GAMMA EC SUPPLY SERIES

Centrifugal Roof Unit

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ECO RANGE

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.

They feature integrated infinitely variable speed control and eliminate the need for external VSDs, current overloads and motor phase protection.

The Gamma EC Supply Series is a simple “plug and play” system which means installers do not need to have specialised control programming knowledge.

Matching sensors can easily be connected to monitor the ambient conditions in a space and provide real time feedback to the fan. The fan’s on-board microprocessor can adjust the speed and therefore modulate the ventilation rate to match the specific requirements of the area.

They are fitted with bird mesh which prevents 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°.

Construction

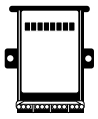
Cowls are of UV-stabilised plastic.

Steel components have a corrosion resistant finish.

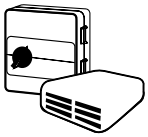
Impellers are backward-curved centrifugal design and are of high performance composite material.
Bird-mesh guards are fitted as standard.

Shutters cannot be fitted.

Ancillary Equipment



DCV-CU - Premium Module on-board control pack
Ref. Section M



Controllers & Sensors
Ref. Section M

Motor

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.

Ball Bearing - sealed for life.

See page O-7 for details on motors.

Integrated EC Controller providing infinite speed control.

Internal Thermal Protection

Integral thermal overload protection is supplied as standard.

Testing

Airflow tests to ISO 5801:2007.

Noise tests to ISO 3744:2010.

Additional Information

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

EC motors should be directly connected to their appropriate AC supply. EC motors should not be regularly power cycled.

Suggested Specification

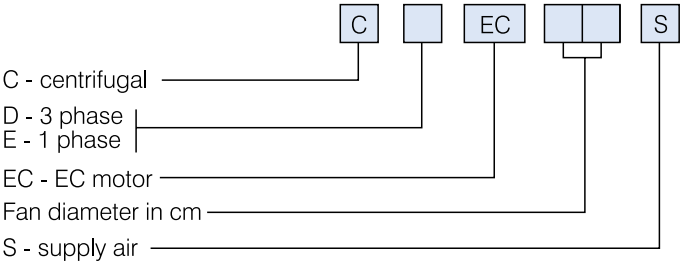
The roof ventilators shall be of the Gamma EC Series supply air type as designed and manufactured by Elta Fans and be of the model numbers shown on the schedule/drawings.

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 airflow and ISO 3744:2010 for noise.

How To Order



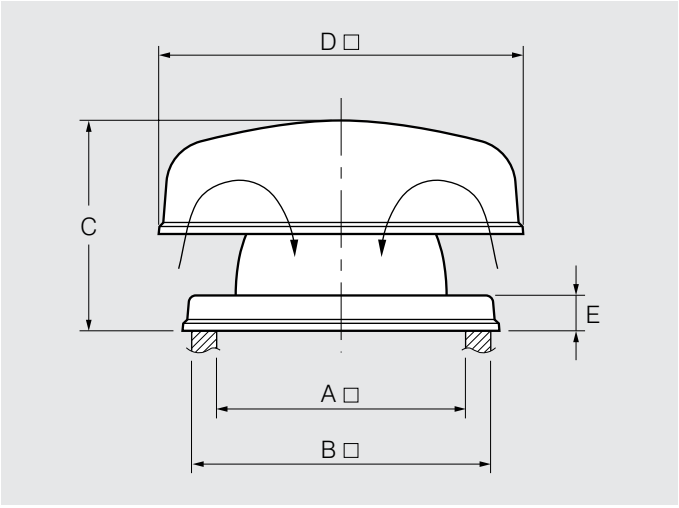
Tel **+603 7846 0340** Fax **+603 7842 1132** Email **info@eltafans.asia** Website **eltafans.asia**

Technical Data

Model CDEC…S CEEC…S	Percentage of full speed (%)	*Max. Fan Speed r/s	Airflow @ 0Pa m^3/s	Avg. dB(A) @ 3m	CEEC.. 1ph.		CDEC.. 3ph	
					kW	Amps	kW	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 m^3
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

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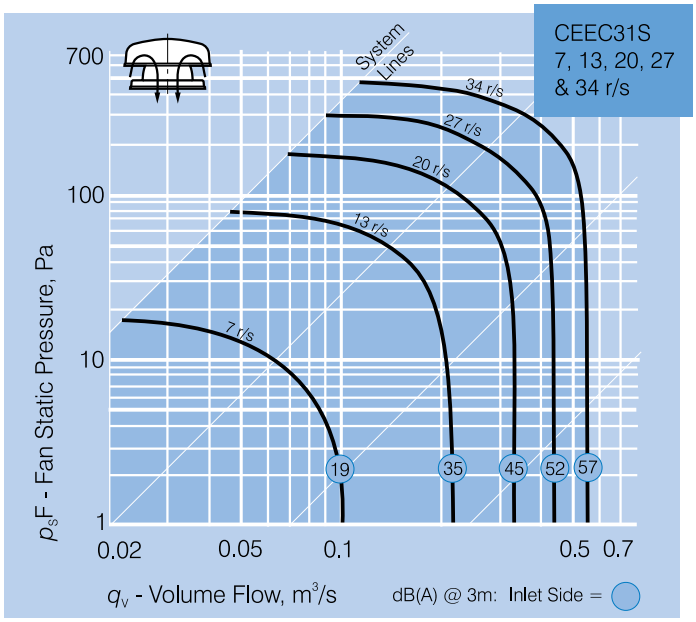

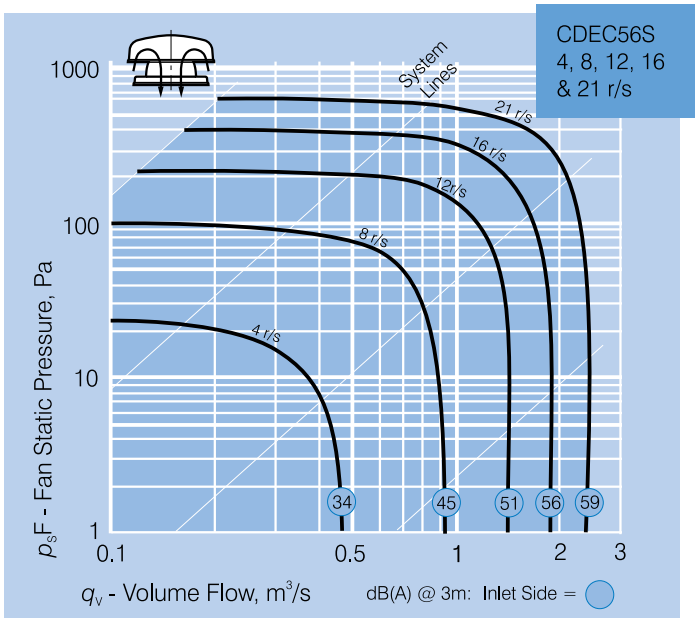

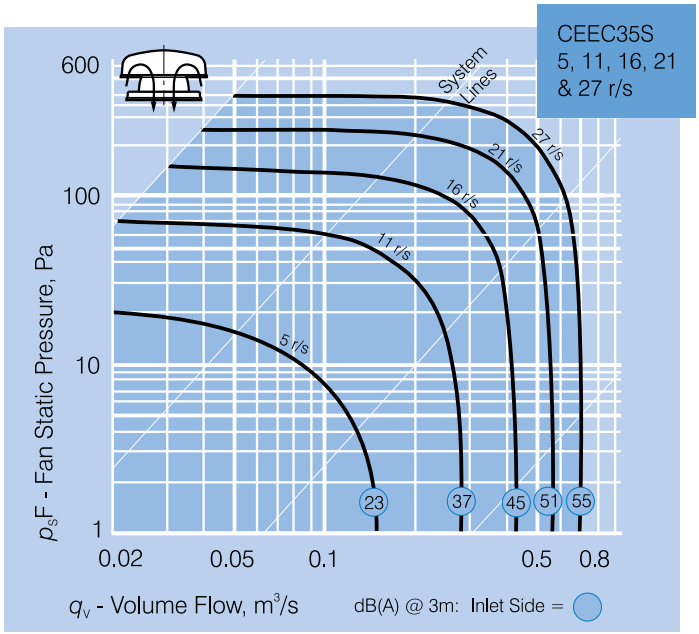

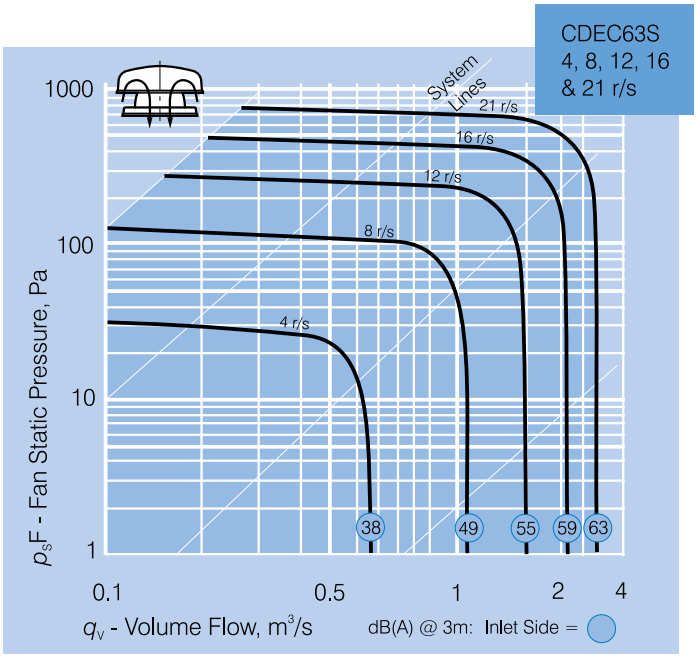

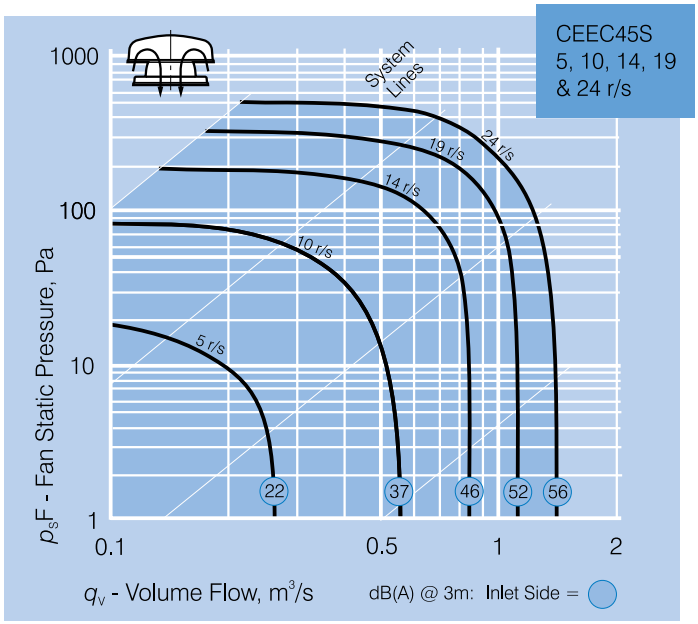

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Elta Fans Malaysia Sdn Bhd

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Fax **+603 7842 1132**
Email **info@eltafans.asia**

No. 147, Jalan TUDM Kampung
Baru Subang, 40150 Shah Alam,
Selangor West Malaysia, Malaysia

eltafans.asia

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