



# Energy Industrial Company

## Technical Manual

TIF Series  
Direct driven



**ENERGY**  
**INDUSTRIAL COMPANY**  
We Care for your ventilation needs



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### CERTIFIED RATINGS

#### Tubular Inline Fans



"Energy Industrial Company LLC certifies that the model TIF 05 to 12 HS, TIF 06 to TIF 08 LF & TIF 06 to 12 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 AMCA publication 311 and comply with the requirements of the AMCA Certified Ratings Program"



"Energy Industrial Company LLC certifies that the model TIF 04 to 05 LF, TIF 04 to 05 HF and TIF 04 HS 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"

#### Fan Performance Curves

The fan performance curves are plotted as per the test method AMCA Standard 210-07, Figure 12 setup, installation Type D. The fan curves show the range of capacities available for direct drive units. Each graph shows the performance of several models at one particular nominal speed. Fan curves provide a quick method for selecting a fan unit based on design point requirements.

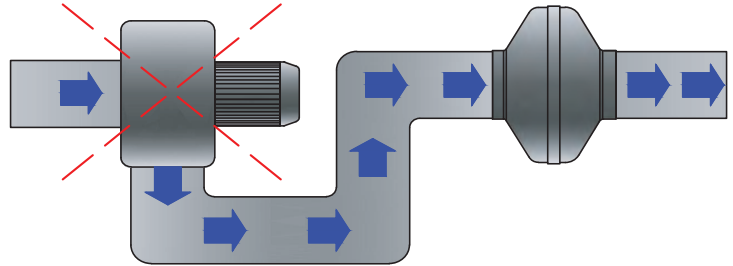
#### Sound Levels

The sound levels are tested Method per AMCA Standard 300-08, Figure 2 Setup, Installation Type D. The sound ratings shown are in decibels, referred to  $10^{-12}$  watts calculated per AMCA Standard 301. Value shown are for inlet (LWi) sound power level for installation type D; Ducted inlet, Ducted outlet. Performance ratings do not include the effect of appurtenances in the airstream.

# TIF SERIES

## TIF Series Centrifugal Inline Fans

The original idea for the inline duct fans was to combine the benefits of the radial fan, High pressure and low sound level, with the straight-through airflow of the axial fan. The inline radial duct fan with an external rotor motor and straight-through airflow was designed. Apart from high pressure and low sound level, the main benefit was the easy installation.



### Design Features

#### Design Features

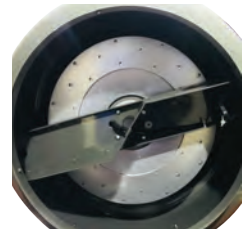
- Self-lubricating/sealed-for-life precision ball bearings.
- Automatic reset thermal overload protection.
- Temperature up to 60° C capable of operation in air stream.
- Terminal box with prewired electrical strip.
- External rotor motor, Class F insulation.
- Mounting brackets are standard with all fans.
- Fans are delivered ready for installation in individual boxes.
- Casings sizes TIF 4"-TIF 12" made of Polyester coated sheet metal.

#### Motor

Energy industrial tube fans are driven by an external rotor motor of protection class F, IP 44/54, fitted within the centrifugal impeller. From size TIF 04" up to size 12", all units 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.

#### Impeller

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



#### Electrical Connection

The motors are wired to an external terminal box.

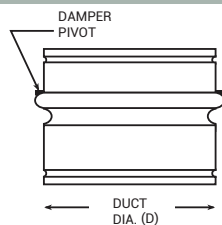


### Accessories

#### Backdraft Damper



24 gauge galvanized casing with aluminum blades.



MODEL	D
TIF 04	97
TIF 05	125
TIF 06	159
TIF 08	198
TIF 10	248
TIF 12	315

#### Speed Controller



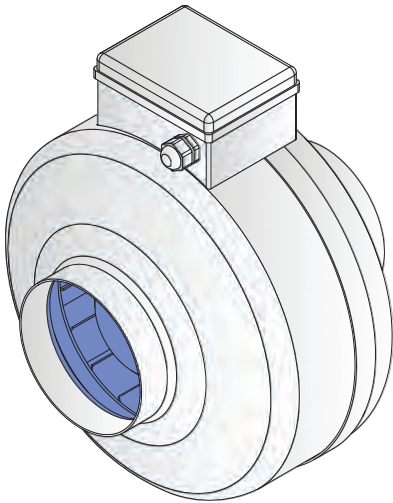
Speed controller is available for all models. It can reduce the airflow rate by 70%.

#### Silencer

constructed with pre-galvanised sheet steel casings with mastic filled lockformed longitudinal joints.



### TIF Series



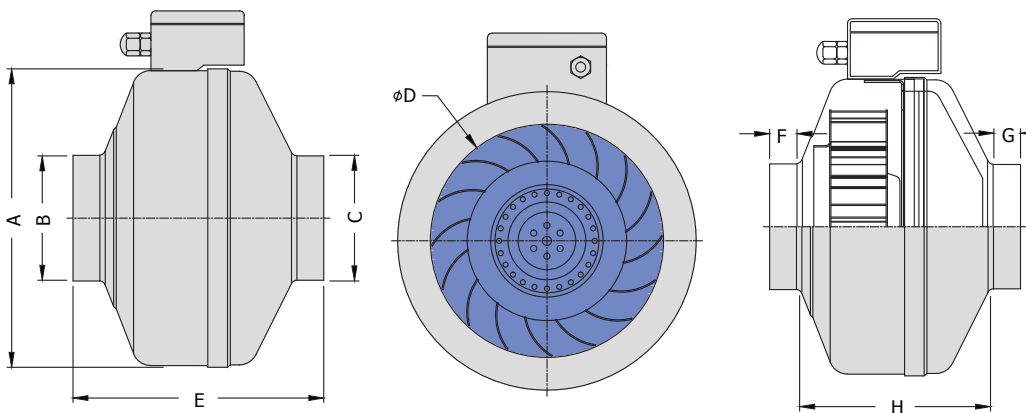
#### Model Number Code:



#### Overall Size

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

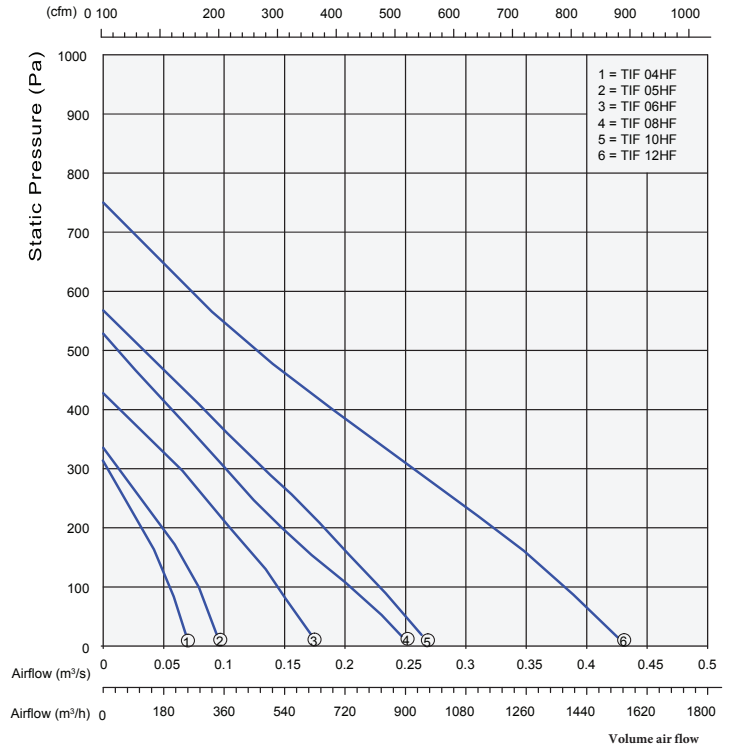
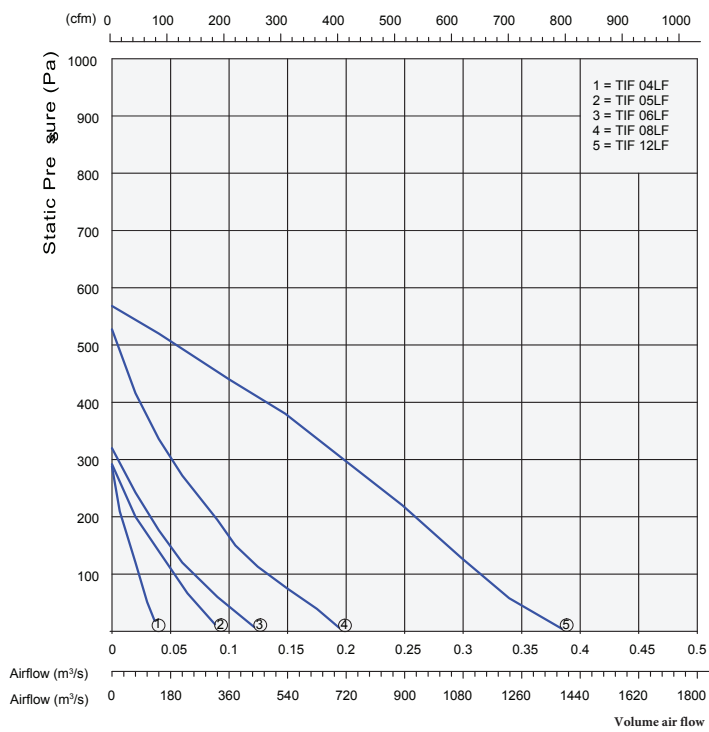
All Dimensions in mm



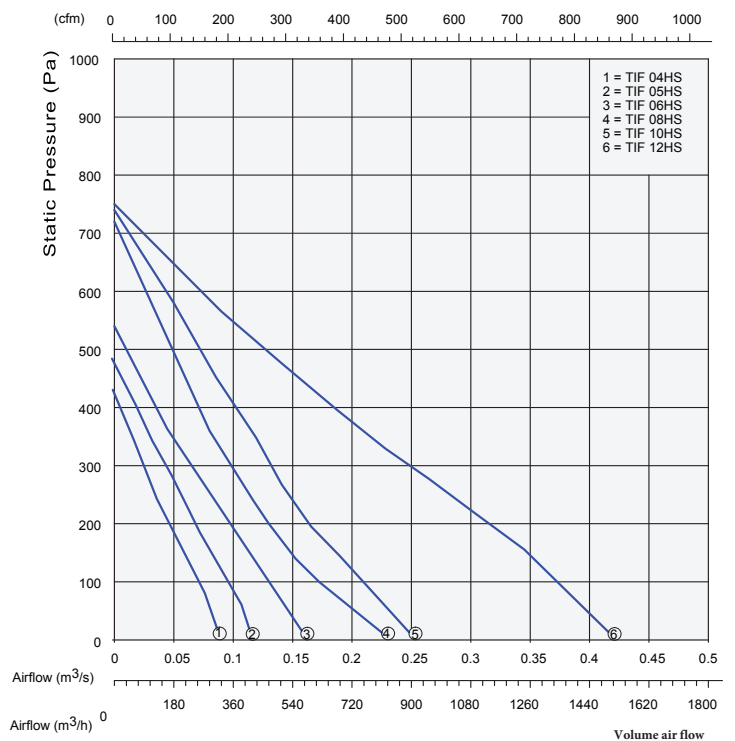
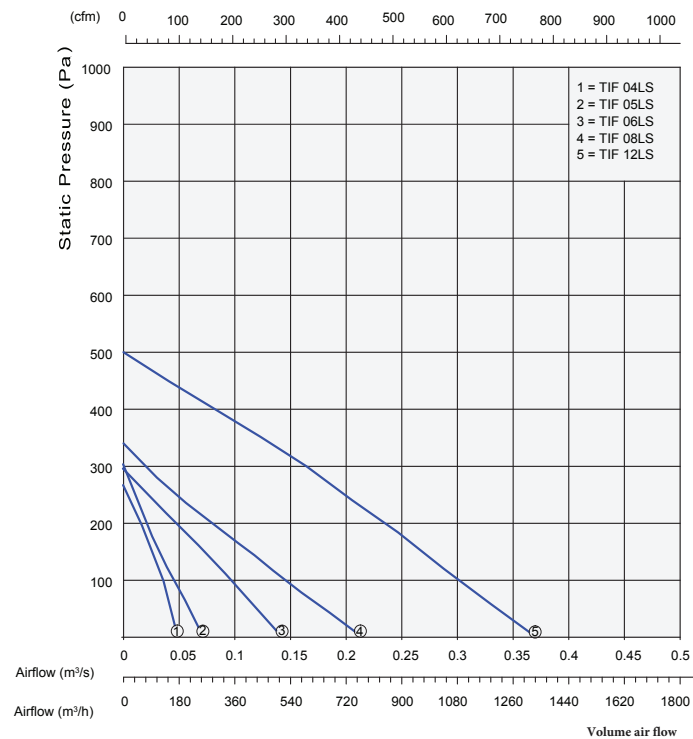
# TIF SERIES

## TIF Series Centrifugal Inline Fans

### Quick selection-50 Hz



### Quick selection-60 Hz



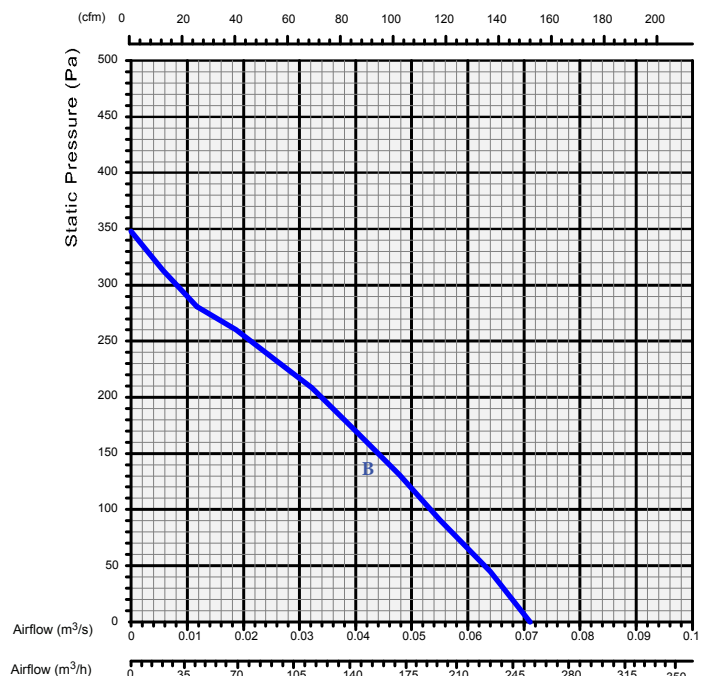
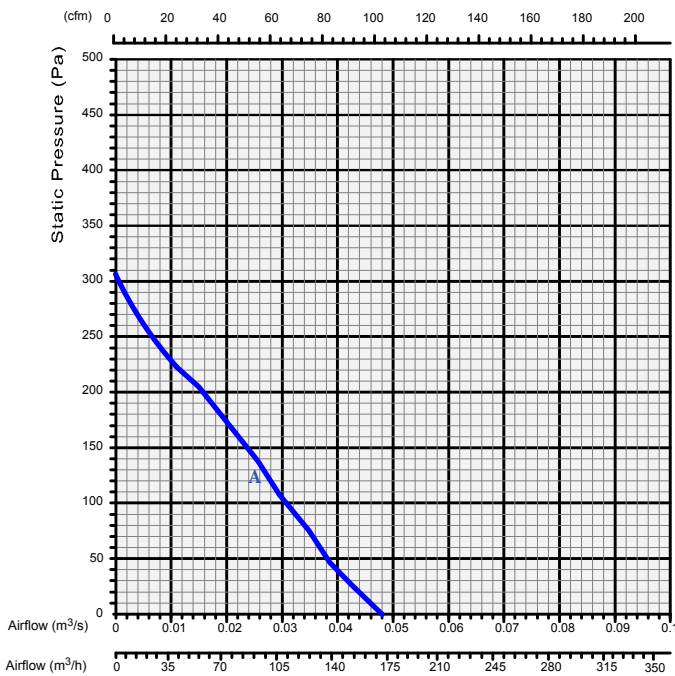
"Model TIF 12 LF; TIF 04 to 12 LS are not certified by AMCA international."

### Technical Data

Type: TIF 04 LF			
Voltage, V/Hz	230/50	Speed, RPM	1915
Current, A	0.14	Air Flow [m³/s]	0.048
Maximum Motor input Watt	34	Insulation Class	F
Capacitor μF	2	Protection	⚠ IP 44/54
Ambient Temp. t <sub>a</sub>	-20°C - +60°C	Weight, kg	3.5
Performance Curve A			

Type: TIF 04 HF			
Voltage, V/Hz	230/50	Speed, RPM	2478
Current, A	0.28	Air Flow [m³/s]	0.071
Maximum Motor input Watt	66	Insulation Class	F
Capacitor μF	2	Protection	⚠ IP 44/54
Ambient Temp. t <sub>a</sub>	-20°C - +60°C	Weight, kg	3.5
Performance Curve B			

### Performance Curve

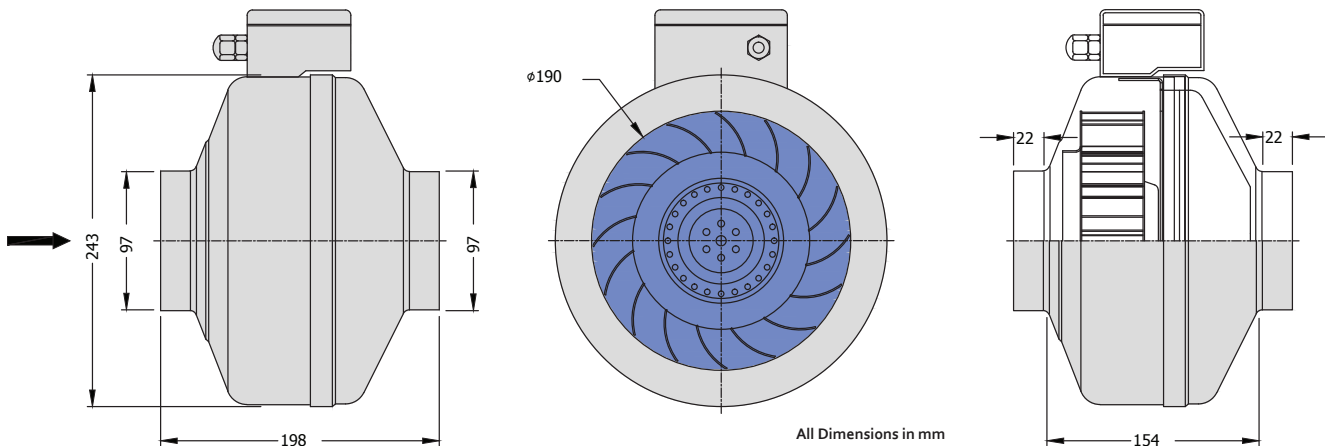


"Performance ratings do not include the effects of appurtenances(accessories). Speed (RPM) shows is nominal. Performance is based on actual speed of test. Performance certified is for installation type D-Ducted inlet, Ducted outlet. The AMCA Certified Ratings Seal applies to air performance ratings only"

Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2261	0.071	0.00	68	73	65	61	55	54	49	43
2796	0.012	274	70	73	67	63	57	57	51	45

### Dimensional Drawings



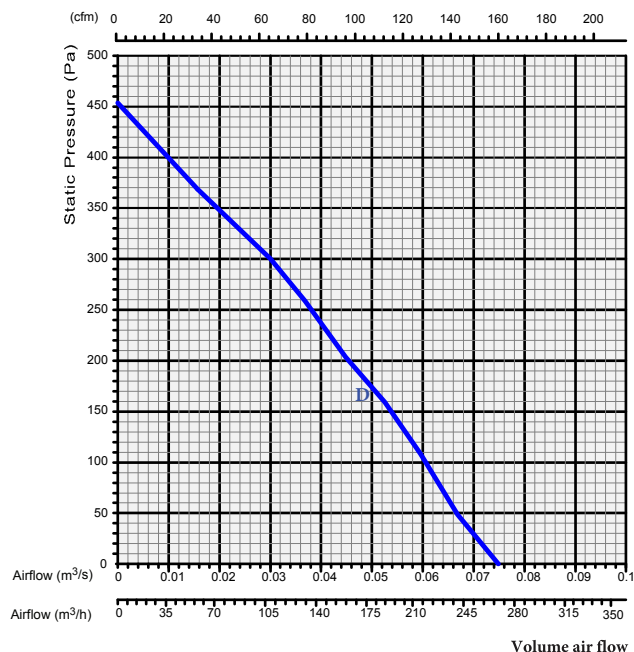
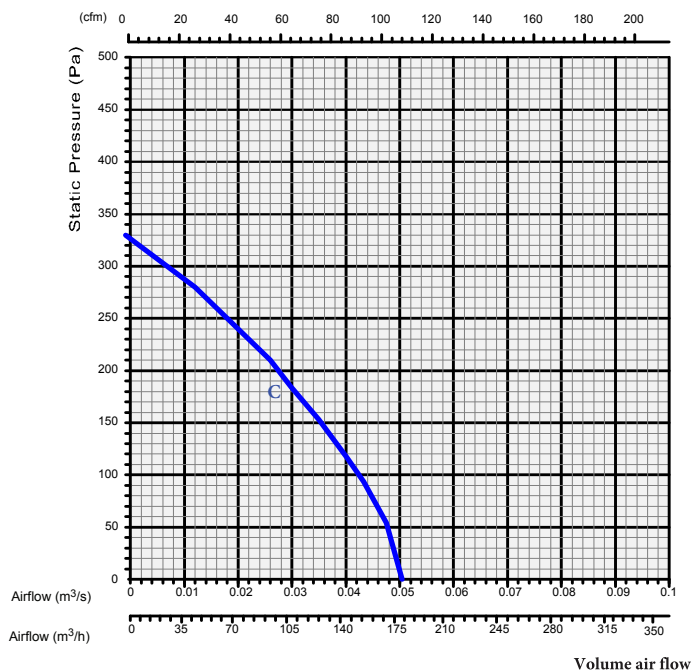


### Technical Data

Type: TIF 04 LS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM air	1470
Current, A	0.15	Flow [m <sup>3</sup> /s]	0.049
Maximum Motor input Watt	35	Insulation Class	F
Capacitor $\mu$ F	2	Protection	IP 44/54
Ambient Temp. $t_a$ :	-20°C - +60°C	Weight, kg	3.5
Performance Curve C			

Type: TIF 04 HS			
Voltage, V/Hz	230/60	Speed, RPM air	2767
Current, A	0.34	Flow [m <sup>3</sup> /s]	0.075
Maximum Motor input Watt	82	Insulation Class	F
Capacitor $\mu$ F	2	Protection	IP 44/54
Ambient Temp. $t_a$ :	-20°C - +60°C	Weight, kg	3.5
Performance Curve D			

### Performance Curve



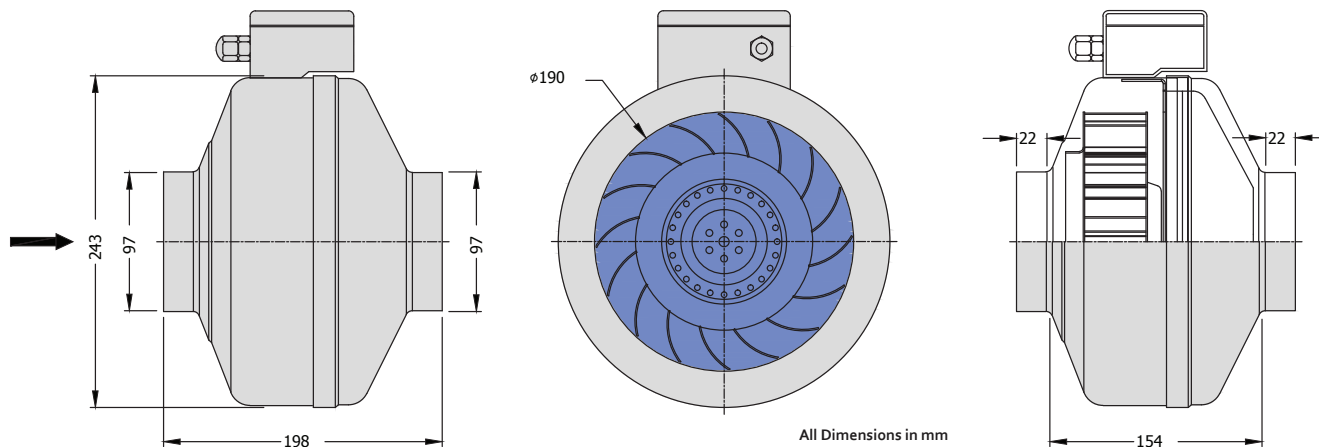
"Model TIF 04 LS are not certified by AMCA international"

"Performance ratings do not include the effects of appurtenances(accessories).Speed (RPM) shows nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. The AMCA Certified Ratings Seal applies to air performance ratings only"



Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings

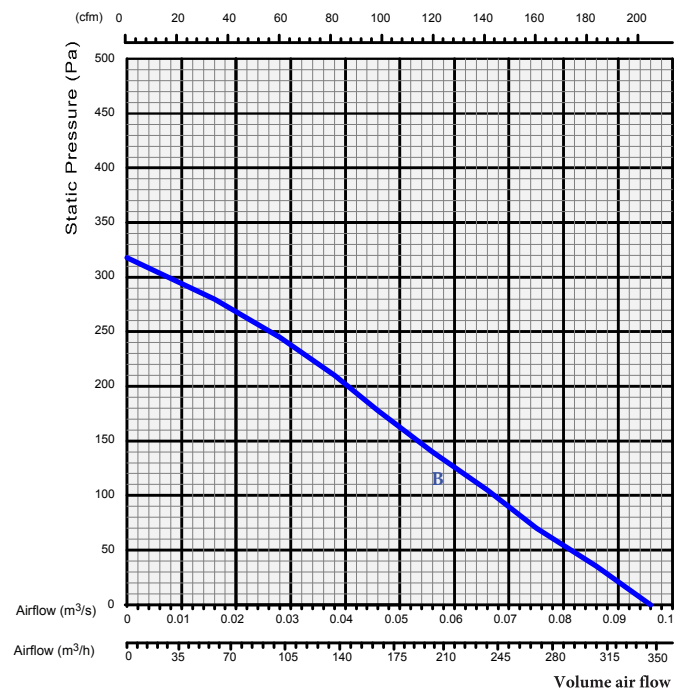
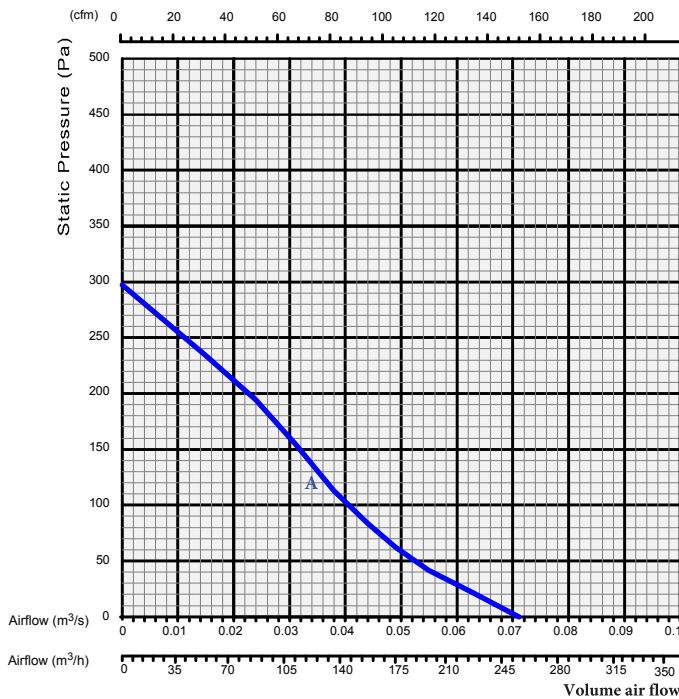


### Technical Data

Type: TIF 05 LF			
Voltage, V/Hz	230/50	Speed, RPM	1780
Current, A	0.16	Air Flow [m <sup>3</sup> /s]	0.071
Maximum Motor input Watt	39	Insulation Class	F
Capacitor $\mu$ F	2	Protection 	IP 44/54
Ambient Temp. $t_a$ :	-20°C - +60°C	Weight, kg 	3.5
Performance Curve A			

Type: TIF 05 HF			
Voltage, V/Hz	230/50	Speed, RPM	2378
Current, A	0.29	Air Flow [m <sup>3</sup> /s]	0.096
Maximum Motor input Watt	69	Insulation Class	F
Capacitor $\mu$ F	2	Protection 	IP 44/54
Ambient Temp. $t_a$ :	-20°C - +60°C	Weight, kg 	3.5
Performance Curve B			

### Performance Curve

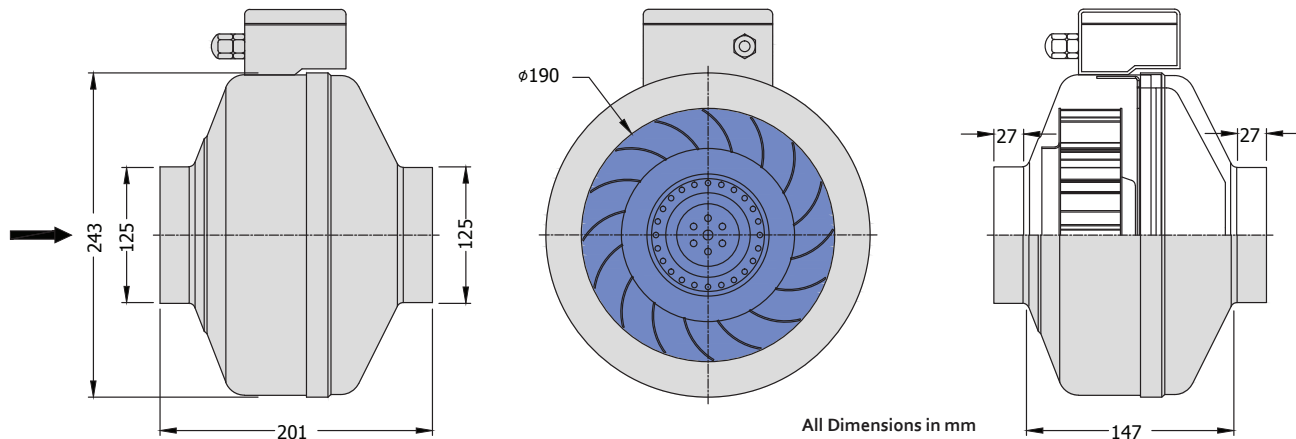


"Performance ratings do not include the effects of appurtenances(accessories).Speed (RPM) shows is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. The AMCA Certified Ratings Seal applies to air performance ratings only"

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings

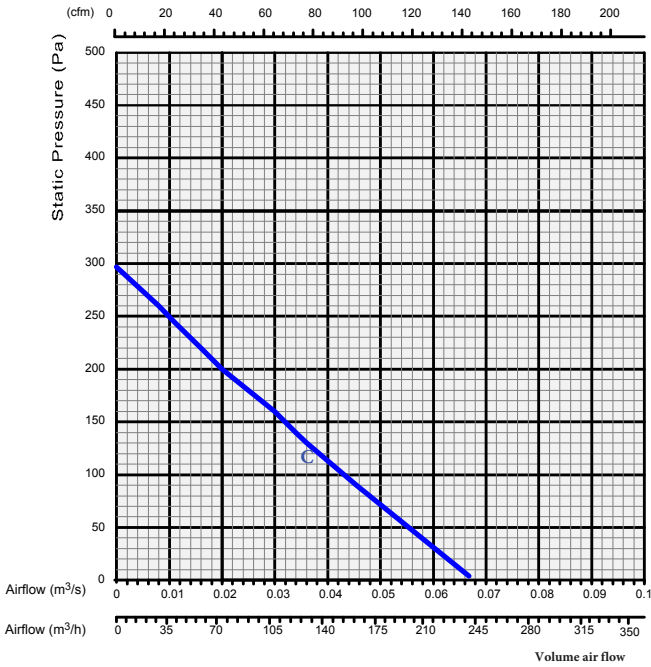


### Technical Data

Type: TIF 05 LS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1530
Current, A	0.15	Air Flow [m³/s]	0.067
Maximum Motor input Watt	41	Insulation Class	F
Capacitor μF :	2	Protection	IP 44/54
Ambient Temp. t <sub>a</sub> :	-20°C - +60°C	Weight, kg	3.5
Performance Curve C			

"Model TIF 05 LS are not certified by AMCA international"

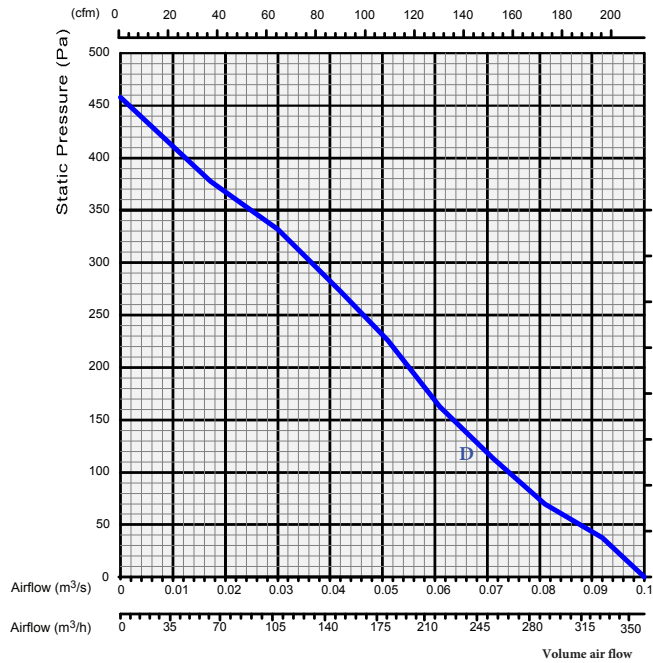
### Performance Curve



"Model TIF 05 LS are not certified by AMCA international"

Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

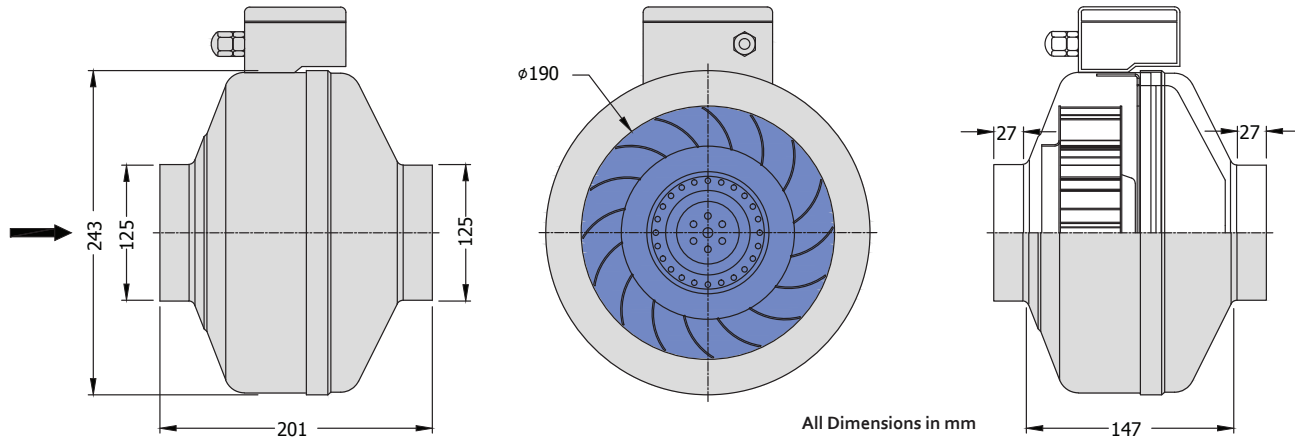
Type: TIF 05 HS			
Voltage, V/Hz	230/60	Speed, RPM	2535
Current, A	0.35	Air Flow [m³/s]	0.102
Maximum Motor input Watt	85	Insulation Class	F
Capacitor μF :	2	Protection	IP 44/54
Ambient Temp. t <sub>a</sub> :	-20°C - +60°C	Weight, kg	3.5
Performance Curve D			





"Performance ratings do not include the effects of appurtenances(accessories).Speed (RPM) shows is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. "Value shows 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 shows are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA international Standard 301."



Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings

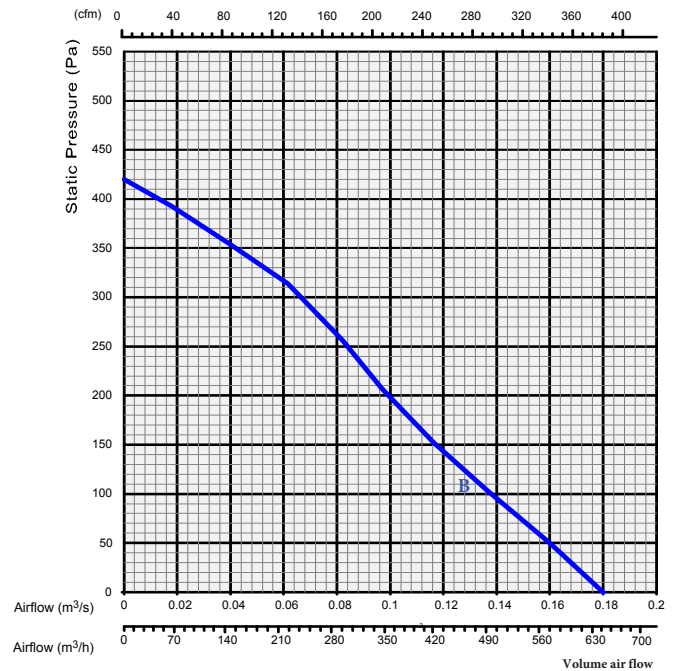
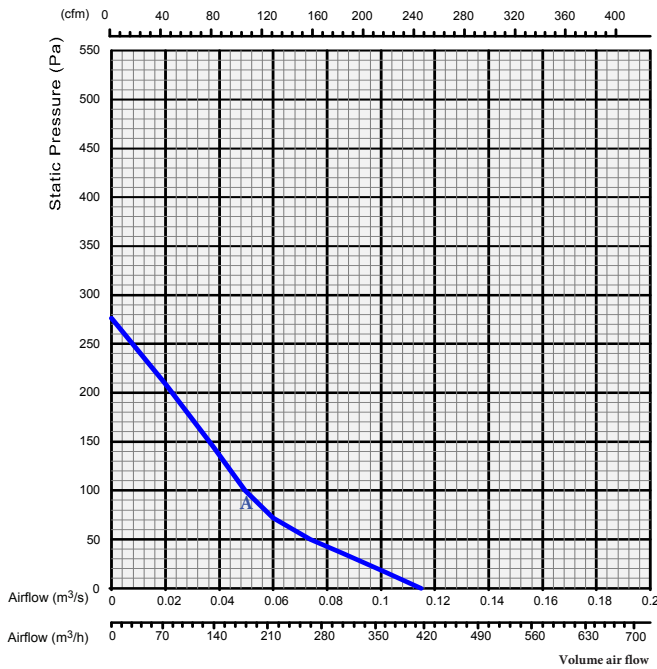


### Technical Data

Type: TIF 06 LF			
Voltage, V/Hz	230/50	Speed, RPM	1369
Current, A	0.29	Air Flow [m <sup>3</sup> /s]	0.115
Maximum Motor input Watt	69	Insulation Class	F
Capacitor $\mu$ F	3	Protection 	IP 44/54
Ambient Temp. $t_R$	-20°C - +60°C	Weight, kg 	4.6
Performance Curve A			

Type: TIF 06 HF			
Voltage, V/Hz	230/50	Speed, RPM	2318
Current, A	0.39	Air Flow [m <sup>3</sup> /s]	0.180
Maximum Motor input Watt	100	Insulation Class	F
Capacitor $\mu$ F	3	Protection 	IP 44/54
Ambient Temp. $t_R$	-20°C - +60°C	Weight, kg 	4.6
Performance Curve B			

### Performance Curve

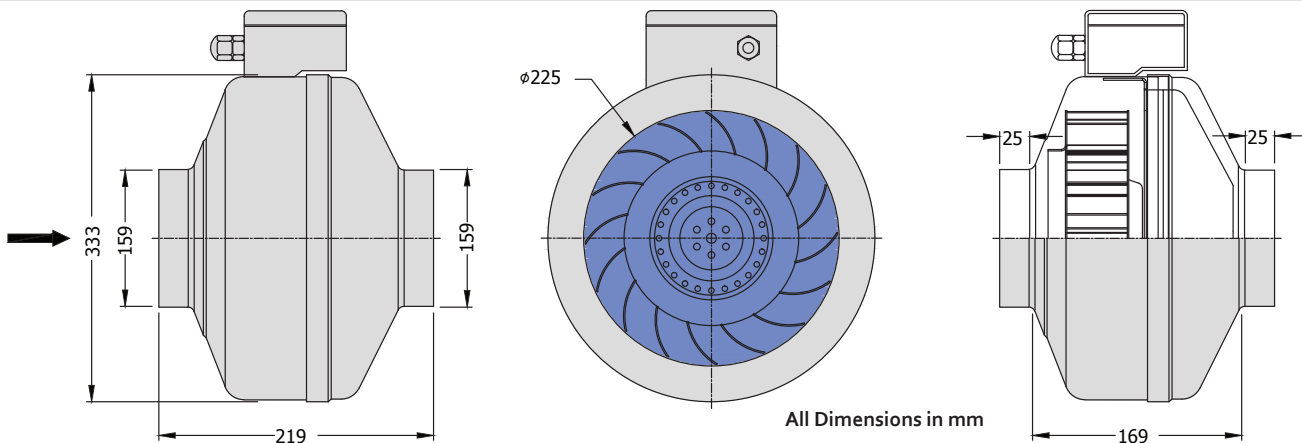


\*Performance ratings do not include the effects of appurtenances(accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. Value shown are for inlet Lwi sound power levels for installation 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<sup>-12</sup> watts calculated per AMCA international Standard 301.

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



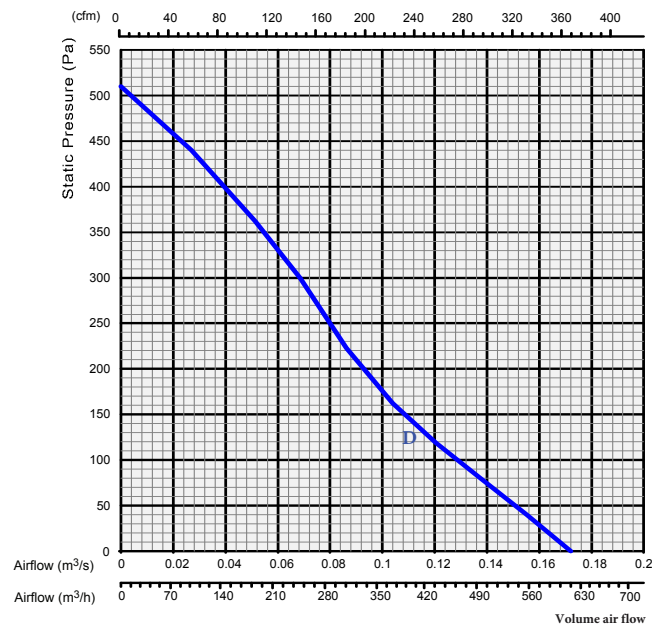
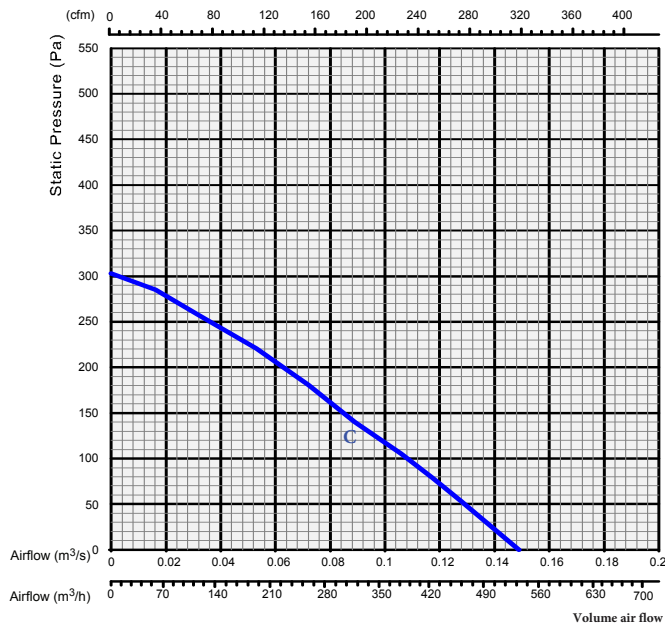
### Technical Data

Type: TIF 06 LS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1470
Current, A	0.29	Air Flow [m <sup>3</sup> /s]	0.148
Maximum Motor Input Watt	65	Insulation Class	F
Capacitor $\mu$ F	3	Protection $\triangle$	IP 44/54
Ambient Temp. $t_r$ : -20°C - +60°C		Weight, kg $\blacksquare$	4.6
Performance Curve C			

"Model TIF 06 LS are not certified by AMCA international"

Type: TIF 06 HS			
Voltage, V/Hz	230/60	Speed, RPM	2265
Current, A	0.34	Air Flow [m <sup>3</sup> /s]	0.172
Maximum Motor Input Watt	117	Insulation Class	F
Capacitor $\mu$ F	4.6	Protection $\triangle$	IP 44/54
Ambient Temp. $t_r$ : -20°C - +60°C		Weight, kg $\blacksquare$	4.6
Performance Curve D			

### Performance Curve



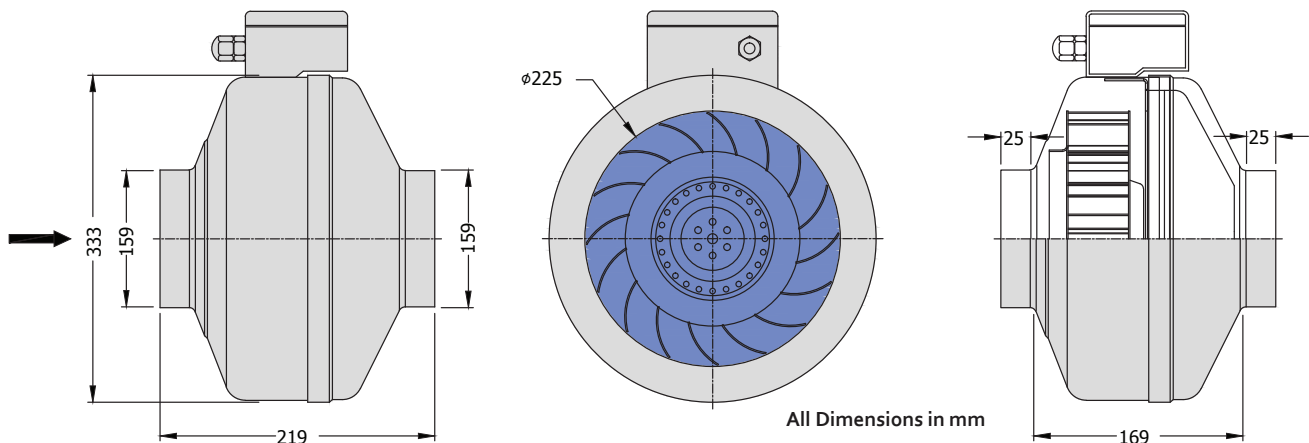
"Model TIF 06 LS are not certified by AMCA international"

"Performance ratings do not include the effects of appurtenances(accessories).Speed (RPM) shows is nominal. Performance is based on actual speed of test. Performance certified is for installation type D: Ducted inlet, Ducted outlet. \*Value shows 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 shows are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA international Standard 301."

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings

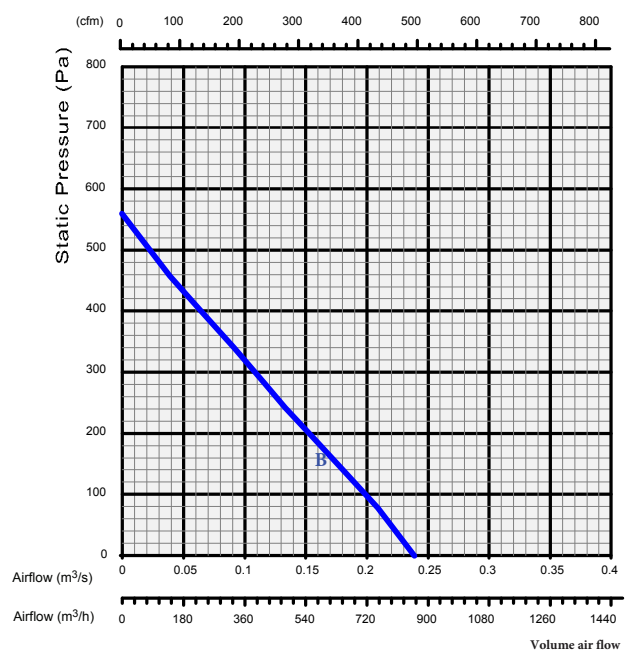
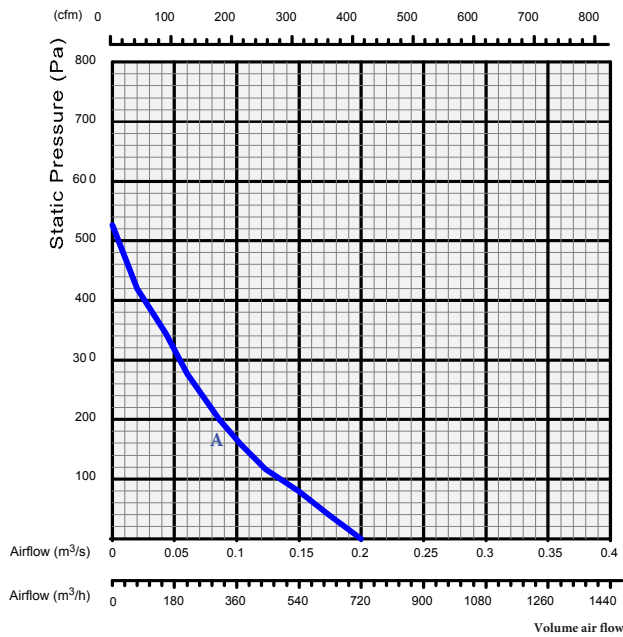


### Technical Data

Type: TIF 08 LF			
Voltage, V/Hz	230/50	Speed, RPM	1859
Current, A	0.42	Air Flow [m <sup>3</sup> /s]	0.200
Maximum Motor Input Watt	105	Insulation Class	F
Capacitor μF	10	Protection	△ IP 44/54
Ambient Temp. t <sub>R</sub>	-20°C - +60°C	Weight, kg	■ 5.7
Performance Curve A			

Type: TIF 08 HF			
Voltage, V/Hz	230/50	Speed, RPM	2336
Current, A	0.57	Air Flow [m <sup>3</sup> /s]	0.246
Maximum Motor Input Watt	152	Insulation Class	F
Capacitor μF	4	Protection	△ IP 44/54
Ambient Temp. t <sub>R</sub>	-20°C - +60°C	Weight, kg	■ 5.7
Performance Curve B			

### Performance Curve

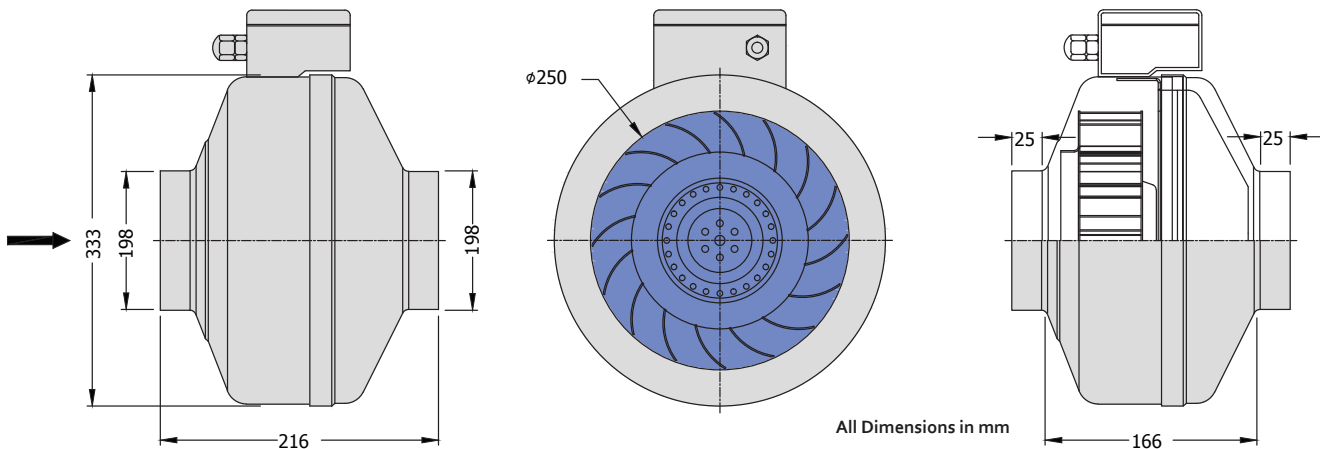


\*Performance ratings do not include the effects of appurtenances(accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for inlet Lwi sound power levels for installation type D- Ducted inlet, Ducted outlet. Value shown are for inlet Lwi sound 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<sup>-12</sup> watts calculated per AMCA international Standard 301.

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



### Technical Data

Type: TIF 08 LS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1940
Current, A	0.50	Air Flow [m <sup>3</sup> /s]	0.205
Maximum Motor Input Watt	112	Insulation Class	F
Capacitor μF	4	Protection	⚠ IP 44/54
Ambient Temp. t <sub>a</sub> :	-20°C - +60°C	Weight, kg	■ 5.7

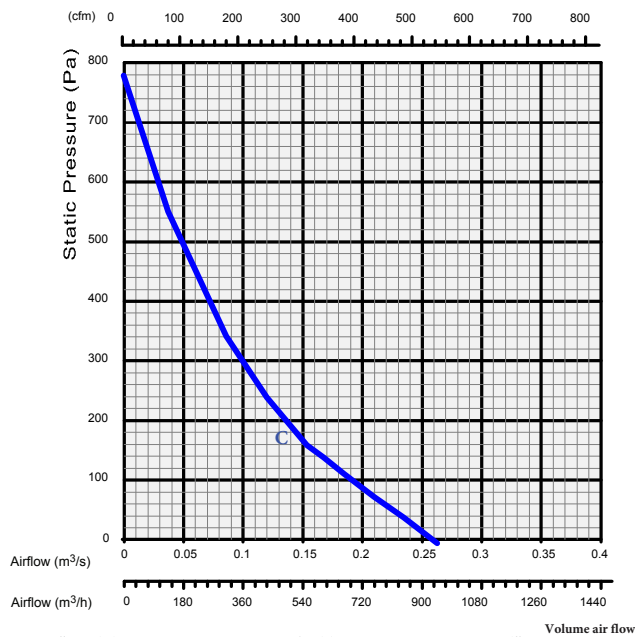
Performance Curve C

"Model TIF 08 LS are not certified by AMCA international"

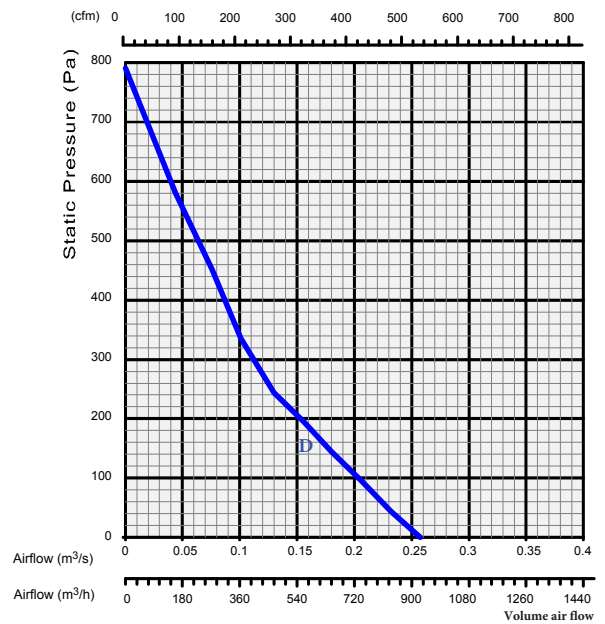
Type: TIF 08 HS			
Voltage, V/Hz	230/60	Speed, RPM	2287
Current, A	0.75	Air Flow [m <sup>3</sup> /s]	0.259
Maximum Motor Input Watt	192	Insulation Class	F
Capacitor μF	4	Protection	⚠ IP 44/54
Ambient Temp. t <sub>a</sub> :	-20°C - +60°C	Weight, kg	■ 5.7

Performance Curve D

### Performance Curve



"Model TIF 08 LS are not certified by AMCA international"

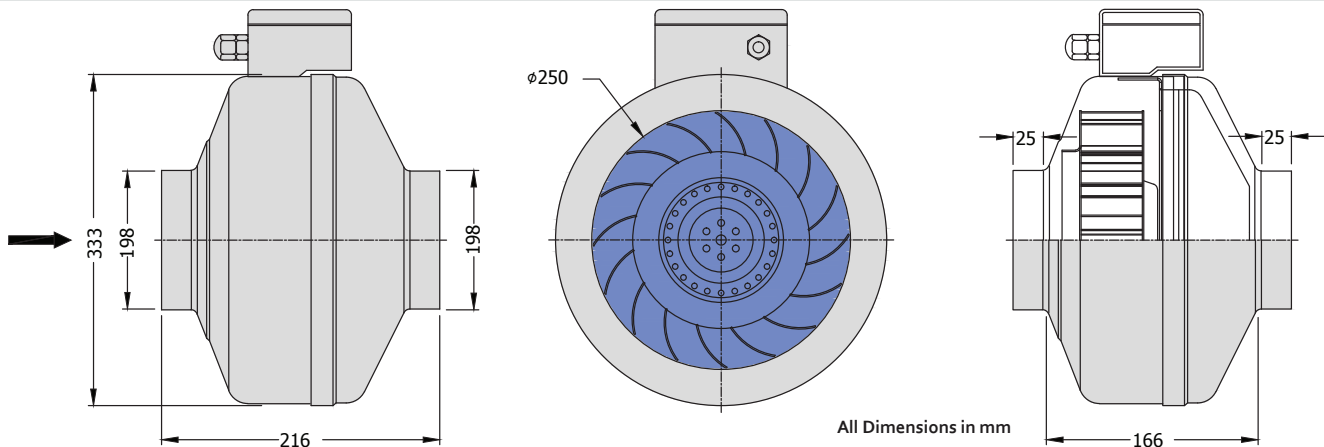


"Performance ratings do not include the effects of appurtenances(accessories).Speed (RPM) shows is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. \*Value shows are for inlet Lwi sound power levels for installation type D: ducted inlet, ducted outlet. Ratings include the effects of duct end correction. The sound power level ratings shows are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA international Standard 301."

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



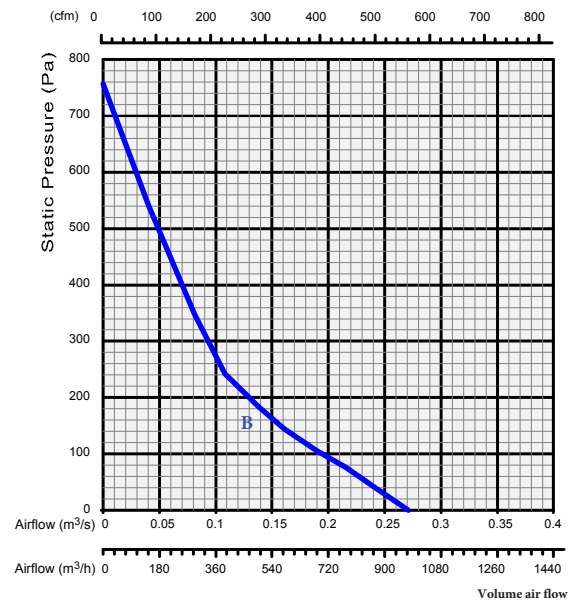
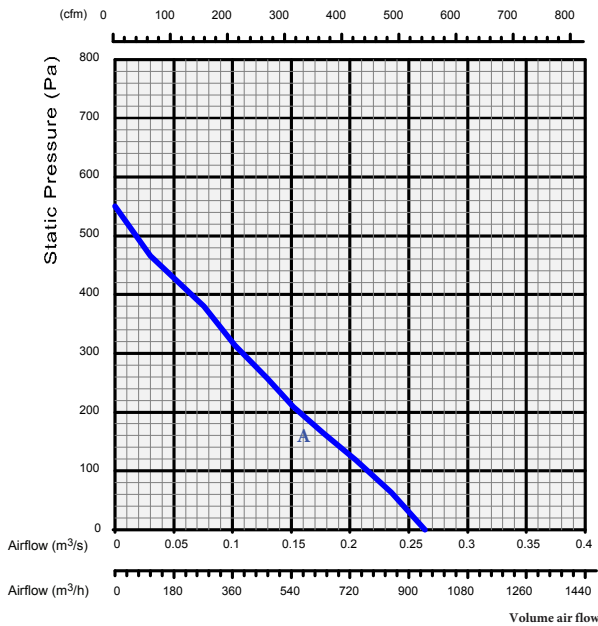
All Dimensions in mm

### Technical Data

Type: TIF 10 HF			
Voltage, V/Hz	230/50	Speed, RPM	2142
Current, A	0.62	Air Flow [m <sup>3</sup> /s]	0.263
Maximum Motor Input Watt	165	Insulation Class	F
Capacitor $\mu$ F	4	Protection	$\Delta$ IP 44/54
Ambient Temp. $t_r$ :	-20°C - +60°C	Weight, kg	$\blacksquare$ 5.7
Performance Curve A			

Type: TIF 10 HS			
Voltage, V/Hz	230/60	Speed, RPM	1921
Current, A	0.83	Air Flow [m <sup>3</sup> /s]	0.272
Maximum Motor Input Watt	204	Insulation Class	F
Capacitor $\mu$ F	4	Protection	$\Delta$ IP 44/54
Ambient Temp. $t_r$ :	-20°C - +60°C	Weight, kg	$\blacksquare$ 5.7
Performance Curve B			

### Performance Curve

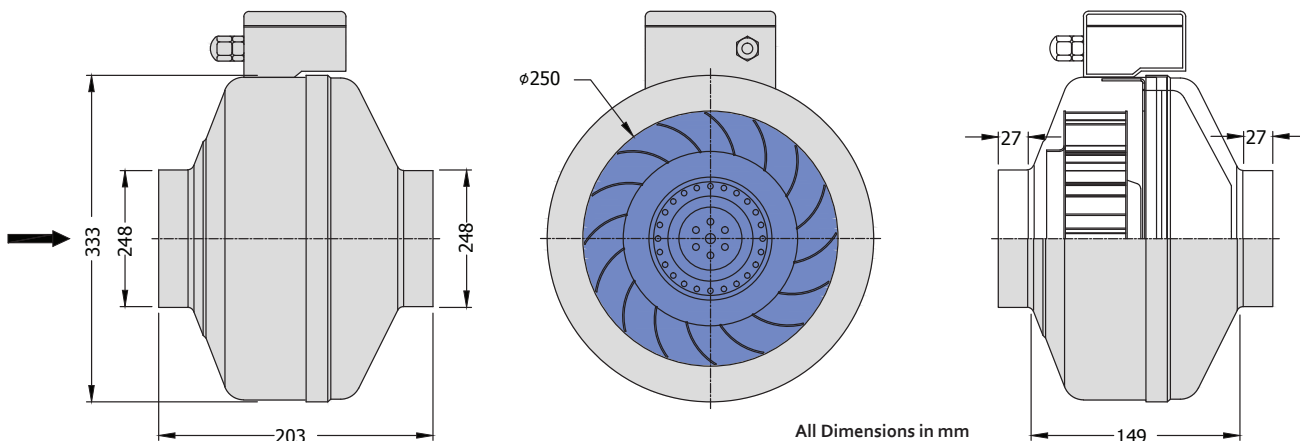


"Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. Value shown are for inlet Lwi sound power levels for installation 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<sup>-12</sup> watts calculated per AMCA international Standard 301.

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings





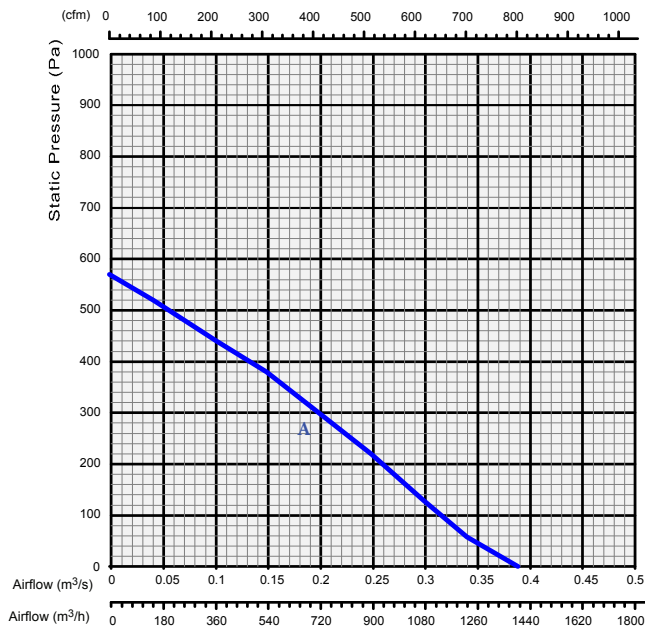
### Technical Data

Type: TIF 12 LF (Non-AMCA)			
Voltage, V/Hz	230/50	Speed, RPM	2120
Current, A	0.83	Air Flow [m³/s]	0.387
Maximum Motor Input Watt	160	Insulation Class	F
Capacitor Capacitor μF	16	Protection	△ IP 44/54
Ambient Temp. $t_a$ :	-20°C - +60°C	Weight, kg	6.6
Performance Curve A			

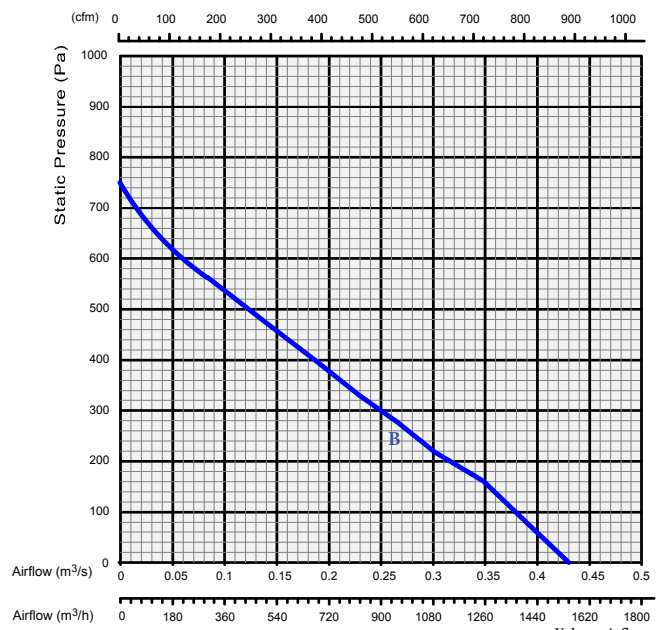
"Model TIF 12 LF are not certified by AMCA international"

Type: TIF 12 HF			
Voltage, V/Hz	230/50	Speed, RPM	2252
Current, A	1.04	Air Flow [m³/s]	0.432
Maximum Motor Input Watt	295	Insulation Class	F
Capacitor Capacitor μF	8	Protection	△ IP 44/54
Ambient Temp. $t_a$ :	-20°C - +60°C	Weight, kg	6.6
Performance Curve B			

### Performance Curve



"Model TIF 12 LF are not certified by AMCA international" Volume air flow

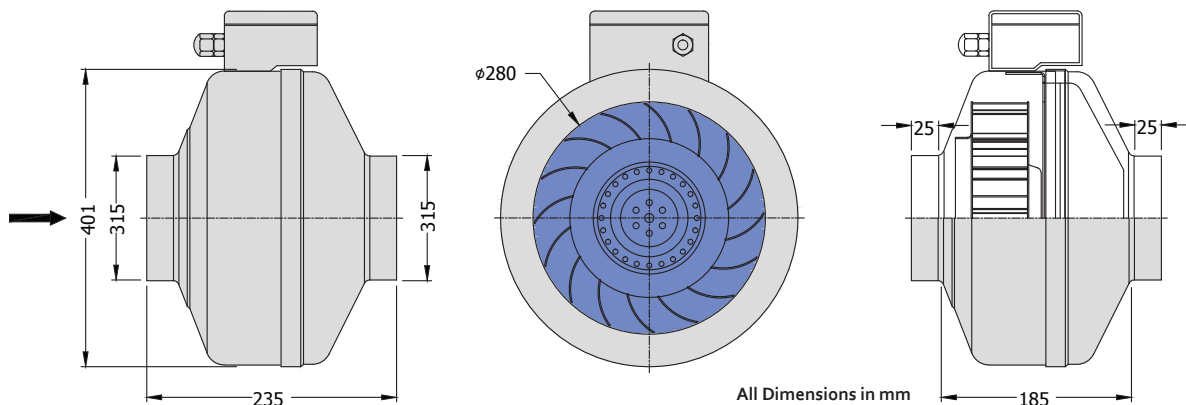


"Performance ratings do not include the effects of appurtenances(accessories).Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. Value shown are for inlet Lw sound power levels for installation type 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<sup>-12</sup> watts calculated per AMCA international Standard 301."

Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



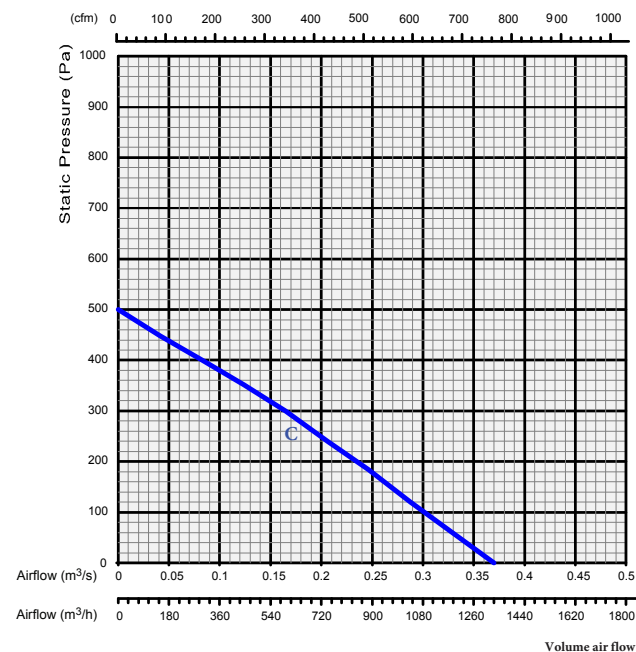
All Dimensions in mm

### Technical Data

Type: TIF 12 LS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1960
Current, A	0.83	Air Flow [m <sup>3</sup> /s]	0.379
Maximum Motor Input Watt	190	Insulation Class	F
Capacitor μF	8	Protection	⚠ IP 44/54
Ambient Temp. t <sub>r</sub>	-20°C - +60°C	Weight, kg	6.6

Performance Curve C  
"Model TIF 12 LS are not certified by AMCA international"

### Performance Curve

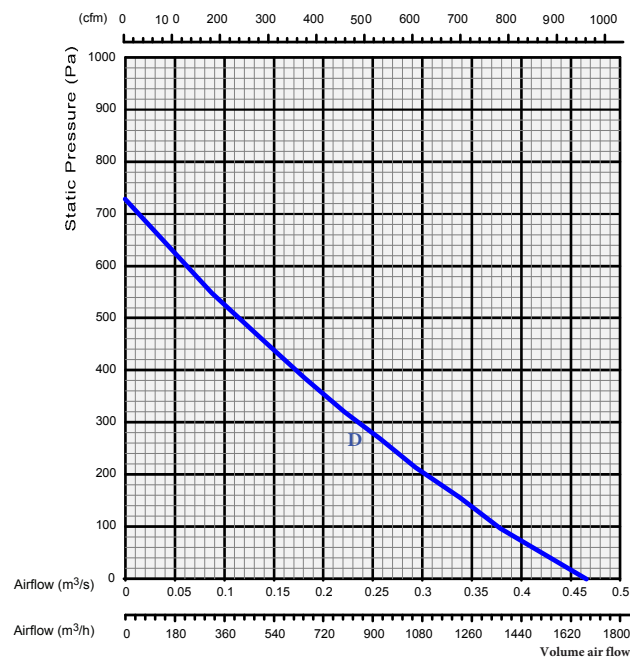


"Model TIF 12 LS are not certified by AMCA international"

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

Type: TIF 12 HS			
Voltage, V/Hz	230/60	Speed, RPM	2209
Current, A	1.40	Air Flow [m <sup>3</sup> /s]	0.470
Maximum Motor Input Watt	363	Insulation Class	F
Capacitor μF	8	Protection	⚠ IP 44/54
Ambient Temp. t <sub>r</sub>	-20°C - +60°C	Weight, kg	6.6

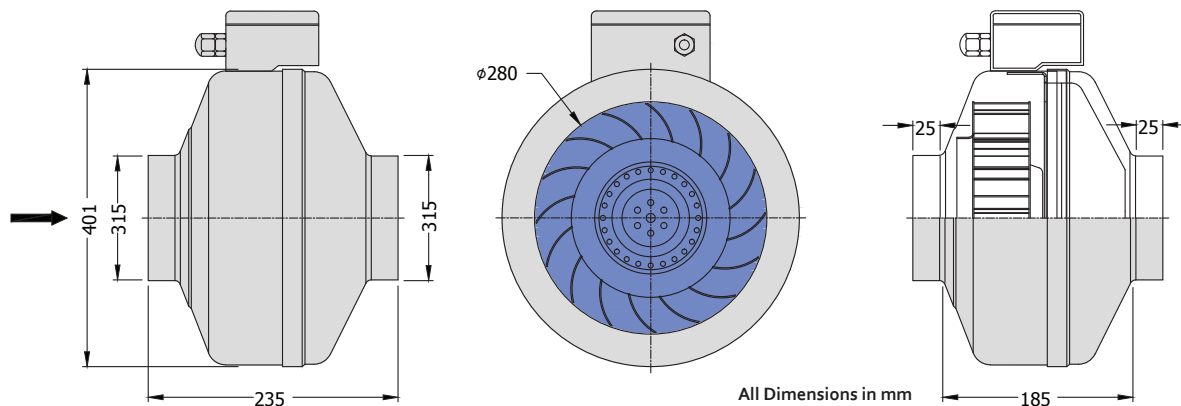
Performance Curve D



"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. Value 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<sup>-12</sup> watts calculated per AMCA international Standard 301."

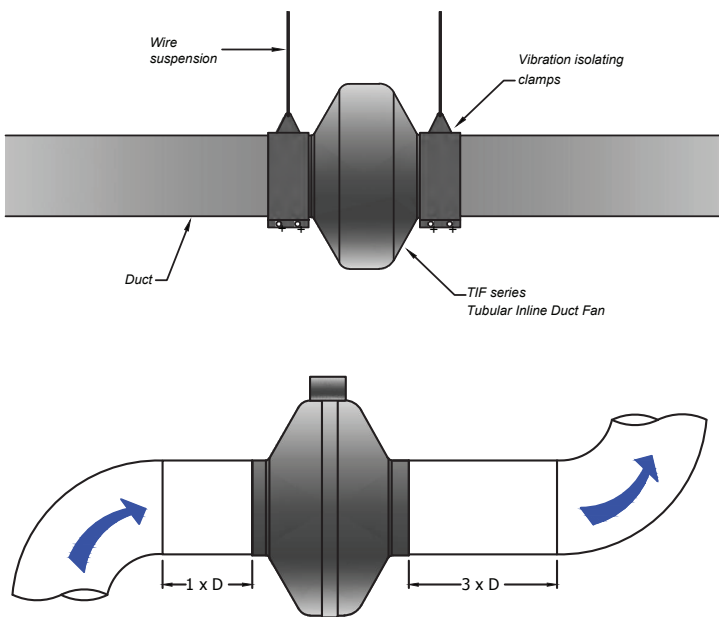
Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2729	0.470	0.00	86	87	77	79	74	70	67	69
2239	0.188	371	81	87	79	74	67	62	59	56

### Dimensional Drawings



## Applications

## Installation



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 1 x the duct diameter on the fan's inlet side and at least 3 x the duct diameter on the fan's outlet side.

(See figure 1.)

Figure 1: Correctly installed duct fan.

For a rectangular duct, the duct diameter is calculated as:  $D = \sqrt{\frac{4 \cdot H \cdot B}{\pi}}$

D = duct diameter

H = duct height

B = duct width

### TIF C Series



"Energy Industrial Company LLC certifies that the model TIF 05C to 12C HS, TIF 06C to TIF 08C LF & TIF 06C to 12C 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 AMCA publication 311 and comply with the requirements of the AMCA Certified Ratings Program"

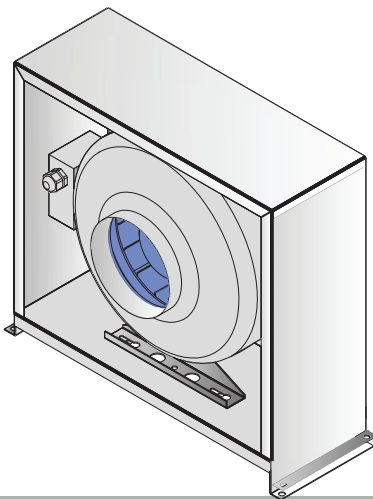
"Energy Industrial Company LLC certifies that the model TIF 04C to 05C LF, TIF 04C to 05C HF and TIF 04C HS shown herein are licensed to bear the AMCA Seal. The rating shown are based on tests and procedures performed in accordance with AMCA publication 211 and comply with the requirements of the AMCA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

#### Fan Performance Curves

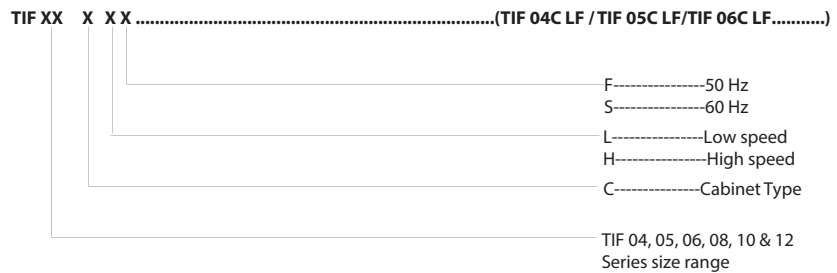
The fan performance curves are plotted as per the test method AMCA Standard 210-07, Figure 12 setup, installation Type D. The fan curves show the range of capacities available for direct drive units. Each graph shows the performance of several models at one particular nominal speed. Fan curves provide a quick method for selecting a fan unit based on design point requirements.

#### Sound Levels

The sound levels are tested Method per AMCA Standard 300-08, Figure 2 Setup, Installation Type D. The sound ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301. Value shown are for inlet (LWi) sound power level for installation type D; Ducted inlet, Ducted outlet. Performance ratings do not include the effect of appurtenances in the airstream.



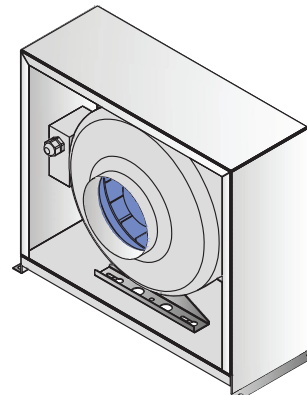
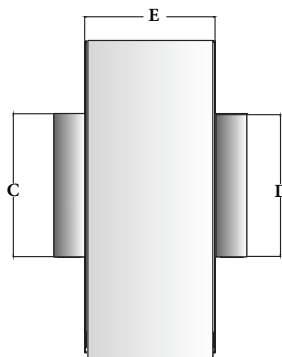
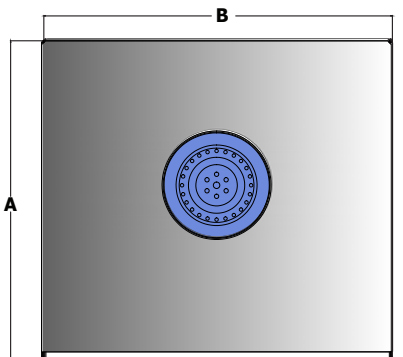
#### Model Number Code:



#### Overall Size

Model No.	A	B	C	D	E
TIF 04C	350	430	97	97	165
TIF 05C	350	430	125	125	155
TIF 06C	440	520	159	159	178
TIF 08C	440	520	198	198	178
TIF 10C	440	520	248	248	160
TIF 12C	510	590	315	315	195

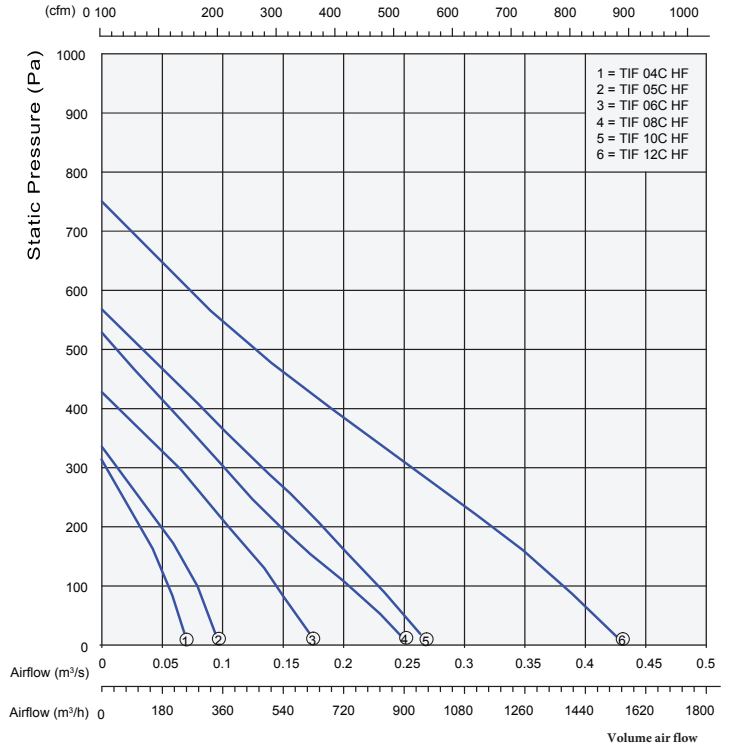
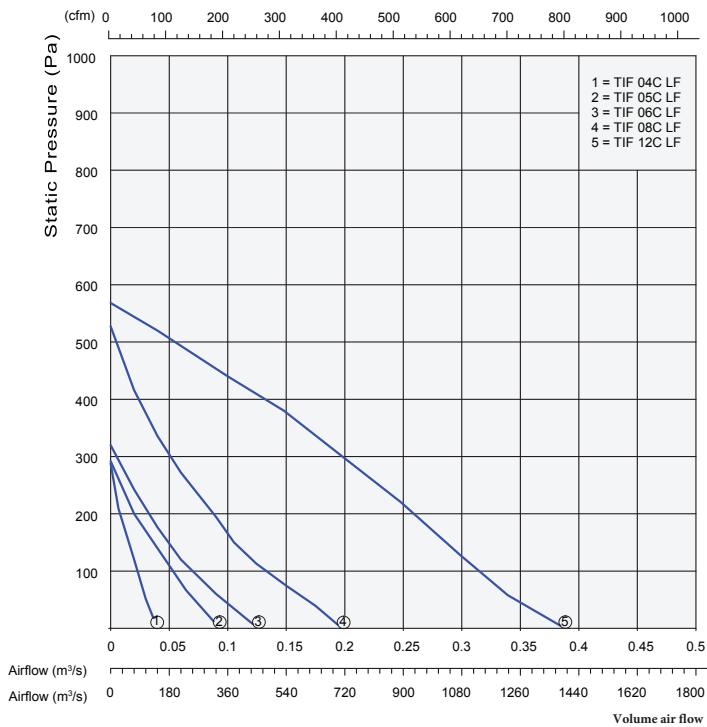
All Dimensions in mm



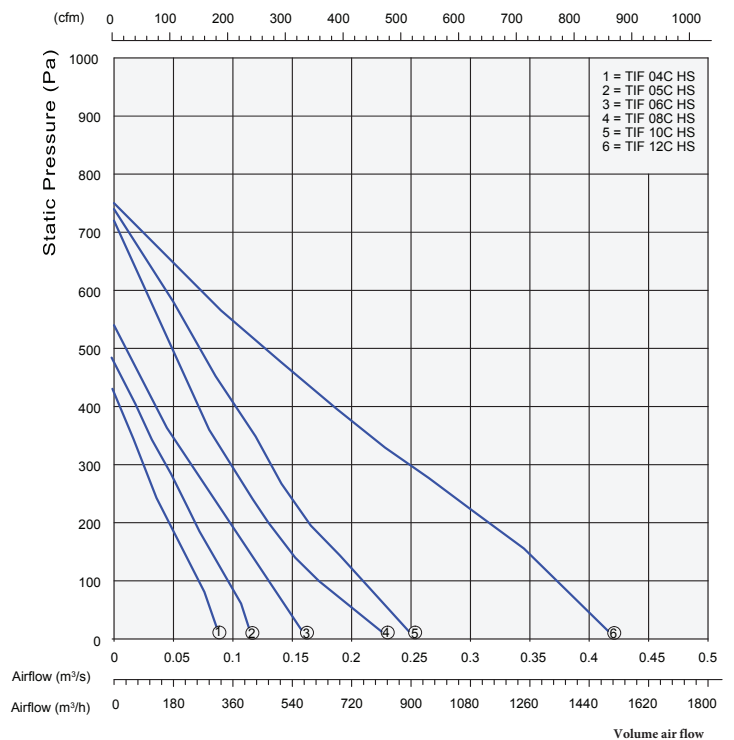
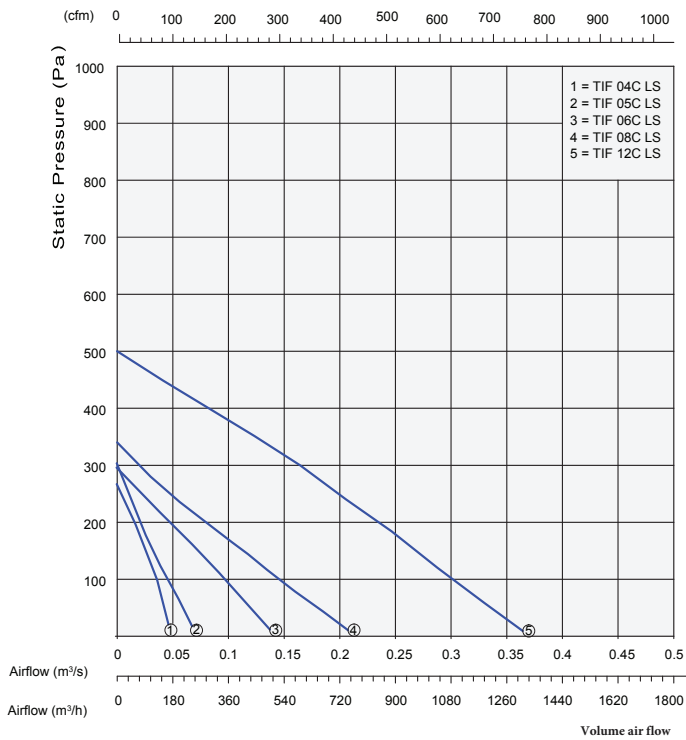
# TIF C SERIES

## TIF Series Centrifugal Inline Fans

### Quick selection-50 Hz







### Quick selection-60 Hz



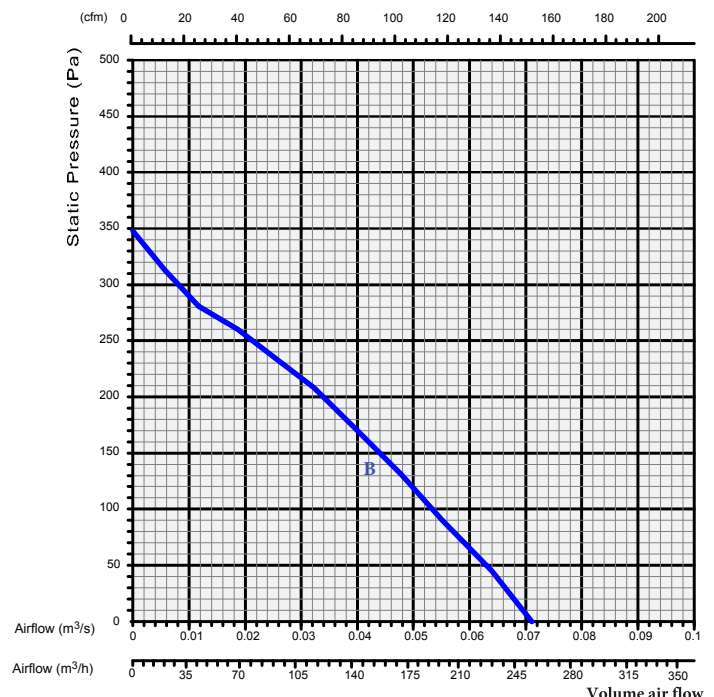
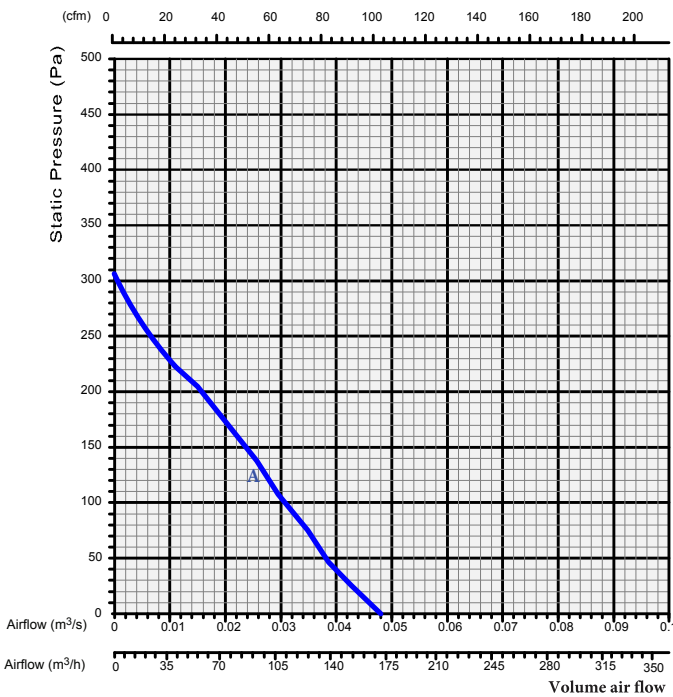
"Model TIF 12C LF, TIF 04C to 12C LS are not certified by AMCA international."

### Technical Data

Type: TIF 04 C LF			
Voltage, V/Hz	230/50	Speed, RPM	1915
Current, A	0.14	Air Flow [m <sup>3</sup> /s]	0.048
Maximum Motor input Watt	34	Insulation Class	F
Capacitor $\mu$ F	2	Protection	 IP 44/54
Ambient Temp. $t_R$	-20°C - +60°C	Weight, kg	 3.5
Performance Curve A			

Type: TIF 04 C HF			
Voltage, V/Hz	230/50	Speed, RPM	2478
Current, A	0.28	Air Flow [m <sup>3</sup> /s]	0.071
Maximum Motor input Watt	66	Insulation Class	F
Capacitor $\mu$ F	2	Protection	 IP 44/54
Ambient Temp. $t_R$	-20°C - +60°C	Weight, kg	 3.5
Performance Curve B			

### Performance Curve

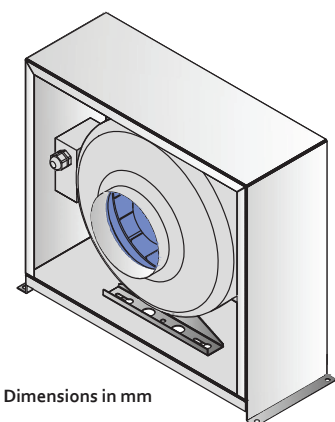
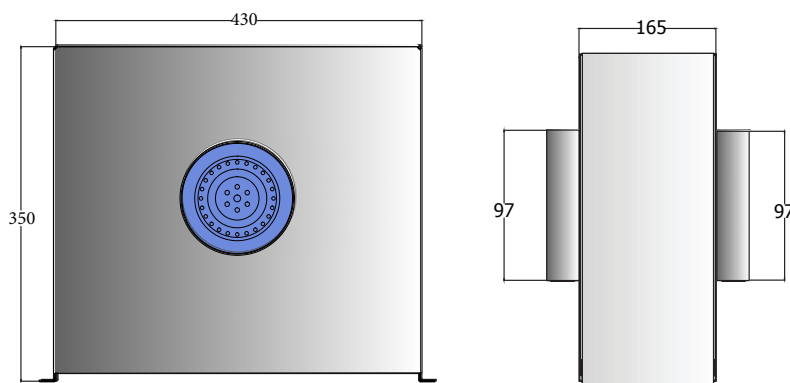


\*Performance ratings do not include the effects of appurtenances(accessories).Speed (RPM) showsis nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. The AMCA Certified Ratings Seal applies to air performance ratings only\*

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2261	0.071	0.00	68	73	65	61	55	54	49	43
2796	0.012	274	70	73	67	63	57	57	51	45

### Dimensional Drawings



All Dimensions in mm

# TIF 04C

## TIF Series Centrifugal Inline Fans

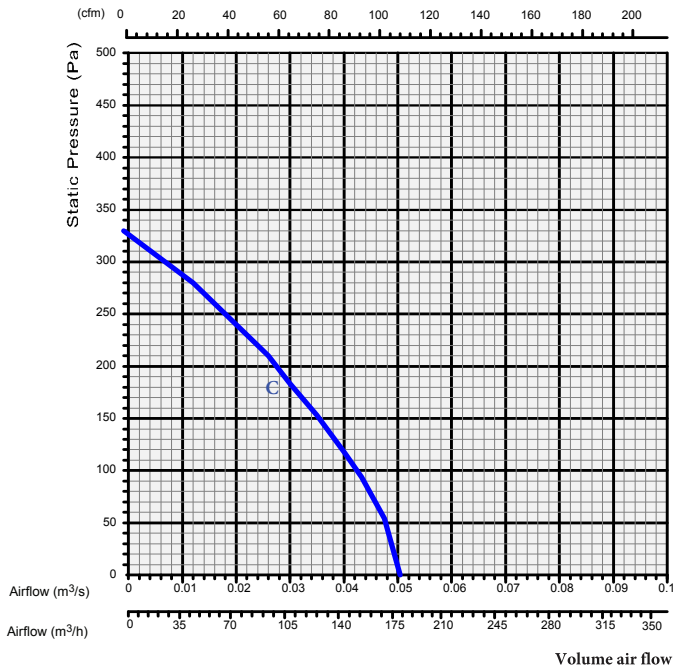
### Technical Data

Type: TIF 04 C LS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM air	1470
Current, A	0.15	Flow [m <sup>3</sup> /s]	0.049
Maximum Motor input Watt	35	Insulation Class	F
Capacitor $\mu$ F	2	Protection	IP 44/54
Ambient Temp. $t_r$ :	-20°C - +60°C	Weight, kg	3.5
Performance Curve C			

"Model TIF 04C LS are not certified by AMCA international"

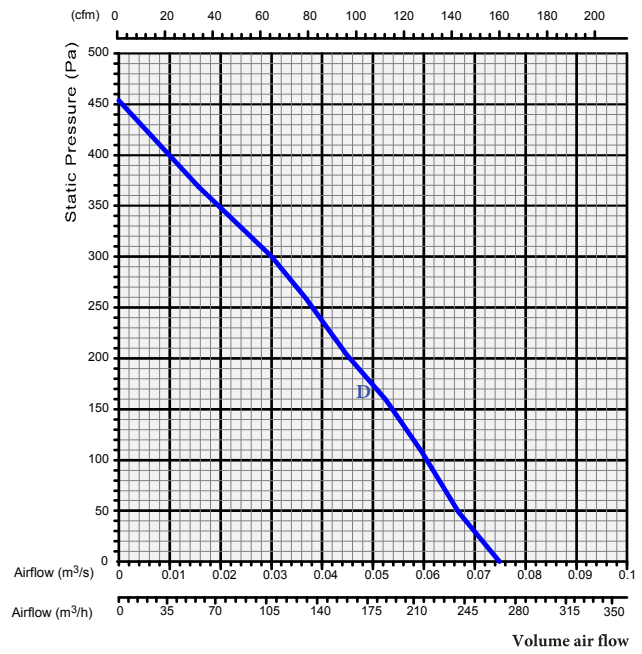
Type: TIF 04 C HS			
Voltage, V/Hz	230/60	Speed, RPM air	2767
Current, A	0.34	Flow [m <sup>3</sup> /s]	0.075
Maximum Motor input Watt	82	Insulation Class	F
Capacitor $\mu$ F	2	Protection	IP 44/54
Ambient Temp. $t_r$ :	-20°C - +60°C	Weight, kg	3.5
Performance Curve D			

### Performance Curve



"Model TIF 04C LS are not certified by AMCA international"

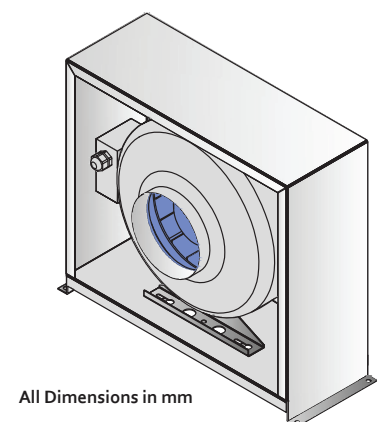
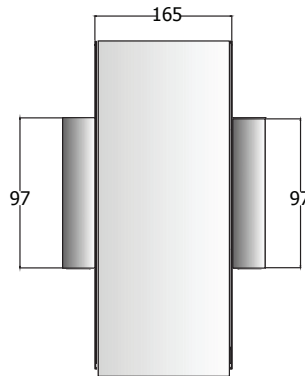
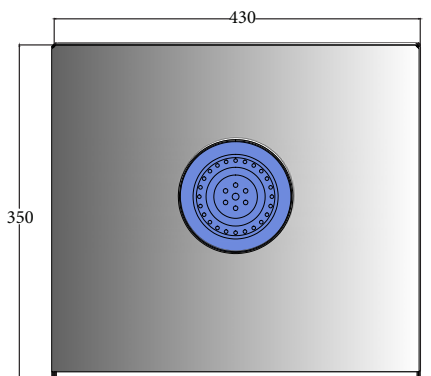
Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2170	0.049	0.00	68	72	68	61	55	52	51	42
2239	0.014	306	71	74	69	63	58	55	56	45



"Performance ratings do not include the effects of appurtenances(accessories).Speed (RPM) shows nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. The AMCA Certified Ratings Seal applies to air performance ratings only"



Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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



### Dimensional Drawings



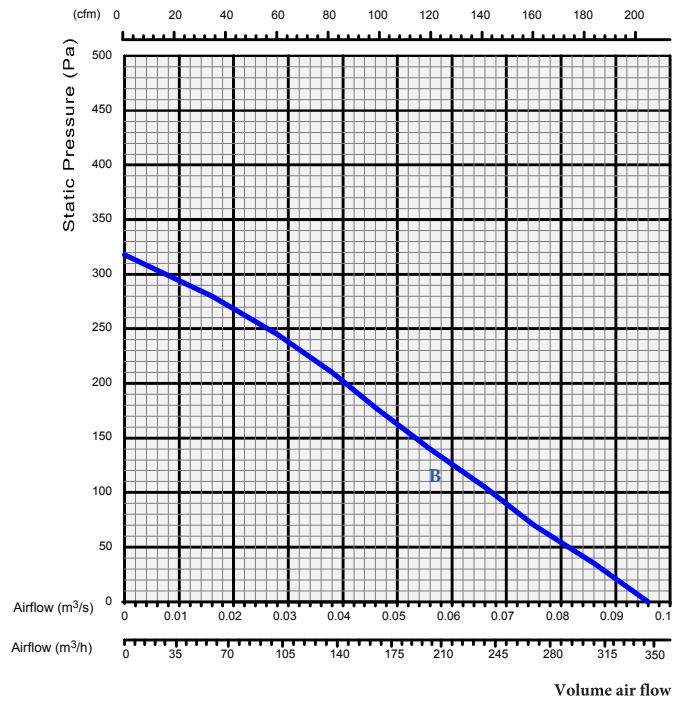
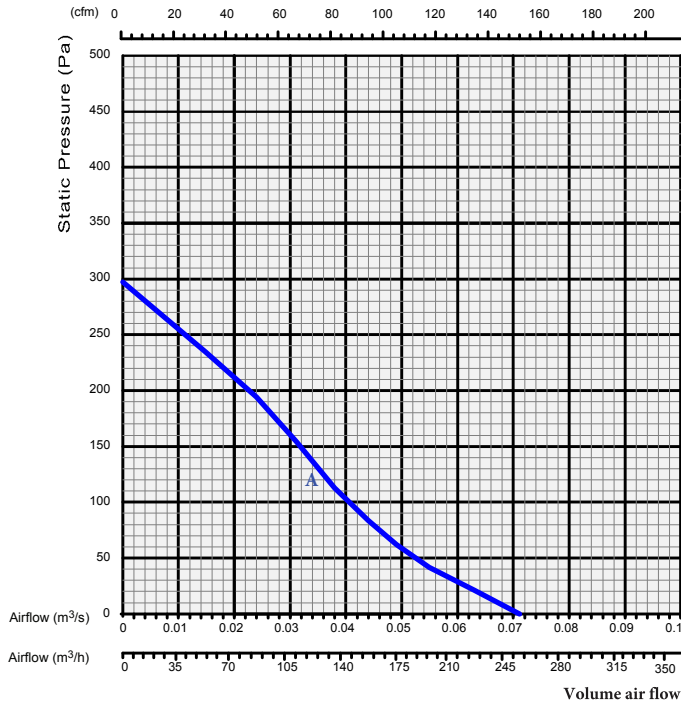
All Dimensions in mm

### Technical Data

Type: TIF 05 C LF			
Voltage, V/Hz	230/50	Speed, RPM	1780
Current, A	0.16	Air Flow [m³/s]	0.071
Maximum Motor input Watt	39	Insulation Class	F
Capacitor $\mu$ F	2	Protection 	IP 44/54
Ambient Temp. $t_r$ :	-20°C - +60°C	Weight, kg 	3.5
Performance Curve A			

Type: TIF 05 C HF			
Voltage, V/Hz	230/50	Speed, RPM	2378
Current, A	0.29	Air Flow [m³/s]	0.096
Maximum Motor input Watt	69	Insulation Class	F
Capacitor $\mu$ F:	2	Protection 	IP 44/54
Ambient Temp. $t_r$ :	-20°C - +60°C	Weight, kg 	3.5
Performance Curve B			

### Performance Curve

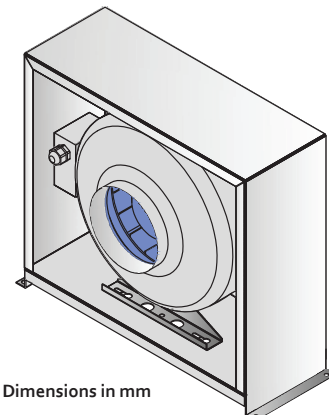
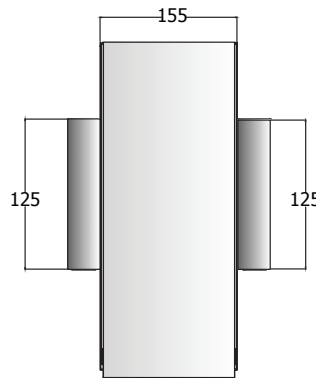
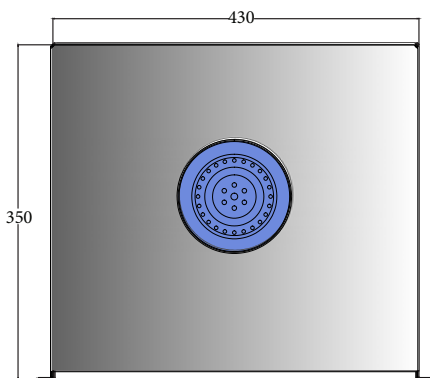


\*Performance ratings do not include the effects of appurtenances(accessories). Speed (RPM) shows nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. The AMCA Certified Ratings Seal applies to air performance ratings only\*

Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



All Dimensions in mm

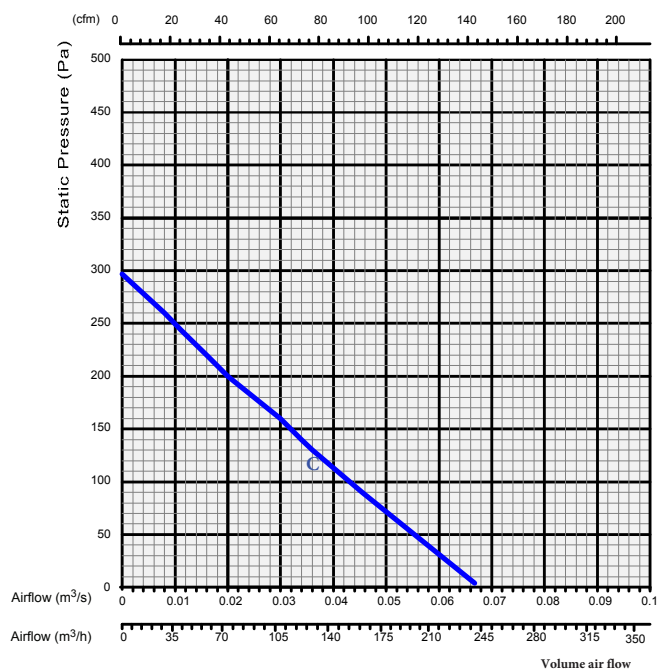


### Technical Data

Type: TIF 05 C LS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1530
Current, A	0.15	Air Flow [m³/s]	0.067
Maximum Motor input Watt	41	Insulation Class	F
Capacitor μF :	2	Protection	⚠ IP 44/54
Ambient Temp. t <sub>a</sub> :	-20°C - +60°C	Weight, kg	⚠ 3.5
Performance Curve C			

"Model TIF 05C LS are not certified by AMCA international"

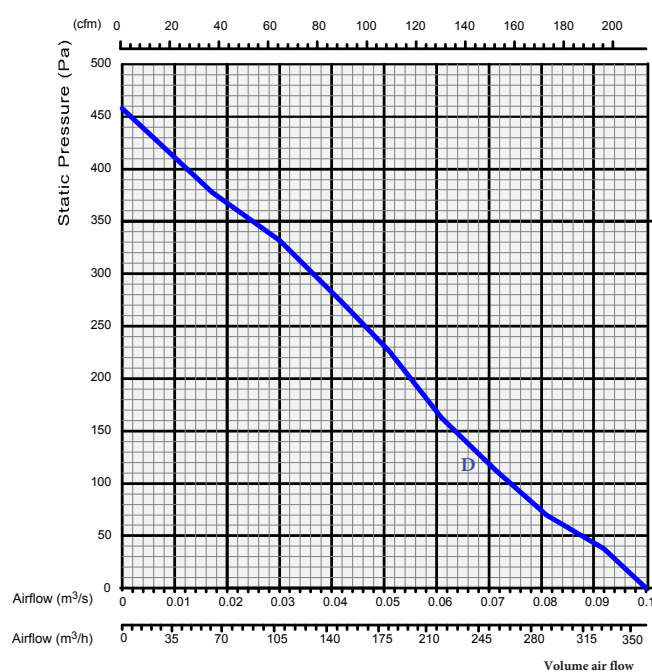
### Performance Curve



"Model TIF 05C LS are not certified by AMCA international"

Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

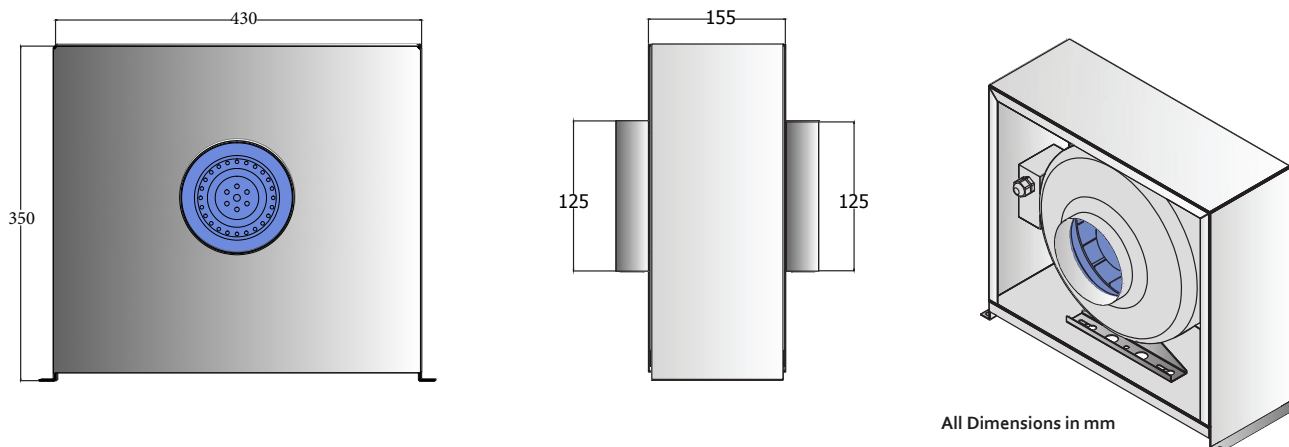
Type: TIF 05 C HS			
Voltage, V/Hz	230/60	Speed, RPM	2535
Current, A	0.35	Air Flow [m³/s]	0.102
Maximum Motor input Watt	85	Insulation Class	F
Capacitor μF :	2	Protection	⚠ IP 44/54
Ambient Temp. t <sub>a</sub> :	-20°C - +60°C	Weight, kg	⚠ 3.5
Performance Curve D			



"Performance ratings do not include the effects of appurtenances(accessories).Speed (RPM) shows is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. \*Value shows 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 shows are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA international Standard 301."

Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



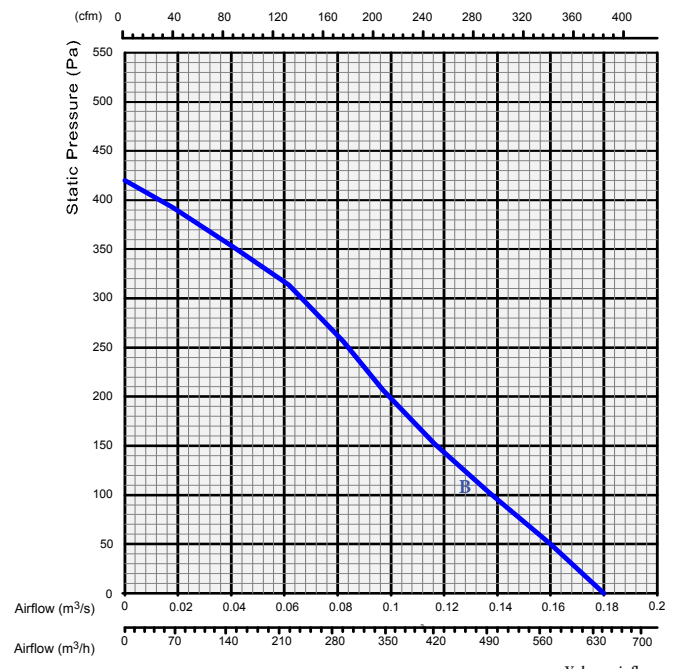
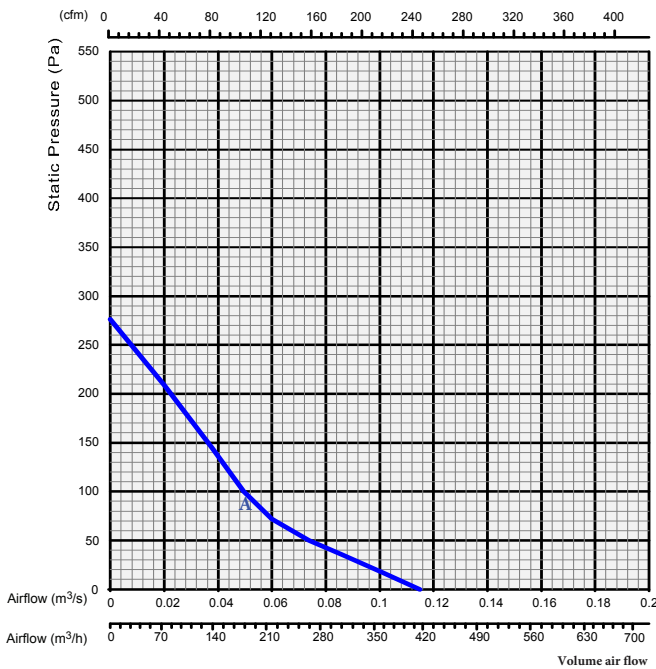
All Dimensions in mm

### Technical Data

Type: TIF 06 C LF			
Voltage, V/Hz	230/50	Speed, RPM	1369
Current, A	0.29	Air Flow [m³/s]	0.115
Maximum Motor input Watt	69	Insulation Class	F
Capacitor $\mu\text{F}$	3	Protection	$\triangle$ IP 44/54
Ambient Temp. $t_a$ : -20°C - +60°C		Weight, kg	$\blacksquare$ 4.6
Performance Curve A			

Type: TIF 06 C HF			
Voltage, V/Hz	230/50	Speed, RPM	2318
Current, A	0.39	Air Flow [m³/s]	0.180
Maximum Motor input Watt	100	Insulation Class	F
Capacitor $\mu\text{F}$	3	Protection	$\triangle$ IP 44/54
Ambient Temp. $t_a$ : -20°C - +60°C		Weight, kg	$\blacksquare$ 4.6
Performance Curve B			

### Performance Curve

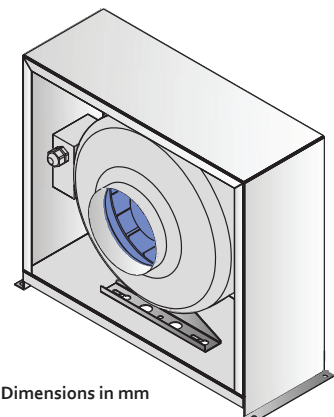
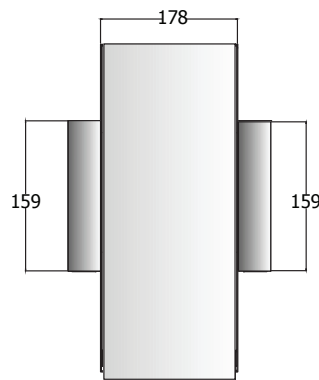
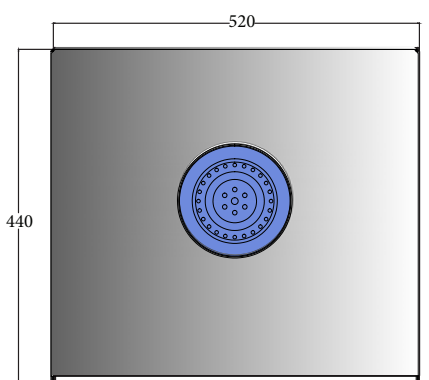


\*Performance ratings do not include the effects of appurtenances(accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. Value shown are for inlet Lwi sound power levels for installation 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<sup>-12</sup> watts calculated per AMCA international Standard 301.

Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	38

Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	K	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

### Dimensional Drawings



All Dimensions in mm

### Technical Data

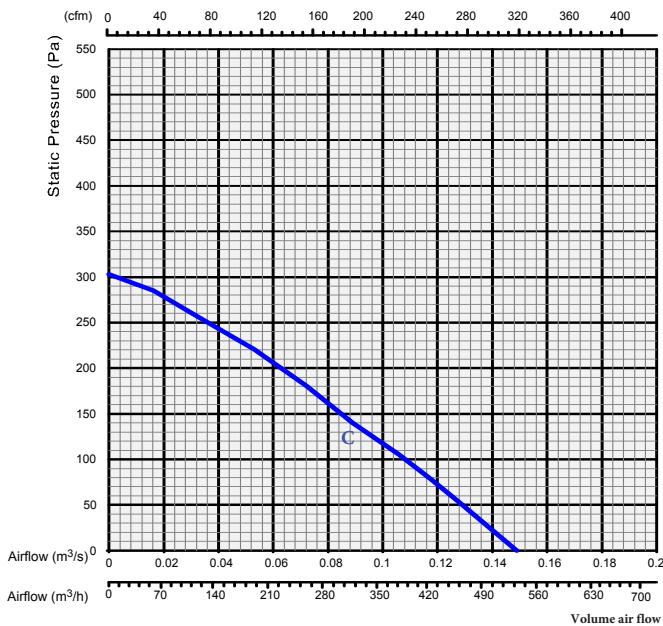
Type: TIF 06 C LS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1470
Current, A	0.29	Air Flow [m <sup>3</sup> /s]	0.148
Maximum Motor Input Watt	65	Insulation Class	F
Capacitor $\mu$ F	3	Protection $\triangle$	IP 44/54
Ambient Temp. $R^{\circ}$	-20 $^{\circ}$ C - +60 $^{\circ}$ C	Weight, kg $\blacksquare$	4.6

"Model TIF 06 LS are not certified by AMCA international"

Type: TIF 06 C HS			
Voltage, V/Hz	230/60	Speed, RPM	2265
Current, A	0.34	Air Flow [m <sup>3</sup> /s]	0.172
Maximum Motor Input Watt	117	Insulation Class	F
Capacitor $\mu$ F	4.6	Protection $\triangle$	IP 44/54
Ambient Temp. $R^{\circ}$	-20 $^{\circ}$ C - +60 $^{\circ}$ C	Weight, kg $\blacksquare$	4.6

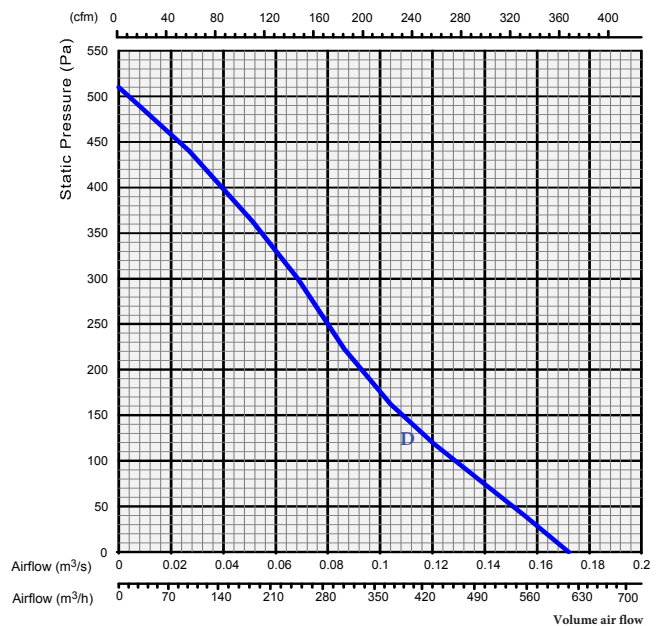
Performance Curve D

### Performance Curve



"Model TIF 06C LS are not certified by AMCA international"

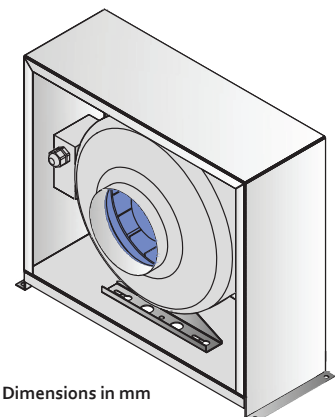
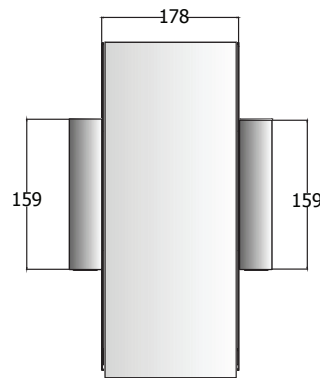
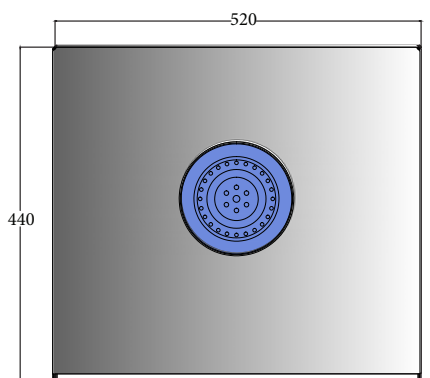
Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
1470	0.148	0.00	81	81	78	77	71	67	64	58
1498	0.078	300	80	82	69	62	58	55	56	46



"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. "Value 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<sup>-12</sup> watts calculated per AMCA international Standard 301."

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



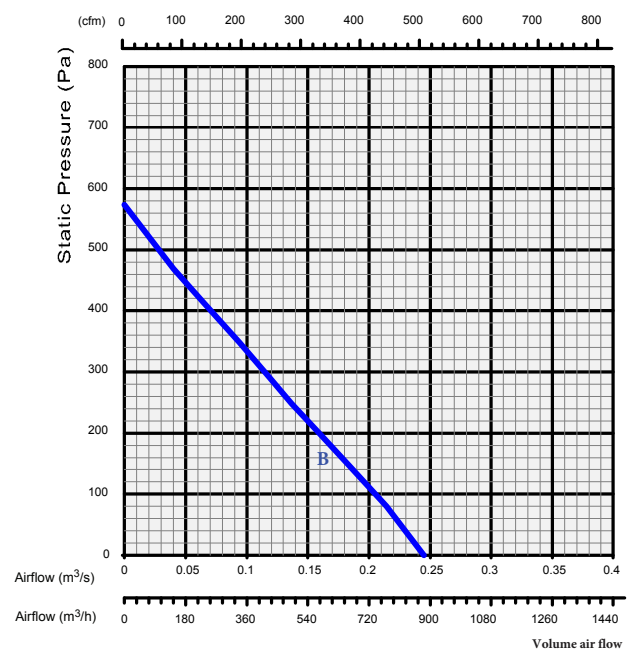
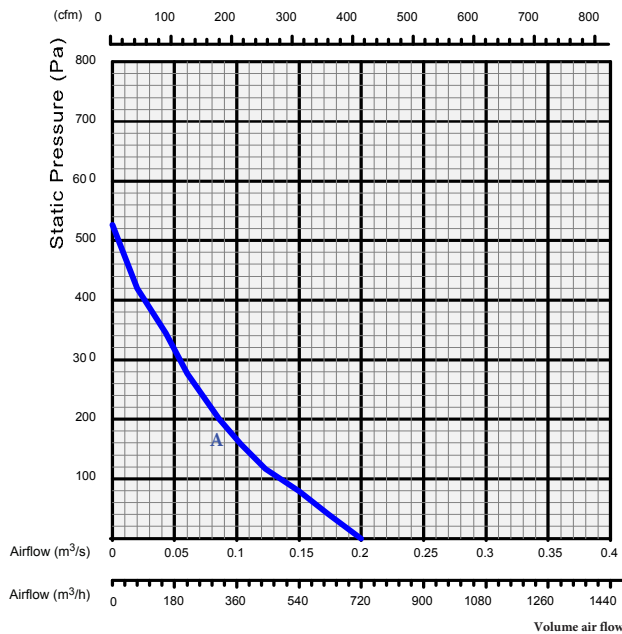
All Dimensions in mm

### Technical Data

Type: TIF 08 C LF			
Voltage, V/Hz	230/50	Speed, RPM	1859
Current, A	0.42	Air Flow [m <sup>3</sup> /s]	0.200
Maximum Motor Input Watt	105	Insulation Class	F
Capacitor μF	10	Protection	IP 44/54
Ambient Temp. t <sub>R</sub>	-20°C - +60°C	Weight, kg	5.7
Performance Curve A			

Type: TIF 08 C HF			
Voltage, V/Hz	230/50	Speed, RPM	2336
Current, A	0.57	Air Flow [m <sup>3</sup> /s]	0.246
Maximum Motor Input Watt	152	Insulation Class	F
Capacitor μF	4	Protection	IP 44/54
Ambient Temp. t <sub>R</sub>	-20°C - +60°C	Weight, kg	5.7
Performance Curve B			

### Performance Curve

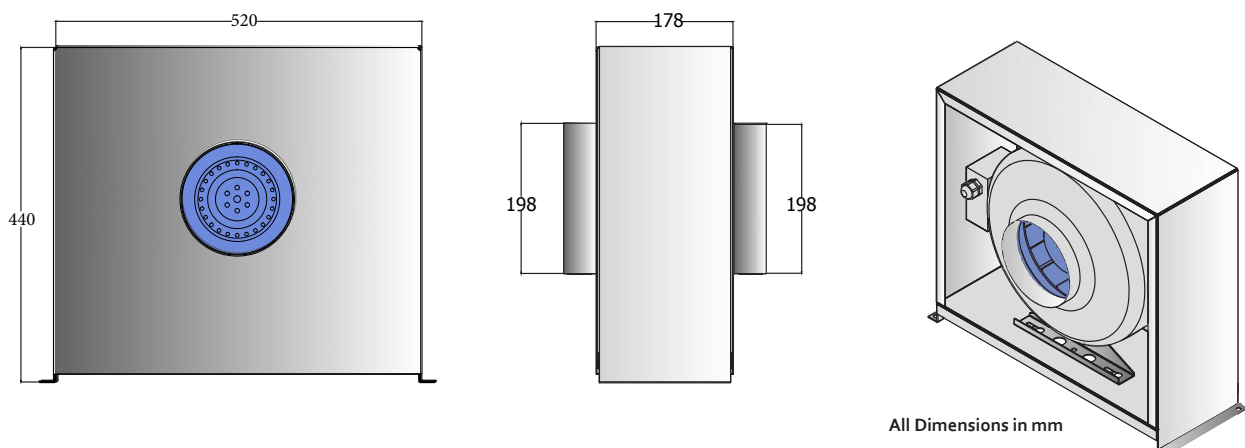


\*Performance ratings do not include the effects of appurtenances(accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. Value shown are for inlet Lwi sound power levels for installation 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<sup>-12</sup> watts calculated per AMCA international Standard 301.

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



All Dimensions in mm

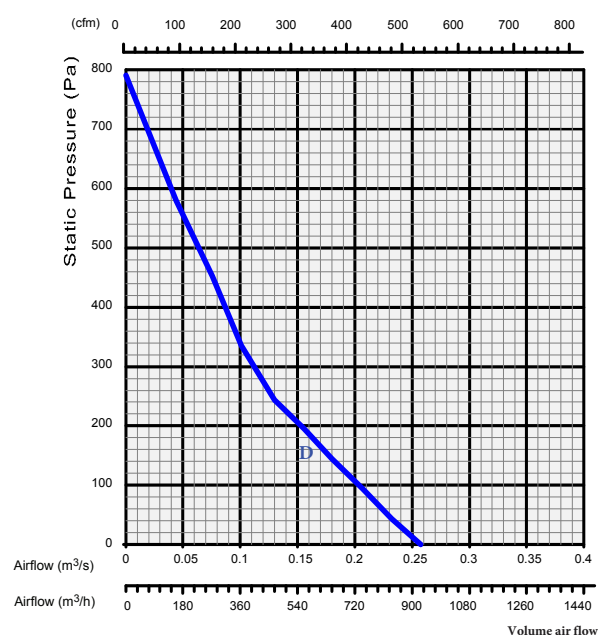
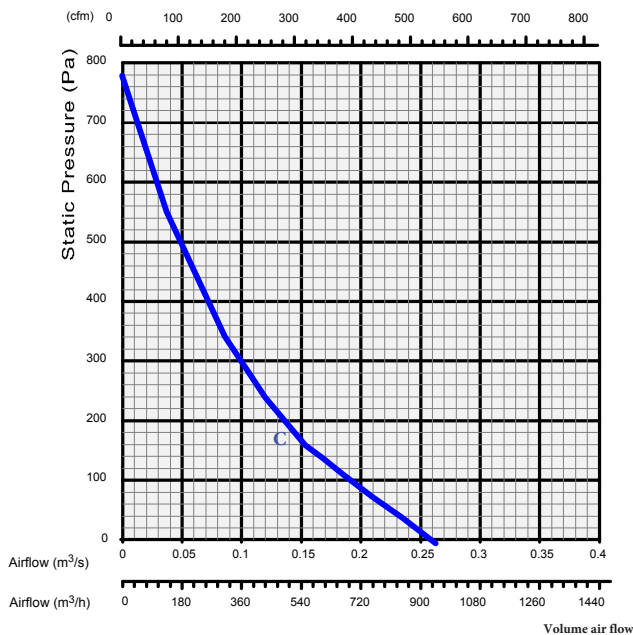
### Technical Data

Type: TIF 08 C LS ( Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1940
Current, A	0.50	Air Flow [m <sup>3</sup> /s]	0.205
Maximum Motor Input Watt	112	Insulation Class	F
Capacitor μF	4	Protection	△ IP 44/54
Ambient Temp. t <sub>a</sub>	-20°C - +60°C	Weight, kg	■ 5.7
Performance Curve C			

"Model TIF 08 LS are not certified by AMCA international"

Type: TIF 08 C HS			
Voltage, V/Hz	230/60	Speed, RPM	2287
Current, A	0.75	Air Flow [m <sup>3</sup> /s]	0.259
Maximum Motor Input Watt	192	Insulation Class	F
Capacitor μF	4	Protection	△ IP 44/54
Ambient Temp. t <sub>a</sub>	-20°C - +60°C	Weight, kg	■ 5.7
Performance Curve D			

### Performance Curve



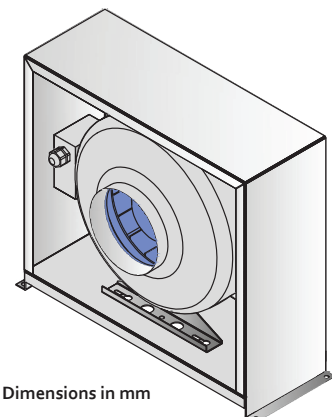
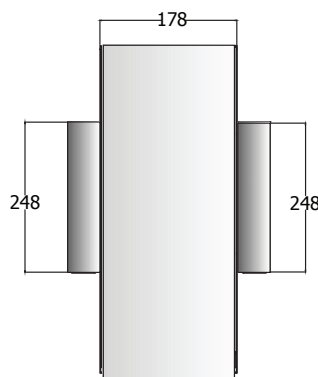
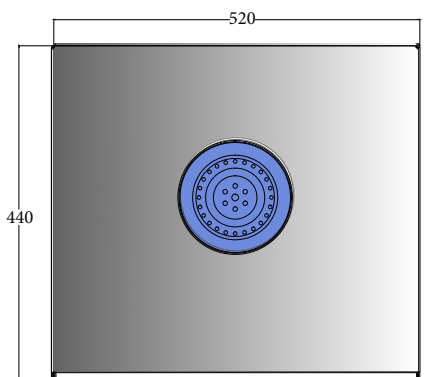
"Model TIF 08 C LS are not certified by AMCA international"

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

"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. "Value shows 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<sup>-12</sup> watts calculated per AMCA international Standard 301."

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



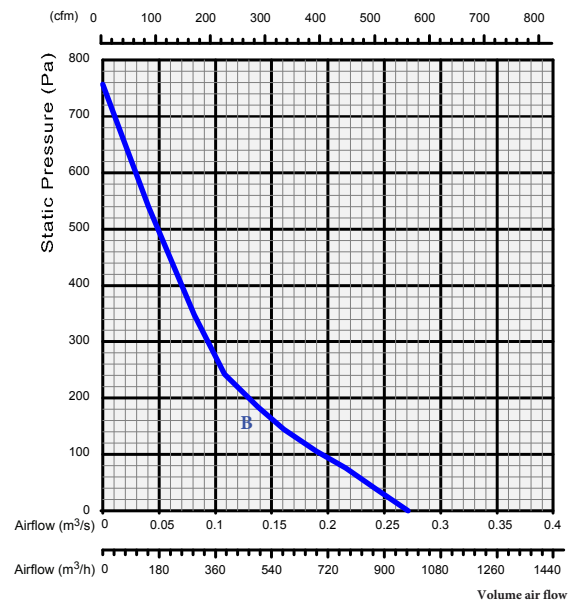
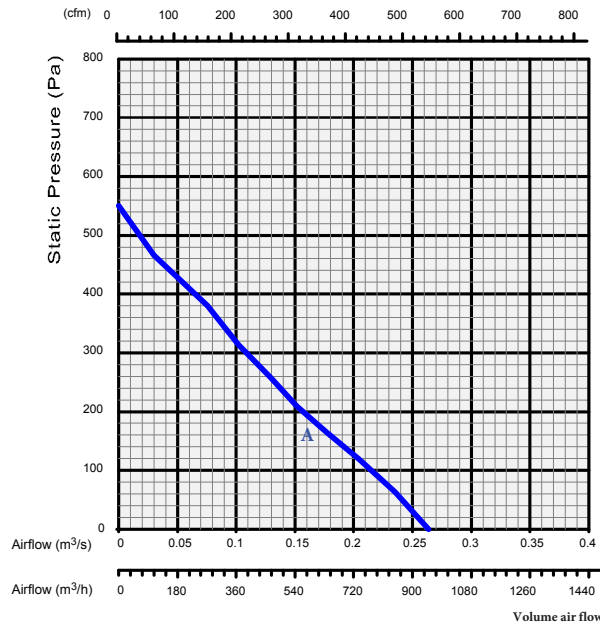
All Dimensions in mm

### Technical Data

Type: TIF 10 C HF			
Voltage, V/Hz	230/50	Speed, RPM	2142
Current, A	0.62	Air Flow [m³/s]	0.263
Maximum Motor Input Watt	165	Insulation Class	F
Capacitor μF	4	Protection	IP 44/54
Ambient Temp. °C	-20°C - +60°C	Weight, kg	5.7
Performance Curve A			

Type: TIF 10 C HS			
Voltage, V/Hz	230/60	Speed, RPM	1921
Current, A	0.83	Air Flow [m³/s]	0.272
Maximum Motor Input Watt	204	Insulation Class	F
Capacitor μF	4	Protection	IP 44/54
Ambient Temp. °C	-20°C - +60°C	Weight, kg	5.7
Performance Curve B			

### Performance Curve

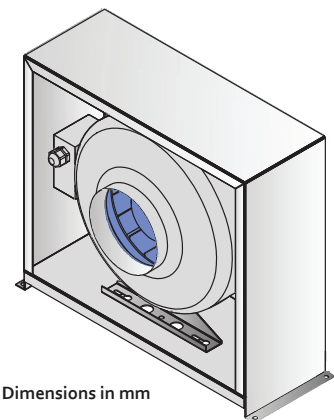
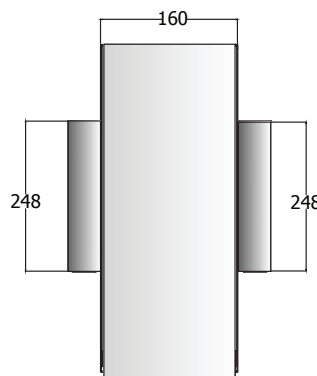
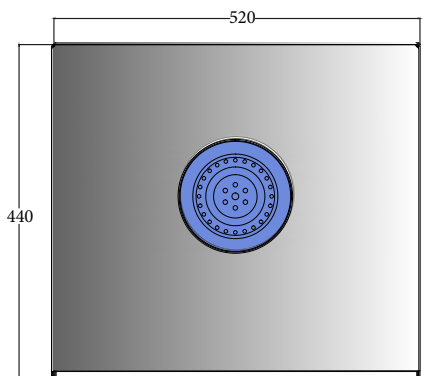


\*Performance ratings do not include the effects of appurtenances(accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. Value shown are for inlet Lwi sound power levels for installation 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<sup>-12</sup> watts calculated per AMCA international Standard 301.

Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	0.011	215	79	90	80	75	67	62	61	56

Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



All Dimensions in mm

# TIF 12C

## TIF Series Centrifugal Inline Fans

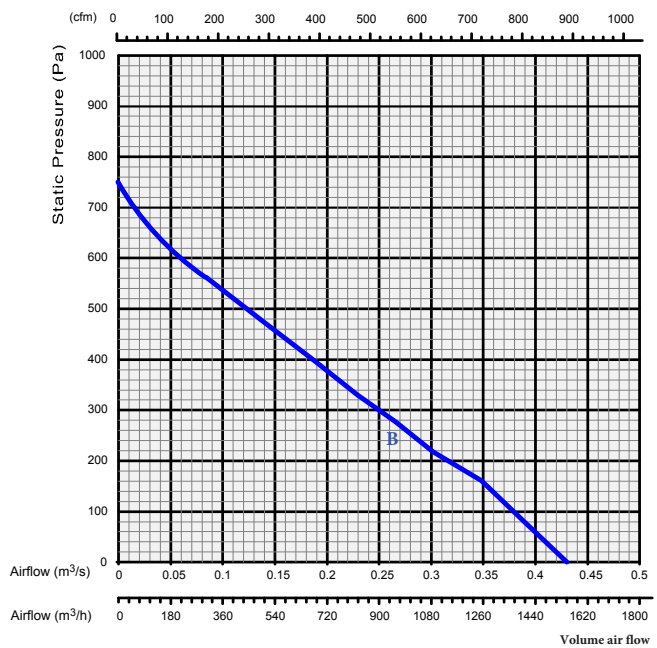
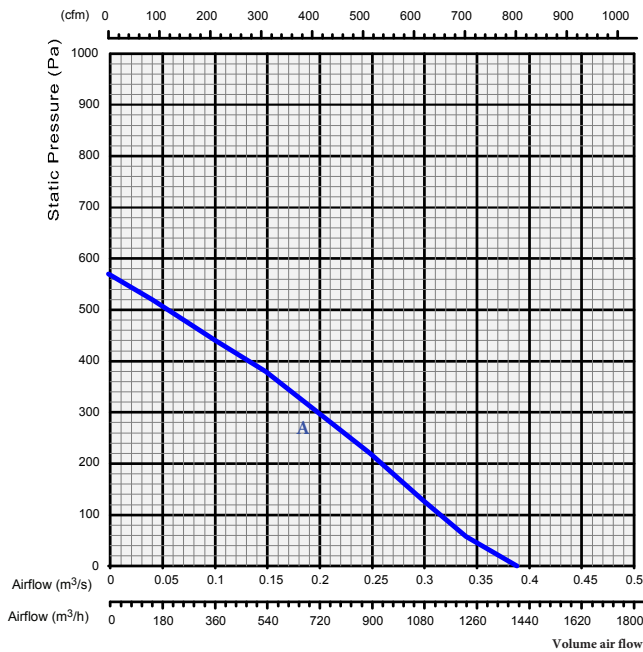
### Technical Data

Type: TIF 12 C LF ( Non-AMCA)			
Voltage, V/Hz	230/50	Speed, RPM	2120
Current, A	0.83	Air Flow [m <sup>3</sup> /s]	0.387
Maximum Motor Input Watt	160	Insulation Class	F
Capacitor μF	16	Protection	IP 44/54
Ambient Temp. °C	-20 <sup>o</sup> C - +60 <sup>o</sup> C	Weight, kg	6.6
Performance Curve A			

"Model TIF 12 LF are not certified by AMCA international"

Type: TIF 12 C HF			
Voltage, V/Hz	230/50	Speed, RPM	2252
Current, A	1.04	Air Flow [m <sup>3</sup> /s]	0.432
Maximum Motor Input Watt	295	Insulation Class	F
Capacitor μF	8	Protection	IP 44/54
Ambient Temp. °C	-20 <sup>o</sup> C - +60 <sup>o</sup> C	Weight, kg	6.6
Performance Curve B			

### Performance Curve



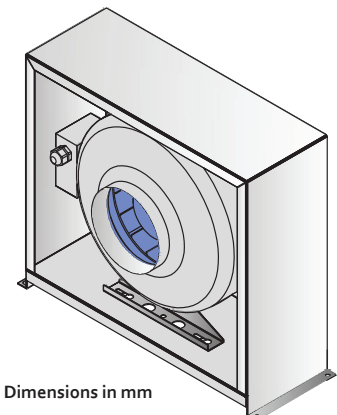
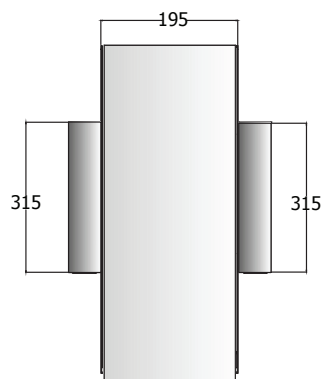
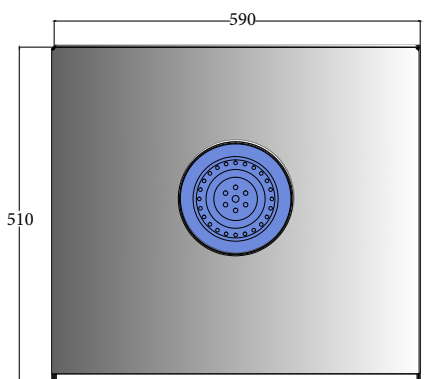
"Performance ratings do not include the effects of appurtenances(accessories).Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. Value shown are for inlet Lwi sound power levels for installation type 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<sup>-12</sup> watts calculated per AMCA international Standard 301."

"Model TIF 12 C LF are not certified by AMCA international"

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



All Dimensions in mm

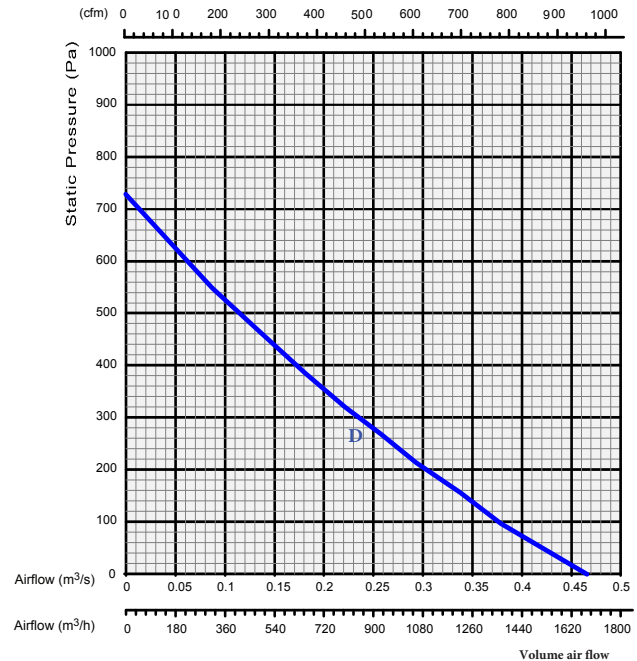
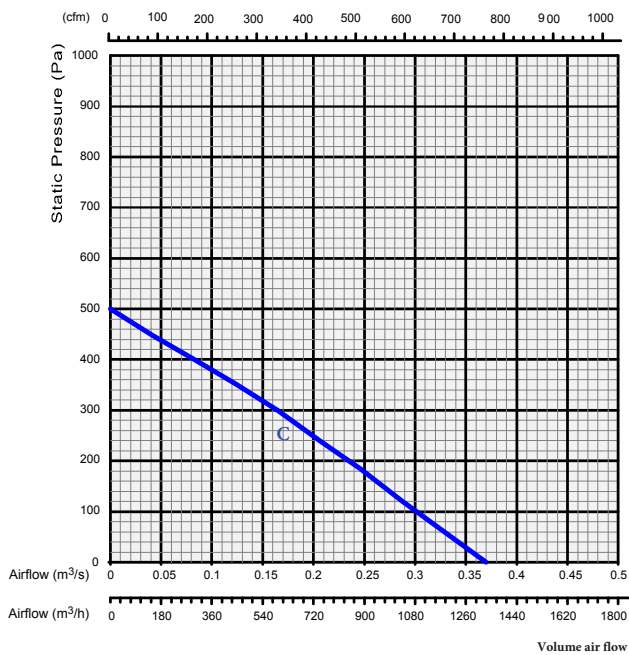
### Technical Data

Type: TIF 12 C LS ( Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1960
Current, A	0.83	Air Flow [m <sup>3</sup> /s]	0.379
Maximum Motor Input Watt	190	Insulation Class	F
Capacitor Capacitor μF	8	Protection	IP 44/54
Ambient Temp. t <sub>a</sub>	-20°C - +60°C	Weight, kg	6.6
Performance Curve C			

"Model TIF 12 LS are not certified by AMCA international"

Type: TIF 12 C HS			
Voltage, V/Hz	230/60	Speed, RPM	2209
Current, A	1.40	Air Flow [m <sup>3</sup> /s]	0.470
Maximum Motor Input Watt	363	Insulation Class	F
Capacitor Capacitor μF	8	Protection	IP 44/54
Ambient Temp. t <sub>a</sub>	-20°C - +60°C	Weight, kg	6.6
Performance Curve D			

### Performance Curve



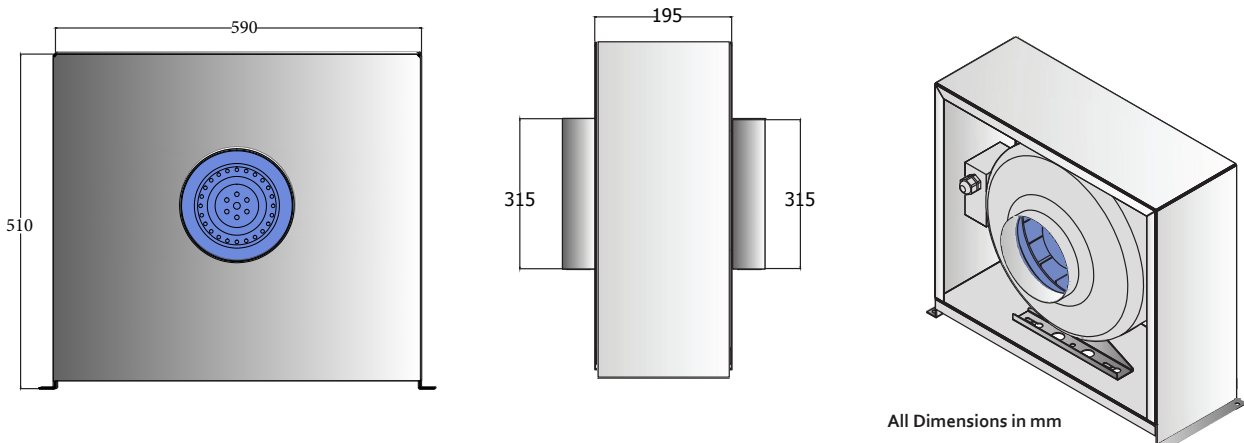
"Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shows is nominal. Performance is based on actual speed of test. Performance certified is for installation type D: Ducted inlet, Ducted outlet. Value shows are for inlet LwI sound power levels for installation 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<sup>-12</sup> watts calculated per AMCA international Standard 301."

"Model TIF 12C LS are not certified by AMCA international"

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

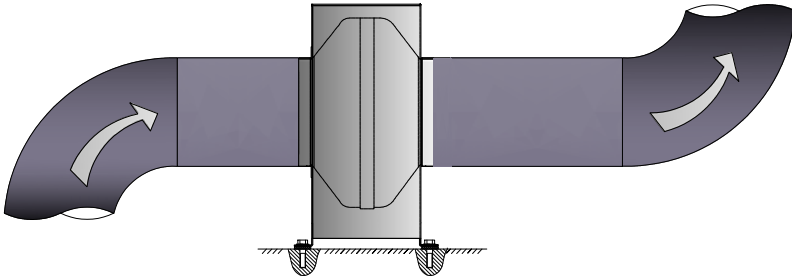
### Dimensional Drawings



All Dimensions in mm



## Applications



## Installation

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 1 x the duct diameter on the fan's inlet side and at least 3 x the duct diameter on the fan's outlet side.

(See figure 1.)

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

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

D = duct diameter

H = duct height

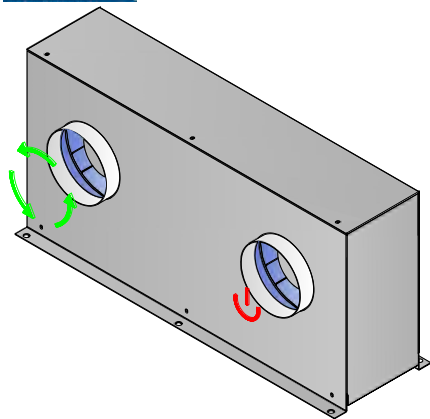
B = duct width

### TIF T Series

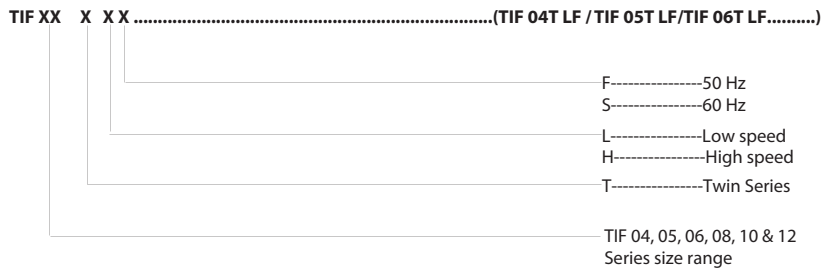


"Energy Industrial Company LLC certifies that the model TIF 05T to 12T HS, TIF 06T to TIF 08T LF & TIF 06T to 12T HF shown herein are licensed to bear the AMCA Seal. The rating shown are based on tests and procedures performed in accordance with AMCA publication 211 and AMCA publication 311 and comply with the requirements of the AMCA Certified Ratings Program"

"Energy Industrial Company LLC certifies that the model TIF 04T to 05 LF, TIF 04T to 05T HF and TIF 04T HS 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"



#### Model Number Code:

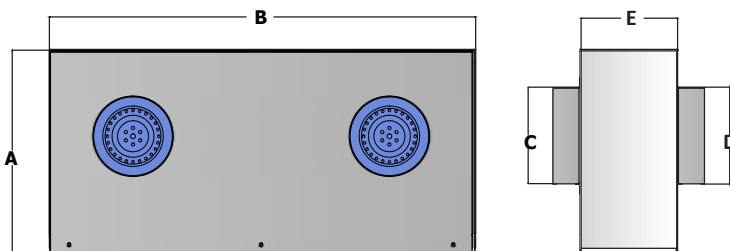


The twin model used one fan as standby option only.no operation in parallel.

### Overall Size

Model No.	A	B	C	D	E
TIF 04T	350	660	97	97	165
TIF 05T	350	660	125	125	155
TIF 06T	440	840	159	159	178
TIF 08T	440	840	198	198	178
TIF 10T	440	840	248	248	160
TIF 12T	510	980	315	315	195

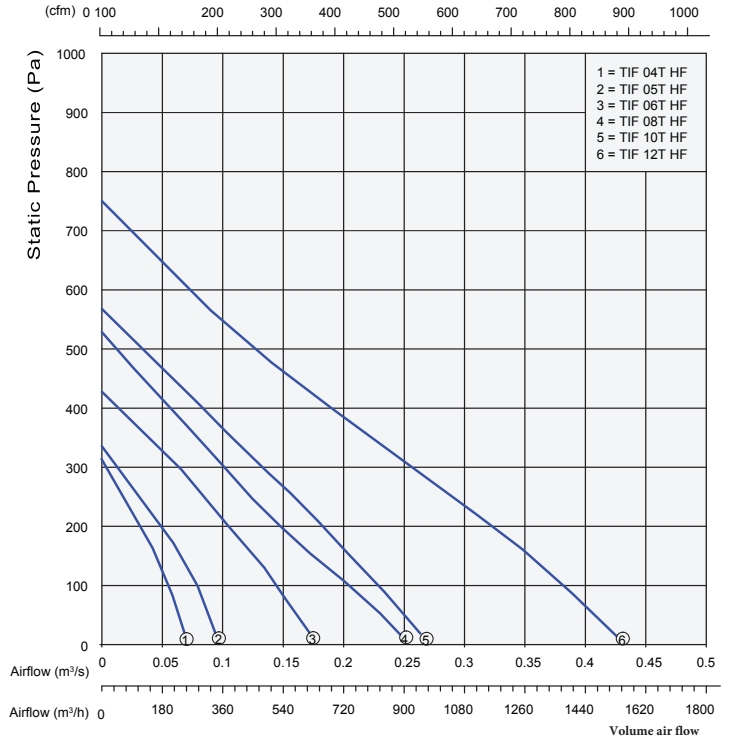
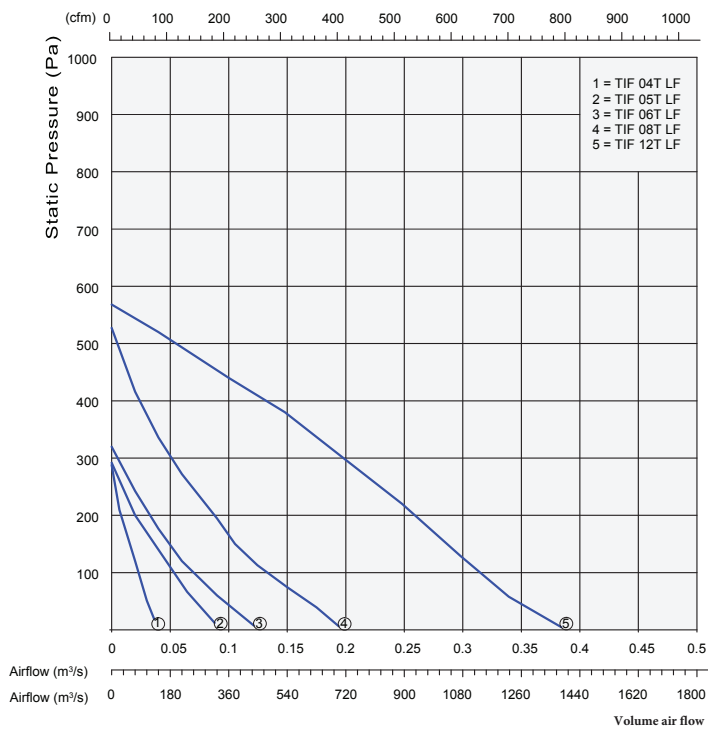
All Dimensions in mm



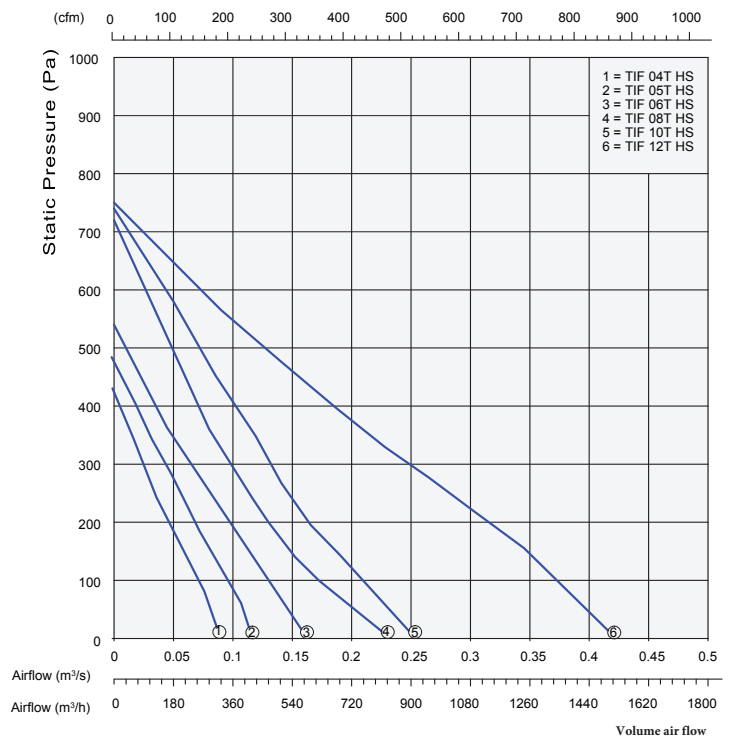
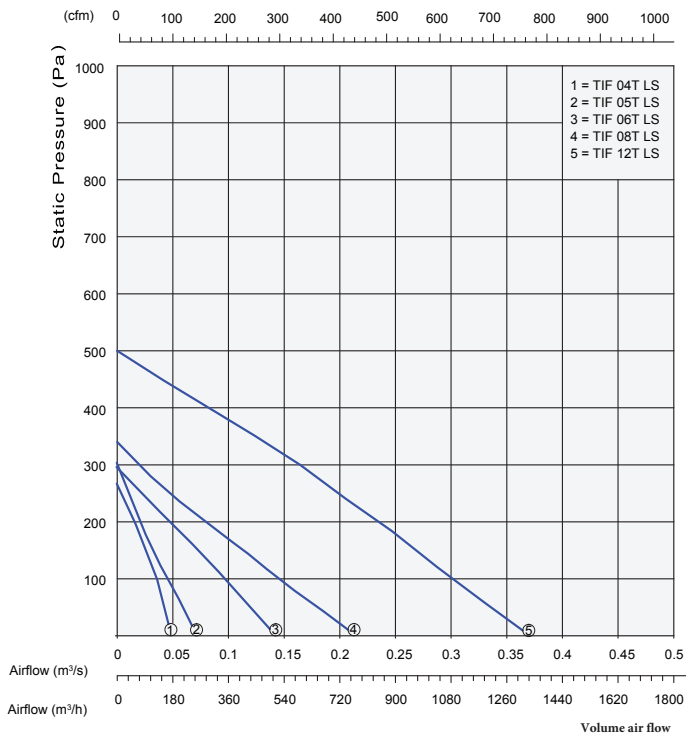
# TIF T SERIES

## TIF Series Centrifugal Inline Fans

### Quick selection-50 Hz



### Quick selection-60 Hz

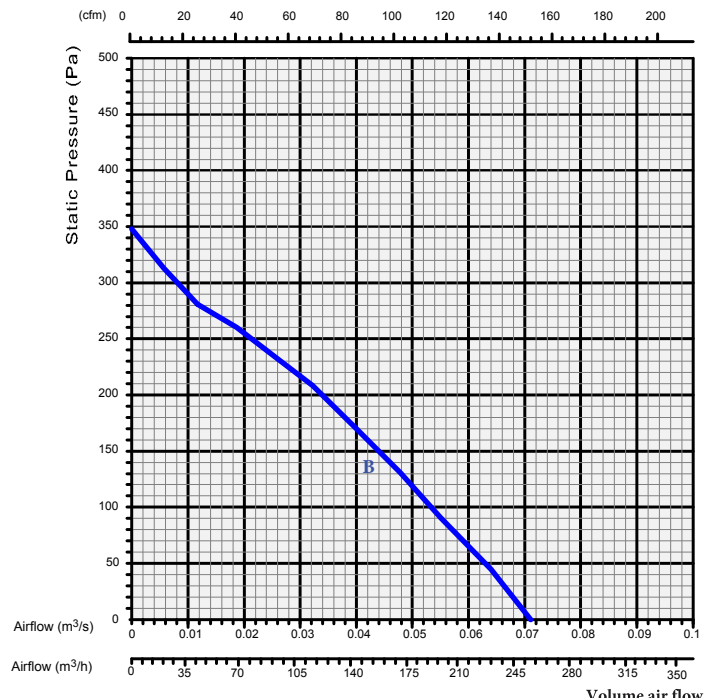
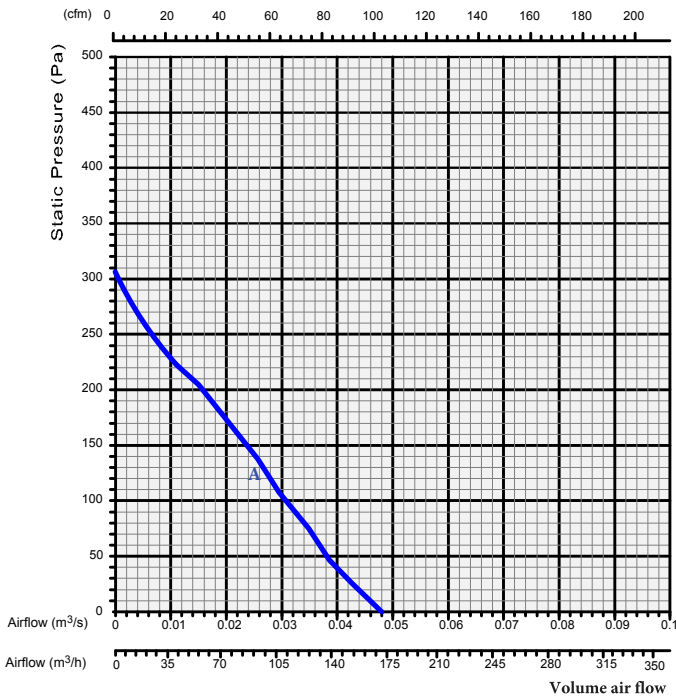


### Technical Data

Type: TIF 04 T LF			
Voltage, V/Hz	230/50	Speed, RPM	1915
Current, A	0.14	Air Flow [m³/s]	0.048
Maximum Motor input Watt	34	Insulation Class	F
Capacitor μF	2	Protection	△ IP 44/54
Ambient Temp. t <sub>a</sub>	-20°C - +60°C	Weight, kg	■ 3.5
Performance Curve A			

Type: TIF 04 T HF			
Voltage, V/Hz	230/50	Speed, RPM	2478
Current, A	0.28	Air Flow [m³/s]	0.071
Maximum Motor input Watt	66	Insulation Class	F
Capacitor μF	2	Protection	△ IP 44/54
Ambient Temp. t <sub>a</sub>	-20°C - +60°C	Weight, kg	■ 3.5
Performance Curve B			

### Performance Curve

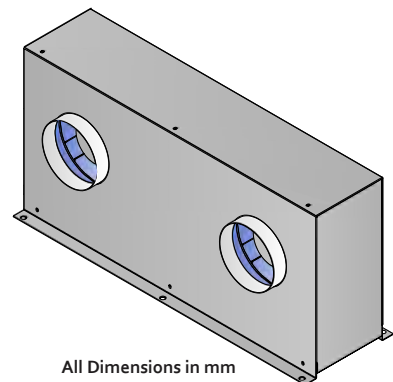
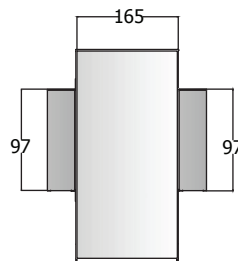
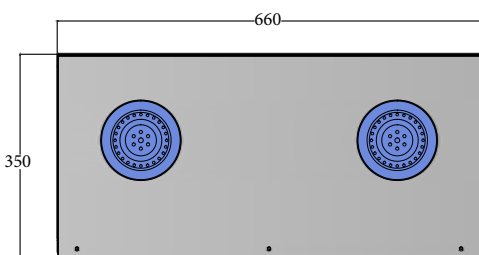


"Performance ratings do not include the effects of appurtenances(accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. The AMCA Certified Ratings Seal applies to air performance ratings only"

Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2261	0.071	0.00	68	73	65	61	55	54	49	43
2796	0.012	274	70	73	67	63	57	57	51	45

### Dimensional Drawings



All Dimensions in mm

# TIF 04T

## TIF Series Centrifugal Inline Fans

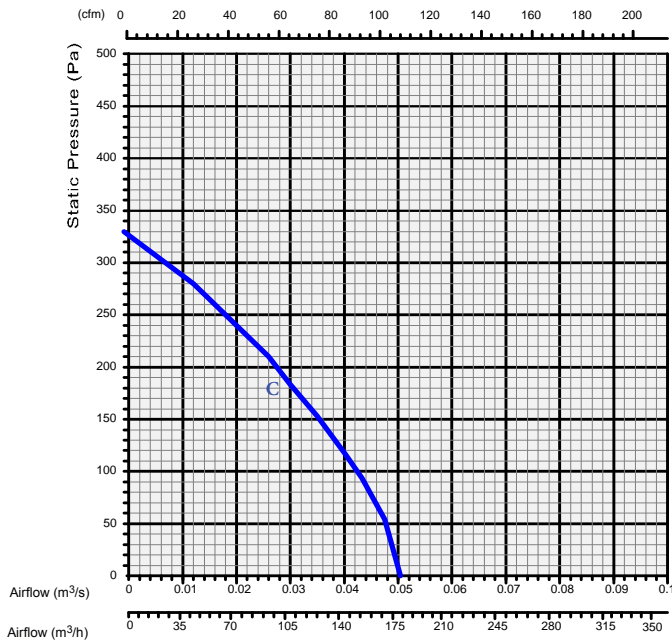
### Technical Data

Type: TIF 04 T LS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM air	1470
Current, A	0.15	Flow [m <sup>3</sup> /s]	0.049
Maximum Motor input Watt	35	Insulation Class	F
Capacitor $\mu$ F	2	Protection	IP 44/54
Ambient Temp. $t_r$ :	-20°C - +60°C	Weight, kg	3.5
Performance Curve C			

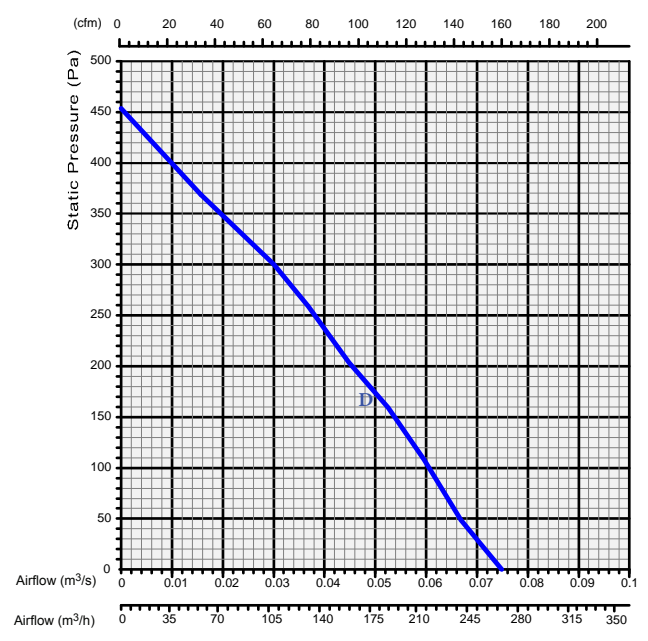
"Model TIF 04 LS are not certified by AMCA international"

Type: TIF 04 T HS			
Voltage, V/Hz	230/60	Speed, RPM air	2767
Current, A	0.34	Flow [m <sup>3</sup> /s]	0.075
Maximum Motor input Watt	82	Insulation Class	F
Capacitor $\mu$ F	2	Protection	IP 44/54
Ambient Temp. $t_r$ :	-20°C - +60°C	Weight, kg	3.5
Performance Curve D			

### Performance Curve



"Model TIF 04 T LS are not certified by AMCA international"

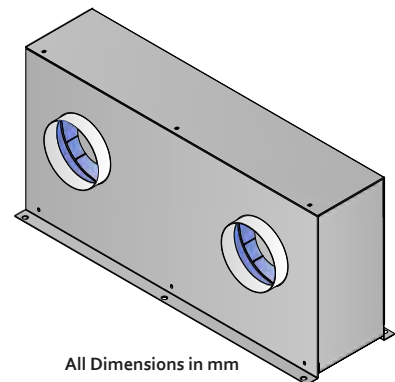
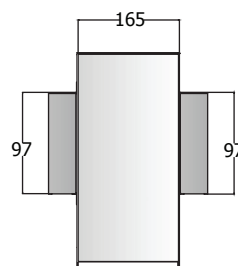
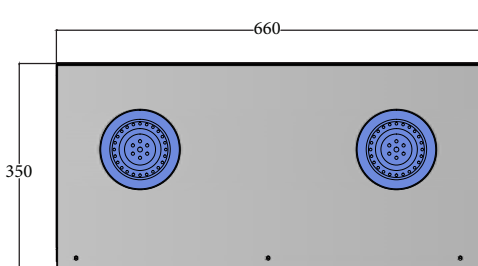


"Performance ratings do not include the effects of appurtenances(accessories).Speed (RPM) showsnis nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. The AMCA Certified Ratings Seal applies to air performance ratings only"

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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



### Dimensional Drawings



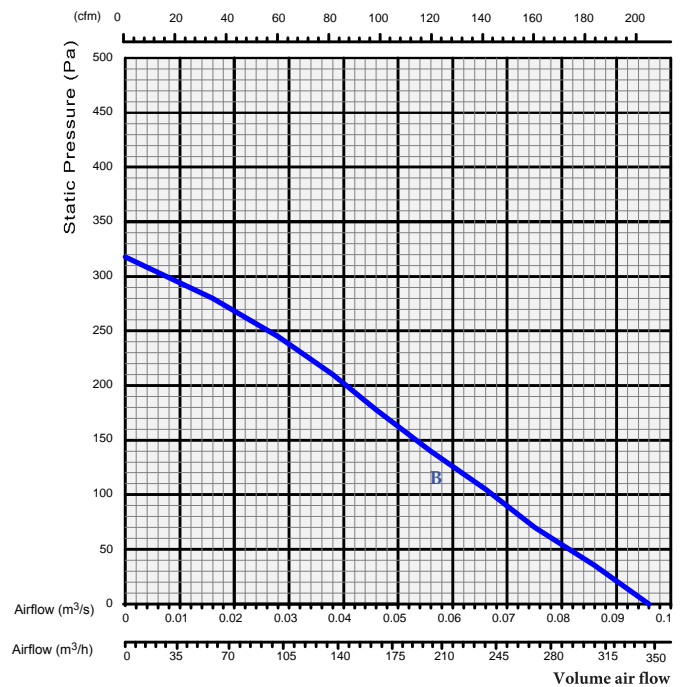
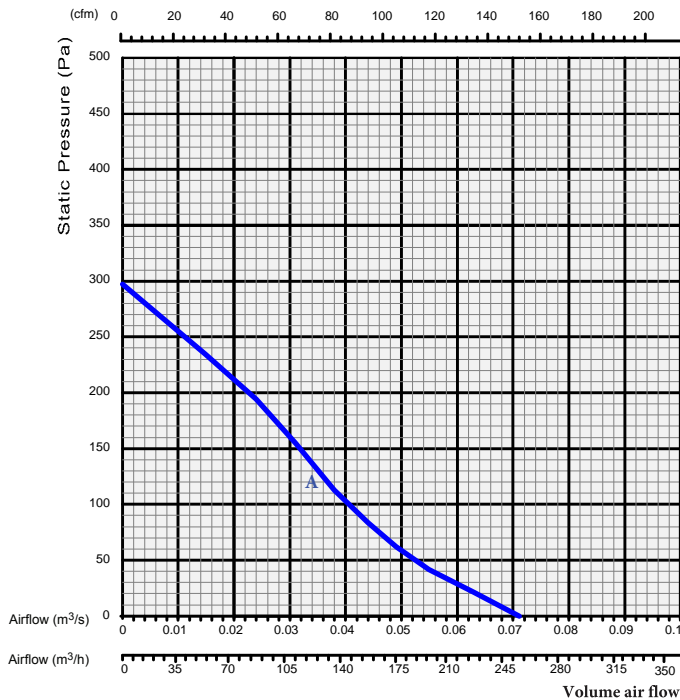
All Dimensions in mm

### Technical Data

Type: TIF 05 T LF			
Voltage, V/Hz	230/50	Speed, RPM	1780
Current, A	0.16	Air Flow [m <sup>3</sup> /s]	0.071
Maximum Motor input Watt	39	Insulation Class	F
Capacitor $\mu$ F	2	Protection 	IP 44/54
Ambient Temp. $t_a$	-20°C - +60°C	Weight, kg 	3.5
Performance Curve A			

Type: TIF 05 T HF			
Voltage, V/Hz	230/50	Speed, RPM	2378
Current, A	0.29	Air Flow [m <sup>3</sup> /s]	0.096
Maximum Motor input Watt	69	Insulation Class	F
Capacitor $\mu$ F	2	Protection 	IP 44/54
Ambient Temp. $t_a$	-20°C - +60°C	Weight, kg 	3.5
Performance Curve B			

### Performance Curve

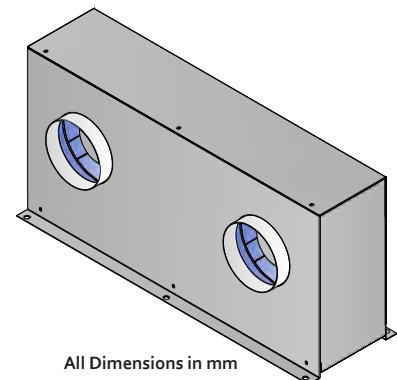
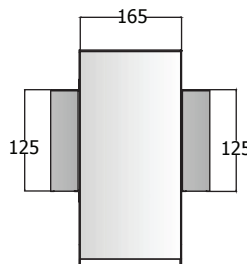
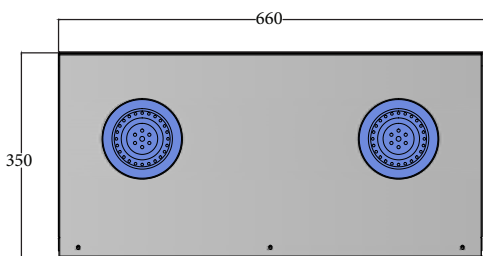


\*Performance ratings do not include the effects of appurtenances(accessories).Speed (RPM) shows is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. The AMCA Certified Ratings Seal applies to air performance ratings only\*

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



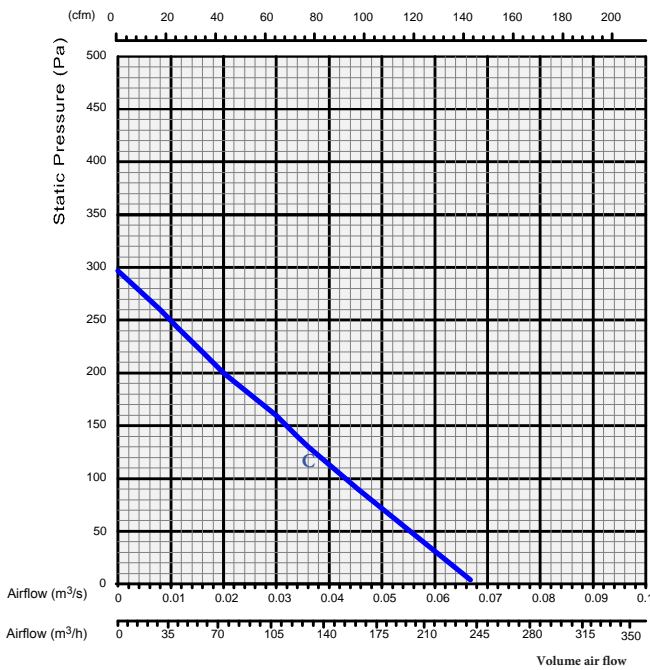
All Dimensions in mm

### Technical Data

Type: TIF 05 T LS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1530
Current, A	0.15	Air Flow [m³/s]	0.067
Maximum Motor input Watt	41	Insulation Class	F
Capacitor $\mu F$ :	2	Protection	IP 44/54
Ambient Temp. $t_n$ :	-20°C - +60°C	Weight, kg	3.5

Performance Curve C  
 "Model TIF 05 LS are not certified by AMCA international"

### Performance Curve

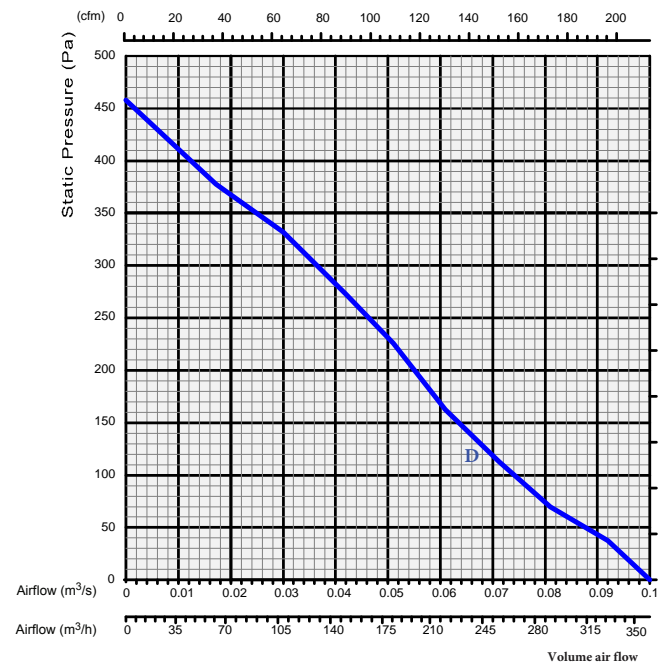


"Model TIF 05 T LS are not certified by AMCA international"

Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

Type: TIF 05 T HS			
Voltage, V/Hz	230/60	Speed, RPM	2535
Current, A	0.35	Air Flow [m³/s]	0.102
Maximum Motor input Watt	85	Insulation Class	F
Capacitor $\mu F$ :	2	Protection	IP 44/54
Ambient Temp. $t_n$ :	-20°C - +60°C	Weight, kg	3.5

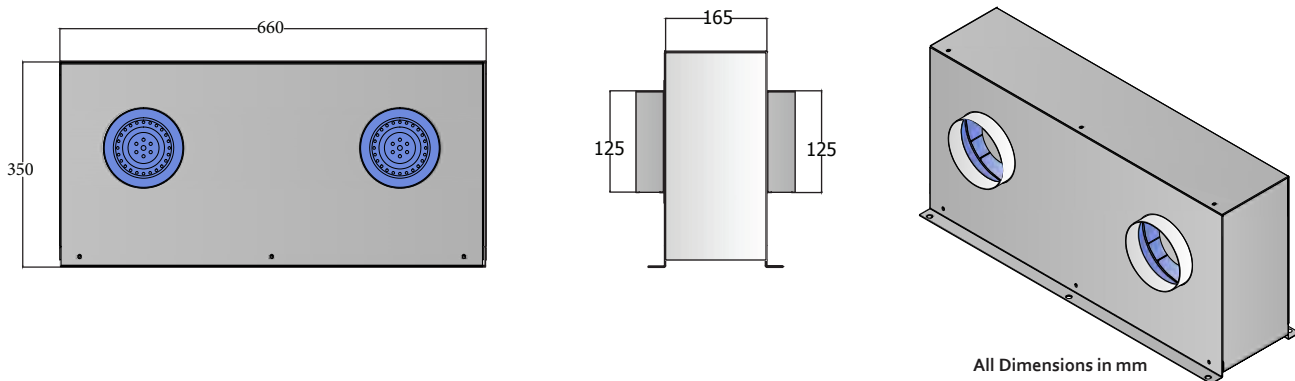
Performance Curve D



"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. Value shown are for inlet Lwv 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<sup>-12</sup> watts calculated per AMCA international Standard 301."

Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



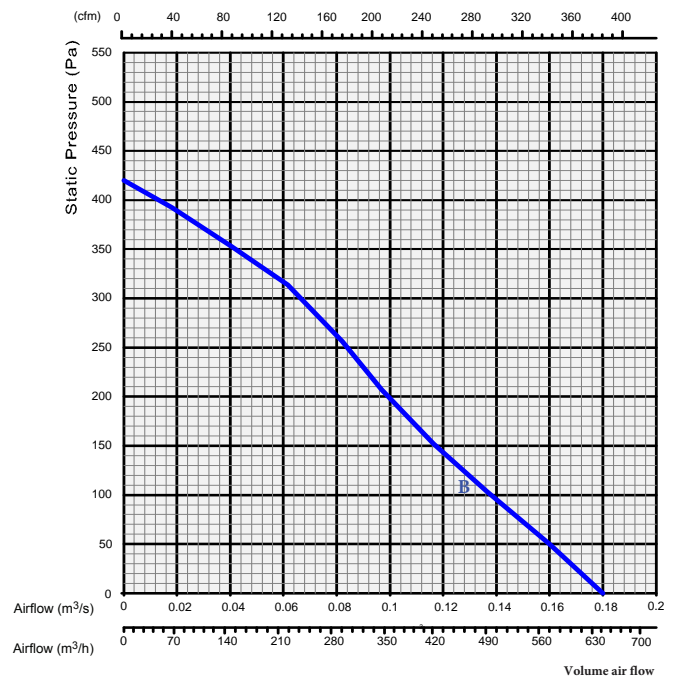
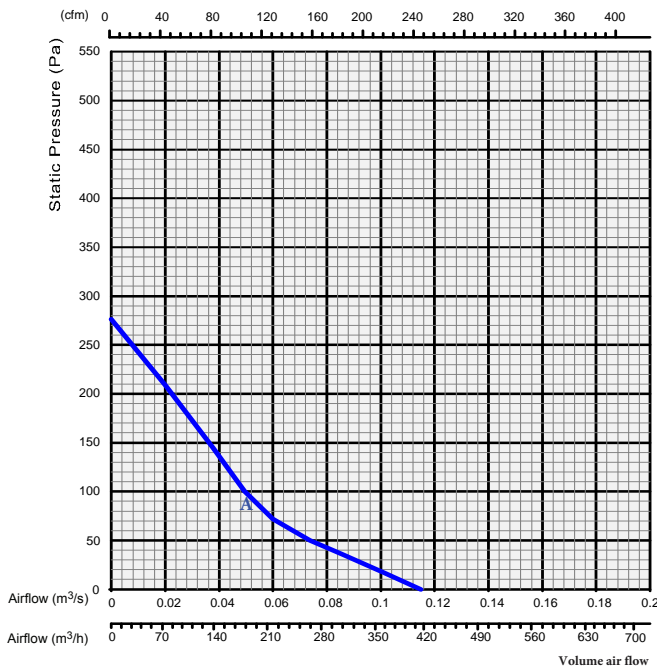
All Dimensions in mm

### Technical Data

Type: TIF 06 T LF			
Voltage, V/Hz	230/50	Speed, RPM	1369
Current, A	0.29	Air Flow [m <sup>3</sup> /s]	0.115
Maximum Motor input Watt	69	Insulation Class	F
Capacitor μF	3	Protection	IP 44/54
Ambient Temp. t <sub>R</sub> :	-20°C - +60°C	Weight, kg	4.6
Performance Curve A			

Type: TIF 06 T HF			
Voltage, V/Hz	230/50	Speed, RPM	2318
Current, A	0.39	Air Flow [m <sup>3</sup> /s]	0.180
Maximum Motor input Watt	100	Insulation Class	F
Capacitor μF	3	Protection	IP 44/54
Ambient Temp. t <sub>R</sub> :	-20°C - +60°C	Weight, kg	4.6
Performance Curve B			

### Performance Curve

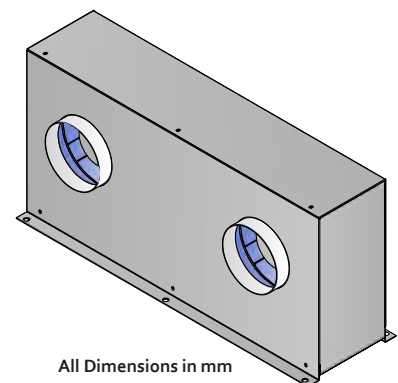
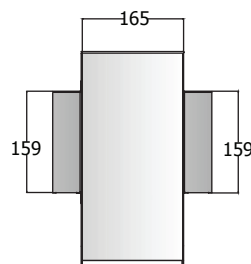
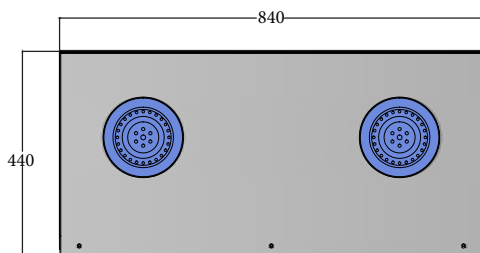


\*Performance ratings do not include the effects of appurtenances(accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. Value shown are for inlet Lwi sound power levels for installation 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<sup>-12</sup> watts calculated per AMCA international Standard 301.

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	38

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



All Dimensions in mm



# TIF 06T

## TIF Series Centrifugal Inline Fans

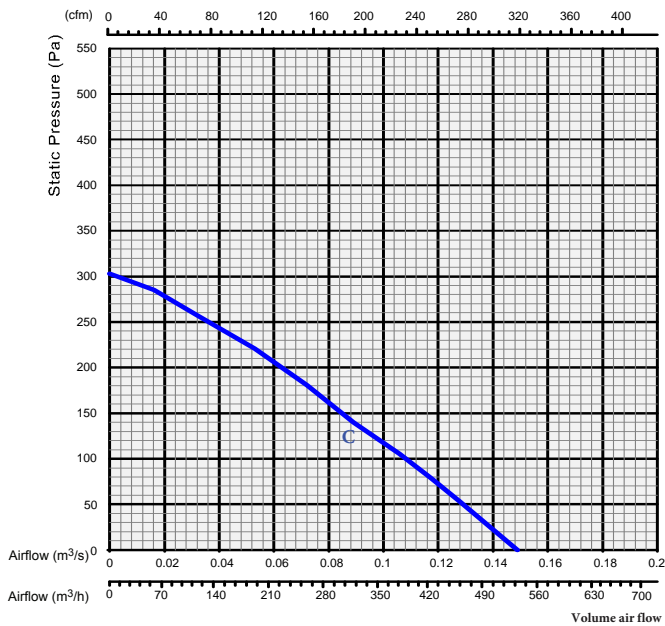
### Technical Data

Type: TIF 06 T LS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1470
Current, A	0.29	Air Flow [m <sup>3</sup> /s]	0.148
Maximum Motor Input Watt	65	Insulation Class	F
Capacitor $\mu$ F	3	Protection $\Delta$	IP 44/54
Ambient Temp. $t_R$ : -20°C - +60°C		Weight, kg $\blacksquare$	4.6

"Model TIF 06 LS are not certified by AMCA international"

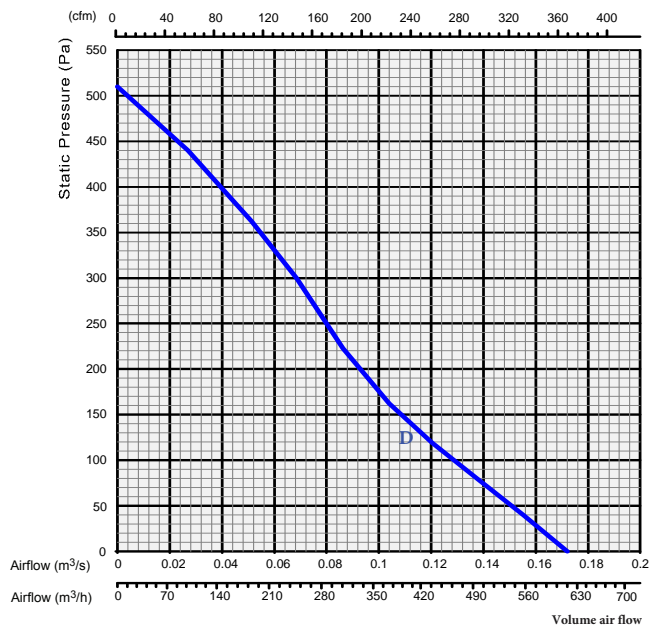
Type: TIF 06 T HS			
Voltage, V/Hz	230/60	Speed, RPM	2265
Current, A	0.34	Air Flow [m <sup>3</sup> /s]	0.172
Maximum Motor Input Watt	117	Insulation Class	F
Capacitor $\mu$ F	4.6	Protection $\Delta$	IP 44/54
Ambient Temp. $t_R$ : -20°C - +60°C		Weight, kg $\blacksquare$	4.6

### Performance Curve



"Model TIF 06 T LS are not certified by AMCA international"

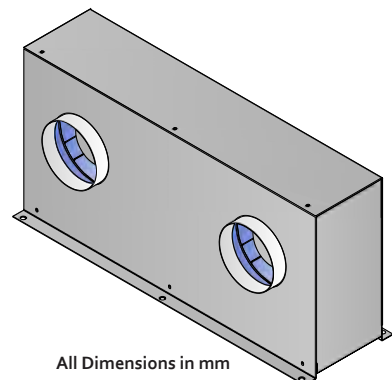
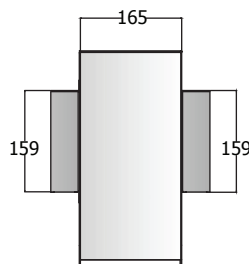
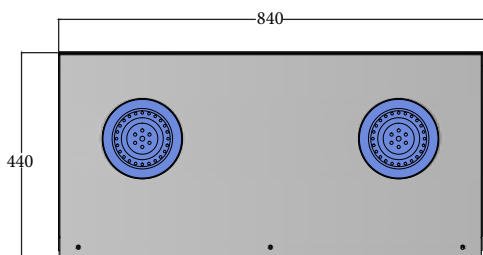
Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
1470	0.148	0.00	81	81	78	77	71	67	64	58
1498	0.078	300	80	82	69	62	58	55	56	46



"Performance ratings do not include the effects of appurtenances(accessories).Speed (RPM) shows is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. \*Value shows 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<sup>-12</sup> watts calculated per AMCA international Standard 301."

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



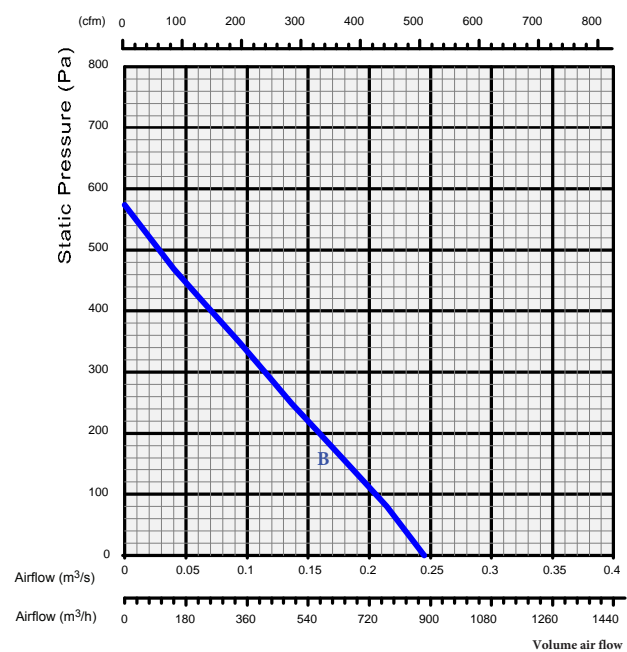
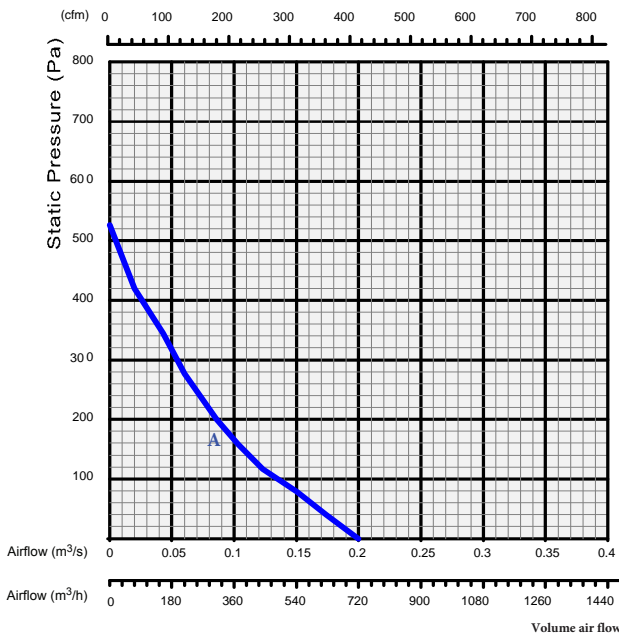
All Dimensions in mm

### Technical Data

Type: TIF 08 T LF			
Voltage, V/Hz	230/50	Speed, RPM	1859
Current, A	0.42	Air Flow [m <sup>3</sup> /s]	0.200
Maximum Motor Input Watt	105	Insulation Class	F
Capacitor μF	10	Protection	IP 44/54
Ambient Temp. t <sub>a</sub>	-20°C - +60°C	Weight, kg	5.7
Performance Curve A			

Type: TIF 08 T HF			
Voltage, V/Hz	230/50	Speed, RPM	2336
Current, A	0.57	Air Flow [m <sup>3</sup> /s]	0.246
Maximum Motor Input Watt	152	Insulation Class	F
Capacitor μF	4	Protection	IP 44/54
Ambient Temp. t <sub>a</sub>	-20°C - +60°C	Weight, kg	5.7
Performance Curve B			

### Performance Curve

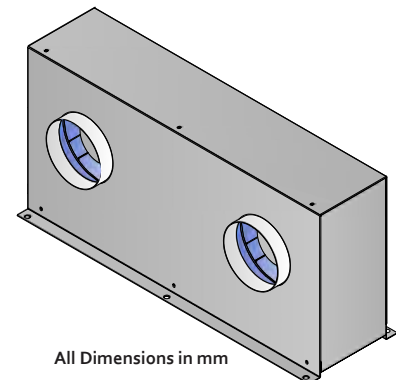
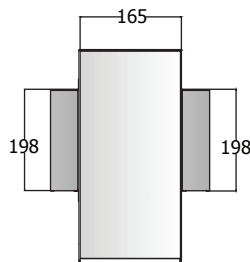
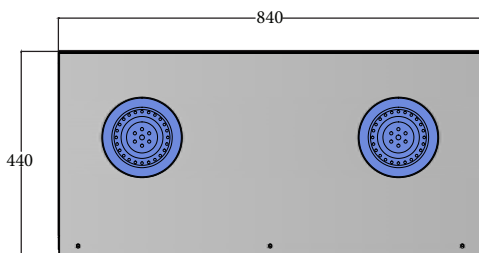


\*Performance ratings do not include the effects of appurtenances(accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. Value shown are for inlet Lwi sound power levels for installation 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<sup>-12</sup> watts calculated per AMCA international Standard 301.

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



All Dimensions in mm

# TIF 08T

## TIF Series Centrifugal Inline Fans

### Technical Data

Type: TIF 08 T LS ( Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1940
Current, A	0.50	Air Flow [m <sup>3</sup> /s]	0.205
Maximum Motor Input Watt	112	Insulation Class	F
Capacitor $\mu$ F	4	Protection	IP 44/54
Ambient Temp. $t_a$	-20°C - +60°C	Weight, kg	5.7

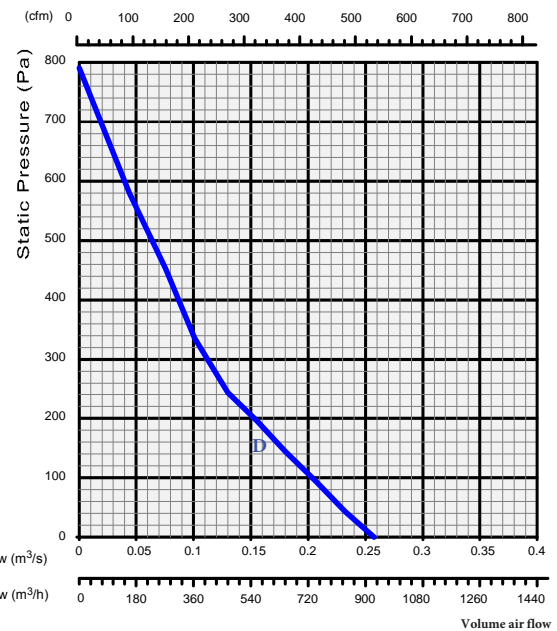
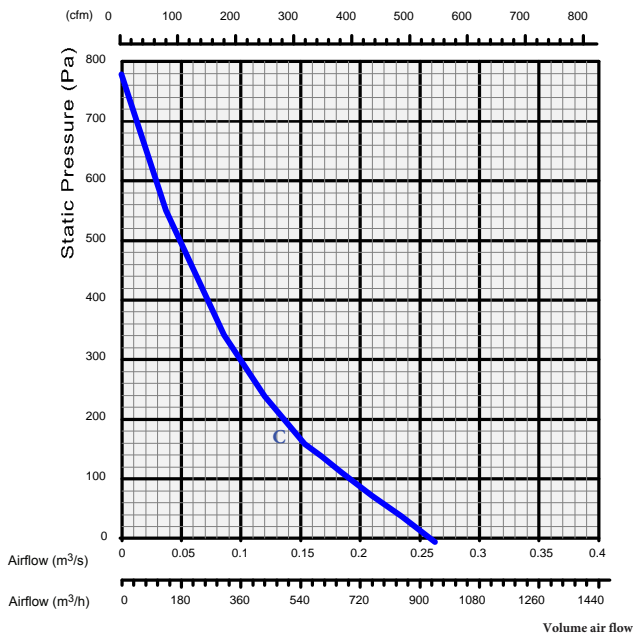
Performance Curve C

"Model TIF 08T LS are not certified by AMCA international"

Type: TIF 08 T HS			
Voltage, V/Hz	230/60	Speed, RPM	2287
Current, A	0.75	Air Flow [m <sup>3</sup> /s]	0.259
Maximum Motor Input Watt	192	Insulation Class	F
Capacitor $\mu$ F	4	Protection	IP 44/54
Ambient Temp. $t_a$	-20°C - +60°C	Weight, kg	5.7

Performance Curve D

### Performance Curve



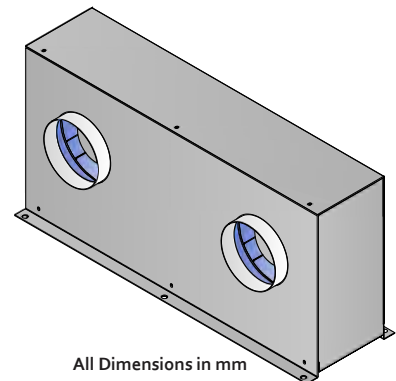
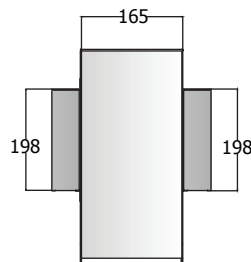
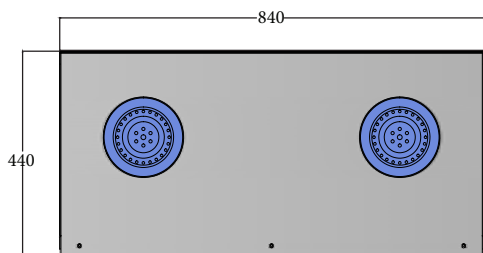
"Model TIF 08 T LS are not certified by AMCA international"

"Performance ratings do not include the effects of appurtenances(accessories).Speed (RPM) shows is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. "Value shows 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 showns are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA international Standard 301."

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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



### Dimensional Drawings



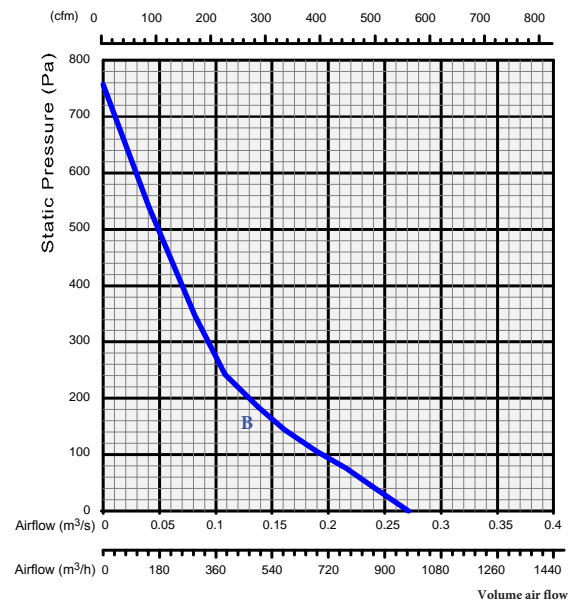
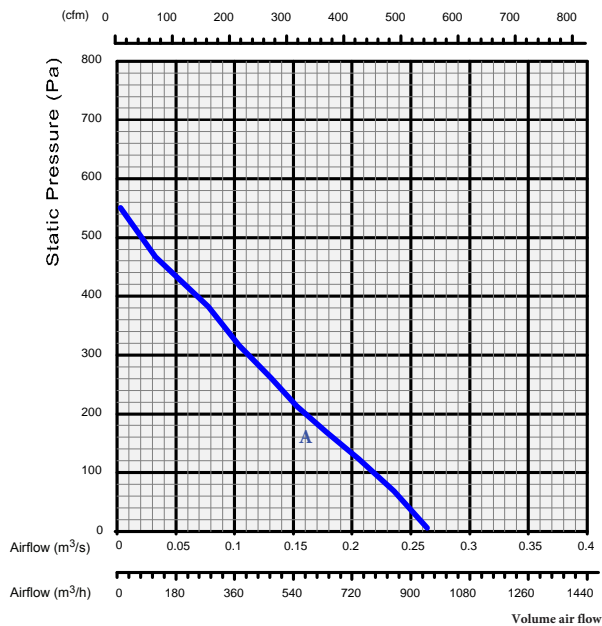
All Dimensions in mm

### Technical Data

Type: TIF 10 T HF			
Voltage, V/Hz	230/50	Speed, RPM	2142
Current, A	0.62	Air Flow [m <sup>3</sup> /s]	0.263
Maximum Motor Input Watt	165	Insulation Class	F
Capacitor $\mu$ F	4	Protection 	IP 44/54
Ambient Temp. $t_R$ :	-20°C - +60°C	Weight, kg 	5.7
Performance Curve A			

Type: TIF 10 T HS			
Voltage, V/Hz	230/60	Speed, RPM	1921
Current, A	0.83	Air Flow [m <sup>3</sup> /s]	0.272
Maximum Motor Input Watt	204	Insulation Class	F
Capacitor $\mu$ F	4	Protection 	IP 44/54
Ambient Temp. $t_R$ :	-20°C - +60°C	Weight, kg 	5.7
Performance Curve B			

### Performance Curve

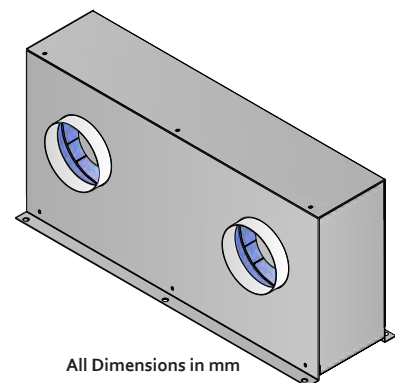
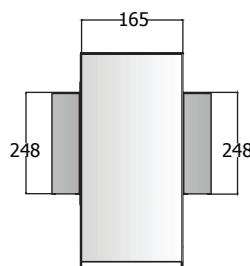
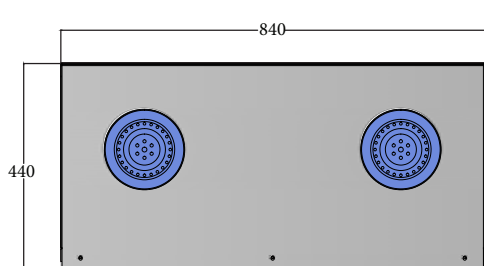


\*Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance certified for installation type D- Ducted inlet, Ducted outlet. Value shown are for inlet Lwi sound power levels for installation type 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<sup>-12</sup> watts calculated per AMCA international Standard 301.

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



All Dimensions in mm

# TIF 12T

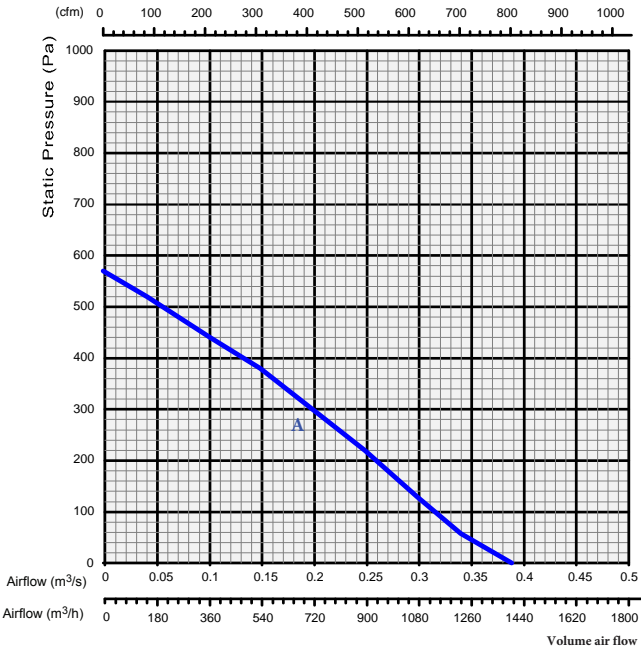
## TIF Series Centrifugal Inline Fans

### Technical Data

Type: TIF 12 T LF ( Non-AMCA)			
Voltage, V/Hz	230/50	Speed, RPM	2120
Current, A	0.83	Air Flow [m³/s]	0.387
Maximum Motor Input Watt	160	Insulation Class	F
Capacitor Capacitor μF	16	Protection	△ IP 44/54
Ambient Temp. t <sub>a</sub>	-20°C - +60°C	Weight, kg	■ 6.6
Performance Curve A			

"Model TIF 12 LF are not certified by AMCA international"

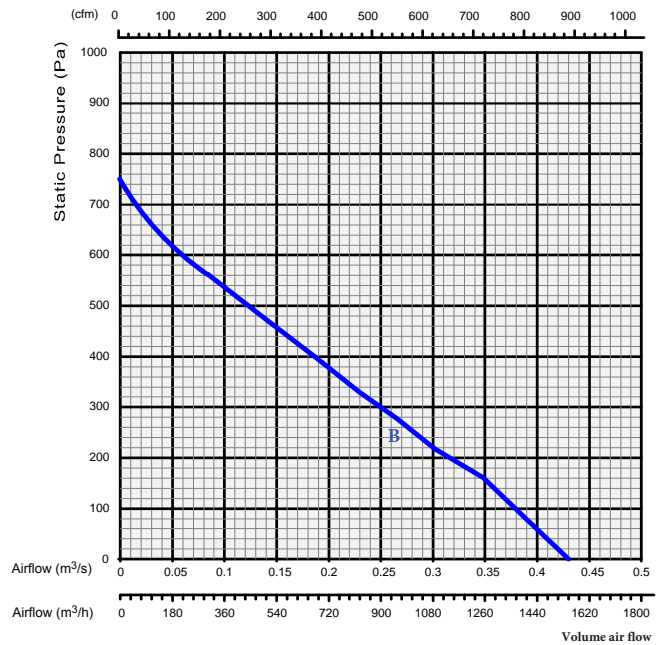
### Performance Curve



"Model TIF 12 T LF are not certified by AMCA international"

Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

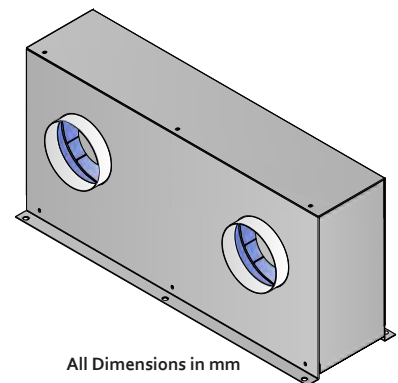
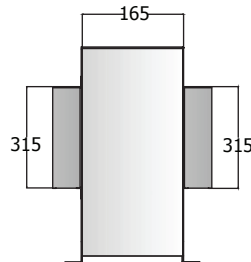
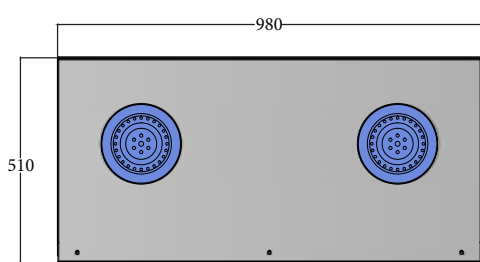
Type: TIF 12 T HF			
Voltage, V/Hz	230/50	Speed, RPM	2252
Current, A	1.04	Air Flow [m³/s]	0.432
Maximum Motor Input Watt	295	Insulation Class	F
Capacitor Capacitor μF	8	Protection	△ IP 44/54
Ambient Temp. t <sub>a</sub>	-20°C - +60°C	Weight, kg	■ 6.6
Performance Curve B			



"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. "Value shows 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<sup>-12</sup> watts calculated per AMCA international Standard 301."

Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



All Dimensions in mm

### Technical Data

Type: TIF 12 T LS ( Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1960
Current, A	0.83	Air Flow [m <sup>3</sup> /s]	0.379
Maximum Motor Input Watt	190	Insulation Class	F
Capacitor μF	8	Protection	△ IP 44/54
Ambient Temp. t <sub>r</sub>	-20°C - +60°C	Weight, kg	■ 6.6

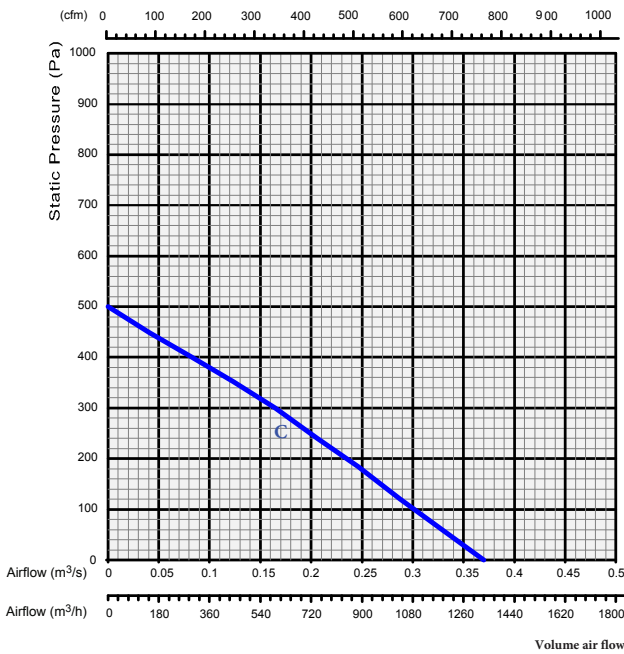
Performance Curve C

"Model TIF 12 LS are not certified by AMCA international"

Type: TIF 12 T HS			
Voltage, V/Hz	230/60	Speed, RPM	2209
Current, A	1.40	Air Flow [m <sup>3</sup> /s]	0.470
Maximum Motor Input Watt	363	Insulation Class	F
Capacitor μF	8	Protection	△ IP 44/54
Ambient Temp. t <sub>r</sub>	-20°C - +60°C	Weight, kg	■ 6.6

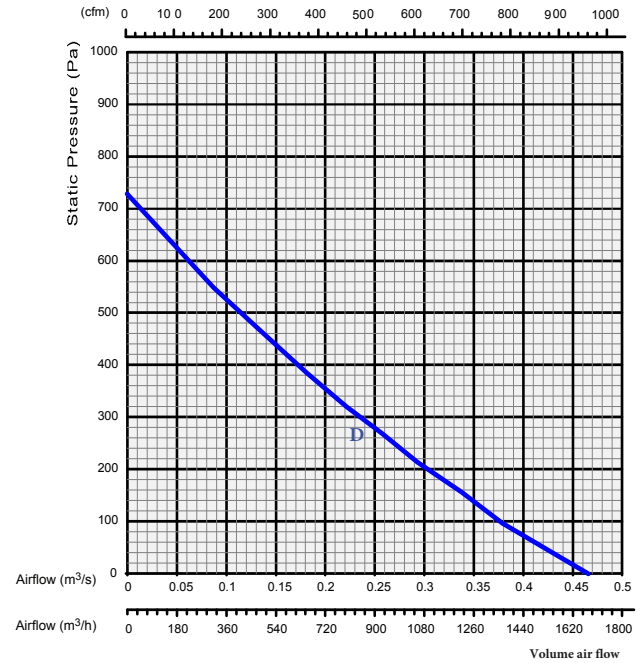
Performance Curve D

### Performance Curve



"Model TIF 12 T LS are not certified by AMCA international"

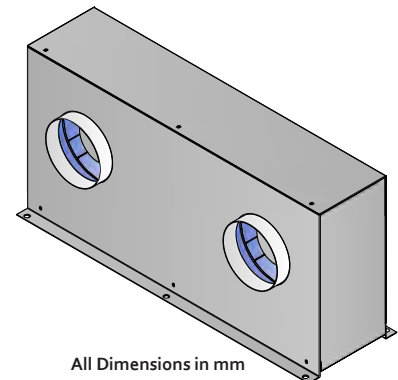
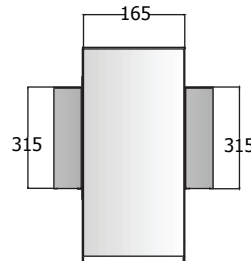
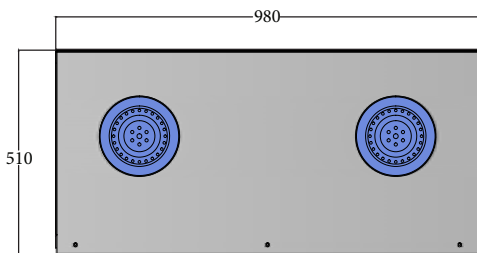
Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
1960	0.379	0.00	68	72	68	61	55	52	51	42
2233	0.010	198	71	74	69	63	58	55	56	45



"Performance ratings do not include the effects of appurtenances(accessories)Speed (RPM) shows is nominal. Performance is based on actual speed of test. Performance certified is for installation type D- Ducted inlet, Ducted outlet. Value shows 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 shows are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA international Standard 301."

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



All Dimensions in mm

## AUTO CHANGE OVER PANEL (ACOP)



"EC-ACOP" is an electronic system designed and developed for automatic operation of twin-fans.

Factory wired single unit that can fit on the Fan housing.

ECACOP has a silent feature which 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 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 which is factory wired in order to avoid any wrong wiring and supports an easy installation. The airflow sensor, which is an inherent part of the unit, ensures the proper status of the system by monitoring the airflow. This feature also supports the belt driven fans in case the belt is damaged or broken, the system will shift to the standby fans and display a failure alarm.

The rail is mounted in a durable plastic enclosure as per DIN standard. 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 cycle 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 ECACOP and the status of the fans is shown by distinct LEDs.

### **Optional B.M.S Interface available on request.**

Optional Interface provision are available based on the request.(Consult Factory)

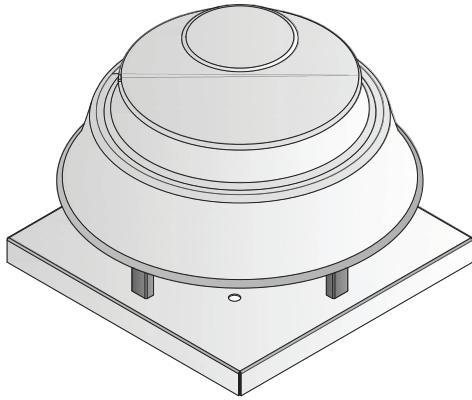
### **TECHNICAL INFORMATION:**

#### **Singe 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)

### TIF R Series ( Non AMCA )



#### Model Number Code:

TIF XX X XX .....(TIF 04T LF / TIF 05T LF/TIF 06T LF.....)

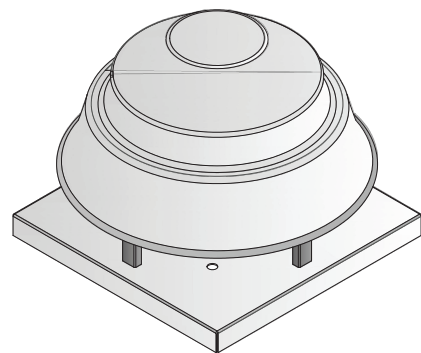
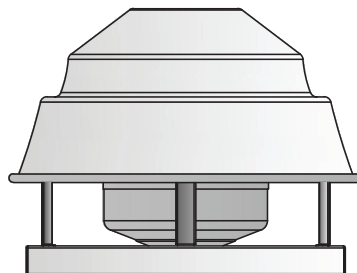
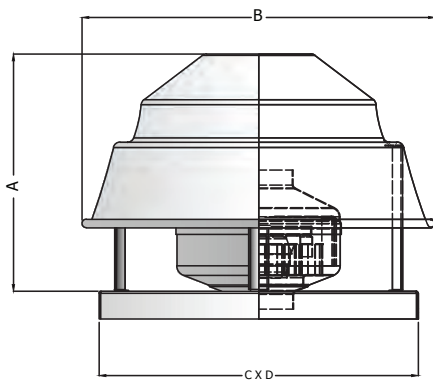


- F-----50 Hz
- S-----60 Hz
- L-----Low speed
- H-----High speed
- R-----Roof Mounted
  
- TIF 04, 05, 06, 08, 10 & 12  
Series size range

### Overall Size

Model No.	A	B	C X D
TIF 04R	350	660	500 185
TIF 05R	350	660	500 185
TIF 06R	440	840	600 185
TIF 08R	440	840	600 235
TIF 10R	440	840	600 285
TIF 12R	510	980	880 335

All Dimensions in mm

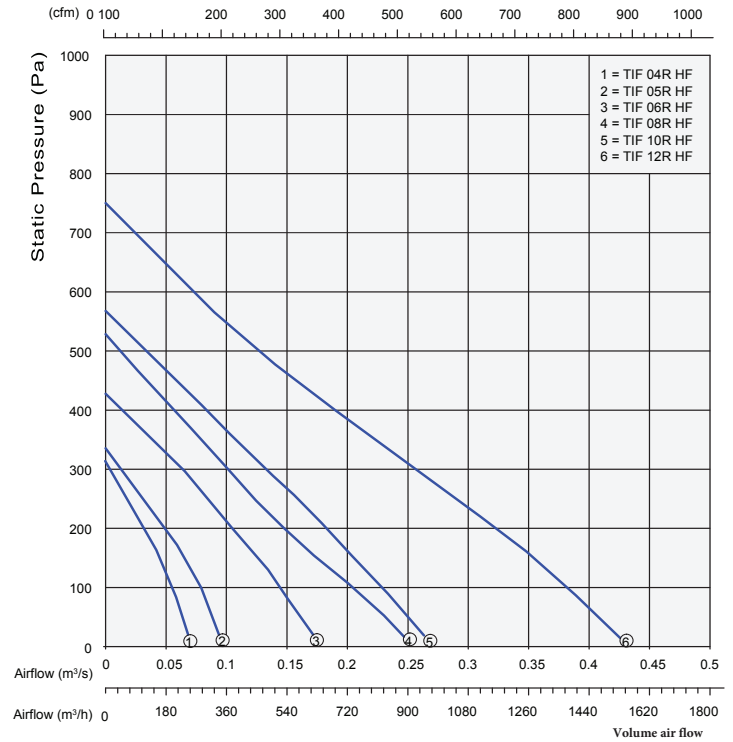
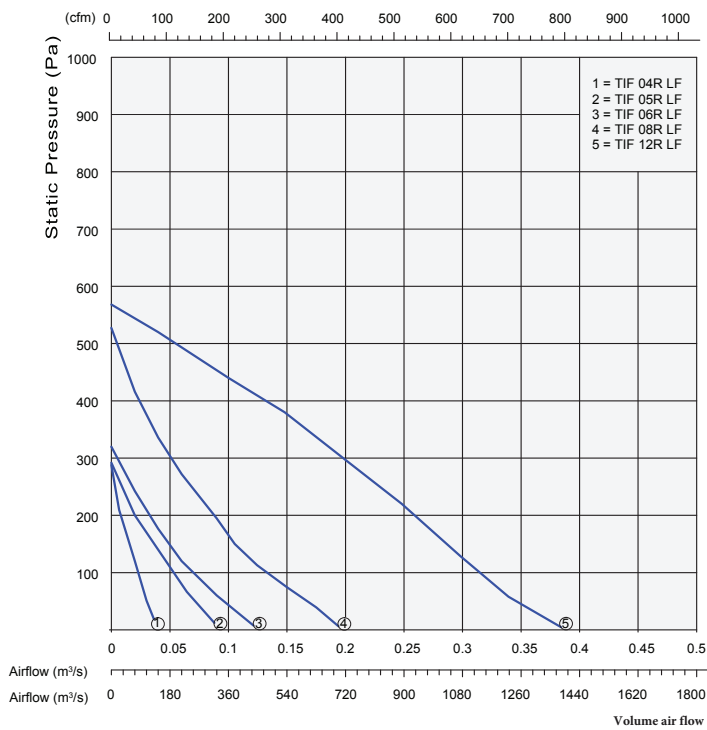




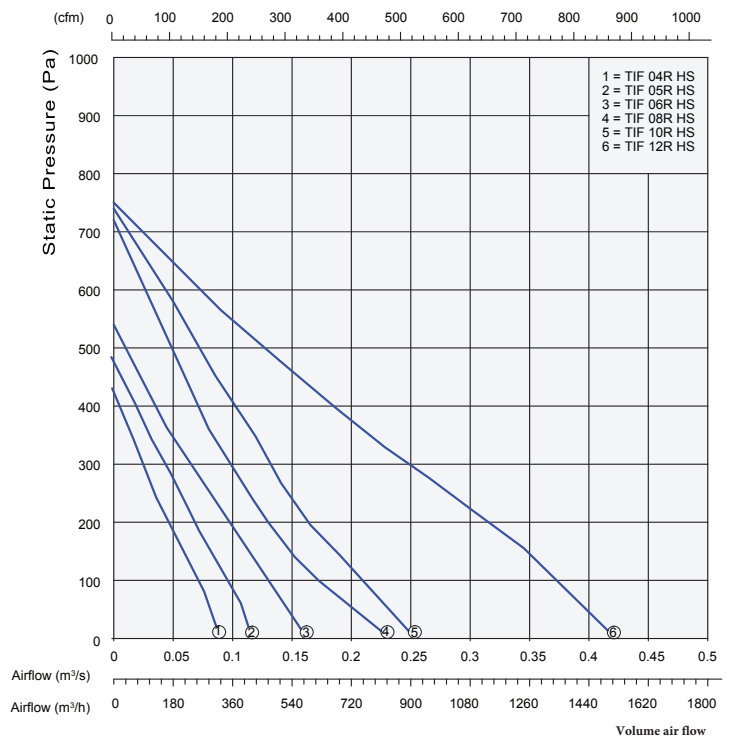
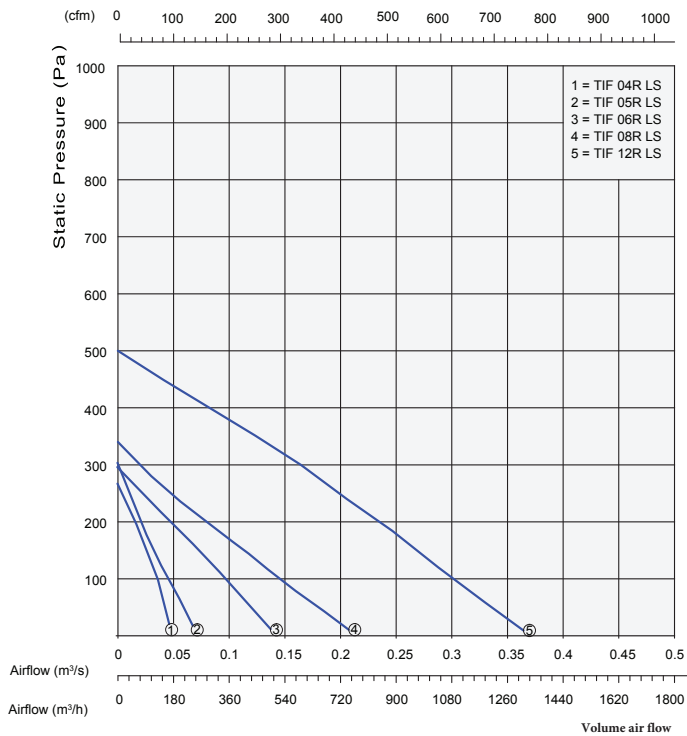
# TIF R SERIES

## TIF Series Centrifugal Inline Fans

### Quick selection-50 Hz



### Quick selection-60 Hz



### Technical Data

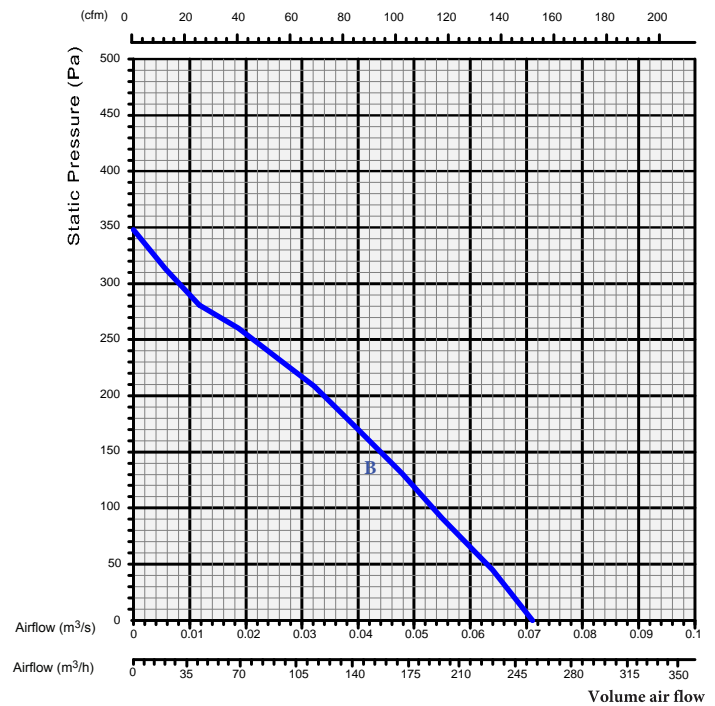
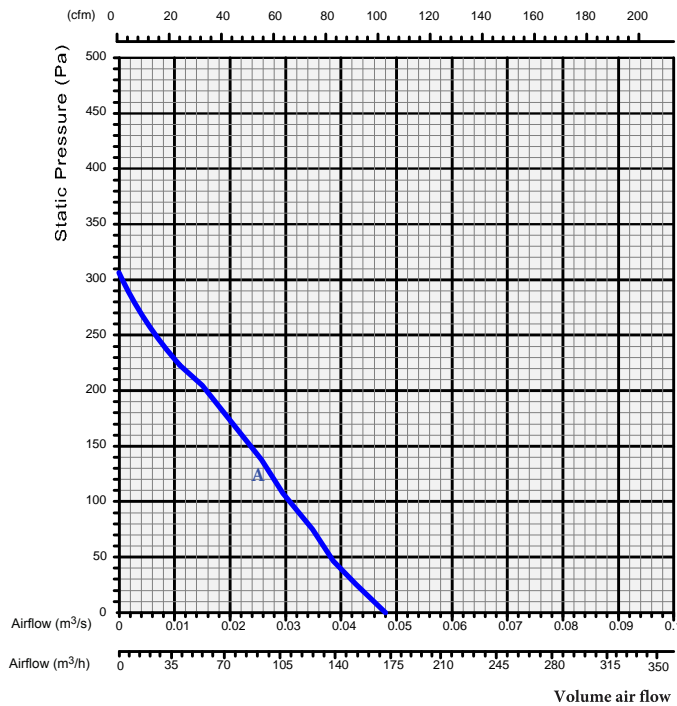
Type: TIF 04 R LF (Non-AMCA)			
Voltage, V/Hz	230/50	Speed, RPM	1467
Current, A	0.14	Air Flow [m³/s]	0.048
Maximum Motor input Watt	33	Insulation Class	F
Capacitor $\mu\text{F}$	2	Protection	IP 44/54
Ambient Temp. $t_a$	-20°C - +60°C	Weight, kg	3.5
Performance Curve A			

"Model TIF 04 R LF are not certified by AMCA international"

Type: TIF 04 R HF (Non-AMCA)			
Voltage, V/Hz	230/50	Speed, RPM	2261
Current, A	0.28	Air Flow [m³/s]	0.071
Maximum Motor input Watt	64	Insulation Class	F
Capacitor $\mu\text{F}$	2	Protection	IP 44/54
Ambient Temp. $t_a$	-20°C - +60°C	Weight, kg	3.5
Performance Curve B			

"Model TIF 04 R HF are not certified by AMCA international"

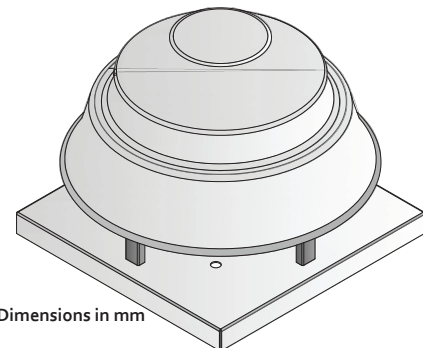
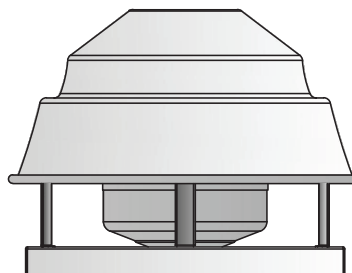
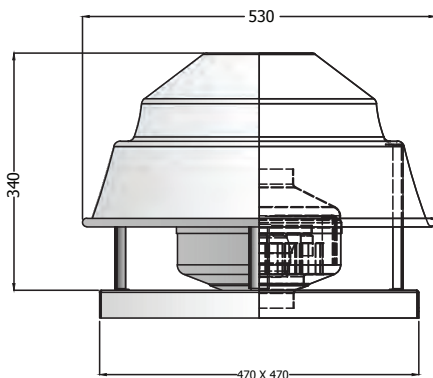
### Performance Curve



Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts)							
			Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2261	0.071	0.00	68	73	65	61	55	54	49	43
2796	0.012	274	70	73	67	63	57	57	51	45

### Dimensional Drawings



All Dimensions in mm

# TIF 04R

## TIF Series Centrifugal Inline Fans

### Technical Data

Type: TIF 04 R LS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM air	1470
Current, A	0.15	Flow [m <sup>3</sup> /s]	0.049
Maximum Motor input Watt	35	Insulation Class	F
Capacitor $\mu$ F	2	Protection	IP 44/54
Ambient Temp. $t_r$ :	-20°C - +60°C	Weight, kg	3.5

Performance Curve C

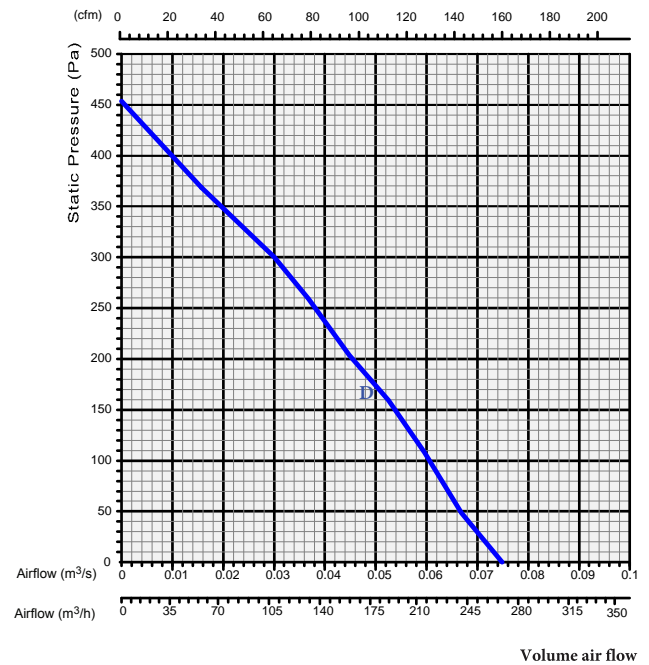
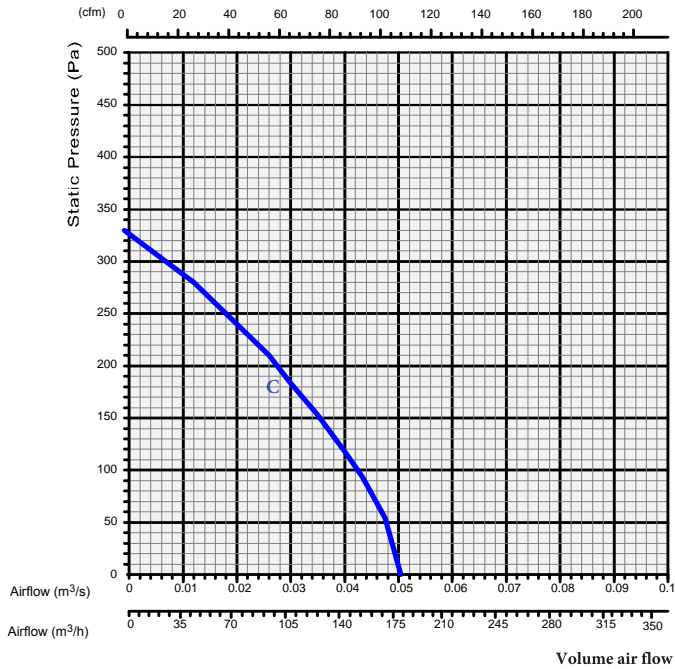
"Model TIF 04 R LS are not certified by AMCA international"

Type: TIF 04 R HS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM air	2404
Current, A	0.34	Flow [m <sup>3</sup> /s]	0.075
Maximum Motor input Watt	79	Insulation Class	F
Capacitor $\mu$ F	2	Protection	IP 44/54
Ambient Temp. $t_r$ :	-20°C - +60°C	Weight, kg	3.5

Performance Curve D

"Model TIF 04 R HS are not certified by AMCA international"

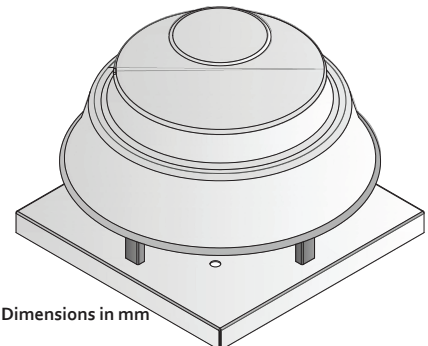
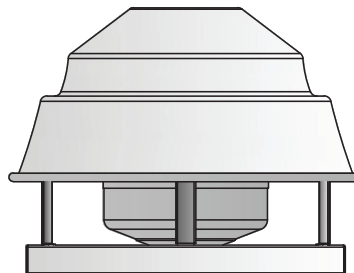
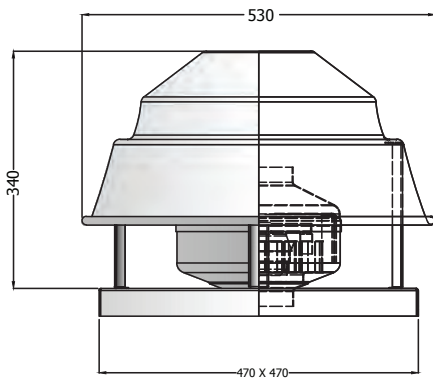
### Performance Curve



Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



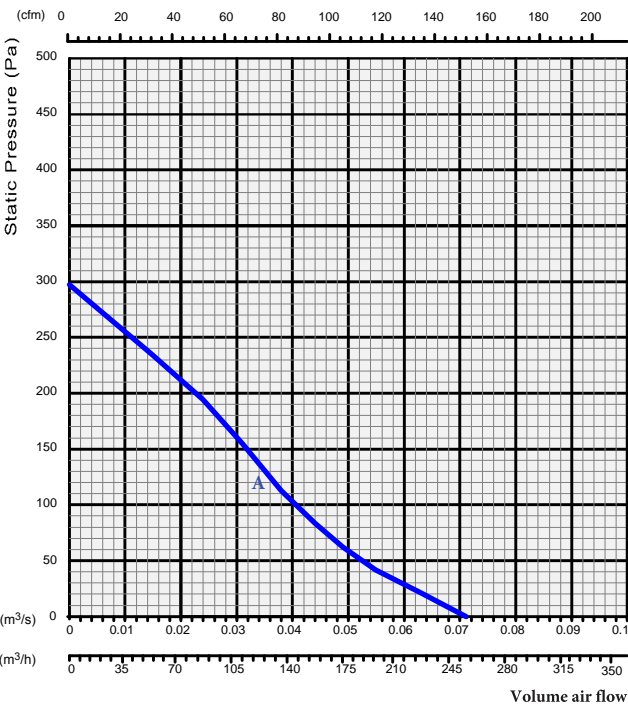
All Dimensions in mm

### Technical Data



Type: TIF 05 R LF (Non-AMCA)			
Voltage, V/Hz	230/50	Speed, RPM	1535
Current, A	0.16	Air Flow [m³/s]	0.071
Maximum Motor input Watt	37	Insulation Class	F
Capacitor $\mu$ F	2	Protection 	IP 44/54
Ambient Temp. $t_a$ :	-20°C - +60°C	Weight, kg 	3.5

Performance Curve A  
"Model TIF 05 R LF are not certified by AMCA international"

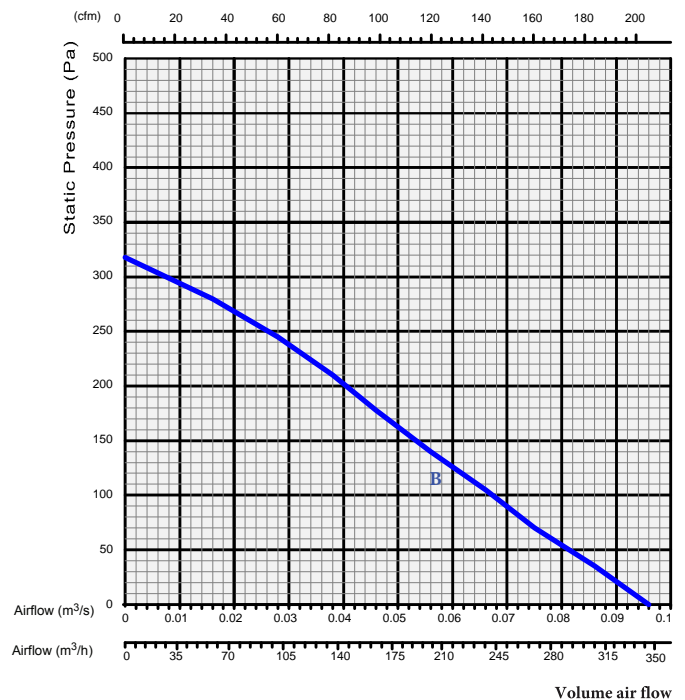
### Performance Curve



Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

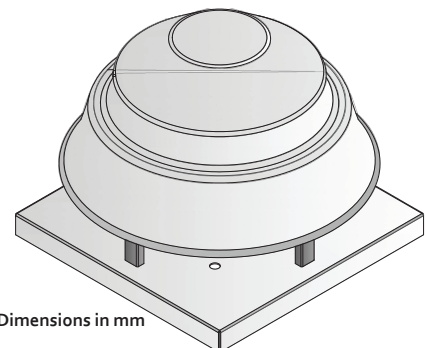
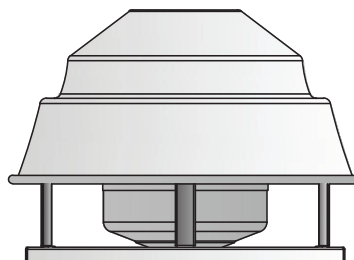
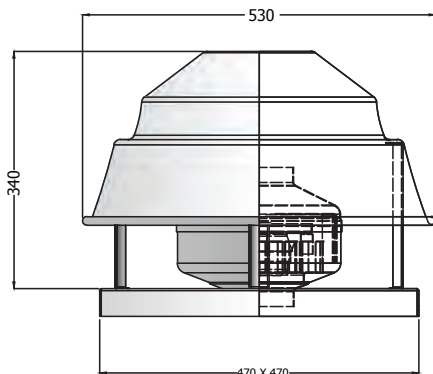
Type: TIF 05 R HF (Non-AMCA)			
Voltage, V/Hz	230/50	Speed, RPM	2210
Current, A	0.29	Air Flow [m³/s]	0.096
Maximum Motor input Watt	67	Insulation Class	F
Capacitor $\mu$ F	2	Protection 	IP 44/54
Ambient Temp. $t_a$ :	-20°C - +60°C	Weight, kg 	3.5

Performance Curve B  
"Model TIF05 R HF are not certified by AMCA international"



Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings





All Dimensions in mm



# TIF 05R

## TIF Series Centrifugal Inline Fans

### Technical Data

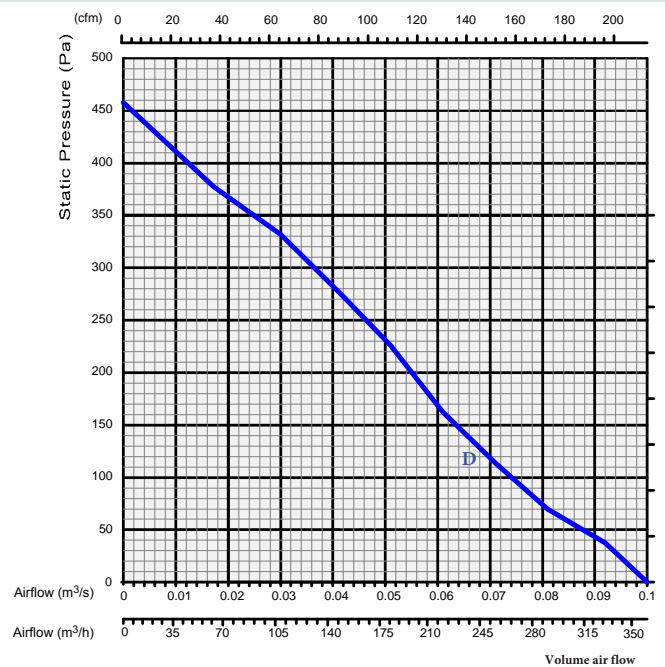
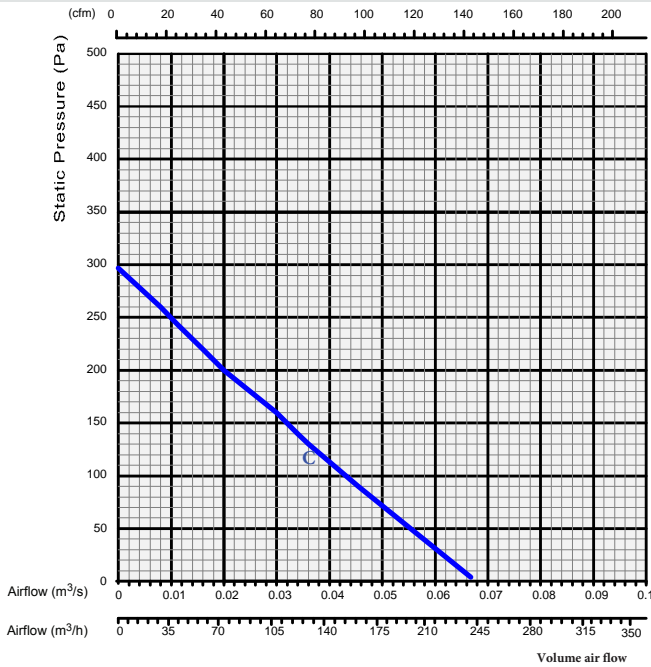
Type: TIF 05 R LS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1530
Current, A	0.15	Air Flow [m <sup>3</sup> /s]	0.067
Maximum Motor input Watt	41	Insulation Class	F
Capacitor $\mu$ F :	2	Protection	 IP 44/54
Ambient Temp. $t_a$ :	-20°C - +60°C	Weight, kg	 3.5

Performance Curve C  
 "Model TIF 05 R LS are not certified by AMCA international"

Type: TIF 05 R HS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	2249
Current, A	0.35	Air Flow [m <sup>3</sup> /s]	0.102
Maximum Motor input Watt	82	Insulation Class	F
Capacitor $\mu$ F :	2	Protection	 IP 44/54
Ambient Temp. $t_a$ :	-20°C - +60°C	Weight, kg	 3.5

Performance Curve D  
 "Model TIF 05 R HS are not certified by AMCA international"

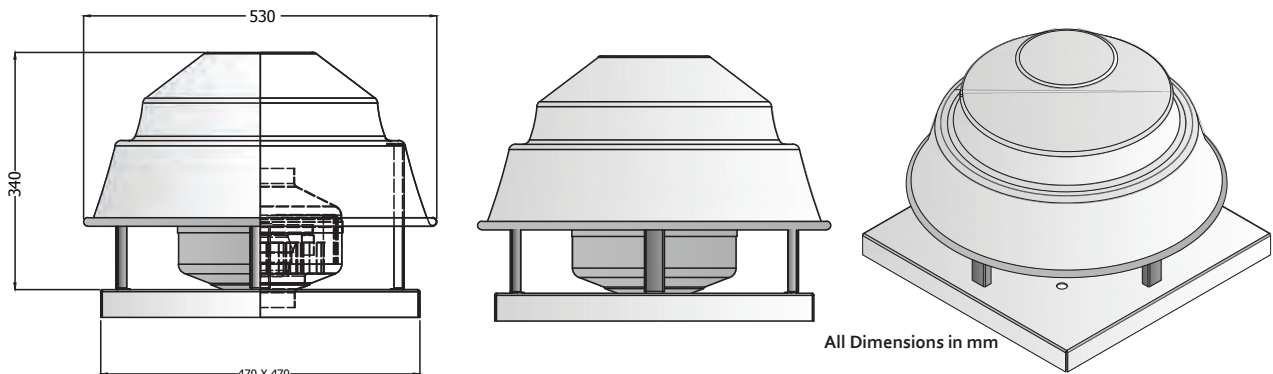
### Performance Curve



Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2249	0.102	0.00	83	82	77	73	66	62	58	49
3125	0.016	355	84	82	80	74	69	64	58	52

### Dimensional Drawings



All Dimensions in mm

### Technical Data

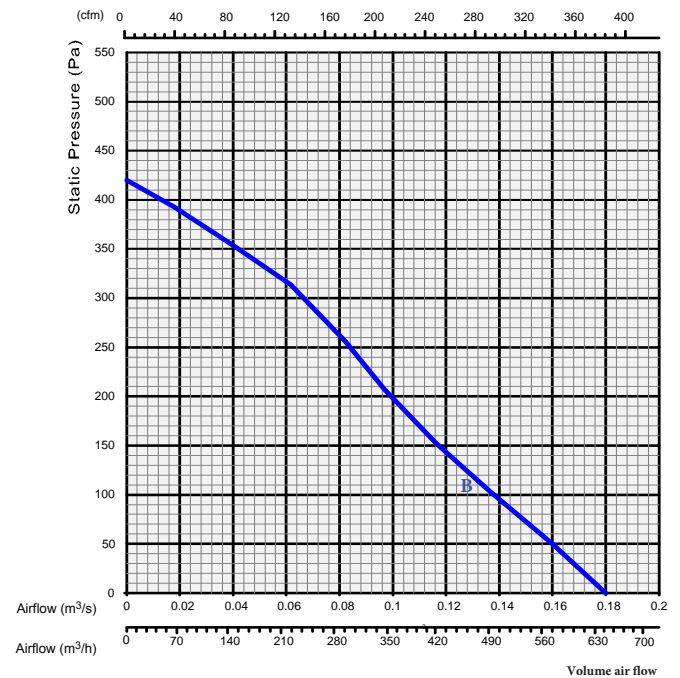
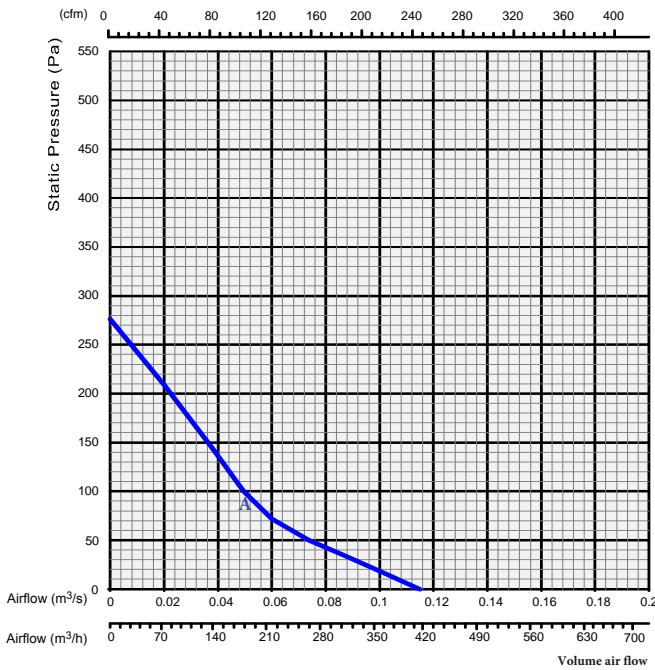
Type: TIF 06 R LF (Non-AMCA)			
Voltage, V/Hz	230/50	Speed, RPM	1517
Current, A	0.29	Air Flow [m <sup>3</sup> /s]	0.115
Maximum Motor input Watt	69	Insulation Class	F
Capacitor $\mu$ F	3	Protection $\triangle$	IP 44/54
Ambient Temp. $t_r$ :	-20°C - +60°C	Weight, kg $\blacksquare$	4.6

Performance Curve A  
"Model TIF 06 R LF are not certified by AMCA international"

Type: TIF 06 R HF (Non-AMCA)			
Voltage, V/Hz	230/50	Speed, RPM	2426
Current, A	0.39	Air Flow [m <sup>3</sup> /s]	0.180
Maximum Motor input Watt	100	Insulation Class	F
Capacitor $\mu$ F	3	Protection $\triangle$	IP 44/54
Ambient Temp. $t_r$ :	-20°C - +60°C	Weight, kg $\blacksquare$	4.6

Performance Curve B  
"Model TIF 06 R HF are not certified by AMCA international"

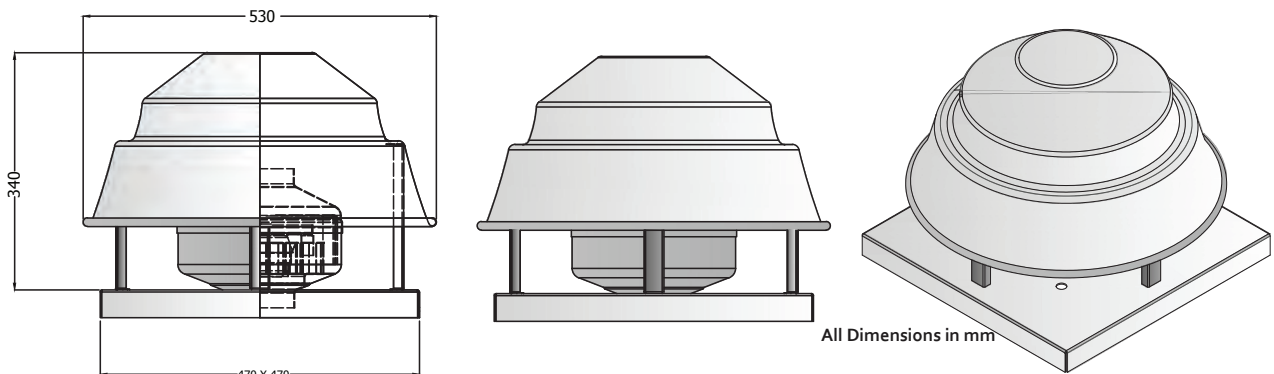
### Performance Curve



Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	38

Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2430	0.180	0.00	68	73	65	61	55	54	49	43
2416	0.063	315	82	86	76	73	65	59	58	50

### Dimensional Drawings



### Technical Data

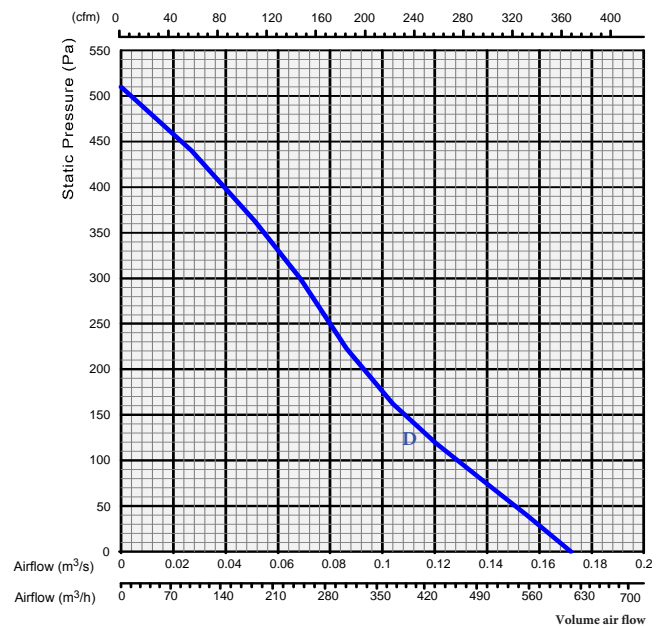
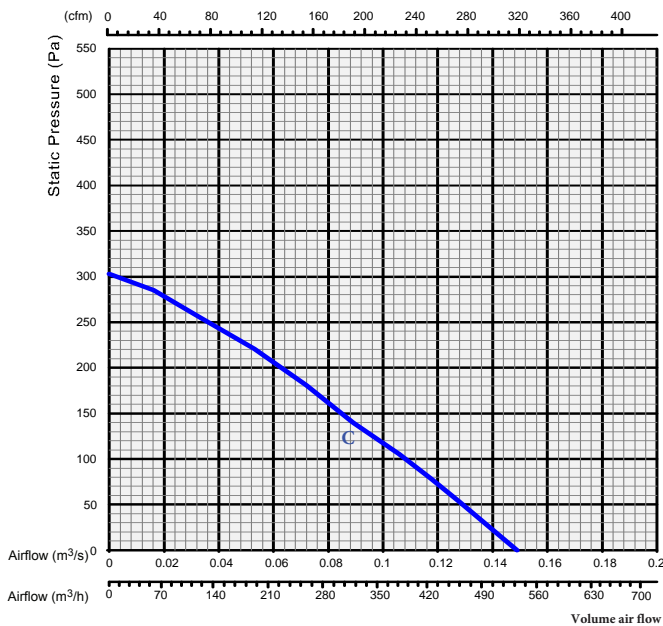
Type: TIF 06 R LS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1470
Current, A	0.29	Air Flow [m³/s]	0.148
Maximum Motor Input Watt	65	Insulation Class	F
Capacitor $\mu\text{F}$	3	Protection $\triangle$	IP 44/54
Ambient Temp. $t_a$ : -20°C - +60°C		Weight, kg $\blacksquare$	4.6
Performance Curve C			

"Model TIF 06 R LS are not certified by AMCA international"

Type: TIF 06 R HS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	2411
Current, A	0.34	Air Flow [m³/s]	0.172
Maximum Motor Input Watt	117	Insulation Class	F
Capacitor $\mu\text{F}$	4.6	Protection $\triangle$	IP 44/54
Ambient Temp. $t_a$ : -20°C - +60°C		Weight, kg $\blacksquare$	4.6
Performance Curve D			

"Model TIF 06 R HS are not certified by AMCA international"

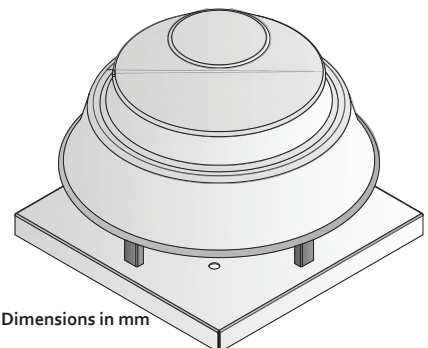
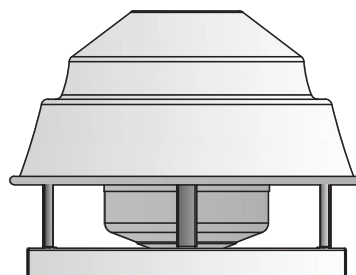
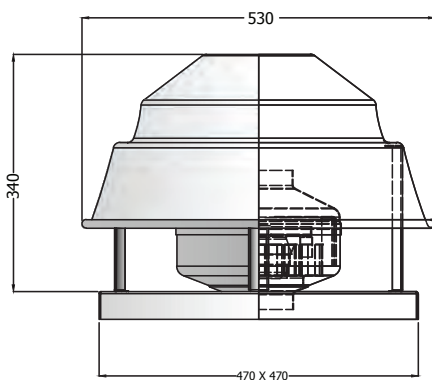
### Performance Curve



Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2411	0.172	0.00	81	81	78	77	71	67	64	58
2401	0.069	300	81	85	79	75	68	63	60	54

### Dimensional Drawings



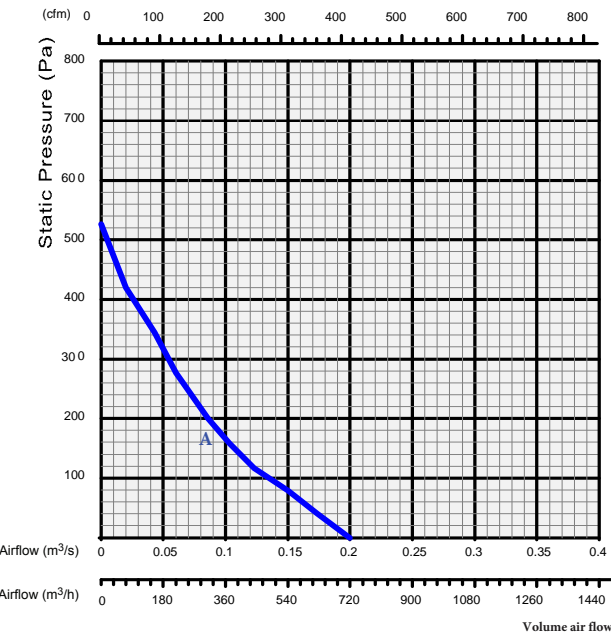
All Dimensions in mm

### Technical Data

Type: TIF 08 R LF (Non-AMCA)			
Voltage, V/Hz	230/50	Speed, RPM	2059
Current, A	0.42	Air Flow [m <sup>3</sup> /s]	0.200
Maximum Motor Input Watt	105	Insulation Class	F
Capacitor μF	10	Protection	△ IP 44/54
Ambient Temp. t <sub>a</sub> :	-20°C - +60°C	Weight, kg	■ 5.7
Performance Curve A			

"Model TIF 08 R LF are not certified by AMCA international"

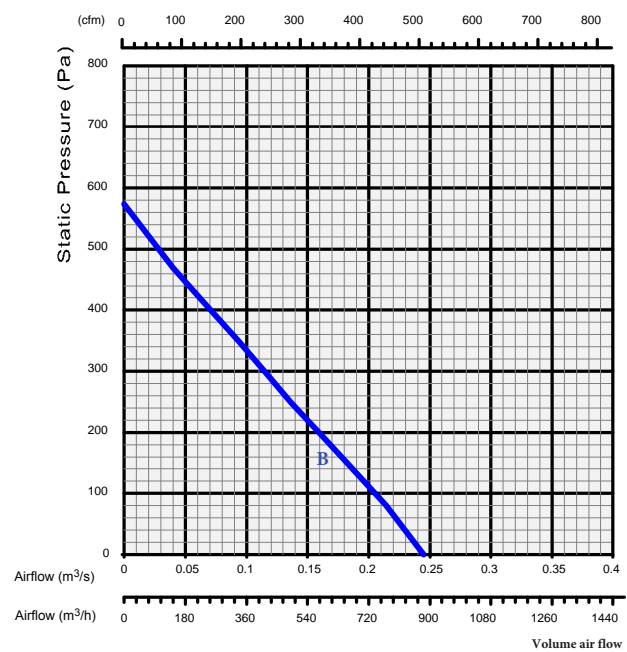
### Performance Curve



Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2059	0.200	0.00	81	78	69	69	64	61	59	55
2087	0.064	273	79	86	74	71	63	59	57	49

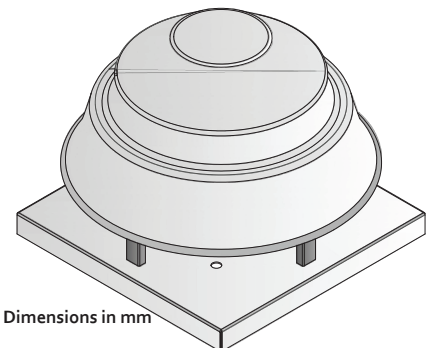
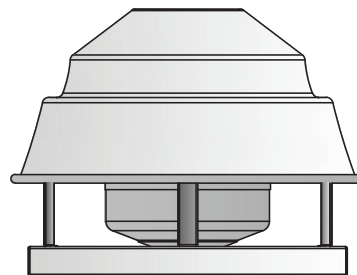
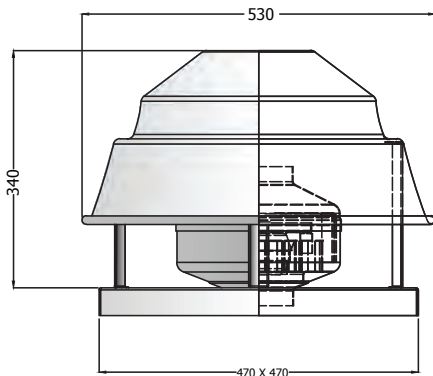
Type: TIF 08 R HF (Non-AMCA)			
Voltage, V/Hz	230/50	Speed, RPM	2484
Current, A	0.57	Air Flow [m <sup>3</sup> /s]	0.246
Maximum Motor Input Watt	152	Insulation Class	F
Capacitor μF	4	Protection	△ IP 44/54
Ambient Temp. t <sub>a</sub> :	-20°C - +60°C	Weight, kg	■ 5.7
Performance Curve B			

"Model TIF 08 R HF are not certified by AMCA international"



Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2484	0.246	0.00	82	80	73	75	69	65	64	60
2450	0.094	348	82	91	77	74	66	63	61	55

### Dimensional Drawings



All Dimensions in mm



### Technical Data

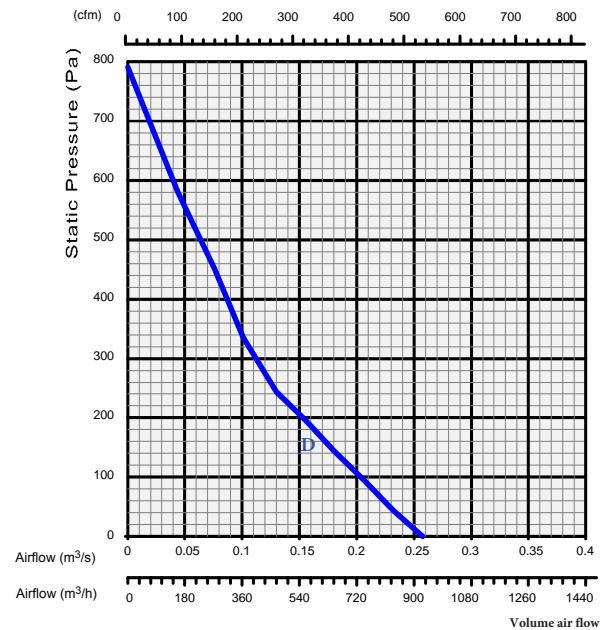
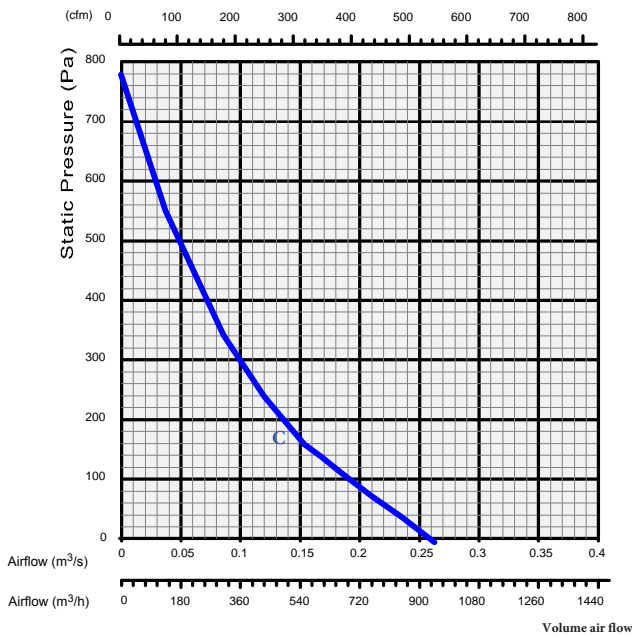
Type: TIF 08 R LS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1940
Current, A	0.50	Air Flow [m³/s]	0.205
Maximum Motor Input Watt	112	Insulation Class	F
Capacitor μF	4	Protection	△ IP 44/54
Ambient Temp. t <sub>a</sub>	-20°C - +60°C	Weight, kg	■ 5.7
Performance Curve C			

"Model TIF 08 R LS are not certified by AMCA international"

Type: TIF 08 R HS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	2587
Current, A	0.75	Air Flow [m³/s]	0.259
Maximum Motor Input Watt	192	Insulation Class	F
Capacitor μF	4	Protection	△ IP 44/54
Ambient Temp. t <sub>a</sub>	-20°C - +60°C	Weight, kg	■ 5.7
Performance Curve D			

"Model TIF 08 R HS are not certified by AMCA international"

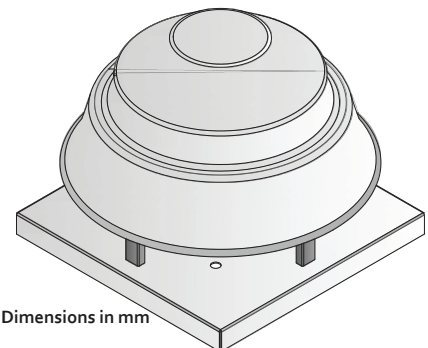
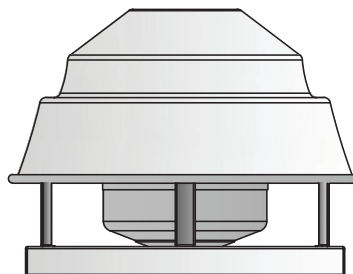
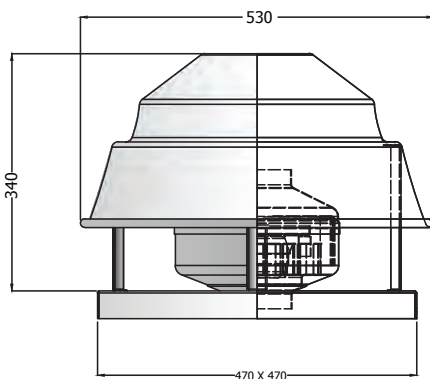
### Performance Curve



Nominal RPM	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m³/s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



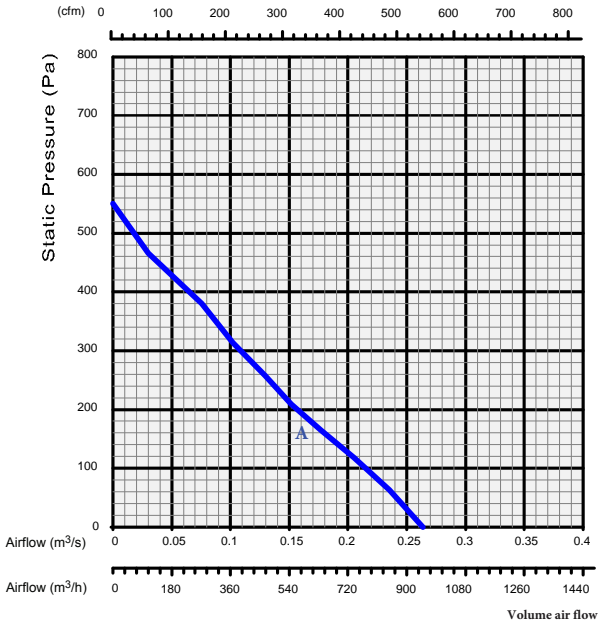
All Dimensions in mm

### Technical Data



Type: TIF 10 R HF (Non-AMCA)			
Voltage, V/Hz	230/50	Speed, RPM	2343
Current, A	0.62	Air Flow [m <sup>3</sup> /s]	0.263
Maximum Motor Input Watt	165	Insulation Class	F
Capacitor $\mu$ F	4	Protection 	IP 44/54
Ambient Temp. $t_R$	-20°C - +60°C	Weight, kg 	5.7

Performance Curve A  
"Model TIF 10 R HF are not certified by AMCA international"

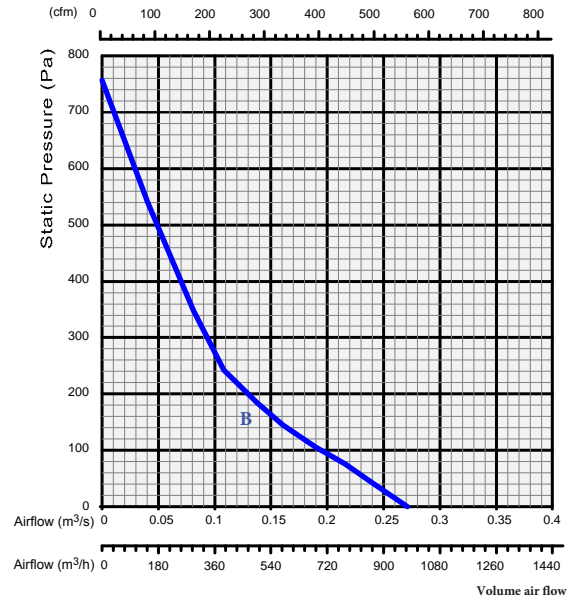
### Performance Curve



Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

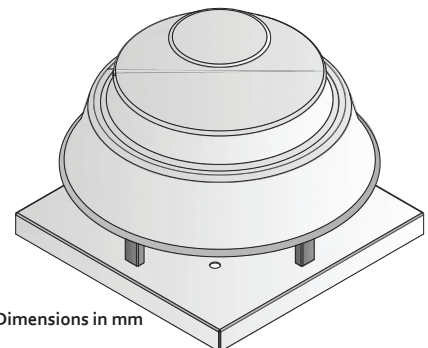
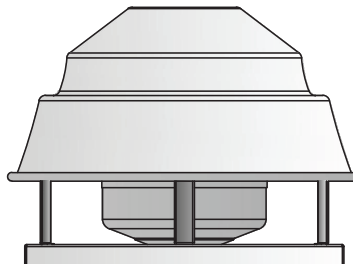
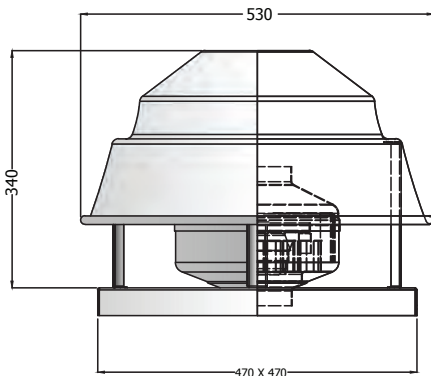
Type: TIF 10 R HS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	2207
Current, A	0.83	Air Flow [m <sup>3</sup> /s]	0.272
Maximum Motor Input Watt	204	Insulation Class	F
Capacitor $\mu$ F	4	Protection 	IP 44/54
Ambient Temp. $t_R$	-20°C - +60°C	Weight, kg 	5.7

Performance Curve B  
"Model TIF 10 R HS are not certified by AMCA international"



Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2261	0.071	0.00	68	73	65	61	55	54	49	43
2796	0.012	274	70	73	67	63	57	57	51	45

### Dimensional Drawings



All Dimensions in mm

# TIF 12R

## TIF Series Centrifugal Inline Fans

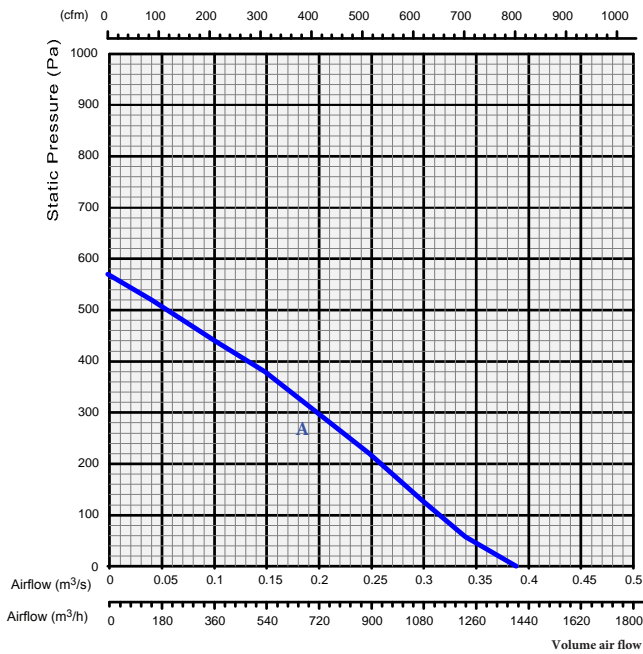
### Technical Data

Type: TIF 12 R LF ( Non-AMCA)			
Voltage, V/Hz	230/50	Speed, RPM	2120
Current, A	0.83	Air Flow [m <sup>3</sup> /s]	0.387
Maximum Motor Input Watt	160	Insulation Class	F
Capacitor μF	16	Protection	IP 44/54
Ambient Temp. t <sub>R</sub>	-20°C - +60°C	Weight, kg	6.6

Performance Curve A

"Model TIF 12 R LF are not certified by AMCA international"

### Performance Curve

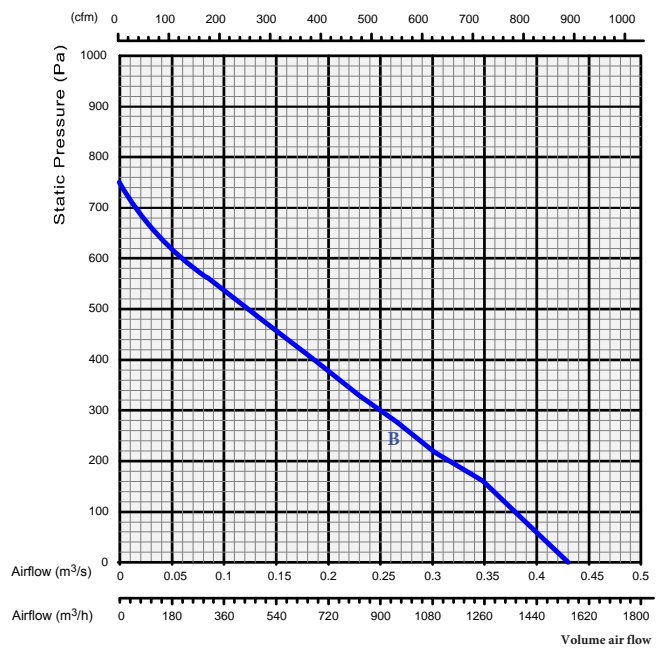


Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> watts) Octave Band Center Frequency (Hz)							
			63	125	250	500	1K	2K	4K	8K
2170	0.049	0.00	68	72	68	61	55	52	51	42
2239	0.014	306	71	74	69	63	58	55	56	45

Type: TIF 12 R HF (Non-AMCA)			
Voltage, V/Hz	230/50	Speed, RPM	2517
Current, A	1.04	Air Flow [m <sup>3</sup> /s]	0.432
Maximum Motor Input Watt	295	Insulation Class	F
Capacitor μF	8	Protection	IP 44/54
Ambient Temp. t <sub>R</sub>	-20°C - +60°C	Weight, kg	6.6

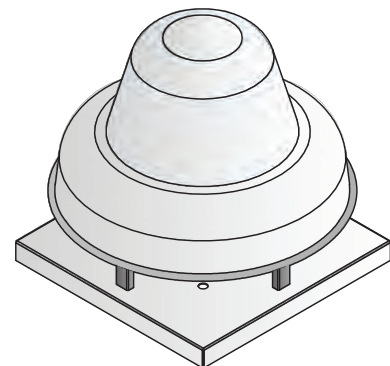
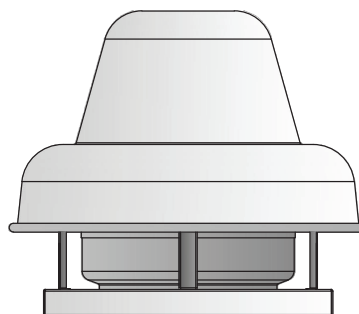
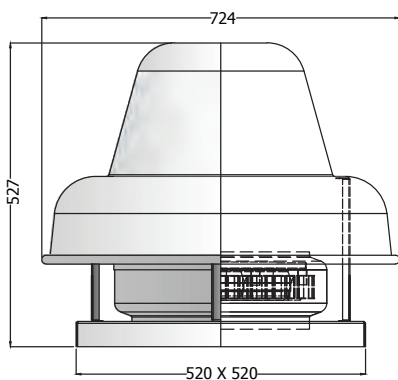
Performance Curve B

"Model TIF 12 R HF are not certified by AMCA international"



Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



### Technical Data

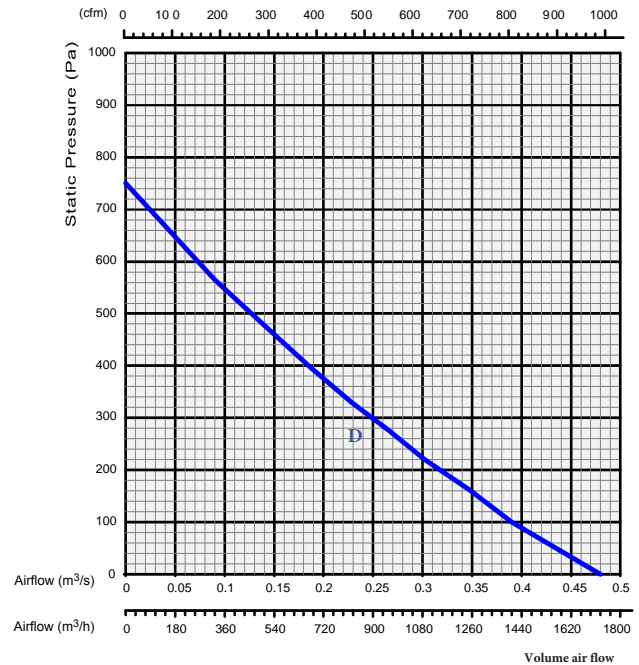
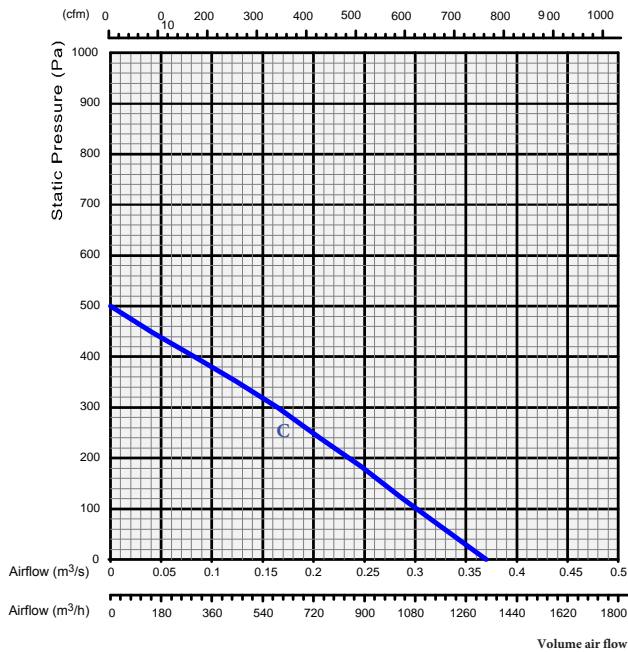
Type: TIF 12 R LS ( Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	1960
Current, A	0.83	Air Flow [m <sup>3</sup> /s]	0.379
Maximum Motor Input Watt	190	Insulation Class	F
Capacitor μF	8	Protection	⚠ IP 44/54
Ambient Temp. t <sub>R</sub>	-20°C - +60°C	Weight, kg	6.6

Performance Curve C  
"Model TIF 12 R LS are not certified by AMCA international"

Type: TIF 12 R HS (Non-AMCA)			
Voltage, V/Hz	230/60	Speed, RPM	2705
Current, A	1.40	Air Flow [m <sup>3</sup> /s]	0.470
Maximum Motor Input Watt	363	Insulation Class	F
Capacitor μF	8	Protection	⚠ IP 44/54
Ambient Temp. t <sub>R</sub>	-20°C - +60°C	Weight, kg	6.6

Performance Curve D  
"Model TIF 12 R HS are not certified by AMCA international"

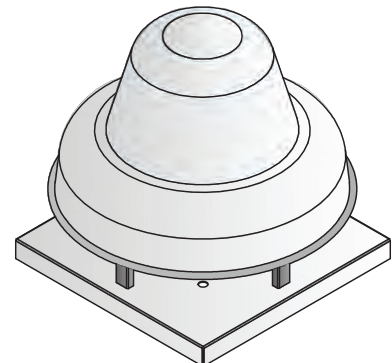
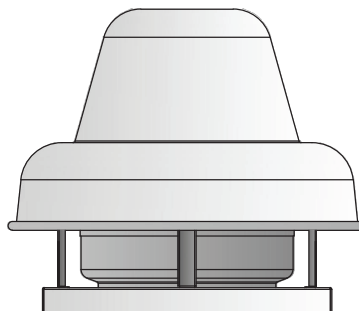
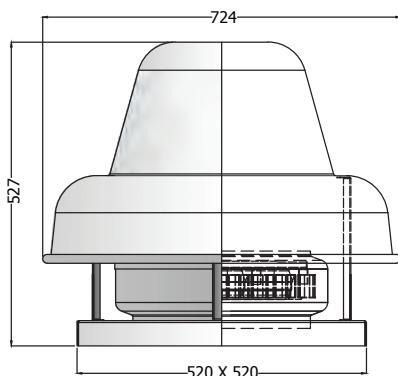
### Performance Curve



Nominal RPM	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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	Air Flow [m <sup>3</sup> /s]	Static Pressure [Pa]	Sound power level (dB re 10 <sup>-12</sup> 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

### Dimensional Drawings



# Engineering Specifications

## Tubular Inline Fan -TIF

Centrifugal Inline Exhaust Fans shall be TIF Direct Drive, by Energy industrial Fan housing shall be constructed of heavy gauge galva-nized sheet metal with a powder coated finish (optional). 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.

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 wheel 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.

### › Model

TIF 04    TIF 05    TIF C = Cabinet Type  
TIF 06    TIF 08    TIF T = Twin Type  
TIF 10    TIF 12    TIF R = Roof Type

### › Damper

N = None  
BDD = Gravity Backdraft  
Damper X = Special

### › Thermal Overload Protection

N = None  
P = Thermal Overload Protection

### › Speed Controller

N = None  
L = Loose  
M = Mounted  
Z = Special

› **Products Covered**

Energy industrial TIF series Fans

› **One Year Limited Warranty For Energy Products**

Energy industry 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 industry 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 industry recommendations.

› **Limitations**

- In all cases, Energy industry 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 industry 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's only obligation with respect to components not manufactured by Energy industry 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 Industry, misapplication and operation in excess of stated performance characteristics).
- Components not manufactured by Energy industries.

› **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)

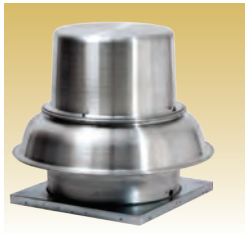
Energy industries hereby disclaims any liability for special, punitive, indirect, incidental or consequential damages, including without limitation lost profits or revenues, loss of use of equipment, cost of capital, cost of substitute products, facilities or services, downtime, shutdown or slowdown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

The remedies of the original commercial purchaser set forth herein are exclusive and the liability of Energy industry 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 industry to its customer for the affected Product at the time the claim is made.

*Inquiries regarding these warranties should be sent to: Energy Industrial Company LLC, United Arab Emirates*

# Energy Industrial Co. Offers a Wide Range of Products

## General & Industrial Ventilation Products



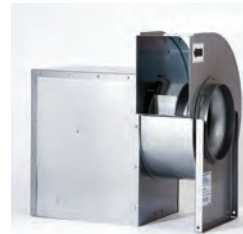
**Domex**  
Centrifugal  
Roof Exhausters



**Fumex**  
Centrifugal Roof  
Exhausters



**Centrex**  
Centrifuga Inline Fan



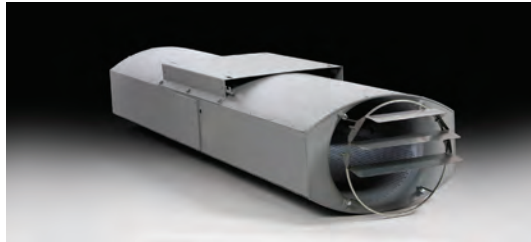
**Dynamo**  
Centrifugal Blowers



**ESI**  
Efficient Silent  
Inline Fan



**AXV**  
Axial Fan



**Model JFUO**  
Jet Fans



**Axial Fan  
MAO1 Series**



**Axial Window Fan  
MAO1 Series**



**Model BP**  
Variable Air Volume Box



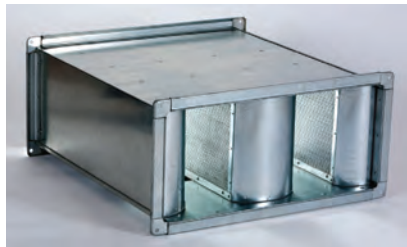
**Model TH**  
Variable Air Volume Box



**Ventilation Mangement System**



**Sand Trap Louvers**



**Sound Attenuators**



**HVAC Sensors & Transmitters**



**Control  
Panels**



**Ecology Unit**



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This fan features described in the sample, such as size, performance parameters, the Company reserves the right to change without notice

Referenc: EIND-TIF-18 (Ed:01 Rev:00) January 2019