.32	18.7	5.1	25.5	1	230	6.8	CD3042	40	35	375
4	EJ463266	45 MaXfan Compac	55	80	1.32	18.7	5.1	25.5	1	230	6.8	CD3042	43	37	375
5	EJ513255	50 SC MaXfan Compac	65	80	1.73	18.7	6.3	35.5	1	230	6.8	CD3042	49	32	375
6	EJ513266	50 MaXfan Compac	65	90	2.64	26.4	9.4	52.8	1	230	9.6	CD3042	48	51	520
7	EJ563236	56 MaXfan Compac	70	90	2.64	26.4	9.4	52.8	1	230	9.6	CD3042	48	55	520
8	EJ623236	63 MaXfan Compac	55	90	2.64	26.4	9.4	52.8	1	230	9.6	CD3042	50	61	520

For ErP efficiency ratings and grades please refer to our Fan Selector for more information. For speed controllers please see pages 250-297.

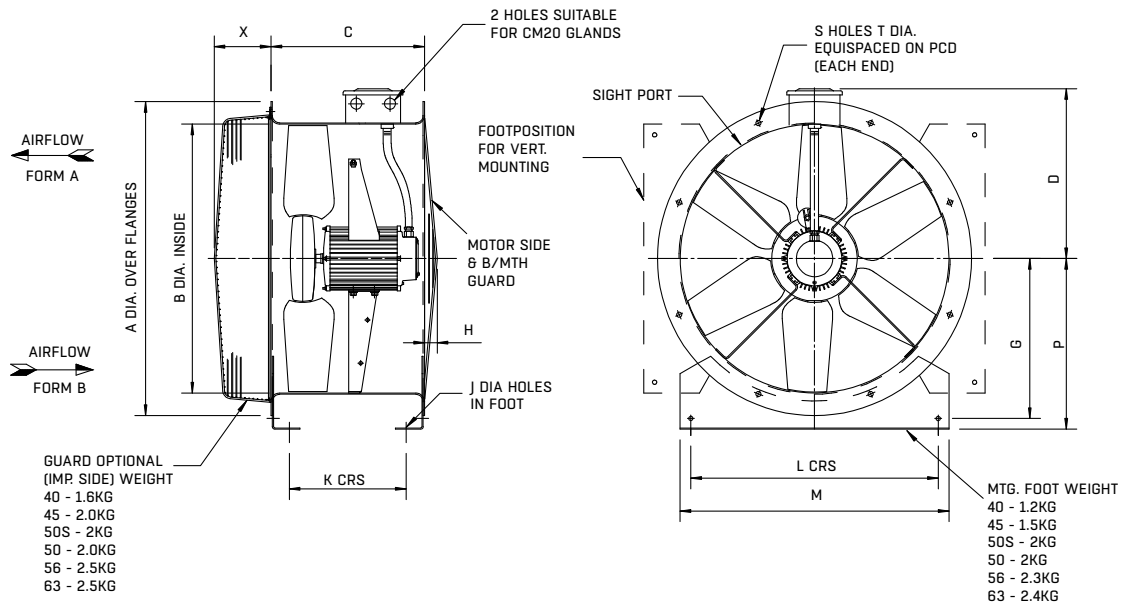
Sound pressure levels quoted are at the inlet, and are average dBA at 3m distance over a sphere at the mid point at the highest angle given, under free field conditions. These are presented for comparative purposes only.



SOUND DATA - MAXFAN COMPAC

Fan Description	Ps Sound data at	Pa Static		Sound Spectrum (Hz)								Overall	
				63	125	250	500	1k	2k	4k	8k	Lw*	LpA @ 3m**
31 MaXfan Compac	0.53 m3/s	252	Inlet*	81	79	80	82	80	76	71	66	88	63
31 MaXfan Compac	0.53 m3/s	252	Outlet*	83	80	81	82	80	77	72	67	89	64
31 MaXfan Compac	0.53 m3/s	252	Breakout*	73	68	64	66	61	53	51	47	75	45
35 MaXfan Compac	0.84 m3/s	302	Inlet*	82	80	84	83	80	77	73	69	89	65
35 MaXfan Compac	0.84 m3/s	302	Outlet*	83	80	85	84	81	78	74	69	90	65
35 MaXfan Compac	0.84 m3/s	302	Breakout*	74	68	68	67	60	54	53	51	76	47
40 MaXfan Compac	1.32 m3/s	200	Inlet*	75	76	82	79	78	77	74	70	86	63
40 MaXfan Compac	1.32 m3/s	200	Outlet*	77	77	85	80	79	77	75	71	88	64
40 MaXfan Compac	1.32 m3/s	200	Breakout*	67	62	65	59	53	48	50	48	70	40
45 MaXfan Compac	1.86 m3/s	300	Inlet*	78	81	88	82	80	80	78	75	91	66
45 MaXfan Compac	1.86 m3/s	300	Outlet*	79	81	88	82	81	80	79	77	91	67
45 MaXfan Compac	1.86 m3/s	300	Breakout*	69	63	66	59	56	52	57	53	72	43
50 SC MaXfan Compac	2 m3/s	400	Inlet*	81	82	89	85	87	87	83	79	95	72
50 SC MaXfan Compac	2 m3/s	400	Outlet*	81	82	91	86	87	87	85	81	96	73
50 SC MaXfan Compac	2 m3/s	400	Breakout*	71	64	69	63	62	59	63	57	75	49
50 MaXfan Compac	2.63 m3/s	400	Inlet*	83	79	87	88	86	85	81	78	94	71
50 MaXfan Compac	2.63 m3/s	400	Outlet*	85	79	90	89	86	86	81	79	95	72
50 MaXfan Compac	2.63 m3/s	400	Breakout*	75	61	68	66	61	58	59	55	77	48
56 MaXfan Compac	3.22 m3/s	400	Inlet*	86	93	88	90	88	85	79	77	97	72
56 MaXfan Compac	3.22 m3/s	400	Outlet*	87	95	89	90	88	85	80	79	98	72
56 MaXfan Compac	3.22 m3/s	400	Breakout*	77	74	63	65	63	58	61	55	79	48
63 MaXfan Compac	3.4 m3/s	400	Inlet*	85	95	93	91	87	84	83	81	99	72
63 MaXfan Compac	3.4 m3/s	400	Outlet*	86	98	94	91	87	85	84	83	100	73
63 MaXfan Compac	3.4 m3/s	400	Breakout*	76	77	68	66	62	58	65	59	80	50

*Lw dB re 10⁻¹² W**dBA re 2x10⁻⁵ Pa

DRAWING - MAXFAN COMPAC


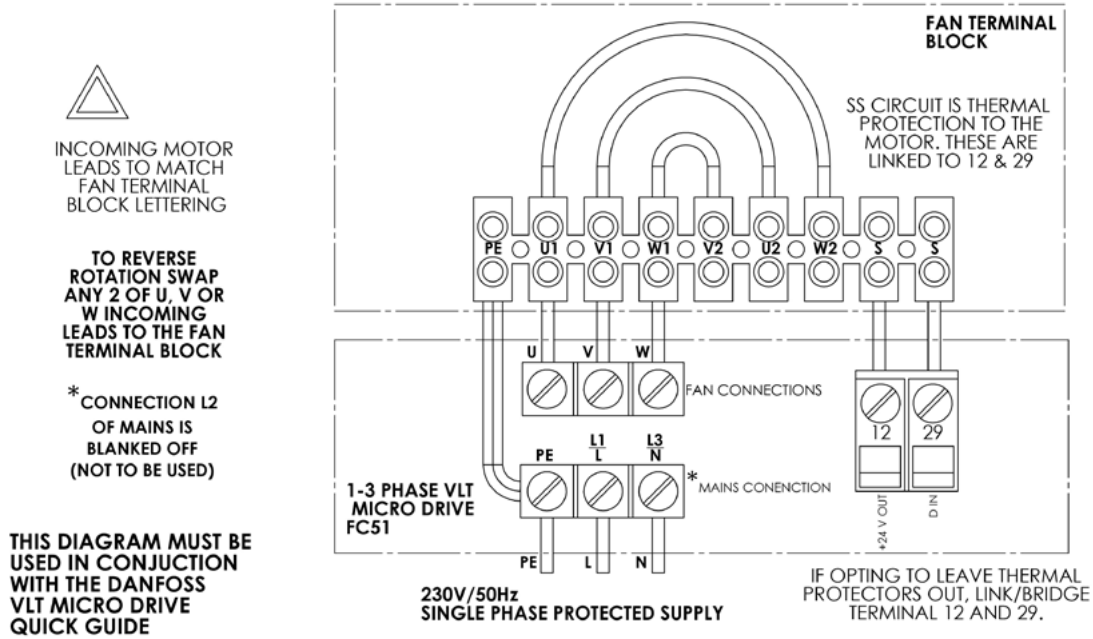
Product Code	Motor Frame	A	B	C	D	G	H	J	K	L	M	P	S	T	x	Weight (kg)
31 MaXfan Compac	80	395	315	375	229	200	30	10	285	265	315	200	8	10	137	33
35 MaXfan Compac	80	435	355	375	249	225	30	10	285	305	355	225	8	10	137	33
40 MaXfan Compac	80	480	400	375	279	225	30	10	290	350	400	250	8	12	137	35
45 MaXfan Compac	80	530	450	375	306	255	30	10	290	400	450	280	8	12	137	37
50 SC MaXfan Compac	80	594	500	375	338	290	30	10	290	450	500	315	12	12	137	32
50 MaXfan Compac	90	594	500	520	338	290	30	10	290	450	500	315	12	12	137	51
56 MaXfan Compac	90L	654	560	520	368	330	50	10	434	510	560	355	12	12	137	55
63 MaXfan Compac	90S	724	630	520	403	375	50	10	434	580	630	400	12	12	137	61



WIRING DIAGRAMS - MAXFAN COMPAC

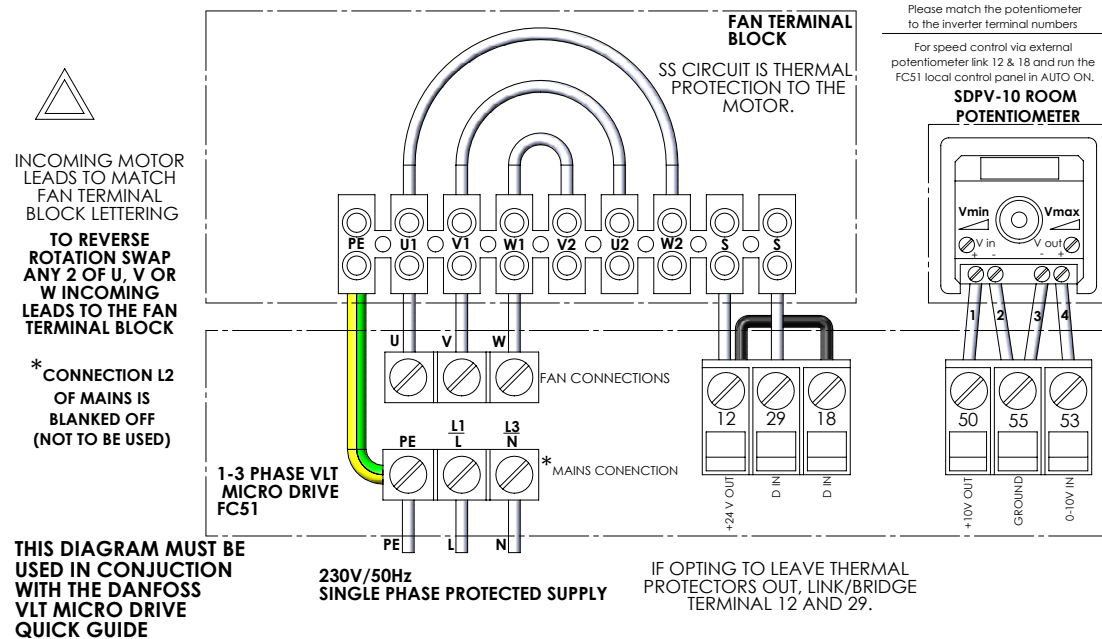
CD3042 - MAXFAN COMPAC

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



CD3043 - MAXFAN COMPAC INCLUDING POTENTIOMETER

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



The Maxfan Compac can also be fitted using a remote switch connected between 12 & 18

INVERTER SINGLE TO THREE PHASE

FEATURES & BENEFITS

- 1 Ph 200-240VAC to 3 Ph 200-240 VAC electrical supply
- Pre-Programmed for easy installation
- Max shielded cable length 25m
- Asynch motor speed control
- Ultra compact & light making it easy to install
- Simple to use Alpha-numeric display
- Included fitted potentiometer for manual speed adjustment
- Connectable as Modbus RTU offering control flexibility
- Built in RFI filter minimising interference
- Built-in brake functions with built in DC and AC brake functions
- 2xAI, 1xAO & 1xRO / RS485 connection options
- BMS enable/disable
- Maximum operating ambient 50°C
- Coated PCB standard for harsh environments
- High energy efficiency

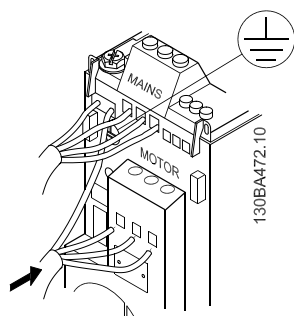
DESCRIPTION

Our inverter is a frequency converter with unsurpassed reliability, user-friendliness, condensed functionality, and extremely easy to commission. Terminal numbers are named in the same manner as in the rest of the family, making installation easy.

It converts a single phase 200-240 VAC input into a three phase output to allow the MaXfan Compac product to use a high efficiency 3Ph, 230V motor.

A safety isolator/switch disconnecter should be installed on the mains side of the drive to ensure that the mains supply can be isolated for maintenance.

Please see the image below, illustrating the connections on the bottom of the inverter drive.



RANGE

There are three matched inverters that are specifically designed to use with our MaXfan Compac fan range. Details are shown below.

Part Number	Inverter Model	Ph.	V	Amps	kW	Enc.
PK901092	4.2	1-3	200-240V	4.2	0.75	M1
PK901090	6.8	1-3	200-240V	6.8	1.5	M2
PK901091	9.6	1-3	200-240V	9.6	2.2	M3

Step 1
Fit top cover on frequency converter.

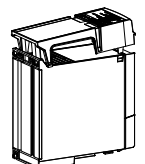


Illustration 4.14

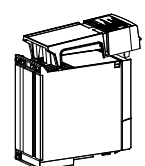


Illustration 4.15

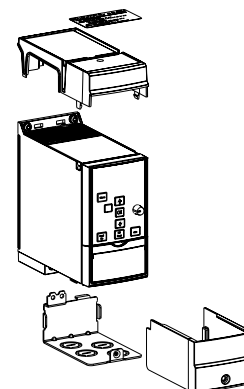


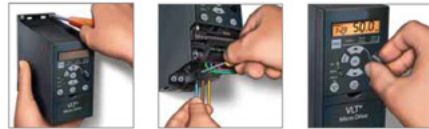
Illustration 4.16



INVERTER - QUICK INSTALLATION GUIDE

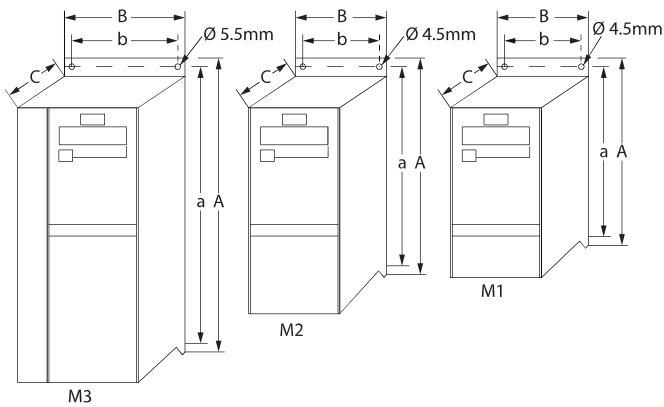


Ready - Steady - Go!
Connect motor and power cables, turn the control knob, and watch the motor speed change.



RoHS compliant
The VLT® Micro Drive does not contain lead, cadmium, hexavalent chrome, mercury, or flame retardant PBB and PBDE.

INVERTER - TECHNICAL & DRAWING DETAILS



Part Number	Inverter Model	Enc.	Ph.	V	Amps	kW	Power [kW]	Height [mm] A (incl. conversion kit)	Width [mm]		Depth [mm] C	Max. Weight kg
							1x200-240 V		B	b		
PK901092	4.2	M1	1-3	200-240V	4.2	0.75	0.75	219.3	70	55	148	1.1
PK901090	6.8	M2	1-3	200-240V	6.8	1.5	1.5	245.6	78	59	144	1.6
PK901091	9.6	M3	1-3	200-240V	9.6	2.2	2.2	297.5	95	69	210	3