



CLEARFLOW CFHT

Roof Mounted Vertical
Discharge Centrifugal Fan

CLEARFLOW CFHT

Product Overview



- 6 standard sizes from 350mm to 630mm
- Air volume flow rates up to 3.819 m³/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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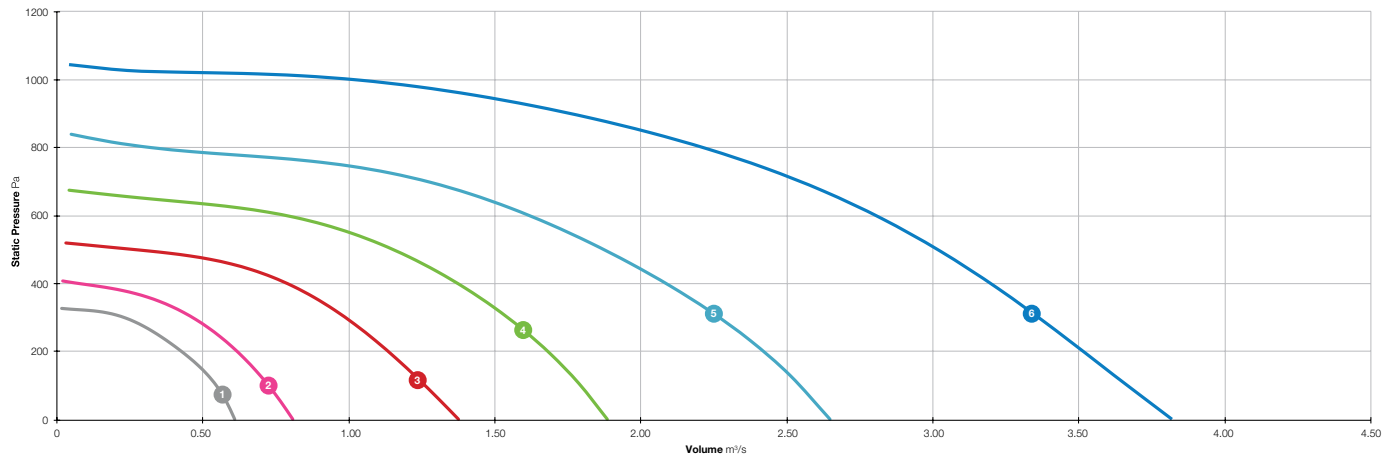
Product Coding

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

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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 ³ /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 ³ /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 ³ /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 ³ /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 ³ /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 ³ /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 ³ /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/m³.

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/m³.

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.

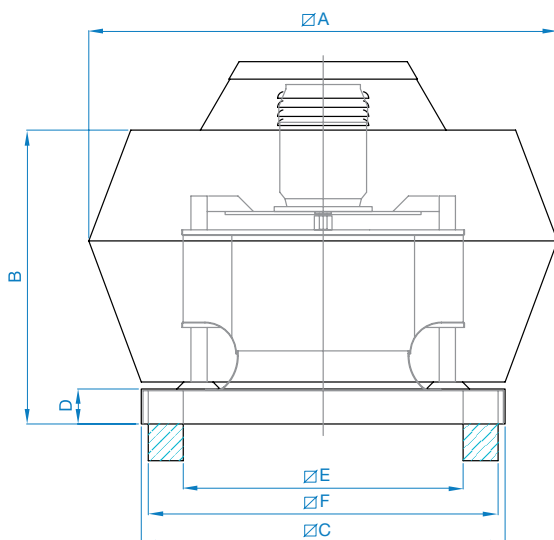
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Dimensional Data

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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EcoDesign 1253/2014 - Information Requirements

REV2 01/05/2018

A	B	C*			D	E	F	G	H	I	J	K	L	N	O	P	Q	R	S
		C.1	C.2	C.3															
Elta Fans Ltd	CFHT350/4-3AC	NRVU	UVU	2018	Variable-Speed	None	n/a	0.38	0.24	n/a	3.86	231	n/a	36.2	n/a	n/a	n/a	48	www.eltafans.com
Elta Fans Ltd	CFHT400/4-3AC	NRVU	UVU	2018	Variable-Speed	None	n/a	0.49	0.378	n/a	3.9	286	n/a	37.1	n/a	n/a	n/a	53	www.eltafans.com
Elta Fans Ltd	CFHT450/4-3AC	NRVU	UVU	2018	Variable-Speed	None	n/a	0.84	0.636	n/a	5.28	377	n/a	50	n/a	n/a	n/a	54	www.eltafans.com
Elta Fans Ltd	CFHT500/4-3AC	NRVU	UVU	2018	Variable-Speed	None	n/a	1.19	1.063	n/a	6.06	485	n/a	54.2	n/a	n/a	n/a	60	www.eltafans.com
Elta Fans Ltd	CFHT560/4-3AC	NRVU	UVU	2018	Variable-Speed	None	n/a	1.54	1.833	n/a	6.25	624	n/a	52.5	n/a	n/a	n/a	61	www.eltafans.com
Elta Fans Ltd	CFHT630/4-3AC	NRVU	UVU	2018	Variable-Speed	None	n/a	2.42	3.06	n/a	7.76	740	n/a	58.6	n/a	n/a	n/a	65	www.eltafans.com

- A** Manufacturer's Name
- B** Model Identifier
- C.1** RVU or NRVU
- C.2** UVU or BVU
- C.3** ErP Compliance
- D** Type of Drive (MSD or VSD)
- E** Type of HRS (Run Around or Other or None)
- F** Thermal Efficiency (% or N/A)
- G** Nominal Flow Rate (m³/s)
- H** Effective Electrical Power Input (kW)
- I** SFP Int (W/m³/s)
- J** Face Velocity (m/s)
- K** Nominal External Pressure (Pa)
- L** Internal Pressure Drop of Ventilation Components (Pa)
- N** Static Efficiency of Fan Used 327/2011
- O** Maximum External Leakage Rate (%)
- P** Energy Classification of Filters
- Q** Description of Visual Filter warning
- R** Casing Sound Power Level (LWA)
- S** Website for Disassembly Instructions

* Declared Typology C

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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
CFHT350/4-3AC	149-ODE3-12037-1KB1Y	149-ODE3-12037-1KB12	149-ODE3-14075-3KA1Y	149-ODE3-14075-3KA12	152-600
CFHT400/4-3AC	149-ODE3-12075-1KB1Y	149-ODE3-12075-1KB12	149-ODE3-14075-3KA1Y	149-ODE3-14075-3KA12	152-600
CFHT450/4-3AC	149-ODE3-12075-1KB1Y	149-ODE3-12075-1KB12	149-ODE3-14150-3KA1Y	149-ODE3-14150-3KA12	152-600
CFHT500/4-3AC	149-ODE3-12150-1KB1Y	149-ODE3-12150-1KB12	149-ODE3-14150-3KA1Y	149-ODE3-14150-3KA12	152-600
CFHT560/4-3AC	149-ODE3-12150-1KB1Y	149-ODE3-12150-1KB12	149-ODE3-14150-3KA1Y	149-ODE3-14150-3KA12	152-600
CFHT630/4-3AC	-	-	149-ODE3-24400-3KA4Y	149-ODE3-24400-3KA42	152-600

ELTADRIVE VARIABLE SPEED DRIVES

IP20

- Up to 22kW
- Built in PI control, EMC filter (C1) & brake chopper
- Application macros for industrial fan operation
- Bluetooth® connectivity
- Controls multiple motor types: IE2, 3, 4, IM, PM, BLDC and SynRM
- Operates up to 50°C



Overview

Compact, robust and reliable general purpose drive for panel mounting.

Simply Power Up

Eltadrive E3 provides precise motor control and energy savings using the factory settings. Simply power up and the drive can immediately deliver energy savings. 14 basic parameters allow simple adjustment for your application if required, with up to 50 parameters available in total for a highly flexible performance.

Power Supply

Connects at top.

Fast Connection

5mm rising clamp terminals with captive screws.

Quick Reference

Integrated help card.

Modbus RTS & CANopen

On board as standard.

SmartStart

Rapid parameter cloning and Bluetooth® PC interface.

Motor Supply

Connects at base.

Dimensional Data

Model	Size	Height	Width	Depth	Weight kg	Fixings
IP20	1	173	83	123	1.0	4 x M5
	2	221	110	150	1.7	4 x M5
	3	261	131	175	3.2	4 x M5
	4	420	171	212	9.1	4 x M8

Dimensions in mm.

ELTADRIVE VARIABLE SPEED DRIVES

IP66

- Up to 7.5kW
- Conformal coating as standard
- Switched or Non-Switched

Overview

Enclosed drives for direct machine mounting, dust-tight and ready for washdown duty.

Dust Tight Design

Install directly on your processing equipment and be sure of protection from dust and contaminants.

Washdown Ready

With a sealed ABS enclosure and corrosion resistant heatsink, the Eltadrive E3 IP66 is ideal for high-pressure washdown applications.

Eltadrive E3 IP66 Switched

Simply wire up the drive, turn the inbuilt potentiometer and the motor will start running - allowing immediate energy savings.

Coated Heatsink as Standard

Ideal for hygiene based operations requiring washdown such as food & beverage.

Fanless Heatsink

For reliable, cost effective operation.

Local Speed Potentiometer

Run Reverse / Off / Run Forward Switch

Lockable Mains

Disconnect / Isolator.

Dimensional Data

Model	Size	Height	Width	Depth	Weight kg	Fixings
IP66	1	232	161	179	3.1	4 x M4
	2	257	188	187	4.1	4 x M4
	3	310	211	252	7.6	4 x M4

Dimensions in mm.



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