

# CLEARFLOW CFHT

**ELTA**

Bifurcated Cylindrical Axial Flow Fan

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» **Select** models available for next day delivery



# CLEARFLOW CFHT

## Product Overview

- 6 standard sizes from 350mm to 630mm
- Air volume flow rates up to 3.819 m<sup>3</sup>/s
- Static pressures up to 1044 Pa
- Suitable for operating temperatures of up to +120°C
- Can be mounted at angles of up to 15°
- Available in **AC**



**A range of roof mounted centrifugal fans which are designed to handle clean, grease laden or contaminated air, whilst providing easy access for cleaning.**

### High Temperature

Motors are situated out of the air stream and are not effected by contaminants in the ventilated air. The range is suitable for a wide range of applications from contaminated air to elevated temperatures up to +120°C.

### Intelligent Design

Vertical discharge of air, projects odours away from potential occupied areas.

### Easy Installation

Can be mounted at angles of up to 15° which means the fans can be fitted directly to pitched roofs.

### Weather Resistance

Wind guard fitted as standard to reduce noise, and draughts entering the duct. Easily removable for cleaning and maintenance.

### Controllability

The Eltadrive range of inverters has been designed encompassing the latest technology and combining robustness with reliability. Using an inverter to control fans via sensors to reduce fan speed can provide significant cost-savings through lower energy consumption.

### Warranty

Each CFHT has a 12 month warranty.

### Construction

The all metal fan casing provides a long lasting and robust construction. The casings are manufactured from pre-galvanised sheet steel.

### Motor

Motors are flange/foot mounted TEFC IP55, with sealed for life bearings, a standard industrial paint finish and Class F insulation to EN 60034-5.

### Impeller

A free running impeller with 7 backwards-curved blades made of sheet steel with surface protection provided by powder coating. The rotating, non-fluted diffuser generates high efficiency levels and favourable acoustic characteristics.

### Typical Applications

- Industrial
- Commercial Kitchens and Catering
- Hospitals
- Bakeries
- Forges and Foundries

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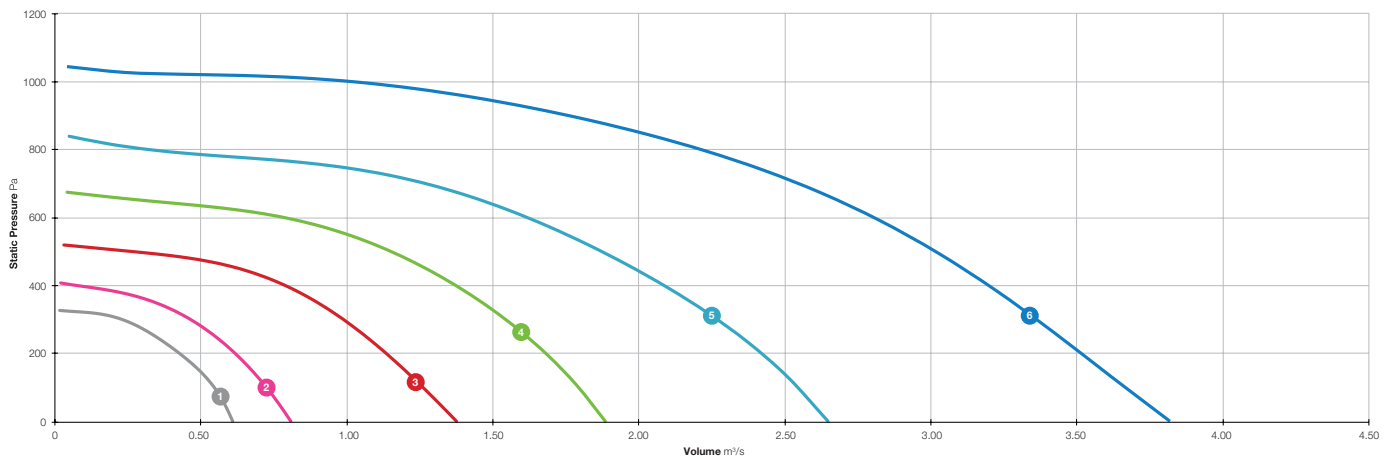
### Product Coding

| Code         | Reference                                   |
|--------------|---|
| <b>CFHT</b>  | Product Range                               |
| <b>400</b>   | Diameter (400/450/500...)                   |
| <b>/</b>     |   |
| <b>4</b>     | Number of Poles (2/4/6)                     |
| <b>-</b>     |   |
| <b>3</b>     | Voltage Supply (Single Phase / Three Phase) |
| <b>AC</b>    | Motor Type (AC/EC)                          |
| <b>A - Z</b> | Additional Coding (A - Z) Product Variants  |
| e.g.         | <b>CFHT400 / 4 - 3AC</b>                    |

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## Performance Range Curves



- 1 CFHT350 / 4-3AC
- 2 CFHT400 / 4-3AC
- 3 CFHT450 / 4-3AC
- 4 CFHT500 / 4-3AC
- 5 CFHT560 / 4-3AC
- 6 CFHT630 / 4-3AC

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## Performance, SFP & Electrical Data

Three Phase 380V to 415V / 50Hz

| Product Code  | Speed r/min | Airflow           | Airflow m <sup>3</sup> /s @ Static Pressure Pa |       |       |       |       |       |       |       |       |       |       |       | At Best Efficiency Point |          | Electrical Data |       | dBA @ 3m |    |
|---------------|-------------|-------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------------|----------|-----------------|-------|----------|----|
|               |             |                   | 0  | 25    | 50    | 75    | 100   | 150   | 200   | 250   | 300   | 350   | 400   | 500   | Overall Eff %            | Input kW | Peak Amps       | Δ / Y |          |    |
| CFHT350/4-3AC | 1445        | m <sup>3</sup> /s | 0.610  | 0.597 | 0.582 | 0.565 | 0.546 | 0.494 | 0.426 | 0.343 | 0.227 | -     | -     | -     | 36.2                     | 0.240    | 0.71            | Mains | Inlet    | 48 |
|               |             | W/(L/s)           | 0.30   | 0.32  | 0.35  | 0.37  | 0.40  | 0.47  | 0.56  | 0.70  | 0.97  | -     | -     | -     |                          |          |                 |       | Outlet   | 51 |
| CFHT400/4-3AC | 1435        | m <sup>3</sup> /s | 0.809  | 0.789 | 0.769 | 0.747 | 0.725 | 0.675 | 0.618 | 0.550 | 0.464 | 0.343 | 0.075 | -     | 37.1                     | 0.378    | 1.01            | Mains | Inlet    | 53 |
|               |             | W/(L/s)           | 0.36   | 0.38  | 0.41  | 0.43  | 0.46  | 0.52  | 0.59  | 0.69  | 0.81  | 1.03  | 3.22  | -     |                          |          |                 |       | Outlet   | 54 |
| CFHT450/4-3AC | 1445        | m <sup>3</sup> /s | 1.375  | 1.347 | 1.318 | 1.289 | 1.260 | 1.199 | 1.134 | 1.065 | 0.988 | 0.899 | 0.789 | 0.269 | 50.0                     | 0.636    | 1.16            | Mains | Inlet    | 54 |
|               |             | W/(L/s)           | 0.32   | 0.34  | 0.36  | 0.38  | 0.40  | 0.45  | 0.50  | 0.56  | 0.63  | 0.70  | 0.80  | 1.57  |                          |          |                 |       | Outlet   | 60 |
| CFHT500/4-3AC | 1470        | m <sup>3</sup> /s | 1.886  | 1.864 | 1.842 | 1.818 | 1.794 | 1.740 | 1.681 | 1.615 | 1.542 | 1.462 | 1.371 | 1.148 | 54.2                     | 1.063    | 2.21            | Mains | Inlet    | 60 |
|               |             | W/(L/s)           | 0.40   | 0.41  | 0.43  | 0.44  | 0.46  | 0.50  | 0.54  | 0.59  | 0.64  | 0.70  | 0.76  | 0.92  |                          |          |                 |       | Outlet   | 64 |
| CFHT560/4-3AC | 1455        | m <sup>3</sup> /s | 2.646  | 2.622 | 2.597 | 2.571 | 2.543 | 2.484 | 2.418 | 2.346 | 2.266 | 2.179 | 2.084 | 1.870 | 52.5                     | 1.833    | 3.27            | Mains | Inlet    | 61 |
|               |             | W/(L/s)           | 0.53   | 0.54  | 0.56  | 0.58  | 0.60  | 0.64  | 0.68  | 0.72  | 0.77  | 0.82  | 0.88  | 1.00  |                          |          |                 |       | Outlet   | 64 |
| CFHT630/4-3AC | 1472        | m <sup>3</sup> /s | 3.819  | 3.779 | 3.741 | 3.702 | 3.665 | 3.590 | 3.515 | 3.439 | 3.361 | 3.281 | 3.197 | 3.015 | 58.6                     | 3.060    | 5.76            | Mains | Inlet    | 65 |
|               |             | W/(L/s)           | 0.53   | 0.54  | 0.56  | 0.58  | 0.60  | 0.63  | 0.67  | 0.71  | 0.75  | 0.80  | 0.84  | 0.94  |                          |          |                 |       | Outlet   | 70 |

Data provided is at standard air density of 1.2 kg/m<sup>3</sup>.

Data in accordance with ErP 1253/2014 of the European Parliament. Product category is NRVU. Measurement category used to determine energy efficiency: C.

A variable speed drive (Eltadrive) must be installed with this fan.

Peak Amps @ 400V / 3PH / 50Hz.

The overall A-weighted sound pressure level is at a distance of 3m with spherical free-field propagation. It is expressed in dB re-20μPa and is presented for comparative purposes only.

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## Sound Data

Three Phase 380V to 415V / 50Hz

| Product Code  | Speed r/min |        | Sound Power Level dBW @ Octave Band Hz |       |       |       |      |      |      |      | Total dB |
|---------------|-------------|--------|--|-------|-------|-------|------|------|------|------|----------|
|               |             |        | 63Hz                                   | 125Hz | 250Hz | 500Hz | 1kHz | 2kHz | 4kHz | 8kHz |          |
| CFHT350/4-3AC | 1445        | Inlet  | 60                                     | 73    | 70    | 66    | 62   | 60   | 56   | 53   | 76       |
|               |             | Outlet | 60                                     | 73    | 73    | 68    | 67   | 62   | 56   | 51   | 77       |
| CFHT400/4-3AC | 1435        | Inlet  | 64                                     | 71    | 71    | 69    | 69   | 66   | 61   | 58   | 77       |
|               |             | Outlet | 64                                     | 74    | 75    | 70    | 70   | 65   | 60   | 58   | 79       |
| CFHT450/4-3AC | 1445        | Inlet  | 65                                     | 77    | 75    | 69    | 67   | 67   | 66   | 64   | 80       |
|               |             | Outlet | 69                                     | 76    | 76    | 75    | 76   | 75   | 66   | 63   | 83       |
| CFHT500/4-3AC | 1470        | Inlet  | 67                                     | 85    | 81    | 75    | 71   | 71   | 72   | 74   | 87       |
|               |             | Outlet | 71                                     | 80    | 79    | 79    | 80   | 79   | 73   | 75   | 87       |
| CFHT560/4-3AC | 1455        | Inlet  | 70                                     | 85    | 83    | 77    | 73   | 73   | 72   | 72   | 88       |
|               |             | Outlet | 77                                     | 85    | 82    | 82    | 80   | 77   | 73   | 71   | 89       |
| CFHT630/4-3AC | 1472        | Inlet  | 74                                     | 90    | 89    | 80    | 78   | 76   | 74   | 74   | 93       |
|               |             | Outlet | 78                                     | 89    | 90    | 87    | 85   | 84   | 76   | 74   | 95       |

Data provided at standard air density of 1.2 kg/m<sup>3</sup>.  
 Tests and preparation of the sound data have been carried out in accordance with BS 848 Part 2:1985 at 50% peak pressure.  
 The Sound Power Level Spectra are in dB re-1pW.

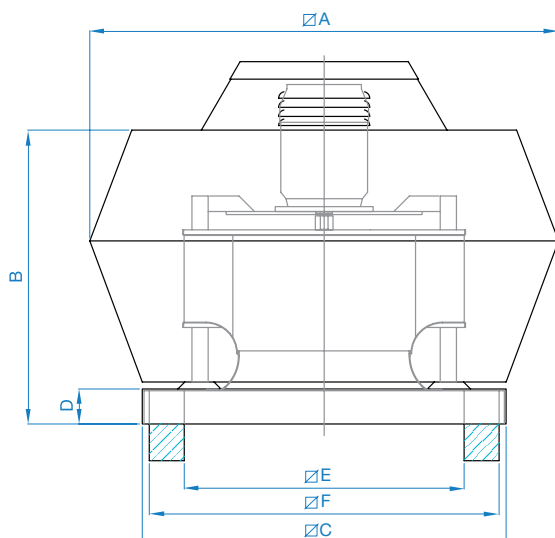
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## Dimensional Data

### Single & Three Phase

| Product Code  | A    | B   | C   | D  | E   | F   | Weight kg |
|---------------|------|-----|-----|----|-----|-----|-----------|
| CFHT350/4-3AC | 662  | 526 | 520 | 50 | 400 | 500 | 44        |
| CFHT400/4-3AC | 666  | 547 | 520 | 50 | 400 | 500 | 47        |
| CFHT450/4-3AC | 903  | 707 | 740 | 60 | 620 | 720 | 75        |
| CFHT500/4-3AC | 903  | 745 | 740 | 60 | 620 | 720 | 84        |
| CFHT560/4-3AC | 903  | 789 | 740 | 60 | 620 | 720 | 87        |
| CFHT630/4-3AC | 1158 | 919 | 830 | 60 | 710 | 810 | 120       |



\*The higher weight shown applies to the /4-2 & /4-3 versions.

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## Accessories

### Three Phase 380V to 415V / 50Hz

| Product Code                  | Eltadrive Variable Speed Drive 1PH-3PH IP66 | Eltadrive Variable Speed Drive 1PH-3PH IP20 | Eltadrive Variable Speed Drive 3PH-3PH IP66 | Eltadrive Variable Speed Drive 3PH-3PH IP20 | Wiring Diagram |
|-------------------------------|---|---|---|---|----------------|
| <a href="#">CFHT350/4-3AC</a> | 149-ODE3-12037-1KB1Y                        | 149-ODE3-12037-1KB12                        | 149-ODE3-14075-3KA1Y                        | 149-ODE3-14075-3KA12                        | 152-600        |
| <a href="#">CFHT400/4-3AC</a> | 149-ODE3-12075-1KB1Y                        | 149-ODE3-12075-1KB12                        | 149-ODE3-14075-3KA1Y                        | 149-ODE3-14075-3KA12                        | 152-600        |
| <a href="#">CFHT450/4-3AC</a> | 149-ODE3-12075-1KB1Y                        | 149-ODE3-12075-1KB12                        | 149-ODE3-14150-3KA1Y                        | 149-ODE3-14150-3KA12                        | 152-600        |
| <a href="#">CFHT500/4-3AC</a> | 149-ODE3-12150-1KB1Y                        | 149-ODE3-12150-1KB12                        | 149-ODE3-14150-3KA1Y                        | 149-ODE3-14150-3KA12                        | 152-600        |
| <a href="#">CFHT560/4-3AC</a> | 149-ODE3-12150-1KB1Y                        | 149-ODE3-12150-1KB12                        | 149-ODE3-14150-3KA1Y                        | 149-ODE3-14150-3KA12                        | 152-600        |
| <a href="#">CFHT630/4-3AC</a> | -   | -   | 149-ODE3-24400-3KA4Y                        | 149-ODE3-24400-3KA42                        | 152-600        |

# CLEARFLOW CFHT

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