

WE CARE FOR YOUR NEEDS.

TUBULAR INLINE FANS

TIF Series



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Overview

TIF Series

The TIF inline ducted fan is designed in a way to combine the benefits of the radial fan, including the high pressure and low sound level, with the straight-through airflow of the axial fan.

Apart from high pressure and low sound level, the main benefit of the TIF fan is the easy installation. (See Figure 1).

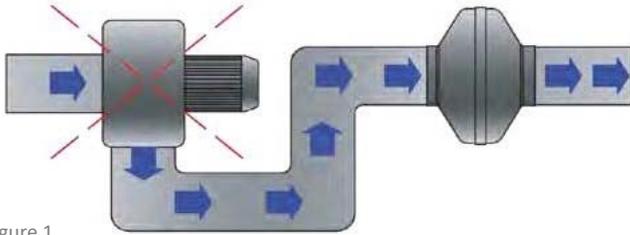


Figure 1

TYPICAL APPLICATIONS

General HVAC (exhaust, filtration, return and supply, air of commercial buildings), Air Pollution Control, Airport Exhaust, Automotive, Fertilizer, Food & Beverage, Laboratory Exhaust, Metal & Mineral Processing, Office Exhaust, Restroom Exhaust, Warehouse Exhaust and Water Treatment.

IMPELLER TYPE

Backward Curved

CERTIFICATIONS

- AMCA Sound and Air Performance
- CE Mark for Electrical
- RoHS



Model TIF



Model TIF C



Model TIF T



Energy Industrial Company L.L.C certifies that the model TIF 04 to 12 HS, TIF 04C to 12C HS, TIF 04T to 12T HS, TIF 06 to TIF 08 LF, TIF 06C to TIF 08C LF, TIF 06T to TIF 08T LF, TIF 04, 06 to 12 HF, TIF 04C,06C to 12C HF and TIF 04T, 06T to 12T HF fans shown herein are licensed to bear the AMCA Seal.

The rating 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.



Energy Industrial Company L.L.C certifies that the model TIF 04 & 05 LF, TIF 04C & 05C LF, TIF 04T & 05T LF, TIF 05 HF, TIF 05C HF, TIF 05T HF shown herein are licensed to bear the AMCA Seal. The rating shown are based on tests and procedures performed in accordance with AMCA publication 211 and comply with the requirements of the AMCA Certified Ratings Program.



Low Voltage Directive

IEC 60335-2-80:2015 in conjunction with IEC 60335-1:2010, COR1:2010, COR2:2011, AMD1:2013, AMD2:2016.

EMC Directive

EN 55014-1: 2017+A11: 2020; EN IEC 61000-3-2: 2019; EN 61000-3-3: 2013+A1:2019; EN 55014-2: 2015 (IEC 61000-4-2; IEC 61000-4-4; IEC 61000-4-5; IEC 61000-4-6; IEC 61000-4-11)



RoHS Directive

Restriction of Hazardous Substances in Electrical and Electronic Equipment.

CONSTRUCTION FEATURES

CENTRIFUGAL INLINE FANS

FEATURES

- Self-lubricating/sealed-for-life precision ball bearings.
- Automatic reset thermal overload protection.
- Temperature up to 60°C capable of operation in air stream.
- Terminal box with prewired electrical strip.
- External rotor motor, Class F insulation.
- Mounting brackets are standard with all fans. (See Figure 2).
- Fans are delivered ready for installation in individual boxes.
- Casings for sizes TIF 04 – TIF 12 are made of polyester coated sheet metal.

MOTOR

Energy Twin City tube fans are driven by an external rotor motor with Class F insulation, IP 44/54*, fitted within the centrifugal impeller.

All sizes, 04" up to size 12", are equipped with thermal contacts inserted in the motor winding.

This design provides excellent heat dissipation even at low RPM. All of the TIF Series fans are speed controllable.

* Standard ingress protection is IP44, IP54 available upon request

IMPELLER

Backward curved centrifugal impellers are made of galvanized steel. The impellers are fitted directly onto the external rotor motor.

All impellers are statically and dynamically balanced to ensure smooth and quiet operation.

ELECTRICAL CONNECTION

The motors are wired to an external terminal box.



Figure 2

INSTALLATION

CENTRIFUGAL INLINE FANS

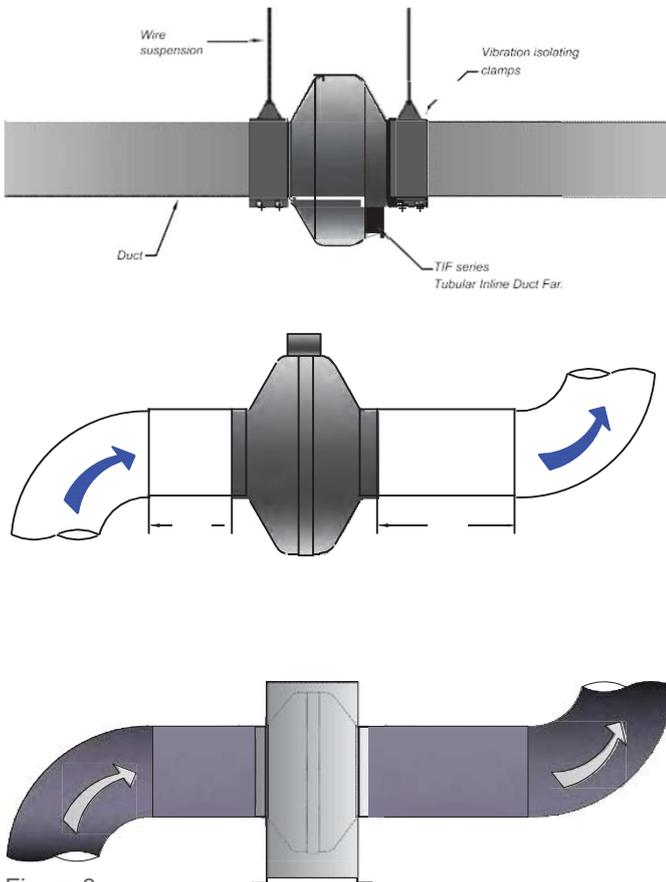


Figure 3

All fans can be installed in any position. Fans installed on the roof must be horizontal. Smaller roof fans can be installed on the roof pitch. To avoid the transfer of vibrations to the duct system, we recommend that fans are installed with suitable mounting clamps or flexible connections. All fans are designed for continuous operations. Fitting duct onto the inlet and outlet of the fan will help to prevent pressure-drop and system efficiency losses caused by turbulent air flow. The straight section must have no filter or similar, and its length must be at least 1x the duct diameter on the fan's inlet side and at least 3x the duct diameter on the fan's outlet side. (See Figure 3).

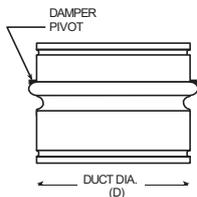
For a rectangular duct, the duct diameter is calculated as:

$$D = \sqrt{\frac{4 \times H \times B}{\pi}}$$

D = duct diameter
H = duct height
B = duct width

BACKDRAFT DAMPER

24-gauge galvanized casing with aluminum blades.



MODEL NO.	D
TIF 04	97
TIF 05	125
TIF 06	159
TIF 08	198
TIF 10	248
TIF 12	315



SPEED CONTROLLER

Speed controller is available for all models. It can reduce the airflow rate up to 70%.



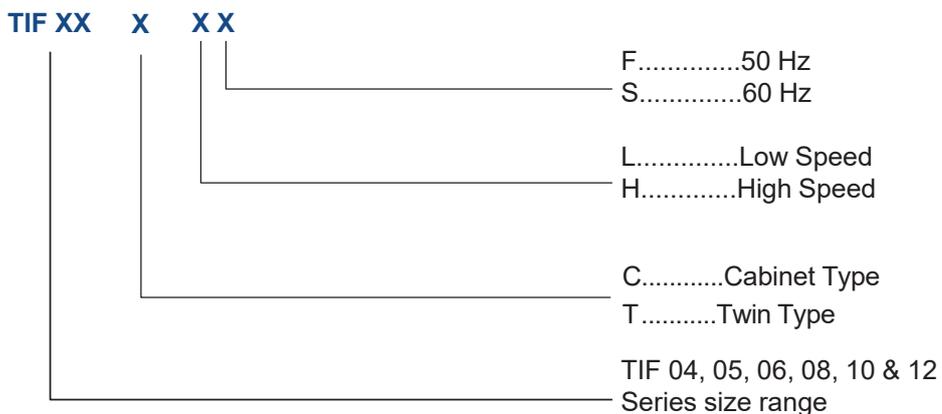
SILENCER

Constructed with pre-galvanised steel casings with mastic-filled, lock-formed longitudinal joints.



MODEL NUMBER CODE:

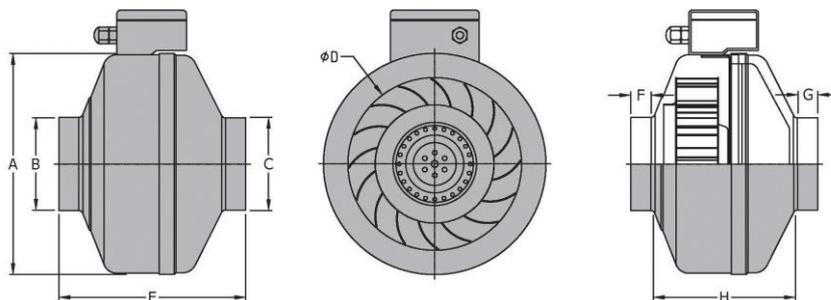
MODEL NUMBER CODE:



TIF SERIES DIMENSIONS

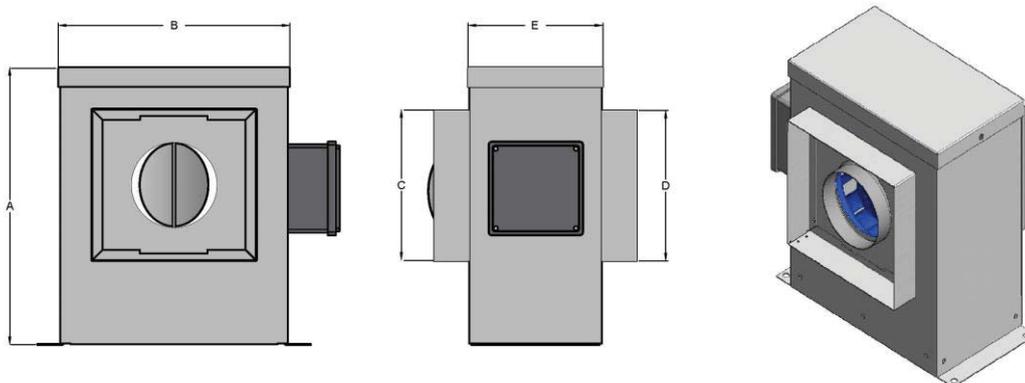
CENTRIFUGAL INLINE FANS

Model TIF



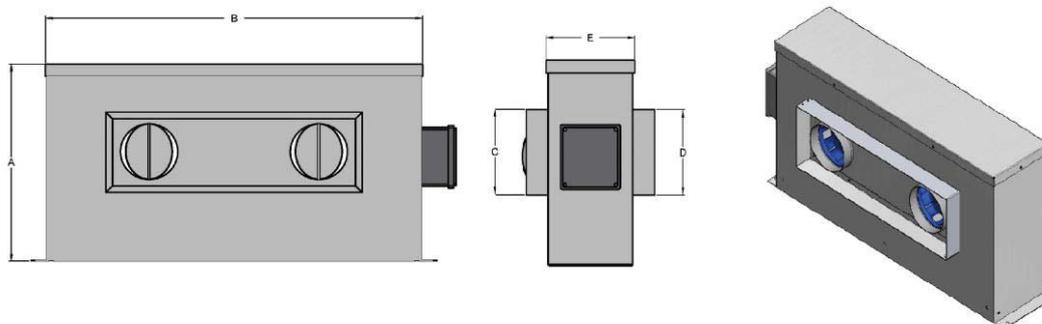
MODEL NO.	A	B	C	D	E	F	G	H
TIF 04	243	97	97	190	198	22	22	154
TIF 05	243	125	125	190	201	27	27	147
TIF 06	333	159	159	225	219	25	25	169
TIF 08	333	198	198	250	216	25	25	166
TIF 10	333	248	248	250	203	27	27	149
TIF 12	401	315	315	280	235	25	25	185

Model TIF C



MODEL NO.	A	B	C	D	E
TIF 04C	332	275	182	182	160
TIF 05C	332	275	182	182	160
TIF 06C	425	355	182	182	180
TIF 08C	425	355	280	280	180
TIF 10C	425	355	280	280	155
TIF 12C	513	430	344	344	190

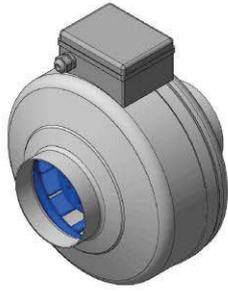
Model TIF T



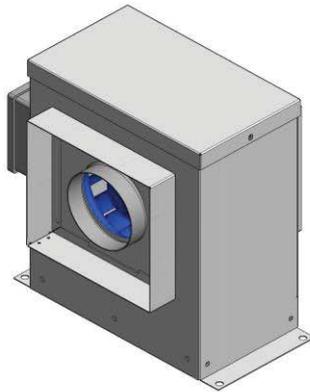
MODEL NO.	A	B	C	D	E
TIF 04T	354	660	147	147	166
TIF 05T	354	660	184	184	166
TIF 06T	440	840	196	196	180
TIF 08T	445	840	248	248	180
TIF 10T	445	840	298	298	159
TIF 12T	513	980	350	350	192

All Dimensions are in mm
Junction box dimensions not included

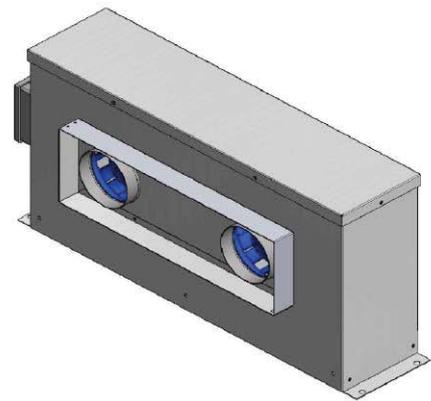
TIF 04, 04C, 04T LS & HS



TIF



TIF-C



TIF-T

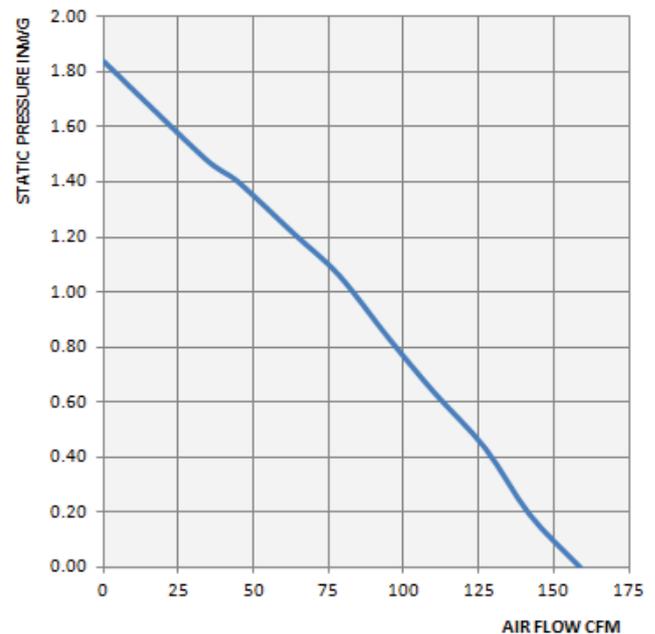
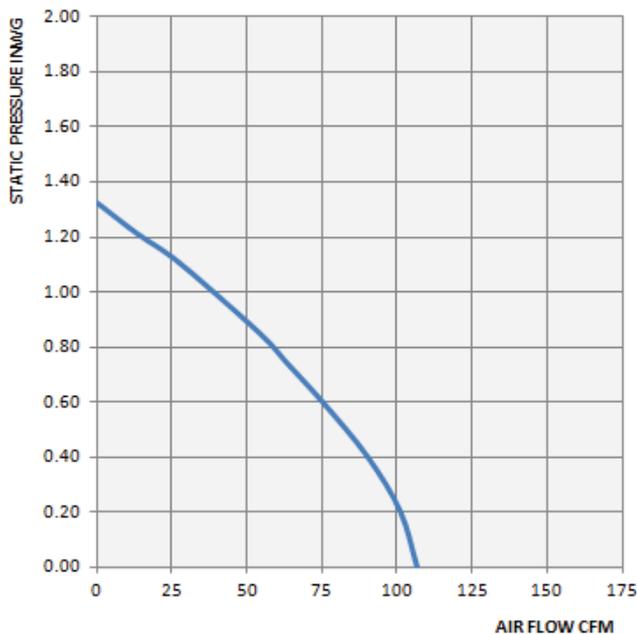
► Technical Data

TYPE: TIF 04, 04C, 04T LS			
Voltage, V/Hz	230/60	Speed, RPM	1470
Current, A	0.15	Airflow (m³/s)	0.049
Max. Motor Input Watt	35	Insulation Class	F
Capacitor (µF)	2	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	3.5
Performance Curve C			

TYPE: TIF 04,04C, 04T HS			
Voltage, V/Hz	230/60	Speed, RPM	2767
Current, A	0.34	Airflow (m³/s)	0.075
Max. Motor Input Watt	82	Insulation Class	F
Capacitor (µF)	2	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	3.5
Performance Curve D			

*Standard ingress protection is IP44, IP54 available upon request

► Performance Curve



Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D: Ducted Inlet, Ducted Outlet. Values shown are for inlet Lwi sound power levels for installation type D: Ducted Inlet, Ducted Outlet. Ratings include the effects of duct end correction. The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA International Standard 301.

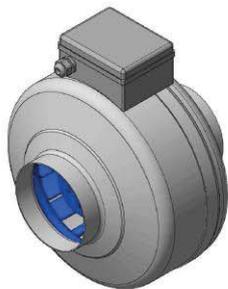
Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2170	0.049	0.00	68	72	68	61	55	52	51	42
2239	0.014	306	71	74	69	63	58	55	56	45

Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2392	0.075	1.494	83.5	83.5	69.9	69	65.9	59.5	55.1	48.6
2849	0.038	250	82.5	81.8	74.2	69.6	69.6	63.2	58.3	51

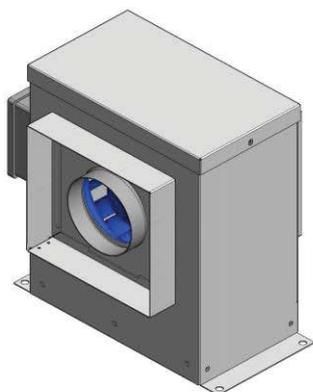
TIF SERIES FAN DATA

CENTRIFUGAL INLINE FANS

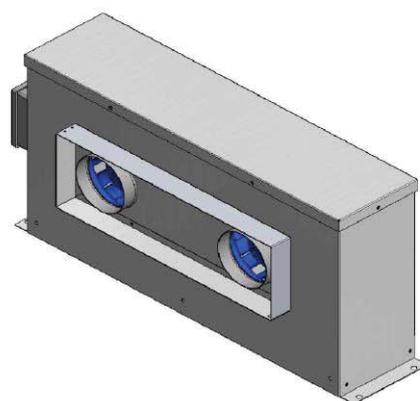
TIF 04, 04C, 04T LF & HF



TIF



TIF-C



TIF-T

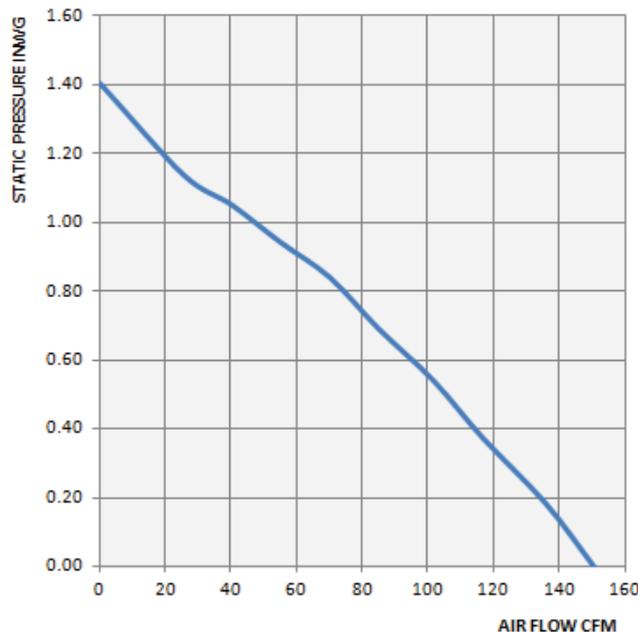
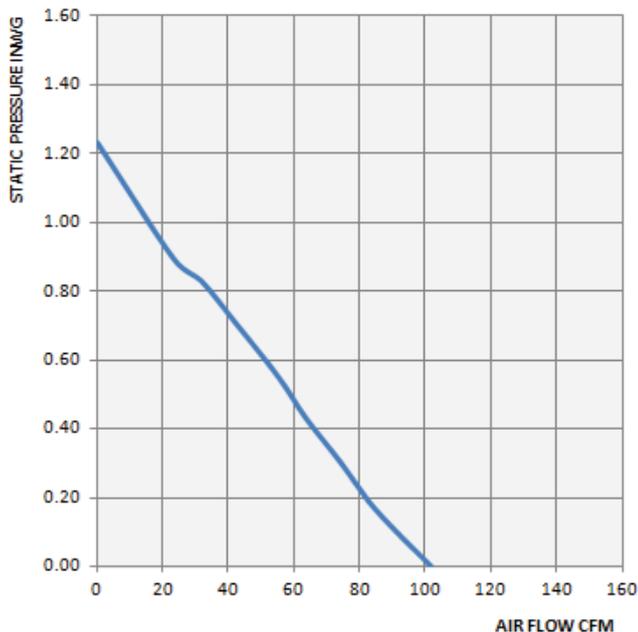
► Technical Data

TYPE: TIF 04, 04C, 04T LF			
Voltage, V/Hz	230/50	Speed, RPM	1915
Current, A	0.14	Airflow (m³/s)	0.048
Max. Motor Input Watt	34	Insulation Class	F
Capacitor (µF)	2	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	3.5
Performance Curve A			

TYPE: TIF 04, 04C, 04T HF			
Voltage, V/Hz	230/50	Speed, RPM	2478
Current, A	0.28	Airflow (m³/s)	0.071
Max. Motor Input Watt	66	Insulation Class	F
Capacitor (µF)	2	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	3.5
Performance Curve B			

* Standard ingress protection is IP44, IP54 available upon request

► Performance Curve

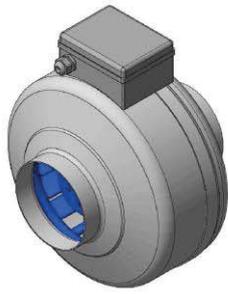


Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D: Ducted Inlet, Ducted Outlet. Values shown are for inlet Lwi sound power levels for installation type D: Ducted Inlet, Ducted Outlet. Ratings include the effects of duct end correction. The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA International Standard 301.

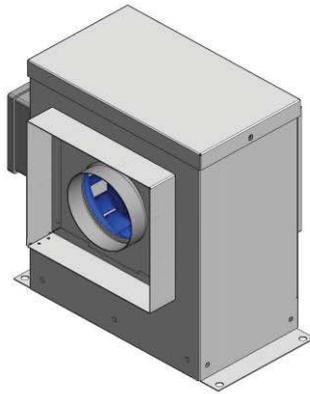
Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
1467	0.048	0.00	60	68	54	69	55	51	47	40
2393	0.011	215	62	70	61	62	53	52	46	45

Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2278	0.071	2.50	84.7	79.3	68.6	66.7	63.4	57.7	53.2	47.4
2622	0.023	245	85.2	79.9	72.1	65.7	63.9	57.6	52	46.6

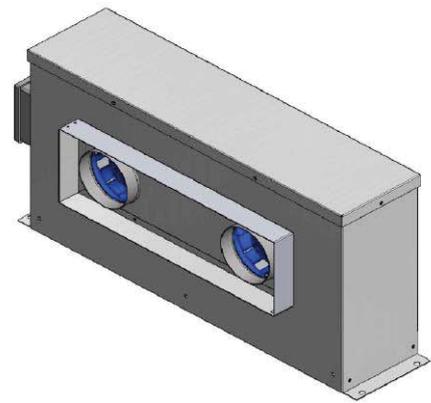
TIF 05, 05C, 05T LS & HS



TIF



TIF-C



TIF-T

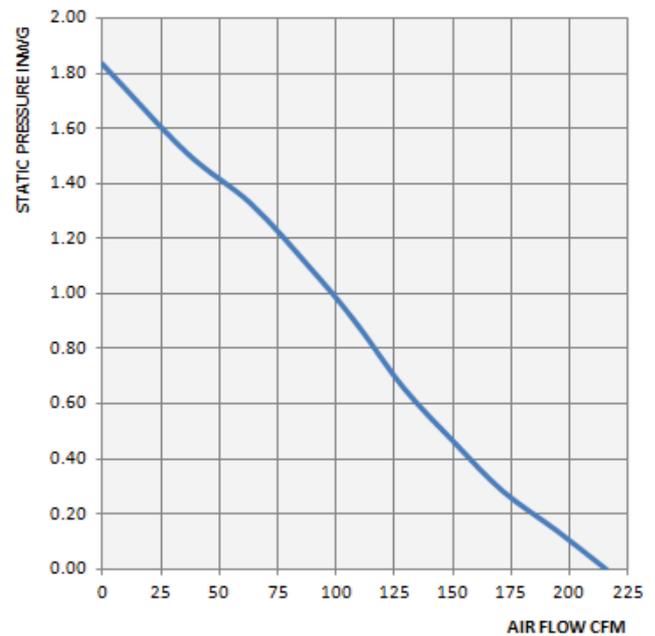
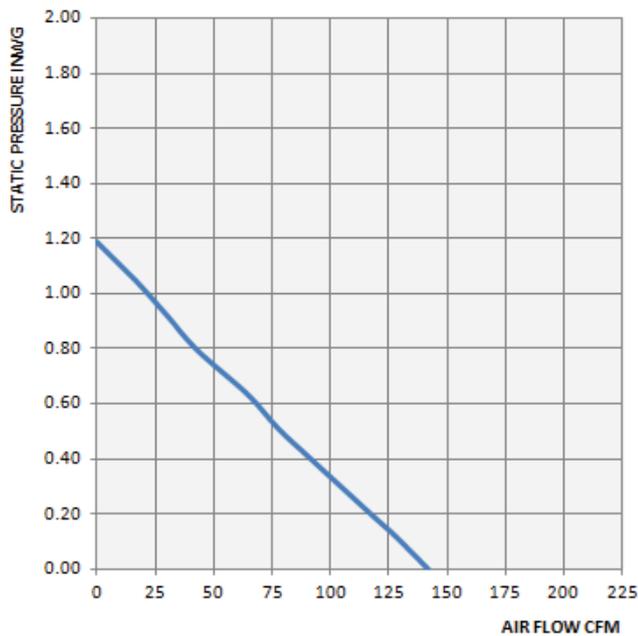
► Technical Data

TYPE: TIF 05, 05C, 05T LS			
Voltage, V/Hz	230/60	Speed, RPM	1530
Current, A	0.15	Airflow (m³/s)	0.067
Max. Motor Input Watt	41	Insulation Class	F
Capacitor (µF)	2	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	3.5
Performance Curve C			

TYPE: TIF 05, 05C, 05T HS			
Voltage, V/Hz	230/60	Speed, RPM	2535
Current, A	0.35	Airflow (m³/s)	0.102
Max. Motor Input Watt	85	Insulation Class	F
Capacitor (µF)	2	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	3.5
Performance Curve D			

*Standard ingress protection is IP44, IP54 available upon request

► Performance Curve



Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D: Ducted Inlet, Ducted Outlet. Values shown are for inlet Lwi sound power levels for installation type D: Ducted Inlet, Ducted Outlet. Ratings include the effects of duct end correction. The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA International Standard 301.

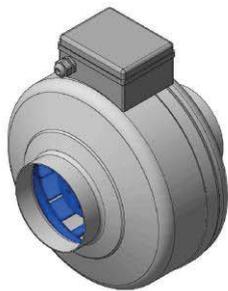
Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
1530	0.067	0.00	68	72	68	61	55	52	51	42
2239	0.014	306	71	74	69	63	58	55	56	45

Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2253	0.102	0.00	83	82	77	73	66	62	58	49
2879	0.042	273	84	82	80	74	69	64	58	52

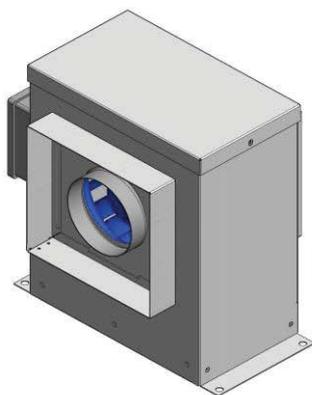
TIF SERIES FAN DATA

CENTRIFUGAL INLINE FANS

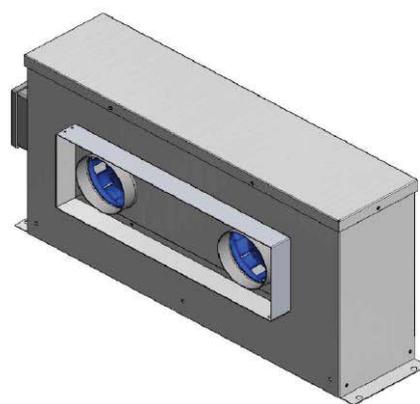
TIF 05, 05C, 05T LF & HF



TIF



TIF-C



TIF-T

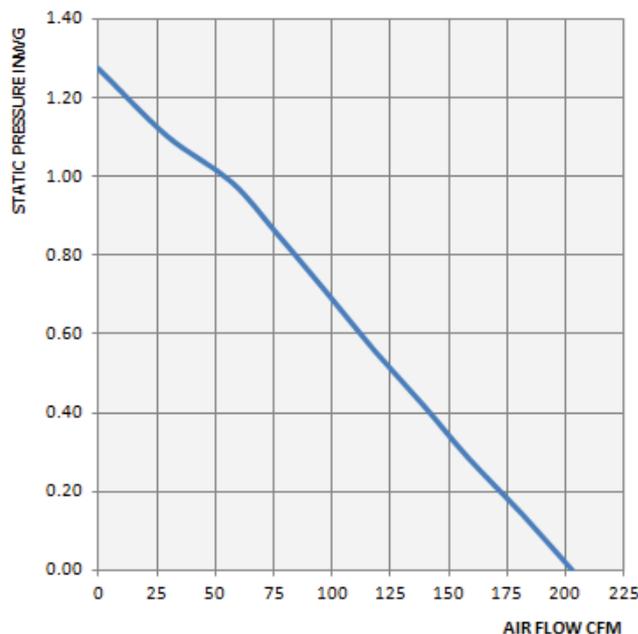
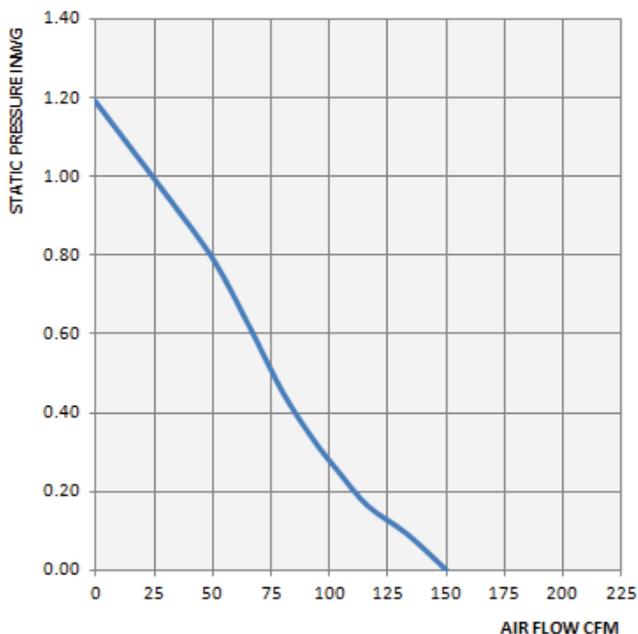
► Technical Data

TYPE: TIF 05, 05C, 05T LF			
Voltage, V/Hz	230/50	Speed, RPM	1780
Current, A	0.16	Airflow (m³/s)	0.071
Max. Motor Input Watt	39	Insulation Class	F
Capacitor (µF)	2	Protection	IP 44/54*
Ambient Temp. (t _a)	-20°C – +60°C	Weight, kg	3.5
Performance Curve A			

TYPE: TIF 05, 05C, 05T HF			
Voltage, V/Hz	230/50	Speed, RPM	2378
Current, A	0.29	Airflow (m³/s)	0.096
Max. Motor Input Watt	69	Insulation Class	F
Capacitor (µF)	2	Protection	IP 44/54*
Ambient Temp. (t _a)	-20°C – +60°C	Weight, kg	3.5
Performance Curve B			

*Standard ingress protection is IP44, IP54 available upon request

► Performance Curve

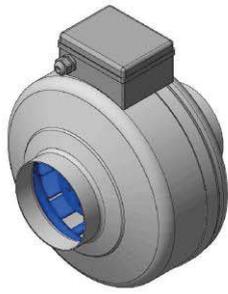


Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D: Ducted Inlet, Ducted Outlet. Values shown are for inlet Lwi sound power levels for installation type D: Ducted Inlet, Ducted Outlet. Ratings include the effects of duct end correction. The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA International Standard 301.

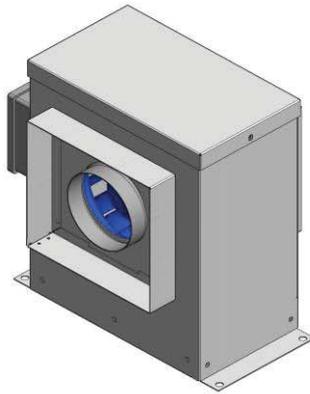
Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
1535	0.071	0.00	60	68	53	59	55	51	47	42
2340	0.012	215	62	70	61	62	53	52	46	46

Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2210	0.096	0.00	68	73	65	61	55	54	49	43
2796	0.012	274	70	73	67	63	57	57	51	45

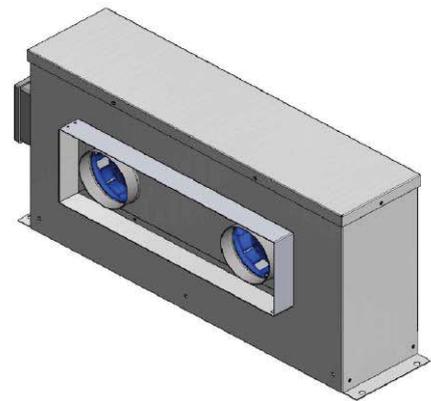
TIF 06, 06C, 06T LS & HS



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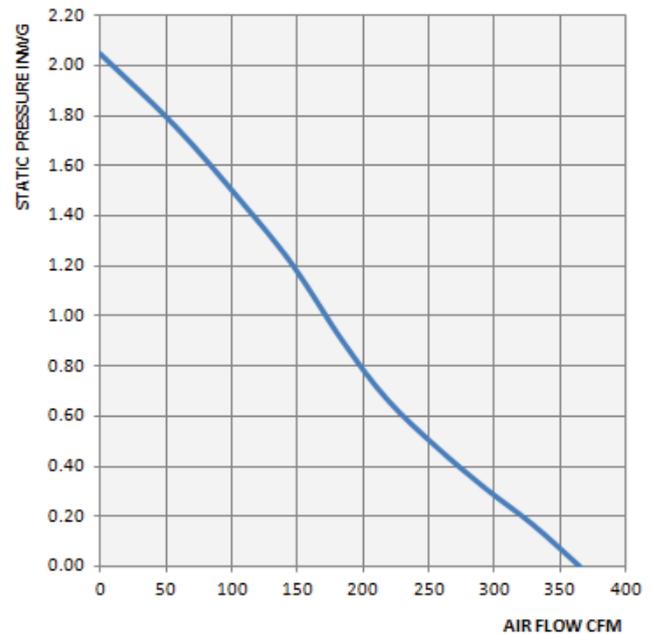
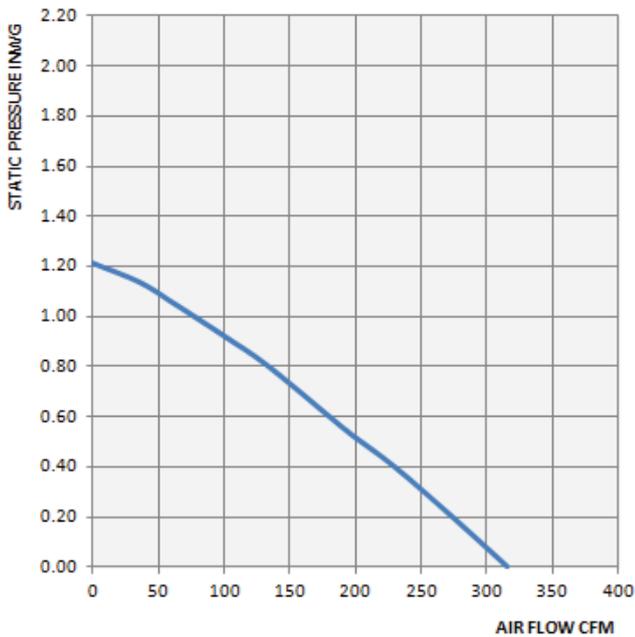
► Technical Data

TYPE: TIF 06, 06C, 06T LS			
Voltage, V/Hz	230/60	Speed, RPM	1470
Current, A	0.29	Airflow (m³/s)	0.148
Max. Motor Input Watt	65	Insulation Class	F
Capacitor (µF)	3	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	4.6
Performance Curve C			

TYPE: TIF 06, 06C, 06T HS			
Voltage, V/Hz	230/60	Speed, RPM	2265
Current, A	0.34	Airflow (m³/s)	0.172
Max. Motor Input Watt	117	Insulation Class	F
Capacitor (µF)	4.6	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	4.6
Performance Curve D			

*Standard ingress protection is IP44, IP54 available upon request

► Performance Curve



Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D: Ducted Inlet, Ducted Outlet. Values shown are for inlet Lwi sound power levels for installation type D: Ducted Inlet, Ducted Outlet. Ratings include the effects of duct end correction. The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA International Standard 301.

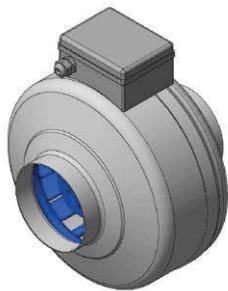
Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
1470	0.148	0.00	81	81	78	77	71	67	64	58
1498	0.078	300	80	82	69	62	58	55	56	46

Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2456	0.172	0.00	81	81	78	77	71	67	64	58
2401	0.069	300	80	88	77	73	65	60	59	51

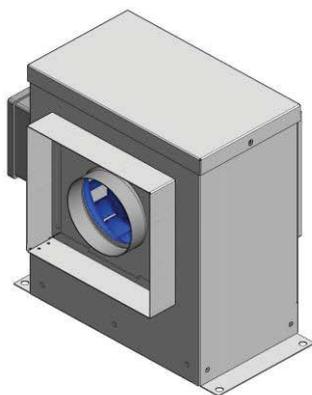
TIF SERIES FAN DATA

CENTRIFUGAL INLINE FANS

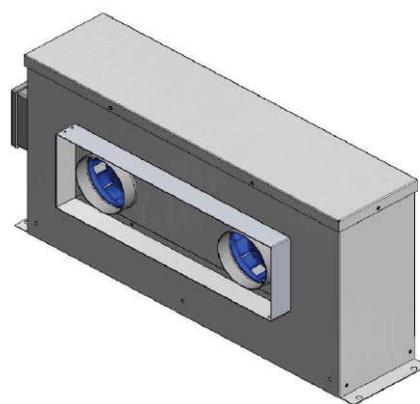
TIF 06, 06C, 06T LF & HF



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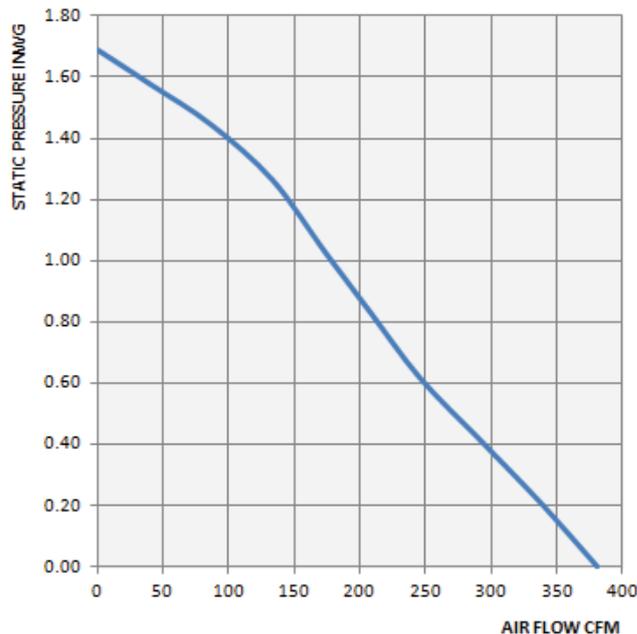
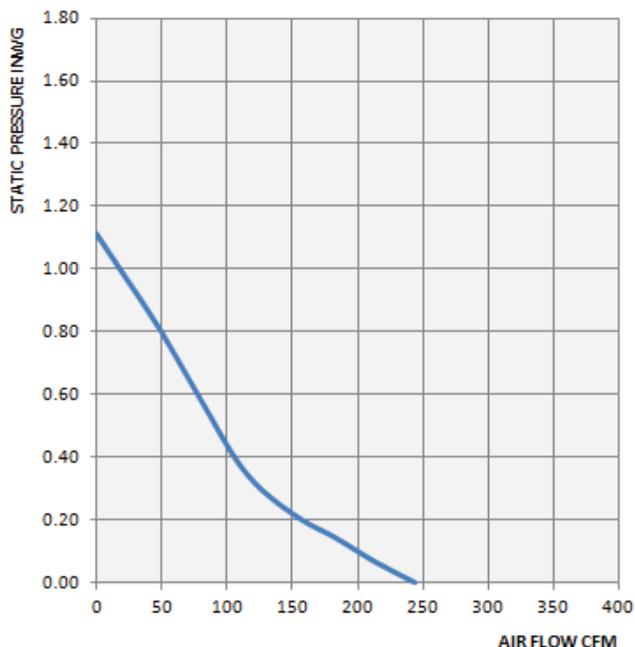
► Technical Data

TYPE: TIF 06, 06C, 06T LF			
Voltage, V/Hz	230/50	Speed, RPM	1369
Current, A	0.29	Airflow (m³/s)	0.115
Max. Motor Input Watt	69	Insulation Class	F
Capacitor (µF)	3	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	4.6
Performance Curve A			

TYPE: TIF 06, 06C, 06T HF			
Voltage, V/Hz	230/50	Speed, RPM	2318
Current, A	0.39	Airflow (m³/s)	0.180
Max. Motor Input Watt	100	Insulation Class	F
Capacitor (µF)	3	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	4.6
Performance Curve B			

*Standard ingress protection is IP44, IP54 available upon request

► Performance Curve

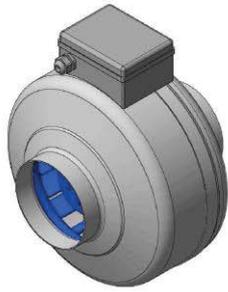


Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D: Ducted Inlet, Ducted Outlet. Values shown are for inlet Lwi sound power levels for installation type D: Ducted Inlet, Ducted Outlet. Ratings include the effects of duct end correction. The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA International Standard 301.

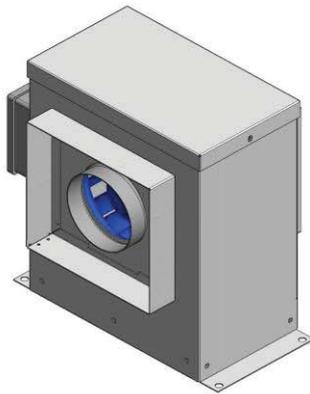
Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
1528	0.115	0.00	79	84	67	66	58	53	50	40
1584	0.038	144	81	85	67	63	55	49	46	37

Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2430	0.180	0.00	81	79	76	76	69	65	62	57
2416	0.063	315	82	86	76	73	65	59	58	50

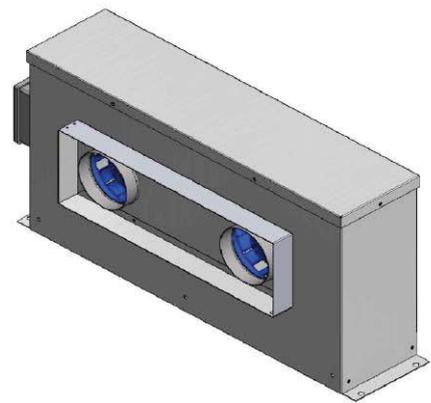
TIF 08, 08C, 08T LS & HS



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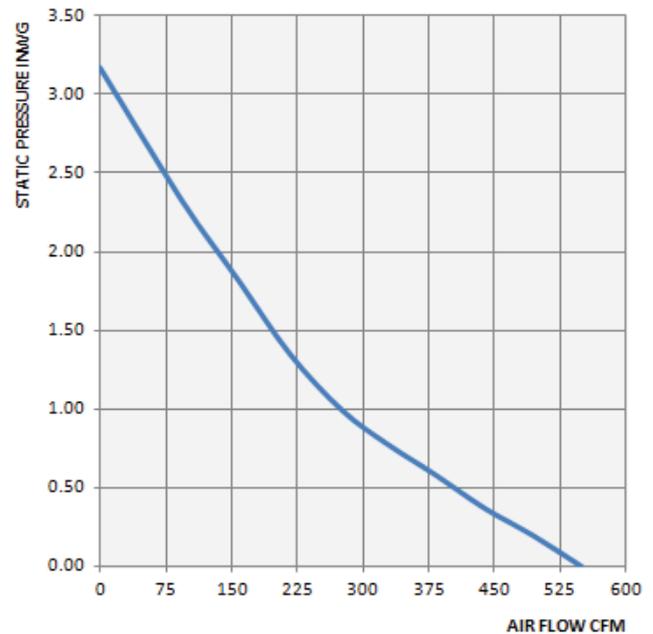
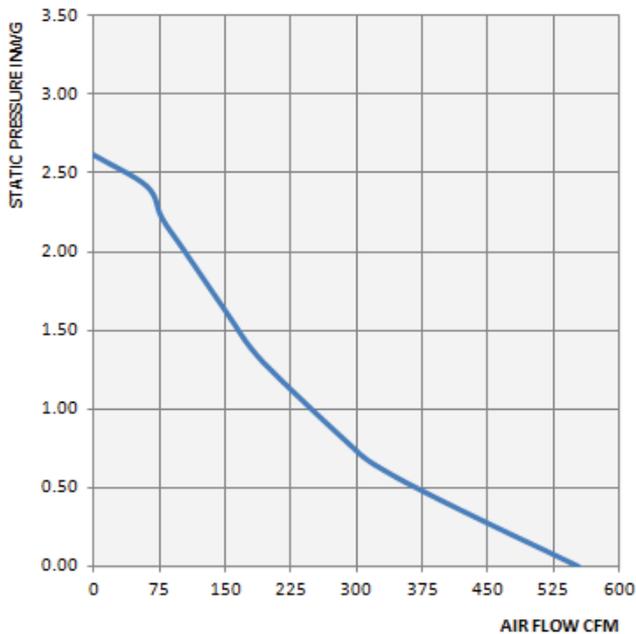
► Technical Data

TYPE: TIF 08, 08C, 08T LS			
Voltage, V/Hz	230/60	Speed, RPM	1940
Current, A	0.50	Airflow (m³/s)	0.205
Max. Motor Input Watt	112	Insulation Class	F
Capacitor (µF)	4	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	5.7
Performance Curve C			

TYPE: TIF 08, 08C, 08T HS			
Voltage, V/Hz	230/60	Speed, RPM	2287
Current, A	0.75	Airflow (m³/s)	0.259
Max. Motor Input Watt	192	Insulation Class	F
Capacitor (µF)	4	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	5.7
Performance Curve D			

*Standard ingress protection is IP44, IP54 available upon request

► Performance Curve



Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D: Ducted Inlet, Ducted Outlet. Values shown are for inlet Lwi sound power levels for installation type D: Ducted Inlet, Ducted Outlet. Ratings include the effects of duct end correction. The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA International Standard 301.

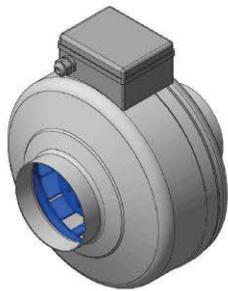
Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
1940	0.205	0.00	79	81	76	68	59	61	59	51
1935	0.093	320	71	74	69	63	58	55	56	48

Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2622	0.259	0.00	85	82	74	75	70	66	65	61
2430	0.102	337	81	92	77	73	66	63	61	55

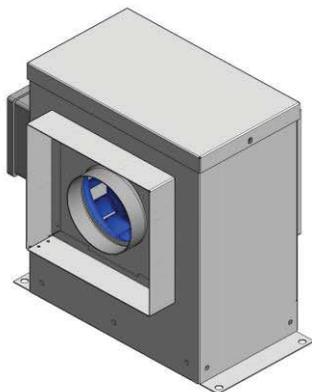
TIF SERIES FAN DATA

CENTRIFUGAL INLINE FANS

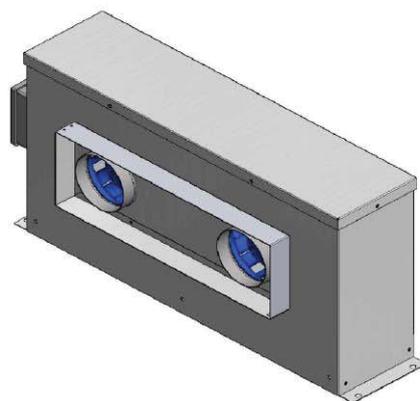
TIF 08, 08C, 08T LF & HF



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TIF-C



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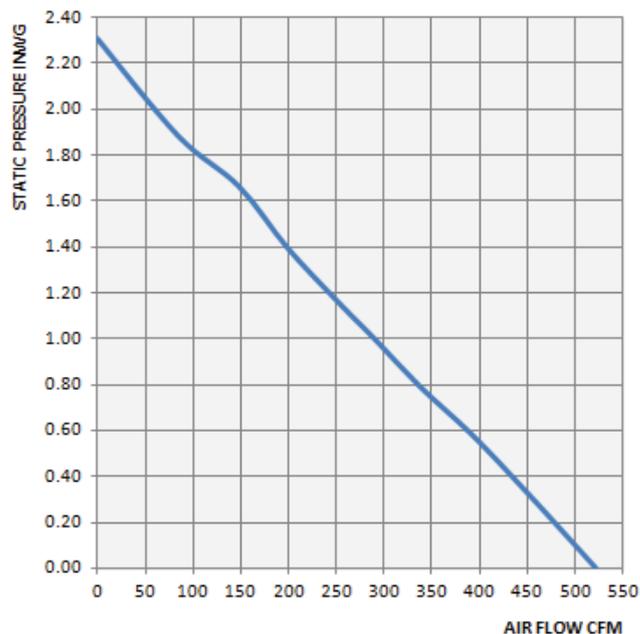
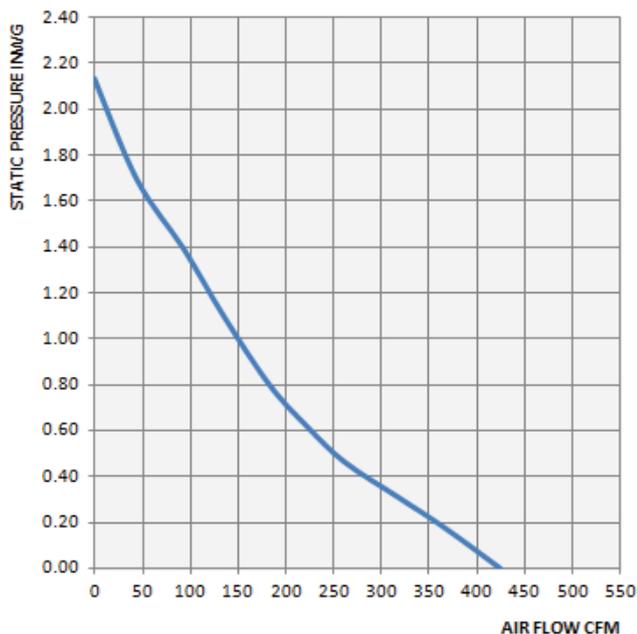
► Technical Data

TYPE: TIF 08, 08C, 08T LF			
Voltage, V/Hz	230/50	Speed, RPM	1859
Current, A	0.42	Airflow (m³/s)	0.200
Max. Motor Input Watt	105	Insulation Class	F
Capacitor (µF)	10	Protection	IP 44/54*
Ambient Temp. (t _a)	-20°C – +60°C	Weight, kg	5.7
Performance Curve A			

TYPE: TIF 08, 08C, 08T HF			
Voltage, V/Hz	230/50	Speed, RPM	2336
Current, A	0.57	Airflow (m³/s)	0.246
Max. Motor Input Watt	152	Insulation Class	F
Capacitor (µF)	4	Protection	IP 44/54*
Ambient Temp. (t _a)	-20°C – +60°C	Weight, kg	5.7
Performance Curve B			

*Standard ingress protection is IP44, IP54 available upon request

► Performance Curve



Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D: Ducted Inlet, Ducted Outlet. Values shown are for inlet Lwi sound power levels for installation type D: Ducted Inlet, Ducted Outlet. Ratings include the effects of duct end correction. The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA International Standard 301.

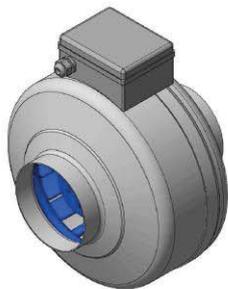
Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2088	0.200	0.00	81	78	69	69	64	61	59	55
2087	0.064	273	79	86	74	71	63	59	57	49

Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2479	0.246	0.00	82	80	73	75	69	65	64	60
2450	0.094	348	82	91	77	74	66	63	61	55

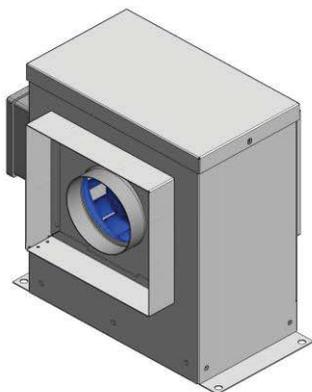
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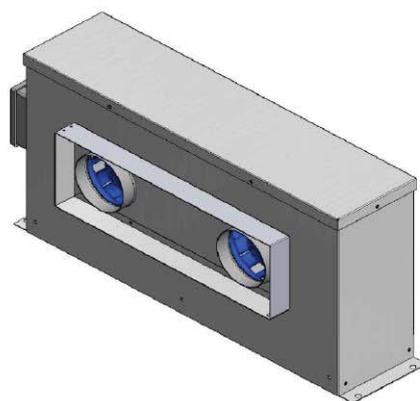
TIF 10, 10C, 10T HF & HS



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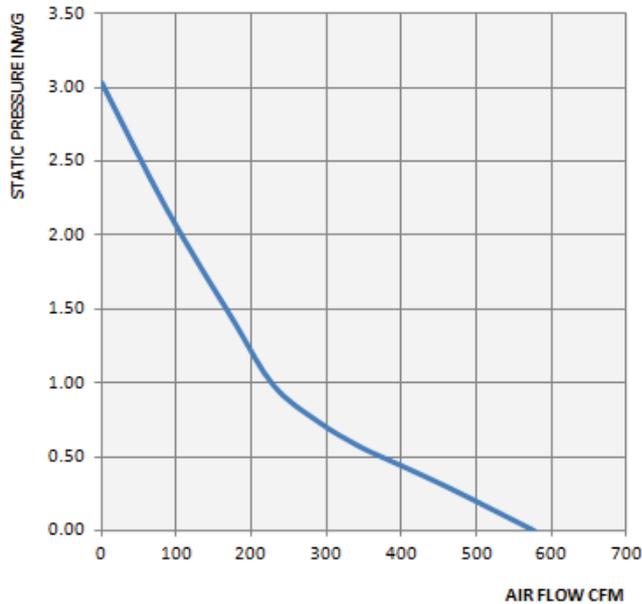
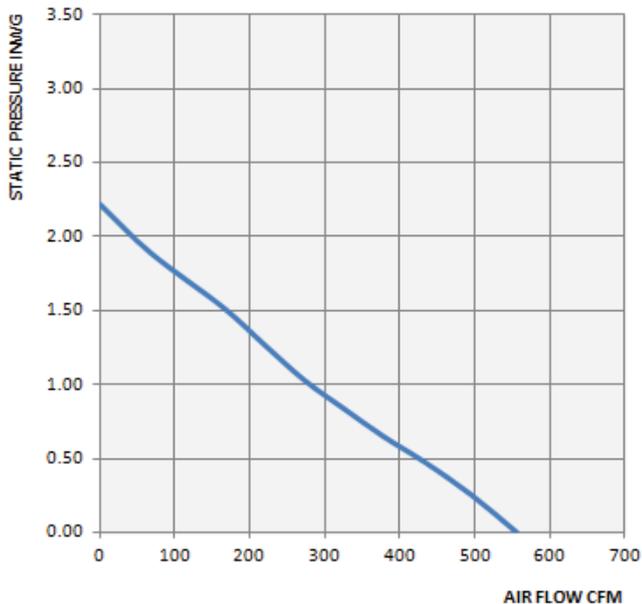
► Technical Data

TYPE: TIF 10, 10C, 10T HF			
Voltage, V/Hz	230/50	Speed, RPM	2142
Current, A	0.62	Airflow (m ³ /s)	0.263
Max. Motor Input Watt	165	Insulation Class	F
Capacitor (μF)	4	Protection	IP 44/54*
Ambient Temp. (t _a)	-20°C – +60°C	Weight, kg	5.7
Performance Curve A			

TYPE: TIF 10, 10C, 10T HS			
Voltage, V/Hz	230/60	Speed, RPM	1921
Current, A	0.83	Airflow (m ³ /s)	0.272
Max. Motor Input Watt	204	Insulation Class	F
Capacitor (μF)	4	Protection	IP 44/54*
Ambient Temp. (t _a)	-20°C – +60°C	Weight, kg	5.7
Performance Curve B			

*Standard ingress protection is IP44, IP54 available upon request

► Performance Curve

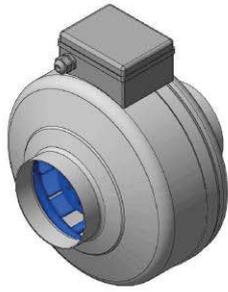


Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D: Ducted Inlet, Ducted Outlet. Values shown are for inlet Lwi sound power levels for installation type D: Ducted Inlet, Ducted Outlet. Ratings include the effects of duct end correction. The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA International Standard 301.

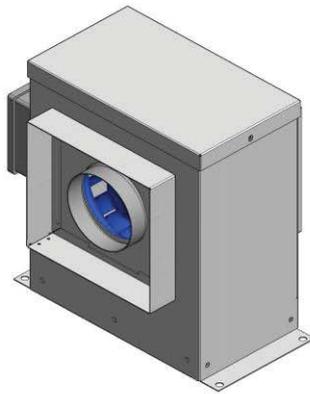
Nominal RPM	Airflow (m ³ /s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2358	0.263	0.00	82	86	79	79	69	64	64	60
2281	0.104	315	79	90	80	75	67	62	61	56

Nominal RPM	Airflow (m ³ /s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2281	0.272	0.00	80	93	73	72	65	60	62	61
2089	0.108	245	79	95	76	69	62	57	56	49

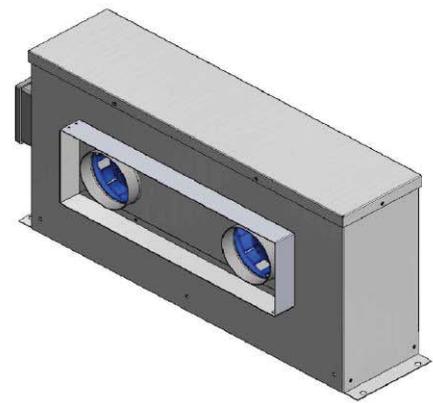
TIF 12, 12C, 12T LF & HF



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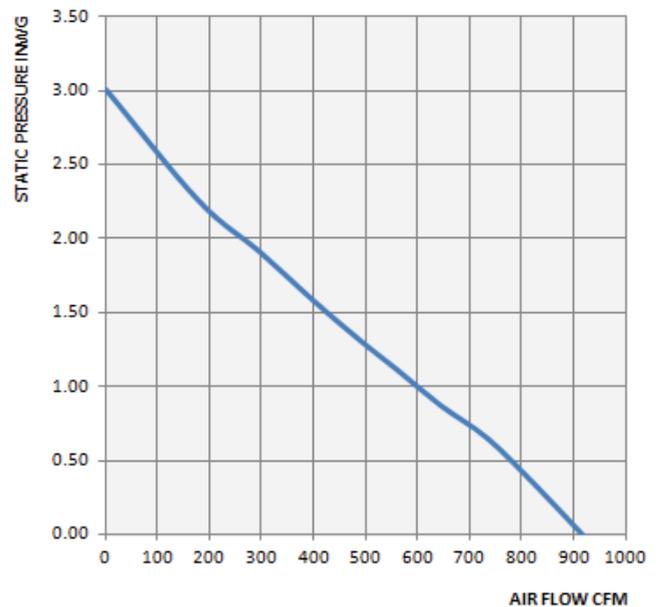
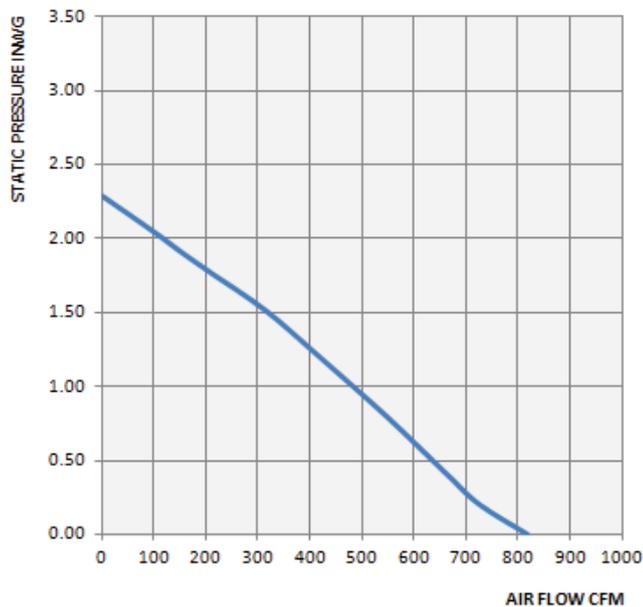
► Technical Data

TYPE: TIF 12, 12C, 12T LF			
Voltage, V/Hz	230/50	Speed, RPM	2120
Current, A	0.83	Airflow (m³/s)	0.387
Max. Motor Input Watt	160	Insulation Class	F
Capacitor (µF)	16	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	6.6
Performance Curve A			

TYPE: TIF 12, 12C, 12T HF			
Voltage, V/Hz	230/50	Speed, RPM	2252
Current, A	1.04	Airflow (m³/s)	0.432
Max. Motor Input Watt	295	Insulation Class	F
Capacitor (µF)	8	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	6.6
Performance Curve B			

*Standard ingress protection is IP44, IP54 available upon request

► Performance Curve



Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D: Ducted Inlet, Ducted Outlet. Values shown are for inlet Lw sound power levels for installation type D: Ducted Inlet, Ducted Outlet. Ratings include the effects of duct end correction. The sound power level ratings shown are in decibels, referred to 10⁻¹² watts calculated per AMCA International Standard 301.

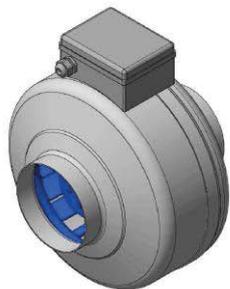
Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2404	0.075	0.00	70	75	69	63	58	57	52	46
3125	0.016	355	81	87	79	74	67	62	59	56

Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2545	0.432	0.00	83	80	78	78	73	68	66	70
2298	0.188	394	86	87	78	76	66	62	59	56

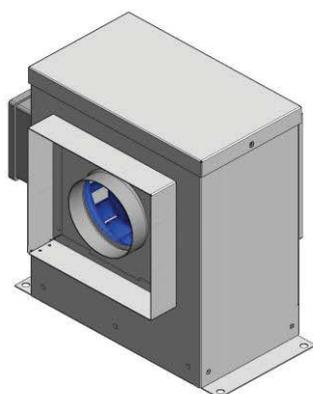
TIF SERIES FAN DATA

CENTRIFUGAL INLINE FANS

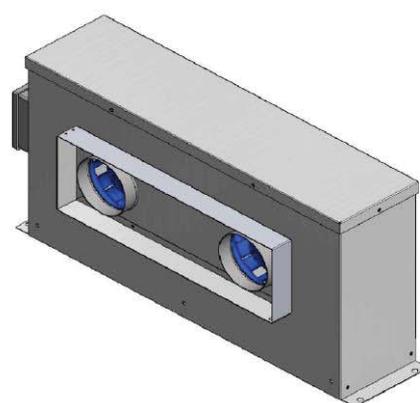
TIF 12, 12C, 12T LS & HS



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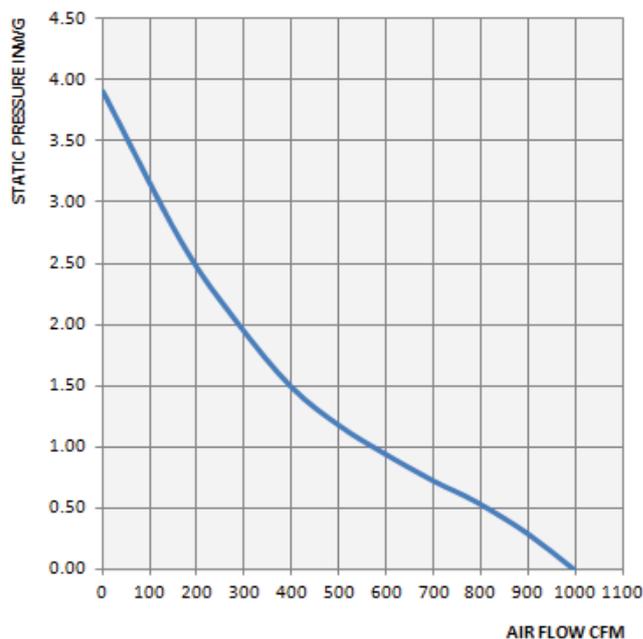
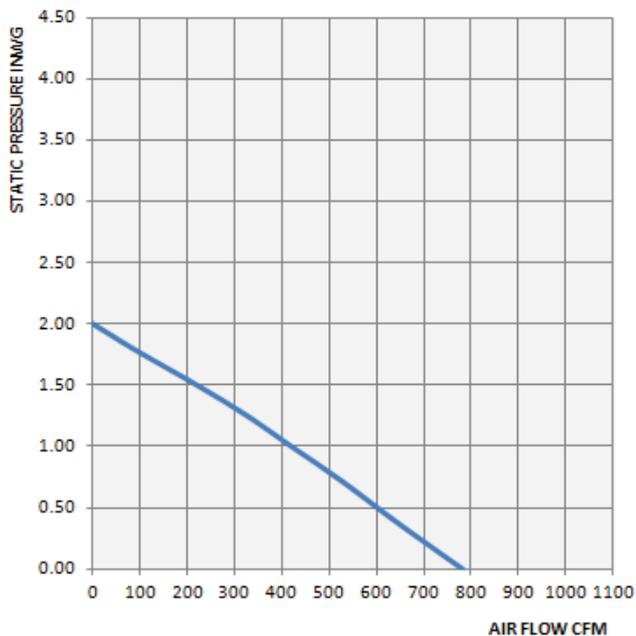
► Technical Data

TYPE: TIF 12, 12C, 12T LS			
Voltage, V/Hz	230/60	Speed, RPM	1960
Current, A	0.83	Airflow (m³/s)	0.379
Max. Motor Input Watt	190	Insulation Class	F
Capacitor (µF)	8	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	6.6
Performance Curve C			

TYPE: TIF 12, 12C, 12T HS			
Voltage, V/Hz	230/60	Speed, RPM	2209
Current, A	1.40	Airflow (m³/s)	0.470
Max. Motor Input Watt	363	Insulation Class	F
Capacitor (µF)	8	Protection	IP 44/54*
Ambient Temp. (tₐ)	-20°C – +60°C	Weight, kg	6.6
Performance Curve D			

*Standard ingress protection is IP44, IP54 available upon request

► Performance Curve



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Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
1960	0.379	0.00	68	72	68	61	55	52	51	42
2233	0.010	198	71	74	69	63	58	55	56	45

Nominal RPM	Airflow (m³/s)	Static Pressure (Pa)	Sound Power Level (dB re 10 ⁻¹² watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2729	0.470	0.00	86	87	77	79	74	70	67	69
2239	0.188	371	81	87	79	74	67	62	59	56

AUTO CHANGE OVER PANEL (ACOP) (available for T Series only)

EC-ACOP is an electronic system designed and developed for automatic operation of twin fans. EC-ACOP has a silent feature that enables the user to override the auto system (cyclic changeover) to manual mode by pressing the mode button. This feature helps the end user to run any of the selected fans continuously or to do the maintenance in case of failure. The customer has an option to switch on both fans simultaneously, if required, in order to increase the capacity. (Refer to the selection for further details).

EC-ACOP works on latest digital electronic technology that ensures the accurate results and seamless operation to the installer with a choice of options for a maintenance-free operation.

The control module is connected to the fan with plug-in socket technology.

The dimension of the ACOP is 110 x 100 mm with the following available options:

1. Auto mode: This mode is for automatic duty sharing between the fans for every 12 hours, which is factory set and the cycle time is not field adjustable. (Optional time cycles are available on request.)
2. Manual mode: It provides the option of running each fan individually or both fans at the same time in order to increase the capacity of the unit.
3. Green light indicates the normal operation status. Red light indicates fault signal.

User can switch to any mode by pressing on the “mode button” on the EC-ACOP and the status of the fans is shown by distinct LEDs.

Optional Factory wired single unit that can fit on the fan housing.

Optional B.M.S Interface available on request.

Optional interface provisions are available based on the request. Consult factory.

TECHNICAL INFORMATION:

Single Phase Motors

Operating Voltage: 110V - 240V A.C. 50 Hz/60Hz

Capacity to Drive Motors: 10 A

Ambient Temperature: 55° C (not directly exposed to the sunlight)

Three Phase Motors

Applicable with the conventional starter panels (consult factory)



Centrifugal Inline Exhaust Fans shall be TIF direct drive by Energy Twin City.

Housing

Tubular fan housing shall be constructed of polyester coated sheet metal. Cabinet and twin fan housing shall be constructed of aluminum; coating is optional for the casing of both TIF-C & TIF-T.

Internal air turning vanes shall be provided for maximum air performance.

Fan shall be supplied with externally mounted electrical terminal box with prewired terminal strip connections.

Motor & Impeller

Motorized impeller shall be an external rotor type, class F insulation, totally-enclosed with permanent split capacitor. Motor shall be permanently-sealed, self-lubricating ball bearing type.

Motor shall be equipped with automatic reset thermal overload protection.

Motor shall be suitable for continuous-duty. Sufficient service factor shall be provided to ensure long maintenance free operation over maximum load conditions.

Fan impeller shall be with non-overloading steel and a well-designed inlet venturi for maximum performance. Motorized impeller shall be both statically and dynamically balanced as one integral unit to provide for vibration-free performance.



Energy Twin City reserves the right to make changes at any time, without notice, to models, construction, specifications, options, availability, etc. This catalogue illustrates the appearance of Energy Twin City products at the time of publication.

ONE-YEAR LIMITED WARRANTY

CENTRIFUGAL INLINE FANS

PRODUCTS COVERED

Energy Twin City TIF Series fans.

ONE-YEAR LIMITED WARRANTY FOR ENERGY TWIN CITY PRODUCTS

Energy Twin City warrants to the original commercial purchaser that the Products will be free from defects in material and workmanship for a period of one (1) year from the date of shipment.

EXCLUSIVE REMEDY

Energy Twin City will, at its option, repair or replace (without removal or installation) the affected components of any defective Product; repair or replace (without removal or installation) the entire defective Product; or refund the invoice price of the Product. In all cases, a reasonable time period must be allowed for warranty repairs to be completed.

WHAT YOU MUST DO

In order to make a claim under these warranties:

You must be the original commercial purchaser of the Product.

You must promptly notify us, within the warranty period, of any defect and provide us with any substantiation that we may reasonably request.

The Product must have been installed and maintained in accordance with good industry practice and any specific Energy Twin City recommendations.

LIMITATIONS

In all cases, Energy Twin City reserves the right to fully satisfy its obligations under the Limited Warranties by refunding the invoice price of the defective Product (or, if the Product has been discontinued, of the most nearly comparable current product).

Energy Twin City reserves the right to furnish a substitute or replacement component or product in the event a product or any component of the product is discontinued or otherwise unavailable.

Energy Twin City's only obligation with respect to components not manufactured by Energy Twin City shall be to pass through the warranty made by the manufacturer of the defective component.

EXCLUSIONS

These warranties do not cover defects caused by:

Improper design or operation of the system into which the Product is incorporated.

Improper installation.

Accident, abuse or misuse.

Unreasonable use (including any use for non-commercial purposes, failure to provide reasonable and necessary maintenance as specified by Energy Twin City, misapplication and operation in excess of stated performance characteristics).

Components not manufactured by Energy Twin City.

GENERAL

The foregoing warranties are exclusive and in lieu of all other warranties except that of title, whether written, oral or implied, in fact or in law (including any warranty of merchantability or fitness for a particular purpose).

Energy Twin City hereby disclaims any liability for special, punitive, indirect, incidental or consequential damages, including without limitation lost profits or revenues, loss of use of equipment, cost of capital, cost of substitute products, facilities or services, downtime, shutdown or slowdown costs.

The remedies of the original commercial purchase set forth herein are exclusive and the liability of Energy Twin City with respect to the Products, whether in contract, tort, warranty, strict liability or other legal theory shall not exceed the invoice price charged by Energy Twin City to its customer for the affected Product at the time the claim is made.

Inquiries regarding these warranties should be sent to: Energy Twin City, United Arab Emirates.

THE RECOGNIZED LEADER IN THE DISTRIBUTION OF HVAC AND INDUSTRIAL PRODUCTS IN THE MIDDLE EAST.

Downblast Roof
Exhausters Upblast Roof
Exhausters Make-Up
Filtered Fresh Air Fans
Square Inline Centrifugal
Fans Cabinet Fans
Axial Flow Fans



MIDDLE EAST

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