

# TURBOFLOW MAX TF

**ELTA**

Long Cased Kitchen Axial Flow Fan

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# TURBOFLOW MAX TF

## Product Overview

- 4 standard sizes from 450mm to 630mm
- Air volume flow rates up to 4.00 m<sup>3</sup>/s
- Static pressures up to 916 Pa
- Suitable for operating temperatures up to +50°C
- Available in **AC**



**The Turboflow Max TF is a single stage axial fan which has been specifically developed to tackle higher pressure requirements with a straightforward, efficient and definitive approach.**

### Easy Installation

Motors are wired via a weatherproofed cable to an IP55 protected terminal box mounted on the outside of the unit casing for ease of electrical connection.

### Efficient Performance

High efficiency adjustable pitch aerofoil impellers are provided with blades made from high quality pressure die cast aluminium. Increased blade chord and twist provides 7% higher efficiency reducing overall energy consumption. Increased blade root reduces stress levels which make our range of impellers ideal for arduous fan applications.

### Corrosion resistance

Suitable for external mounting as standard.

### Controllability

Suitable for VFD speed control and integration into a building management system. Using an inverter to control fans to reduce fan speed can provide significant cost-savings through lower energy consumption.

### Warranty

Each TF has a 24 month warranty.

### Casing

The all-metal fan casing provides a long lasting and robust construction. The units have been constructed from a single sheet of steel, with both motor and axial

impeller mounted within the length of the unit casing. All casing parts are heavy gauge mild steel sheet hot dip galvanised to BS EN ISO 1461 after fabrication, or pre-galvanised sheet steel, and drilled to BS EN ISO 13351, roll formed and welded for added strength and durability, . The fans are suitable for external mounting as standard

### Motor

AC Motors are to be foot mounted totally enclosed metric type to IP55, with sealed for life bearings, standard industrial paint finish and Class F insulation to EN 60034-5, suitable for operating temperatures up to +50°C. Motors are to be wired via a weatherproofed cable to an IP55 protected terminal box mounted on the outside of the unit casing

### Impeller

Adjustable pitch increased twist aerofoil impellers are provided with blades made from high quality pressure die cast aluminium (LM6), natural finish. Impellers are factory set at an angle to provide maximum performance. The hubs are manufactured from die cast aluminium alloy (LM24). Assembled impellers are to be dynamically balanced to ISO 14694 Grade G6.3.

### Control

Speed control shall be via Variable Frequency Drive.

### Quality Management

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

## Contents

Page	Information
3	Performance Range Curves
4	Performance, SFP & Electrical Data
5	Sound Data
6	Dimensional Data
7	Accessories

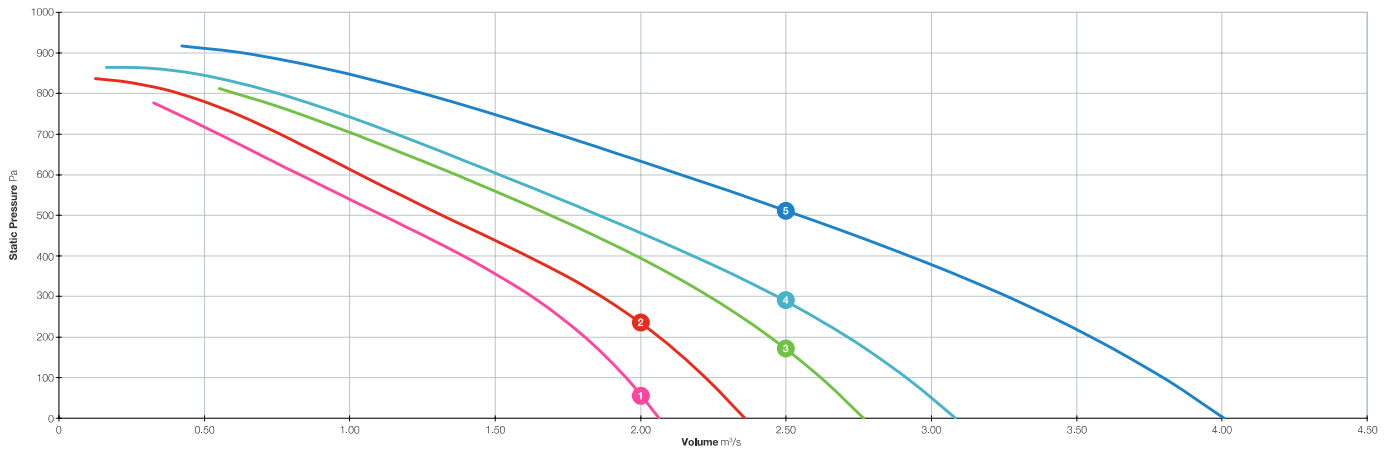
## Product Coding

Code	Reference
<b>TF</b>	Product Range
<b>045</b>	Diameter (045=45cm)
<b>J</b>	Impeller Hub (J=131mm)
<b>2</b>	Number of Poles (2/4/6)
<b>3</b>	Voltage Supply (Single Phase / Three Phase)
-	
<b>A</b>	Motor Type (AC/EC)
<b>6</b>	Number of blades
<b>10</b>	Blade Angle (10/13)
e.g.	<b>TF045J23-A6-13</b>

# TURBOFLOW MAX TF



## Performance Range Curves



- 1 TF045J23-A6-13
- 2 TF050J23-A6-10
- 3 TF050J23-A6-13

- 4 TF056J23-A6-10
- 5 TF063J23-A6-10

# TURBOFLOW MAX TF



## Performance, SFP & Electrical Data

Three Phase 380V to 415V / 50Hz

Product Code	Airflow SFP	Airflow m³/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 %	FMEG N	Input kW	Peak Amps	SC	Δ / Y		
TF045J23-A6-13	m³/s	2.060	2.030	2.000	1.980	1.940	1.880	1.800	1.720	1.620	1.510	1.390	1.110	46.4	52	1.211	2.32	17.17	Y	Inlet	72
	W/(L/s)	0.33	0.36	0.38	0.40	0.43	0.48	0.54	0.61	0.68	0.77	0.86	1.10							Outlet	71
	Breakout																				
TF050J23-A6-10	m³/s	2.350	2.320	2.290	2.250	2.220	2.140	2.060	1.960	1.860	1.740	1.600	1.310	49.3	54	1.321	3.07	23.33	Y	Inlet	74
	W/(L/s)	0.38	0.39	0.41	0.43	0.45	0.49	0.53	0.59	0.65	0.72	0.81	1.03							Outlet	75
	Breakout																				
TF050J23-A6-13	m³/s	2.760	2.730	2.690	2.650	2.610	2.530	2.440	2.340	2.230	2.110	1.980	1.680	50	54	1.689	3.68	23.33	Y	Inlet	74
	W/(L/s)	0.37	0.39	0.41	0.43	0.45	0.50	0.55	0.61	0.67	0.74	0.82	1.00							Outlet	75
	Breakout																				
TF056J23-A6-10	m³/s	3.080	3.040	3.000	2.950	2.910	2.810	2.710	2.590	2.460	2.320	2.170	1.850	51.6	56	1.799	3.68	23.33	Y	Inlet	76
	W/(L/s)	0.39	0.41	0.43	0.45	0.46	0.51	0.55	0.60	0.66	0.72	0.80	0.97							Outlet	76
	Breakout																				
TF063J23-A6-10	m³/s	4.000	3.950	3.900	3.850	3.790	3.670	3.540	3.410	3.260	3.090	2.920	2.540	51.9	55	2.485	4.43	33.23	Y	Inlet	81
	W/(L/s)	0.44	0.46	0.48	0.49	0.51	0.55	0.59	0.64	0.69	0.75	0.82	0.97							Outlet	80
	Breakout																				

Data provided is at standard air density of 1.2 kg/m³.

ErP data in accordance with Regulation (EU) 327/2011. Measurement category used to determine energy efficiency: C.

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.

# TURBOFLOW MAX TF



## Sound Data

Three Phase 380V to 415V / 50Hz

Product Code		Sound Power Level dBW @ Octave Band Hz								Total dB
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
TF045J23-A6-13	Inlet	88	84	89	88	87	86	83	81	95
	Outlet	87	80	88	85	86	86	82	80	94
	Breakout	84	74	73	67	64	61	51	51	85
TF050J23-A6-10	Inlet	76	74	82	85	91	89	85	80	95
	Outlet	79	74	81	84	92	90	85	81	95
	Breakout	74	65	66	65	69	64	53	51	77
TF050J23-A6-13	Inlet	76	74	82	85	91	89	85	80	95
	Outlet	79	74	81	84	92	90	85	81	95
	Breakout	74	65	66	65	69	64	53	51	77
TF056J23-A6-10	Inlet	91	80	85	89	92	92	88	84	98
	Outlet	94	79	85	87	91	92	87	82	98
	Breakout	88	70	69	68	68	66	55	53	88
TF063J23-A6-10	Inlet	88	90	90	97	96	95	92	85	102
	Outlet	90	90	89	95	96	95	91	86	102
	Breakout	84	80	73	75	72	68	59	55	86

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.

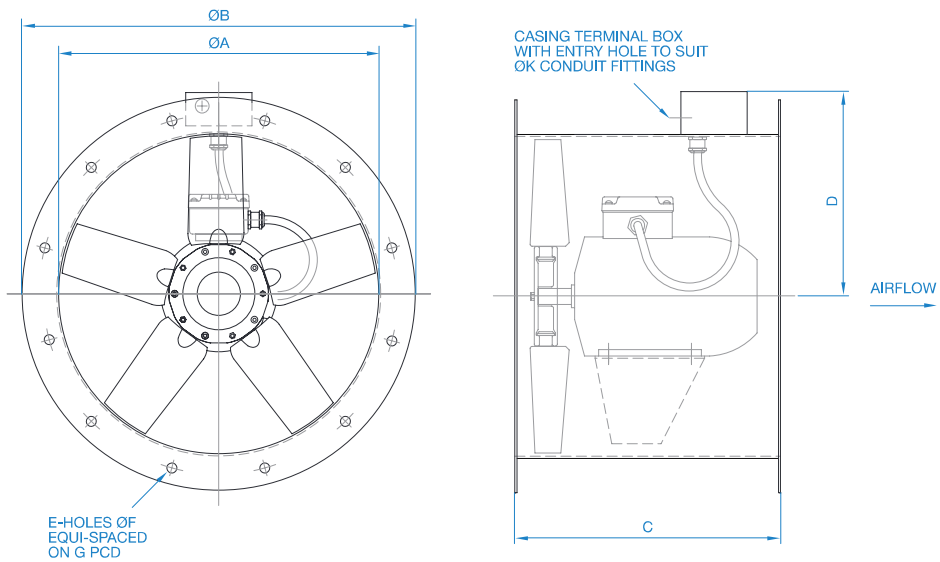
# TURBOFLOW MAX TF



## Dimensional Data

### Three Phase

Product Code	A	B	C	D	E	F	G	K	Weight kg
TF045J23-A6-13	450	530	400	287	8	12	500	20	37
TF050J23-A6-10	500	585	400	312	12	12	560	20	42
TF050J23-A6-13	500	585	400	312	12	12	560	20	42
TF056J23-A6-10	560	645	400	342	12	12	620	20	44
TF063J23-A6-10	630	715	400	377	12	12	690	25	54



Dimensions are in mm.

# TURBOFLOW MAX TF



## Accessories

### Three Phase

Product Code	Ancillary Pack	AV Mounts (Set of 4)	Bell Mouth Inlet	Damper	Flexible Connections (Each)	Impeller Side Guard	Inverter Controller 1PH-3PH IP66	Inverter Controller 3PH-3PH IP66
<a href="#">TF045J23-A6-13</a>	APK450/003	062-003	241B-0450-BELL	019-0450-STD	063-0450-MAN150	078C-0450-C	149-ODE3-12075-1KB1B	149-ODE3-14075-3KA1B
<a href="#">TF050J23-A6-10</a>	APK500/003	062-003	241B-0500-BELL	019-0500-STD	063-0500-MAN150	078C-0500-C	149-ODE3-12150-1KB1B	149-ODE3-14150-3KA1B
<a href="#">TF050J23-A6-13</a>	APK500/003	062-003	241B-0500-BELL	019-0500-STD	063-0500-MAN150	078C-0500-C	149-ODE3-12150-1KB1B	149-ODE3-14150-3KA1B
<a href="#">TF056J23-A6-10</a>	APK560/003	062-003	241B-0560-BELL	019-0560-STD	063-0560-MAN150	078C-0560-C	149-ODE3-12150-1KB1B	149-ODE3-14150-3KA1B
<a href="#">TF063J23-A6-10</a>	APK630/003	062-003	241B-0630-BELL	019-0630-STD	063-0630-MAN200	078C-0630-C	149-ODE3-22220-1KB4B	149-ODE3-24220-3KA4B

Product Code	Inverter Controller 3PH-3PH IP55	Matching Flanges (Each)	Mounting Feet (Each)	Silencer 1D Podded	Silencer 1D Unpodded	Silencer 2D Podded	Silencer 2D Unpodded	Wiring Diagram
<a href="#">TF045J23-A6-13</a>	149-VFD-00-00-0016	061B-0450	060Z-0450	068-0450-1DEP	068-0450-1DENP	068-0450-2DEP	068-0450-2DENP	152-600
<a href="#">TF050J23-A6-10</a>	149-VFD-00-00-0017	061B-0500	060Z-0500	068-0500-1DEP	068-0500-1DENP	068-0500-2DEP	068-0500-2DENP	152-600
<a href="#">TF050J23-A6-13</a>	149-VFD-00-00-0018	061B-0500	060Z-0500	068-0500-1DEP	068-0500-1DENP	068-0500-2DEP	068-0500-2DENP	152-600
<a href="#">TF056J23-A6-10</a>	149-VFD-00-00-0018	061B-0560	060B-0560	068-0560-1DEP	068-0560-1DENP	068-0560-2DEP	068-0560-2DENP	152-600
<a href="#">TF063J23-A6-10</a>	149-VFD-00-00-0019	061B-0630	060B-0630	068-0630-1DEP	068-0630-1DENP	068-0630-2DEP	068-0630-2DENP	152-600

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