

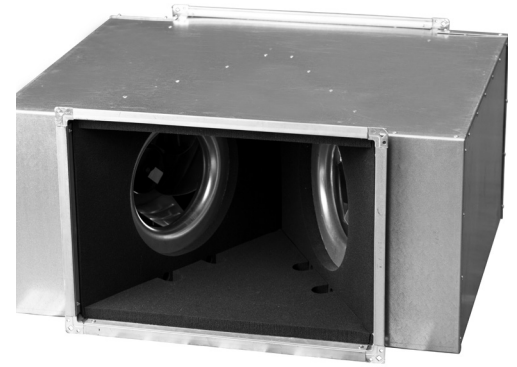
# **BOX BLTF-D**

Centrifugal Box Duo Fan

# BOX BLTF-D

## Product Overview

- 2 sizes from 550mm to 600mm
- Air volume flow rates up to 2.88m<sup>3</sup>/s
- Static pressures up to 722 Pa
- Suitable for operating temperatures up to +60°C
- Lightweight galvanised sheet steel casing
- Acoustically lined as standard
- Dual fans operating together for increased performance
- Available in **EC**



**The Box BLTF-D fan uses advanced motor technology coupled with a straightforward design ensuring a high performing fan for a wide range of uses.**

### Low Noise

Each unit is acoustically lined internally with Class O rated (BS 476 Parts 6 and 7) fire resistant acoustic foam lining minimising breakout noise levels.

### Easy Installation

To facilitate ease of installation, all models are designed for direct connection to the standard 20mm Doby flange system as standard.

### Weather Resistance

Units are suitable for external installation.

### Easy Commissioning

All units are supplied with an integrated commissioning control PCB allowing single speed selection and limiting maximum speed if used with an external potentiometer.

### Controllability

EC motors providing precise speed control via potentiometer or BMS. Reduced fan speeds can provide significant cost-savings through lower energy consumption in both mechanical energy of motors and on the conditioning of replacement air.

### High Performance

Duo operation of two motors provides higher performance than standard single fan options.

### Efficient Performance

Aerodynamic fan design with a backward curved centrifugal impeller directly driven by an EC external rotor motor, provides low specific fan powers, increased efficiency and precise, stepless speed control.

### Quality Management

Units are to be designed and manufactured with procedures as defined in BS EN ISO 9001. All units are to be tested to ISO 5801 (airside performance) and BS 848 Part 2 (sound performance).

### Warranty

Each unit has a 24 month warranty.

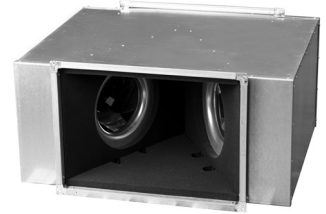
### Applications

Schools  
Colleges  
Shops  
Retail Parks  
Commercial  
Hotels  
Restaurants  
Cafes  
Cafeterias  
Pubs  
Libraries  
Offices

### Product Coding

Code	Reference
<b>BLTF</b>	Product Range
<b>600D</b>	Diameter (260/330/400...)
-	
<b>1</b>	Voltage Supply (Single Phase / Three Phase)
<b>EC</b>	Motor Type (AC/EC)
e.g.	<b>BLTF600D - 1EC</b>

# BOX BLTF550D-1EC



## Centrifugal Box Fan

Single Phase 220V - 240V / 50Hz or 60Hz

### Performance, SFP & Electrical Data

Product Code	Control Voltage V	Speed r/min	Airflow SFP	Airflow m³/s @ Static Pressure Pa												At Best Efficiency Point		Elec. Data		dBA @ 3m	
				0	25	50	75	100	150	200	250	300	350	400	500	Overall Eff. %	Input kW	Peak Amps			
BLTF550D-1EC	10	1600	m³/s	2.448	2.413	2.375	2.334	2.290	2.195	2.093	1.989	1.885	1.781	1.677	1.457	54.2	1.542	1.542	Inlet	59	
			W(L/s)	0.62	0.63	0.64	0.65	0.67	0.69	0.73	0.76	0.81	0.86	0.91	1.06				Outlet	61	
	8	1535	m³/s	2.317	2.285	2.252	2.218	2.183	2.108	2.027	1.937	1.838	1.724	1.590	1.190	53.0	1.411	1.411	Inlet	58	
			W(L/s)	0.57	0.58	0.59	0.61	0.62	0.65	0.69	0.73	0.78	0.83	0.90	1.10				Outlet	60	
	5	1035	m³/s	1.551	1.497	1.435	1.369	1.297	1.143	0.953	-	-	-	-	-	53.6	0.423	0.423	Inlet	48	
			W(L/s)	0.26	0.28	0.29	0.31	0.33	0.38	0.45	-	-	-	-	-				Outlet	51	
	2	554	m³/s	0.805	0.691	0.532	-	-	-	-	-	-	-	-	-	43.0	0.078	0.078	Inlet	32	
			W(L/s)	0.11	0.12	0.15	-	-	-	-	-	-	-	-	-				Outlet	36	

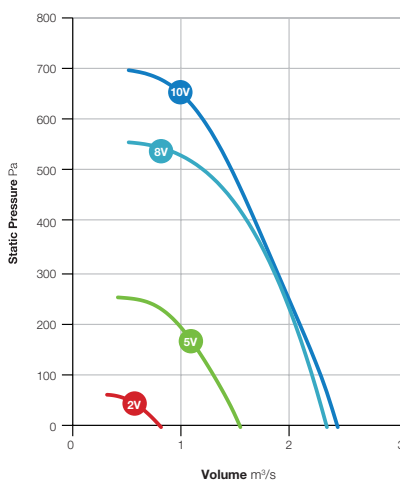
Data provided is at standard air density of 1.2 kg/m³. Data in accordance with ErP 1253/2014 of the European Parliament. Product category is NRVU. Measurement category used to determine energy efficiency; D. A variable speed drive is integrated within the fan. Peak Amps @ 400V / 3PH / 50Hz. The overall 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.

### Sound Data

Product Code	Control Voltage V		Sound Power Level dBW @ Octave Band Hz								Total dB
			63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
BLTF550D-1EC	10	Inlet	87	89	84	74	70	70	67	60	92
		Outlet	83	86	84	78	74	73	71	66	90
		Break Out	65	74	72	68	59	56	53	47	77
	8	Inlet	85	87	83	72	68	68	64	56	90
		Outlet	82	86	82	77	74	72	70	65	89
		Break Out	63	74	71	69	57	54	51	45	77
	5	Inlet	81	80	69	62	59	58	51	41	84
		Outlet	75	81	68	67	64	63	61	53	82
		Break Out	55	67	59	60	48	45	39	31	69
	2	Inlet	68	60	53	52	45	37	31	25	69
		Outlet	65	61	54	56	51	46	34	22	67
		Break Out	46	54	48	52	42	24	17	17	57

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-1µW. 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.

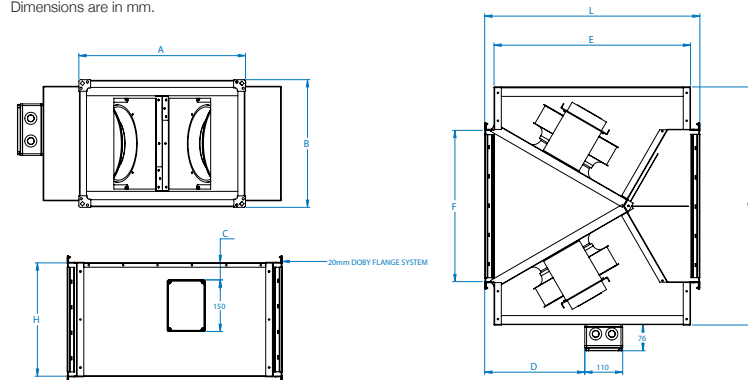
### Performance Curve



### Dimensional Data

Product Code	A	B	C	D	E	F	L	Weight kg
BLTF550D-1EC	695	590	191	456	889	650	942	112

Dimensions are in mm.



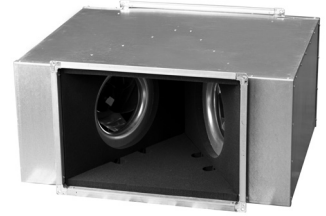
### Accessories

Product Code	EC Electronic Controller	Mounting Brackets (each)	AV Mounts * (Set of 4)
BLTF550D-1EC	149-POT-10-MI	060-MFB-01	062-SEL-05

\*Supplied as a single mount.

All units comply with 2018 ErP requirements and are classified as Non Residential Ventilation Unit (NRVU) and Unidirectional ventilation Unit (UVU) with variable speed drive type. Elta Fans Limited has a policy of continuous product development and improvement and therefore reserves the right to supply products which may differ from those illustrated and described in this publication. Confirmation of dimensions and data will be supplied on request.

# BOX BLTF600D-1EC



## Centrifugal Box Fan

Single Phase 220V - 240V / 50Hz or 60Hz

### Performance, SFP & Electrical Data

Product Code	Control Voltage V	Speed r/min	Airflow SFP	Airflow m³/s @ Static Pressure Pa												At Best Efficiency Point		Elec. Data	dBA @ 3m	
				0	25	50	75	100	150	200	250	300	350	400	500	Overall Eff. %	Input kW			
BLTF600D-1EC	10	1307	m³/s	2.514	2.471	2.426	2.381	2.334	2.231	2.114	1.978	1.828	1.675	1.529	1.251	49.5	1.453	9.16	Inlet	57
			W/(L/s)	0.57	0.58	0.59	0.61	0.62	0.65	0.69	0.73	0.79	0.87	0.95	1.17				Outlet	58
	8	1285	m³/s	2.466	2.426	2.383	2.336	2.286	2.176	2.055	1.925	1.786	1.631	1.447	-	48.7	1.404	9.29	Inlet	55
			W/(L/s)	0.58	0.59	0.60	0.62	0.63	0.66	0.70	0.75	0.81	0.87	0.96	-				Outlet	56
	5	870	m³/s	1.652	1.616	1.571	1.511	1.429	1.207	0.924	-	-	-	-	-	49.4	0.465	2.88	Inlet	46
			W/(L/s)	0.29	0.30	0.31	0.32	0.34	0.40	0.49	-	-	-	-	-				Outlet	48
	2	440	m³/s	0.910	0.816	0.612	-	-	-	-	-	-	-	-	-	38.9	0.101	0.69	Inlet	30
			W/(L/s)	0.11	0.13	0.17	-	-	-	-	-	-	-	-	-				Outlet	32

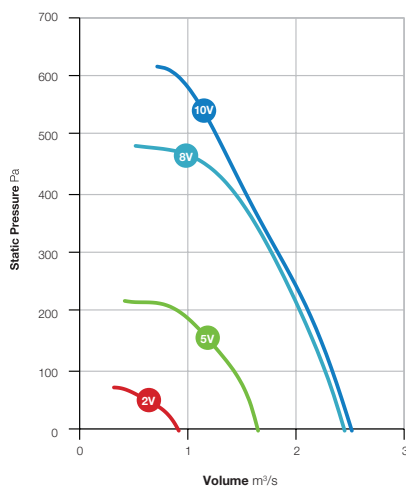
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### Sound Data

Product Code	Control Voltage V		Sound Power Level dBW @ Octave Band Hz								Total dB
			63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
BLTF600D-1EC	10	Inlet	89	88	81	73	67	67	60	52	92
		Outlet	80	86	76	75	72	70	68	64	88
		Break Out	75	74	68	59	53	48	43	38	78
	8	Inlet	87	86	79	71	65	65	58	50	90
		Outlet	78	84	74	73	70	68	66	62	86
		Break Out	74	73	67	58	52	47	42	37	77
	5	Inlet	38	79	67	62	57	55	47	38	85
		Outlet	72	77	64	64	61	59	59	57	79
		Break Out	66	64	54	48	43	36	30	24	68
	2	Inlet	67	59	52	48	43	35	28	22	68
		Outlet	62	59	50	50	47	46	34	22	64
		Break Out	54	48	40	40	33	18	15	15	55

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.

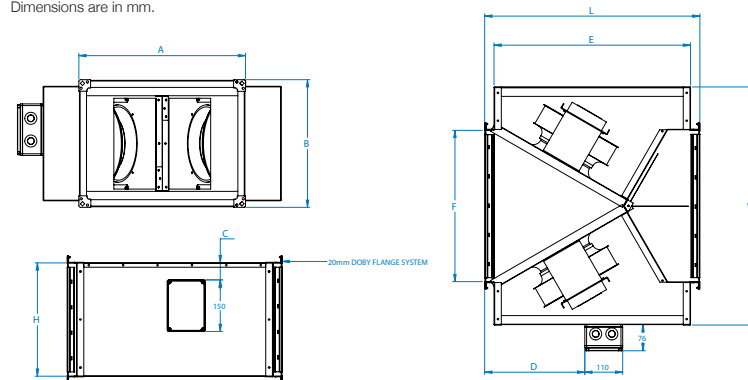
### Performance Curve



### Dimensional Data

Product Code	A	B	C	D	E	F	L	Weight kg
BLTF600D-1EC	845	640	191	456	1061	800	1115	132

Dimensions are in mm.



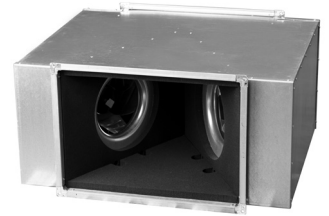
### Accessories

Product Code	EC Electronic Controller	Mounting Brackets (each)	AV Mounts * (Set of 4)
BLTF600D-1EC	149-POT-10-MI	060-MFB-01	062-SEL-05

\*Supplied as a single mount.

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# BOX BLTF600D-3EC



## Centrifugal Box Fan

Three Phase 380V to 480V / 50Hz or 60Hz

### Performance, SFP & Electrical Data

Product Code	Control Voltage V	Speed r/min	Airflow SFP	Airflow m³/s @ Static Pressure Pa												At Best Efficiency Point		Elec. Data	dBA @ 3m	
				0	25	50	75	100	150	200	250	300	350	400	500	Overall Eff. %	Input kW			
BLTF600D-3EC	10	1307	m³/s	2.882	2.843	2.805	2.766	2.726	2.643	2.552	2.448	2.331	2.201	2.069	1.820	50.6	2.139	3.59	Inlet	60
			W/(L/s)	0.73	0.74	0.75	0.77	0.78	0.80	0.83	0.86	0.91	0.96	1.03	1.17				Outlet	58
	8	1375	m³/s	2.758	2.717	2.676	2.635	2.593	2.505	2.408	2.298	2.172	2.028	1.871	1.516	50.3	1.760	3.20	Inlet	58
			W/(L/s)	0.68	0.69	0.70	0.71	0.73	0.75	0.79	0.82	0.87	0.93	0.99	1.14				Outlet	56
	5	945	m³/s	1.848	1.791	1.727	1.655	1.574	1.389	1.161	0.803	-	-	-	-	48.8	0.577	1.17	Inlet	49
			W/(L/s)	0.32	0.33	0.35	0.36	0.38	0.43	0.50	0.64	-	-	-	-				Outlet	46
	2	520	m³/s	0.973	0.857	0.689	0.450	-	-	-	-	-	-	-	-	38.5	0.120	0.39	Inlet	32
			W/(L/s)	0.12	0.14	0.18	0.25	-	-	-	-	-	-	-	-				Outlet	30

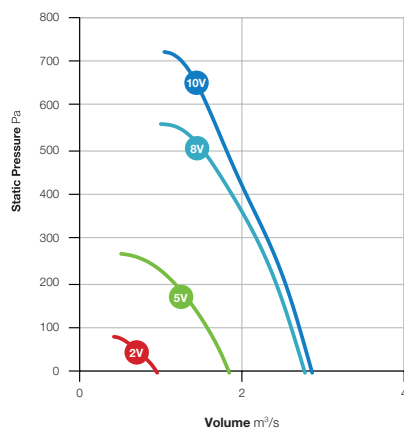
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### Sound Data

Product Code	Control Voltage V		Sound Power Level dBW @ Octave Band Hz								Total dB
			63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
BLTF600D-3EC	10	Inlet	87	88	85	76	71	71	65	57	92
		Outlet	87	89	78	76	71	68	65	63	92
		Break Out	76	76	71	62	56	51	47	42	80
	8	Inlet	85	86	82	74	69	69	63	55	90
		Outlet	83	88	75	73	68	65	63	64	90
		Break Out	75	75	69	60	54	49	45	39	79
	5	Inlet	82	82	69	64	60	58	50	41	85
		Outlet	77	78	65	63	59	56	49	38	81
		Break Out	68	66	56	50	45	39	33	27	70
	2	Inlet	69	61	54	51	46	38	31	24	70
		Outlet	64	60	49	49	43	35	29	28	66
		Break Out	55	49	41	41	35	19	16	16	56

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-1µW. 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.

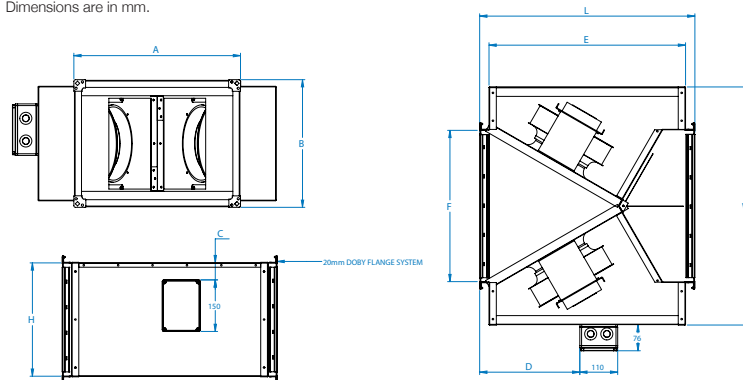
### Performance Curve



### Dimensional Data

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BLTF600D-3EC	845	640	191	456	1061	800	1115	132

Dimensions are in mm.



### Accessories

Product Code	EC Electronic Controller	Mounting Brackets (each)	AV Mounts * (Set of 4)
BLTF600D-3EC	149-POT-10-MI	060-MFB-01	062-SEL-05

\*Supplied as a single mount.

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EX-BLTF-D-07-2022 Issue E



BS EN ISO 9001:2015 FM 556465

