

TFA
series



Adjustable Pitch Angle Axial Fan



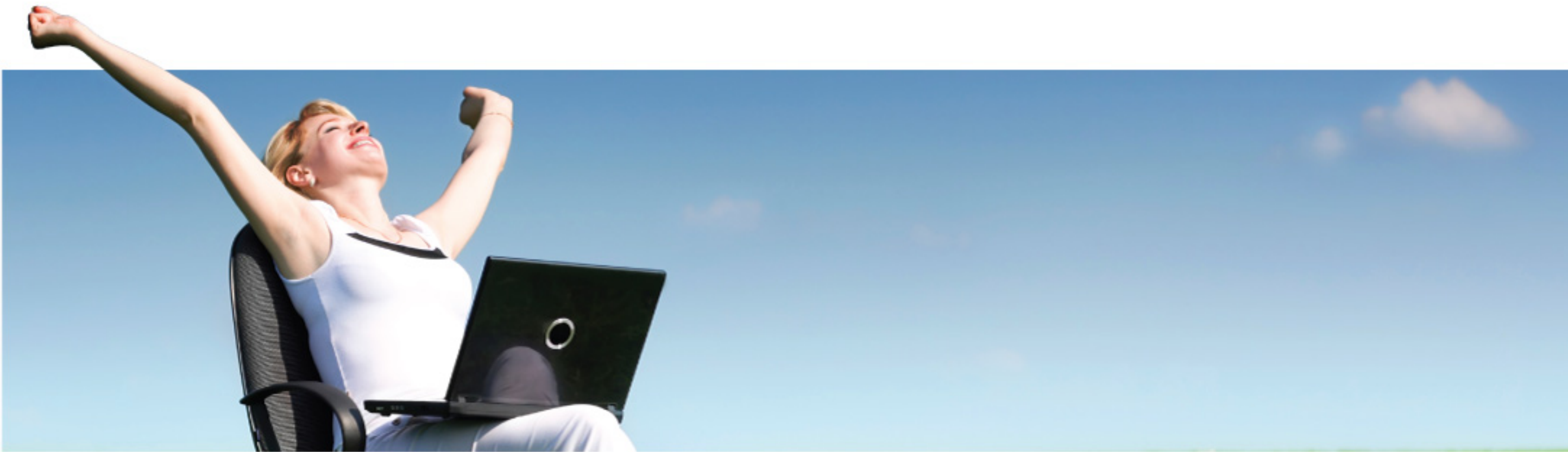
GTG Industries Sdn Bhd certifies that the model: TFA shown herein is licensed to bear the AMCA Seal.

The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance and sound for all Model : TFA.

The AMCA Certified Ratings Seal applies to FEG for model TFA on page 11-32 only.



Standard Features



- A** Aerofoil impeller featured with adjustable pitch angle
- B** Precision die cast Aluminium hub and blades
- C** Optional short and long casing model with hot dip galvanized steel to ISO 1461 & BS 729
- D** High strength and rigidity spun flanges design
- E** Terminal box in IP 55 mounted externally on casing for easy wiring termination
- F** Equipped with single or three-phase motor in IP 55 and class F insulation
- G** Suitable for operating temperature up to 55 degree C

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EWFA CERTIFICATE OF TEST		CERTIFICATE No : SFC 2144500a.6	Page 1 of 1
Report Sponsor	Certificate Issue Date		
GTG Industries Sdn. Bhd. 25-2, 1st Floor, Jalan PJU3/38A, Sunway Damansara Technology Park, 47910 Petaling Jaya, Selangor.	03/04/2013		
Introduction			
The element of construction described below was tested by this laboratory on behalf of the test sponsor in accordance with the stated test standard and achieved the results stated below. Refer to the referenced test report for further information.			

Referenced Reports	Report Date	Test Standard	Significant Variations from standard test procedures and conditions
WFR 2144500a.1	24/09/07	BS736	None

Description of Test Specimen
 TEST ASSEMBLY - The test assembly comprised an electric motor within an instrumented section of duct.
 TEST SPECIMEN - The axial fan was a GTG Model No. TFA 1250/420/4-10°, a maximum rated speed was 1460 rpm. The frame size was 1025.
 The fan impeller consisted of 4 aluminium blades with a pitch angle of 10° inside of the fan casing.
 The tested motor was a JEM Squirrel Cage Induction Motor 415 V / 50 Hz with a maximum FLC at ambient of 20.70 Amps and a maximum rated speed was 1445 rpm. The frame size was 1025.
 The specimen was installed with the fan drawing air from the furnace over the electric motor.
 Refer to the full report, WFR 2144500a.1, for a complete description of the test specimen construction and significant behaviour.

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EWFA CERTIFICATE OF TEST		CERTIFICATE No : SFC 2143800.5	Page 1 of 1
Report Sponsor	Certificate Issue Date		
GTG Industries Sdn. Bhd. 25-2, 1st Floor, Jalan PJU 3/38A, Sunway Damansara Technology Park 47910 Petaling Jaya, Selangor, Malaysia	16/11/2012		
Introduction			
The element of construction described below was tested by this laboratory on behalf of the test sponsor in accordance with the stated test standard and achieved the results stated below. Refer to the referenced test report for a complete record of the test construction and results.			

Referenced Reports	Report Date	Test Standard	Significant Variations from standard test procedures and conditions
EWA 2143800.3	16/11/2012	BS7346: Part 2: 1990	None

Description of Tested Specimen
 TEST ASSEMBLY - The test assembly comprised an electrically powered axial fan within a fan casing and installed within an instrumented section of duct.
 TEST SPECIMEN - The axial fan was a GTG Model No. TFA 511 powered by an electric motor contained within a fan casing (of nominal ID 1000 mm). The fan impeller consisted of 5 aluminium blades with a pitch angle of 10° and a nominal clearance of 18 mm to the inside of the fan casing.
 The tested motor was a TECO Squirrel Cage Induction Motor Model No. AEES-YH000 powered by an electrical supply of 415 V / 50 Hz with a maximum FLC at ambient of 10.9 Amps and the rated wattage was 5.5 kW (7.5 HP). The maximum rated speed was 1445 rpm. The frame size was 1025.
 The specimen was installed with the fan drawing air from the furnace over the electric motor.
 Refer to the full report, EWA 2143800.2, for a complete description of the test specimen construction and significant behaviour.

Test Results	Result
Structural	No failure at 120 minutes
Electrical	No failure at 120 minutes
Aerodynamic	No failure at 120 minutes
Fire Rating Classification	0

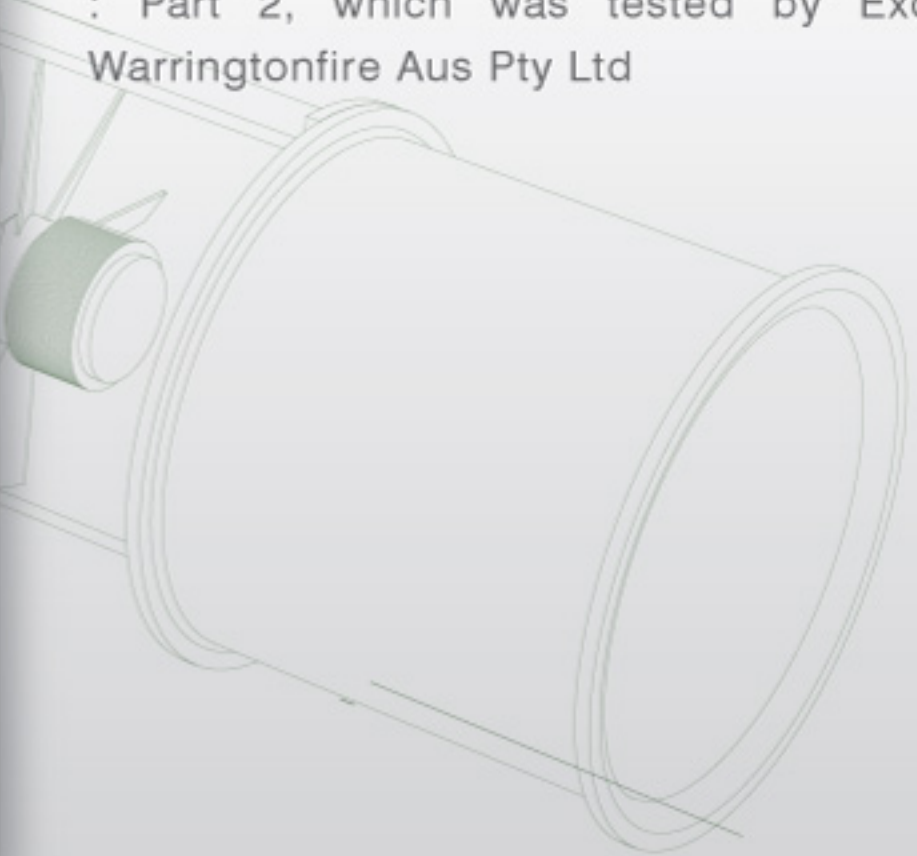
Notes
 THIS CERTIFICATE IS PROVIDED FOR GENERAL INFORMATION ONLY AND DOES NOT COMPLY WITH THE REGULATORY REQUIREMENTS FOR EVIDENCE OF COMPLIANCE.
 Reference should be made to the relevant test report to determine the applicability of the test result to a proposed installation. The results of these fire tests may be used to assess fire hazard, but it should be recognized that a single test method will not provide a full assessment of fire hazard under all conditions.

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Smoke Spill Application

(on request)

The GTG TFA Series can be used for smoke spill applications. The fan with class H insulation is capable of withstanding up to 250°C for 2 hours in accordance to BS7346 : Part 2, which was tested by Exova Warringtonfire Aus Pty Ltd



Adjustable Pitch Axial Fans

GTG fully adjustable pitch fans are available in a full range of metric sizes from 315mm diameter up to 1600mm diameter and capable of delivering air quantities up to 70m³/s. Fan diameters beyond 1600mm are available on request only.

The wide range of diameters, blade configurations, pitch angles and motor speeds, allow accurate selection of the fan to match the specific duty.

Pitch angle adjustment can be readily carried out on site allowing the fan performance to be modified to the final system resistance.

Whilst the standard range of axial fans cover most applications, purpose designed casings and mountings are available. Casings are manufactured from mild steel and hot dipped galvanized (as standard) or epoxy powder coated (on request) after manufacture. Flanges are where possible integrally rolled from the casing material for greater strength and stability.

MODEL RANGE

- TFA - Tube Axial



- TFA-Q Series - Plate Axial



Standard Product SPECIFICATION

Casings shall be of mild steel, galvanised sheet, hot dipped galvanised or epoxy powder coated after manufacture. Impellers are manufactured from high pressure die cast aluminums, with blades matched and balanced for vibration free operation.

CONSTRUCTION

- Casing of mild steel hot dipped galvanised, galvanised sheet or epoxy powder coated after manufacture for corrosion protection.
- Flanges are rolled from the casing material or rolled from flat bar and welded to the case, prior to galvanising.
- Motor brackets or pedestals are available either bolted or welded to the casing, subject to motor size.

Adjustable Pitch Axial Fans

IMPELLER

- Pitch adjustment is infinitely variable over a wide range typically 10° to 40°
- Standard blade construction is high pressure die cast aluminum alloy, x-raying to ensure flawless structure is optional.
- Blades are friction mounted within the hub and secured with high tensile zinc plated bolts and self locking nuts.
- The hubs are fixed with taper-lock bush to suit each motor shaft.
- Impellers are available with 4 to 14 blades dependent upon application.
- Blades are matched and balanced for vibration free operation.
- Maximum continuous operating temperature. (With no radiant heat)
- Smoke Spill – Only aluminum impellers are suitable for smoke spill application.

MOTORS

Motors are typically foot mounted air stream rated, squirrel cage induction type, T.E. 3 phases 415v, 50Hz. Motors are normally supplied for the temperature range of -35°C to +40°C and normally wound to class F Insulation and IP55 protection for standard operation, however, options are available for a varying range of applications including :

- Single phase
- Explosion proof
- High temperature
- Smoke spill
- Special voltage
- Special frequency
- Speed control
- 2 speed
- Thermal Overload protection
- Special insulation



APPLICATION

- General air movement
- Supply and Exhaust
- Smoke Spill & Fire Service
- Dust extraction



OPTIONS

- Inlet and discharge cones
- Inlet and discharge guards
- Flexible Connections
- Matching flanges
- Mounting feet
- Vibration isolation mounts
- Access panels
- External Terminal Box
(not available for hazardous zone application)
- Sound attenuators

PERFORMANCE DATA

Performance data is for model “TFA” tube axial products, type “D” installation – ducted inlet, ducted outlet.

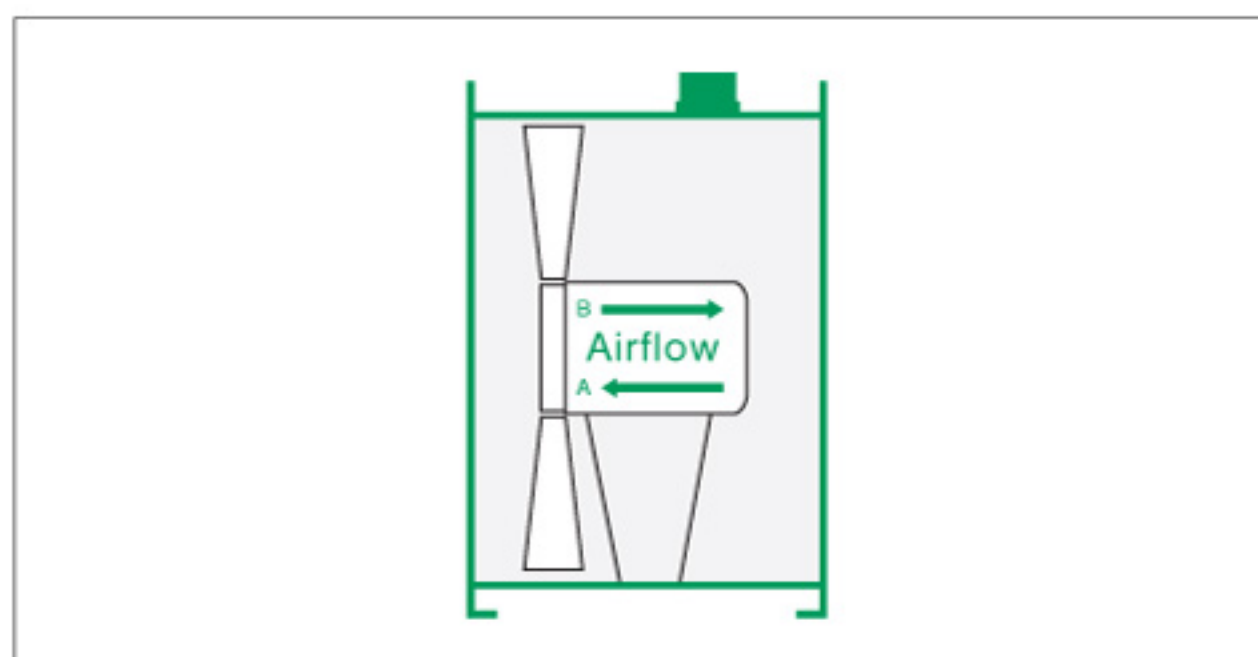


PRODUCT IDENTIFICATION

TFA 630/150/10/25

A	- Model Tube Axial
630	- Case Diameter
150	- Hub Diameter
10	- No. of Blades
25	- Blade angle

AIR FLOW DESIGNATION



From “ B “ is standard Air Flow.
If from “ A “ is required please nominate at time of order.

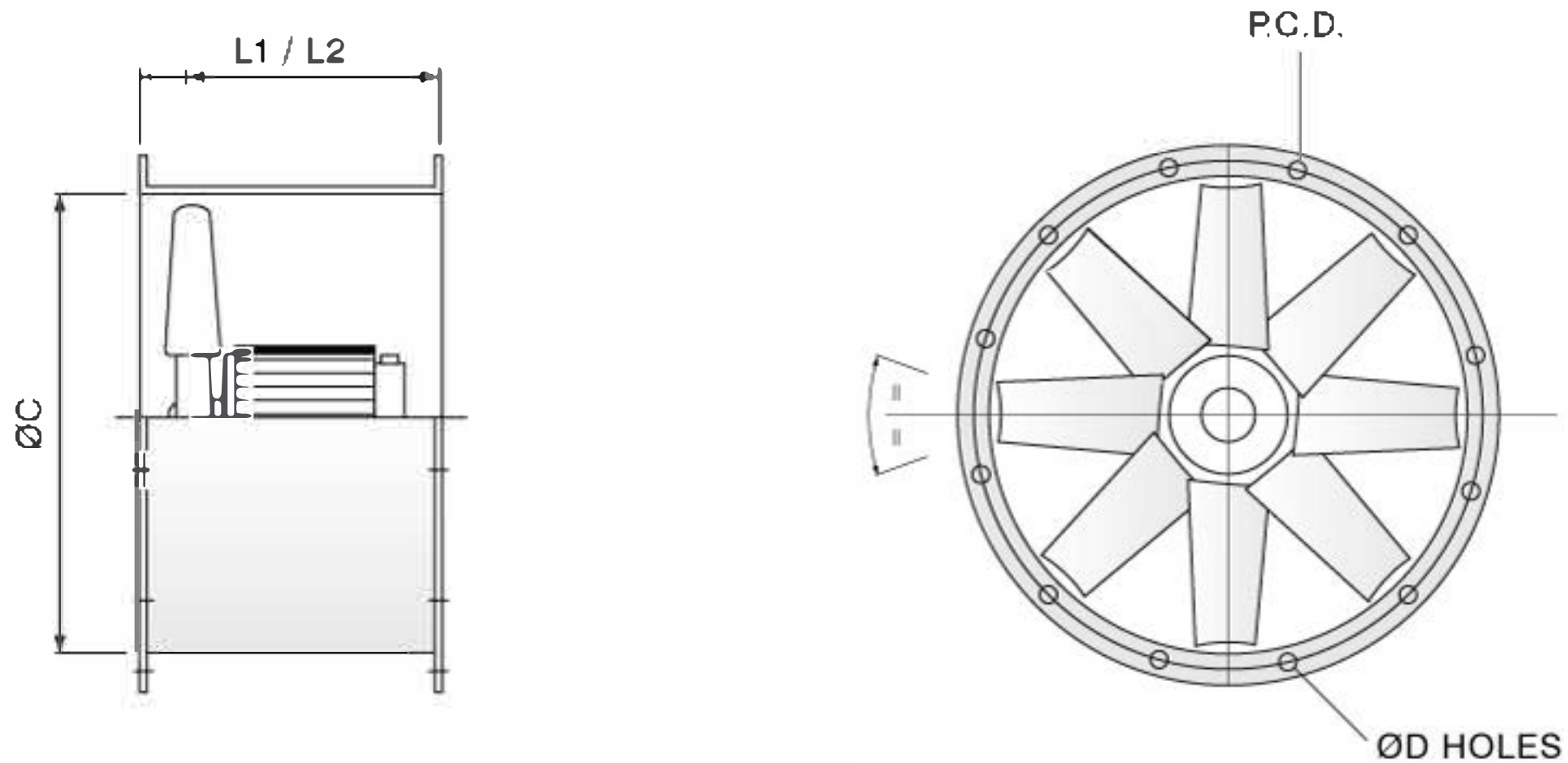
REVERSE ROTATION

Rotating the impeller in reverse will result in the direction of the air being reversed, reduction in volume approx. 35%, reduction in pressure approx. 55% and reduction of power approx. 25%. The performance of reverse rotation are not licensed by AMCA International.

TRULY REVERSIBLE

Where applications require equal air flow quantity in both directions installation of alternate blades of 180° will result in a reduction of air quantity of approx 15%. The performance of truly reversible are not licensed by AMCA International.

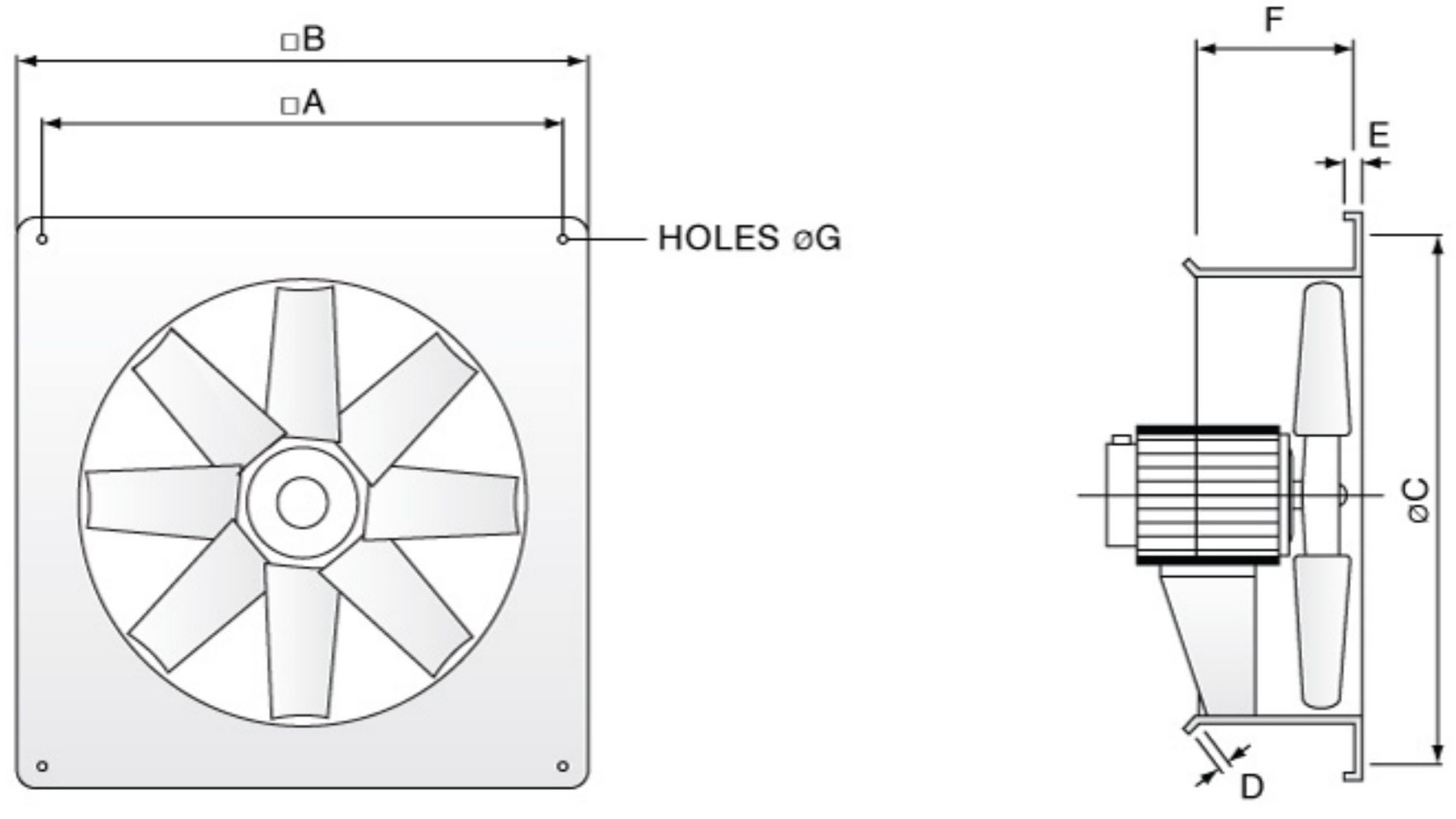
TFA DIMENSIONS



Size TFA	Electric Motor (kW)			L1	L2	ØB	ØC	ØD	Flange Size	P.C.D.	No. of Holes	Approx. Weight (kg) (Long Case)	Approx. Weight (kg) (Short Case)	Max. Motor Frame Size
	6P	4P	2P											
315	ALL	ALL	ALL	340	300	395	315	10	40	356	6	13	10	71
400	ALL	ALL	ALL	390	340	480	400	10	40	440	6	18	13	80
500	ALL	ALL	TBA	405	360	580	500	12	40	540	8	22	17	90S
560	ALL	ALL	TBA	435	390	640	560	12	40	606	8	27	19	90L
630	ALL	ALL	TBA	485	430	720	630	12	45	678	12	38	29	100LB
710	ALL	ALL	TBA	510	450	800	710	12	45	764	12	56	42	112M
	-	-	TBA	590	510	800	710	12	45	764	12	63	44	132M
800	ALL	≤5.50	-	525	450	900	800	12	50	856	12	66	49	132S
	-	>7.50	-	630	550	900	800	12	50	856	12	75	50	132M
900	ALL	≤5.50	-	585	510	1000	900	12	50	956	12	80	66	132S
	-	≤7.50	-	630	550	1000	900	12	50	956	12	84	66	132M
1000	≤5.50	≤7.50	-	630	550	1100	1000	12	50	1056	12	93	73	132M
	≤11.0	≤22.0	-	790	710	1100	1000	12	50	1056	12	121	86	180L
1250	≤11.0	≤15.0	-	712	640	1350	1250	15	50	1306	16	123	88	160L
	≤22.0	≤30.0	-	835	740	1350	1250	15	50	1306	16	141	92	200L
	≤37.0	≤55.0	-	935	840	1350	1250	15	50	1306	16	195	153	250S
	≤75.0	≤90.0	-	1155	1050	1350	1250	15	50	1306	16	225	157	280M
1400	≤22.0	≤30.0	-	835	740	1510	1400	15	55	1456	16	159	130	200L
	≤37.0	≤55.0	-	935	840	1510	1400	15	55	1456	16	227	209	250S
	≤75.0	≤90.0	-	1155	1050	1510	1400	15	55	1456	16	262	215	280M
1530	≤30.0	≤37.0	-	885	790	1640	1530	20	55	1586	24	234	220	225S
	≤37.0	≤55.0	-	1000	890	1640	1530	20	55	1586	24	256	240	250M
	≤75.0	≤90.0	-	1155	1050	1640	1530	20	55	1586	24	280	255	280M

*The actual dimension is subject to the motor frame size used, kindly refer to GTG Technical Submittal for further details
 *Weight indicated above excluded the weight of motor, hub and blades

TFA-Q SERIES DIMENSION



Size	Electric Motor (kW)			□A	□B	øC	D	E	F	øG	Approx. Weight (kg)	Max. Motor Frame Size
	6P	4P	2P									
315	ALL	ALL	TBA	395	445	395	30	30	205	9	15	71
400	ALL	ALL	≤1.10	480	530	480	30	30	205	9	19	80
500	ALL	ALL	TBA	580	630	580	30	30	232	11	24	90S
560	ALL	ALL	TBA	640	690	640	30	30	232	11	27	90L
630	ALL	ALL	TBA	705	760	720	30	40	305	11	39	100LB
710	ALL	ALL	ALL	785	840	800	30	40	305	14.5	58	112M
	-	-	≤5.50	785	840	800	30	40	305	14.5	60	132M
800	ALL	≤5.50	-	895	955	900	30	40	305	14.5	69	132S
	≤7.50	≤7.50	-	895	955	900	30	40	305	14.5	70	132M
900	ALL	≤5.50	-	995	1055	1000	30	40	420	14.5	89	132S
	-	≤7.50	-	995	1055	1000	30	40	420	14.5	89	132M
1000	≤5.50	≤7.50	-	1095	1155	1100	30	40	420	14.5	99	132M
	≤11.0	≤22.0	-	1095	1155	1100	30	40	420	14.5	112	180L

*The actual dimension is subject to the motor frame size used, kindly refer to GTG Technical Submittal for further details
 *Weight indicated above excluded the weight of motor, hub and blades

GTG[®]



SCAN & VISIT OUR WEBSITE

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