Energy efficient ventilation solutions

Integrating EC motor technology

ECO TECH range

The Fantech range of energy efficient ventilation systems incorporates state-of-the- art technology and includes controllers, sensors and Electronically Commutated (EC) Fans. The systems are cost saving innovations that provide the ventilation rate needed to match the requirements of the space at any given time.

FANTECH
Intelligent Ventilation

An intelligent energy saving solution

Fantech is committed to developing innovative and energy efficient products and systems that are designed to optimise the indoor environment while lowering power consumption. More efficient, cost effective ventilation solutions that have lower energy requirements can lead to a reduction in a building's running costs and have less environmental impact.

Traditional building ventilation systems have constant or predetermined ventilation rates based on the maximum demand of the space. Typically, the fan operates continuously and the air continues to be conditioned even when the demand drops, leading to energy wastage.

Can reduce on-site commissioning time

Fantech's ECOTECH range incorporates the latest state-of-the-art energy saving technology. It consists of intelligent, Demand Control Ventilation systems that combine Electronically Commutated (EC) fans and a number of fully compatible, high quality sensors and controllers.

The ECOTECH fan range features fully integrated infinitely variable speed control and eliminates the need for external VSDs, current overloads and motor phase protection. They include reverse polarity protection, locked rotor protection, soft start and can be run as an independent ventilation source or integrated into most building management systems.

Most fan models can also be factory pre-configured to suit a large range of sensors and the parameters provided by the customer. This can reduce considerable on-site commissioning time as installers do not need to have specialised control programing knowledge. The sensors monitor the ambient conditions in a space and provide real time feed back to the fan's on-board microprocessor. It reads this feedback and adjusts the fan speed to modulate the ventilation rate and match the specific requirements of the area. The ECOTECH fan range includes duct mounted, wall mounted and roof mounted models and come standard with a 0-10V control input.

The extensive range of ECOTECH sensors and controllers are simple to install and provide the flexibility to suit most types of applications. The range of sensors includes differential pressure, humidity, temperature and air velocity.

Key projects

Spark Data Centre
Auckland,
New Zealand

Pita Pit
Hamilton,
New Zealand

Macquarie West Fields
Mall Shops,
New South Wales

Content

ECO TECH range

TD EcoWatt Series
Duct Mounted Fans

DESCRIPTION

The TD-EcoWatt range of mixed-flow fans incorporates the latest innovative EC motor technology.

Suitable for mounting in any position, the range is available to suit standard duct sizes from 100 to 315mm diameter.

Typical Applications

Ideal for the ventilation of toilets, laundries, ensuites and kitchens for homes, hotels and commercial premises.

Features

- An energy efficient solution with state of the art EC motor technology.
- Speed-controllable from 10% to 100% via a 0-10V analogue input signal.
- High performance mixed-flow impeller.
- Fans can be removed for maintenance or repair without disturbing the duct system via specially designed support brackets.
- All models are designed for direct connection to standard diameter circular ducting.
- Integral mounting foot makes installation more simple.
- Includes plug and lead for easy and quick installation.
- Suitable for both supply and exhaust air applications.
- EC motors can be directly connected to their appropriate AC supply

Construction

Models 250/100 to 800/200 - casings manufactured from reinforced, injection moulded, polypropylene plastic. Impellers are made of injection moulded plastic and are a mixed-flow design.

Models 1300/250 and 2000/315 - casings manufactured from epoxy coated steel. Impellers are made of aluminium and of mixed-flow design.

Motors

Type - high performance, energy efficient brushless DC motor.

Electricity supply - 90-260V, 50/60Hz for models 250/100 to 800/200.
- 230V, 50/60Hz for models 1300/250 and 2000/315.

Bearings - sealed for life, ball.

Motor protection IP44.

Internal Thermal Protection

Manual-reset thermal overload protection device in accordance with mandatory requirements for in-line fans, AS/NZS60335-2-80:2004

Testing

Air flow to ISO5801:Part 1 1997 or AMCA 210-99

Noise to ISO 13347-3 2004

Special Note

Avoid the use of spring-loaded backdraft dampers, extensive lengths of duct and restrictive air valves with the 250/100ECO and 350/125ECO models.

Multi-stage Fans

In addition to being used as single-stage fans, the TD-EcoWatt can be arranged in parallel, in series or in both parallel and series.

Such flexibility enables higher air flow and pressure demands to be met. The principle of 2-stage parallel can be found on page B-16; refer to Fantech CD program for details of other combinations.

SUGGESTED SPECIFICATION

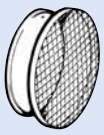
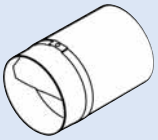
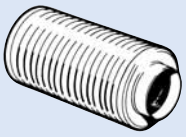
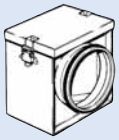
The duct mounted fans shall be of the TD-EcoWatt Series as supplied by Fantech Pty Ltd and be of the model numbers shown on the schedule/drawings.

Impellers shall be of mixed-flow design and driven by a speed-controllable, brushless EC-DC motor with manual-reset thermal overload protection. Fans shall be capable of running 10 to 100% of capacity via a 0-10V analogue input signal.

It shall include an integral mounting foot, plug and lead and specially designed support brackets to enable motor removal.

All fans shall be tested to ISO5801:Part1, 1997 and AMCA 210-99 for air flow and ISO 13347-3 2004 for noise.

ANCILLARY EQUIPMENT

 MRJ - Inlet grille	 RED - Reducer*	 RSK - Backdraft Dampers
 SJK - Backdraft Damper	 CC - Attenuators	 FC - Fast clamp
 FGR - Filter Unit		

* If it is necessary to connect the TD-2000/315ECO unit to 300mm diameter ducting, it is recommended 2-RED031-030 reducers be used. In this situation the performance will be reduced by approximately 7%.

Scan the QR Code to view more information online.

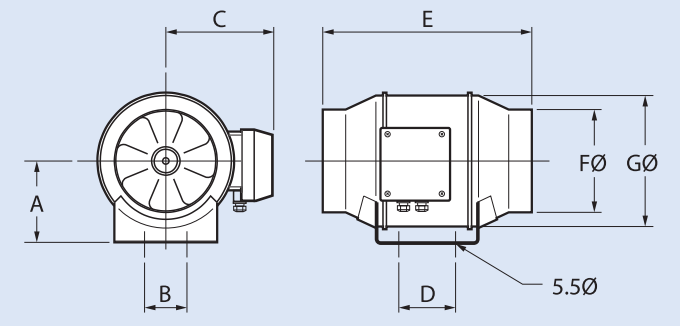
TD EcoWatt Series

NOISE DATA

Model Number TD-...	Type	dB(A) @ 3m	In-duct Sound Power Levels L_WdB re 1pW 63	125	250	500	1k	2k	4k	8k
250/100ECO	Inlet	39	53	48	55	58	55	52	43	37
250/100ECO	Outlet	38	55	48	56	59	52	51	42	36
250/100ECO	Breakout	34	50	45	55	51	50	49	37	30
350/125ECO	Inlet	37	54	44	53	55	53	51	43	36
350/125ECO	Outlet	38	55	46	54	58	53	51	42	35
350/125ECO	Breaktout	31	48	35	53	45	46	47	35	26
500/150ECO	Inlet	44	52	50	59	58	57	60	54	49
500/150ECO	Outlet	45	55	50	60	63	61	58	54	49
500/150ECO	Breakout	34	44	38	57	39	44	51	39	34
800/200ECO	Inlet	47	52	49	58	57	65	62	58	50
800/200ECO	Outlet	49	66	55	58	65	65	64	58	49
800/200ECO	Breakout	36	52	36	48	38	53	52	45	32
1300/250ECO	Inlet	64	65	63	77	77	82	79	71	64
1300/250ECO	Outlet	64	65	66	78	78	81	78	70	62
1300/250ECO	Breakout	62	66	67	79	77	79	75	66	57
2000/315ECO	Inlet	65	72	70	79	79	82	79	70	65
2000/315ECO	Outlet	66	72	71	81	80	83	80	71	65
2000/315ECO	Breakout	64	71	75	83	80	81	77	69	64

Sound Levels are taken at medium-level pressure.

DIMENSIONS

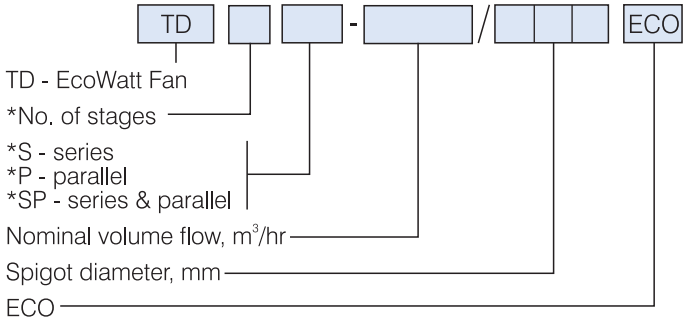


Model No. TD-..	Dimensions, mm A	B	C	D	E	FØ	GØ
250/100ECO	100	60	156	80	303	97	176
350/125ECO	100	60	156	80	258	123	176
500/150ECO	111	60	173	80	295	147	200
800/200ECO	124	94	184	100	302	198	217
1300/250ECO	155	140	192	145	386	248	272
2000/315ECO	188	178	224	182	450	312	336

TECHNICAL DATA

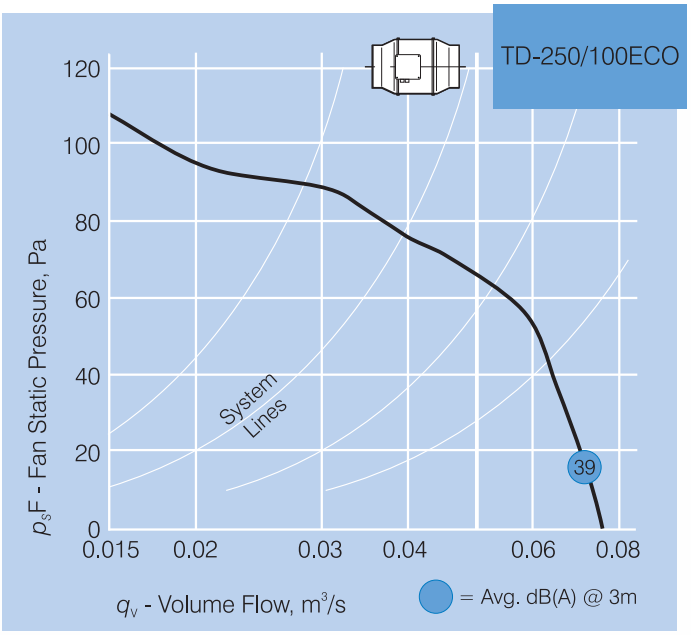
Model Number TD-..	Fan Speed rev/sec	Avg. dB(A) @ 3m	TD.. 1 ph. Watts	Amps	Max. amb °C	App. wt. kg
250/100ECO	40	39	20	0.17	60	2.0
350/125ECO	40	37	21	0.17	60	2.0
500/150ECO	43	44	50	0.35	60	2.7
800/200ECO	39	47	105	0.75	60	4.9
1300/250ECO	42	64	155	0.62	40	9.5
2000/315ECO	42	65	255	1.07	40	14.0

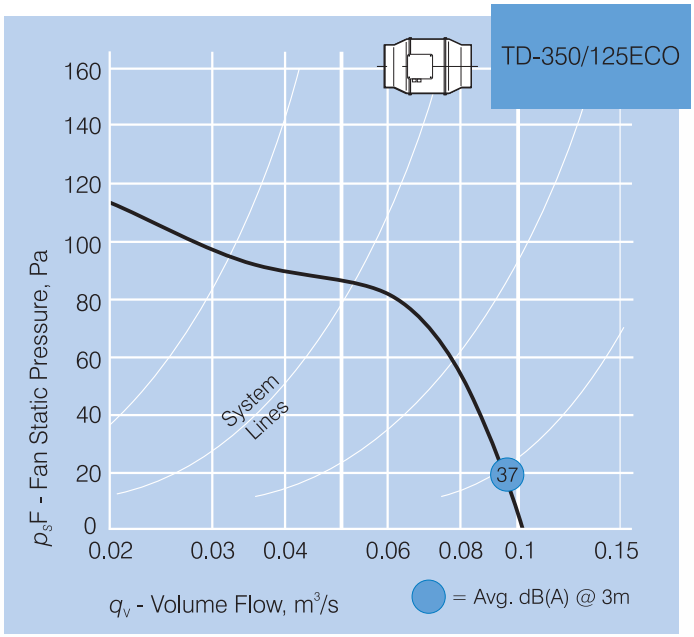
HOW TO ORDER

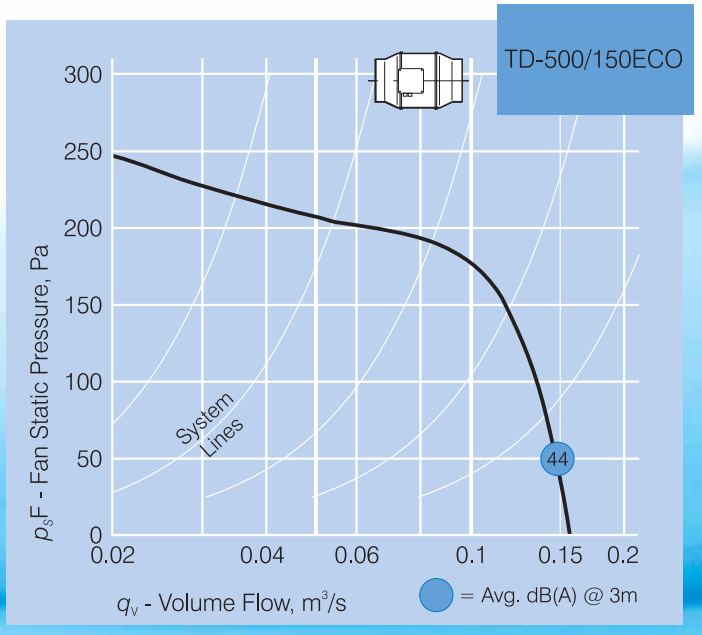


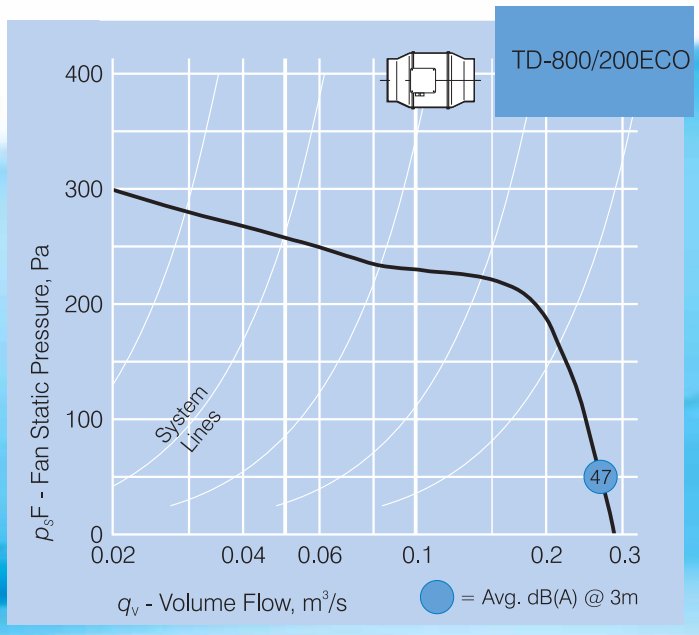
* Only required if other than standard single-stage unit.

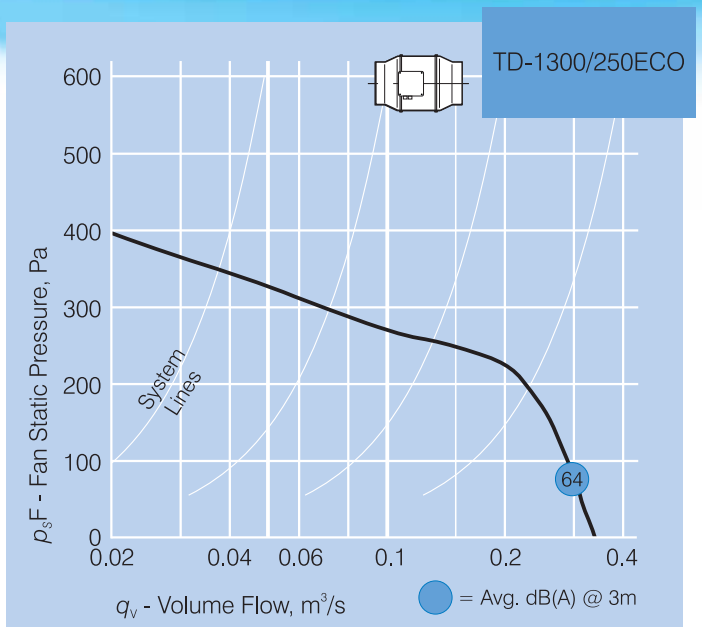
SINGLE-STAGE

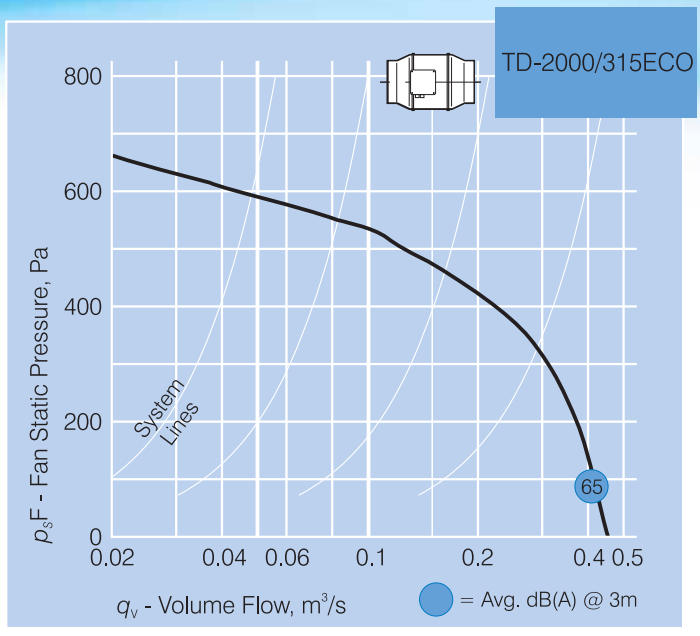












Short Case Axial EC Series
Duct Mounted Fans

DESCRIPTION

The Short Case Axial EC Series fans incorporate the latest state-of-the-art EC motor technology. They are an energy saving solution and are most efficient where conditions vary during the course of the day.

Optional matching sensors monitor the ambient conditions in a space and provide real time feedback to the fan. The fan's on-board microprocessor adjusts the motor speed and therefore modulates the ventilation rate to match the specific requirements of the area.

The Short Case Axial EC fans feature fully integrated, infinitely variable speed control which eliminates the need for external VSDs, current overloads and motor phase protection. They are a simple "plug and play" system which means installers do not need to have specialised control programing knowledge.
They are available in 7 sizes ranging from 250 to 630mm diameter.

Typical Applications

Exhausting or supplying air to applications handling clean, ambient air. Also where automatic air modulation is required.

Features

- EC motor features reverse polarity protection, locked rotor protection and soft starting.
- No additional protection such as contactors are required.
- All models supplied standard with 0-10V control input.
- Diameter sizes 500mm and above can be pre-configured to suit specific sensors and specific parameters.
- A full range of sensors are available including differential pressure, temperature, air velocity and pollutant.
- Can be run as an independent ventilation source or integrated into most building management systems.
- Compact, short case design with light-weight but robust construction.
- Low noise, high performance impellers with enhanced aerodynamic design.
- An electric junction box is fitted as standard.
- Capable of operating at temperatures up to 60 °C.
- Units can be mounted at any angle.
- EC motors can be directly connected to their appropriate AC supply.

Construction
The casing is of galvanised steel with a polyester epoxy finish as standard.
Impellers are of high performance composite material.

Motors
Type - electronic commutated (EC) motor.
Electricity supply - 200-277V single-phase, 50/60Hz or 380-480V three-phase, 50/60Hz
Bearings - sealed-for-life, ball.
Integrated EC-Controller providing infinite speed control.

Internal Thermal Protection
Automatic reset protection is supplied as standard.

Testing
Air flow tests to BS848:Part 1, 1980
Noise tests to BS848, Part 2, 1985

Wiring Diagram
Scan the QR code below or visit www.fantech.com.au to view wiring diagrams online.

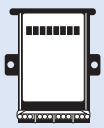
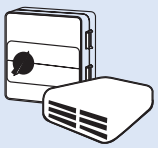
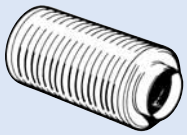
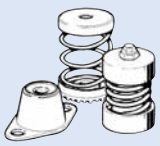
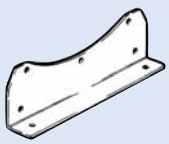
Special Note
Diameter sizes from 500mm and above can be programed to suit specific sensors and specific parameters. Please advise Fantech of these parameters at the time of order.

SUGGESTED SPECIFICATION
The duct mounted axial fans shall be of the Short Case Axial EC Series as designed and manufactured by Fantech Pty Ltd and be of the model numbers shown on the schedule/drawings.

The axial impellers shall be made from high performance composite material. They shall be driven by an EC-DC external rotor motor with integrated EC-Controller and integral thermal protection. Diameter sizes from 500mm and above shall be pre-configured to suit the selected sensors and the required applications. Casings shall be of galvanised steel construction with a polyester epoxy finish.

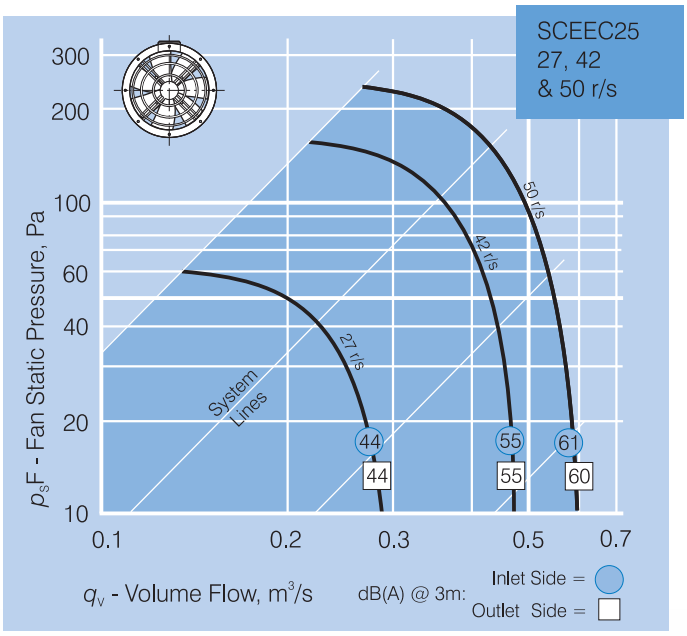
All models shall be fully tested to BS848:part 1, 1980 for air flow and BS848:Part 2, for noise.

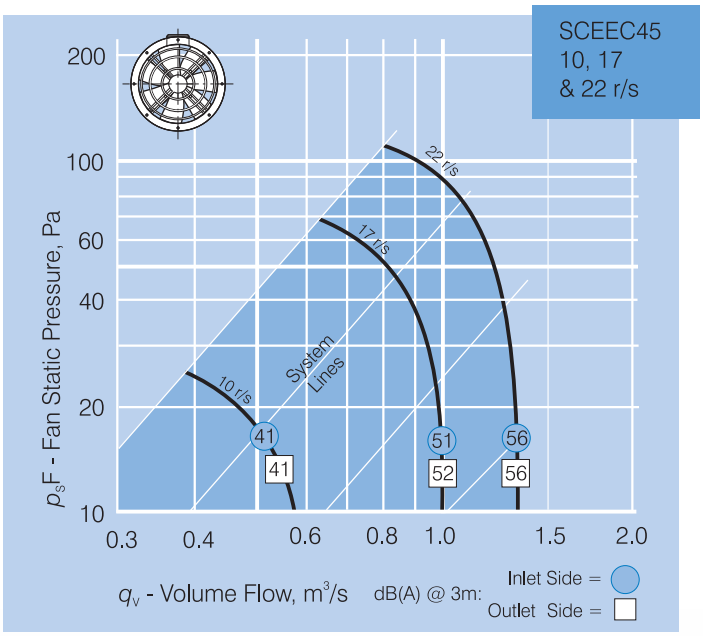
ANCILLARY EQUIPMENT

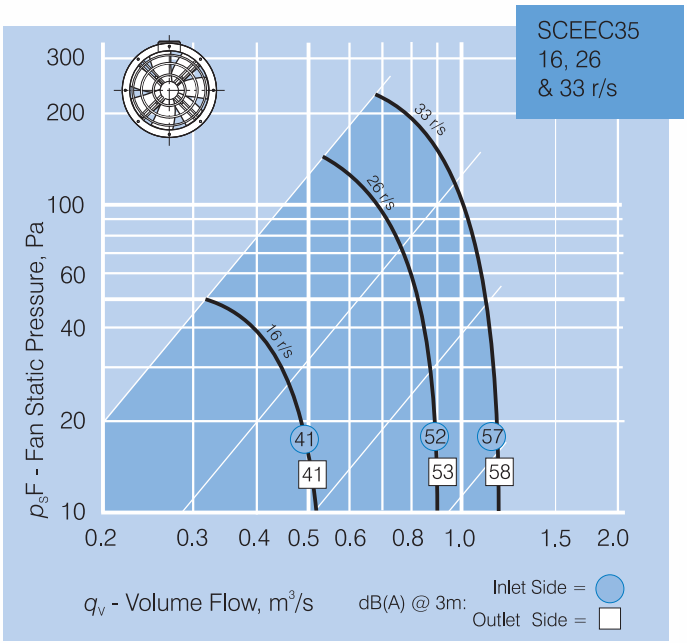
 DCV-CU Premium Module Controller	 Controllers & Sensors	 CC - Circular Attenuator
 Vibration Isolators	 CMF - Matching Flange	 CFT - Mounting Feet
 CIC - Inlet Cone	 DG - Finger Guards	 Shutters

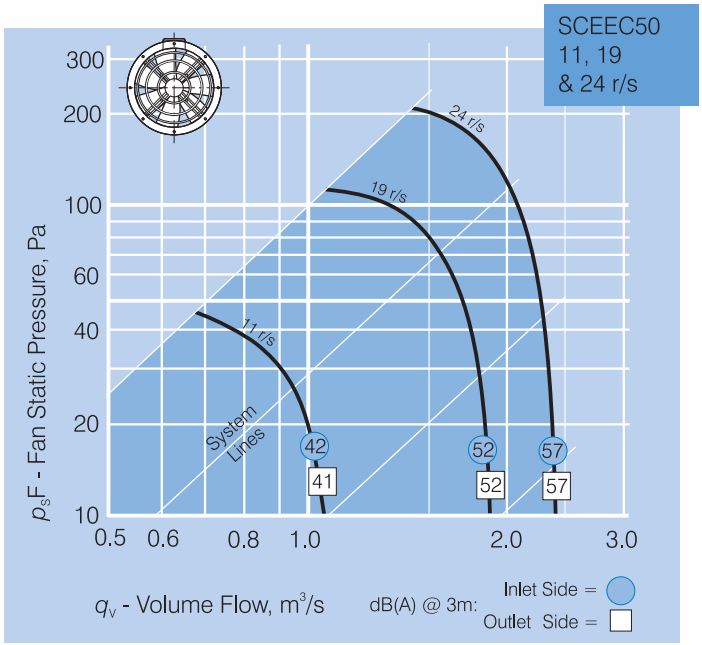
Scan the QR Code to view wiring diagrams or more information online.

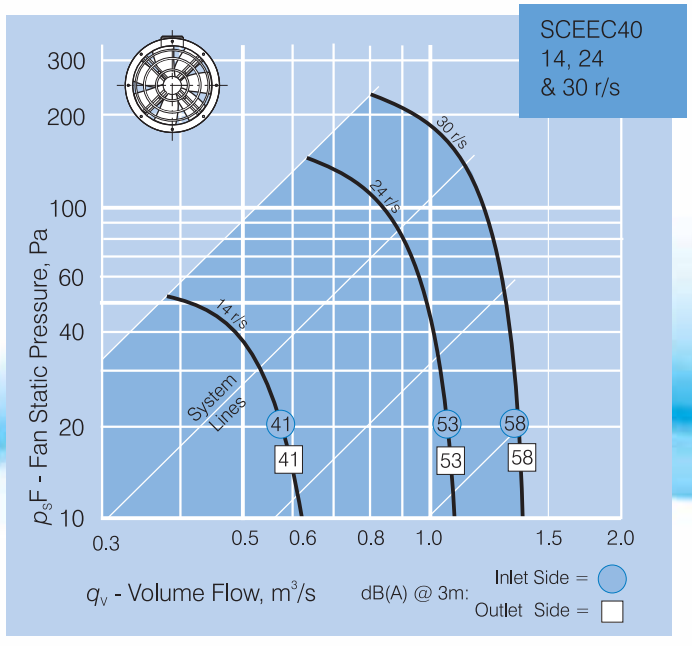
Short Case Axial EC Series

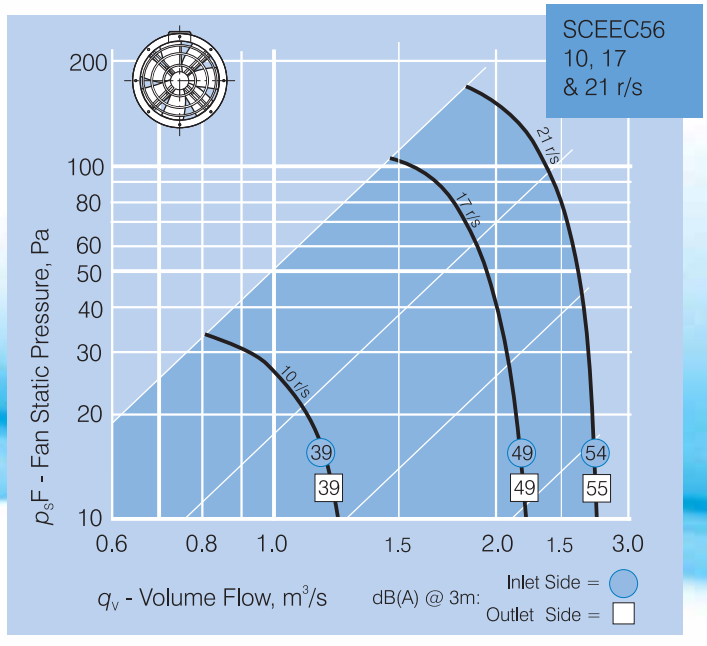


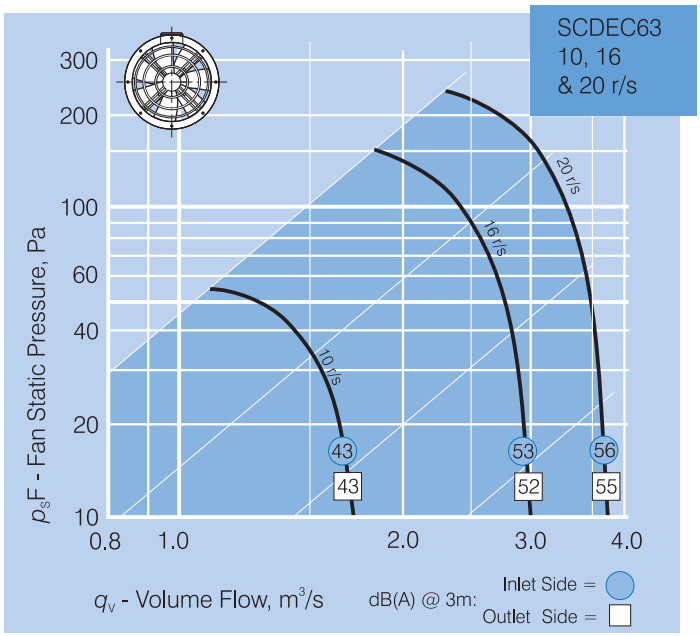




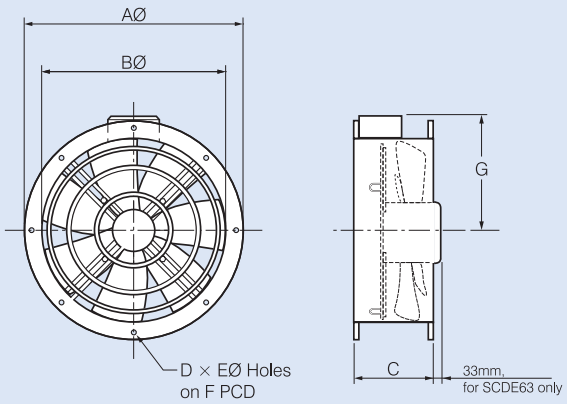








DIMENSIONS

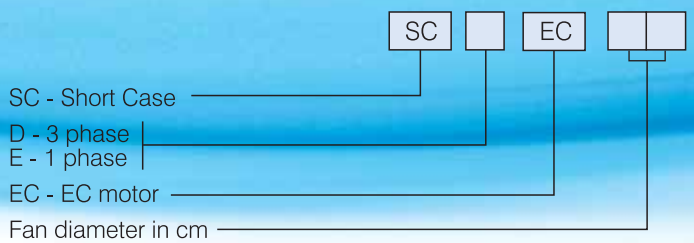


Dimensions, mm

Model SCDEC.. SCEEC..	AØ	BØ*	C	D	EØ	F	G	App. wt. kg	App. vol. m³
25	306	257	180	8	7	286	174	5	0.06
35	421	356	180	8	9.5	395	224	8	0.08
40	466	400	205	12	9.5	438	249	9	0.09
45	515	450	255	12	9.5	487	274	21	0.14
50	575	503	250	12	10	541	299	21.5	0.17
56	636	560	272	16	11.5	605	329	29	0.23
63	709	634	250	16	11.5	674	364	25	0.35

* Dimension B is the internal for the casing.

HOW TO ORDER



Compact 2000 EC Series

Wall Mounted Fans

DESCRIPTION

The Compact 2000 EC Series of square plate axial fans incorporates the latest state of the art EC motor technology. They are an energy saving solution and are most efficient when air flow requirements vary during the course of the day.

They feature integrated infinitely variable speed control and eliminate the need for external VSDs, current overloads and motor phase protection. Optional matching sensors monitor the conditions and provide real time feedback to the fan's on-board electronics. This processes the data and in turn adjusts the motor speed. This modulates the ventilation rate to match the specific requirements of the area.

The Compact 2000 EC Series is a simple "plug and play" system which means installers do not need to have specialised control programming knowledge. The series is available in 4 sizes ranging from 250 to 630mm diameter.

Typical Applications

Suitable for general ventilation applications in commercial and light industrial environment such as warehouses, substations and indoor recreation centres.

Features

- EC motor features reverse polarity protection, locked rotor protection and soft start.
- No additional protection such as current overloads are required.
- All models supplied standard with 0-10V control input. Diameter sizes 500mm and above can be pre-configured to suit specific sensors and specific applications.
- A full range of sensors are available including differential pressure, humidity, temperature, air velocity and pollutant.
- Can be run as an independent ventilation source or integrated into most building management systems.
- Robust galvanised steel construction with polyester epoxy finish.
- Low noise, high performance impellers with enhanced aerodynamic design.
- Guard is incorporated as standard.
- Units are light weight and can be mounted at any angle.
- EC motors can be directly connected to their appropriate AC supply.
- Capable of operating at temperatures up to 70°C.

Construction
The square plate is manufactured from galvanised steel with a high quality polyester epoxy finish as standard.
Impellers are of high performance composite material.

Motors
Type - electronic commutated (EC) motor.
Electricity supply - 200-277V single-phase, 50/60Hz or
380-480V three-phase, 50/60Hz
Bearings - sealed-for-life, ball.
Integrated EC-Controller providing infinite speed control.
IP44 rating.

Internal Thermal Protection
Integral thermal overload protection is supplied as standard.

Testing
Air flow tests to ISO5801: 2007
Noise tests to BS848:Part 2, 1985

Wiring Diagram
Scan the QR code on page 12 *or visit www.fantech.com.au* to view wiring diagrams online.

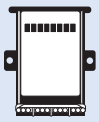
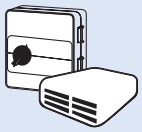
Special Note
Diameter sizes from 500mm and above can be pre-programmed to suit specific sensors and specific applications. Please advise Fantech of these parameters at the time of order.

SUGGESTED SPECIFICATION
The square plate wall mounted axial fans shall be of the Compact 2000 EC Series as designed and manufactured by Fantech Pty Ltd and be of the model numbers shown on the schedule/drawings.

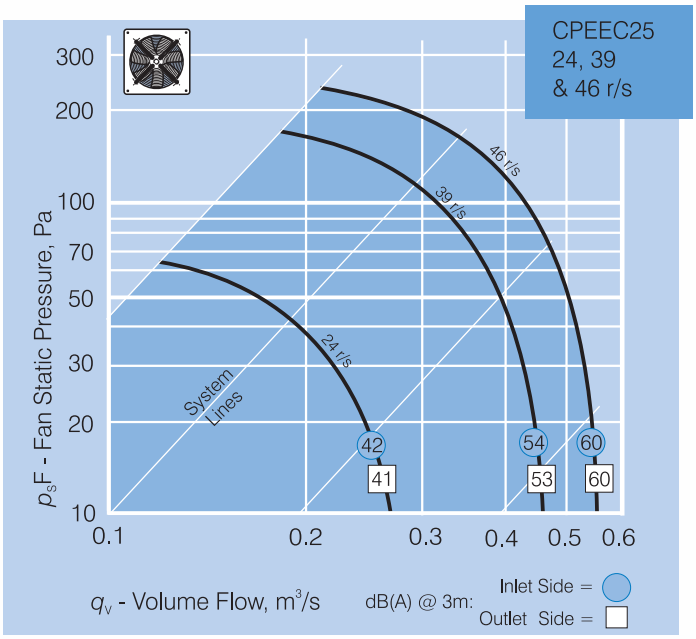
The axial impellers shall be made from high performance composite material. They shall be driven by an EC-DC external rotor motor with integrated EC-Controller and integral thermal protection. Diameter sizes from 500mm and above shall be pre-configured to suit the selected sensors and the required applications. Square plates shall be galvanised steel with a polyester epoxy finish.

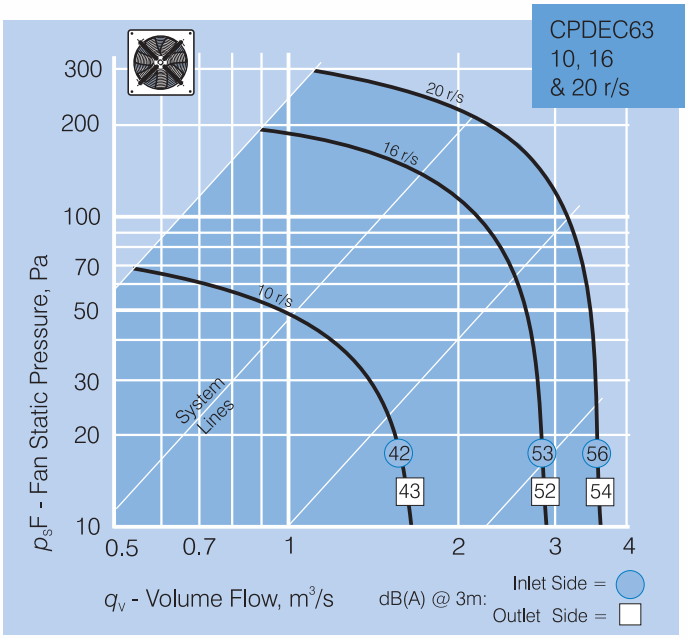
All models shall be fully tested to ISO5801:2007 for air flow and to BS848:Part 2, 1985 for noise.

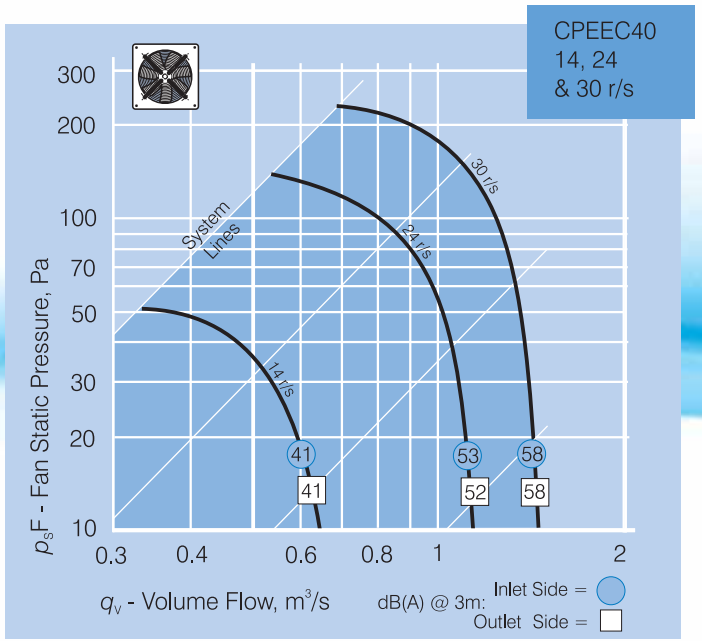
ANCILLARY EQUIPMENT

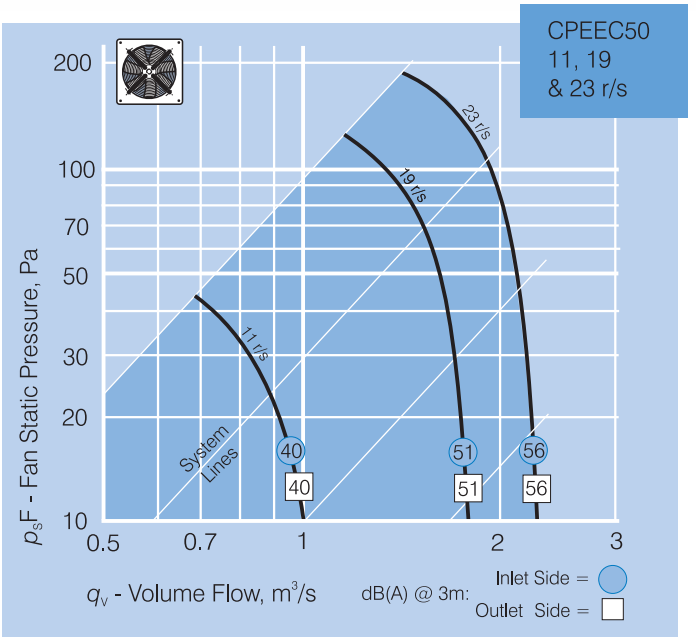
 DCV-CU - Premium Controller	 Controllers & Sensors	 WSK - Backdraft shutter
 DG - Finger Guards		

Compact 2000 EC Series

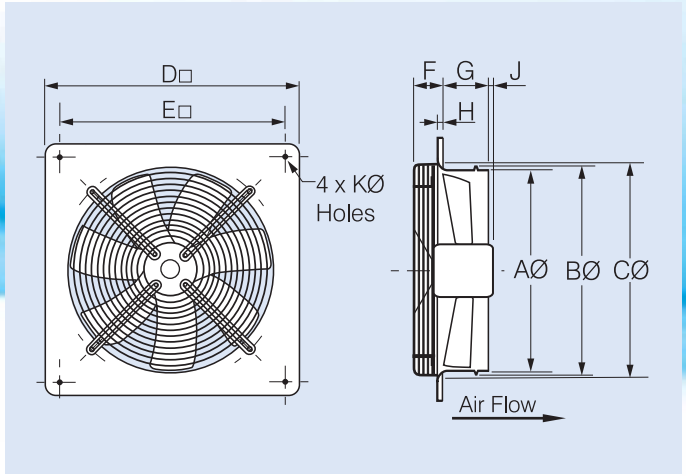








DIMENSIONS



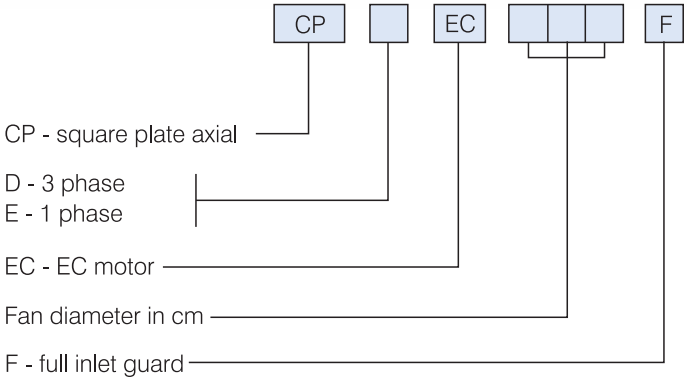
Model CPDEC.. CPEEC..	Dimensions, mm AØ	BØ	CØ	D□	E□	F	G	H	J	KØ	App. wt. kg	App. vol. m³
25.	254	257	276	370	320	43	48	6	24	7	4.5	0.03
40.	400	412	450	540	490	56	95	15	-	10	9.5	0.07
50.	540	517	584	655	615	63	104	16	37	11	21.0	0.13
63.	635	648	728	805	750	80	130	20	53	11	38.5	0.22

Scan the QR Code to view wiring diagrams or more information online.

Model CPDEC.. CPEEC..	Percentage of full speed (%)	Max. Fan Speed r/s*	Airflow m^3/s	Avg. dB(A) @ 3m Inlet	Outlet	CPEEC.. 1ph. kW	Amps	CPDEC.. 3ph. kW	Amps
25	100	46	0.56	60	60	0.24	1.88	-	-
	80	39	0.47	54	53	0.14	1.13	-	-
	50	24	0.29	42	41	0.04	0.33	-	-
	20	8	0.18	20	20	0.01	0.08	-	-
40	100	30	1.47	58	58	0.56	2.50	-	-
	80	24	1.16	53	52	0.27	1.29	-	-
	50	14	0.70	41	41	0.07	0.38	-	-
	20	5	0.21	20	20	0.01	0.11	-	-
50	100	23	2.32	56	56	0.77	3.46	-	-
	80	19	1.85	51	51	0.41	1.90	-	-
	50	11	1.07	40	40	0.10	0.49	-	-
	20	4	0.32	20	20	0.03	0.23	-	-
63	100	20	3.65	56	54	-	-	1.30	2.03
	80	16	2.94	53	52	-	-	0.69	1.18
	50	10	1.75	42	43	-	-	0.16	0.43
	20	3	0.66	20	20	-	-	0.02	0.17

* The fan will maintain the set speed whether run on 50 or 60Hz supply.

HOW TO ORDER



PowerLine® EC Series
Duct Mounted Fans

DESCRIPTION

The PowerLine® EC Series of In-Line centrifugal fans incorporate the latest state-of-the-art, energy saving EC motor technology and are most efficient where conditions vary during the course of the day.

Optional matching sensors monitor the ambient conditions and provide real time feedback to the fan. The fan's on-board microprocessor adjusts the speed and therefore modulates the ventilation rate to match the specific requirements of the area.

The PowerLine® EC Series feature fully integrated, infinitely variable speed control which eliminates the need for external VSDs, current overloads and motor phase protection. They are a simple "plug and play" system which means installers do not need to have specialised control programming knowledge.

They feature easy to fit 35mm TDF profile flange connections, a robust yet lightweight galvanised steel construction and are available in 7 sizes ranging from 315 to 630mm diameter.

Typical Applications

Commercial and industrial supply or exhaust applications such as shopping centres, office buildings, exhibition centres, hotels, health centres, schools and universities.

Features

- EC motor features reverse polarity protection, locked rotor protection and soft starting.
- No additional protection such as contactors are required.
- All motor sizes can be pre-configured to suit specific sensors and specific applications, and are supplied standard with 0-10V control input.
- A full range of sensors are available including differential pressure, humidity, temperature, air velocity and pollutant.
- Can be run as an independent ventilation source or integrated into most building management systems.
- Robust, yet lightweight galvanised steel construction.
- Centrifugal fans suit applications where medium to high air pressure is required.
- Easy to fit 35mm TDF profile flange connections.
- Can be mounted in any position.
- EC motors can be directly connected to their appropriate AC supply.

Construction
Galvanised steel housings with 35mm TDF profile flange connections.

Backward-curved centrifugal impellers are made from high performance composite material.

Motors
Type - electronic commutated (EC) motor.

Electricity supply - 200-277V single-phase, 50/60Hz or 380-480V three-phase, 50/60Hz

Bearings - sealed-for-life, ball.

Integrated EC-Controller providing infinite speed control.

Internal Thermal Protection
Integral thermal overload protection is supplied as standard.

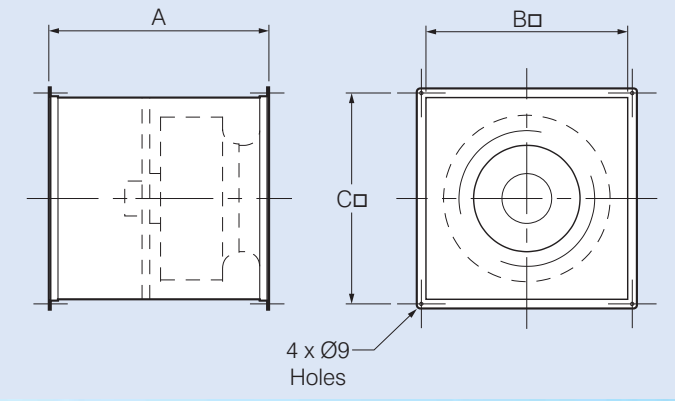
Testing
Air flow tests to ISO 5801:2007.

Noise tests to ISO 3744:2010.

Wiring Diagram
Scan the QR code on page 15 to view wiring diagrams online.

Special Note
All PowerLine® EC models can be pre-configured to suit specific sensors and specific applications. Please advise Fantech of these parameters at the time of order.

DIMENSIONS



Series PCDEC.. PCEEC..	Dimensions, mm A	B□	C□	Approx. weight kg.	Approx. volume m³
31	400	400	433	18	0.07
35	425	450	483	22	0.10
40	450	500	533	27	0.12
45	475	550	583	37	0.16
50	500	650	683	42	0.23
56	550	725	758	58	0.31
63	550	800	833	84	0.38

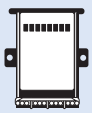
SUGGESTED SPECIFICATION
The duct mounted fans shall be of the In-line Centrifugal PowerLine® EC Series as designed and manufactured by Fantech Pty Ltd and be of the model numbers shown on the schedule/drawings.

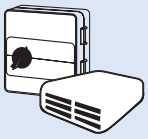
Impellers shall be made from high performance composite material. They shall be backward-curved centrifugal design and driven by EC external rotor motors with integrated EC controller and integral thermal overload protection. They shall be pre-configured to suit the selected sensors and the required applications.

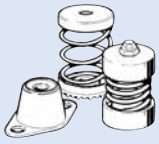
Housings shall be of galvanised steel with 35mm TDF profile flange connections.

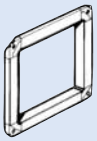
All models shall be fully tested as a complete assembled unit to ISO5801:2007 for air flow and ISO 3744:2010 for noise.

ANCILLARY EQUIPMENT


DCV-CU - Premium Module Controller


Controllers & Sensors


Vibration Isolators


POW - Matching Flanges


FT - Mounting Foot

PowerLine® EC Series

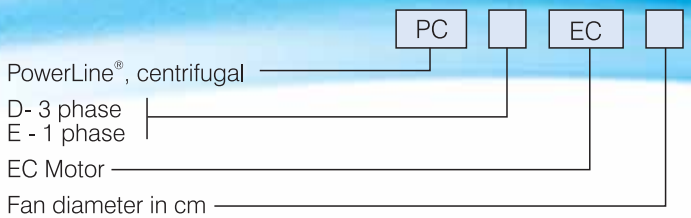
Series PCDEC.. PCEEC..	Percentage of full speed (%)	* Max. Fan Speed r/s	Air flow @ 0Pa m^3/s	Avg. dB(A) @ 3m	PCEEC.. 1 ph. kW	PCEEC.. 1 ph. Amps	PCDEC.. 3 ph. kW	PCDEC.. 3 ph. Amps
	100	34	0.74	59	0.29	1.65	-	-
	80	27	0.59	53	0.15	0.75	-	-
31	60	20	0.43	46	0.07	0.39	-	-
	40	13	0.29	37	0.03	0.19	-	-
	20	7	0.15	20	0.01	0.12	-	-
	100	27	0.84	54	0.27	1.50	-	-
	80	21	0.66	48	0.14	0.69	-	-
35	60	16	0.49	43	0.07	0.37	-	-
	40	11	0.33	33	0.03	0.18	-	-
	20	6	0.16	16	0.01	0.12	-	-
	100	20	0.89	50	0.21	1.35	-	-
	80	16	0.71	45	0.11	0.58	-	-
40	60	12	0.53	39	0.05	0.30	-	-
	40	8	0.35	29	0.02	0.17	-	-
	20	4	0.17	12	0.01	0.12	-	-
	100	24	1.55	53	0.64	3.90	-	-
	80	19	1.23	48	0.34	1.51	-	-
45	60	14	0.92	41	0.15	0.70	-	-
	40	9	0.59	31	0.06	0.34	-	-
	20	5	0.24	15	0.02	0.31	-	-
	100	23	2.15	58	-	-	0.83	2.10
	80	19	1.71	53	-	-	0.44	0.81
50	60	14	1.27	46	-	-	0.20	0.47
	40	9	0.85	36	-	-	0.07	0.27
	20	5	0.42	20	-	-	0.02	0.18
	100	21	2.68	59	-	-	1.09	2.60
	80	16	2.11	55	-	-	0.58	0.90
56	60	12	1.58	47	-	-	0.25	0.55
	40	8	1.04	37	-	-	0.09	0.29
	20	4	0.52	21	-	-	0.02	0.18
	100	21	3.92	62	-	-	2.05	4.40
	80	16	3.09	57	-	-	1.01	1.57
63	60	12	2.27	51	-	-	0.45	0.79
	40	8	1.50	41	-	-	0.15	0.36
	20	4	0.67	24	-	-	0.03	0.19

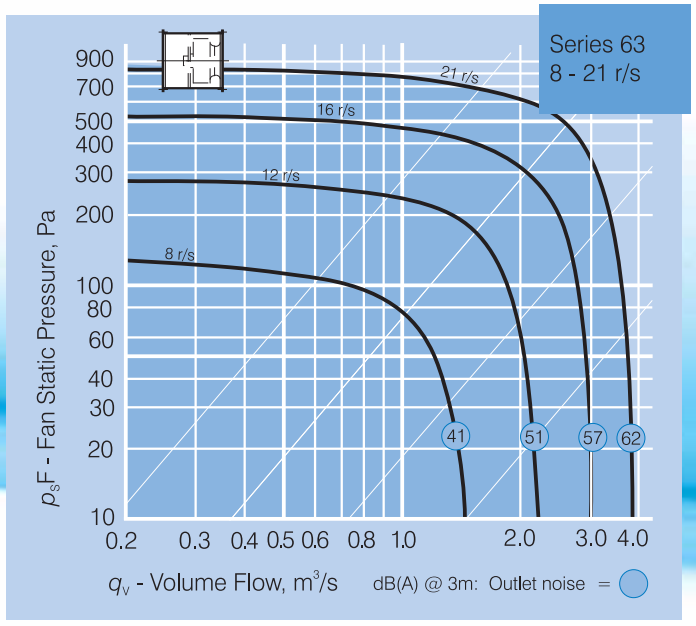
* The fan will maintain the set speed whether run on 50 or 60Hz supply.

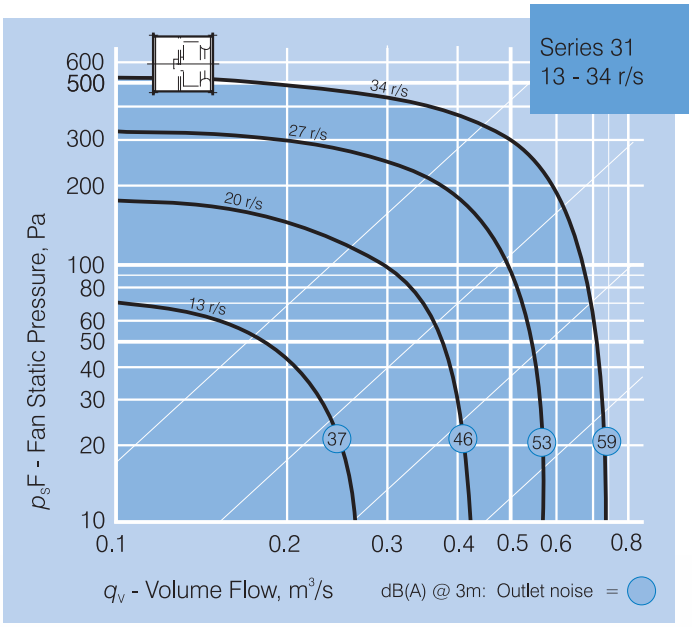
Please use Fans by Fantech Selection Program for sound power levels.

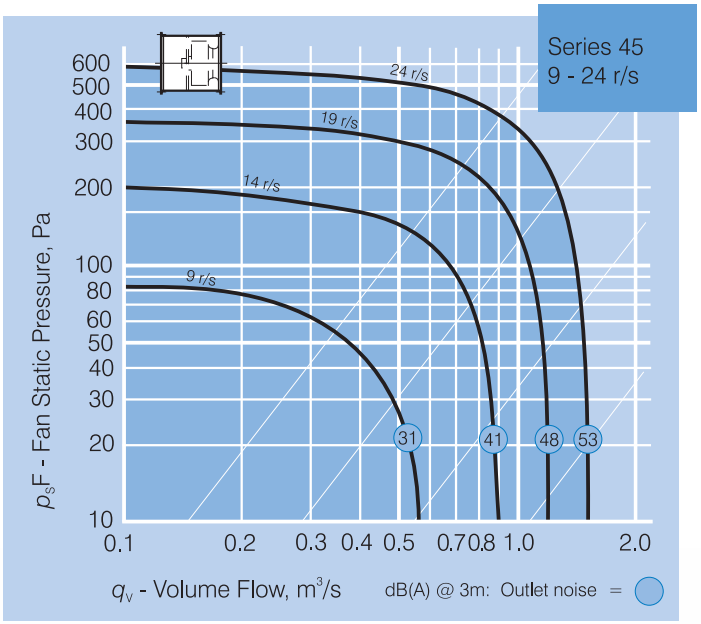
Scan the QR Code to view wiring diagrams or more information online.

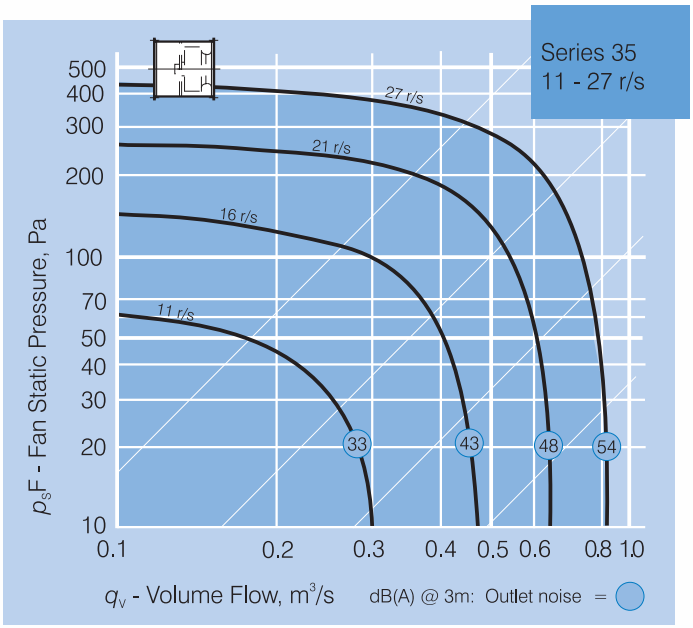
HOW TO ORDER

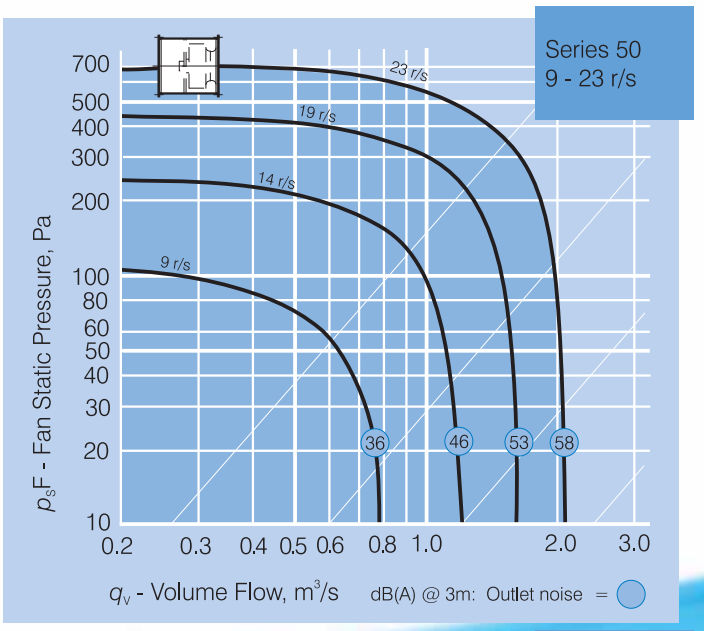


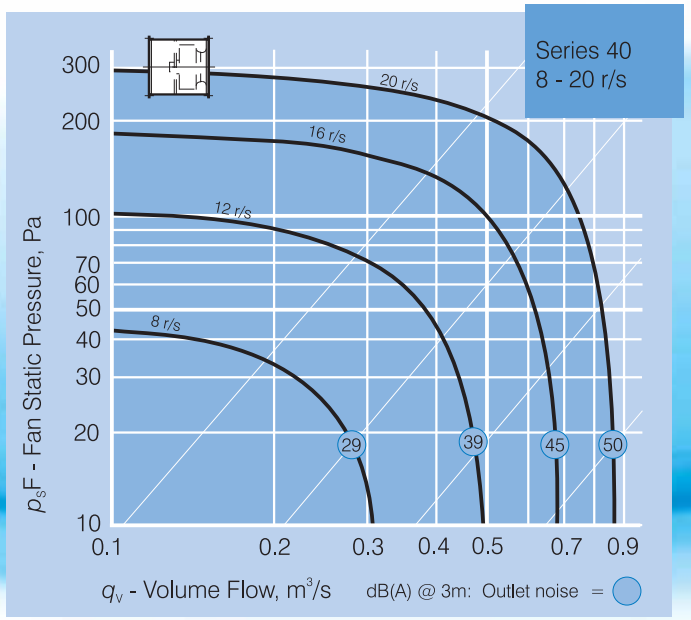


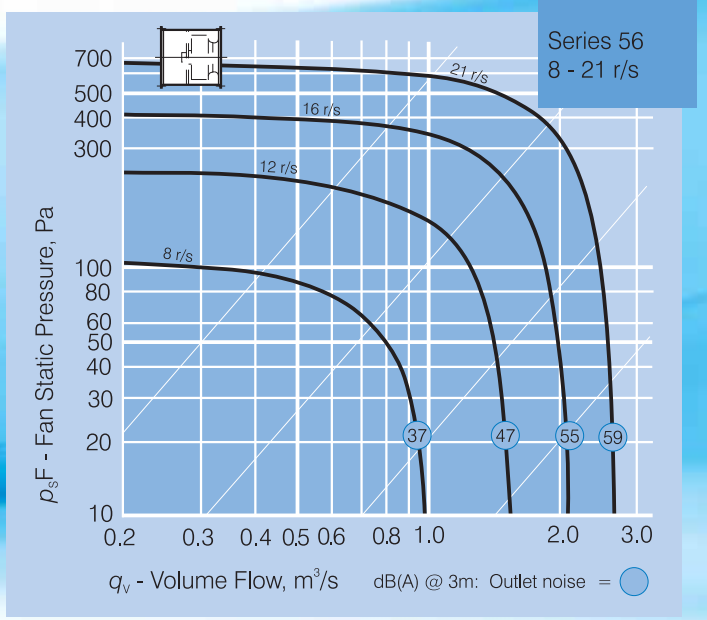

Series 31
13 - 34 r/s
600
500
300
200
100
80
60
50
40
30
20
10
34 r/s
27 r/s
20 r/s
13 r/s
37
46
53
59
0.1
0.2
0.3
0.4
0.5
0.6
0.8
pSF - Fan Static Pressure, Pa
qv - Volume Flow, m3/s
dB(A) @ 3m: Outlet noise =


Series 45
9 - 24 r/s
600
500
400
300
200
100
80
60
50
40
30
20
10
24 r/s
19 r/s
14 r/s
9 r/s
31
41
48
53
0.1
0.2
0.3
0.4
0.5
0.7
0.8
1.0
2.0
pSF - Fan Static Pressure, Pa
qv - Volume Flow, m3/s
dB(A) @ 3m: Outlet noise =


Series 35
11 - 27 r/s
500
400
300
200
100
70
50
40
30
20
10
27 r/s
21 r/s
16 r/s
11 r/s
33
43
48
54
0.1
0.2
0.3
0.4
0.5
0.6
0.8
1.0
pSF - Fan Static Pressure, Pa
qv - Volume Flow, m3/s
dB(A) @ 3m: Outlet noise =


Series 50
9 - 23 r/s
700
500
400
300
200
100
80
60
50
40
30
20
10
23 r/s
19 r/s
14 r/s
9 r/s
36
46
53
58
0.2
0.3
0.4
0.5
0.6
0.8
1.0
2.0
3.0
pSF - Fan Static Pressure, Pa
qv - Volume Flow, m3/s
dB(A) @ 3m: Outlet noise =


Series 40
8 - 20 r/s
300
200
100
70
60
50
40
30
20
10
20 r/s
16 r/s
12 r/s
8 r/s
29
39
45
50
0.1
0.2
0.3
0.4
0.5
0.7
0.9
pSF - Fan Static Pressure, Pa
qv - Volume Flow, m3/s
dB(A) @ 3m: Outlet noise =


Series 56
8 - 21 r/s
700
500
400
300
100
80
60
50
40
30
20
10
21 r/s
16 r/s
12 r/s
8 r/s
37
47
55
59
0.2
0.3
0.4
0.5
0.6
0.8
1.0
2.0
3.0
pSF - Fan Static Pressure, Pa
qv - Volume Flow, m3/s
dB(A) @ 3m: Outlet noise =

Gamma EC Series
Roof Mounted Exhaust Fans

DESCRIPTION

The The Gamma EC Series of centrifugal roof mounted exhaust fans incorporates the latest state of the art, energy saving EC motor technology. Matching sensors monitor the ambient conditions in a space and provide real time feedback to the fan. The fan's on-board microprocessor adjusts the speed and therefore modulates the ventilation rate to match the specific requirements of the area.

The Gamma EC Series is a simple "plug and play" system which means installers do not need to have specialised control programing knowledge. They feature integrated infinitely variable speed control and eliminate the need for external VSDs, current overloads and motor phase protection.

Models come in downflow or vertical discharge configurations and are available in 250, 315, 355, 450, 560 and 630mm fan sizes.

Typical Applications

Exhausts air from a wide range of commercial applications such as factories, warehouses and workshops, gymnasiums, bulk goods retail outlets and assembly halls.

Features

- EC motor features reverse polarity protection, locked rotor protection and soft start.
- No additional protection such as contactors are required.
- All models supplied standard with 0-10V control input.
- Diameter sizes 315mm and above can be pre-configured to suit specific sensors and specific applications.
- A full range of sensors are available including differential pressure, humidity, temperature, air velocity and pollutant.
- Can be run as an independent ventilation source or integrated into most building management systems.
- Robust and lightweight construction.
- Compact, low profile design.
- Designed for downflow or vertical exhaust applications.
- Can be mounted at angles up to 30°.
- Supply air units are available (See pages 27 to 30).
- EC motors can be directly connected to their appropriate AC supply selection data.

Construction

Cowls are UV-stabilised plastic.
Impellers are backward-curved centrifugal design and are of high performance composite material.
Steel components have a corrosion resistant finish.
Bird-mesh guards are fitted as standard.

Motors
Type - electronic commutated (EC) motor.

Electricity supply -
200-277V single-phase, 50/60Hz
for 250 to 450mm sizes.

380-480V three-phase,
50/60Hz for 560 and 630mm sizes.

Bearings - sealed-for-life, ball.

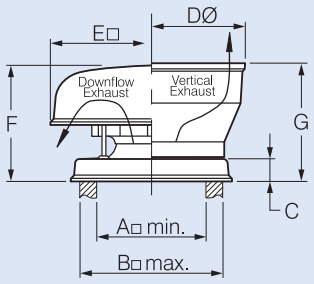
Integrated EC-Controller providing infinite speed control.

Internal thermal Protection
Integral thermal overload protection is supplied as standard.

Testing
Air flow tests to ISO 5801:2007.
Noise tests to ISO 3744:2010.

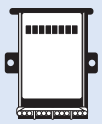
SPECIAL NOTE
Diameter sizes from 315mm and above can be pre-configured to suit specific sensors and specific applications. Please advise Fantech of these parameters at the time of order.

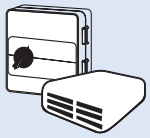
DIMENSION DRAWING

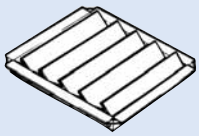


Model CDEC.. CEEC..	Dimensions, mm A□	B□	C	DØ	E□	F	G	App. weight kg	App. Vol. m^3
25	260	310	50	430	370	200	244	6	0.05
31	310	410	75	500	575	330	334	11	0.13
35	400	500	75	640	670	410	417	14	0.22
45	620	720	75	908	890	530	540	28	0.52
56	620	720	75	908	890	530	540	32	0.52
63	710	810	75	1260	1180	650	695	46	1.28

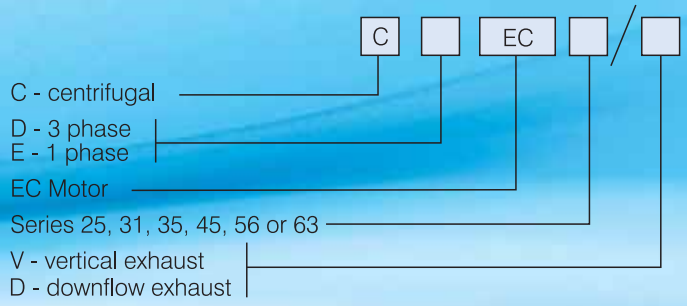
ANCILLARY EQUIPMENT


DCV-CU - Premium Module


Controllers & Sensors


CBD - Backdraft shutter

HOW TO ORDER



Gamma EC Series - Vertical Discharge

SUGGESTED SPECIFICATION

The roof ventilators shall be of the Gamma EC Series vertical exhaust type as designed and manufactured by Fantech Pty Ltd and be of the model numbers shown on the schedule/drawings.

Impellers shall be made from high performance composite material. They shall be backward-curved centrifugal design and driven by EC external rotor motors with integrated EC Controller and integral thermal overload protection. Diameter sizes from 315mm and above shall be pre-configured to suit the selected sensors and the required applications.

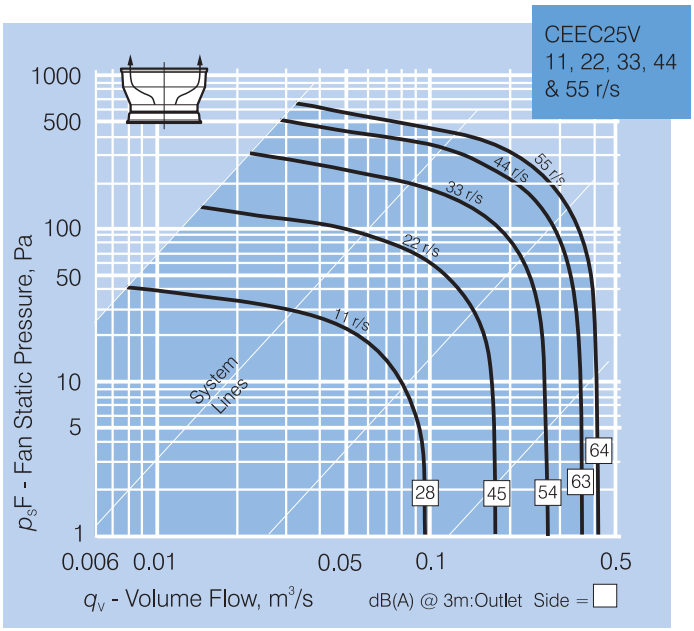
The windband shall be of the vertical exhaust design and manufactured from UV-stabilised plastic. Steel components shall be corrosion protected.

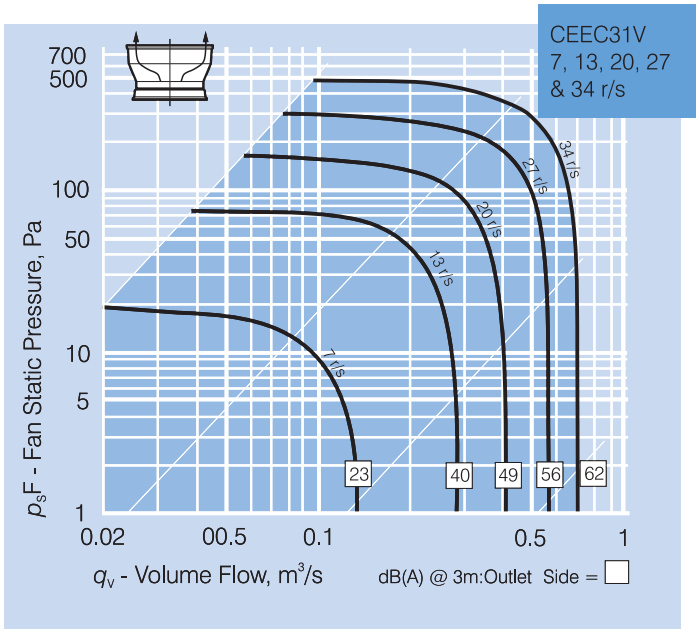
All models shall be fully tested as a complete assembled unit to ISO5801:2007 for air flow and ISO 3744:2010 for noise.

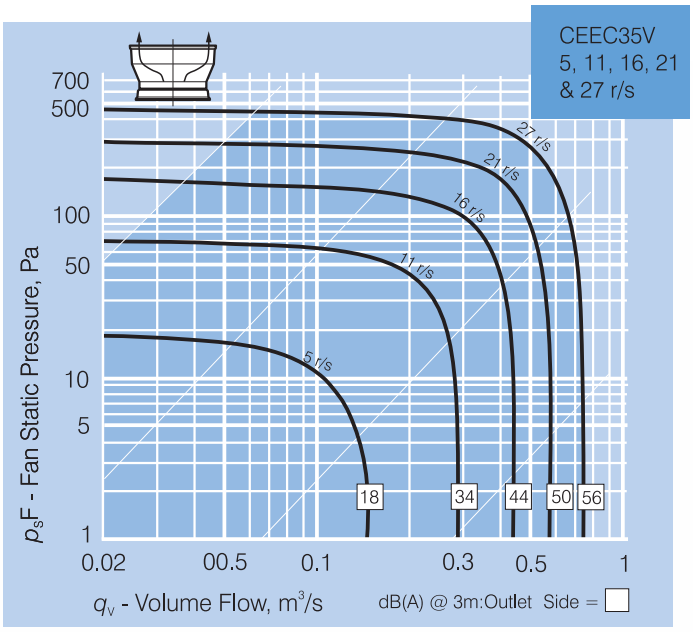
Model CDEC…V CEEC…V	Percentage of full speed (%)	*Max. Fan Speed r/s	Air flow @ 0Pa m^3/s	Avg. dB(A) @ 3m	CEEC.. 1ph. kW	Amps	CDEC.. 3ph kW	Amps
	100	55	0.42	64	0.22	1.65	-	-
	80	44	0.37	63	0.15	1.20	-	-
25	60	33	0.28	54	0.07	0.55	-	-
	40	22	0.18	45	0.03	0.22	-	-
	20	11	0.10	28	0.01	0.12	-	-
	100	34	0.73	62	0.32	1.80	-	-
	80	27	0.58	56	0.16	0.97	-	-
31	60	20	0.42	49	0.08	0.48	-	-
	40	13	0.29	40	0.03	0.22	-	-
	20	7	0.14	23	0.01	0.12	-	-
	100	27	0.76	56	0.26	1.50	-	-
	80	21	0.61	50	0.13	0.82	-	-
35	60	16	0.46	44	0.07	0.42	-	-
	40	11	0.30	34	0.03	0.20	-	-
	20	5	0.15	18	0.01	0.12	-	-
	100	24	1.38	56	0.59	2.90	-	-
	80	19	1.11	51	0.31	1.90	-	-
45	60	14	0.82	45	0.15	0.85	-	-
	40	10	0.55	36	0.05	0.56	-	-
	20	5	0.27	21	0.15	0.34	-	-
	100	21	2.40	64	-	-	1.28	2.30
	80	16	1.89	58	-	-	0.65	1.30
56	60	12	1.42	51	-	-	0.29	0.71
	40	8	0.94	41	-	-	0.10	0.36
	20	4	0.47	24	-	-	0.02	0.20
	100	21	3.47	67	-	-	1.94	3.90
	80	16	2.75	61	-	-	0.96	2.00
63	60	12	2.05	55	-	-	0.44	1.00
	40	8	1.39	45	-	-	0.14	0.51
	20	4	0.63	28	-	-	0.04	0.24

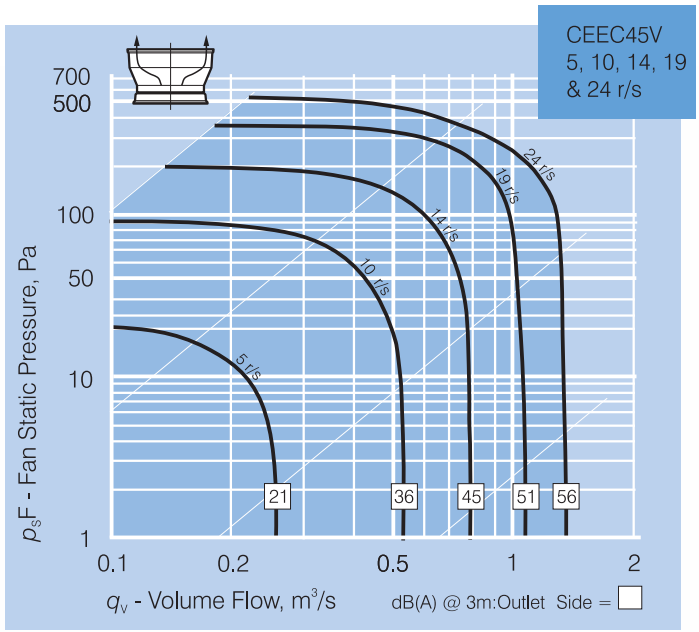
* The fan will maintain the set speed whether run on 50 or 60Hz supply.

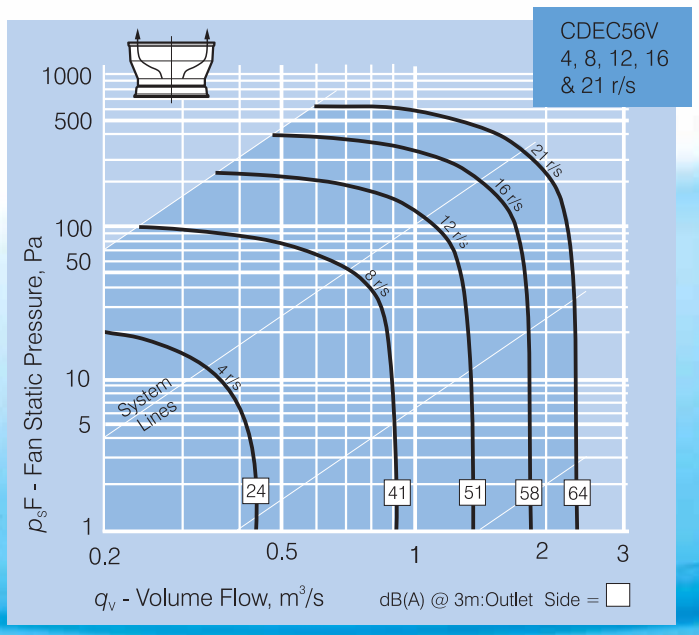
Scan the QR Code to view wiring diagrams or more information online.

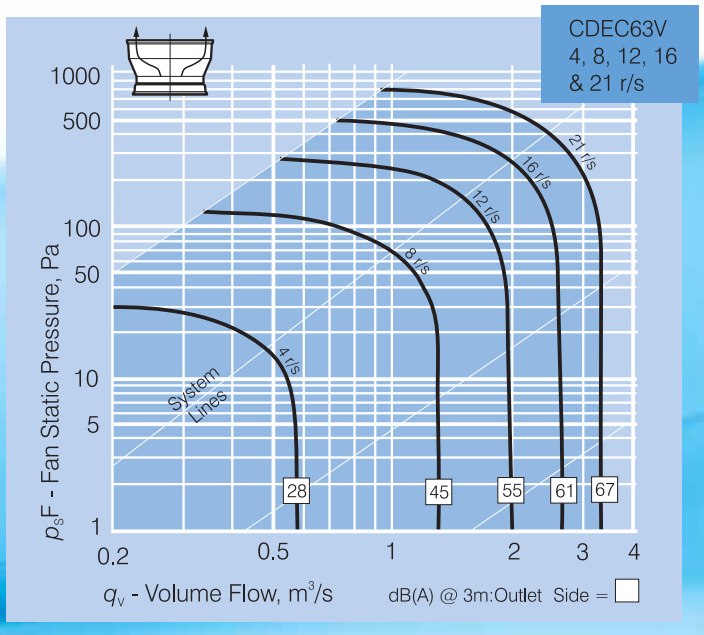

CEEC25V
11, 22, 33, 44
& 55 r/s
1000
500
100
50
10
5
1
p_sF - Fan Static Pressure, Pa
55 r/s
44 r/s
33 r/s
22 r/s
11 r/s
System
Lines
28
45
54
63
64
0.006 0.01
0.05
0.1
0.5
q_v - Volume Flow, m³/s
dB(A) @ 3m:Outlet Side =


CEEC31V
7, 13, 20, 27
& 34 r/s
700
500
100
50
10
5
1
p_sF - Fan Static Pressure, Pa
34 r/s
27 r/s
20 r/s
13 r/s
7 r/s
23
40
49
56
62
0.02
00.5
0.1
0.5
1
q_v - Volume Flow, m³/s
dB(A) @ 3m:Outlet Side =


CEEC35V
5, 11, 16, 21
& 27 r/s
700
500
100
50
10
5
1
p_sF - Fan Static Pressure, Pa
27 r/s
21 r/s
16 r/s
11 r/s
5 r/s
18
34
44
50
56
0.02
00.5
0.1
0.3
0.5
1
q_v - Volume Flow, m³/s
dB(A) @ 3m:Outlet Side =


CEEC45V
5, 10, 14, 19
& 24 r/s
700
500
100
50
10
1
p_sF - Fan Static Pressure, Pa
24 r/s
19 r/s
14 r/s
10 r/s
5 r/s
21
36
45
51
56
0.1
0.2
0.5
1
2
q_v - Volume Flow, m³/s
dB(A) @ 3m:Outlet Side =


CDEC56V
4, 8, 12, 16
& 21 r/s
1000
500
100
50
10
5
1
p_sF - Fan Static Pressure, Pa
21 r/s
16 r/s
12 r/s
8 r/s
4 r/s
System
Lines
24
41
51
58
64
0.2
0.5
1
2
3
q_v - Volume Flow, m³/s
dB(A) @ 3m:Outlet Side =


CDEC63V
4, 8, 12, 16
& 21 r/s
1000
500
100
50
10
5
1
p_sF - Fan Static Pressure, Pa
21 r/s
16 r/s
12 r/s
8 r/s
4 r/s
System
Lines
28
45
55
61
67
0.2
0.5
1
2
3
4
q_v - Volume Flow, m³/s
dB(A) @ 3m:Outlet Side =

Gamma EC Series - Downflow

SUGGESTED SPECIFICATION

The roof ventilators shall be of the Gamma EC Series downflow exhaust type as designed and manufactured by Fantech Pty Ltd and be of the model numbers shown on the schedule/drawings.

Impellers shall be made from high performance composite material. They shall be backward-curved centrifugal design and driven by EC external rotor motors with integrated EC Controller and integral thermal overload protection. Diameter sizes from 315mm and above shall be pre-configured to suit the selected sensors and the required applications.

The cowls shall be of the downflow exhaust design and manufactured from UV-stabilised plastic. Steel components shall be corrosion protected.

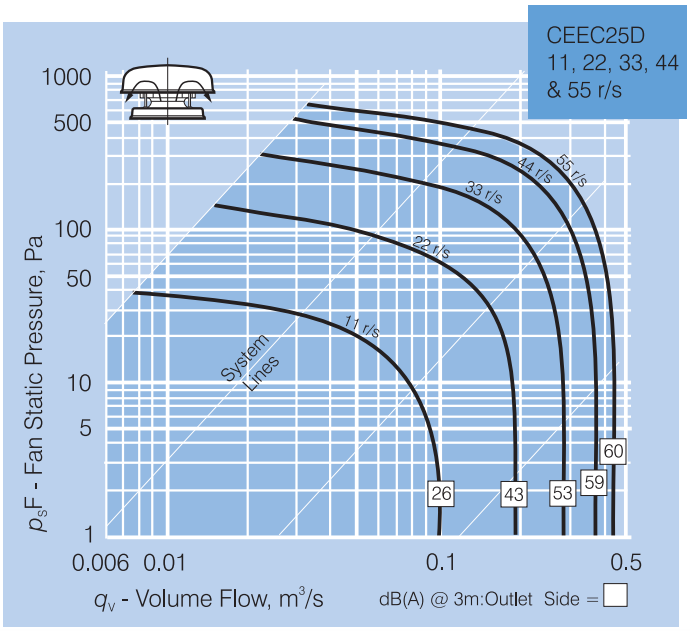
All models shall be fully tested as a complete assembled unit to ISO5801:2007 for air flow and ISO 3744:2010 for noise.

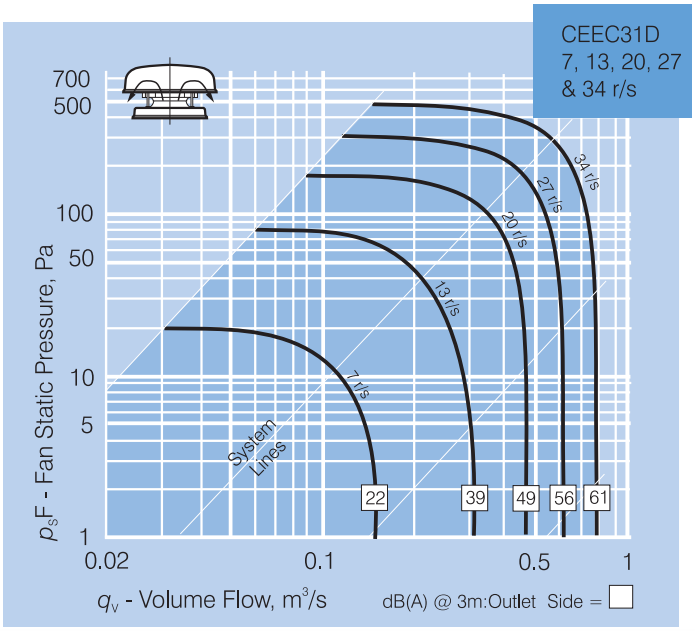
TECHNICAL DATA

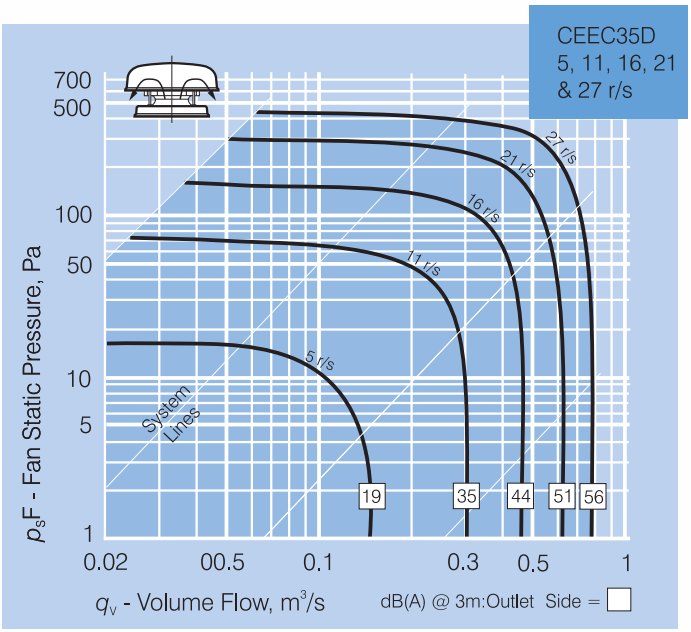
Model CDEC…D CEEC…D	Percentage of full speed (%)	*Max. Fan Speed r/s	Air flow @ 0Pa m³/s	Avg. dB(A) @ 3m	CEEC.. 1ph. kW	CEEC.. 1ph. Amps	CDEC.. 3ph kW	CDEC.. 3ph Amps
	100	55	0.44	60	0.21	1.50	-	-
	80	44	0.39	59	0.15	1.20	-	-
25	60	33	0.29	53	0.07	0.50	-	-
	40	22	0.20	43	0.03	0.22	-	-
	20	11	0.11	26	0.01	0.10	-	-
	100	34	0.80	61	0.30	1.90	-	-
	80	27	0.63	56	0.16	0.98	-	-
31	60	20	0.48	49	0.07	0.49	-	-
	40	13	0.32	39	0.03	0.23	-	-
	20	7	0.16	22	0.01	0.12	-	-
	100	27	0.82	56	0.28	1.70	-	-
	80	21	0.66	51	0.14	0.92	-	-
35	60	16	0.48	44	0.06	0.45	-	-
	40	11	0.32	35	0.03	0.21	-	-
	20	5	0.16	19	0.01	0.13	-	-
	100	24	1.48	60	0.60	2.90	-	-
	80	19	1.18	54	0.31	2.00	-	-
45	60	14	0.89	47	0.14	0.89	-	-
	40	10	0.60	38	0.05	0.55	-	-
	20	5	0.30	21	0.02	0.34	-	-
	100	21	2.77	62	-	-	1.11	2.40
	80	16	2.18	56	-	-	0.58	1.30
56	60	12	1.63	49	-	-	0.25	0.72
	40	8	1.09	39	-	-	0.09	0.38
	20	4	0.53	23	-	-	0.02	0.20
	100	21	3.72	68	-	-	1.85	4.00
	80	16	2.93	62	-	-	0.96	2.00
63	60	12	2.21	54	-	-	0.47	1.00
	40	8	1.48	44	-	-	0.14	0.52
	20	4	0.73	27	-	-	0.04	0.25

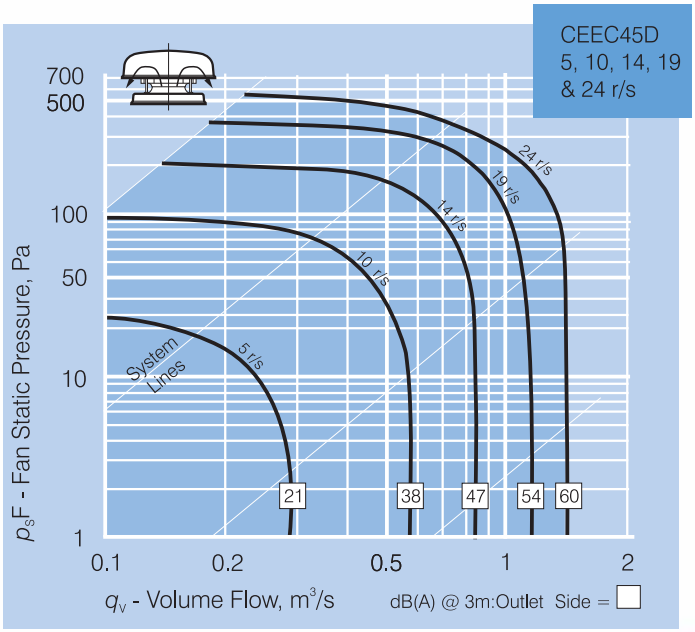
* The fan will maintain the set speed whether run on 50 or 60Hz supply.

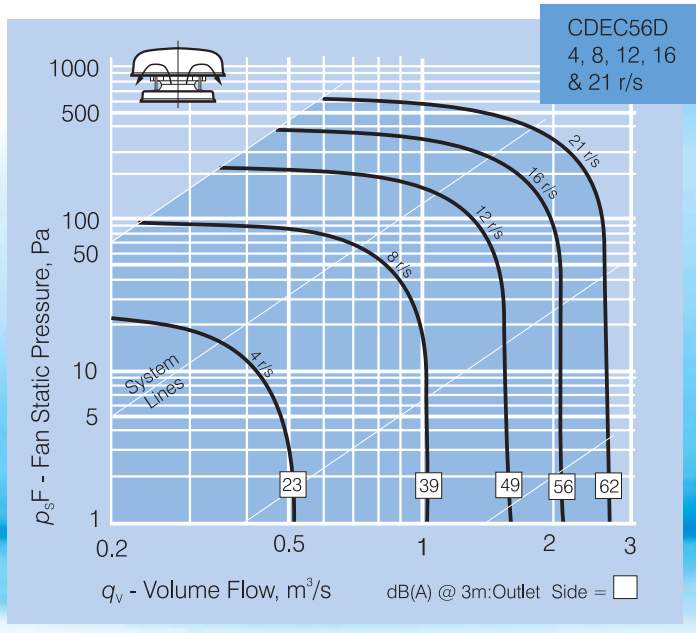
Scan the QR Code to view wiring diagrams or more information online.

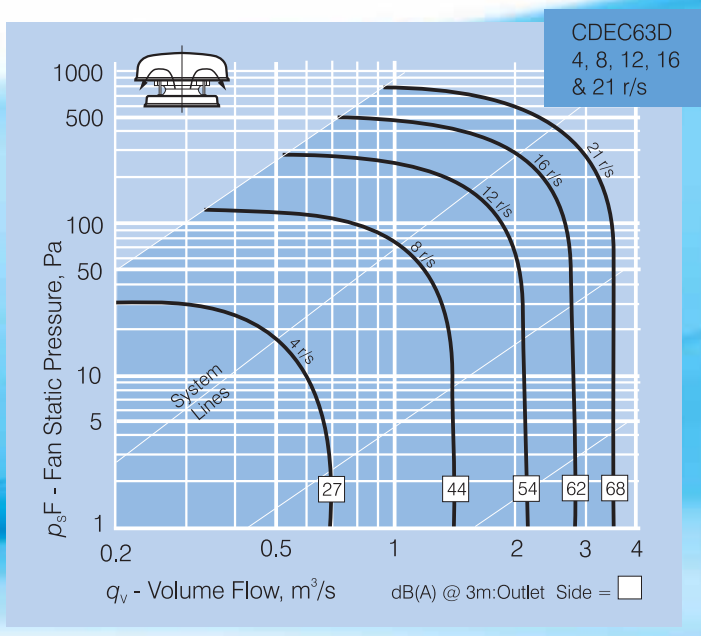

CEEC25D
11, 22, 33, 44
& 55 r/s
1000
500
100
50
10
5
1
0.006 0.01
0.1
0.5
11 r/s
22 r/s
33 r/s
44 r/s
55 r/s
System Lines
26
43
53
59
60
p_sF - Fan Static Pressure, Pa
q_v - Volume Flow, m^3/s
dB(A) @ 3m:Outlet Side =


CEEC31D
7, 13, 20, 27
& 34 r/s
700
500
100
50
10
5
1
0.02
0.1
0.5
1
7 r/s
13 r/s
20 r/s
27 r/s
34 r/s
System Lines
22
39
49
56
61
p_sF - Fan Static Pressure, Pa
q_v - Volume Flow, m^3/s
dB(A) @ 3m:Outlet Side =


CEEC35D
5, 11, 16, 21
& 27 r/s
700
500
100
50
10
5
1
0.02
00.5
0.1
0.3
0.5
1
5 r/s
11 r/s
16 r/s
21 r/s
27 r/s
System Lines
19
35
44
51
56
p_sF - Fan Static Pressure, Pa
q_v - Volume Flow, m^3/s
dB(A) @ 3m:Outlet Side =


CEEC45D
5, 10, 14, 19
& 24 r/s
700
500
100
50
10
1
0.1
0.2
0.5
1
2
5 r/s
10 r/s
14 r/s
19 r/s
24 r/s
System Lines
21
38
47
54
60
p_sF - Fan Static Pressure, Pa
q_v - Volume Flow, m^3/s
dB(A) @ 3m:Outlet Side =


CDEC56D
4, 8, 12, 16
& 21 r/s
1000
500
100
50
10
5
1
0.2
0.5
1
2
3
4 r/s
8 r/s
12 r/s
16 r/s
21 r/s
System Lines
23
39
49
56
62
p_sF - Fan Static Pressure, Pa
q_v - Volume Flow, m^3/s
dB(A) @ 3m:Outlet Side =


CDEC63D
4, 8, 12, 16
& 21 r/s
1000
500
100
50
10
5
1
0.2
0.5
1
2
3
4
4 r/s
8 r/s
12 r/s
16 r/s
21 r/s
System Lines
27
44
54
62
68
p_sF - Fan Static Pressure, Pa
q_v - Volume Flow, m^3/s
dB(A) @ 3m:Outlet Side =

GL Gamma EC Series

Roof Mounted Exhaust Fans

DESCRIPTION

The GL Gamma EC Series of centrifugal roof mounted exhaust fans incorporate the latest state of the art, energy saving EC motor technology. Matching sensors monitor the ambient conditions in a space and provide real time feedback to the fan. The fan's on-board microprocessor adjusts the speed and therefore modulates the ventilation rate to match the specific requirements of the area.

The compact and low profile GL Gamma EC Series is a simple "plug and play" system which means installers do not need to have specialised control programing knowledge. They feature integrated infinitely variable speed control and eliminate the need for external VSDs, current overloads and motor phase protection.

They are suited to ducted vertical exhaust applications, include a removable windband that provides easy access for cleaning and maintenance, and are available in 315, 355, 450, 560 and 630mm fan sizes.

Typical Applications

Can exhaust clean air and a range of toxic and noxious gases from a wide range of commercial and industrial applications. Ideal for applications requiring an all metal construction and where the amount of air required varies according to demand.

Features

- EC motor features reverse polarity protection, locked rotor protection and soft start.
- No additional protection such as contactors are required.
- All motor sizes can be pre-configured to suit specific sensors and specific applications, and are supplied standard with 0-10V control input.
- A full range of sensors are available including differential pressure, humidity, temperature, air velocity and pollutant.
- Can be run as an independent ventilation source or integrated into most building management systems.
- Robust, galvanised steel housing and cowl.
- Quick release toggle clamps provide easy access for cleaning and maintenance.
- Can be mounted at angles up to 30°.
- EC motors can be directly connected to their appropriate AC supply.

Motors

Type - electronic commutated (EC) motor.
Electricity supply - 200-277V single-phase, 50/60Hz
for 315 to 450mm sizes.
380-480V three-phase, 50/60Hz for 560 and 630mm sizes.
Bearings - sealed-for-life, ball.
Integrated EC-Controller providing infinite speed control.
Maximum ambient temperature is 60 °C
CDEC56VGL cannot exceed 16.8r/s at 60 °C

Internal Thermal Protection

Integral thermal overload protection is supplied as standard.

Testing

Air flow tests to ISO 5801:2007.
Noise tests to ISO 3744:2010.

Wiring Diagram

Scan the QR code on page *27* to view wiring diagrams online.

SUGGESTED SPECIFICATION

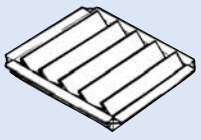
The roof ventilators shall be of the GL Gamma EC Series vertical discharge type as designed and manufactured by Fantech Pty Ltd and be of the model numbers shown on the schedule/drawings. Impellers shall be made from high performance composite material. They shall be of backward-curved centrifugal design and driven by EC external rotor motors with integrated EC Controller and integral thermal overload protection. They shall be pre-configured to suit the selected sensors and the required applications.

The cowl shall be of the vertical discharge design and manufactured from galvanised steel. Steel components shall be corrosion protected.

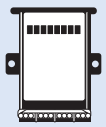
The windband shall incorporate quick-release toggle clamps to provide easy access for cleaning and maintenance.

All models shall be fully tested as a complete assembled unit to ISO5801:2007 for air flow and ISO 3744:2010 for noise.

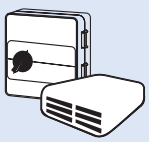
ANCILLARY EQUIPMENT



CBD - Backdraft shutter



DCV-CU - Premium Module



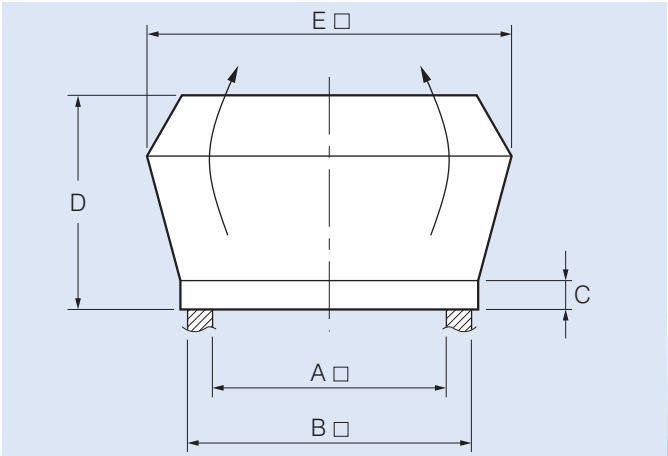
Controllers & Sensors

GL Gamma EC Series

Model CDEC…VGL CEEC…VGL	Percentage of full speed (%)	*Max. Fan Speed r/s	Air flow @ 0Pa m^3/s	Avg. dB(A) @ 3m	CEEC.. 1ph kW	CEEC.. 1ph Amps	CDEC.. 3ph kW	CDEC.. 3ph Amps
	100	34	0.58	60	0.27	1.60	-	-
	80	27	0.46	55	0.15	0.85	-	-
31	60	20	0.26	48	0.07	0.43	-	-
	40	13	0.23	38	0.03	0.21	-	-
	20	7	0.11	21	0.01	0.13	-	-
	100	27	0.87	58	0.25	1.60	-	-
	80	21	0.69	57	0.13	0.85	-	-
35	60	16	0.52	50	0.06	0.43	-	-
	40	11	0.34	41	0.03	0.20	-	-
	20	5	0.17	24	0.01	0.12	-	-
	100	24	1.50	60	0.55	2.90	-	-
	80	19	1.20	54	0.29	1.70	-	-
45	60	14	0.89	47	0.13	0.78	-	-
	40	10	0.59	37	0.05	0.54	-	-
	20	5	0.30	20	0.02	0.34	-	-
	100	21	2.63	64	-	-	1.14	2.40
	80	16	2.10	58	-	-	0.59	1.30
56†	60	12	1.56	51	-	-	0.27	0.70
	40	8	1.04	41	-	-	0.09	0.35
	20	4	0.52	25	-	-	0.02	0.19
	100	21	3.87	66	-	-	1.95	4.00
	80	16	3.09	60	-	-	0.99	2.10
63	60	12	2.31	52	-	-	0.44	0.97
	40	8	1.54	42	-	-	0.14	0.50
	20	4	0.77	26	-	-	0.03	0.23

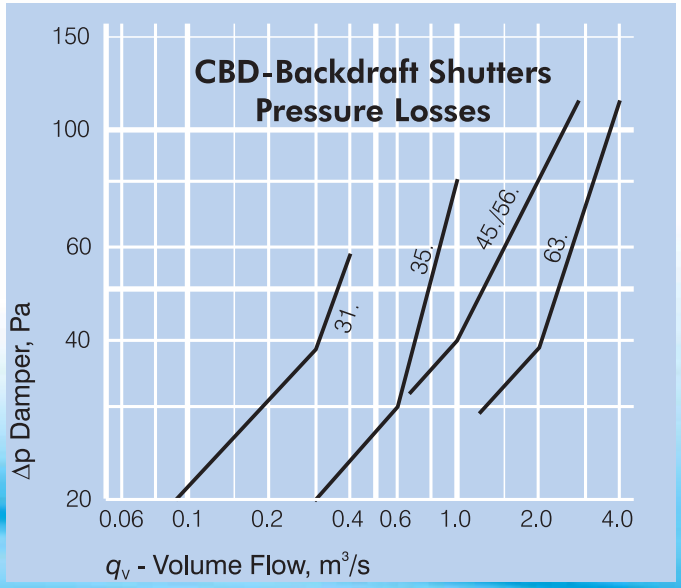
* The fan will maintain the set speed whether run on 50 or 60Hz supply.
† The CDEC56VGL model is rated at 40°C for all speeds. This model cannot exceed 16.8 r/s at 60°C.

DIMENSIONS



Model CDEC…VGL CEEC…VGL	Dimensions A□	B□	C	D	E□	Approx. weight kg.	Approx volume m^3
31	310	410	50	310	520	20	0.10
35	400	500	50	420	670	23	0.22
45	620	720	50	525	900	45	0.50
56	620	720	50	525	900	49	0.50
63	710	810	50	665	1160	74	1.03

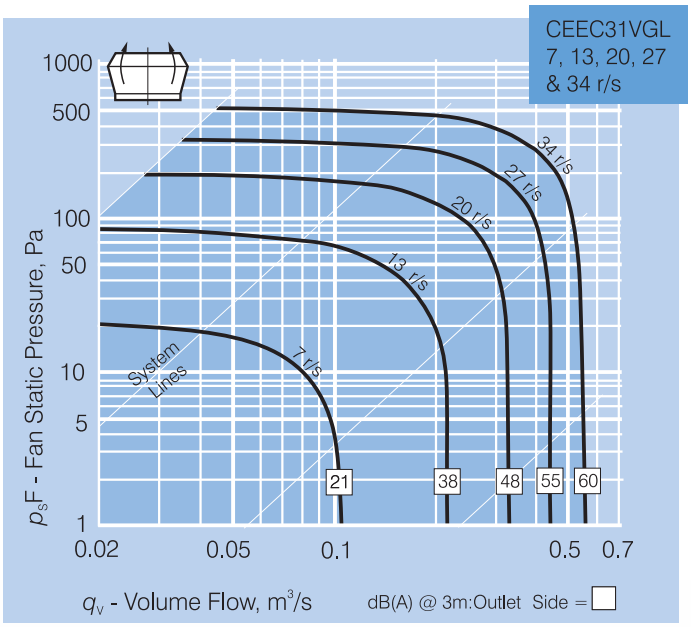
BACKDRAFT DAMPER LOSSES

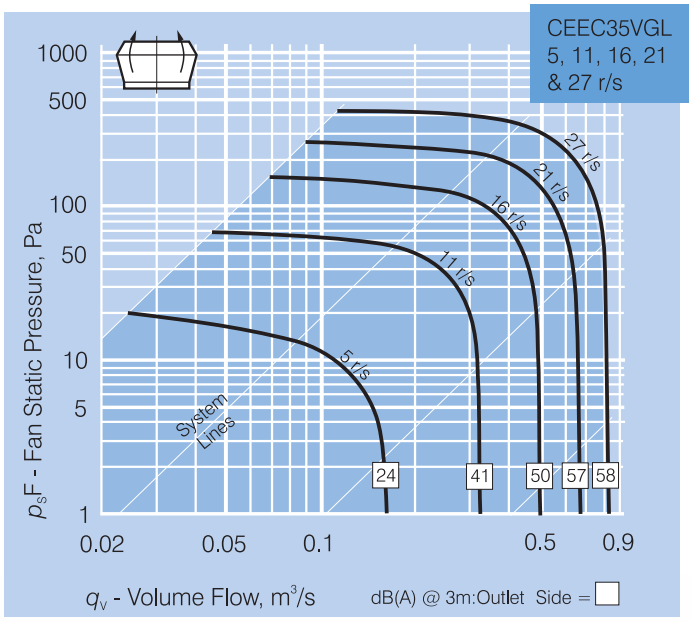


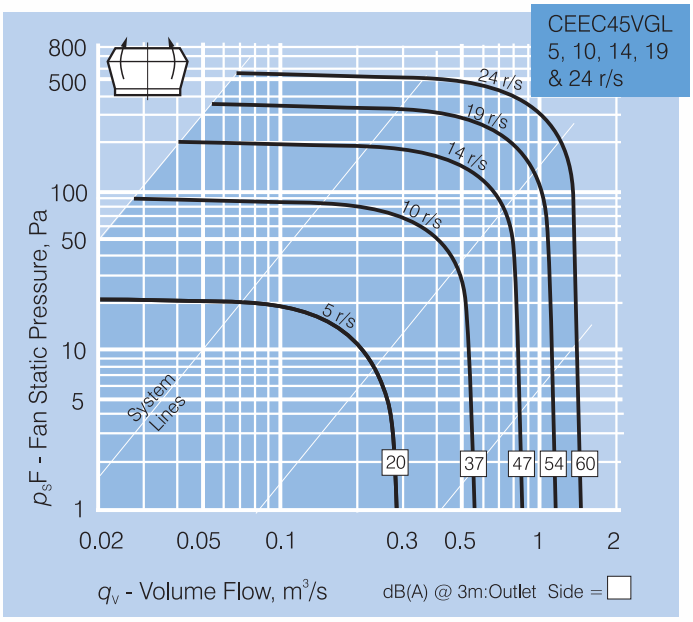
Refer to page J-2 for more information on this product.

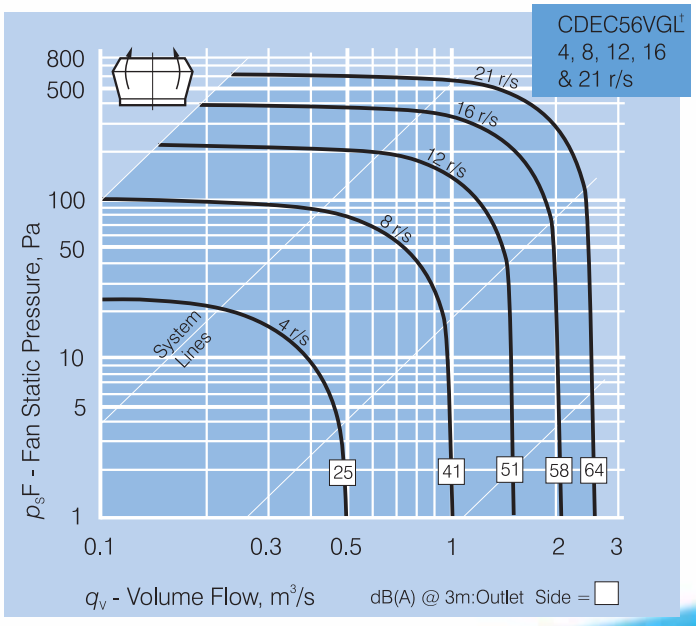
Note:

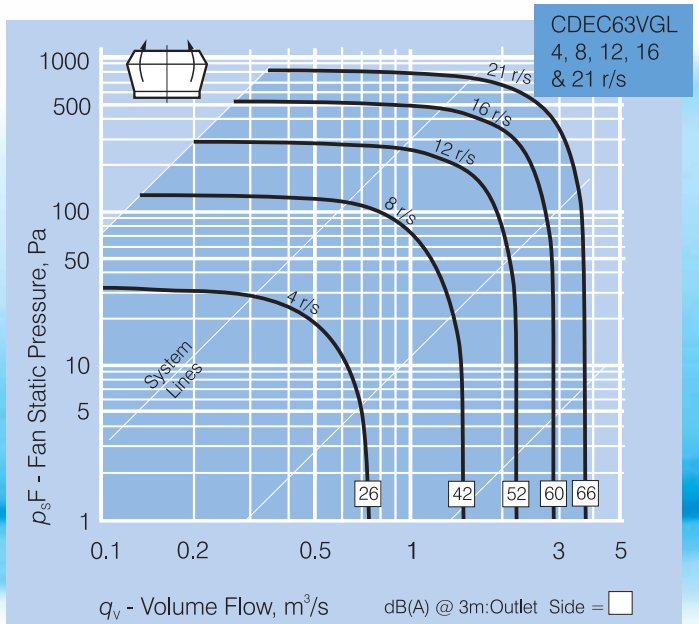
If dampers are fitted, the pressure loss through them must be added to the system resistance before selecting the fan.







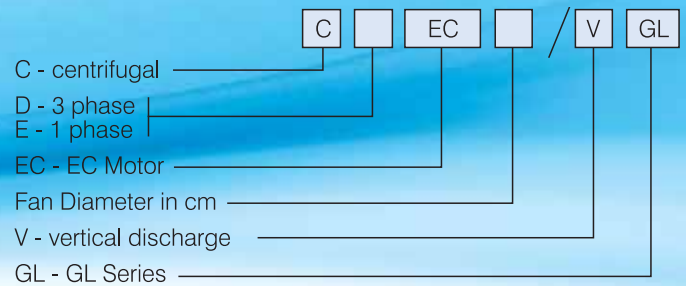




† The CDEC56VGL model is rated at 40°C for all speeds. This model cannot exceed 16.8 r/s at 60°C.

Scan the QR Code to view wiring diagrams or more information online.

HOW TO ORDER



Gamma Supply EC Series

Roof Mounted Supply Air Fans

DESCRIPTION

The Gamma EC Series of centrifugal supply air roof units can be used for supplying fresh air to an air handling unit or to an air conditioning system. They incorporate the latest state of the art, energy saving EC motor technology and are most efficient where conditions vary during the course of the day.

Matching sensors monitor the ambient conditions in a space and provide real time feedback to the fan. The fan's on-board microprocessor adjusts the speed and therefore modulates the ventilation rate to match the specific requirements of the area.

The Gamma EC Supply Series is a simple "plug and play" system which means installers do not need to have specialised control programing knowledge. They feature integrated infinitely variable speed control and eliminate the need for external VSDs, current overloads and motor phase protection.

They are fitted with bird mesh which eliminates the risk of objects entering building or interrupting motor operation and are available in 315, 355, 450, 560 and 630mm fan sizes.

Typical Applications

Ideal for supplying fresh air to an air handling unit or to an air conditioning system. Also suitable where make-up air or positive pressure is required in the ventilated space.

Features

- EC motor features reverse polarity protection, locked rotor protection and soft start.
- No additional protection such as contactors are required.
- All motor sizes can be pre-configured to suit specific sensors and specific applications, and are supplied standard with 0-10V control input.
- A full range of sensors are available including differential pressure, humidity, temperature, air velocity and pollutant.
- Can be run as an independent ventilation source or integrated into most building management systems.
- Corrosion-proof, robust construction.
- High performance backward-curved centrifugal impellers fitted.
- Can be mounted at angles up to 30°.
- EC motors can be directly connected to their appropriate AC supply.

Construction

Cowls are of UV-stabilised plastic.

Steel components have a corrosion resistant finish.

Impellers are backward-curved centrifugal design and are of high performance composite material.

Bird-mesh guards are fitted as standard.

Shutters cannot be fitted.

Motors

Type - electronic commutated (EC) motor.
Electricity supply - 200-277V single-phase, 50/60Hz for 315 to 450mm sizes.
380-480V three-phase, 50/60Hz for 560 and 630mm sizes.
Bearings - sealed-for-life, ball.
Integrated EC Controller providing infinite speed control.

Internal Thermal Protection

Integral thermal overload protection is supplied as standard.

Testing

Air flow tests to ISO 5801: 2007.
Noise tests to ISO 3744:2010.

Wiring Diagram

Scan the QR code on page 31 to view wiring diagrams online.

Special Note

All Gamma EC supply models can be pre-configured to suit specific sensors and specific applications. Please advise Fantech of these parameters at the time of order.

SUGGESTED SPECIFICATION

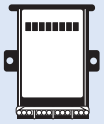
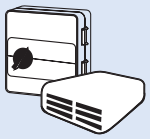
The roof ventilators shall be of the Gamma EC Series supply air type as designed and manufactured by Fantech Pty Ltd and be of the model numbers shown on the schedule/drawings.

Impellers shall be made from high performance composite material. They shall be of backward-curved centrifugal design and driven by EC external rotor motors with integrated EC Controller and integral thermal overload protection. They shall be pre-configured to suit the selected sensors and the required applications.

The cowls shall be of the downflow design and manufactured from UV-stabilised plastic. Steel components shall be corrosion protected.

All models shall be fully tested as a complete assembled unit to ISO5801:2007 for air flow and ISO 3744:2010 for noise.

ANCILLARY EQUIPMENT

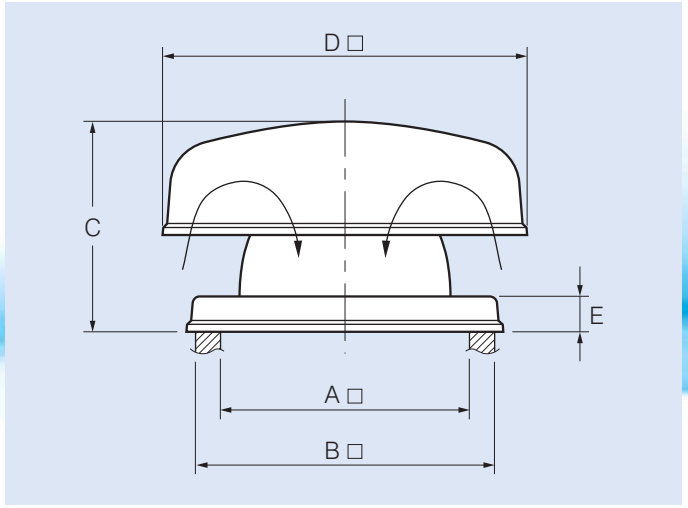
 DCV-CU - Premium Module	 Controllers & Sensors	

TECHNICAL DATA

Model CDEC...S CEEC...S	Percentage of full speed (%)	*Max. Fan Speed r/s	Air flow @ 0Pa m³/s	Avg. dB(A) @ 3m	CEEC.. 1ph. kW	CEEC.. 1ph. Amps	CDEC.. 3ph kW	CDEC.. 3ph Amps
	100	34	0.58	57	0.35	1.70	-	-
	80	27	0.46	52	0.18	0.95	-	-
31	60	20	0.34	45	0.09	0.48	-	-
	40	13	0.22	35	0.03	0.22	-	-
	20	7	0.11	19	0.01	0.13	-	-
	100	27	0.73	55	0.28	1.50	-	-
	80	21	0.58	51	0.14	0.80	-	-
35	60	16	0.42	45	0.07	0.41	-	-
	40	11	0.29	37	0.03	0.19	-	-
	20	5	0.15	23	0.01	0.12	-	-
	100	24	1.46	56	0.68	2.90	-	-
	80	19	1.17	52	0.36	1.80	-	-
45	60	14	0.87	46	0.17	0.84	-	-
	40	10	0.57	37	0.06	0.55	-	-
	20	5	0.28	22	0.02	0.34	-	-
	100	21	2.45	59	-	-	1.14	2.30
	80	16	1.95	56	-	-	0.59	1.30
56	60	12	1.47	51	-	-	0.27	0.72
	40	8	0.98	45	-	-	0.09	0.36
	20	4	0.49	34	-	-	0.02	0.20
	100	21	3.36	63	-	-	1.95	4.00
	80	16	2.69	59	-	-	0.99	2.00
63	60	12	2.01	55	-	-	0.44	1.00
	40	8	1.34	49	-	-	0.14	0.52
	20	4	0.67	38	-	-	0.03	0.25

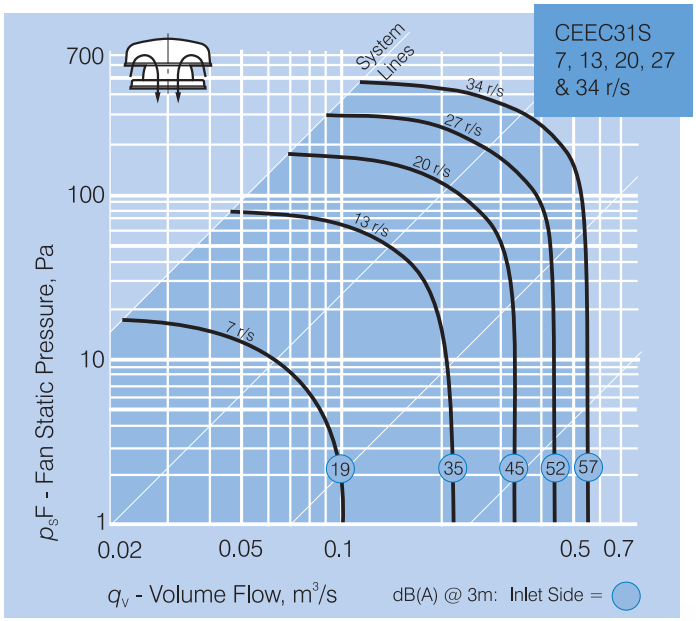
* The fan will maintain the set speed whether run on 50 or 60Hz supply.

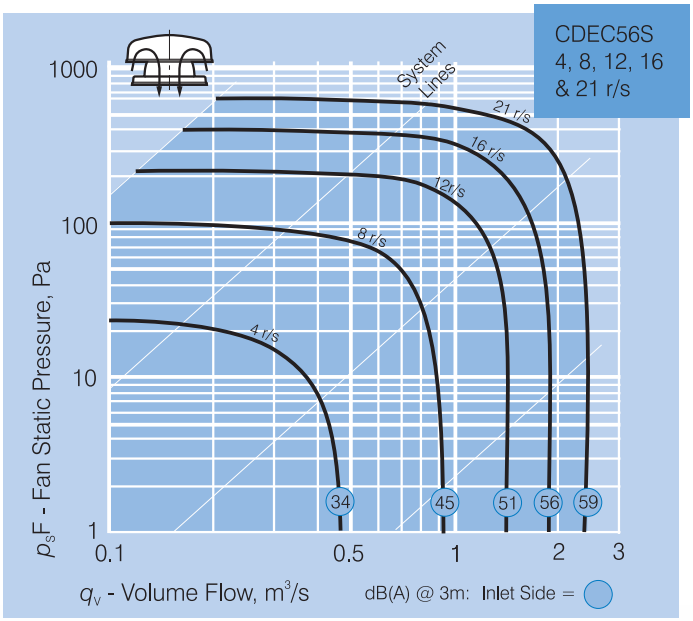
DIMENSIONS

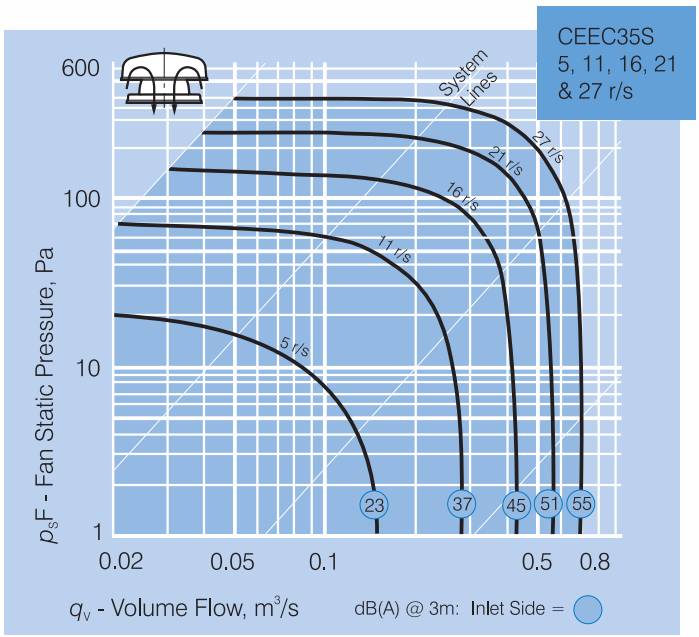


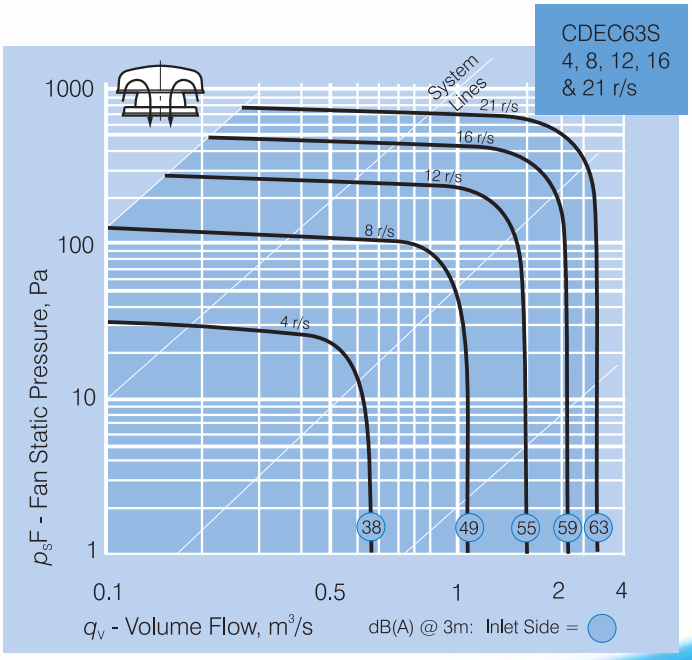
Model Number CDEC.. CEEC..	Dimensions, mm A□	B□	C	D□	E	Approx. weight kg.	Approx. volume m³
31.S	480	580	420	670	50	13	0.23
35.S	590	690	535	890	50	17	0.50
45.S	740	840	670	1180	90	30	1.10
56.S	805	905	690	1395	50	65	1.60
63.S	1040	1140	950	1640	50	90	3.00

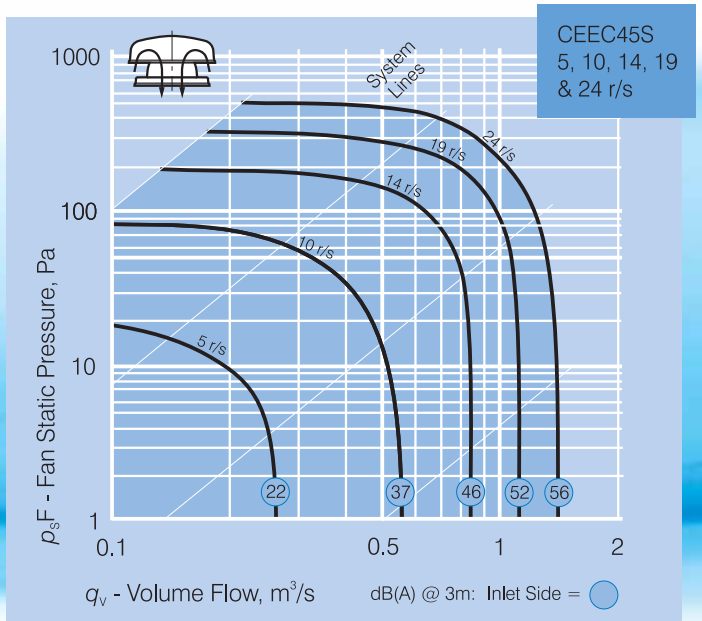
Scan the QR Code to view wiring diagrams or more information online.


CEEC31S
7, 13, 20, 27
& 34 r/s
System Lines
34 r/s
27 r/s
20 r/s
13 r/s
7 r/s
700
100
10
1
0.02
0.05
0.1
0.5
0.7
19
35
45
52
57
p_sF - Fan Static Pressure, Pa
q_v - Volume Flow, m³/s
dB(A) @ 3m: Inlet Side =

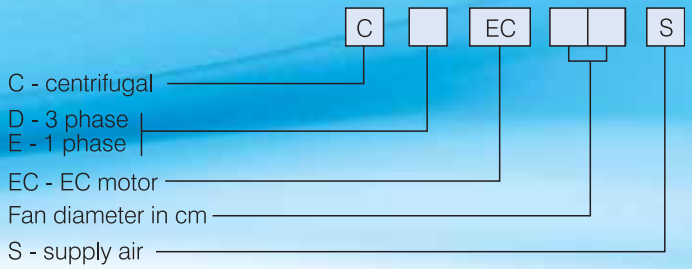

CDEC56S
4, 8, 12, 16
& 21 r/s
System Lines
21 r/s
16 r/s
12 r/s
8 r/s
4 r/s
1000
100
10
1
0.1
0.5
1
2
3
34
45
51
56
59
p_sF - Fan Static Pressure, Pa
q_v - Volume Flow, m³/s
dB(A) @ 3m: Inlet Side =


CEEC35S
5, 11, 16, 21
& 27 r/s
System Lines
27 r/s
21 r/s
16 r/s
11 r/s
5 r/s
600
100
10
1
0.02
0.05
0.1
0.5
0.8
23
37
45
51
55
p_sF - Fan Static Pressure, Pa
q_v - Volume Flow, m³/s
dB(A) @ 3m: Inlet Side =


CDEC63S
4, 8, 12, 16
& 21 r/s
System Lines
21 r/s
16 r/s
12 r/s
8 r/s
4 r/s
1000
100
10
1
0.1
0.5
1
2
4
38
49
55
59
63
p_sF - Fan Static Pressure, Pa
q_v - Volume Flow, m³/s
dB(A) @ 3m: Inlet Side =


CEEC45S
5, 10, 14, 19
& 24 r/s
System Lines
24 r/s
19 r/s
14 r/s
10 r/s
5 r/s
1000
100
10
1
0.1
0.5
1
2
22
37
46
52
56
p_sF - Fan Static Pressure, Pa
q_v - Volume Flow, m³/s
dB(A) @ 3m: Inlet Side =

HOW TO ORDER

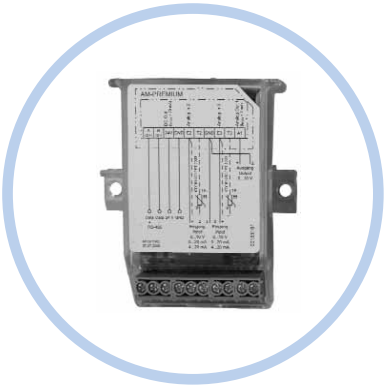

C
EC
S
C - centrifugal
D - 3 phase
E - 1 phase
EC - EC motor
Fan diameter in cm
S - supply air

Controllers and Sensors

PREMIUM MODULE

DESCRIPTION

The Premium Module expands an EC motor to be fully configurable and multipurpose. The Premium Module provides an integrated MODBUS interface and enables sensors to be connected directly to the EC fan.



Features

- Quick and easy to install
- Pre-set parameters control the fan's speed in proportion to demand
- Plug in Premium Module expands input/output interface on an EC fan
- Provides MODBUS interface that allows integration into existing MODBUS-RTU networks
- Premium Module is pre-configured to project specifications by Fantech

The following Inputs/outputs can be connected to the AM Premium Module

- 2 x Digital input
- 2 x Analogue Input • 1 x Analogue output
- 1 x 24VDC output (70mA)
- 1 x 10VDC output (10mA)
- 1 x Relay output (Configured to N.O. or N.C.)
- 1 x MODBUS (RS-485)

TECHNICAL DATA

Model Number	Functional Extension	Configuration
DCV-CU-PREM	Via cable	pre-configured by Fantech

TEMPERATURE CONTROLLER

DESCRIPTION

The temperature controller combined with matching sensors can be used in a range of applications including extraction and supply air systems.

Features

- Quick and easy to install and commission
- Pre-set parameters control the fan's speed in proportion to demand
- EC fans with integrated control can be activated directly
- 24V supply from control unit
- Voltage input (10-24 V DC) for switch over between Set point 1 and Set point 2 (e.g. for day / night, summer / winter)

TECHNICAL DATA

Model Number	Measuring Range	Mount Type	Protection Class	Dimension, mm
DCV-CU-CTG-150AV	-50°C to +150°C	Wall	IP54	114W x 108H x 56D

Controllers and Sensors

UNIVERSAL CONTROLLER

DESCRIPTION

The Universal Controller helps create a demand control ventilation system. A complete universal controller which includes temperature, CO_2, differential pressure, air velocity and air volume.

Features

- Quick and easy to install and commission
- Pre-set parameters control the fan's speed in proportion to demand
- Connection facility for 2 sensors
- 2 outputs 0-10 V for activation of a subsequent speed controller
- 2 digital outputs (relay) programmable (e.g. status signals, threshold values)
- 5 digital inputs programmable (e.g. enable function, target value 1/2, controller output limitation, automatic/manual switch over)
- Integration into bus system via RS485 interface, MODBUS-RTU
- Supply as either 24V supply from control unit or 240V from AC supply

TECHNICAL DATA

Model Number	Input Power	Mount Type	Clock	Protection Class	Dimensions (W x H x D) in mm
DCV-CU-CXE-AV	1~ 230V 50/60Hz	Wall	-	IP54	223 x 200 x 115
DCV-CU-CXE-AVE	1~ 230V 50/60Hz	Panel mount	-	IP54	166 x 106 x 105 (max)
DCV-CU-CXE-AVC	1~ 230V 50/60Hz	Wall	Real-time clock	IP54	223 x 200 x 115
DCV-CU-CXG-48AV	24V AC	Wall	-	IP54	223 x 200 x 115
DCV-CU-CXG-48AVE	24V AC	Panel mount	-	IP54	166 x 106 x 105 (max)
DCV-CU-CXG-24AV	24V DC	Wall	-	IP54	223 x 200 x 115
DCV-CU-CXG-24AVE	24V DC	Panel mount	-	IP54	166 x 106 x 105 (max)
DCV-CU-CXE-400AV	3~ 400V 50/60Hz	Wall	-	IP54	223 x 200 x 115
DCV-CU-CXE-400AVC	3~ 400V 50/60Hz	Wall	Real-time clock	IP54	223 x 200 x 115

PRESSURE CONTROLLER

DESCRIPTION

The differential pressure controller (non-aggressive gas) can be configured with four measuring ranges. Depending on the desired set point value and control range, the sensor control module generates 0-10 V to control the EC fan.

Features

- Quick and easy to install and commission
- Pre-set parameters control the fan's speed in proportion to demand
- 24V supply from control unit
- Digital input (10-24 V DC) for switch over between Set point 1 and Set point 2 (e.g. for day / night, summer / winter)

TECHNICAL DATA

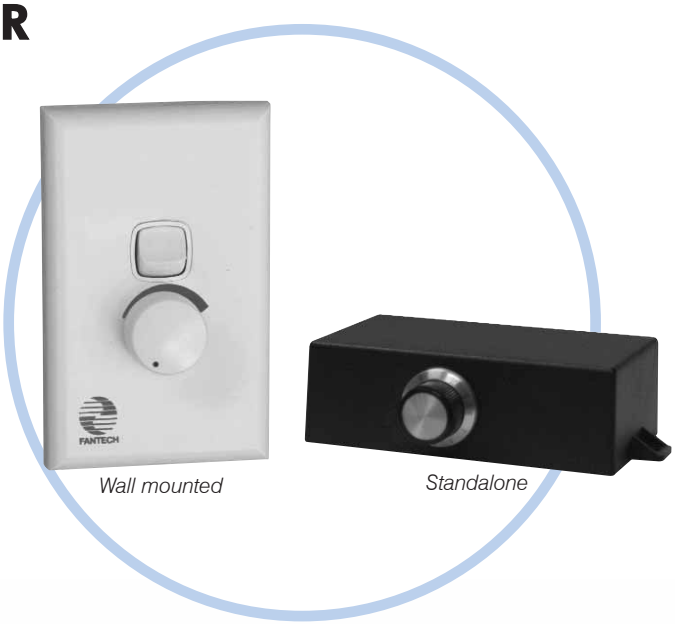
Model Number	Measuring Range	Mount Type	Protection Class	Dimensions, (W x H x D) in mm
DCV-CU-CPG-200AV	0-50 / 100 / 150 / 200 Pa	Wall	IP54	114 x 108 x 56
DCV-CU-CPG-1000AV	0-200 / 300 / 500 / 1000 Pa	Wall	IP54	114 x 108 x 56

Controllers and Sensors

0-10V EC SPEED CONTROLLER

DESCRIPTION

The manually adjustable, 0-10V speed controller has been specially developed for stepless speed adjustment of EC fans that accept a 0-10V control signal. It is available as a wall mount switch plate and a standalone controller for mounting on or near the fan enclosure.



Wall mounted *Standalone*

Features

- Quick and easy to install.
- Incorporates an enable/disable switch.
- EC fans with integrated speed control can be activated directly.

Note

The 0-10V speed controller is designed for 10VDC only. It requires 10V (25mA) power supply.

TECHNICAL DATA

Model Number	Max. mA	Mounting	Dimensions, mm
DCV-POT10K-WM	25	Wall mounted	72W x 117H x 40D
DCV-POT10K-FM*	25	Standalone	110W x 35H x 135D

*The DCV-POT10K-FM is designed to be mounted on or near the fan enclosure.

Controllers and Sensors

TEMPERATURE SENSORS

TFR / TFR-E
Room sensor with plastic housing for outdoor and industrial use

TFW
Room sensor with plastic housing for indoor use only

TFT / TFT(XL)
Immersion sensor with brass sensor rod and immersion sleeve

TFA
Contact sensor with stainless steel sensor rod

TFK
Duct sensor with plastic housing and stainless steel sensor rod

DESCRIPTION

The Fantech range of temperature sensors measure ambient air according to parameters set in the control unit.

- These sensors use a silicon PTC element that changes its resistance depending on the ambient temperature
- All TF temperature sensors are passive sensors, so they do not require power

TECHNICAL DATA

Model Number	Permissible Temperature range	Protection class	Sensor Sleeve / Material	Dimensions, mm	Connection cable length, m
DCV-TEMP-TFR	-20 °C to +60°C	IP54	-	75W x 75H x 37D	-
DCV-TEMP-TFR-E	-20 °C to +60°C	-	-	Built-in sensor of TFR	-
DCV-TEMP-TFW	-35 °C to +70°C	IP20	-	84W x 84H x 23.5D	-
DCV-TEMP-TFT	-20 °C to +105°C	IP43	Ø7 x 50mm / Brass	-	1.9
DCV-TEMP-TFT-XL	-20 °C to +105°C	IP43	Ø7 x 50mm / Brass	-	4.0
DCV-TEMP-TFA	-20 °C to +85°C	IP67	Ø6 x 50mm / Stainless steel	-	2.0
DCV-TEMP-TFK	-50 °C to + 120 °C	IP65	Ø7 x 135mm / Stainless steel	50W x 65H x 44D	-

Controllers and Sensors

DIFFERENTIAL PRESSURE SENSORS

DESCRIPTION

Designed for measuring differential pressure in air ducts, fan inlet nozzles and roof mounted fans. The differential pressure sensor is connected to the ventilation system by two pressure connections and can regulate the air pressure or air volume flow via the control unit.

Features

- Output of 0 - 10V signal proportionally over the respective measuring range
- Suitable for non-aggressive, gaseous mediums
- Comes with 0.5m connection cable.
- Vertical mounting position is recommended

TECHNICAL DATA

Model Number	Measuring pressure range (Pa)	Protection class	Dimensions (W x H x D) in mm
DCV-PA-DSG50	0 - 50	IP65	70 x 70 x 50
DCV-PA-DSG200	0 - 200	IP65	70 x 70 x 50
DCV-PA-DSG500	0 - 500	IP65	70 x 70 x 50
DCV-PA-DSG1000	0 - 1000	IP65	70 x 70 x 50

AIR VELOCITY SENSORS

DESCRIPTION

The air velocity range of sensors has been specially optimised for non-aggressive gaseous mediums. The measuring head can be positioned within the duct in any direction.
Velocity sensor is available in as 2 options; with a Ø12 x 200mm adjustable extension and with a 2 metre sensor cable.

Features

- Very high measuring accuracy from 0.15m/s.
- Output of 0 - 10V or 4 - 20mA, proportionally over the respective measuring range.
- Easy to mount using the mounting flange included
- Requires 24V supply from control unit.
- Measuring range and response time can be selected by altering the jumper settings.

TECHNICAL DATA

Model Number	Protection class	Sensor head (W x H x D) (mm)	Sensor post (mm)	Sensor cable (mm)	Velocity range (mm)
DCV-AV-MAL1	IP65 (Head IP20)	80 x 80 x 35	Ø12 x 200	-	0-2m/s
DCV-AV-MAL1X	IP65 (Head IP20)	80 x 80 x 35	-	2000	0-2m/s
DCV-AV-MAL10	IP65 (Head IP20)	80 x 80 x 35	Ø12 x 200	-	0-2m/s

Controllers and Sensors

COMBINED HUMIDITY AND TEMPERATURE SENSOR

DESCRIPTION

Can provide accurate measurement of both relative humidity and temperature in air conditioned and refrigerated conditions. The sensing element contains a special protective coating for use in polluted environments.

Features

- Relative humidity measurement range: 0-100%.
- The temperature measurement is made by the change in resistance on the built-in PTC (Positive Temperature Coefficient) element (KTY81-210).
- High grade sintered stainless steel element acts as a filter against contaminants.

TECHNICAL DATA

Model Number	Permissible Temperature range	Protection class	Sensor Head (W x H x D) in mm	Sensor Post, mm
DCV-HT-MFTG-100V	-40°C to +60°C	IP65	80 x 80 x 37	Ø 12 x 82

COMBINED CO_2, HUMIDITY AND TEMPERATURE SENSOR

DESCRIPTION

A combined sensor designed to measure CO_2 concentration, relative humidity and temperature. Typical applications include occupied spaces such as office buildings, conference rooms and education centres. Measurements can be taken either separately or combined.

Features

- Values are shown alternatively on an integrated display.
- Measurement range:
  CO_2: 0-2000 ppm
  Humidity: 0-100%
  Temperature: 0°C to +50 °C
- 24V AC ±20 %

TECHNICAL DATA

Model Number	Protection class	Sensor Head (W x H x D) in mm
DCV-CB-MCFTG-3AV	IP20	80 x 100 x 26

DIFFERENTIAL PRESSURE SWITCH

DESCRIPTION

High-precision switch for monitoring differential pressure and negative pressure of gaseous and non-corrosive media.

Features

- The desired switching point between NO and NC is set by a rotary switch (scale 0,2 to 3 mbar).
- Vertical mounting position is recommended

Applications

- Pressure control for central extraction and variable air volume systems (VVS).
- Air flow monitoring of warm air heaters.
- Frost protection for heat exchangers.
- Vee-belt and filter monitoring.
- Controlling and monitoring gas boilers.

TECHNICAL DATA

Model Number	Measuring range (Pa)	Protection class	Head (W x H x D), in mm
DCV-PA-MPR300	20-300	IP54	88 x 88 x 53

FANTECH
Intelligent Ventilation

Australia

Adelaide	(08) 8294 0530
Albury	(02) 6025 1866
Brisbane	(07) 3299 9888
Canberra	(02) 6280 5511
Coffs Harbour	(02) 6652 9435
Darwin	(08) 8947 0447
Hobart	(03) 6273 6455
Launceston	(03) 6344 6888
Melbourne H.O.	**(03) 9554 7845**
Melbourne CBD	(03) 9696 3044
Newcastle	(02) 4961 6088
Perth	(08) 9209 4999
Sydney	(02) 8811 0400
Sydney CBD	(02) 9698 8130
Townsville	(07) 4775 5222
Wollongong	(02) 4226 5133

New Zealand

Auckland H.O.	(09) 444 6266
Christchurch	(03) 379 8622
Wellington	(04) 566 0532

Asia

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