

OEM

External Rotor
Motor Fans



AXAIR
FANS UK LIMITED
www.axair-fans.co.uk

2012 Edition

...About Axair Fans UK

Application Knowledge:

Over 20 years experience in general air movement; including corrosive, explosive and hot fume handling.

Stock Facility:

Large modern warehouse facility containing a vast selection of fans, fan components and general accessories.

Customised Build:

Fans assembled from standard components to create the perfect mechanical and electrical solution to safe fume extraction.

Customer Care:

Experience a sense of partnership with Axair Fans.

Axair Fans offers you this complete range of fans available ex-stock or within short lead times. All the fans presented here are 230Volts AC Single Phase, but we also stock a number of models in :

- 115Volts AC Single phase
- 400Volts AC Three phase
- 24Volts DC

All performance data and characteristic curves relate to 50Hz supply frequency. Most standard fan products can be operated on 50 or 60Hz supply frequency. Most 60Hz models are available in UL recognised construction - to order.

If you can't find the model you need – please ask.



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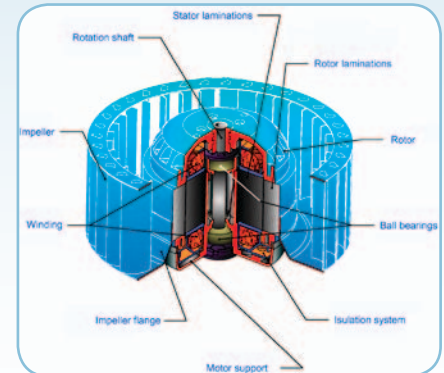
All specifications, data and drawings are subject to alterations without prior notice

External Rotor Motor Fans

External rotor motor driven fans are manufactured by ECOFIT, France: a GROUP ROSENBERG company. ECOFIT produce a comprehensive range of fans, principally for equipment manufacturers who require products that are, for example:

- Inexpensive
- Dimensionally compact
- Suitable for low cost electronic control
- Available in all standard axial and centrifugal constructions

ECOFIT has been in business since 1976 and now delivers over 1 million external rotor motors annually.



AXAIR FANS is the UK distributor of ECOFIT products, many of which are assembled by AXAIR to client specifications using stock components, for example:

- Pre-wiring with capacitor and terminal block, with or without full connector box
- Modification of lead wire length
- Installation of a selection of finger guards
- Modification of air outlet configuration on single & double inlet centrifugal fan scrolls, including addition of side ears or full flange
- Modification of axial fan configuration, including flat or basket guard, round ring or wall plate, and if required a full discharge guard.

AXAIR is also able to supply factory-built products with special features :

- 24Vdc, 115Vac and 400V 3phase
- Multi-speed and speed sensor
- IP55 dust and hosed-water protection
- Tropicalisation of motor windings
- UL / CSA recognised constructions
- Elevated ambient temperature e.g. +70°C



Frame Axial Fans

Frame axial fans are available with internationally standard frame dimensions and in many electrical and mechanical configurations, for example:

- 5, 12, 24 and 48Vdc
- 24, 115, 230Vac
- Ball or sleeve bearings
- Extra high duty to low noise performance

AXAIR is also able to supply factory-built products with special features. For example:-

- IP55 dust and hosed-water protection
- Special environmental protection
- Elevated ambient temperature e.g. +90°C
- All-metal construction
- Speed sensing and fan failure alarm

Please consult us for our latest stock availability

Index & Coding System

2 GDF (*) 65 146x180 L Z18-26
 4 VRE (*) 15 2 00 A B22-C0

Number of poles :

2 : 2 pole (3000RPM max)
 4 : 4 pole (1500RPM max)

Fan type

GRE -Single inlet centrifugal fan
GRF -Single inlet centrifugal fan, High pressure
GDR -Double inlet centrifugal fan
GDS -Double inlet centrifugal fan, double shaft
GDF -Double inlet centrifugal fan, double shaft, high power
RRE -Backward curved centrifugal motorized impeller
VRE -Axial motorized impeller
VGR -Axial fan mounted on flat guard
VPR -Axial fan mounted on basket guard
VGC -Axial fan with flat guard & wall plate
VGX -Axial fan with flat guard & round ring

Factory options

u : UL approved motor
t : Three-phase
 (400Volts 50/60Hz)

Motor Size

(Ø 92) : 15, 20, 25, 35, 45, 55 or 65
 (Ø 72) : A3

Impeller Size

Centrifugal fans : Diameter x length
 Axial : Diameter Only

Rotational Direction

Centrifugal fans : L (anti-clock) or R (clockwise) on inlet
 Axial : Airflow direction A (guard to impeller) or V (impeller to guard)

Design code

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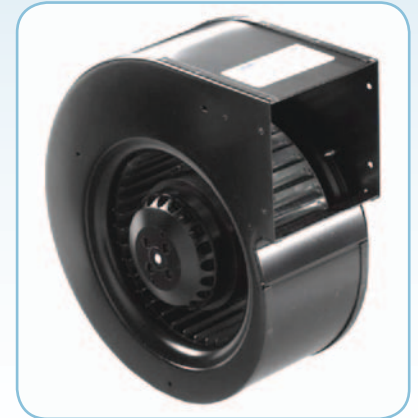
Accessories Finger guards, Inlet Rings, Capacitors
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Single Inlet Centrifugal Fans

230V 1Phase 50/60Hz - 2 or 4 pole motor speeds

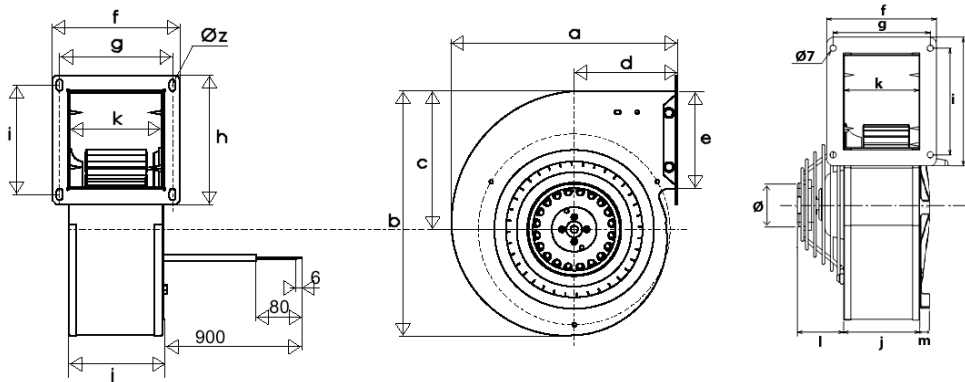
ECOFIT single inlet centrifugal fans contain external rotor motor driven multi-vane impellers. The GRE versions have open inlets and either detachable flanges, side 'ears', or plain discharge ducts. The GRF versions, for slightly higher pressure development, have innovative double shaft mounting with guard supported resilient bearing mount and fixed discharge flange.

This range provides easily adaptable discharge mounting based on standard accessories, also promising low transmission of vibration through a unique and discrete form of motor support.



Standard Specification

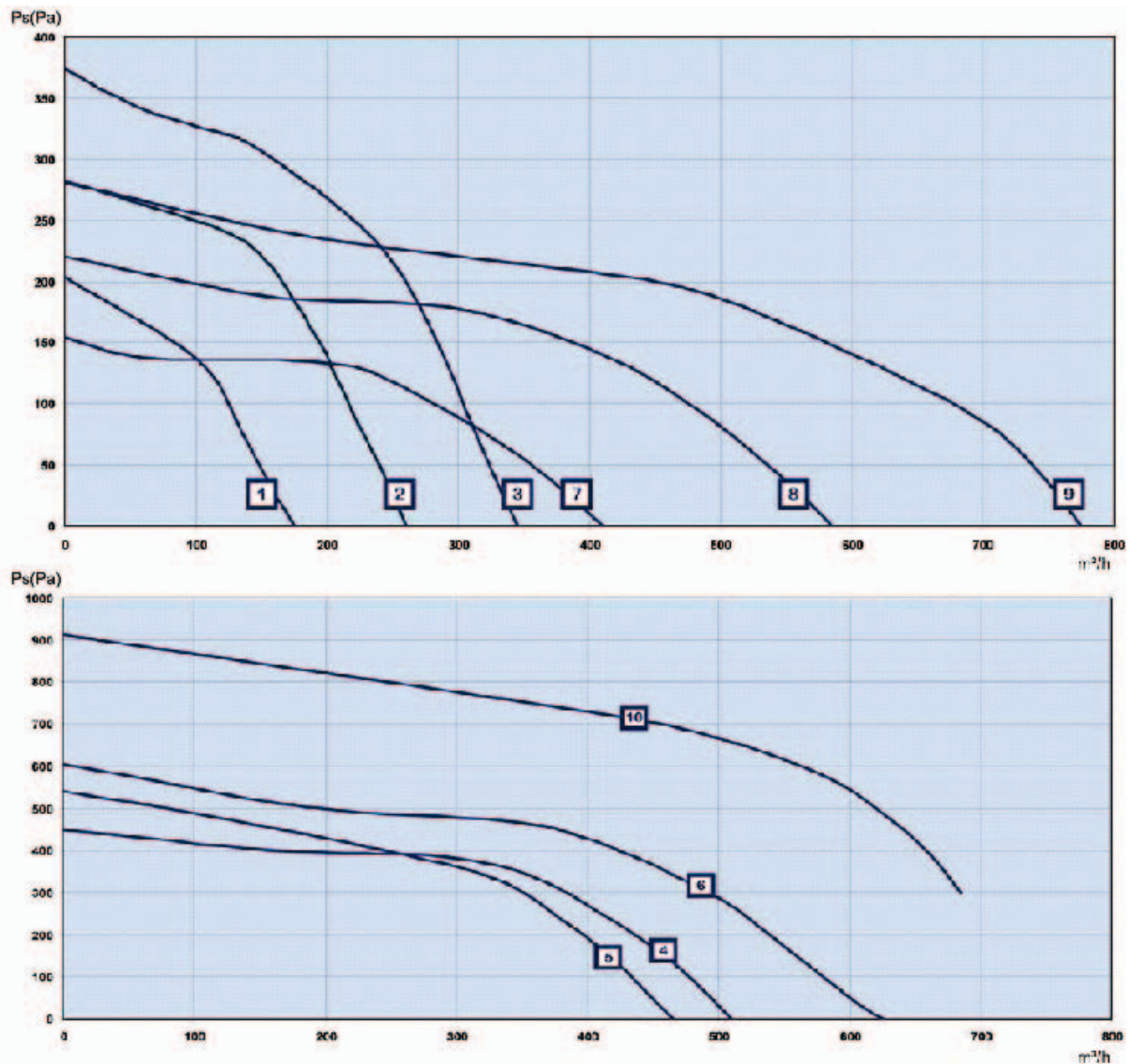
Motor type	2 or 4 pole permanent capacitor motors	Motor protection	Single-phase motors are thermally protected with automatic re-start
Bearing system	Ball bearing	Protection class	GRE : IP44 GRF : IP54
Impeller & scroll material	Galvanised	Scroll finishing	Black epoxy paint
Balancing grade	VDE2060 G2.5 standard	Lifetime	L10 40,000 hours 40°C and 25%RH
Operating temperature	-20°C to +50°C	Relative humidity	80% RH maximum
Motor insulation	Class "F"	Approvals	CE



All measurements in mm

Reference	Code	a	b	c	d	e	f	g	h	i	j	k	l	m	z
2GREA3 108/52R	D25-A4	160	160	85	77	69	115	97	83	66	76	76			8
2GREA3 120/62R	D25-A5	171.5	180	101	84	71	115	100	108	68	95	82			7
2GRE15 140/59R	N05-48	226	246	139	103	98	130	115	130	105	98	98			6.3
2GRE25 140/59R	Z10-15	226	246	139	103	98	130	115	130	105	98	98			6.3
2GRE35.160/62R	N05-56	226	246	139	103	98	130	115	130	105	98	98			6.3
2GRE45 160/62R	N05-58	226	246	139	103	98	130	115	130	105	108	98			6.3
4GRE25 160/62R	N05-62	226	246	139	103	98	130	115	130	105	98	98			6.3
4GRE35 180/75R	Y41-08	270	300	170	120	107	145	125	145	126.5	117	107			6.2
4GRE45 200/75R	N05-35	326	372	213	140	140	160	135	180	155	111	111			6.3
2GRF65 180/52R	Y45-03	270	300	169	120		124	110	145	120	86	84	55	19	7
2GRF65 180/52R	U05-13	270	300	169	120		124	110	145	120	86	84	53	42.5	7

Performance Characteristics (50hz)



Reference	Code	Curve No	Voltage V	Frequency Hz	Input Power Wa	Current A	Capacitor μ F	Flow Rate m ³ /h	Speed /min	Sound Level dBA	Weight kg	Max air temp $^{\circ}$ C
2GRE3 108/52R	D25-A4	1	230	50/60	39	0.18	1.5	175	2165	51	1.5	70
2GRE3 120/62R	D25-A5	2	230	50/60	58	0.27	2	260	1715	49	1.8	70
2GRE15 140/59R	N05-48	3	230	50/60	93	0.41	2	345	1290	47	2.5	70
2GRE25 140/59R	Z10-15	4	230	50/60	176	0.78	4	515	2050	63	2.9	60
2GRE35.160/62R	N05-56	5	230	50/60	165	0.72	4	465	1565	58	3.6	50
2GRE45 160/62R	N05-58	6	230	50/60	264	1.15	6	625	2130	67	4.1	50
4GRE25 160/62R	N05-62	7	230	50/60	70	0.34	2	410	1280	51	4.1	70
4GRE35 180/75R	Y41-08	8	230	50/60	102	0.45	3	585	1155	56	4.5	60
4GRE45 200/75R	N05-35	9	230	50/60	172	0.87	4	775	1040	55	5.4	50
2GRF65 180/52R	Y45-03	10	230	50/60	411	1.79	8	685	2145	70	6.3	40
2GRF65 180/52R	U05-13	10	230	50/60	411	1.79	8	685	2145	67	6.3	40

Please consult us for 60Hz operation

Double Inlet Centrifugal Fans

230V 1Phase 50/60Hz - 2 or 4 pole motor speeds

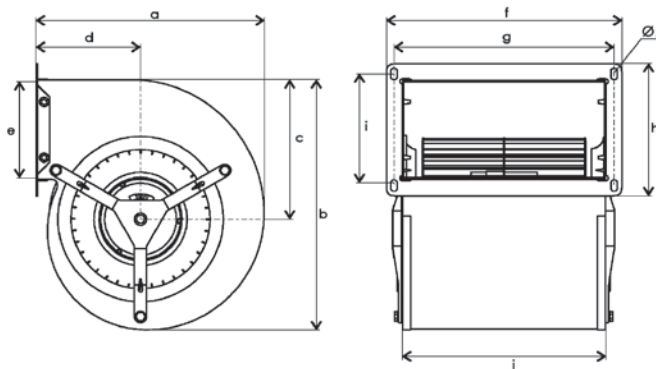
ECOFIT double inlet centrifugal fans contain external rotor motor driven multi-vane impellers. The GDR versions have motor support at one side, whilst the GDS & GDF models are supported at both inlets to provide optimal mechanical isolation. GDR & GDS have detachable flanges, side 'ears', or plain discharge ducts, whereas the GDF is only available with a fixed flange. GDR & GDS are supplied with leads-out and normally with a loose capacitor as a necessary accessory. They can also be supplied pre-wired to a side-plate mounted capacitor. The GDF model is pre-wired with capacitor as standard.



This range provides easily adaptable discharge mounting based on standard accessories, also promising low transmission of vibration through a unique and discrete form of motor support. The DGS in particular offers optimal isolation between the fan and its supporting structure.

Standard Specification

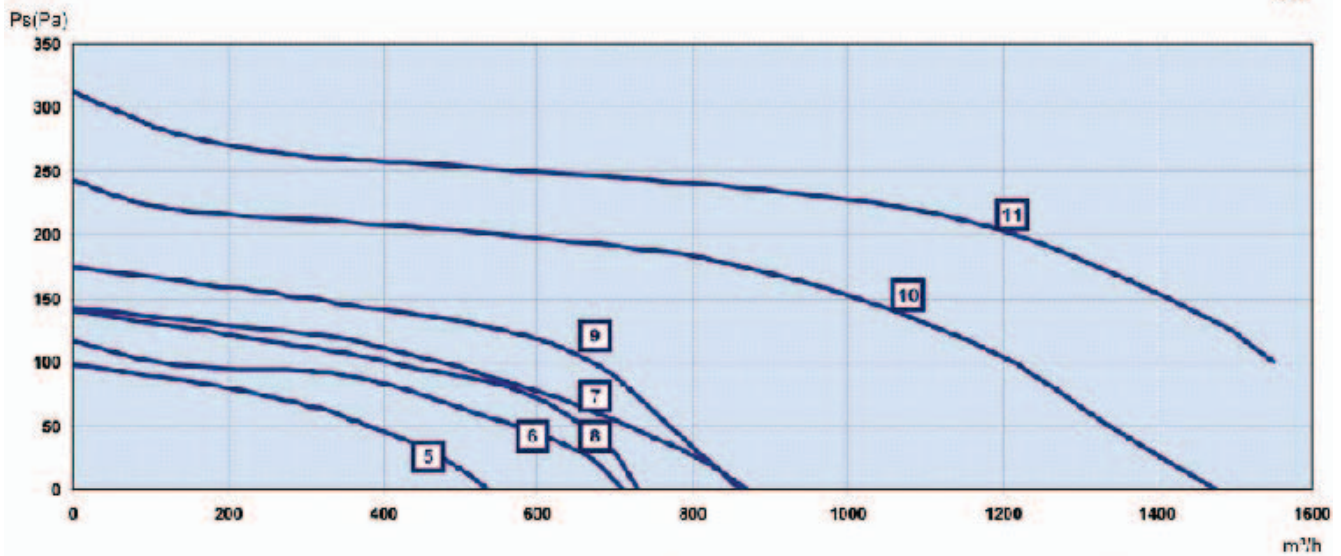
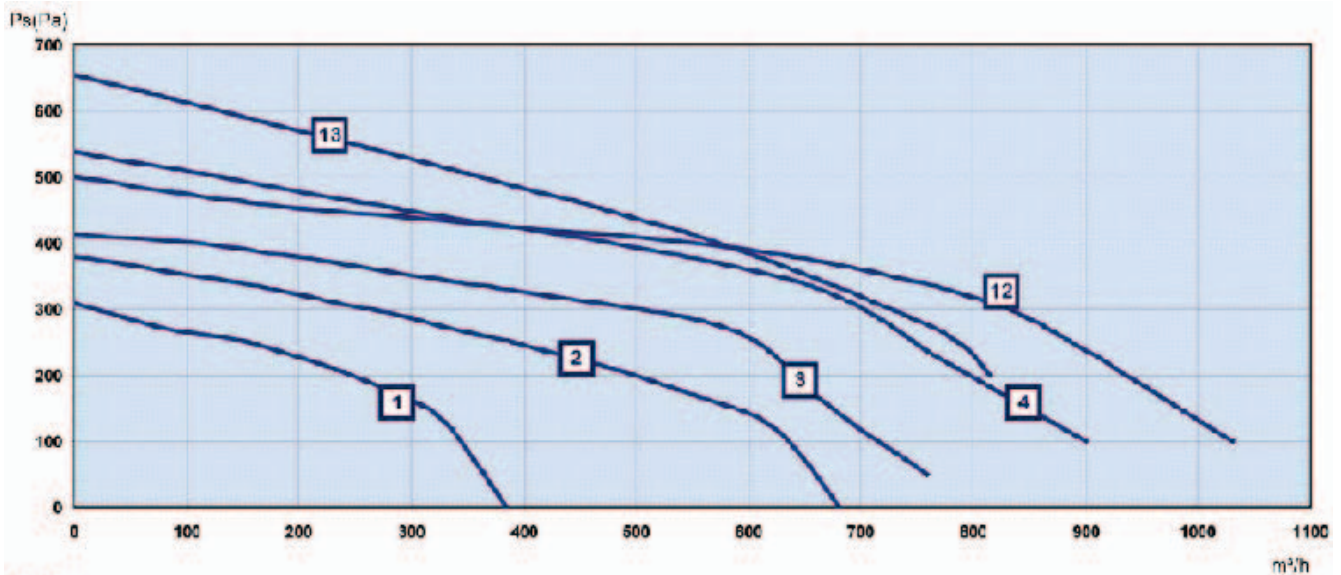
Motor type	2 or 4 pole permanent capacitor motors	Motor protection	Single-phase motors are thermally protected with automatic re-start
Bearing system	Ball bearing	Protection class	GDR & GDS : IP44 GDF : IP54
Impeller & scroll material	Galvanised	Scroll finishing	Black epoxy paint
Balancing grade	VDE2060 G2.5 standard	Lifetime	L10 40,000 hours 40°C and 25%RH
Operating temperature	-20°C to +50°C	Relative humidity	80% RH maximum
Motor insulation	Class "F"	Approvals	CE



All measurements in mm

Reference	Code	a	b	c	d	e	f	g	h	i	j	z
2GDS15 120/126L	Z18-16	160	160	87	80	69	180	168	100	88	146	5.5
2GDS25 133/190R	Z18-17	172	180	101	88	71	254	238	108	92	215	5.5
2GDS35 133/190L	Z18-18	205	218	121	96	104	270	254	142	126	232	7
2GDR45 146/180L	N11-02	205	218	121	96	104	270	254	142	126	232	7
4GDS20 133/190LR	Z18-20	172	180	101	88	71	254	238	108	92	215	5.5
4GDS25 133/190L	Z18-21	205	218	121	96	104	270	254	142	126	232	7
4GDS25 146/180L	Z18-22	205	218	121	96	104	270	254	142	126	232	7
4GDS25 146/216L	Z18-23	205	218	121	96	104	301	285	142	126	263	7
4GDS35 160/160L	Z18-24	226	246	139	103	98	232	217	130	110	200	6.3
4GDF65 180/180L	R10-05	270	300	170	120	107	262	242	145	120	224	6.3
4GDF65 200/200L	R10-10	326	372	213	140	140	289	264	180	155	240	6.3
2GDF65 146/180L	Z18-26	205	218	212	96	104	270	254	142	126	232	7
2GDF55 160/160L	R10-12	226	246	139	103	98	232	217	130	105	200	6.3

Performance Characteristics (50hz)



Reference	Code	Curve No	Voltage V	Frequency Hz	Input power Wa	Current A	Capacitor μ F	Flow rate m³/h	Speed /min	Sound level dBA	Weight kg	Max air temp °C
2GDS15 120/126L	Z18-16	1	230	50/60	100	0,47	2,5	385	1640	51	2,3	70
2GDS25 133/190R	Z18-17	2	230	50/60	207	1,10	4	680	1365	49	3,4	50
2GDS35 133/190L	Z18-18	3	230	50/60	213	1,00	5	758	1465	51	4,0	50
2GDR45 146/180L	N11-02	4	230	50/60	279	1,30	6	900	1945	60	4,7	50
4GDS20 133/190LR	Z18-20	5	230	50/60	66	0,31	2,5	535	1100	49	2,8	70
4GDS25 133/190L	Z18-21	6	230	50/60	76	0,35	2	710	1160	50	3,4	70
4GDS25 146/180L	Z18-22	7	230	50/60	116	0,53	2,5	870	1110	52	3,5	60
4GDS25 146/216L	Z18-23	8	230	50/60	83	0,37	2	730	980	50	3,7	70
4GDS35 160/160L	Z18-24	9	230	50/60	113	0,51	3	860	1025	53	4,6	70
4GDF65 180/180L	R10-05	10	230	50	251	1,11	6	1475	1170	58	7,1	50
4GDF65 200/200L	R10-10	11	230	50	281	1,24	6	1550	1035	54	8,9	40
2GDF65 146/180L	Z18-26	12	230	50	360	1,59	10	1015	1975	64	6,1	50
2GDF55 160/160L	R10-12	13	230	50	267	1,30	8,5	815	1730	59	5,9	40

Please consult us for 60Hz operation

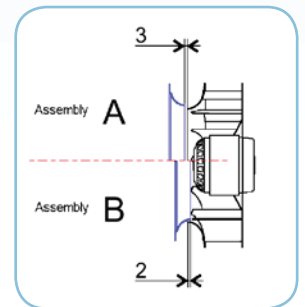
Backward Curved Motorised Impellers

230V 1Phase 50/60Hz - 2 or 4 pole motor speeds

ECOFIT backward-curved motorised impellers are driven by external rotor motors. The impellers are designed with specially profiled blades to provide low sound emission and low energy consumption.

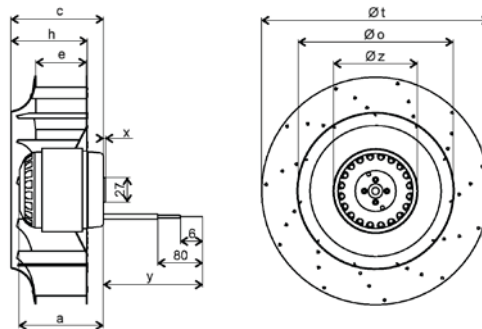
Inlet rings are a vital accessory and should be positioned as shown on the drawing opposite. Their purpose is to enable the backward-curved motorised impeller to achieve its published performance characteristic. Each product has a recommended assembly technique, i.e. 'A' (3mm stand-off) or 'B' (2mm overlap).

Plastic impellers within this range are specially moulded with a reduced number of blades, profiled to improve performance whilst reducing electrical power consumption and sound emission. ECOFIT pioneered the concept of blade profiling as long ago as 1985.



Standard Specification

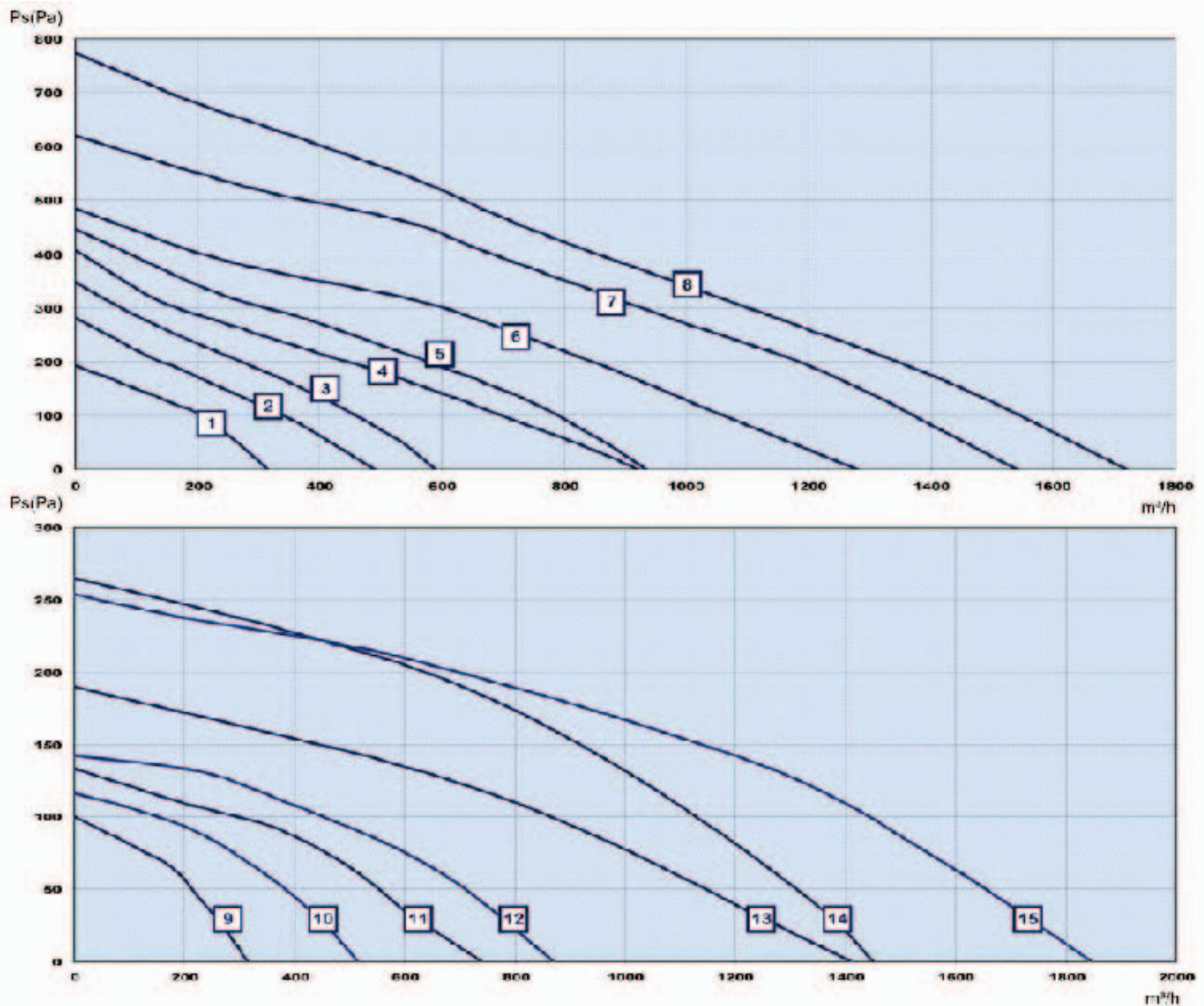
Motor type	2 or 4 pole permanent capacitor motors	Motor protection	Single-phase motors are thermally protected with automatic re-start
Bearing system	Ball bearing	Protection class	IP44
Impeller material	Galvanised or plastic	Relative humidity	80% max
Balancing grade	VDE2060 G2.5 standard	Lifetime	L10 40,000 hours 40°C and 25%RH
Motor insulation	Class "F"	Approvals	CE



All measurements in mm

Reference	Code	a	c	e	h	Øo	Øt	x	y	z	Assembly
2RREA3 133/42R	D04-04	58	91	42	60.8	90	134	0	300	72	-
2RREA3 180/35R	D04-A6	58	68	35	49	132	180	0	900	72	A
2RRE15 192/40R	B47-A1	63	70	40	60	132	192	1.5	900	92	A
2RRE15 220/45R	D05-A4	63	71	45	63	159	220	1.5	900	92	B
2RRE20 220/45R	C43-A5	68	71	45	63	159	220	1.5	900	92	B
2RRE35 225/63R	B28-A1	83	99	63	90	159	225	1.5	900	92	B
2RRE45 250/56R	H06-17	96	102	56	84	172	252	1.5	900	92	B
2RRE45 280/40R	Z19-07	96	112	40	71.4	191	281	1.5	900	92	B
4RRE15 192/40R	B47-A2	63	70	40	60	132	192	1.5	900	92	A
4RRE15 225/40R	M03-21	63	69	40	65.3	153	225	1.5	900	92	A
4RRE25 225/63R	B28-A0	73	99	63	90	159	225	1.5	900	92	B
4RRE25 250/56R	Z19-02	73	102	56	84.3	172	252	1.5	900	92	B
4RRE35 280/80R	Z19-03	83	125	80	111.4	191	281	1.5	900	92	B
4RRE45 315/71R	T11-04	96	122.5	71	96	201	315	1.5	900	92	B
4RRE45 315/101R	T11-05	96	152.5	101	127	201	315	1.5	900	92	B

Performance Characteristics (50hz)

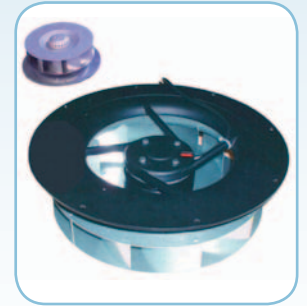


Reference	Code	Curve	Voltage V	Frequency Hz	Input power Wa	Current A	Capacitor µF	Flow rate m³/h	Speed /min	Sound level dBA	Weight kg	Max air temp °C
2RREA3 133/42R	D04-04	1	230	50/60	23	0.11	1	315	2695	53	1.0	70
2RREA3 180/35R	D04-A6	2	230	50/60	39	0.18	1.5	490	2440	58	1.0	70
2RRE15 192/40R	B47-A1	3	230	50/60	62	0.29	2	590	2500	59	1.3	70
2RRE15 220/45R	D05-A4	4	230	50/60	91	0.40	2	920	2400	62	1.6	60
2RRE20 220/45R	C43-A5	5	230	50/60	91	0.40	3	935	2410	63	1.7	70
2RRE35 225/63R	B28-A1	6	230	50/60	158	0.69	4	1280	2535	70	2.4	70
2RRE45 250/56R	H06-17	7	230	50/60	190	0.83	6	1540	2700	74	3.4	60
2RRE45 280/40R	Z19-07	8	230	50/60	206	0.99	8	1720	2715	76	3.6	50
4RRE15 192/40R	B47-A2	9	230	50/60	32	0.15	1.5	315	1405	48	1.2	70
4RRE15 225/40R	M03-21	10	230	50/60	38	0.17	2	515	1390	58	1.4	50
4RRE25 225/63R	B28-A0	11	230	50/60	50	0.23	1.5	740	1400	56	2.0	70
4RRE25 250/56R	Z19-02	12	230	50/60	47	0.21	1.5	870	1395	60	2.6	70
4RRE35 280/80R	Z19-03	13	230	50/60	86	0.41	2.5	1410	1365	61	2.9	60
4RRE45 315/71R	T11-04	14	230	50/60	107	0.53	4	1450	1415	63	3.8	60
4RRE45 315/101R	T11-05	15	230	50/60	119	0.58	4	1845	1375	62	3.9	70

Reversed Backward Curved Motorised Impeller

230V 1Phase 50/60Hz - 2 pole motor speeds

This unique ECOFIT product is designed to save assembly time and to achieve the ideal running clearance between impeller and inlet ring. The technique is to utilise the inlet ring as a mounting plate with integrated support arms for the motor. By reverse-mounting the impeller on the motor, air is drawn over the motor back-plate and into the equipment.

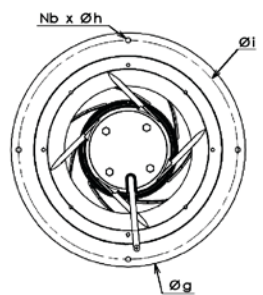
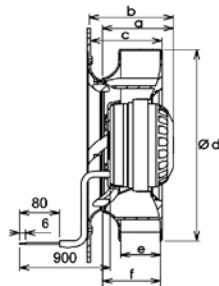
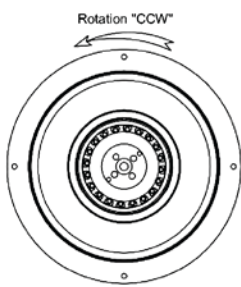


A typical application would be in electrical enclosure ventilation with the fan mounted on the side or top of the unit. This innovative assembly provides an easy method of ventilating an electrical enclosure, control panel, or heat sink housing, especially where there is high resistance to air flow.

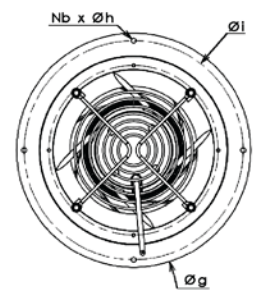
There are two versions: Type 1 has an open inlet
Type 2 has an inlet finger guard

Standard Specification

Motor type	2 pole permanent capacitor motors	Motor protection	Single-phase motors are thermally protected with automatic re-start
Bearing system	Ball bearing	Protection class	IP44
Impeller material	Galvanised or plastic	Relative humidity	80% max
Balancing grade	VDE2060 G 2.5 standard	Lifetime	L10 40,000 hours 40°C and 25%RH
Motor insulation	Class "F"	Approvals	CE



Without finger guard (TYPE 1)

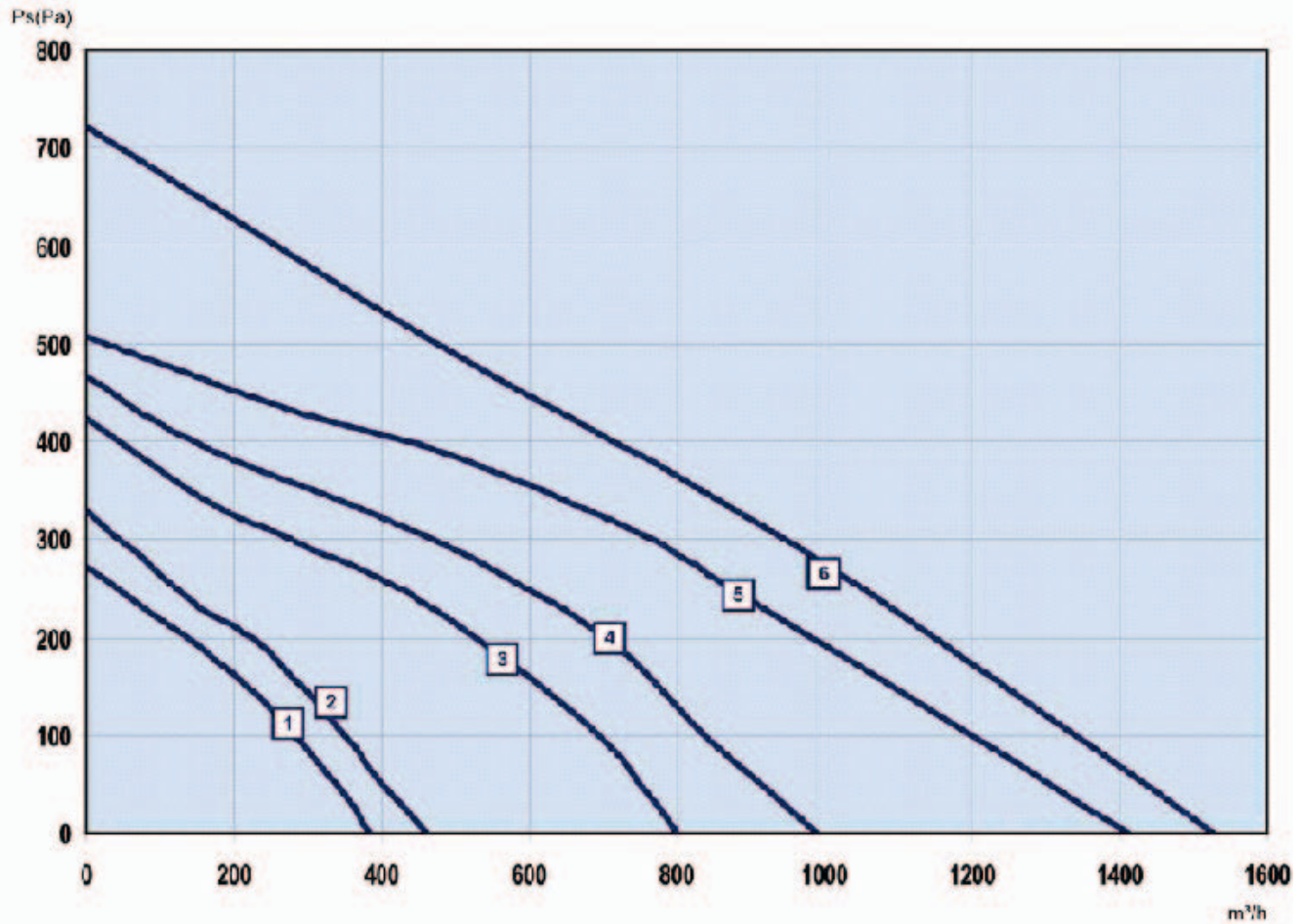


With finger guard (Type 2)

All measurements in mm

Reference	Type 1	Type 2	a	b	c	D	e	f	g	h	i	Nb
2RRE15 180/35R (Rev)	C36-A2	C41-A3	63	83.5	67	180	35	49	235	4.5	220	4
2RRE15 192/40R (Rev)	C36-A3	C41-A4	63	83.5	72	192	40	60	235	4.5	220	4
2RRE25 220/45R (Rev)	C36-A4	C41-A5	73	99.4	77.4	220	45	52.4	260	5	252	4
2RRE35 225/63R (Rev)	C36-A5	C41-A6	83	109.4	106	225	63	90	260	5	252	4
2RRE45 250/56R (Rev)	C36-A6	C41-A7	96	115	100	252	58	85.3	320	6.5	305	8
2RRE45 280/40R (Rev)	C36-A7	C41-A8	96	115	85.4	281	40	71.4	320	6.5	305	8

Performance Characteristics (50hz)



Reference	Type 1	Type 2	No.	Voltage V	Frequency Hz	Input power Wa	Current A	Capacitor µF	Flow rate m³/h	Speed /min	Sound level dBA	Weight kg	Max air temp °C
2RRE15 180/35R (Rev)	C36-A2	C41-A3	1	230	50/60	44	0.20	1.5	385	2540	62	1.5	70
2RRE15 192/40R (Rev)	C36-A3	C41-A4	2	230	50/60	55	0.24	2	460	2405	65	1.6	70
2RRE25 220/45R (Rev)	C36-A4	C41-A5	3	230	50/60	97	0.45	3	800	2615	69	2.4	70
2RRE35 225/63R (Rev)	C36-A5	C41-A6	4	230	50/60	153	0.67	3.5	990	2510	71	2.5	70
2RRE45 250/56R (Rev)	C36-A6	C41-A7	5	230	50/60	219	0.97	6	1410	2570	77	3.5	70
2RRE45 280/40R (Rev)	C36-A7	C41-A8	6	230	50/60	211	0.92	7	1525	2675	77	4.5	60

Axial Fans

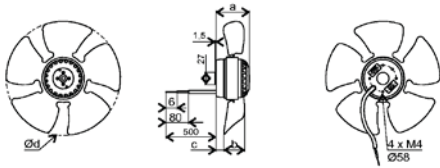
- 230V 1Phase 50/60Hz
- 4 pole motor speeds
- Choice of mounting arrangements
- Black painted motor, impeller, guards & rings
- Choice of airflow directions



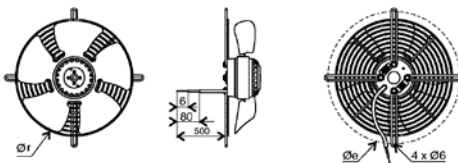
Standard Specification

Motor type	2 pole permanent capacitor	Protection class	IP44
Motor protection	Thermally protected with automatic re-start	Relative humidity	80% max
Bearing system	Ball bearing	Lifetime	L10 40,000 hours 40°C and 25%RH
Blade material	Galvanised or plastic	Approvals	CE
Balancing grade	VDE2060 G 2.5 standard	Motor insulation	Class "F"

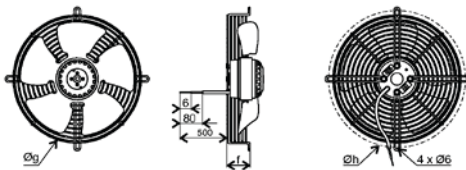
All measurements in mm



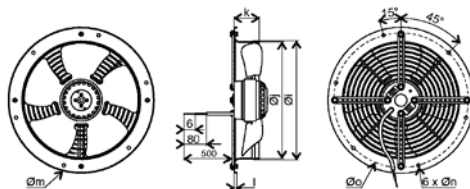
Reference	Airflow A	Airflow V	a	b	c	d
2VRE15 170 (A or V)	B22-B0	B22-B1	63	38	13/10	169
2VRE15 200 (A or V)	B22-B2	B22-B3	63	39	15	196
2VRE25 250 (A or V)	B22-B4	B22-B5	73	42	25/20	250
2VRE45 300 (A or V)	B22-B6	B22-B7	96	45	27.5	300



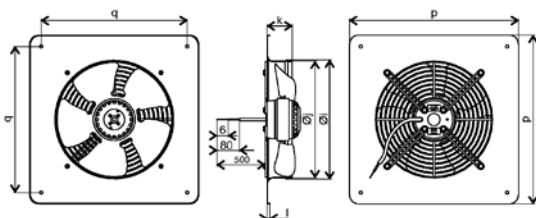
Reference	Airflow A	Airflow V	Øe	Ør
2VGR15 200 (A or V)	B22-D0	B22-D4	245	207
2VGR25 250 (A or V)	B22-D8	B22-E2	290	259
2VGR45 300 (A or V)	B22-E6	B22-F0	376	337



Reference	Airflow A	Airflow V	f	g	h
2VPR15 200 (A or V)	B22-D1	B22-D5	51	217	260
2VPR25 250 (A or V)	B22-D9	B22-E3	51	277	300
2VPR45 300 (A or V)	B22-E7	B22-F1	55	317	360

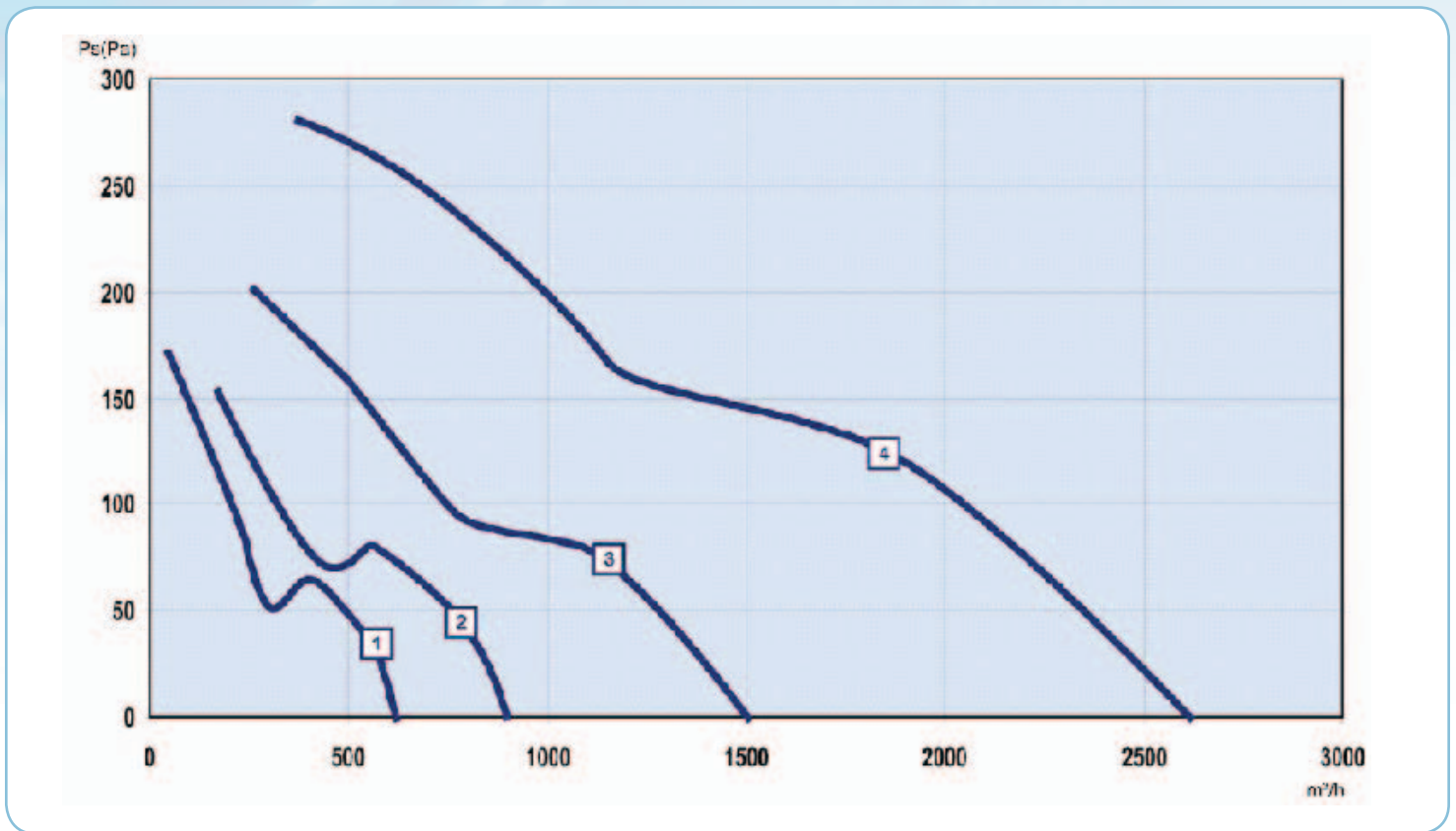


Reference	Airflow A	Airflow V	Øi	Øj	k	l	Øm	Øn	Øo
2VGV15 200 (A or V)	B22-D2	B22-D6	203	200	52	6	280	7	250
2VGV25 250 (A or V)	B22-E0	B22-E4	257	254	55	6	320	7	295
2VGV45 300 (A or V)	B22-E8	B22-F2	314	305	82	11	397	9	380



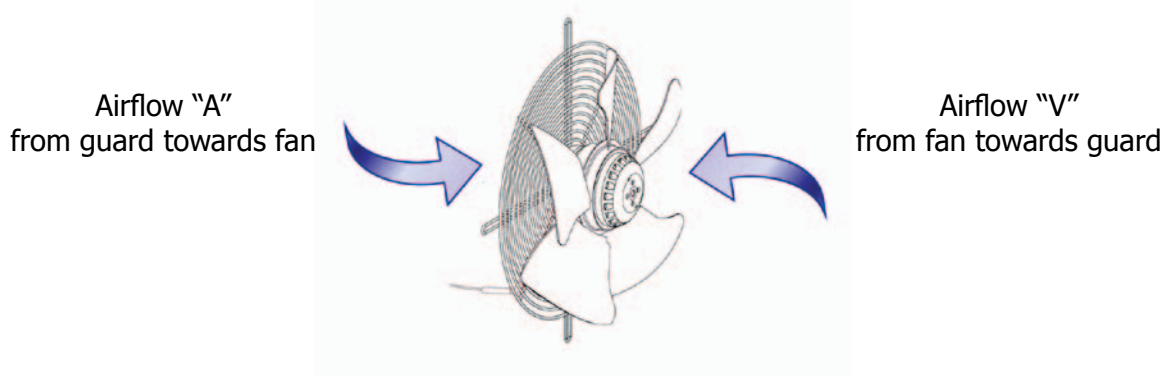
Reference	Airflow A	Airflow V	Øi	Øj	k	l	p	q
2VGC15 200 (A or V)	B22-D3	B22-D7	203	200	52	6	312	260
2VGC25 250 (A or V)	B22-E1	B22-E5	257	254	55	6	370	320
2VGC45 300 (A or V)	B22-E9	B22-F3	314	305	82	11	430	380

Performance Characteristics (50hz)



Reference	Curve No	Voltage V	Frequency Hz	Input power Wa	Current A	Capacitor μ F	Flow rate m ³ /h	Speed /min	Sound level dBA	Weight kg	Max air temp °C
2V..15 170 (A or V)	1	230	50/60	58	0.26	2	615	2660	61	1.4	70
2V..15 200 (A or V)	2	230	50/60	68	0.30	2	895	2480	63	1.4 to 2.6	70
2V..25 250 (A or V)	3	230	50/60	106	0.47	4	1510	2750	67	1.9 to 3.7	70
2V..45 300 (A or V)	4	230	50/60	180	0.79	6	2610	2700	73	2.9 to 5.6	70

Airflow Direction



Rotation direction :

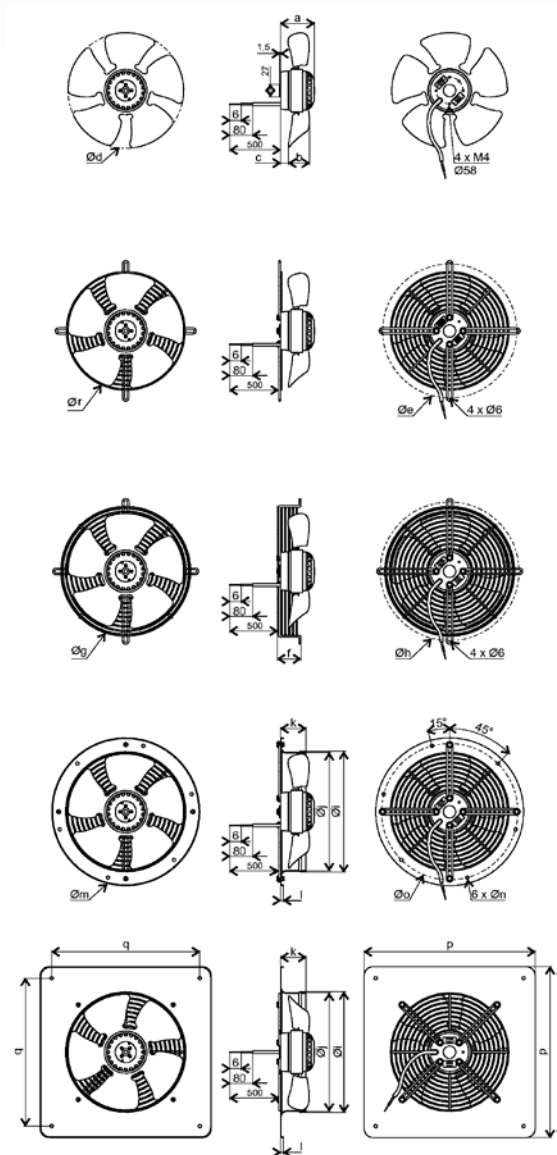
Rotation direction varies between references. Please ask for an individual datasheet for more information.

Axial Fans

- 230V 1Phase 50/60Hz
- 2 pole motor speeds
- Choice of mounting arrangements
- Black painted motor, impeller, guards & rings
- Choice of airflow directions



All measurements in mm



Reference	Airflow A	Airflow V	a	b	c	d
4VRE15 170 (A or V)	B22-B8	B22-B9	63	38	13/10	169
4VRE15 200 (A or V)	B22-C0	B22-C1	63	39	15	199
4VRE25 250 (A or V)	B22-C2	B22-C3	73	63	16/4	250
4VRE35 300 (A or V)	B22-C4	B22-C5	83	66	16/13	300
4VRE45 350 (A or V)	B22-C6	B22-C7	96	64	18	353
4VRE45 400 (A or V)	B22-C8	B22-C9	96	60	18	396

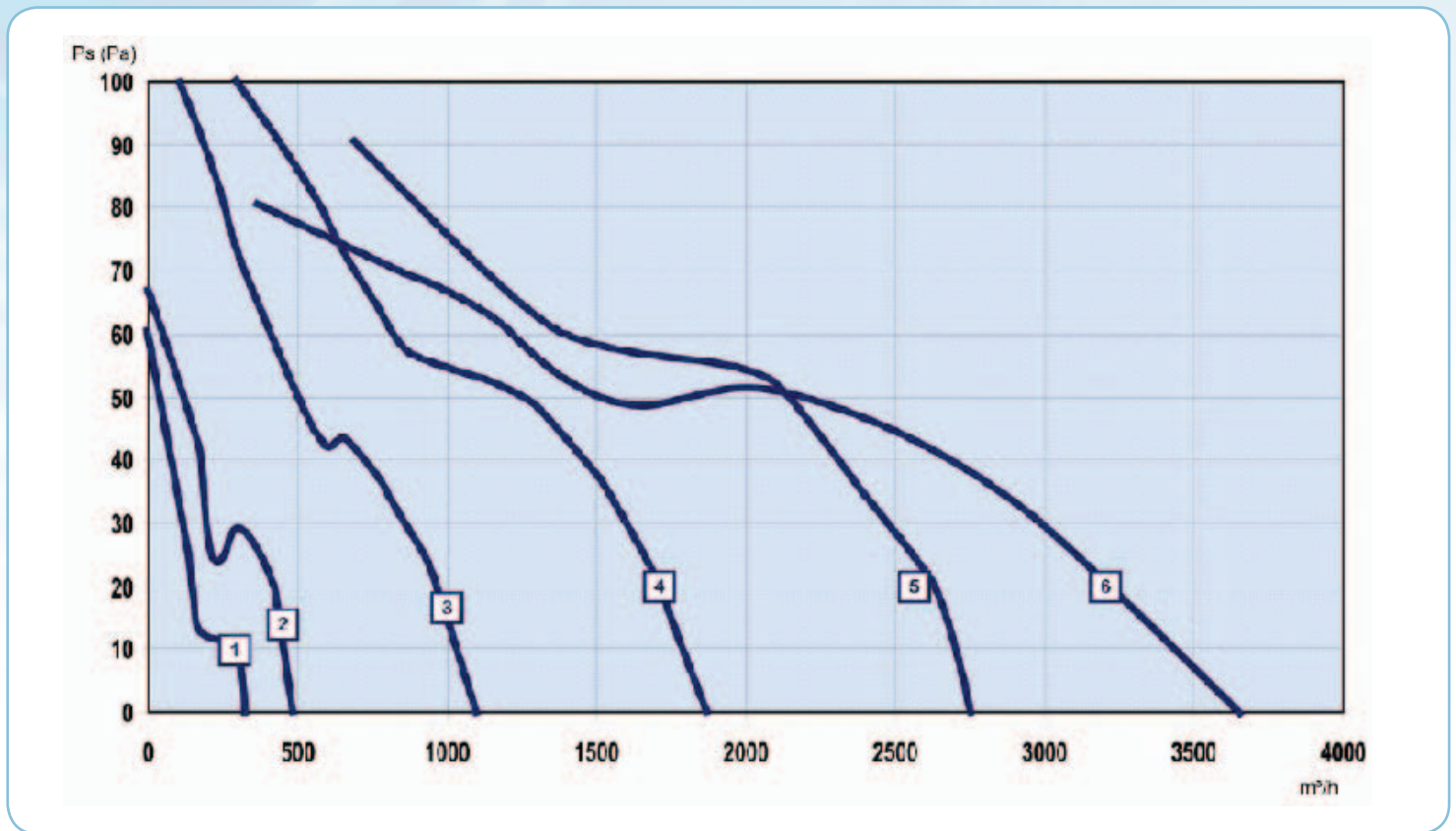
Reference	Airflow A	Airflow V	Øe	Ør
4VGR15 200 (A or V)	B22-F4	B22-F8	245	207
4VGR25 250 (A or V)	B22-G2	B22-G6	290	259
4VGR45 300 (A or V)	B22-H0	B22-H4	376	337
4VGR45 350 (A or V)	B22-H8	B22-I2	422	383
4VGR45 400 (A or V)	B22-I6	B22-J0	502	417

Reference	Airflow A	Airflow V	f	g	h
4VPR15 200 (A or V)	B22-F5	B22-F9	51	217	260
4VPR25 250 (A or V)	B22-G3	B22-G7	51	277	300
4VPR45 300 (A or V)	B22-H1	B22-H5	55	317	360
4VPR45 350 (A or V)	B22-H9	B22-I3	55	377	422
4VPR45 400 (A or V)	B22-I7	B22-J1	55	437	483

Reference	Airflow A	Airflow V	Øi	Øj	k	l	Øm	Øn	Øo
4VGV15 200 (A or V)	B22-F6	B22-G0	203	200	52	6	280	7	250
4VGV25 250 (A or V)	B22-G4	B22-G8	257	254	55	6	320	7	295
4VGV45 300 (A or V)	B22-H2	B22-H6	314	305	82	11	397	9	380
4VGV45 350 (A or V)	B22-I0	B22-I4	367	358	86	12	460	9	442
4VGV45 400 (A or V)	B22-I8	B22-J2	412	403	100	12	528	9	504

Reference	Airflow A	Airflow V	Øi	Øj	k	l	p	q
4VGC15 200 (A or V)	B22-F7	B22-G1	203	200	52	6	312	260
4VGC25 250 (A or V)	B22-G5	B22-G9	257	254	55	6	370	320
4VGC45 300 (A or V)	B22-H3	B22-H7	314	305	82	11	430	380
4VGC45 350 (A or V)	B22-I1	B22-I5	367	358	86	12	485	435
4VGC45 400 (A or V)	B22-I9	B22-J3	412	403	100	12	540	490

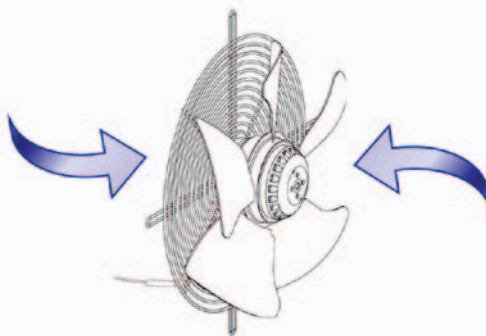
Performance Characteristics (50hz)



Reference	Curve No	Voltage V	Frequency Hz	Input power Wa	Current A	Capacitor μ F	Flow rate m ³ /h	Speed /min	Sound level dBA	Weight kg	Max air temp °C
4V..15 170 (A or V)	1	230	50/60	34	0.15	1.45	320	1415	47	1.4	70
4V..15 200 (A or V)	2	230	50/60	31	0.14	1.5	490	1380	50	1.4 to 2.6	70
4V..25 250 (A or V)	3	230	50/60	59	0.26	2	1095	1390	55	1.9 to 3.7	60
4V..45 300 (A or V)	4	230	50/60	88	0.41	3	1870	1320	61	2.5 to 5.2	60
4V..45 350 (A or V)	5	230	50/60	132	0.58	4	2750	1275	64	3.3 to 6.6	50
4V..45 400 (A or V)	6	230	50/60	151	0.66	4	3650	1165	69	3.4 to 7.6	50

Aiflow Direction

Airflow "A"
from guard towards fan



Airflow "V"
from fan towards guard

Rotation direction :

Rotation direction varies between references. Please ask for an individual datasheet for more information.

Frame Axial Fans

The COSTECH range of frame axial fans is made to international standard dimensions and approvals. Designed for use on single phase electrical supply the smallest model is 60mm square for 230V (not tabulated).

The products listed below are 230V selections, but 115V and 24Vac versions are also available.

A wide range of dc fans for 5V, 12V, 24V and 48V supply can be supplied according to model, smallest product being 20mm square.

Special products are made in IP55 (dust and hosed water protection), and special applications such as elevated temperature, railway, military, and aerospace duty.

Lifetime: Varies between 15000 and 70000 hours L10, depending on electrical supply, ambient temperature, relative humidity, bearing system, mounting position etc.

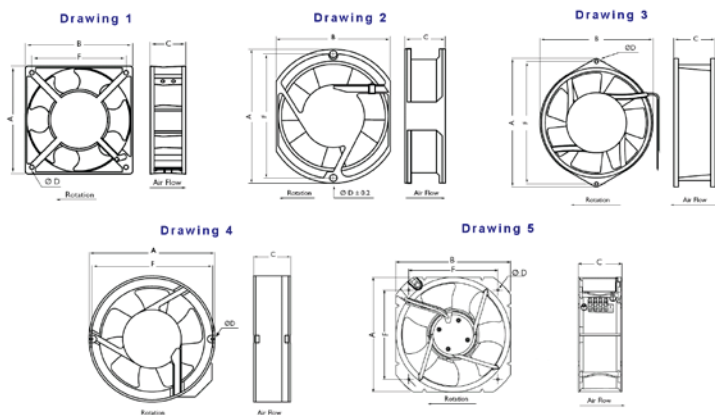


Selected from the products of world class fan manufacturers, COSTECH provides a vast range of small, general purpose equipment fans and accessories, matching applications as diverse as electronic cooling and special effects.

Standard Specification

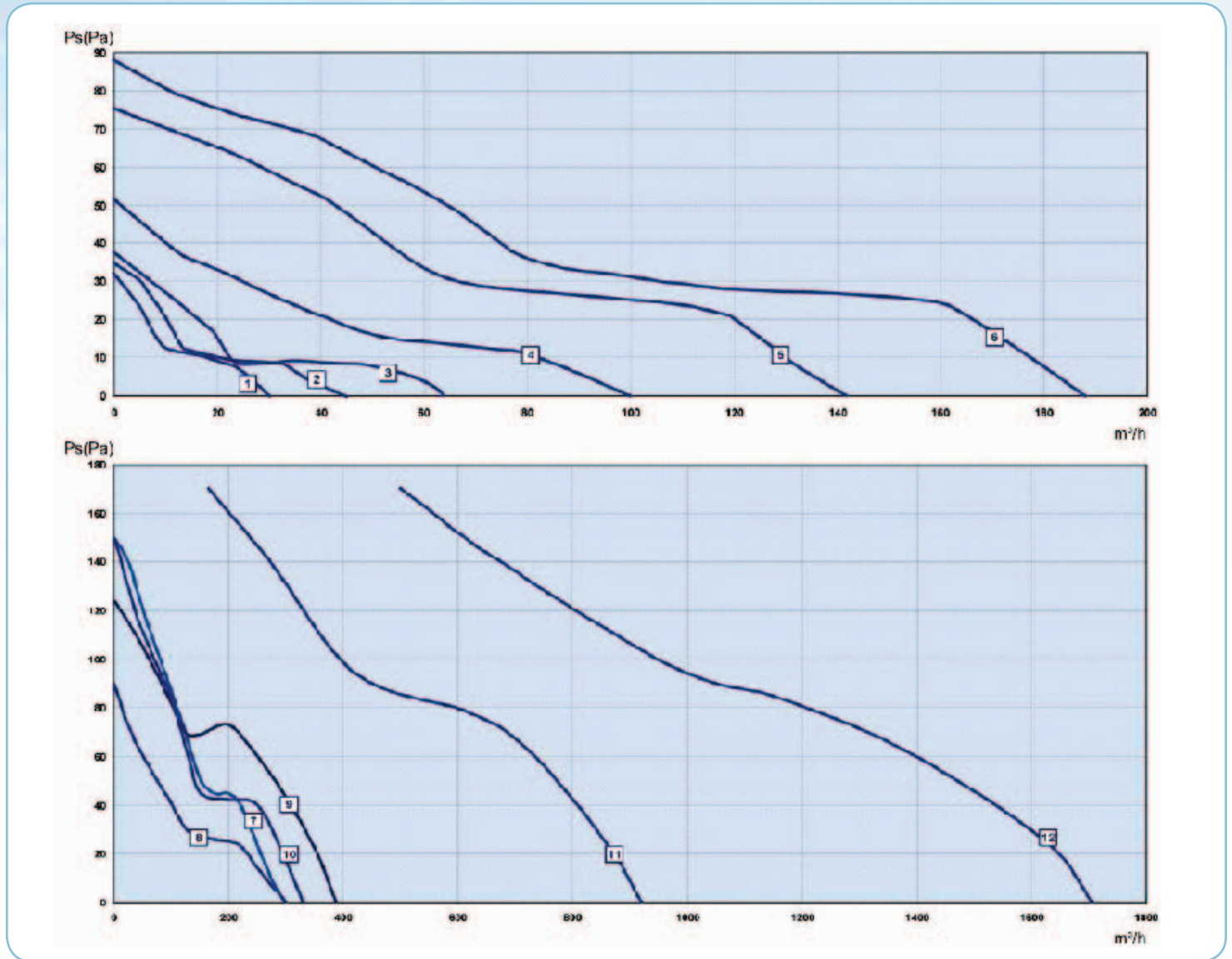
Motor type	Shaded pole motors (A series) Capacitor run (C series)	Motor protection	Capacitor run : thermally protected Shaded pole : Impedance protected
Bearing system	Ball bearing	Protection degree	IP20 or IP44
Blade material	Plastic or metal	Casing Material	Aluminium
Approvals	CE, UL, CUL, VDE, CSA (depending on model)	Lifetime	L10 at 40°C and 25 R.H., is 40,000 hours minimum

All measurements in mm



Reference	Drawing	a	b	c	d	f
A08 A23 HWB F00	1	80	80	25	4.2	71.5
A08 B23 HWB F00	1	80	80	38	4.2	71.5
A09 B23 HWB Y00	1	92	92	38	4.3	82.5
A12 A23 HTB F00	1	120	120	25	4.2	104.8
A12 B23 HTB W00	1	119	119	38	4.3	105
A13 B23 HTB Y00	1	127	127	38	4.6	113.3
C17 B23 HTB F00	2	172	150	38	4.5	162
C17 C23 HTB F00	2	172	150	51	4.5	162
A17 C23 HWB P00	2	172	150	51	4.5	162
A17 T23 SWB M00	3	172	150	55	4.2	162
C18 C23 HTB F00	4	Ø172		51	4.5	162
C22 S23 HKB E00	5	218	218	83	4.5	170
2VGC25 250V - D27-A0	5	280	280	80	5.4	

Performance Characteristics (50hz)



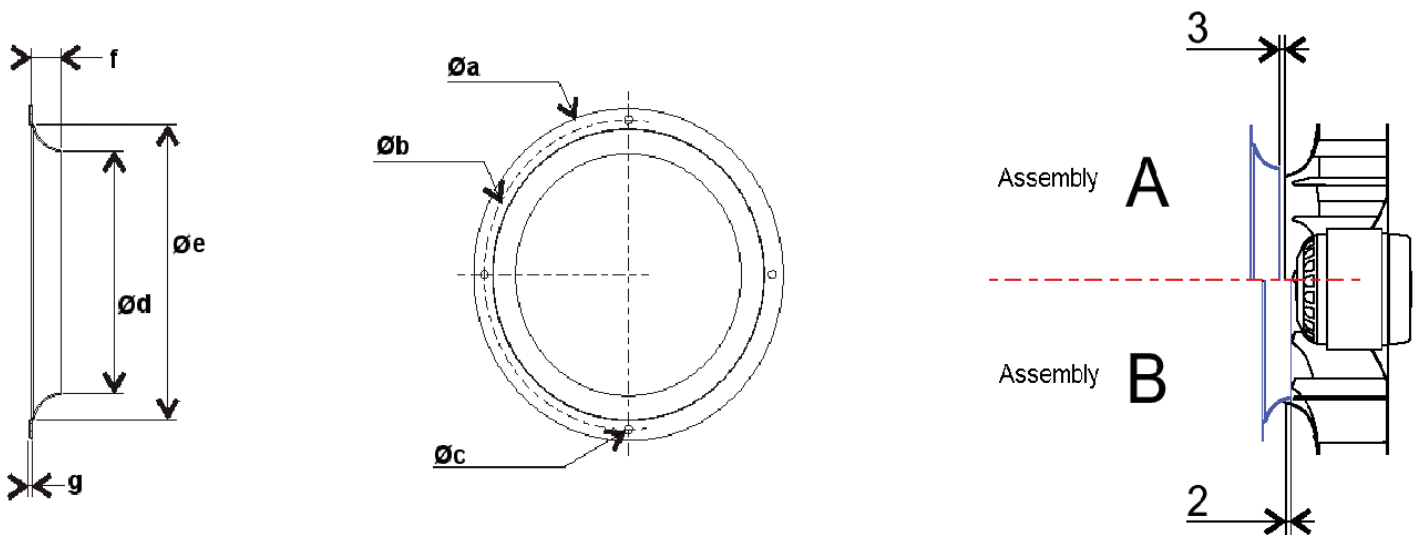
Reference	Curve No	Voltage V	Frequency Hz	Input power Wa	Flow rate m³/h	Max pressure Pa	Speed /min	Sound level dBA	Connection	Temperature range
A08 A23 HWB F00	1	230	50/60	16	30	32	2400	32	Lead wires	-40°C to +70°C
A08 B23 HWB F00	2	230	50/60	14	40	35	2500	33	Lead wires	-40°C to +70°C
A09 B23 HWB Y00	3	230	50/60	9	64	37	2400	33	Lead wires	-40°C to +70°C
A12 A23 HTB F00	4	230	50/60	16	100	52	2200	38	Terminal	-40°C to +70°C
A12 B23 HTB W00	5	230	50/60	18	144	62	2550	40.5	Terminal	-40°C to +70°C
A13 B23 HTB Y00	6	230	50/60	23	188	88	2700	43	Terminal	-40°C to +70°C
C17 B23 HTB F00	7	230	50/60	27	300	150	2800	52	Terminal	-40°C to +70°C
A17 C23 HWB P00	8	230	50/60	37	300	90	2500	51	Lead wires	-40°C to +70°C
A17 T23 SWB M00	9	230	50/60	45	388	124	2750	58	Lead wires	-40°C to +70°C
C18 C23 HTB F00	10	230	50/60	29	330	150	2800	50	Terminal	-40°C to +70°C
C22 S23 HKB E00	11	230	50/60	67	812	224	2770	63	Connector block	-20°C to +70°C
2VGC25 250V D27-A0	12	230	50/60	114	1705	170	2735	67	Connector block	-20°C to +70°C

110 Volt versions available from stock

Accessories

Inlet Rings

Reference	Code	Inlet Ring	Assembly	a	b	c	d	e	f	g
2RREA3 133/42R	D04-04	16203	TBC	129	118	4xØ5	88	TBC	8	1
2RREA3 180/35R	D04-A6	16043-a	A	206	192	4xØ5	128	154	13	0.8
2RRE15 192/40R	B47-A1	16043-a	A	206	192	4xØ5	128	154	13	0.8
2RRE15 220/45R	D05-A4	16133-a	B	206	192	4xØ5	150	183	20	1
2RRE20 220/45R	C43-A5	16133-a	B	206	192	4xØ5	150	183	20	1
2RRE35 225/63R	B28-A1	16133-a	B	206	192	4xØ5	150	183	20	1
2RRE45 250/56R	H06-17	16114-0	B	255	238	6xØ4.5	164.5	201	31	1
2RRE45 280/40R	Z19-07	16178	B	320	305	4xØ5	182	206	12	1.5
4RRE15 192/40R	B47-A2	16043-a	A	206	192	4xØ5	128	154	13	0.8
4RRE15 225/40R	M03-21	16133-a	A	206	192	4xØ5	150	183	20	1
4RRE25 225/63R	B28-A0	16133-a	B	206	192	4xØ5	150	183	20	1
4RRE25 250/56R	Z19-02	16114-0	B	255	238	6xØ4.5	164.5	201	31	1
4RRE35 280/80R	Z19-03	16178-0	B	320	305	4xØ5	182	206	12	1.5
4RRE45 315/71R	T11-04	PAF 0004	B	360			193	322	63	1.5
4RRE45 315/101R	T11-05	PAF 0004	B	360			193	322	63	1.5

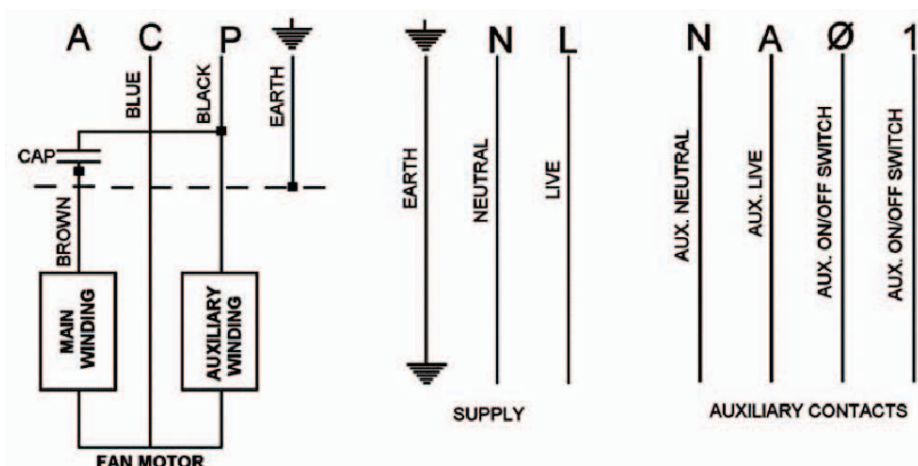


Speed Controllers

Suitable for external rotor motors featured in this catalogue (except COSTECH frame axial fans)
 2 models are available, RE1-C (230V / 1amp) and RE3-C (230V / 3amp)

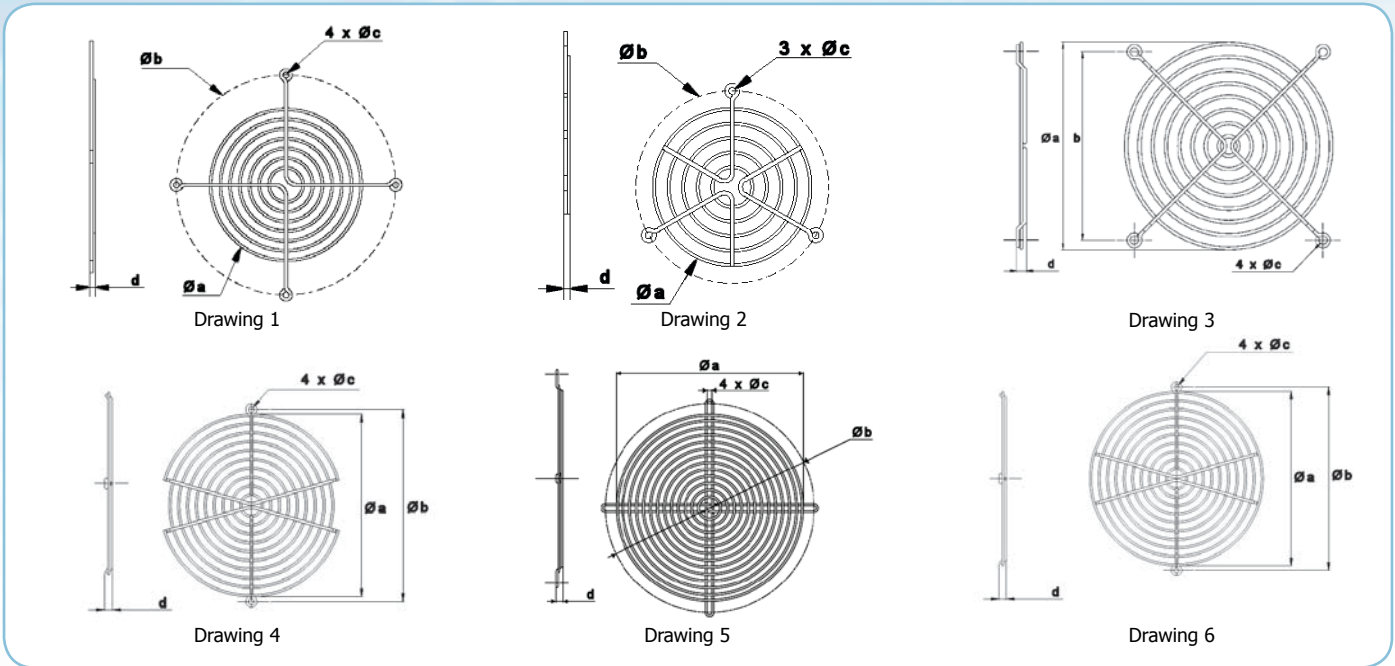
Motor warranty is only valid if the fan is driven by a controller that is approved by Axair Fans UK Ltd

Speed controller wiring diagram :



Accessories

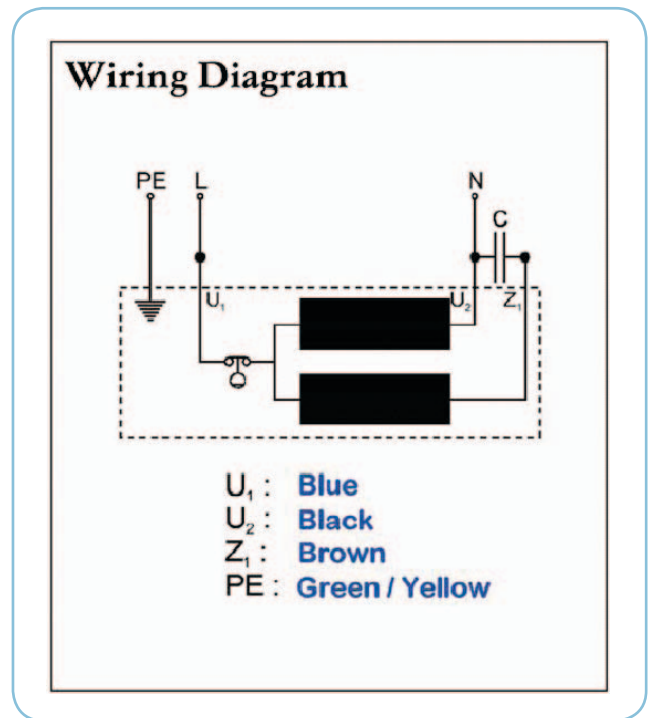
Metal Finger Guards



Reference	Guard	Drawing	a	b	c	d
2GREA3 108/52R	D25-A4	N/A				
2GREA3 120/62R	D25-A5	21236-a	2	Ø119	Ø144	5 5.2
2GRE15 140/59R	N05-48	21236-a	2	Ø119	Ø144	5 5.2
2GRE25 140/59R	Z10-15	21325-0	2	Ø134	Ø192	5 5.2
2GRE35.160/62R	N05-56	21325-0	2	Ø134	Ø192	5 5.2
2GRE45 160/62R	N05-58	21291-0	2	Ø141	Ø192	5 18.8
4GRE25 160/62R	N05-62	21325-0	2	Ø134	Ø192	5 5.2
4GRE35 180/75R	Y41-08	21194-a	1	Ø150.5	Ø192	5 5.2
4GRE45 200/75R	N05-35	21196-a	2	Ø184	Ø216	5 5.2
2GDS15 120/126L	Z18-16	21237-a	2	Ø96	Ø134	5 5.2
2GDS25 133/190R	Z18-17	21236-a	2	Ø119	Ø144	5 5.2
2GDS35 133/190L	Z18-18	21338-0	2	Ø119	Ø192	5 5.2
2GDR45 146/180L	N11-02	21197-a	1	Ø119	Ø161	5 5.2
4GDS20 133/190LR	Z18-20	21236-a	2	Ø119	Ø144	5 5.2
4GDS25 133/190L	Z18-21	21338-0	2	Ø119	Ø192	5 5.2
4GDS25 146/180L	Z18-22	21338-0	2	Ø119	Ø192	5 5.2
4GDS25 146/216L	Z18-23	21338-0	2	Ø119	Ø192	5 5.2
4GDS35 160/160L	Z18-24	21325-0	2	Ø134	Ø192	5 5.2
4GDF65 180/180L	R10-05	21291-0	2	Ø141	Ø192	5 18.8
4GDF65 200/200L	R10-10	N/A				
2GDF65 146/180L	Z18-26	21290-b	2	Ø139.4	Ø161	5 14.8
2GDF55 160/160L	R10-12	21291-0	2	Ø141	Ø192	5 18.8
2RREA3 133/42R	D04-04	MFG 192				
2RREA3 180/35R	D04-A6	MFG 192	1	Ø178	Ø192	5 9.8
2RRE15 192/40R	B47-A1	MFG 192	1	Ø178	Ø192	5 9.8
2RRE15 220/45R	D05-A4	MFG 192	1	Ø178	Ø192	5 9.8
2RRE20 220/45R	C43-A5	MFG 192	1	Ø178	Ø192	5 9.8
2RRE35 225/63R	B28-A1	MFG 192	1	Ø178	Ø192	5 9.8
2RRE45 250/56R	H06-17	MFG 200	5	Ø215	Ø240	10 8.7
2RRE45 280/40R	Z19-07	MFG 200	5	Ø215	Ø240	10 8.7
4RRE15 192/40R	B47-A2	MFG 192	1	Ø178	Ø192	5 9.8
4RRE15 225/40R	M03-21	MFG 192	1	Ø178	Ø192	5 9.8
4RRE25 225/63R	B28-A0	MFG 192	1	Ø178	Ø192	5 9.8
4RRE25 250/56R	Z19-02	MFG 200	5	Ø215	Ø240	5.4 8.7
4RRE35 280/80R	Z19-03	MFG 200	5	Ø215	Ø240	5.4 8.7
4RRE45 315/71R	T11-04	N/A				
4RRE45 315/101R	T11-05	N/A				

Reference	Guard	Dr	a	b	c	d
2RRE15 180/35R (Rev)	C36-A2	MFG150S	4	Ø154.4	162	4.8 6.5
2RRE15 192/40R (Rev)	C36-A3	MFG150S	4	Ø154.4	162	4.8 6.5
2RRE25 220/45R (Rev)	C36-A4	MFG 192	1	Ø178	Ø192	5 9.8
2RRE35 225/63R (Rev)	C36-A5	MFG 192	1	Ø178	Ø192	5 9.8
2RRE45 250/56R (Rev)	C36-A6	MFG 200	5	Ø215	Ø240	5.4 8.7
2RRE45 280/40R (Rev)	C36-A7	MFG 200	5	Ø215	Ø240	5.4 8.7

Reference	Guard	Dr	a	b	c	d
A08 A23 HWB F00	MFG 80	3	Ø76.2	71.5	4.6	4.9
A08 B23 HWB F00	MFG 80	3	Ø76.2	71.5	4.6	4.9
A09 B23 HWB Y00	MFG 92	3	Ø89.5	82.5	4.6	4.9
A12 A23 HTB F00	MFG120	3	Ø115.6	104.8	4.6	5.7
A12 B23 HTB W00	MFG 120	3	Ø115.6	104.8	4.6	5.7
A13 B23 HTB Y00	MFG 127	3	Ø115.6	113.3	4.6	5.7
C17 B23 HTB F00	MFG 150S	4	Ø154.4	162	4.8	6.5
C17 C23 HTB F00	MFG 150S	4	Ø154.4	162	4.8	6.5
A17 C23 HWB P00	MFG150S	4	Ø154.4	162	4.8	6.5
A17 T23 SWB M00	MFG 150	6	Ø154.4	162	4.8	6.5
C18 C23 HWB F00	MFG 150	7	Ø154.5	162	4.8	6.5
C22 S23 HKB E00	MFG 200	5	Ø215	Ø240	5.4	8.7
2VGC25 250V (D27-A0)	N/A					





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