This Fan! 11th Edition

"Each new product we develop has to be better than the last one in terms of economy and ecology." *The words of our co-founder Gerhard Sturm*

ebmpapst The engineer's choice.

AUSTRALIA Ph: +61 1800 764 440 or +61 3 9360 6400 www.ebmpapst.com.au NEW ZEALAND Ph: +64 9 837 1884 www.ebmpapst.co.nz

Sustainability is at the Centre of Our Thoughts and Actions. Out of Conviction!

Eco-friendliness and sustainability have always been at the core of our thoughts and actions. For decades, we have worked according to the simple but strict creed of our co-founder Gerhard Sturm: "Each new product we develop has to be better than the last one in terms of economy and ecology." GreenTech is the ultimate expression of our corporate philosophy.

GreenTech is pro-active development.

Even in the design phase, the materials and processes we use are optimised for the greatest possible eco-friendliness, energy balance and – wherever possible – recyclability. We continually improve the material and performance of our products, as well as the flow and noise characteristics. At the same time, we significantly reduce energy consumption. Close cooperation with universities and scientific institutes and the professorship we endow in the area of power engineering and regenerative energies allows us to profit from the latest research findings in these fields – and at the same time ensure highly qualified young academics.

GreenTech is ecofriendly production.

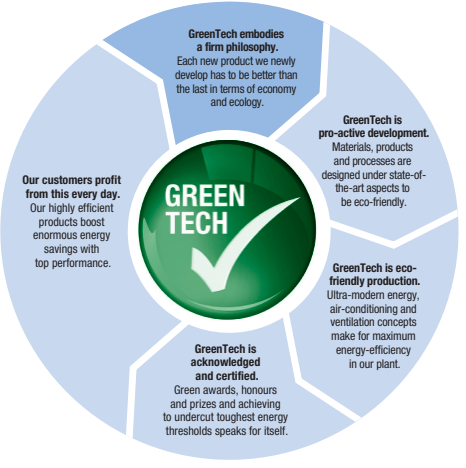
GreenTech also stands for maximum energy efficiency in our production processes. There, the intelligent use of industrial waste heat and groundwater cooling, photovoltaics and, of course, our own cooling and ventilation technology are of the utmost importance. Our most modern plant, for instance, consumes 91% less energy than currently specified and required. In this way, our products contribute to protecting the environment, from their origin to their recyclable packaging.

GreenTech is acknowledged and certified.

Every step in our chain of production meets the stringent standards of environmental specialists and the public. The 2008 Environmental Prize of Baden-Wuerttemberg, the Green Award 2009, the Energy Efficiency Award 2009 – to give just a few examples – testify to this. The environmental advantage gained in the performance of the products developed from our GreenTech philosophy can also be measured in the fulfillment of the most stringent energy and environmental standards. In many instances, our products are already well below the thresholds energy legislation will impose a few years from now – several times over.

Our customers profit from this every day.

The heart of GreenTech is ebm-papst EC technology. The EC technology at the core of our most efficient motors and fans allows efficiency of up to 90%, saves energy at a very high level, significantly extends service life and makes our products maintenance-free. These values pay off not only for the environment, but also every dollar works towards the end user! All ebm-papst products – even those for which EC technology does not (yet) make sense from an application viewpoint – feature the greatest possible connection of economy and ecology.



In this catalogue we have identified all the high efficiency alternatives EC products with a green line and logo. These can be used to lower power consumption.

Certified System
Quality
ISO 9001
SAI GLOBAL

GREEN TECH

Environmental Management
ISO 14001

The world is changing…

Today, yesterdays solutions are not acceptable.

Tomorrow, yesterdays solutions will not be allowed.

Today ebm-papst is designing and producing highest efficiency "EC" products to meet tomorrows needs.

Today most ebm-papst 'Standard efficiency' products are available in "HIGH EFFICIENCY – EC" to meet tomorrows demands.

This catalogue identifies each EC product with the Green Tech roundel.

Take the opportunity to offer your customer tomorrows benefits today…

This Fan!

ebmpapst

This is a short form catalogue directed at the replacement market, and therefore is intentionally brief.

Local Product

ebm-papst stocks many thousands of different fans and motors in Australia and New Zealand for the local market, this catalogue covers the products typically used in Australia and New Zealand.

Imported Product

There are however overseas manufacturers products imported into Australia & New Zealand using our fans and motors, which we may not stock locally. Usually a locally stocked fan or motor will satisfactorily replace the original. As many products operate on unusual power supply, when replacing components of imported product it is very important to check operating voltage and frequency, also air flow direction.

Product Identification

Identification information is on all fans when leaving the factory; correct identification will make replacement an easy exercise – see pages 2 to 9 for more identification information.

Warranty

All ebm-papst products carry 2 years warranty from date of purchase subject to correct use and application. Specific warranty details are available on request.

Availability

To locate your nearest wholesaler contact ebm-papst on 1800 764 440 in Australia or (09) 837 1884 in New Zealand or check our web site www.ebmpapst.com.au

Disclaimer

Whilst every care has been taken in compilation of this catalogue ebm-papst Australia and New Zealand Pty Ltd take no responsibility for any errors or inaccuracies.

Sound Data

For the purpose of this catalogue, all sound data has been corrected to approximate sound pressure (dBA) at 1 metre measured on the inlet side of the fan at zero Pa except where stated sound power – see note (3) under each technical table.

Index

ebmpapst

Certified System

Quality
ISO 9001
SAI GLOBAL

GREEN TECH

What fan is that? (Helpful hints for fan identification)

ebmpapst

1. What style of impeller does it have?

Looks like a propeller	Axial **(A)**
Looks like a rotating drum	Centrifugal or radial
Blades look like a venetian blind	Forward curve **(B)**
Blades look like they are running backwards	Backward curve **(C)**


A.


B.


C.

2. What is the diameter?

Axial

Up to 1250mm

Radial

Up to 630mm

3. How many blades?

Axial

Straight blades (typically 5)	'A' Blades **(D)**
Sickle shaped blades (5, 7 or 9)	'S' Blades **(E)**
HyBlade (3, 4, 5, 7)	HyBlade **(F)**

Radial

8–12 Blades	A backward curve centrifugal **(N)**
More than 12 Blades	Forward curve centrifugal **(O)**

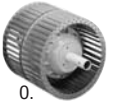

D.


E.


F.


N.


O.


O.

4. What type of blade material?

Axial

Die cast alloy	'S' Blade (Bolted Fastening) **(F)**
Welded sheet steel	**(D)**, **(E)**
HyBlade	**(G)**

Radial

Plastic	**(C)**
Aluminium sheet	**(Q)**


D.


E.


F.


G.


C.


Q.

5. What mounting style or housing?

Axial

Wall plate square or round?	**(I)**
Basket grille?	**(J)**
Flat grille?	**(K)**
No mounting?	**(L)**

Radial

No Housing	**(commonly) backward curve**
	R6 **(C)**
No Housing	**(Q)** R Series Forward Curve


I.


I.


J.


K.


L.


C.


Q.

Photos and drawings may not be a correct representation of all products.

5. What mounting style or housing? (continued)

Radial

Snail shell housing 1 inlet	**(SWSI)**
	(S)

Snail shell with 2 inlets	**(DWDI)**
	(T)

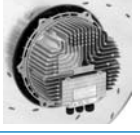
S.

T.

6. AC or EC motor (EC has electronics built into the back of the motor)

AC	**W**
EC	**X**

W.



X.

7. Which way does the air flow?

Axial

When looking at rotor (spinning part) does the air:	
Blow in your face?	Air flow 'A'
Blow away from your face?	Air flow 'V' (out over mounting brackets) **(M)**

Radial

Not applicable

M.

8. What is the power supply?

Single Phase (230V), Three Phase (400V) or DC	
Don't count the leads, this is not an indication.	
If a capacitor is present	Single phase

(Other Voltage may apply if from imported equipment)

9. What speed? (most customers may not know this if the label has worn off)

	~2800rpm	2 pole
	~1440rpm	4 pole
	~960rpm	6 pole
	~720rpm	8 pole

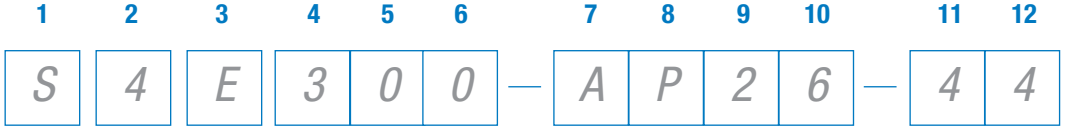
10. What colour?

	Either black or unpainted

11. What has it come off?

	Imported equipment	We can only offer the closest alternative
	Local equipment	Which brand?
		We may be able to work out what the model is.

Photos and drawings may not be a correct representation of all products.



1 — axial fan – ‘A’ bare fan & motor, ‘S’ with wire grille flat or basket, ‘W’ with square or round wall plate

2 — number of poles (speed), 2, 4, 6, or 8 (in the case of D.C. or 7, 3 core E.C. products it is not representative of speed)

3 — power supply (S = shaded pole, D = 3 phase, E = 1 phase, G = E.C. 1+3 phase, Q = square shaded pole)

4 5 6 — fan size (mm)

7 8 9 10 11 12 — fan & motor configuration

ebm-papst Radial/Centrifugal Part No.

1	2	3	4	5	6		7	8	9	10		11	12
R	4	E	2	8	0	—	A	D	0	8	—	0	5

1 ☐ ‘R’ bare fan & motor, ‘G’ forward curved (SWSI) with housing, ‘D’ forward curved (DWDI) with housing

2 ☐ number of poles (speed), 2, 4, 6, or 8 (in the case of D.C. or 1, 3 core E.C. products it is not representative of speed)

3 ☐ power supply (S = shaded pole, D = 3 phase, E = 1 phase, G = D.C. and E.C. 1+3 phase, Q = square shaded pole)

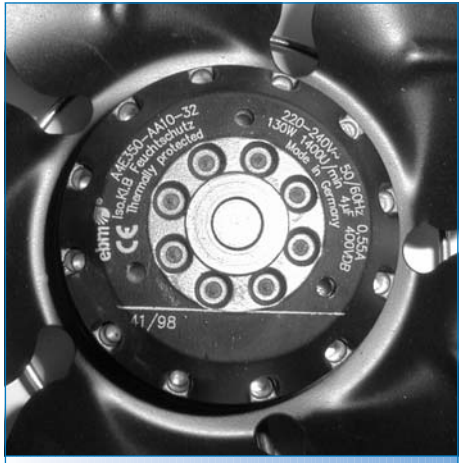
4 5 6 ☐☐☐ fan size (mm)

7 8 9 10 11 12 ☐☐☐☐☐☐ fan & motor configuration

EC Wiring Diagrams · Wiring Connection Diagrams · Hooke’s Law for fans · Velocity Pressure – Air (Pv) Chart · Oven Fan · Streamers for Cool Room Evaporator fan · Pumps (Evaporative Cooler) · Forward Curved Radial · Backward Curved Radial · “Q” Motor · iQ and Q Motor · ESM Fan · Compact Axial · Basket Grille Axial · Axials · Square Plate Axials · Square & Round Plate Axials · Axial Fan · Part Number Locations · ebm-papst Axial Part No. · What fan is that?

Part Number Locations

Typical Location of Part Numbers

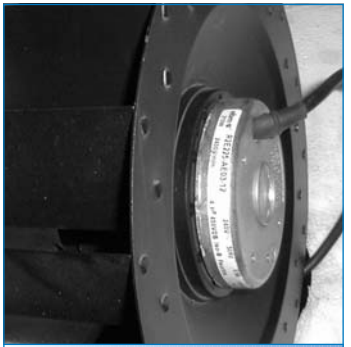


ebm-papst Axial

ebm-papst Forward Curve

ebm-papst EC Axial

ebm-papst Q Motor



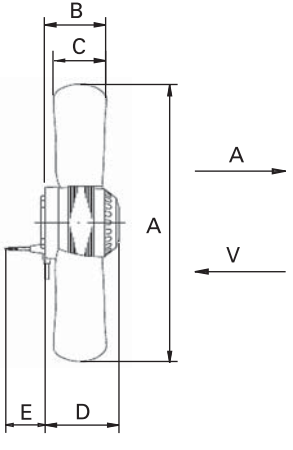
ebm-papst Radial

ebm-papst Compact

ebm-papst Radial Foot Mount

Photos and drawings may not be a correct representation of all products.

Air flow ‘V’ always discharges over the mounting brackets



MAY HAVE LEAD OR TERMINAL BOX

‘A’

‘S’

‘HyBlade’

‘K’

Dimensions

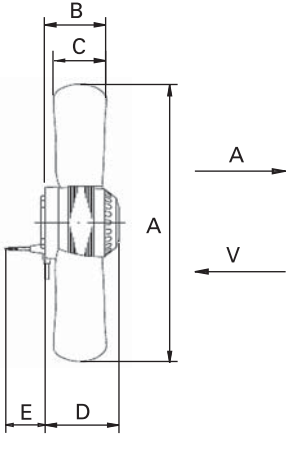
	A	B	C	D	E
A2E200-AK38-01	197	61	39	62	450
A2E200-AI38-01	197	62	35	62	450
A4S200-AH04-01	197	56	39	62	450
A4S200-AI04-01	197	56	39	62	450
A2E250-AE65-02	250	66	39	83	450
A2E250-AL06-01	251	52	34	72	450
A4S250-AH02-01	251	52	34	72	450
A4S250-AI02-01	251	57	34	72	450
A2D300-AP02-24	298	68	38	104	450
A2E300-AC47-02	300	50	20	98	450
A2E300-AP02-01	300	68	38	104	450
A4E300-AA03-41	300	76	56	83	350
A4E300-AB03-22	300	76	56	83	450
A4E300-AB03-23	300	76	56	83	450
A4E300-AP26-01	300	73	60	73	450
A3G300-AB56-01	300	105	60	105	450
A3G300-AB56-02	300	105	60	105	450
A4D350-AR06-01	352	102	92	102	600
A4E350-AA10-32	353	91	70	102	350
A4E350-AP06-01	350	102	92	104	600

Part No.	Air Flow Direction	Voltage (V)	Frequency	Air Volume (m³/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (µF)	Noise Level (dBA@1M) see inside cover	Max. Air Temperature (C)	Approx Weight (Kg)	Wiring Diagram	Motor Type	Notes	
A2E200-AK38-01	V	230	50	910	2650	60	0.28	1.5	70	70	1.4	A1	AC	(2)	
A2E200-AI38-01	A	230	50	890	2600	64	0.30	1.5	65	70	1.4	A1	AC	(2)	
A4S200-AH04-01	V	230	50	470	1370	30	0.21		42	75	1.2	B	AC	(2)	
A4S200-AI04-01	A	230	50	470	1370	30	0.21		42	75	1.2	B	AC	(2)	
A2E250-AE65-02	A	230	50	1610	2550	115	0.51	4	72	55	2.2	A1	AC	(2)	
A2E250-AL06-01	V	230	50	1820	2450	115	0.51	3	69	65	1.9	A1	AC	(2)	
A4S250-AH02-01	V	230	50	1000	1390	69	0.53		54	60	1.7	B	AC	(2)	
A4S250-AI02-01	A	230	50	1000	1390	69	0.53		54	60	1.7	B	AC	(2)	
A2D300-AP02-24	A	400	50	3130	2580	210	0.36		72	55	3	F2a	AC	(2)	
A2E300-AC47-02	A	230	50	2440	2650	140	0.62	5.0/400	75	55	2.5	A1	AC	(2)	
A2E300-AP02-01	V	230	50	3140	2700	230	1.10	8.0/400	73	50	3.0	A1	AC	(2)	
A4E300-AA03-41	V	230	50	1650	1350	70	0.30	2.0/400	65	40	2.3	A1	AC	(2)	
A4E300-AB03-22	V	240	50	1510	1250	75	0.32	1.5	62	70	2.3	A1	AC	(2)	
A4E300-AB03-23	A	240	50	1510	1250	75	0.32	1.5	62	70	2.3	A1	AC	(2)	
A4E300-AP26-01	V	230	50	1600	1400	68	0.30	2.0/400	59	60	1.9	A1	AC	(2)	
A3G300-AB56-01	V	200-277	50/60	2400	1710	110	0.70		62	60	2.7	J1	EC	(1)	
A3G300-AB56-02	A	200-277	50/60	2400	1710	110	0.70		62	60	2.7	J1	EC	(1)	
A4D350-AR06-01	V	230/400	50	3300	1420	135	0.73/0.42		64	60		C1/C2	AC	(2)	
A4E350-AA10-32	V	230	50	2940	1400	130	0.58	4	68	55	3.1	A1	AC	(2)	
A4E350-AP06-01	V	230	50	3110	1400	130	0.58	4.0/400	64	65	3.6	A1	AC	(2)	

(1) nominal data in opening point with maximum load
(2) nominal data at OPa
(3) sound power

Photos and drawings may not be a correct representation of all products.

Air flow ‘V’ always discharges over the mounting brackets



MAY HAVE LEAD OR TERMINAL BOX

‘A’

‘S’

‘HyBlade’

‘K’

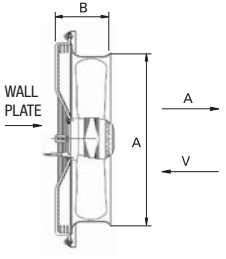
Dimensions

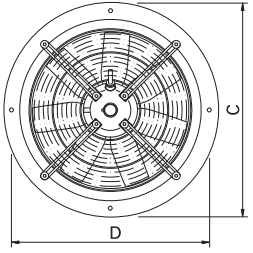
	A	B	C	D	E	
A3G350-AA58-01	352		92	105	450	✓
A4D400-AP16-20	400	94	68	117	2500	
A4E400-AP02-01	392	94	68	117	600	
A6E400-AP10-12	392	85	90	117	1250	
A3G400-AA22-71	392	145	88	145	60	✓
A4E450-A009-01	446	161.5	102	207.5	JB	
A4D450-AO14-01	446	186.5	101	148	JB	
A6E450-AN08-11	446	100	92	122	1500	
A6E450-AQ05-11	446	96	92	117	1500	
A3G450-AC28-58	446	198	92.5	198	JB	✓
A4D500-AJ03-01	497	177.5	112	189.5	JB	
A4E500-AM03-01	497	177.5	112	209.5	JB	
A6E500-AJ03-05	497	177.5	112	189.5	1800	
A6E500-BB05-09	497	103	95	128	1800	
A3G500-AN33-03	497	180.5	112	180.5	JB	✓
A3G500-AD01-58	497	158.7	111	160	JB	✓

Part No.	Air Flow Direction	Voltage (V)	Frequency	Air Volume (m^3/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (µF)	Noise Level (dBA@1M) see inside cover	Max. Air Temperature (C)	Approx Weight (Kg)	Wiring Diagram	Motor Type	Notes	
A3G350-AA58-01		V	200-277	50/60	3700	1540	170	1.30		61	2.9	2.9	J1	EC	(1)
A4D400-AP16-20		V	400	50	4180	1440	170	0.53		67	55		F1a	AC	(2)
A4D400-AP16-20		V	400	50	3780	1300	115	0.21		65	85	4.3	F2a	AC	(2)
A4E400-AP02-01		V	230	50	4235	1430	160	0.73	6.0/400	69	40	4.2	A1	AC	(2)
A6E400-AP10-12		V	230	50	3290	940	120	0.55	3.0/450	59	40	4	A1	AC	(2)
A3G400-AA22-71		V	200-277	50/60	5400	1690	390	2.50		68	60	5.2	K1	EC	(1)
A4E450-AO09-01		V	230	50	7000	1310	490	2.36	10.0/400	62	65	7.2	A2b	AC	(1)
A4D450-AO14-01		V	400	50	7070	1360	480	0.98		65	65	7.5	F1b	AC	(2)
A4D450-AO14-01		V	400	50	6030	1110	340	0.58			65	7.5	F2b	AC	(2)
A6E450-AN08-11		V	230	50	4415	900	145	0.64	4.0/400	61	55	3.7	A1	AC	(2)
A6E450-AQ05-11		V	230	50	4475	910	155	0.70	4.0/400	62	70	5	A1	AC	(2)
A3G450-AC28-58		V	200-277	50/60	6500	1300	345	2.20		67	60		K3	EC	(1)+(3)
A4D500-AJ03-01		V	400D	50	9000	1340	710	1.40		71	60	8.5	F1b	AC	(1)
A4D500-AJ03-01		V	400S	50	7600	1060	480	0.80		65	60	8.5	F2b	AC	(3)
A4E500-AM03-01		V	230	50	8900	1300	680	3.00	12.0/450	68	65	10.5	A2a	AC	(1)+(3)
A6E500-AJ03-05		V	230	50	6100	915	270	1.18	8.0/400	63	65	8.5	A2a	AC	(1)+(3)
A6E500-BB05-09		V	230	50	5900	890	190	0.84	6.0/400	65	70	9	A2a	AC	(2)
A3G500-AN33-03		V	380-480	50/60	10000	1600	940	1.60		76	60	9.2	K3	EC	(1)+(3)
A3G500-AD01-58		V	200-277	50/60	7100	1100	360	2.20		67	55	6.2	K4	EC	(1)+(3)

(1) nominal data in opening point with maximum load
(2) nominal data at OPa
(3) sound power

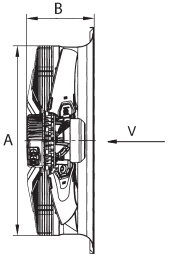
Photos and drawings may not be a correct representation of all products.

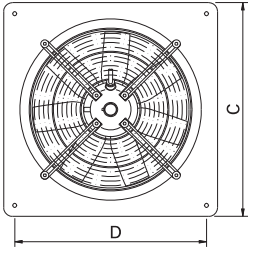




Wall Plate

Square or Round





Condenser Fan

Square Plates

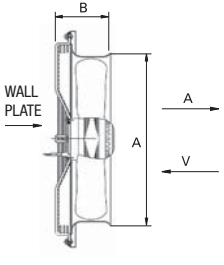
Dimensions	A	B	C	D
W2E200-DI38-01	200	55	312	260
W2E200-DH38-01	200	55	312	260
W4S200-DI04-01				
W4S200-DI04-01	200	52	312	260
W2E250-DE65-02	256	55	370	320
W4S250-DI02-01	256	63	370	320
W2E300-DC47-02	306	80	430	380
W4E300-DB03-23	306	80	430	380

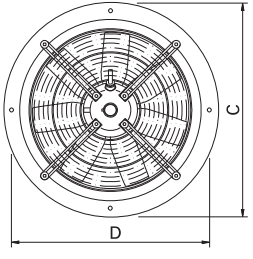
Round Plates

Dimensions	A	B	C	D
W2E200-CI38-01	200	80	280	250
W2E200-CH38-01	200	80	280	250
W4S200-CI04-01	200	80	280	250
W2E250-CE65-02	254	80	320	295
W2E250-CL06-01	254	80	320	295
W4S250-CI02-01	256	63	320	295
W2E300-CC47-02	306	80	397	380
W4E300-CB03-23	306	80	397	380
W4E300-CA03-41	306	80	397	380
W3G300-CB56-02	326	88	397	380

Square Plate	Round Plate	Air Flow Direction	Voltage (V)	Frequency	Air Volume (m^3/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (μF)	Noise Level (dBA@1M) see inside cover	Max. Air Temperature (C)	Approx Weight (Kg)	Lead Length	Wiring Diagram	Motor Type	Notes
W2E200-DI38-01	W2E200-CI38-01	A	230	50	890	2600	64	0.30	1.5	65	70	1.9	450	A1	AC	(2)
W2E200-DH38-01	W2E200-CH38-01	V	230	50	890	2600	64	0.30	1.5	65	70	1.9	450	A1	AC	(2)
W4S200-DI04-01	W4S200-CI04-01	A	230	50	470	1370	30	0.21		42	75	1.2	450	B	AC	(2)
W2E250-DE65-02	W2E250-CE65-02	A	230	50	1610	2550	115	0.51	4	72	55	2.7	450	A1	AC	(2)
	W2E250-CL06-01	V	230	50	1820	2450	115	0.51	3	69	65	2.7	450	A1	AC	(2)
W4S250-DI02-01	W4S250-CI02-01	A	230	50	1000	1390	69	0.53		54	50	1.7	450	B	AC	(2)
W2E300-DC47-02	W2E300-CC47-02	A	230	50	2440	2650	140	0.62	5.0/400	75	55	3	450	A1	AC	(2)
W4E300-DB03-23	W4E300-CB03-23	A	240	50	1510	1250	75	0.32	1.5/400	62	70	3	450	A1	AC	(2)
	W4E300-CA03-41	V	230	50	1650	1350	70	0.30	2.0/400	65	40	2.3	JB	A1	AC	(2)
	W3G300-CB56-02	A	200-277	50/60	2400	1710	110	0.70		62	60	2.7	450	J1	EC	(1)

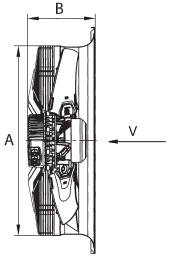
(1) nominal data in opening point with maximum load
(2) nominal data at OPa
(3) sound power

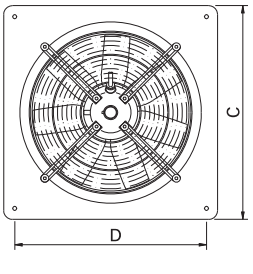




Wall Plate

Square or Round





Condenser Fan

Condenser Fans

Dimensions

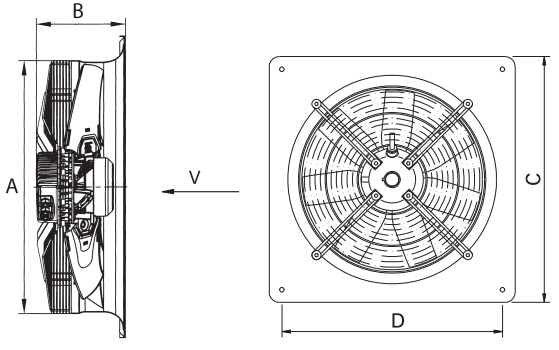
	A	B	C	D	
W3G400-CA22-71	420	152	504	528D	✓
W4D500-GJ03-11	535	175	600	560	
W3G500-GM56-25	528	171	600	560	✓
W3G500-GN33-07	528	171	600	560	✓
W3G560-CE41-11	576	190	725	675	✓
W4D630-GD01-01	696	215	805	750	
W3G630-GU23-01	696	250	805	750	✓

Condenser Fans

Air Flow Direction	Voltage (V)	Frequency	Air Volume (m³/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (µF)	Noise Level (dBA@1M) see inside cover	Max. Air Temperature (C)	Approx Weight (Kg)	Lead Length	Wiring Diagram	Motor Type	Notes	
W3G400-CA22-71	V	230	50	5700	1690	390	2.50	-	75	60	6.50	600	K1	EC	(1)	✓
W4D500-GJ03-11	V	400D	50	9000	1340	710	1.40	-	71	60	16.0	JB	F1b	AC	(1)+(3)	
W4D500-GJ03-11	V	400S	50	7800	1060	480	0.80	-	65	60	16.0	JB	F2b	AC	(1)+(3)	
W3G500-GM56-25	V	200-277	50/60	9000	1420	750	3.40	-	74	60	7.20	800	L3	EC	(1)+(3)	✓
W3G500-GN33-07	V	380-480	50/60	10000	1600	940	1.60	-	76	60	9.20	800	K3	EC	(1)+(3)	✓
W3G560-CE41-11	V	200-277	50/60	11300	1160	790	3.50	-	80	60	18.0	JB	L1	EC	(1)+(3)	✓
W4D630-GD01-01	V	400D	50	20000	1340	2530	4.95	-	81	60	38.2	JB	F1b	AC	(1)+(3)	
W4D630-GD01-01	V	400S	50	16700	1045	1640	2.88	-	75	60	38.2	JB	F2b	AC	(1)+(3)	
W3G630-GU23-01	V	380-480	50/60	21000	1510	3200	4.90	-	86	65	39.5	JB	L5	EC	(1)+(3)	✓

(1) nominal data in opening point with maximum load
(2) nominal data at OPa
(3) sound power

Photos and drawings may not be a correct representation of all products.



Condenser Fans

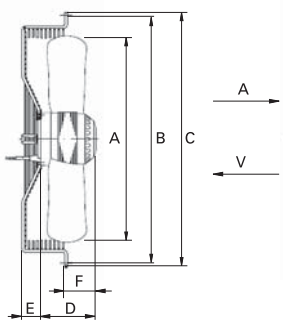
Dimensions

	A	B	C	D
W6D710-GN01-01	772	242	810	850
W6D710-GH01-01	772	243	850	810
W3G710-CB06-03	732	280	850	810
W3G710-GU21-01	772	284.5	850	810
W6D800-GD01-01	857	261	970	910
W8D800-GD01-01	857	261	970	910
W3G800-GU25-01	857	307	970	910
W3G800-GV01-01	857	307	970	910

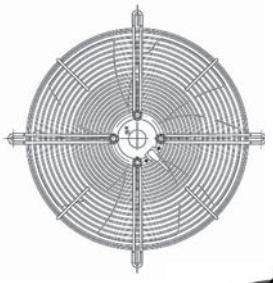
Condenser Fans	Air Flow Direction	Voltage (V)	Frequency	Air Volume (m^3/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (µF)	Noise Level (dBA@1M) see inside cover	Max. Air Temperature (C)	Approx Weight (Kg)	Lead Length	Wiring Diagram	Motor Type	Notes	
W6D710-GN01-01	V	400D	50	16000	910	1010	2.40	-	77	80	39.0	JB	F1b	AC	(1)+(3)	
W6D710-GN01-01	V	400S	50	14000	750	700	1.33	-	72	80	39.0	JB	F2b	AC	(1)+(3)	
W6D710-GH01-01	V	400D	50	16000	910	1010	2.40	-	77	80	36.7	JB	F1b	AC	(1)+(3)	
W6D710-GH01-01	V	400S	50	14200	750	700	1.33	-	72	80	36.7	JB	F2b	AC	(1)+(3)	
W3G710-CB06-03	V	380-480	50/60	24000	1230	2600	4.50	-	75	60	45.0	JB	M	EC	(1)	✓
W3G710-GU21-01	V	380-480	50/60	24000	1250	2800	4.40	-	83	60	42.4	JB	L5	EC	(1)+(3)	✓
W6D800-GD01-01	V	400D	50	24500	895	2000	4.30	-	78	60	44.2	JB	F1b	AC	(1)+(3)	
W6D800-GD01-01	V	400S	50	21000	685	1270	2.50	-	72	60	44.2	JB	F2b	AC	(1)+(3)	
W8D800-GD01-01	V	400D	50	18200	660	980	2.41	-	71	65	44.2	JB	F1b	AC	(1)+(3)	
W8D800-GD01-01	V	400S	50	15500	515	570	1.21	-	64	65	44.2	JB	F2b	AC	(1)+(3)	
W3G800-GU25-01	V	380-480	50/60	26500	1020	2560	3.90	-	85	60	45.7	JB	L5	EC	(1)+(3)	✓
W3G800-GV01-01	V	380-480	50/60	27500	1090	2860	4.50	-	85	65	50.2	JB	L5	EC	(1)+(3)	✓

(1) nominal data in opening point with maximum load
(2) nominal data at OPa
(3) sound power

Photos and drawings may not be a correct representation of all products.



SHAPE OF BASKET GRILLE VARIES



EXAMPLE OF BASKET GRILLE WITH STREAMER

Dimensions

	A	B	C	D	E	F	G	
S2D170-BA04-06 (Flat Grille)	170	220	232	62		62		
S4E300-AB03-43-CTN	300	370		72.5	66	27		
S4E300-AP26-38-CTN	300	360		73	66	27		
S4E300-AP26-44-CTN	300	360		73	66	27		
S3G300-AB56-01-CTN	300	360		105		26.5		✓
S3G300-AK13-58-CTN	300	360		87.4	65.5	23.8		✓
S4E350-AP06-48-CTN	352	422		102	30	54		
S4E350-AP06-60-CTN	352	442		102	30	54		
S3G350-AA58-01-CTN	352	422		105	34	49		✓
S3G350-AC58-11-CTN	352	422		90	0	26		✓
S4E400-AP02-44-CTN	392	455-470		117	30	44	85	
S3G400-LA22-71-CTN	392	470		145		49		✓

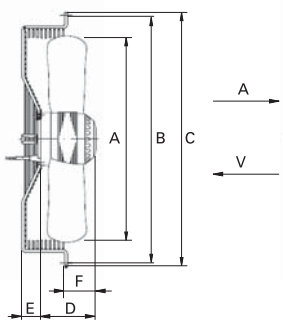
Note: *–CTN is a boxed product especially for protection of the fan

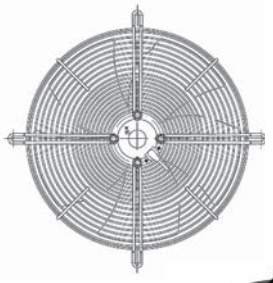
* See page 50+51 for streamer data

Part No.	Air Flow Direction	Voltage (V)	Frequency	Air Volume (m^3/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (µ/F)	Noise Level (dBA@1M) see Inside cover	Max. Air Temperature (C)	Approx Weight (Kg)	Lead Length	Wiring Diagram	Motor Type	Notes	
S2D170-BA04-06-CTN	V	400	50/60	430	2650	40	0.11		59	75			C2	AC	(2)	
S4E300-AB03-43-CTN	A	240	50	1610	1250	75	0.32	1.5	63	60	3.1	100	A1	AC	(2)	
S4E300-AP26-38-CTN	V	230	50	1885	1390	73	0.32	2.0/400	59	60	3.1	JB	A1	AC	(2)	
S4E300-AP26-44-CTN	V	230	50	1885	1390	73	0.32	2.0/400	59	60	3.1	JB	A1	AC	(2)	
S3G300-AB56-01-CTN	V	200-277	50/60	2400	1710	110	0.70		62	60	2.7	450	J1	EC	(2)	✓
S3G300-AK13-58-CTN	V	230	50/60	2075	1425					60		JB	EC 2 speed			✓
S4E350-AP06-48-CTN	V	230	50	3110	1400	130	0.58	4.0/400	64	60	3.8	JB	A1	AC	(2)	
S4E350-AP06-60-CTN	V	230	50	3110	1400	130	0.58	4.0/400	64	60	3.8	JB	A1	AC	(2)	
S3G350-AA58-01-CTN	V	200-277	50/60	3700	1540	170	1.30		61	2.9	2.9	450	J1	EC	(1)	✓
S3G350-AC58-11-CTN	V	200-277	50/60	1600	1450	134	1.00			60	3.85	3000	EC 1 speed			✓
S4E400-AP02-44-CTN	V	230	50	3990	1440	160	0.71	6/400	69	80		JB	A1	AC	(2)	
S4E400-AP02-44-CTN	V	230	60	4660	1700	245	01.1	6/400	73	70		JB	A1	AC	(2)	
S3G400-LA22-71-CTN	V	230	50/60	5700	1690	390	2.5		75	60	6.5	600	K1	EC	(1)	✓

(1) nominal data in opening point with maximum load
(2) nominal data at OPa
(3) sound power

Photos and drawings may not be a correct representation of all products.





SHAPE OF BASKET GRILLE VARIES

EXAMPLE OF BASKET
GRILLE WITH STREAMER

Dimensions

	A	B	C	D	E	F	
S4E450-AU03-37-CTN	445	522				62.5	
S3G450-LA14-71-CTN	446	522		145	46.2	53	✓
S4E500-AM03-01-CTN	497	565				84	
S3G500-AM56-23-CTN	497	565		160.5		52	✓
S6E560-AN01-01	552	700				77.5	
S3G560-AE41-11	548	700	194			53	✓
S6E630-AA03-01	627	750				74	
S6E630-AN01-01	627	750				86	
S3G630-AQ37-23	627	750		180.5		60	✓
S3G630-AU23-01	627	750		250.5	0	72.5	✓
S6E710-AR03-01	703	853		224.5		70	

Note: *–CTN is a boxed product especially for protection of the fan

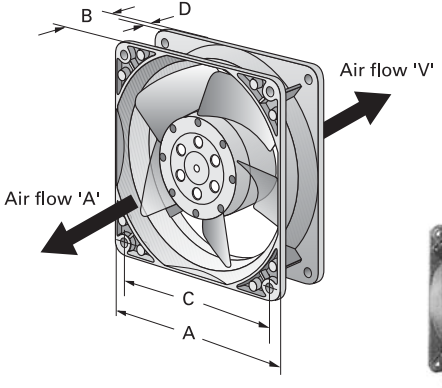
* See page 50+51 for streamer data

Part No.	Air Flow Direction	Voltage (V)	Frequency	Air Volume (m³/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (µF)	Noise Level (dBA@1M) see inside cover	Max. Air Temperature (C)	Approx Weight (Kg)	Lead Length	Wiring Diagram	Motor Type	Notes	
S4E450-AU03-37-CTN	V	230	50	5770	1300	350	1.55	8/400	70	55	8.4	JB	A1	AC	(2)	
S4E450-AU03-37-CTN	V	230	60	6520	1490	425	1.87	8/400	73	45	8.4	JB	A1	AC	(2)	
S3G450-LA14-71-CTN	V	200-277	50/60	6400	1310	325	2.10		63	60	5.5	600	K1	EC	(1)	✓
S4E500-AM03-01-CTN	V	230	50	8900	1300	680	3.00	12/450	68	65	13.8	JB	A2b	AC	(1)+(3)	
S3G500-AM56-23-CTN	V	200-277	50/60	9000	1420	750	3.40		74	60	10.5	JB	L1	EC	(1)+(3)	✓
S6E560-AN01-01	V	230	50	8100	920	390	1.78	10/400	67	65	13.6	JB	A2b	AC	(1)+(3)	
S3G560-AE41-11	V	200-277	50/60	11300	1160	790	3.50		80	60	13.6	JB	L1	EC	(1)+(3)	✓
S6E630-AA03-01	V	230	50	12500	860	760	3.35	16/450	76	50	18.5	JB	A2b	AC	(1)+(3)	
S6E630-AN01-01	V	230	50	11000	860	600	2.62	14/400	68	55	14	JB	A2b	AC	(1)+(3)	
S3G630-AQ37-23	V	200-277	50/60	12000	1000	720	3.20		71	60	14.6	JB	L1	EC	(1)+(3)	✓
S3G630-AU23-01	V	380-480	50/60	21000	1510	3200	4.90		86	65	31.5	JB	L5	EC	(1)+(3)	✓
S6E710-AR03-01	V	230	50	12000	885	660	2.95	14/450	70	60	20.5	JB	A2b	AC	(1)+(3)	

(1) nominal data in opening point with maximum load
(2) nominal data at OPa
(3) sound power

Photos and drawings may not be a correct representation of all products.

Air flow 'V' always discharges over the mounting brackets



'A'

'B'

'C'

Dimensions

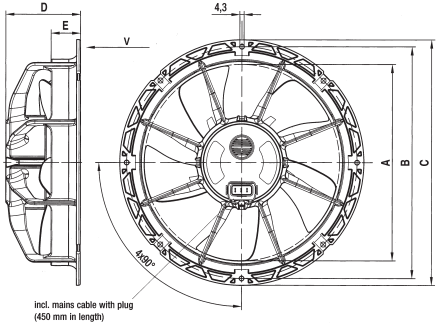
CASE STYLE	A	B	C	D	
8314	B	80	32	72	5	
8506N	B	80	38	71.5	3	
8556N	B	80	38	71.5	3	
AC8300H	B	80	32	71.5	5	✓
9956	B	119	25	105	4	
4312	B	119	32	104.8	5	
4184NX	B	119	38	105	6	
4314	B	119	32	104.8	5	
4650N	B	119	38	104.8	6	
4650Z	B	119	38	104.8	9.5	
4656N	B	119	38	104.8	6	
4656Z	B	119	38	104.8	9.5	
4850Z	B	119	38	104.8	9.5	
AC4300H	B	119	32	104.8	5	✓
ACi4420HHR	B	119	38	104.8	6	✓
5958	B	127	38	113	7	
6224N	C	172d	51	162d	4.5	
AC6200NM	C	172	51	162d		✓
W2S130-AA03-63	A	150d	55	162d	6	
W2S130-BM03-01	A	172d	55	162d	6	
W2E142-BB01-01	C	172	38	152.5		

Part No.	Air Flow Direction	Voltage (V)	Frequency	Air Volume (m³/Hr)	Speed (RPM)	Power Input (W)	Noise Level (dBA@1M) see inside cover	Max. Air Temperature (C)	Approx Weight (Kg)	Wiring Diagram Lead		Motor Type	Notes	
8314	V	24		54	3300	2.5	36	75	0.17			DC	(2)	
8506N	V	115	60	61	3300	11.0	35	95	0.49	310		AC	(2)	
8556N	V	230	50	50	2800	12.0	31	90	0.49	310		AC	(2)	
AC8300H	V	85-265	50/60	80	5000	7.5	48	75	0.325	500		EC	(2)	✓
9956	V	230	50	117	2450	14.0	37	70	0.80			AC	(2)	
4312	V	12		170	2800	5.0	45	75	0.22	310		DC	(2)	
4184NX	A	24		180	3200	4.5	49	75	0.39			DC	(2)	
4314	V	24		170	2800	5.0	45	75	0.22	310		DC	(2)	
4650N	A	230	50	160	2650	19.0	46	55	0.55	PIN		AC	(2)	
4650Z	V	230	50	160	2650	19.0	40	50	0.54	PIN		AC	(2)	
4656N	A	230	50	160	2650	19.0	47	85	0.55	PIN		AC	(2)	
4656Z	V	230	50	160	2650	19.0	40	75	0.54	PIN		AC	(2)	
4850Z	V	230	50	100	1700	13.0	26	65	0.54	PIN		AC	(2)	
AC4300H	V	85-265	50/60	204	3400	11.0	51	70	0.325	LEAD		EC	(2)	✓
ACi4420HHR	V	195-265	50/60	180	3350	4.4	42	75	0.25	PIN		EC	(2)	✓
5958	V	230	50	180	2750	18.0	44	60	0.57	PIN		AC	(2)	
6224N	V	24		410	3400	18.0	55	72	0.82	PIN		DC	(2)	
AC6200NM	V	85-265	50/60	350	2800	14.0	50	70	0.90	LEAD		EC	(2)	✓
W2S130-AA03-63	V	230	50	325	2800	47	49	50	1.20	1500	B	AC	(2)	
W2S130-BM03-01	A	230	50	380	2700	47	60	50	1.20	330	B	AC	(2)	
W2E142-BB01-01	V	230	50	330	2800	25	52	55		PIN	A1	AC	(2)	

LZ126 Lead + Plug 1000 mm

(1) nominal data in opening point with maximum load. (2) nominal data at OPa. (3) sound power.

Photos and drawings may not be a correct representation of all products.



'Standard'

'Truncated'

Dimensions

	A	B	C	D	E	Type
W1G172-EC91-01-CTN	172	208	222	78.5	35	standard
W1G200-EA91-22-CTN	200	236	250	76.5	30	standard
W1G200-EC91-28-CTN	200	236	250	78.5	40	truncated
W1G200-EC91-45-CTN	200	236	250	78.5	40	standard
W1G230-EB89-01-CTN	230	266	280	78.5	50	standard

Note: *–CTN is a boxed product especially for protection of the fan

Part No.	Air Flow Direction	Voltage (V)	Frequency	Air Volume (m^3/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Speed Step	Noise Level (dBA@1M) see inside cover	Max. Air Temperature (C)	Approx Weight (Kg)	Wiring Diagram Lead	Motor Type		Notes
W1G172-EC91-01-CTN	V	230	50/60	550	2500	22	0.18	high	63	50	0.95	450	ESM	EC	(1)+(3)
W1G200-EA91-22-CTN	V	230	50/60	800	2200	27	0.21	high	56	50		none	ESM	EC	(2)
W1G200-EA91-22-CTN	V	230	50/60	545	1500			low		50	1.0	none	ESM	EC	(2)
W1G200-EC91-28-CTN	V	230	50/60	750	2100	31	0.24	high	62	50		450	ESM	EC	(1)+(3)
W1G200-EC91-28-CTN	V	230	50/60	525	1500	16	0.13	low	54	50	1.0	450	ESM	EC	(1)+(3)
W1G200-EC91-45-CTN	V	230	50/60	750	2100	31	0.24	high	62	50		450	ESM	EC	(1)+(3)
W1G200-EC91-45-CTN	V	230	50/60	525	1500	16	0.13	low	54	50	1.0	450	ESM	EC	(1)+(3)
W1G230-EB89-01-CTN	V	230	50/60	980	1500	24	0.19	high	58	50		450	ESM	EC	(1)+(3)
W1G230-EB89-01-CTN	V	230	50/60	620	1000	11	0.09	low	48	50	1.0	450	ESM	EC	(1)+(3)
	BOTH SPEEDS OF ESM FAN ARE PROGRAMMABLE														

Note: *–CTN is a boxed product especially for protection of the fan

(1) nominal data in opening point with maximum load
(2) nominal data at OPa
(3) sound power

The iQ-motor has been designed as a high efficiency replacement for the existing Q-motors currently used in many different applications. With up to 70% more efficiency than the standard Q-motor and similar mounting dimensions, there is an iQ-motor suitable for many replacement applications.

Energy savings iQ-motor compared to Q-motor

Technical data

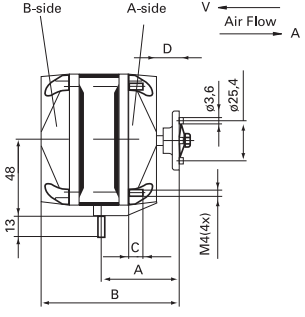
Typical iQ-motor combined with different axial impellers (speed 1,300 rpm)

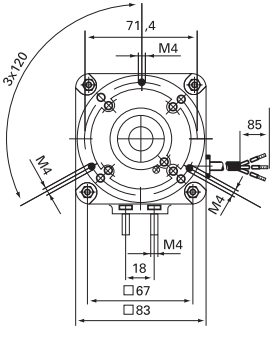
mm	Air flow m³/h	iQ Motor power consumption W	Q Motor power consumption W	SAVE %
Impeller diameter	Blade pitch 22 degrees			
154	150	2.4	29	91%
172	220	3	29	89%
200	315	3.5	30	88%
230	485	9.5	38	75%
254	650	15	45	66%

Air flow m³/h	iQ Motor power consumption W	Q Motor power consumption W	SAVE %
Blade pitch 28 degrees			
210	2.9	29	90%
300	3.8	32	88%
440	6	38	84%
720	15	50	70%
–	–	–	–

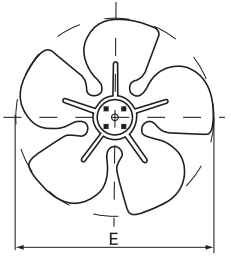
Air flow m³/h	iQ Motor power consumption W	Q Motor power consumption W	SAVE %
Blade pitch 34 degrees			
235	3.2	32	90%
340	5	33	84%
515	9.4	42	77%
800	24	60	60%
–	–	–	–

* free air flow with wall ring





Multiple Fastening Locations



Dimensions

	A	B	C	D	E		
M4Q045-BD01-29/B01	42	76	12	15	154	172	200
M4Q045-BD01-38	42	76	12	15	154	172	200
M4Q045-CA01-38	42	82	10	15	200	230	
M4Q045-CA03-38	42	82	10	15	230	254	
M4Q045-CA03-75/B01	42	82	10	15	230	254	
M4Q045-CA03-C8/B01	42	82	10	15	230	254	
iQ3612	43.5	82		15	154	→	254
M4Q045-CF01-38	42	87	10	15	254		
M4Q045-DA01-C8/B01	54	93	10	15	254	300	
M4Q045-DA05-38	54	93	10	15	300		
M4Q045-EA01-38	59	103	10	16	300		
M4Q045-EF01-38	79	125	10	33	300		
M4Q045-EF01-75/B01	79	125	10	33	300		
iQ3620	51.5	90		15	254	→	300

Part No.	Power Output (W)	Voltage (V)	Frequency	Speed (RPM)	Power Input (W)	Current (A)	Bearing	Noise Level (dBA@1M) see inside cover	Min. Static Pressure (Pa)	Max. Air Temperature (C)	Approx Weight (Kg)	Lead Length	Motor Type	
M4Q045-BD01-29/B01	5	230	50	1300	29	0.19	KL			40	0.9	450	AC	
M4Q045-BD01-38	5	230	50	1300	29	0.19	GK			40	0.9	450	AC	
M4Q045-CA01-38	7	230	50	1300	31	0.20	GK			40	1.1	450	AC	
M4Q045-CA03-38	10	230	50	1300	36	0.25	GK			40	1.2	450	AC	
M4Q045-CA03-75/B01	10	230	50	1300	36	0.25	GK			40	1.2	1500	AC	
M4Q045-CA03-C8/B01	10	230	50	1300	36	0.25	KL			40	1.2	470	AC	
iQ3612		220-240	50/60	1300	≤ 23		KL			50	0.6	1500	EC	✓
M4Q045-CF01-38	16	230	50	1300	60	0.42	GK			40	1.3	450	AC	
M4Q045-DA01-C8/B01	18	230	50	1300	70	0.48	KL			40	1.4	450	AC	
M4Q045-DA05-38	23	230	50	1300	86	0.62	KL			40	1.6	450	AC	
M4Q045-EA01-38	25	230	50	1300	90	0.62	KL			40	2.0	450	AC	
M4Q045-EF01-38	34	230	50	1300	110	0.75	KL			40	2.2	450	AC	
M4Q045-EF01-75/B01	34	230	50	1300	110	0.75	GK			40	2.2	1500	AC	
iQ3620		220-240	50/60	1300	≤ 32		KL			50	0.8	1500	EC	✓

MOUNTING SCREWS TO SUIT "Q" Motor ARE AVAILABLE

Not suitable for shaft side mounting of Brinsmead, Fasco or Betts motors. This cross reference is indicative only. User should satisfy themselves of the suitability for replacement.

ebm-papst Part Number	Power Output	Recommended Impellers																
		154mm			172mm			200mm			230mm			254mm			300mm		
		22°	28°	34°	22°	28°	34°	22°	28°	34°	22°	28°	34°	22°	28°	34°	22°	28°	34°
M4Q045-BD01-29/B01	5	X	X	X	X	X	X	X											
M4Q045-BD01-38	5	X	X	X	X	X	X	X											
M4Q045-CA01-38	7							X	X	X	X								
M4Q045-CA03-38	10										X	X	X	X					
M4Q045-CA03-75/B01	10										X	X	X	X					
M4Q045-CA03-C8/B01	10										X	X	X	X					
iQ3612	Variable	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
M4Q045-CF01-38	16													X	X				
M4Q045-DA01-C8/B01	18													X	X	X	X		
M4Q045-DA05-38	23																X	X	
M4Q045-EA01-38	25																X	X	
M4Q045-EF01-38	34																X	X	X
M4Q045-EF01-75/B01	34																X	X	X
iQ3620	Variable													X	X	X	X		

Motor Cross Reference Guide			
Elco	Olmo	Radlon	Fasco
N5-13	1703.571	RMAV006	39D52079A, 50D52082A
N5-13	1703.571	RMAV006	39D52079A, 50D52082A
N7-20	1755.571	RMAV007	39D52079A, 50D52082A
N10-20	1810.57	RMAV010CCW	50D55201A, 50D50181A
N10-20	1810.57	RMAV010CCW	50D55201A, 50D50181A
N10-20	1810.57	RMAV010CCW	50D55201A, 50D50181A
N16-30	1945.57	RM016-CCW	50D55102A
			50D55102A
N20-40		RM022-CCW	50D55102A
N25-40	2102.57	RM025-AUS	50D50275A
N34-45	1990.75		50D54303A
N34-45	1990.75		50D54303A

Not suitable for shaft side mounting of Fasco motors. This cross reference is indicative only. User should satisfy themselves of the suitability for replacement.

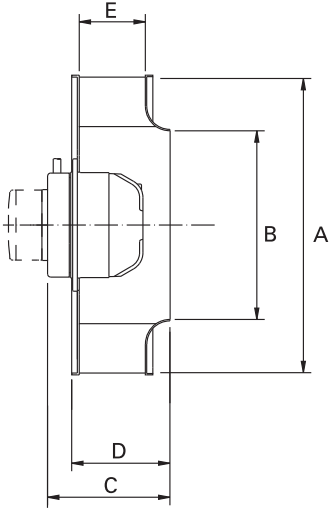
Impeller part number

Part no. “V” flow	Part no. “A” flow	Size & Blade angle
73801-2-3634	73761-2-3634	154mm 22°± 1°30’
73802-2-3634	73762-2-3634	154mm 28°± 1°30’
73803-2-3634	73763-2-3634	154mm 34°± 1°30’
73804-2-3634	73764-2-3634	172mm 22°± 1°30’
73805-2-3634	73765-2-3634	172mm 28°± 1°30’
73806-2-3634	73766-2-3634	172mm 34°± 1°30’
73807-2-3634	73767-2-3634	200mm 22°± 1°30’
73808-2-3634	73768-2-3634	200mm 28°± 1°30’
73809-2-3634	73769-2-3634	200mm 34°± 1°30’

Part no. “V” flow	Part no. “A” flow	Size & Blade angle
73810-2-3634	73770-2-3634	230mm 22° ± 1°30’
73811-2-3634	73771-2-3634	230mm 28°± 1°30’
73812-2-3634	73772-2-3634	230mm 34°± 1°30’
73813-2-3634	73773-2-3634	254mm 22°± 1°30’
73814-2-3634	73774-2-3634	254mm 28°± 1°30’
73815-2-3634	73775-2-3634	254mm 34°± 1°30’
73816-2-3634	73776-2-3634	300mm 22°± 1°30’
73817-2-3634	73777-2-3634	300mm 28°± 1°30’
73818-2-3634	73778-2-3634	300mm 34°± 1°30’

Backward Curved Radial

ebmpapst



Dimensions

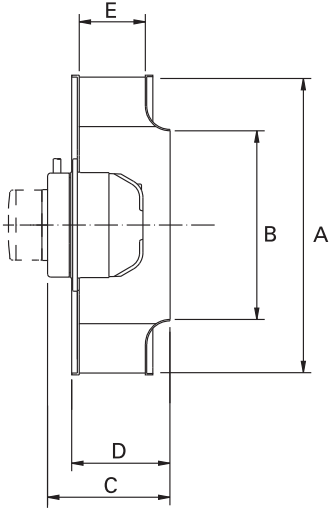
	A	B	C	D	E	
R2S133-AE17-05	133	92.8	91	60.6	41	
R1G175-AB63-59	175	131	69	62	42	✓
R2E180-CB28-09	180	131	73	67	29	
R2E190-AO26-37	190	131	68.5	62.8	45	
R2E190-AO62-39	190	131	68.5	62.8	45	
R3G190-AB07-02	190	131	95	62.8	45	✓
R1G220-AB13-12	220	160	71	64	44	✓
R2E220-AA40-05	220	159	71	63	44	
R2E220-AA40-G7	220	159	71	63	44	
R3G220-AD11-02	220	159	97	71	44	✓
R2E225-AT51-05	225	153	69	63.3	38	
R2E225-BD92-09	225	153	99	89.3	63	
R4S225-AB04-12	225	168	99	90	70	
R3G225-AH54-01	225	153	136.5	89.4	62	✓
R2E250-AS47-26	250	172	99	84.3	56	
R4E250-AH01-05	250	172	99	84.3	56	

Part No.	Air Flow Direction	Voltage (V)	Frequency	Air Volume (m^3/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (µF)	Noise Level (dBA@1M) see inside cover	Max. Air Temperature (C)	Approx Weight (Kg)	Lead	Wiring Diagram	Motor Type	Notes	
R2S133-AE17-05	CW	230	50	280	2780	36	0.25		55	40	0.9	300	B	AC	(2)	
R1G175-AB63-59	CW	24		565	3100	34	1.60		65	60	0.7	2000	G	DC	(2)	✓
R2E180-CB28-09	CW	230	50	440	2550	60	0.28	1.5/400	62	40	1.35	2000	A1	AC	(2)	
R2E190-AO26-37	CW	230	50	570	2500	58	0.26	2.0/400	62	50	1.2	450	A1	AC	(2)	
R2E190-AO62-39	CW	230	50	570	2500	58	0.26	2.0/400	62	50	1.2	450	ebm-3-speed	AC	(2)	
R3G190-AB07-02	CW	230	50/60	745	3320	71	0.50		72	60	1.3	450	H1	EC	(2)	✓
R1G220-AB13-12	CW	48		950	2750	69	1.60		71	50	1.4	1000	special	DC	(2)	✓
R2E220-AA40-05	CW	230	50	860	2600	85	0.38	3.0/400	73	40	1.3	450	A1	AC	(2)	
R2E220-AA40-G7	CW	230	50	860	2600	85	0.38	3.0/400	73	55	1.3	450	A1	AC	(2)	
R3G220-AD11-02	CW	230	50/60	960	2700	62	0.50		69	60	1.4	450	H1	EC	(2)	✓
R2E225-AT51-05	CW	230	50	850	2650	105	0.46	3.0/400	70	60	2.1	450	A1	AC	(2)	
R2E225-BD92-09	CW	230	50	1200	2650	135	0.60	4.0/400	69	60	2.1	450	A1	AC	(2)	
R4S225-AB04-12	CW	230	50	650	1300	70	0.44		60	50	1.8	600	B	AC	(2)	
R3G225-AH54-01	CW	200-277	50/60	1270	3010	139	1.20		71	60	2.3	450	J1	EC	(1)	✓
R2E250-AS47-26	CW	230	50	1450	2600	155	0.70	5.0/400	75	70	3.1	450	A1	AC	(2)	
R4E250-AH01-05	CW	230	50	810	1400	43	0.20	1.5/400	61	70	2.2	450	A1	AC	(2)	

(1) nominal data in opening point with maximum load. (2) nominal data at OPa. (3) sound power.

Photos and drawings may not be a correct representation of all products.

EC Wiring Diagrams · Wiring Connection Diagrams · Hooke's Law for fans · Velocity Pressure – Air (Pv) Chart · Oven Fan · Streamers for Cool Room Evaporator fan · Pumps (Evaporative Cooler) · Forward Curved Radial · Backward Curved Radial · "Q" Motor · iQ and Q Motor · ESM Fan · Compact Axial · Basket Grille Axial · Square Plate Axials · Square & Round Plate Axials · Axial Fan · Part Number Locations · ebm-papst Axial Part No. · What fan is that?



Dimensions

	A	B	C	D	E	
R3G250-AH52-01	250	172	125	74.3	44.5	✓
R2E280-AE52-05	280	191	125	81.6	50	
R4E280-AD08-05	280	191	125	112	80	
R3G280-AF35-71	281	191	173.7	112	80	✓
R1G310-AA19-52	312	203	154	132	101	✓
R4D310-AG16-09	317	200	154	127.5	100	
R4E310-AF12-09	318	203	159	132	101	
R3G310-AI39-71	318	220	198	139	101	✓
R4D355-AE03-10	355	237	190	173	126	
R4E355-AL02-05	360	250	190	171	120.5	
R4E355-A003-09	360	250	190		136	
R6E355-AC16-05	360	237	190	173	126	
R6E355-AE16-05	360	250	190	171	120.5	
R3G355-AI56-01	360	250	247	171	120.5	✓

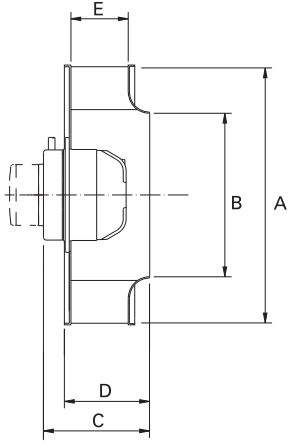
Part No.	Air Flow Direction	Voltage (V)	Frequency	Air Volume (m^3/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (µF)	Noise Level (dBA@1M) see inside cover	Max. Air Temperature (C)	Approx Weight (Kg)	Lead	Wiring Diagram	Motor Type	Notes	
R3G250-AH52-01	CW	200-277	50/60	1300	2760	160	1.20		62	60	2.5	450	J1	EC	(1)	✓
R2E280-AE52-05	CW	230	50	2110	2700	225	1.00	7/400	76	40	3	450	A1	AC	(2)	
R4E280-AD08-05	CW	230	50	1435	1420	78	0.35	2.5/400	62	40	2.8	450	A1	AC	(2)	
R3G280-AF35-71	CW	200-277	50/60	2800	2600	455	2.80		73	40	5	600	K1	EC	(1)	✓
R1G310-AA19-52	CW	24		2025	1520	95	4.60		66	40	2.6	450	G	DC	(2)	✓
R4D310-AG16-09	CW	400D	50	2050	1420	125	0.35			50	3.9	600	F1a	AC	(2)	
R4D310-AG16-09	CW	400S	50	1830	1250	85	0.15			50	3.9	600	F2a	AC	(2)	
R4E310-AF12-09	CW	230	50	1815	1430	105	0.47	4.0/400	67	65	3.5	450	A1	AC	(2)	
R3G310-AI39-71	CW	200-277	50/60	3300	2300	480	3.10		68	60	4.5	600	K1	EC	(3)	✓
R4D355-AE03-10	CW	400/400	50	2810	1400	190	0.51		66	50	4.7	1000	D1/D2	AC	(2)	
R4E355-AL02-05	CW	230	50	3160	1420	245	1.12	8.0/400	66	50	5.3	450	A1	AC	(2)	
R4E355-AO03-09	CW	230	50	2960	1370	290	1.28	8.0/450	67	55	4.7	600	A1	AC	(2)	
R6E355-AC16-05	CW	230	50	1870	880	70	0.32	2.0/400	55	65	4.1	450	A1	AC	(2)	
R6E355-AE16-05	CW	230	50	1930	870	70	0.31	2.0/400	52	85	4.1	450	A1	AC	(2)	
R6E355-AE16-05	CW	230	60	1940	890	90	0.40	2.0/400	53	60	4.1	450	A1	AC	(2)	
R3G355-AI56-01	CW	380-480	50/60	4700	2215	940	1.50		80	60	7.3	JB	L2	EC	(1)+(3)	✓

(1) nominal data in opening point with maximum load. (2) nominal data at OPa. (3) sound power.

Photos and drawings may not be a correct representation of all products.

EC Wiring Diagrams · Wiring Connection Diagrams · Hooke's Law for fans · Velocity Pressure – Air (Pa) Chart · Oven Fan · Streamers for Cool Room Evaporator fan · Pumps (Evaporative Cooler) · Forward Curved Radial · Backward Curved Radial · "q" Motor · IO and Q Motor · ESM Fan · Compact Axial · Basket Grille Axial · Square Plate Axials · Square & Round Plate Axials · Axial Fan · Part Number Locations · ebm-papst Axial Part No. · What fan is that?

Backward Curved Radial



Note: K-mound and FM mount available upon request

(1) Part number K*
(2) Part number *-FM

'Standard Backward Curved'

'Spider Mount' (1)

'Foot Mount' (2)

Dimensions

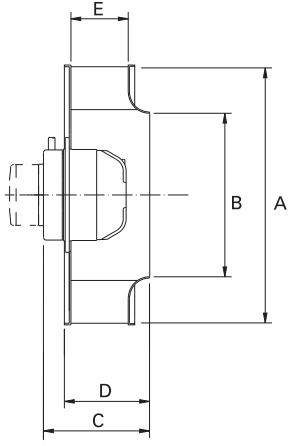
	A	B	C	D	E	
R3G355-AM29-71	360	250	206	146.5	96	✓
R3G355-AY40-01	404	250.3	291.7	163.7	112	✓
R4D400-AD22-09	404	265	218	188	140	
R4E400-AN09-06	404	265	218	188	140	
R4E400-AP17-06	404	268	193	164	113	
R6E400-AA04-05	404	268	162	142	91	
R6E400-AK06-06	404	265	218	188	140	
R3G400-AD32-71	404	268	205	141	90	✓
R3G400-AY87-01	455	282	330.5	182	125	✓
R4D450-AK03-06	485	300	234	209	140	
R4E450-AK01-01	485	300	234	209	140	
R6D450-AN01-01	485	300	234	209	140	

Part No.	Air Flow Direction	Voltage (V)	Frequency	Air Volume (m^3/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (µF)	Noise Level (dBA@1M) see inside cover	Max. Air Temperature (C)	Approx Weight (Kg)	Lead	Wiring Diagram	Motor Type	Notes	
R3G355-AM29-71	CW	200-277	50/60	3600	1940	500	3.15		70	60	5.7	600	K1	EC	(3)	✓
R3G355-AY40-01	CW	380-480	50/60	6200	2600	1700	2.60		79	45	13	JB	L5	EC	(1)+(3)	✓
R4D400-AD22-09	CW	400D	50	4010	1415	515	1.41		63	60	8.7	JB	F1b	AC	(1)	
R4D400-AD22-09	CW	400S	50	3600	1235	385	0.70		55	80	8.7	JB	F2b	AC	(1)	
R4E400-AN09-06	CW	230	50	3900	1370	480	2.40	10.0/400	65	70	8.7	600	A2a	AC	(1)	
R4E400-AP17-06	CW	230	50	3800	1370	480	2.40	10.0/400	66	80	8.8	600	A2a	AC	(1)	
R4E400-AP17-06	CW	230	60	4400	1460	700	3.15	10.0/400		55	8.8	600	A2a	AC	(1)	
R6E400-AA04-05	CW	230	50	2225	910	117	0.52	3.0/450	62	55	5.2	450	A1	AC	(2)	
R6E400-AA04-05	CW	230	60	2455	1000	160	0.70	3.0/450	64	40	5.2	450	A1	AC	(2)	
R6E400-AK06-06	CW	230	50	2700	895	155	0.68	5.0/450	54	95	8.7	600	A2a	AC	(1)	
R3G400-AD32-71	CW	200-277	50/60	3400	1460	360	2.20		63	60	6.1	600	K1	EC	(1)	✓
R3G400-AY87-01	CW	380-480	50/60	7700	2180	1850	2.90		81	50	14	JB	L5	EC	(1)+(3)	✓
R4D450-AK03-06	CW	400	50	6120	1350	730	1.48			80	12.5	800	F1a	AC	(1)+(3)	
R4D450-AK03-06	CW	400	50	5160	1090	510	0.88			80	12.5	800	F1b	AC	(1)+(3)	
R4E450-AK01-01	CW	230	50	5800	1250	680	3.00	14.0/400	69	70	12.5	800	A2a	AC	(1)+(3)	
R6D450-AN01-01	CW	230/400	50	4200	930	290	1.3/0.75		63	85	10	800	D1/D2	AC	(1)+(3)	

(1) nominal data in opening point with maximum load. (2) nominal data at OPa. (3) sound power.

Photos and drawings may not be a correct representation of all products.

EC Wiring Diagrams
Wiring Connection Diagrams
Hooke's Law for fans
Velocity Pressure – Air (Pv) Chart
Oven Fan
Streamers for Cool Room Evaporator fan
Pumps (Evaporative Cooler)
Forward Curved Radial
Backward Curved Radial
"Q" Motor
IQ and Q Motor
ESM Fan
Compact Axial
Basket Grille Axial
Square Plate Axials
Square & Round Plate Axials
Axial Fan
Part Number Locations
ebm-papst Axial Part No.
What fan is that?



Note: K-mound and FM mount available upon request

(1) Part number K*
(2) Part number *-FM

'Standard Backward Curved'

'Spider Mount' (1)

'Foot Mount' (2)

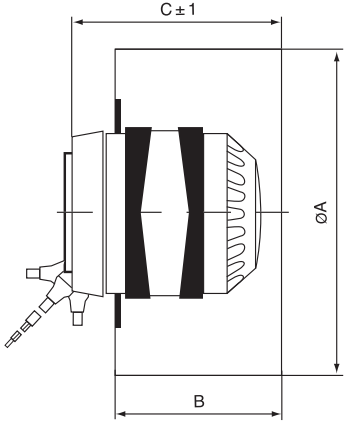
Dimensions

	A	B	C	D	E	
R6E450-AN01-01	485	300	234	209	140	
R3G450-AG33-11	485	300	284	209	140	✓
R3G450-AT09-03	485	300	326	209	140	✓
R4D500-AT01-05	505	355	245	233	175	
R4D500-AT03-01	505	355	249	233	175	
R6D500-AK03-01	505	355	245	233	175	
R3G500-AG06-03	505	355	319	233	175	✓
R6D560-AH05-01	565	398	270	258	195	
R3G560-AG07-03	565	398	344	258	195	✓
R3G560-AH02-03	565	398	344	258	195	✓
R3G560-AK32-11	565	398	320.5	258	195	✓
R6D630-AT03-01	635	447	305.5	290	220	
R6D630-AW03-01	635	447	305.5	290	220	
R3G630-AB06-03	635	447	376	290	220	✓

Part No.	Air Flow Direction	Voltage (V)	Frequency	Air Volume (m³/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (µF)	Noise Level (dBA@1M) see inside cover	Max. Air Temperature (C)	Approx Weight (Kg)	Lead	Wiring Diagram	Motor Type	Notes	
R6E450-AN01-01	CW	230	50	4000	930	300	1.42	8.0/450		61	70	10	800	A2a	AC	(1)+(3)	
R3G450-AG33-11	CW	200-277	50	6000	1365	640	2.90			71	60	12.1	JB	L1	EC	(1)+(3)	✓
R3G450-AT09-03	CW	380-480	50/60	9600	2165	2590	5.10			78	50	21	JB	M	EC	(1)	✓
R4D500-AT01-05	CW	400/400	50	8200	1375	1430	5.20			71	80	26	1000	F1a/ F2a	AC	(1)	
R4D500-AT03-01	CW	230/400	50	8200	1375	1430	5.2/3.0			77	80	26	1000	D1/D2	AC	(1)	
R6D500-AK03-01	CW	230/400	50	6000	910	480	1.9/1.1			65	80	13	800	D1/D2	AC	(1)+(3)	
R3G500-AG06-03	CW	380-480	50/60	10900	1700	2700	4.30			78	60	22	JB	M	EC	(1)	✓
R6D560-AH05-01	CW	230/400	50	8000	885	780	2.95/1.7			69	55	15	800	D1/D2	AC	(1)+(3)	
R3G560-AG07-03	CW	380-480	50/60	12000	1350	2300	3.60			74	60	23.5	JB	M	EC	(1)	✓
R3G560-AH02-03	CW	380-480	50/60	13000	1510	3100	4.90			76	60	27.5	JB	M	EC	(1)	✓
R3G560-AK32-11	CW	200-277	50/60	8300	945	790	3.50			70	60	13.9	JB	L1	EC	(1)+(3)	✓
R6D630-AT03-01	CW	230/400	50	12500	880	1310	4.85/2.8			73	60	27	1000	D1/D2	AC	(1)+(3)	
R6D630-AW03-01	CW	230/400	50	12400	910	1340	4.85/2.8			73	85	30.7	1000	D1/D2	AC	(1)+(3)	
R6D630-AW03-01	CW	230/400	60	13200	1000	2000	6.44/3.72			75	50	30.7	1000	D1/D2	AC	(1)+(3)	
R3G630-AB06-03	CW	380-480	50/60	16000	1200	2900	4.60			79	50	28.5	JB	M	EC	(1)+(3)	✓

(1) nominal data in opening point with maximum load
(2) nominal data at OPa
(3) sound power

EC Wiring Diagrams
Wiring Connection Diagrams
Hooke's Law for fans
Velocity Pressure – Air (Pa) Chart
Oven Fan
Evaporator fan for Cool Room Streamers
Pumps (Evaporative Cooler)
Forward Curved Radial
Backward Curved Radial
"Q" Motor
IQ and Q Motor
ESM Fan
Compact Axial
Basket Grille Axial
Square Plate Axials
Square & Round Plate Axials
Axial Fan
Part Number Locations
ebm-papst Axial Part No.
What fan is that?



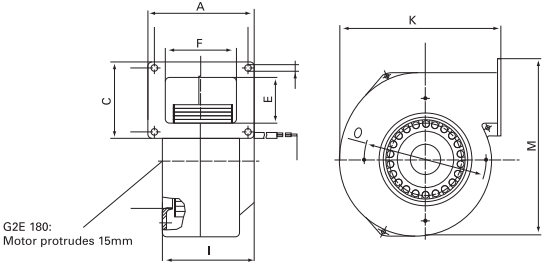
Dimensions

	A	B	C
R2E120-AR26-32	120	62	85
R4E200-AA19-13	200	52	62.5
R4E200-AY09-09	202	102	110

Part No.	Air Flow Direction	Voltage (V)	Frequency	Air Volume (m^3/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (µF)	Noise Level (dBA@1M) see inside cover	Min. Static Pressure (Pa)	Max. Air Temperature (C)	Approx Weight (Kg)	Lead	Wiring Diagram	Motor Type	Notes
R2E120-AR26-32	CW	240	50	295	2200	80	0.34	2.0/450	63		70		290	A1	AC	(2)
R4E200-AA19-13	CW	240	50	275	500	45	0.19	1.0/400	51		60		450	A1	AC	(2)
R4E200-AY09-09	CW	240	50	490	430	65	0.29	1.5/			45	1.65	800	A1	AC	(2)

(1) nominal data in opening point with maximum load
(2) nominal data at OPa
(3) sound power

Photos and drawings may not be a correct representation of all products.



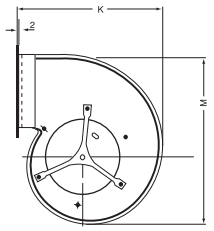
Dimensions

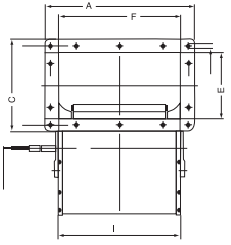
	A	C	E	F	I	K	M	
G2E120-CR26-03	110	98	67	77	99	171	180	
G2E140-AI28-01	130	120	92	94	100	227	248	
G3G140-AV03-02	130	120	92	94	116	227	248	✓
G2E146-DW07-01	130	120	92	84	104	227	248	
G3G146-AB54-01	130	120	92	94	132.5	227	248	✓
G2E160-AY47-01	130	120	92	94	100	227	248	
G3G160-AC50-01	130	120	92	94	132.5	227	248	✓
G4E180-GS11-01	183	278	224	129	155	296	332	
G3G180-EU60-01	129	134	134	129	179.5	285	332	✓

Part No.	Air Flow Direction	Voltage (V)	Frequency	Air Volume (m^3/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (μF)	Noise Level (dBA@1M) see inside cover	Max. Air Temperature (C)	Approx Weight (Kg)	Lead Length	Wiring Diagram	Motor Type	Notes	
G2E120-CR26-03	CW	230	50	275	2200	83	0.37	2.0/450	64	70	1.9	450	A1	AC	(2)	
G2E140-AI28-01	CW	230	50	485	2400	160	0.70	4.0/400	72	70	2.6	450	A1	AC	(2)	
G3G140-AV03-02	CW	200-277	50/60	430	1800	66	0.50		63	60	2.6	450	H1	EC	(1)	✓
G2E146-DW07-01	CW	230	50	470	1550	140	0.62	3.0/450	60	50	2.6	450	A1	AC	(2)	
G3G146-AB54-01	CW	200-277	50/60	600	2520	175	1.30		71	60	3.5	450	J1	EC	(1)	✓
G2E160-AY47-01	CW	230	50	600	2100	240	1.05	6.0/400	72	50	3.9	450	A1	AC	(2)	
G3G160-AC50-01	CW	200-277	50/60	640	2150	175	1.30		70	60	3.5	450	J1	EC	(1)	✓
G4E180-GS11-01	CW	230	50	1030	1130	180	0.80	4.0/400	66	45	6.4	600	A1	AC	(2)	
G3G180-EU60-01	CW	200-277	50/60	800	1320	162	1.20		62	60	4.0	450	J1	EC	(1)	✓

(1) nominal data in opening point with maximum load
(2) nominal data at OPa
(3) sound power

Photos and drawings may not be a correct representation of all products.





'A'

'B'

'C'

Dimensions

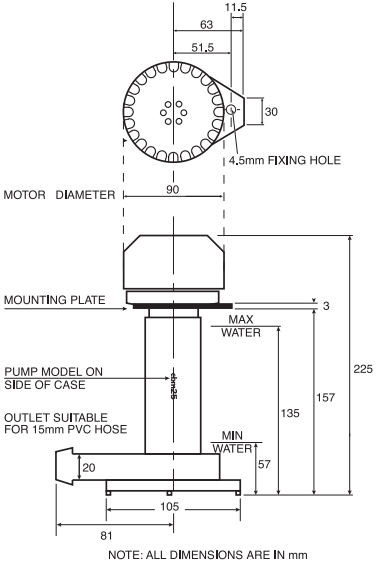
	A	C	E	F	I	K	M
D2E133-DM47-01	270	142	102	232	232	204	213
D2E133-AM83-98	215	71	71	215	215	170.5	180
D2E146-AP47-22	270	142	102	232	232	206	219
D2E146-HS97-04	178	163	149	ROUND	195	220	216
D2E146-HT67-01	178	163	149	ROUND	199	220	216
D4E146-AA07-02	270	142	102	232	232	206	219
D4E146-AU70-69	232	104.5	104.5	232	232	206	219
D3G146-AH50-01	232	104.5	104.5	232	232	206	219
D4D180-CB01-02	309	278	224	255	255	296	333
D4E180-CA02-02	309	278	224	255	255	296	333
D4D200-CA01-02	341	304	250	287	287	327	371
D4E200-CA02-02	341	304	250	287	287	327	371
D4D225-CC01-02	341	304	250	287	287	327	370

Part No.	Identity Case Style	Voltage (V)	Phase	Air Volume (m^3/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (µ/F)	Noise Level (dBA@1M) see inside cover	Max. Air Temperature (C)	Approx Weight (Kg)	Lead Length	Wiring Diagram	Motor Type	Notes
D2E133-DM47-01	B	230	50	810	1150	190	0.84	3.0/400	56	40	4.4	300	A1	AC	(2)
D2E133-AM83-98	B	230	50	705	1500	185	0.81	3.0/	60	45	3.8	550	ebm-5-speed	AC	(2)
D2E146-AP47-22	C	230	50	970	2050	300	1.31	8.0/400	63	30	4.2	350	A1	AC	(2)
D2E146-HS97-04	A	230	50	755	1350	195	0.86	5.0/400	57	55	3.5	connector	ebm-4-speed	AC	(2)
D2E146-HT67-01	A	230	50	1060	1850	355	1.55	8	66	50	3.6	connector	ebm-4-speed	AC	(2)
D4E146-AA07-02	B	230	50	835	1000	100	0.44	2.0/450	55	50	3.5	350	A1	AC	(2)
D4E146-AU70-69	B	230	50	760	1220	97	0.43	2.0/450	55	55		900	ebm-2-speed	AC	(2)
D3G146-AH50-01	B	200-277	50/60	1140	1740	171	1.30		67	60	4.0	350	J1	EC	(1)
D4D180-CB01-02	C	230/400	50	1880	1050	290	0.92/0.53		62	55	9.5	600	C1/C2	AC	(2)
D4E180-CA02-02	C	230	50	2110	1250	380	1.68	10.0/400	64	60	10.8	600	A1	AC	(2)
D4D200-CA01-02	C	230/400	50	2550	1080	480	1.54/0.89		63	30	12	600	C1/C2	AC	(2)
D4E200-CA02-02	C	230	50	2380	1100	490	2.15	10.0/400	60	40	11.9	600	A1	AC	(2)
D4D225-CC01-02	C	230/400	50	2980	1000	680	1.99/1.15		64	45	12.5	600	C1/C2	AC	(2)
D4D225-CC01-02	C	230/400	60	2340	1050	700	2.17/1.25		62	35	12.5	600	C1/C2	AC	(2)

(1) nominal data in opening point with maximum load
(2) nominal data at OPa
(3) sound power

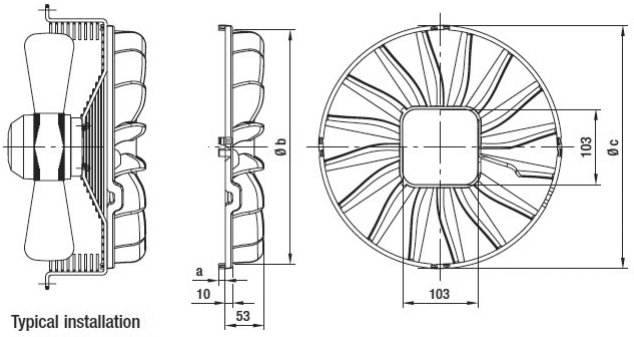
* D2E133-AM83-98 (As -88 but with grille).

Photos and drawings may not be a correct representation of all products.



NOTE: ALL DIMENSIONS ARE IN mm

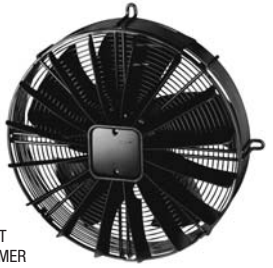
Part No.	Air Flow Direction	Voltage (V)	Phase	Nominal Flow (L/min)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (µF)	Noise Level (dBA@1M) see inside cover	Min. Static Pressure (Pa)	Max. Air Temperature (C)	Approx Weight (Kg)	Colour	Wiring Diagram	Motor Type
EBM40 JB		230	1	35	2700	16		1						A1	AC



Typical installation

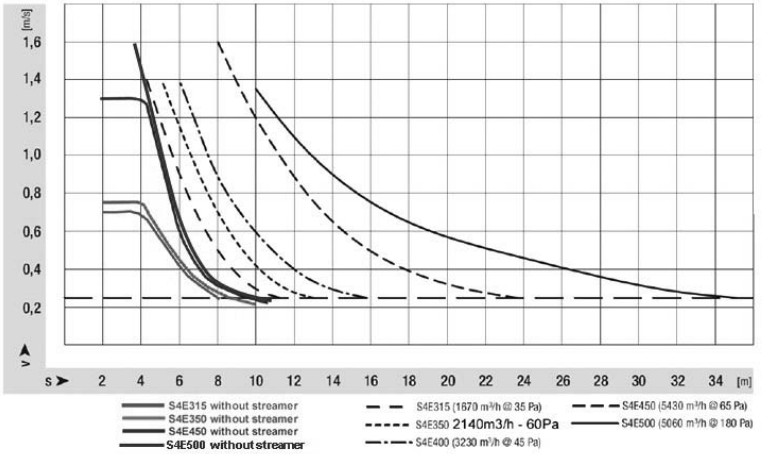
Description	Part No.	A	B	C
Streamer for S4E300-AP26-38 and S4E300-AP26-44	29604-1-2955	10	321	333
Streamer for S4E350-AP06-48 and S4E350-AP06-60	29601-1-2955	10	361	373

* See page 20+21 for fan data



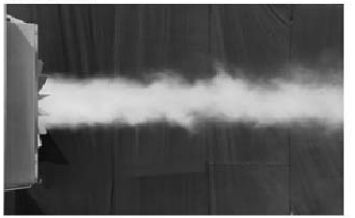
EXAMPLE OF BASKET
GRILLE WITH STREAMER

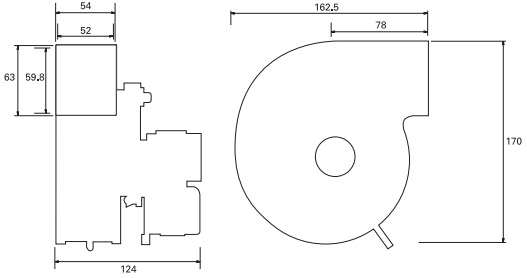
Thrust ranges (established in a typical heat exchanger)



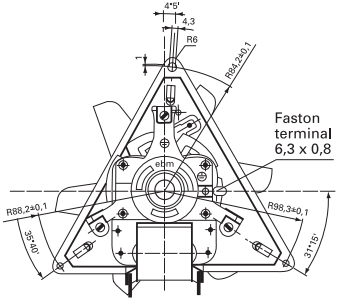
Without streamer

With streamer

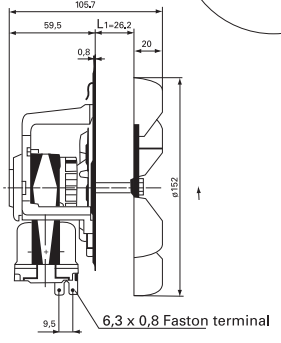


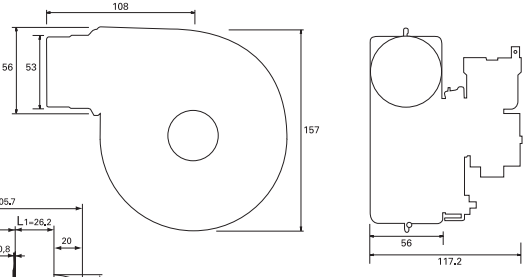


RLA108



R2K150





G2K097

Part No.	Article No.	Voltage (V)	Phase	Air Volume (m^3/Hr)	Speed (RPM)	Power Input (W)	Current (A)	Capacitor (µF)	Noise Level (dBA@1M) see inside cover	Min. Static Pressure (Pa)	Max. Air Temperature (C)	Approx Weight (Kg)	Colour	Wiring Diagram	Motor Type
R2K150-AC03-25	55466.32180	230	50	200	2000	32	0.27				120	0.9			AC
RLA108/0034A76	55461.21760	230	50	100	1800	32	0.27			49	105/150	1.5			AC
G2K097-AD01-65	55465.12040	230	50	150	1750	60	0.53			53	90/220	3			AC

* RLA108/0034A76 replaces G2K108-AA01-45 & 46.

Velocity Pressure – Air (P_V) Chart

ebmpapst

Velocity (m/s)	Velocity pressure (Pa)
1.00	0.60
1.25	0.94
1.50	1.35
1.75	1.84
2.00	2.40
2.25	3.04
2.50	3.75
2.75	4.54
3.00	5.40
3.25	6.34
3.50	7.35
3.75	8.44
4.00	9.6
4.25	10.8
4.50	12.2
4.75	13.5

Velocity (m/s)	Velocity pressure (Pa)
5.00	15.0
5.25	16.5
5.50	18.2
5.75	19.8
6.00	21.6
6.25	23.4
6.50	25.4
6.75	27.3
7.00	29.4
7.25	32
7.50	34
7.75	36
8.00	38
8.25	41
8.50	43
8.75	46

Velocity (m/s)	Velocity pressure (Pa)
9.00	49
9.25	51
9.50	54
9.75	57
10.0	60
12.5	94
15.0	135
17.5	184
20.0	240
22.5	304
25.0	375
27.5	454
30.0	735
40.0	960
45.0	1215
50.0	1500

$P_V = V^2 \times 0.6$ @ 20℃

Hooke's Law for fans

Speed variation at constant fan size and constant density:

$$V_2 = V_1 \times \frac{n_2}{n_1}$$

The volume flow changes proportionately to the speed

$$P_2 = P_1 \times \left(\frac{n_2}{n_1}\right)^2$$

All pressures (static, dynamic, total) change proportionately to the square of the speed

$$W_2 = W_1 \times \left(\frac{n_2}{n_1}\right)^3$$

The power requirement at the shaft changes proportionately to the third power of the speed

Change in density at constant speed (or change of the Kelvin temperature at a constant flow medium)

$$V = \text{Const}$$

The volume flow is not affected

$$P_2 = P_1 \times \frac{Q_2}{Q_1} = \frac{T_2}{T_1}$$

The pressures (static, dynamic, and total) change proportionately to the density

$$W_2 = W_1 \times \frac{Q_2}{Q_1} = \frac{T_2}{T_1}$$

The power requirement at the shaft changes proportionately to the density

Change in wheel diameter of geometrically similar wheels at constant speed

$$V_2 = \left(\frac{D_2}{D_1}\right)^3 \times V_1$$

The volume flow changes proportionately to the third power of the wheel diameter

$$P_2 = P_1 \times \left(\frac{D_2}{D_1}\right)^2$$

The pressure (static Dynamic, total) change proportionately to the square of the wheel diameter

$$W_2 = W_1 \times \left(\frac{D_2}{D_1}\right)^5$$

The power requirement at the shaft changes proportionately to the fifth power of the wheel diameter

The following information applies generally, but not exhaustively, to the majority of A.C. products sold in Australia & New Zealand.

Notes

1 BE CAREFUL - always check the data on the motor, if in doubt ask an ebm-papst A&NZ representative

2 Most single speed 3 phase motors must be connected in "Y" star. Motor will fail if connected in Delta

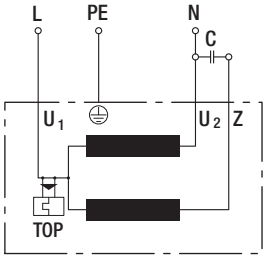
3 3 phase - change direction of rotation by changing any 2 phases (applies for AC-motors only, not EC)

4 All connection leads brought out by ebm-papst are "internal leads" as defined by EN 60335-1

5 "PE" = Earth

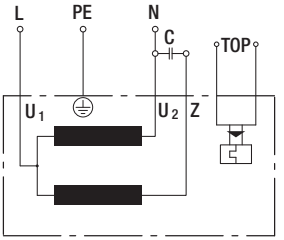
Please check our website www.ebmpapst.com.au or catalogue for complete wiring information.

Fans (1~ 230 VAC power line)



U_1 = blue
U_2 = black
Z = brown
⏚ = green/yellow

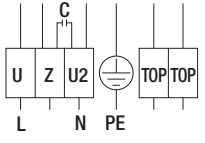
A1) Single phase capacitor motor with TOP wired internally



U_1 = blue
U_2 = black
Z = brown
⏚ = green/yellow

A2a) Single phase capacitor motor with connection for external TOP

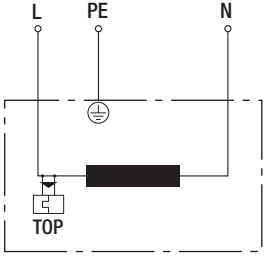
Fans (1~ 230 VAC power line)



U_1 = blue
U_2 = black
Z = brown
⏚ = green/ yellow

Fans
with terminal box

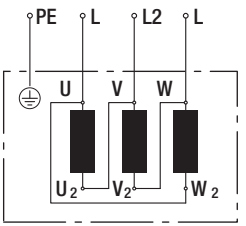
A2b) Single phase capacitor motor with connection for external TOP



L = blue
N = brown
⏚ = green/ yellow

B) Shaded pole motor with TOP wired internally

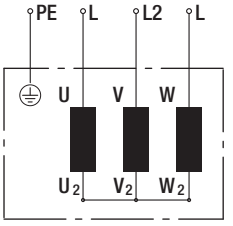
Fans, 1 speed (3~ 230 VAC power line)



U_1 = black
U_2 = green
V_1 = blue
V_2 = white
W_1 = brown
W_2 = yellow
⏚ = green/yellow

C1) Delta connection (3~ 230 VAC power system) without TOP

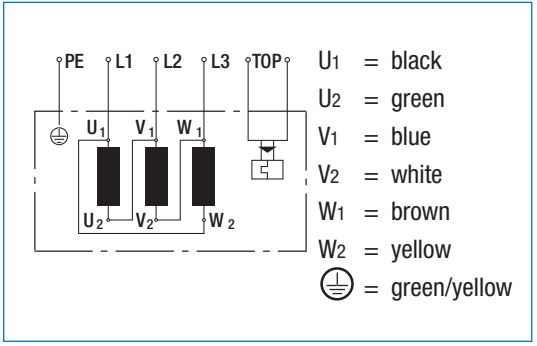
Fans, 1 speed (3~ 400 VAC power line)



U_1 = black
U_2 = green
V_1 = blue
V_2 = white
W_1 = brown
W_2 = yellow
⏚ = green/yellow

C2) Star connection (3~ 400 VAC power system) without TOP

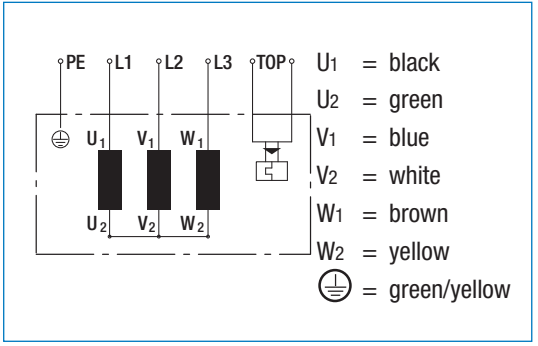
Fans, 1-speed (3~ 230 VAC power line)



D1) Delta connection (3~230 VAC power line) with TOP

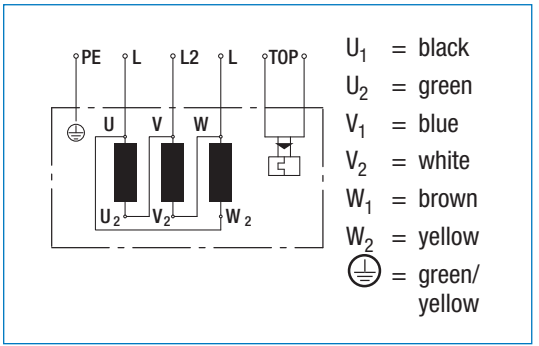
Direction of rotation is reversed by swapping two line phases

Fans, 1-speed (3~ 400 or 480 VAC power line)

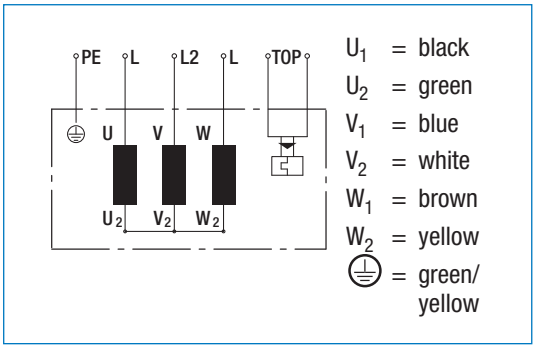


D2) Star connection (3~400 or 480 VAC power line) with TOP

Fans, 1 speed (3~ 400 VAC power line)



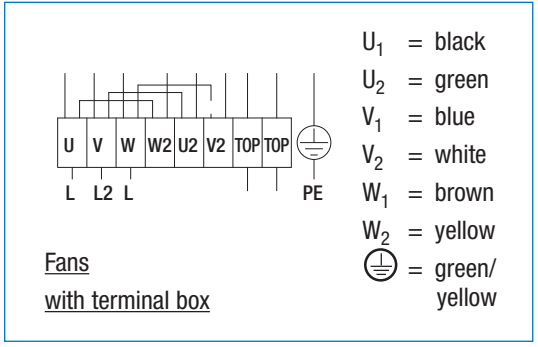
F1a) Delta connection (high speed) with TOP



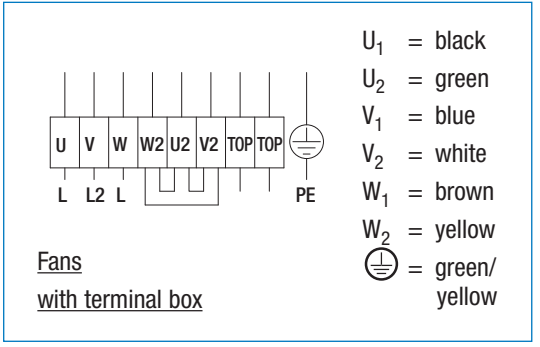
F2a) Star connection (low speed) with TOP

Direction of rotation is reversed by swapping two line phases

Fans, 2 speeds via ▲/Y-switch (3~ 400 VAC power line)



F1b) Delta connection (high speed) with TOP

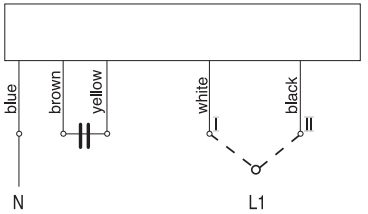


F2b) Star connection (low speed) with TOP

Direction of rotation is reversed by swapping two line phases

ebm 2

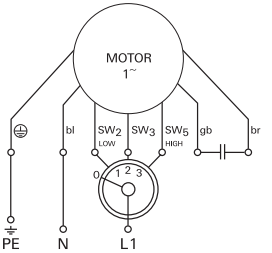
Single phase 2 Speed



rotation speed fast (level II)
rotation speed slow (level I)

ebm 3

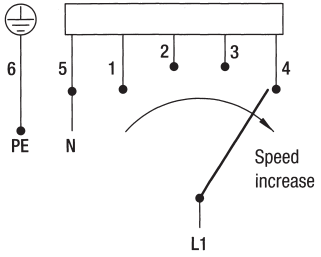
Single phase 3 Speed



green/yellow bl blue br brown gb yellow
SW2 black #2 SW3 black #3 SW5 black #5

ebm 4

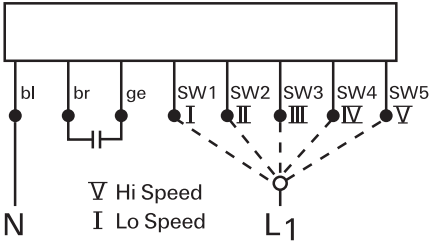
4 speed control



Connection Diagram When changing speeds, the switch must break the circuit

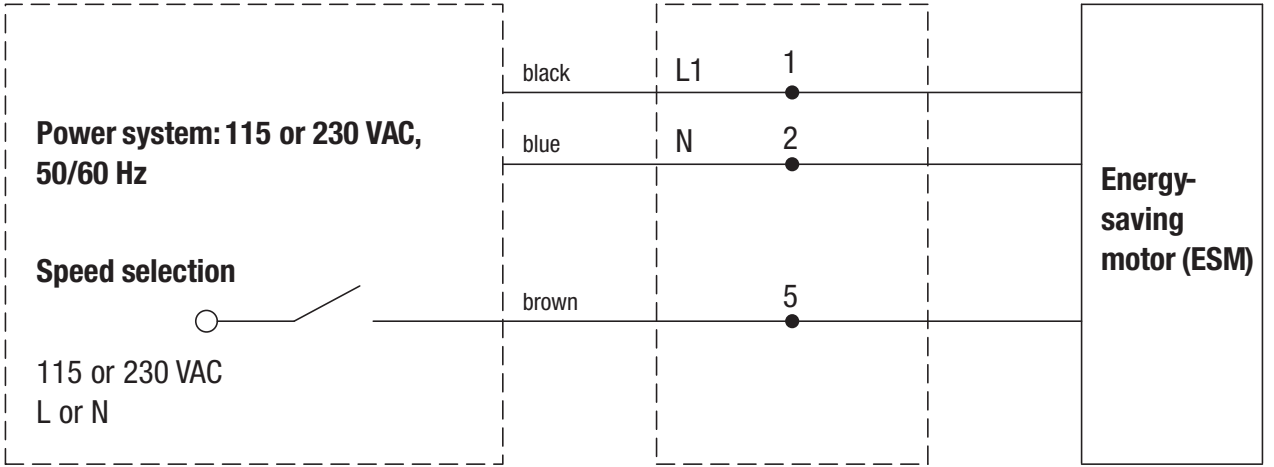
ebm 5

Single phase 5 Speed



bl blue br brown ge yellow SW1 white
SW2 red SW3 grey SW4 orange SW5 black

ESM


Power system: 115 or 230 VAC, 50/60 Hz
Speed selection
115 or 230 VAC
L or N
black
blue
brown
L1
N
1
2
5
Energy-saving motor (ESM)

Wiring type	Description		
	Power Supply	Alarm Relay	Bus interface
Special-1	48V DC	no	no
G	24/48V DC	no	no
H1	1~ 230V 50/60HZ	no	no
J1	1~ 230V 50/60HZ	no	no
K1	1~ 230V 50/60HZ	yes	no
K3	3~ 400V 50/60HZ	yes	no
L1	1~ 230V 50/60HZ	yes	ebmBUS
L2	3~ 400V 50/60HZ	yes	ebmBUS
L3	1~ 230V 50/60HZ	yes	no
L5	3~ 400V 50/60HZ	yes	MODBUS
M	3~ 400V 50/60HZ	yes	ebmBUS

Please check our website www.ebmpapst.com.au or catalogue for complete wiring information.

ebm-papst
A&NZ Pty Ltd

VICTORIA 10 Oxford Rd Laverton North VIC 3026 · P.O. Box 5060 Sunshine VIC 3020
Phone (03) 9360 6400 · Fax (03) 9360 6464 · Email sales@ebmpapst.com.au · **www.ebmpapst.com.au**
QUEENSLAND Phone (02) 9827 6400 NEW SOUTH WALES Phone (02) 9827 6400 SOUTH AUSTRALIA Phone (08) 8849 2494
WESTERN AUSTRALIA Phone (08) 8849 2494 NEW ZEALAND Phone +64 9 837 1884 · **www.ebmpapst.co.nz**

JUNE 2011

ebmpapst