

## **DESCRIPTION**

The GL Gamma EC Series of centrifugal roof mounted exhaust fans incorporate the latest state of the art, energy saving EC motor technology.

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

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.

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 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.

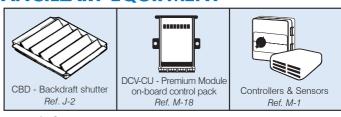
#### **Features**

- EC motor features reverse polarity protection, locked rotor protection and soft start.
- No additional protection such as contactors are required.
- Can be pre-configured to suit specific sensors and 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°.

### Construction

Cowls are of galvanised steel construction.
Impellers are backward-curved centrifugal design and are of high performance composite material.
Bird-mesh guards are an optional extra.
Powder-coating is an optional extra.

# **ANCILLARY EQUIPMENT**



#### Special notes

Backdraft shutters are an optional extra refer to page *J-2* for details. The pressure loss across the shutter has to be added to the system pressure before making selections.

All GL Gamma EC models can be pre-configured to suit specific sensors and specific applications. Please advise Fantech 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.

#### 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

See page O-7 for details on motors.

#### **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 D-44 to view wiring diagrams online.

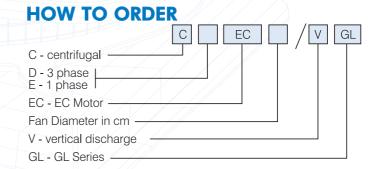
#### SUGGESTED SPECIFICATIONS

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.

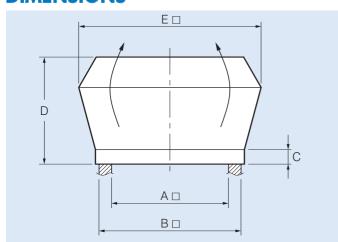


# **TECHNICAL DATA**

| Model<br>CDECVGL<br>CEECVGL | Percentage<br>of full speed<br>(%) | *Max. Fan<br>Speed<br>r/s | Air flow<br>@ 0Pa<br>m³/s | Avg.<br>dB(A)<br>@ 3m | CEEC 1ph<br>kW Amps |      | CDEC 3ph<br>kW 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 |
| <b>56</b> <sup>†</sup>      | 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 |

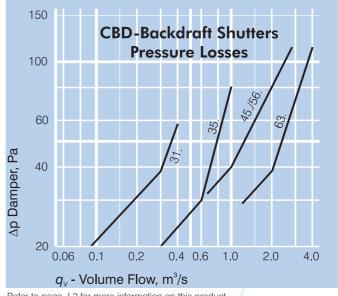
<sup>\*</sup> The fan will maintain the set speed whether run on 50 or 60Hz supply.

# **DIMENSIONS**



| Model<br>CDECVGL<br>CEECVGL |     |     | ns<br>C | D   | Eo   | Approx.<br>weight<br>kg. | Approx<br>volume<br>m³ |
|-----------------------------|-----|-----|---------|-----|------|--------------------------|------------------------|
| 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**



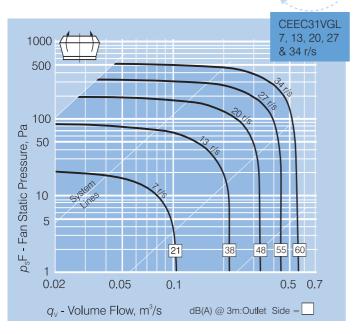
Refer to page J-2 for more information on this product.

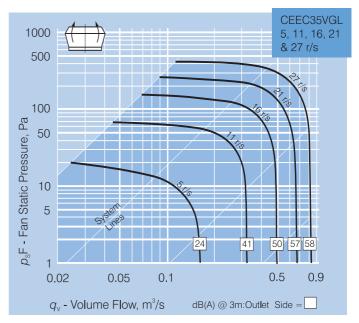
#### Note:

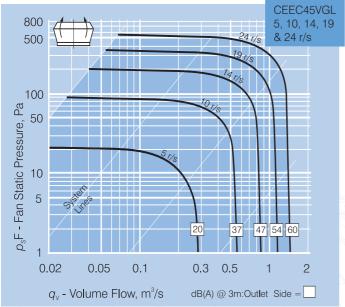
If dampers are fitted, the pressure loss through them must be added to the system resistance before selecting the fan.

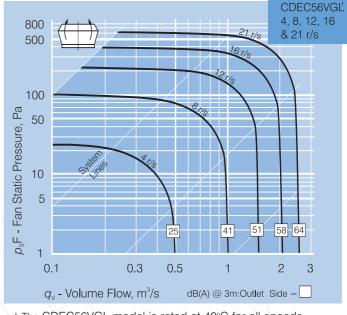
<sup>†</sup> The CDEC56VGL model is rated at 40°C for all speeds. This model cannot exceed 16.8 r/s at 60°C ambient.

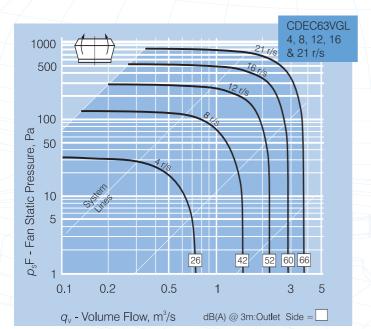
# **GL GAMMA EC SERIES**











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