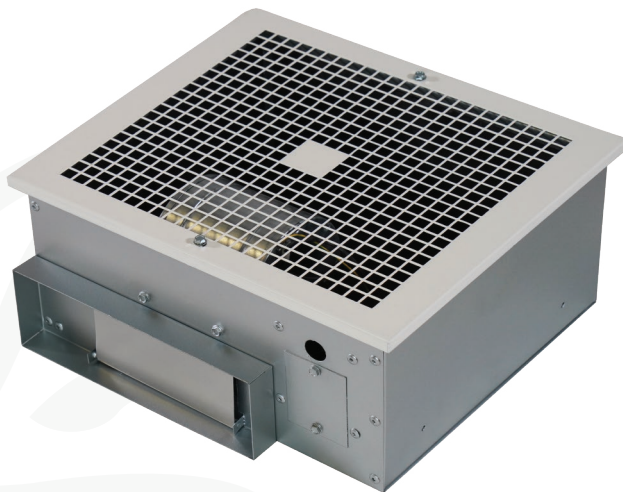


*We Care for Your Needs*

## CEILING & CABINET EXHAUST FANS

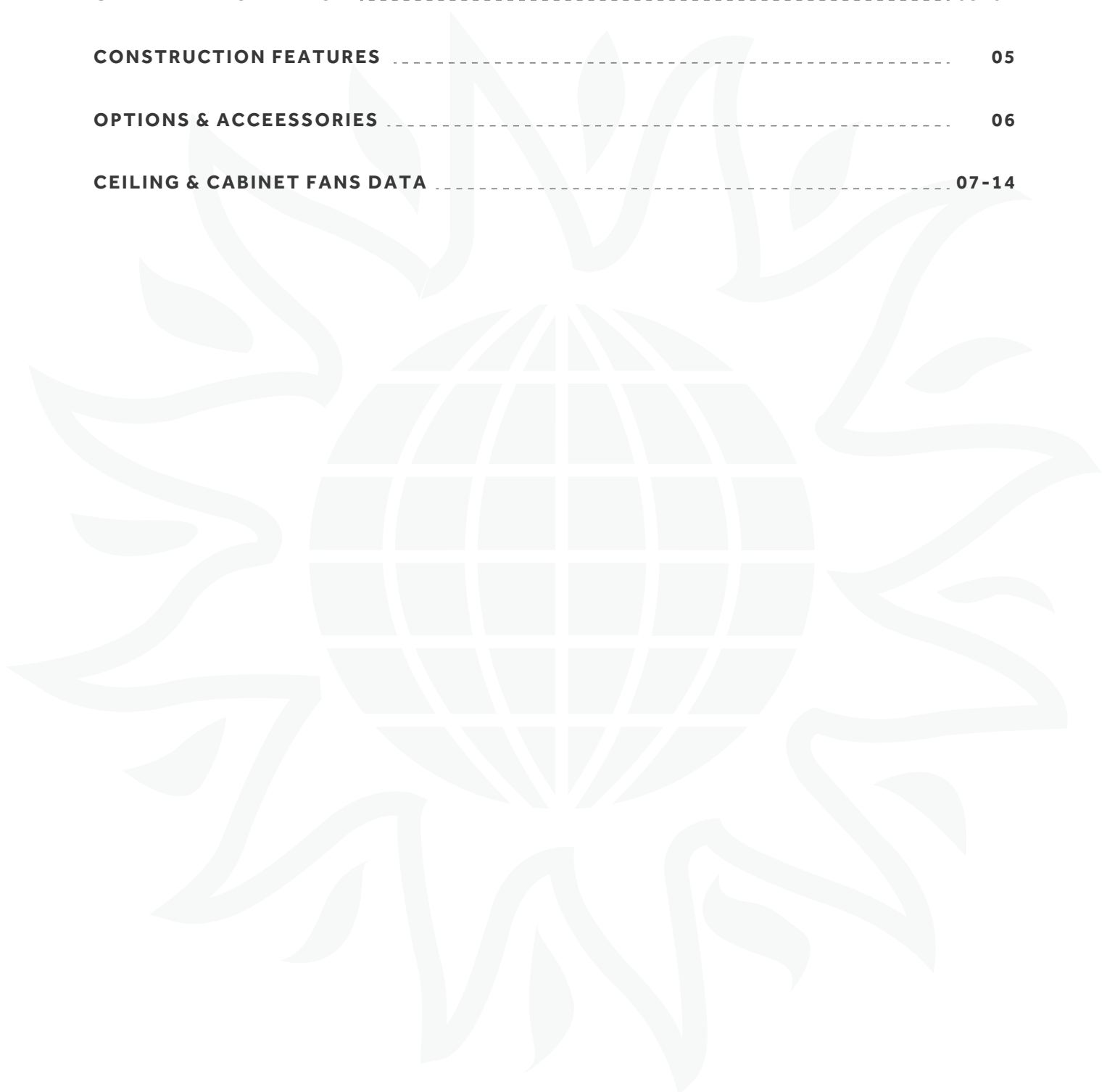
CF Series



**ENERGY TWIN CITY**  
A TWIN CITY FAN COMPANY

## TABLE OF CONTENTS

<b>GENERAL INFORMATION</b> .....	<b>03-04</b>
<b>CONSTRUCTION FEATURES</b> .....	<b>05</b>
<b>OPTIONS &amp; ACCESSORIES</b> .....	<b>06</b>
<b>CEILING &amp; CABINET FANS DATA</b> .....	<b>07-14</b>



# CEILING & CABINET EXHAUST FANS

## CF Series

### OVERVIEW

Energy Twin City CF Ceiling and Inline cabinet Ventilators are designed for commercial applications requiring quiet, continuous, reliable operation. Exhausters are constructed with a low profile grille and are easy to duct horizontally, vertically or inline, with many models offering round duct connectors as standard.

### TYPICAL APPLICATIONS INCLUDE

Suitable for indoor and outdoor applications, light commercial and industrial applications such as schools, shops, sports complexes, offices, restaurants, Bathroom Exhaust, HVAC, Home Ventilation

### CONFIGURATIONS

Horizontal Ceiling or base Mount

#### Ceiling Units

Available in 05 sizes

- CF140L    ➤ CF140M    ➤ CF133DI
- CF140H    ➤ CF160L

#### Cabinet Units

Available in 08 sizes

- CF140L-I    ➤ CF133DI-I
- CF140M-I    ➤ CF140DI-I
- CF140H-I    ➤ CF175DI-I
- CF160L-I    ➤ CF225DI-I

### FAN PERFORMANCE

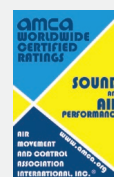
The high performance, low noise level motor, combined with a cabinet material makes CF units particularly suitable where low sound operating levels are critical.

### FEATURES & BENEFITS

- High performance pressure developing Inline/Ceiling fan suitable for extract or input applications using circular ductwork
- Insulation class B & F
- Motors - Direct drive, Single and double inlet, forward curved centrifugal fan / scroll assembly
- Continuously rated capacitor start and run motor with sealed for life bearings and safety thermal overload protection
- Metal impeller balanced to ISO 1940- G 2.5
- IP54/55 terminal box
- Fans are easily disconnected from a mounting plate for cleaning
- Supply voltage: 230-240V 50/60Hz

### CERTIFICATIONS

AMCA Sound & Air Performance, CE (IEC60335) EMC & RoHS



Energy Industrial Company L.L.C. certifies that the Models CF140L, CF140M, CF140H, CF160L & CF133DI shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

#### Low Voltage Directive

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



#### EMC Directive

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



#### RoHS Directive

Restriction of Hazardous substances in Electrical and Electronic Equipments.

# GENERAL INFORMATION

CF – CEILING & CABINET FANS SERIES

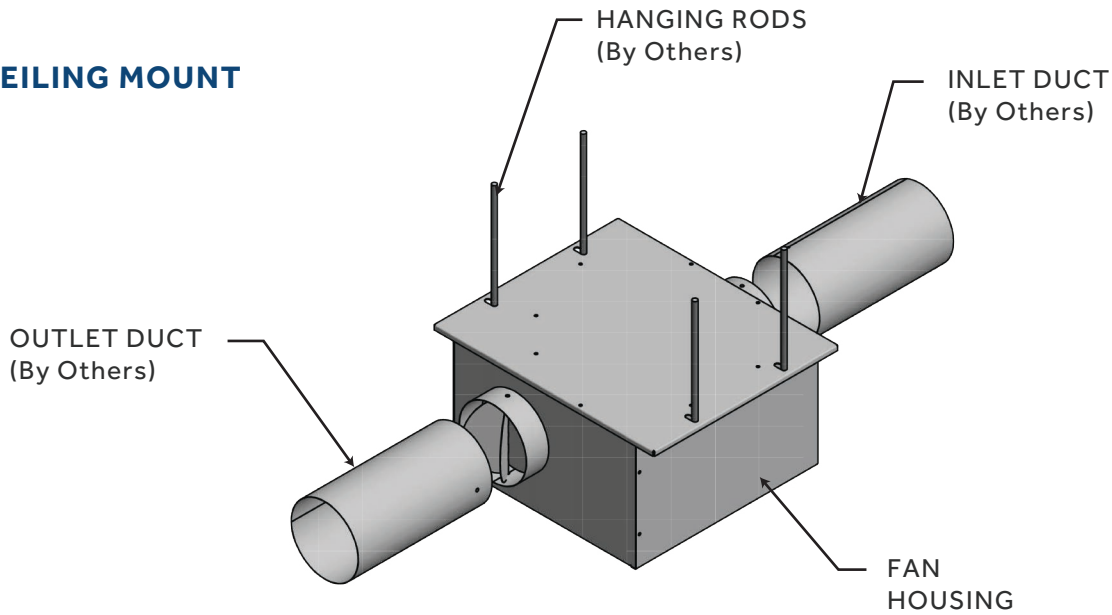
## EASY INSTALLATION

The compact design of the range allows the fans to easily be accommodated above a suspended ceiling or floor void using the mounting points provided.

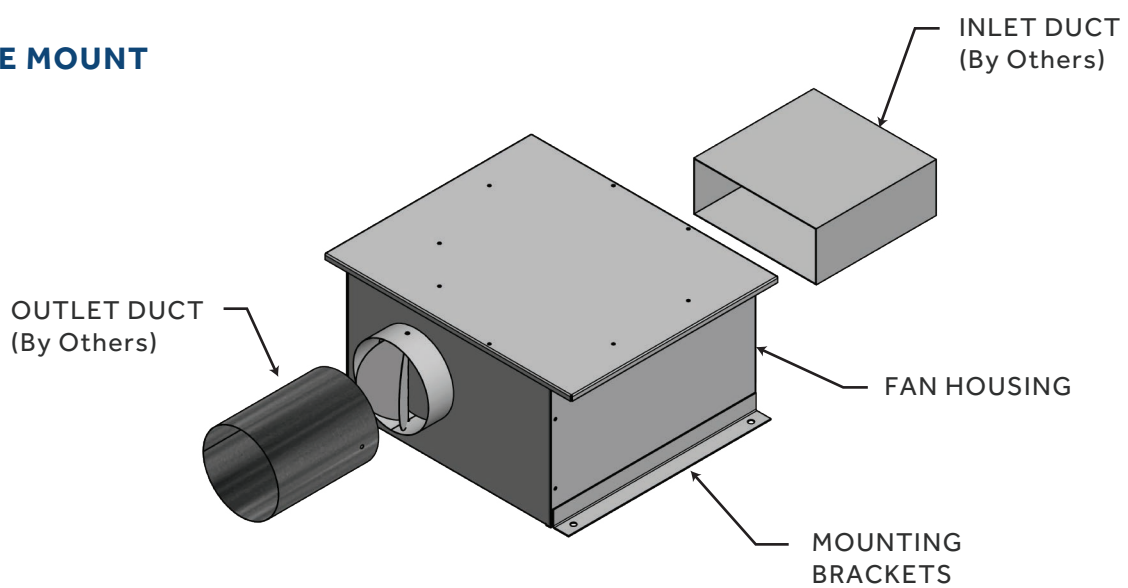
## INTERNAL WIRING

TEAO motors are factory-wired between the motor and junction box. For either Ceiling or Cabinet models, an electric disconnect is available.

### CEILING MOUNT



### BASE MOUNT



### CASING

A low profile for height-restricted areas, Unit casings is manufactured from best quality grade galvanized steel for weather proof IP65, with mounting brackets.

- Aluminum casing is optional.

### SINGLE/DOUBLE-WIDTH FORWARD-CURVED

Single-inlet, single width, or double-inlet, double width, Centrifugal type with high efficiency, low noise, forwardcurved, galvanized sheet steel impellers housed within galvanized steel/plastic scrolls.

Motor/impeller assemblies are statically and dynamically balanced, in two planes, in accordance with ISO 1940 G2.5.

Fans are mounted individually on to fan decks to facilitate easy removal.

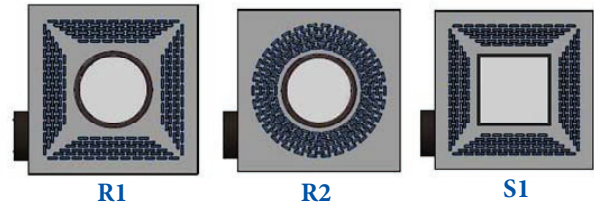


### TERMINAL BOX

Electrical connections are wired via an external IP 55/65/66 terminal box, with removable cover.

### GRILLE

Aluminum, Powder Coated, Concealed attachment screws securely fasten the grille to the housing for quiet operation.



- LED light is optional

### MOTORS

Motors are totally enclosed, high-efficiency, external rotor type Max. ambient operating temp. at least 60°C. Bearings are sealed-for-life, maintenance-free, ball bearing type with a minimum life expectancy of 50,000 hours under design operating conditions. Thermal contactors are incorporated into the windings to ensure overload protection.

Insulation is Class F with IP44 enclosure.

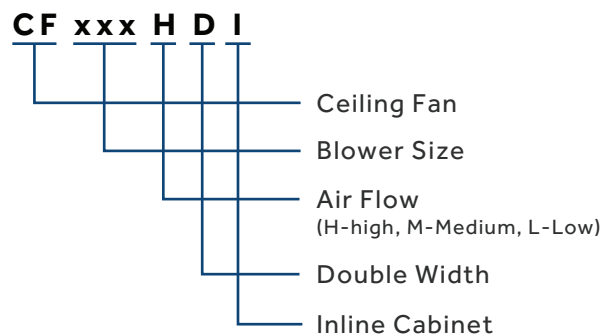
### INLET/OUTLET

Round - For quick and easy connections  
 Rectangle - For quick and easy connections.

### BACKDRAFT DAMPER

Built in Aluminum damper to reduce back drafts.

### ORDER CODE



# OPTIONS & ACCESSORIES

## CF – CEILING & CABINET FANS SERIES



### Variable Speed Control

Variable Speed Control is an optional accessory; allow the adjustment of airflow for system balancing. Variable speed controllers are solid-state design, Variable speed controls can be shipped separately.

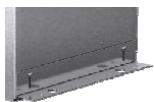
### Discharge Wall Cap - Aluminum



### Disconnect Switch

NEMA 1 type disconnect switch mounted in the motor compartment when ODP or TEFC motors used. When explosion proof motors are specified, a NEMA7/9 disconnect switch will be shipped loose for field mounting and wiring.

### Spring Isolators – Hunger Type



### Floor Mounting Brackets

### Rubber Isolators – Hunger Type

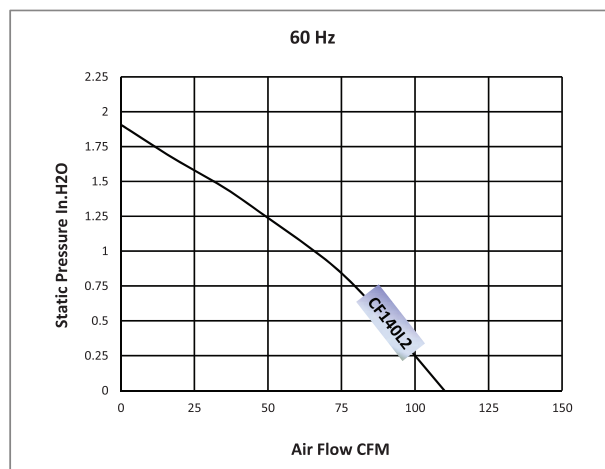
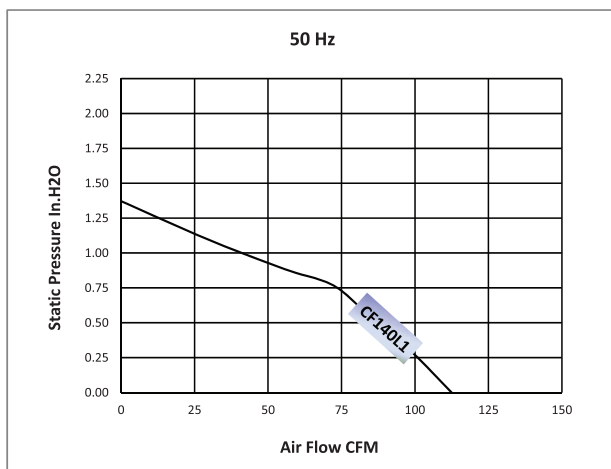


### Discharge Louver - Aluminum

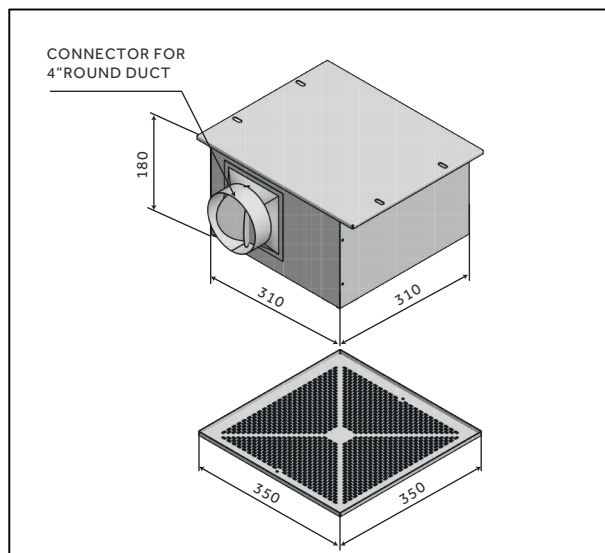
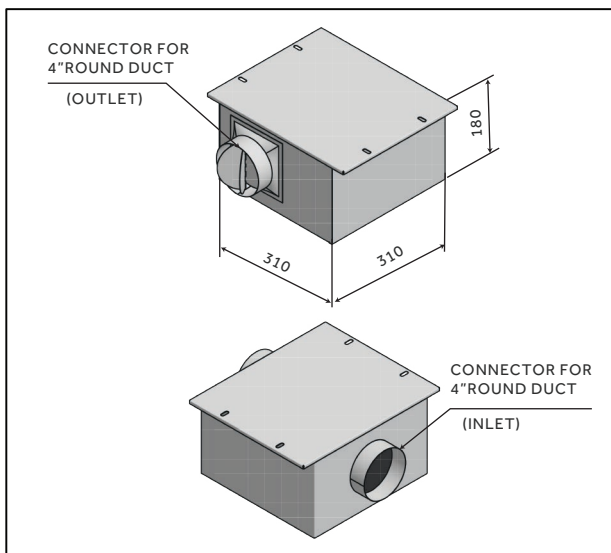
### Decorative Grilles with LED Light



### ➤ CF140L / CF140L-I - 230V 1 ~ - 50/60Hz



Model 50 Hz & 60 Hz	KW	A	RPM	0.00" Pst	0.125" Pst	0.250" Pst	0.375" Pst	0.500" Pst	0.625" Pst	0.750" Pst	1.000" Pst	
				CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
				Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones
CF140L1 CF140L1-I	0.039	0.17	820	112	107	101	94	87	80	74	-	
				9.4	9.4	8.9	8.9	9	9	9	-	
CF140L2 CF140L2-I	0.041	0.18	780	110	105	100	95	90	85	79	66	
				9	9	8.9	8.9	9	9	9	9	

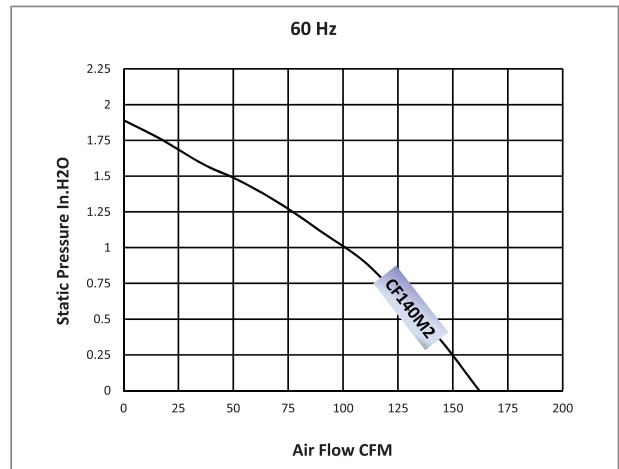
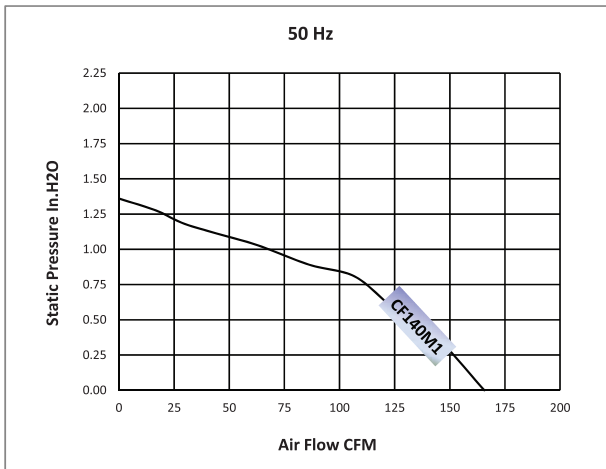


Performance shown is for installation type B: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. The sound ratings shown are loudness values in fan sones at a distance of 1.5m (5ft) in a hemispherical free field per AMCA International Standard 301. Values shown are for installation Type B: free inlet hemispherical sones levels. Performance ratings includes the effects of the aluminum grille and damper in the airstream.

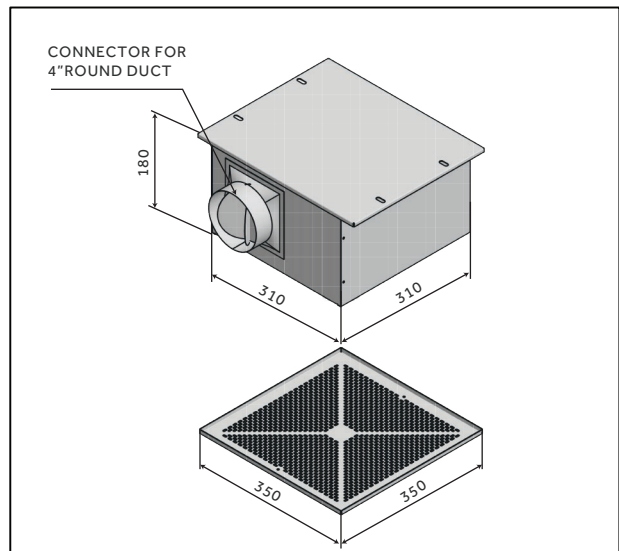
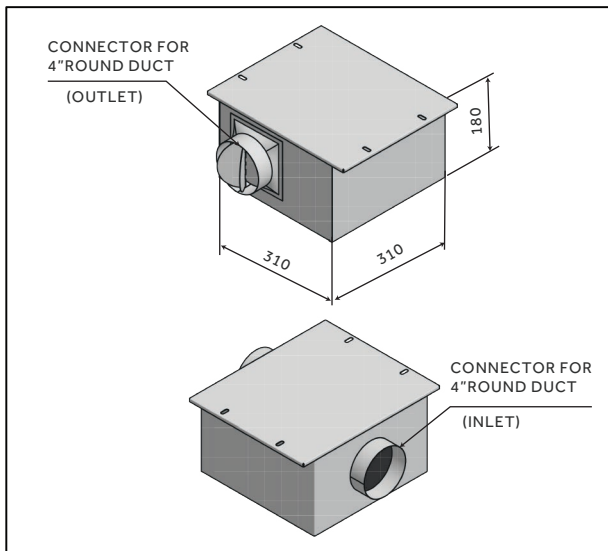
# CEILING & CABINET FANS DATA

## CF – CEILING & CABINET FANS SERIES

### ➤ CF140M / CF140M-I - 230V 1 ~ - 50/60Hz

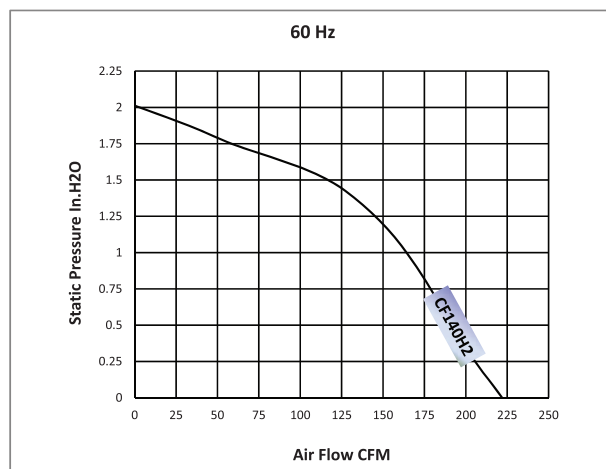
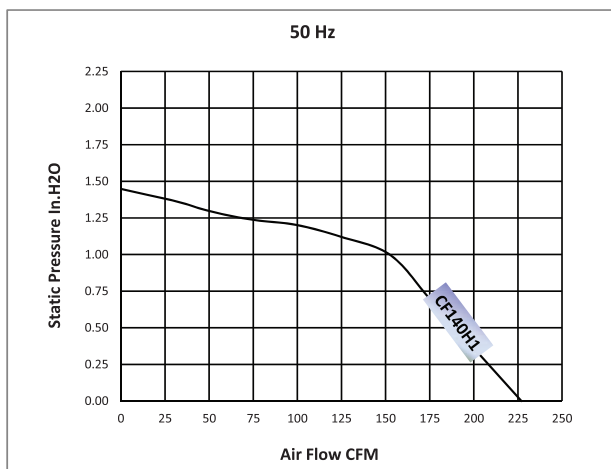


Model 50 Hz & 60 Hz	KW	A	RPM	0.00" Pst	0.125" Pst	0.250" Pst	0.375" Pst	0.500" Pst	0.625" Pst	0.750" Pst	1.000" Pst	
				CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
				Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones
CF140M1 CF140M1-I	0.063	0.3	1305	165	158	152	144	133	121	113	-	
				5.7	5.7	5.2	5.2	5.2	5.9	5.9	-	
CF140M2 CF140M2-I	0.065	0.28	1480	162	156	150	143	136	127	120	101	
				5.4	5.2	5.2	5.2	5.2	5.9	5.9	5.9	

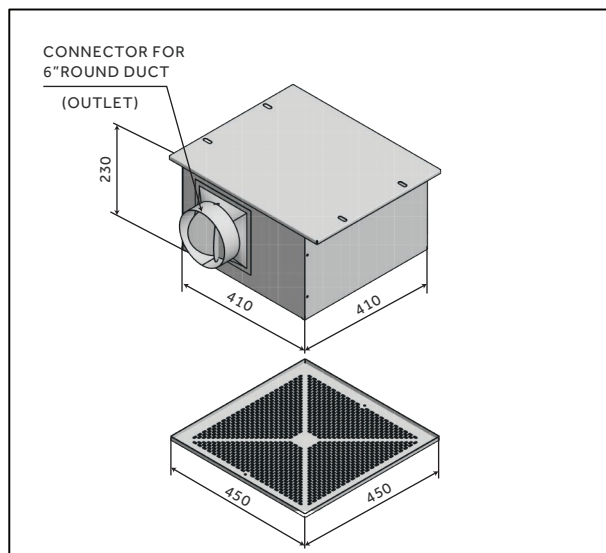
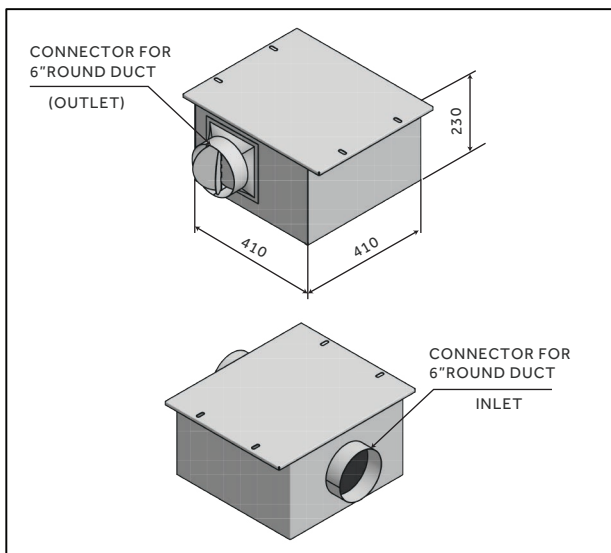


Performance shown is for installation type B: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. The sound ratings shown are loudness values in fan sones at a distance of 1.5m (5ft) in a hemispherical free field per AMCA International Standard 301. Values shown are for installation Type B: free inlet hemispherical sones levels. Performance ratings includes the effects of the aluminum grille and damper in the airstream.

### ➤ CF140H / CF140H-I - 230V 1 ~ - 50/60Hz



Model 50 Hz & 60 Hz	KW	A	RPM	0.00" Pst	0.125" Pst	0.250" Pst	0.375" Pst	0.500" Pst	0.625" Pst	0.750" Pst	1.000" Pst	
				CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
				Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones
CF140H1 CF140H1-I	0.112	0.50	1580	227	217	208	199	190	180	172	152	
				8	8	7.9	7.9	7.8	7.8	7.8	7.5	
CF140H2 CF140H2-I	0.125	0.55	1550	222	214	205	197	192	185	179	164	
				7.6	7.6	7.7	7.7	7.8	7.8	7.8	7.7	

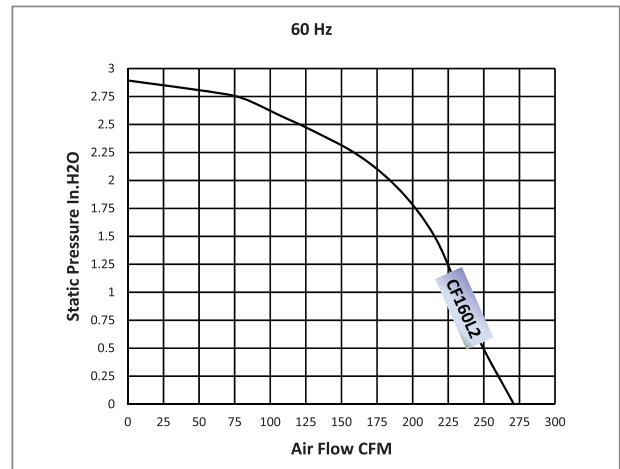
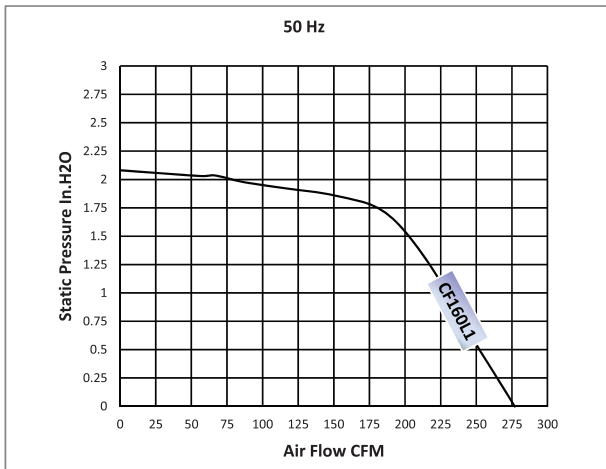


Performance shown is for installation type B: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. The sound ratings shown are loudness values in fan sones at a distance of 1.5m (5ft) in a hemispherical free field per AMCA International Standard 301. Values shown are for installation Type B: free inlet hemispherical sones levels. Performance ratings includes the effects of the aluminum grille and damper in the airstream.

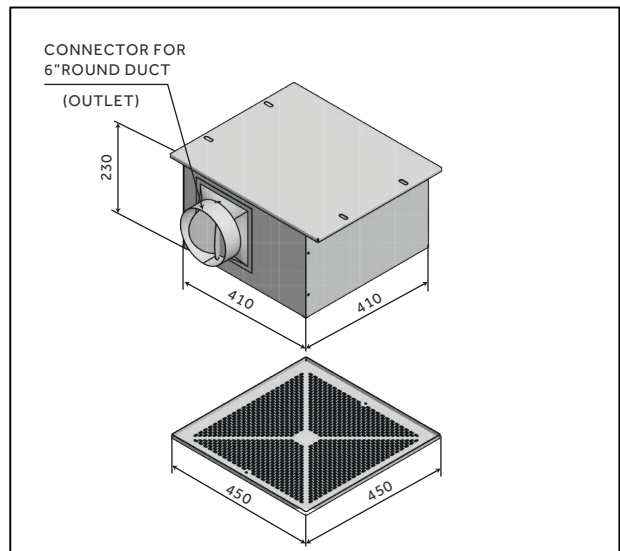
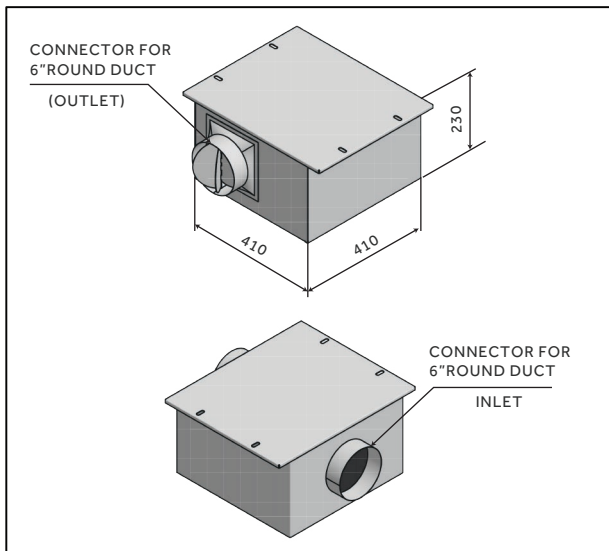
# CEILING & CABINET FANS DATA

## CF – CEILING & CABINET FANS SERIES

### ➤ CF160L / CF160L-I - 230V 1 ~ - 50/60Hz

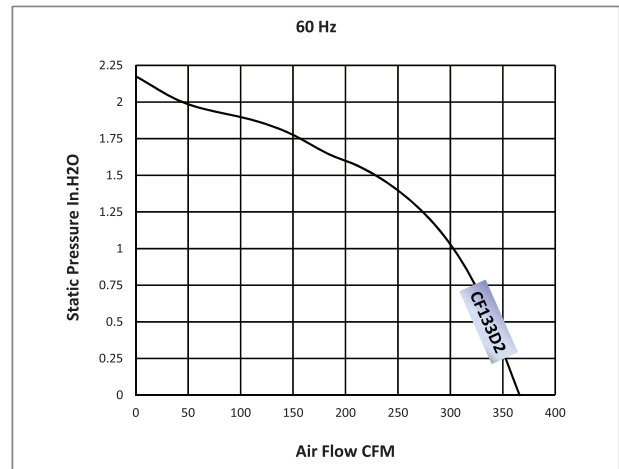
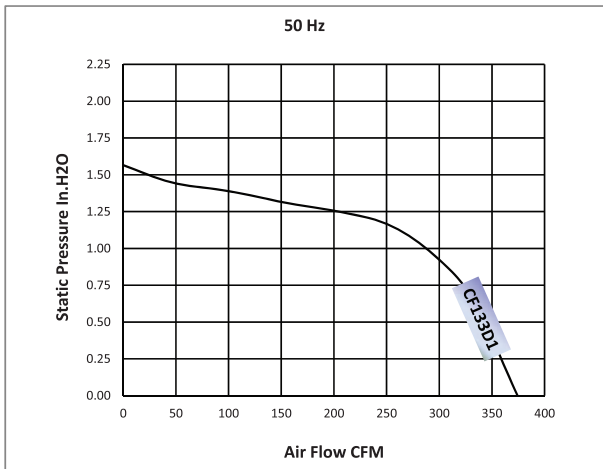


Model 50 Hz & 60 Hz	KW	A	RPM	0.00" Pst	0.125" Pst	0.250" Pst	0.375" Pst	0.500" Pst	0.625" Pst	0.750" Pst	1.000" Pst	
				CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
				Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones
CF160L1 CF160L1-I	0.219	0.95	2000	277	270	265	258	252	246	240	229	
				10	10	9.3	9.3	9.5	9.5	9.5	9.8	
CF160L2 CF160L2-I	0.244	1.08	1820	271	266	260	255	250	246	240	232	
				9.5	9.5	9.3	9.3	9.5	9.5	9.5	9.8	

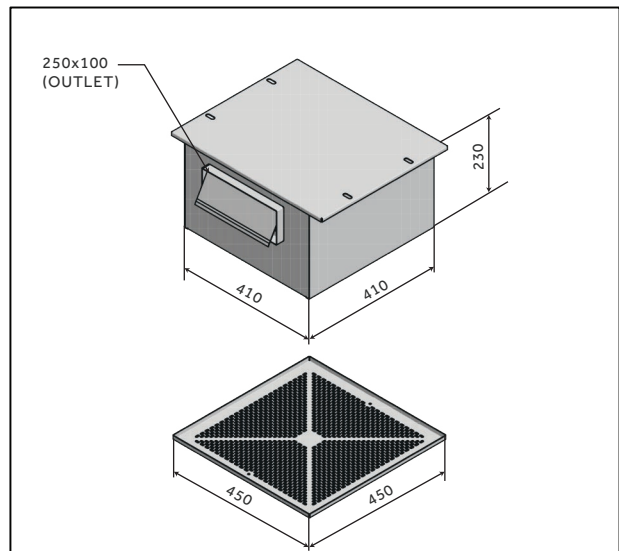
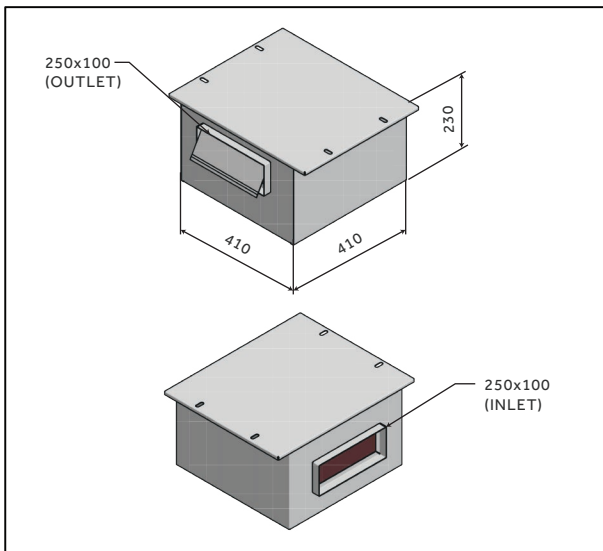


Performance shown is for installation type B: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. The sound ratings shown are loudness values in fan sones at a distance of 1.5m (5ft) in a hemispherical free field per AMCA International Standard 301. Values shown are for installation Type B: free inlet hemispherical sones levels. Performance ratings includes the effects of the aluminum grille and damper in the airstream.

### ➤ CF133D / CF133D-I - 230V 1 ~ - 50/60Hz



Model 50 Hz & 60 Hz	KW	A	RPM	0.00" Pst	0.125" Pst	0.250" Pst	0.375" Pst	0.500" Pst	0.625" Pst	0.750" Pst	1.000" Pst	
				CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
				Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones
CF133D1 CF133D1-I	0.197	0.84	1780	374	366	359	344	335	324	307	288	
				7.1	7.1	6.5	6.5	6.7	7.5	7.5	7.5	
CF133D2 CF133D2-I	0.209	0.89	1590	366	360	353	346	332	324	315	303	
				7.1	7.1	6.5	6.5	6.7	7.5	7.5	7.5	

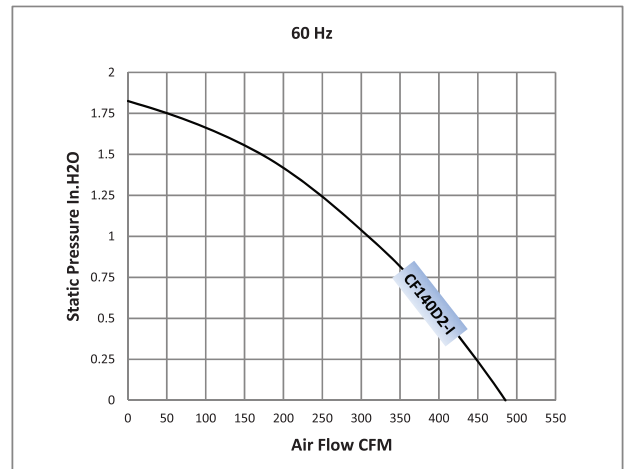
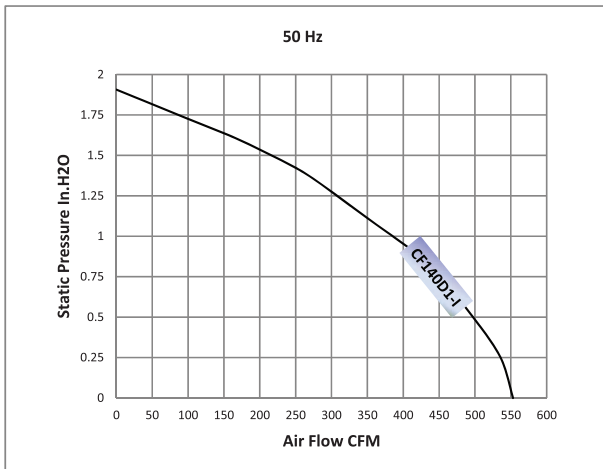


Performance shown is for installation type B: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. The sound ratings shown are loudness values in fan sones at a distance of 1.5m (5ft) in a hemispherical free field per AMCA International Standard 301. Values shown are for installation Type B: free inlet hemispherical sones levels. Performance ratings includes the effects of the aluminum grille and damper in the airstream.

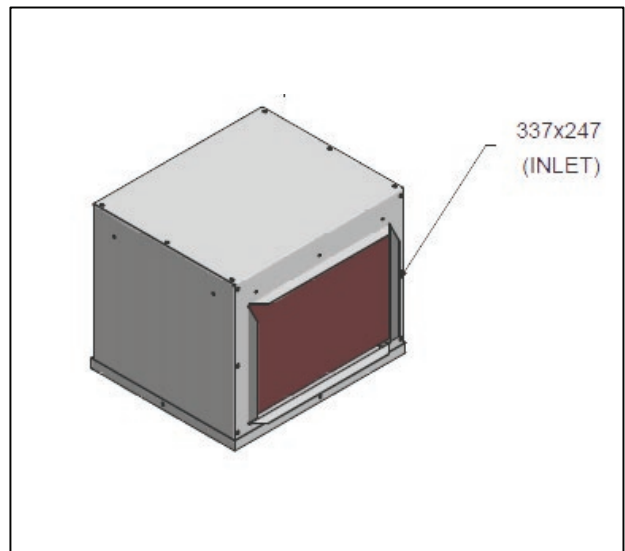
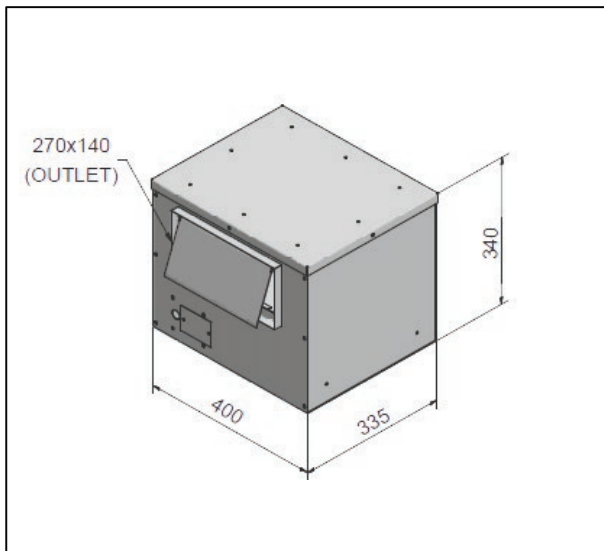
# CEILING & CABINET FANS DATA

CF – CEILING & CABINET FANS SERIES

## ➤ CF140D-I - 230V 1 ~ - 50/60Hz

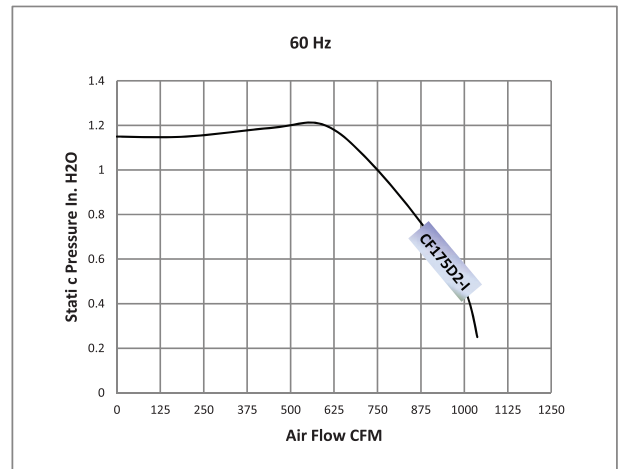
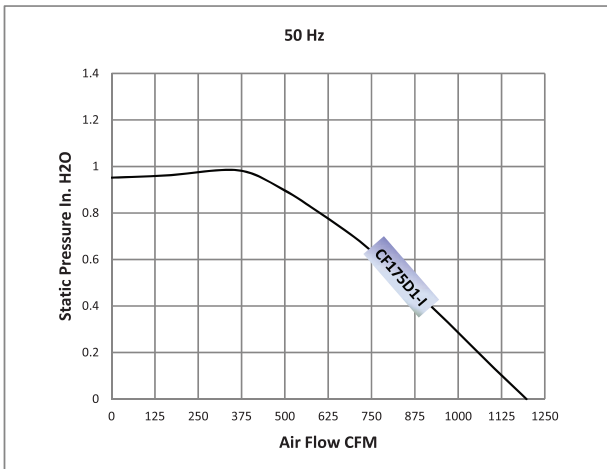


Model 50 Hz & 60 Hz	KW	A	RPM	0.00" Pst	0.125" Pst	0.250" Pst	0.375" Pst	0.500" Pst	0.625" Pst	0.750" Pst	1.000" Pst	
				CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
				Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones
CF140D1-I	0.304	1.3	1900	553	545	535	518	497	475	452	385	
				10	10	9.3	9.3	9.5	9.5	9.5	9.5	
CF140D2-I	0.370	1.4	1730	485	467	447	427	406	386	364	315	
				9.5	9.5	9.3	9.3	9.2	9.2	9	9	

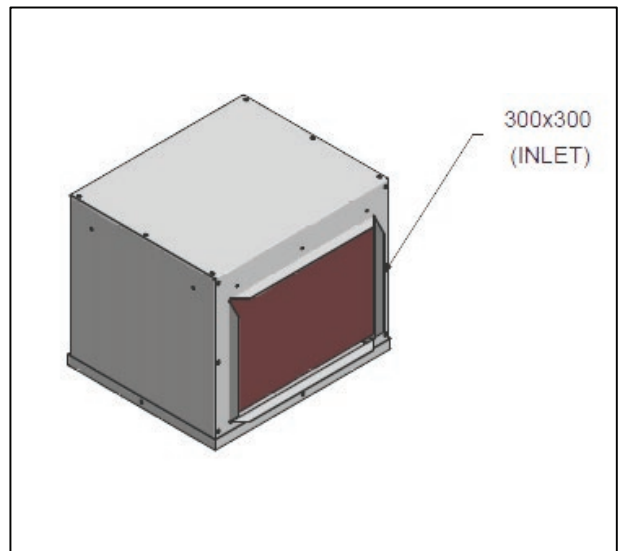
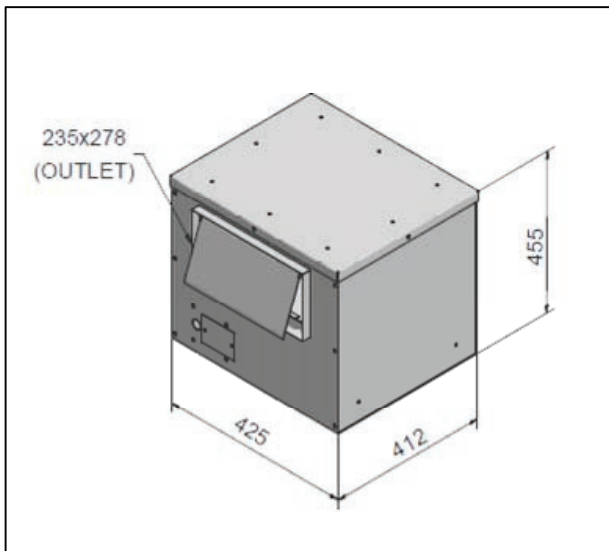


Performance shown is for installation type B: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. The sound ratings shown are loudness values in fan sones at a distance of 1.5m (5ft) in a hemispherical free field per AMCA International Standard 301. Values shown are for installation Type B: free inlet hemispherical sones levels. Performance ratings includes the effects of the aluminum grille and damper in the airstream.

### ➤ CF175D-I - 230V 1 ~ - 50/60Hz



Model 50 Hz & 60 Hz	KW	A	RPM	0.00" Pst	0.125" Pst	0.250" Pst	0.375" Pst	0.500" Pst	0.625" Pst	0.750" Pst	1.000" Pst	
				CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
				Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones
CF175D1-I	0.300	2.4	1391	1197	1110	1023	939	846	757	650	-	
				9.4	9.4	8.9	8.9	9	9	9	-	
CF175D2-I	0.300	2.8	1582	-	-	1037	1022	988	940	880	750	
				-	-	10.5	10.5	10.5	10	10	10	

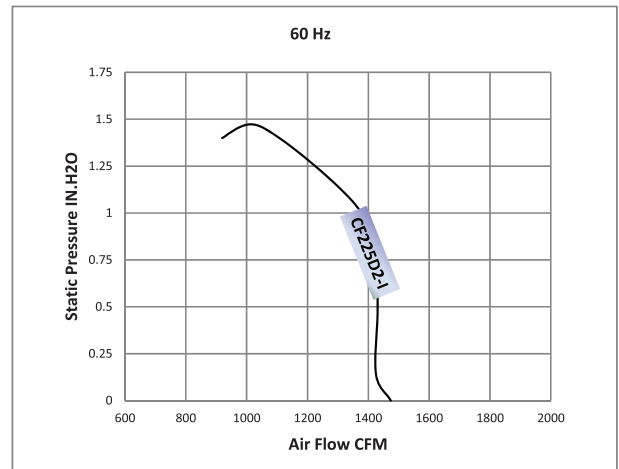
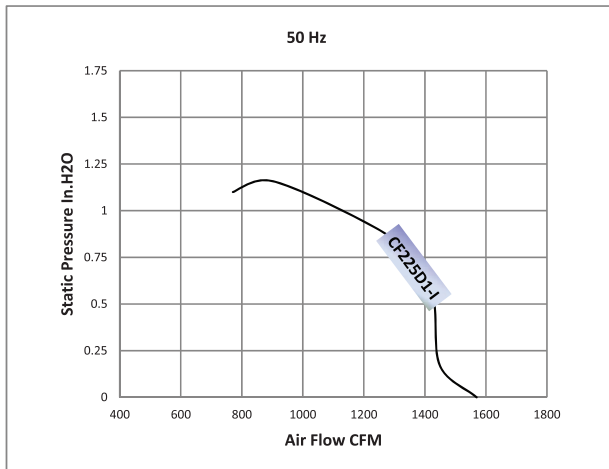


Performance shown is for installation type B: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. The sound ratings shown are loudness values in fan sones at a distance of 1.5m (5ft) in a hemispherical free field per AMCA International Standard 301. Values shown are for installation Type B: free inlet hemispherical sones levels. Performance ratings includes the effects of the aluminum grille and damper in the airstream.

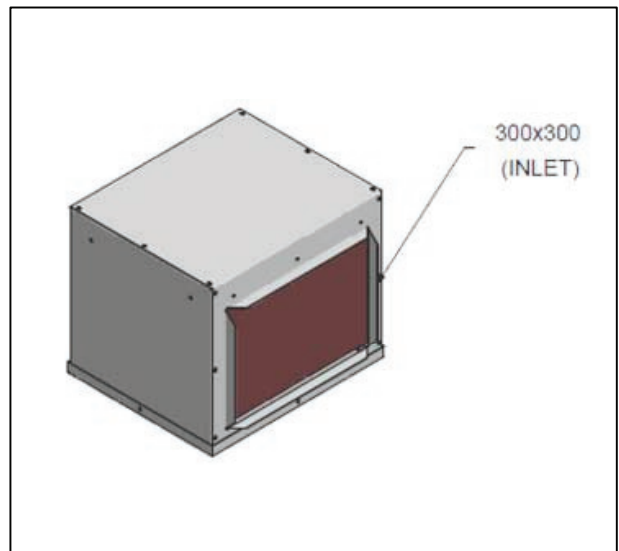
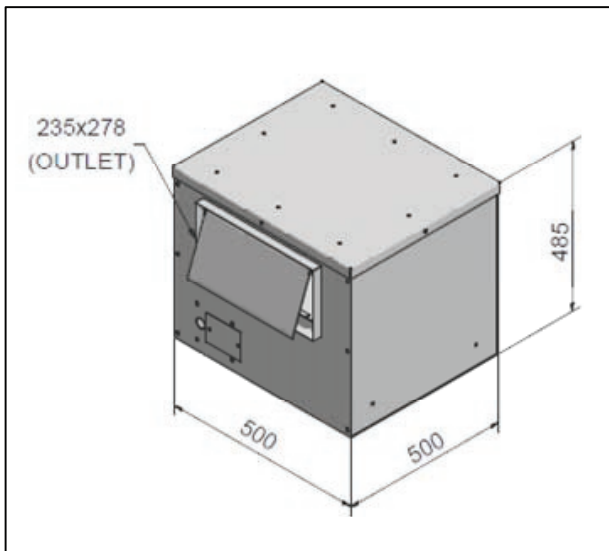
# CEILING & CABINET FANS DATA

CF – CEILING & CABINET FANS SERIES

## ➤ CF225D-I - 230V 1 ~ - 50/60Hz



Model 50 Hz & 60 Hz	KW	A	RPM	0.00" Pst	0.125" Pst	0.250" Pst	0.500" Pst	0.750" Pst	1.000" Pst	1.250" Pst	1.375" Pst	
				CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
				Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones	Sones
CF225D1-I	0.550	4.23	1321	1567	1465	1439	1430	1357	1130	-	-	
				11	10.8	10.8	10.2	9.5	9.5	9.2	9.2	
CF225D2-I	0.550	4.77	1445	1472	1426	1423	1430	1420	1372	1225	1130	
				12.2	11.5	11.5	11.5	11.5	10.8	10.8	10.5	



Performance shown is for installation type B: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. The sound ratings shown are loudness values in fan sones at a distance of 1.5m (5ft) in a hemispherical free field per AMCA International Standard 301. Values shown are for installation Type B: free inlet hemispherical sones levels. Performance ratings includes the effects of the aluminum grille and damper in the airstream.

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