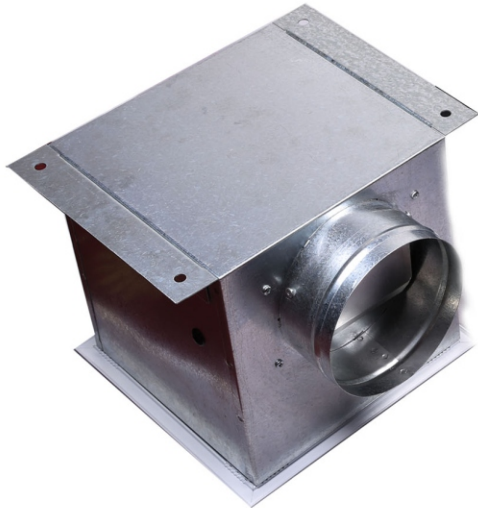


**Catalogue # SF-04**

**October 2015**



## **Ceiling and Cabinet Inline Fans**

**Saudi Silent Fan**

*Type: SSF Series*



**Saudi Fan Industries**

2nd Industrial City, Dammam, Saudi Arabia

[www.refhouse.com](http://www.refhouse.com)

Tel: 8121866, Fax: 8121894



# Saudi Fan Industries

## Management Commitment To Quality

We are continuously striving to provide higher quality products and services to achieve total customer satisfaction by understanding their requirements and anticipating their future expectations or needs.

We are committed to development and strengthening of partnership with our external and internal customers and suppliers.

We are dedicated to the continual improvement of all products and services through involvement of all employees.

We value all people by understanding and drawing upon their strengths i.e. abilities and knowledge and make efforts for their training and development.

President

Ali Saleh Al-Khalaf



**Saudi Fan Industries** was established In 1999 as another manufacturing division of steadily growing organization “**Refrigeration House group**” in order to fulfill requirements of local market for air movement and control equipments.

As a member of Refrigeration House Group , that has market research for ventilation equipments spread over 25 years, Saudi Fan industries now has grown into a full swing manufacturing unit to satisfy the demanding needs of air movement and control equipments for modern residential , commercial and industrial zones .

Since its establishment, Saudi Fan Industries has acquired modern manufacturing technology in order to achieve “**TotalCustomer Satisfaction**”. Not only still it has been investing significant resources in latest technology but also has created a medium where everyone in the organization can contribute. We have a stringent policy of research,development and making awareness of technology throughout the organization. **Saudi Fan Industries has been implemented Quality Assurance Management System as per EN ISO 9001:2008 Standard.** As a result, Saudi Fan Industries products are manufactured precisely and consistently through all production stages under strict quality control procedures.

Saudi Fan Industries strictly acting on the policy of “**The high quality product should be delivered to our valued customers right from the beginning**” .

Now Saudi Fan Industries is not only the leading supplier of air movement and control equipment in Kingdom but also a famous name in entire gulf. It offers wide range of fans and ventilator products for residential,commercial, institutional and industrial buildings in applications from comfort ventilation to manufacturing processes.

Products are available for exhaust,supply,re-circulate, filtered process and gravity applications. Fans are available in either direct drive or belt drive.

Saudi Fan Industries has significant production capacity in order to fulfill markets demand. It also has a pool of qualified staff,who are fully dedicated to give best advice to our valued customers inquiries .



*Saudi Fan Industries Certifies Models shown herein are Licenced to bear the AMCA Sound and Air Performance seals.The ratings shown are based on tests and procedures performed in accordance with AMCA publication 211 , AMCA publication 311 and comply with requirements of the AMCA Certified Ratings Programme. However SSF-D2E-097-BK , SSF-D2E-133, SSF-D4E-181 Ceiling &Cabinet are not certified.*



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ation Fan Series





**Fan Laws**

**Speed Variation at constant fan size and constant density :**

The volume flow changes proportionately to the speed

$$\frac{V_1}{V_2} = \frac{n_1}{n_2}$$

All pressures (static, dynamic and total) change proportionately to the square of speed

$$\frac{P_{st1}}{P_{st2}} = \left(\frac{n_1}{n_2}\right)^2 = \left(\frac{V_1}{V_2}\right)^2$$

The Power requirement changes proportionately to the third power of speed

$$\frac{P_1}{P_2} = \left(\frac{n_1}{n_2}\right)^3 = \left(\frac{V_1}{V_2}\right)^3$$

**In the case of changes in the wheel diameter of geometrically similar wheels at constant speed :**

The volume flow changes proportionately to the third power of the wheel diameter .

$$\frac{V_1}{V_2} = \left(\frac{D_1}{D_2}\right)^3$$

All pressures (static, dynamic and total) change proportionately to the square of wheel diameter .

$$\frac{P_{st1}}{P_{st2}} = \left(\frac{D_1}{D_2}\right)^2$$

The Power requirement changes proportionately to the fifth power of wheel diameter .

$$\frac{P_1}{P_2} = \left(\frac{D_1}{D_2}\right)^5$$

**Pressure Units**

Convert from	Convert to										
	Pa (N/m <sup>2</sup> )	bar	atm	mm Hg =1 torr	mm H <sub>2</sub> O	m H <sub>2</sub> O	kg/cm <sup>2</sup>	lb/ft <sup>2</sup>	lb/in <sup>2</sup> (psi)	inches Hg	inches H <sub>2</sub> O
Pa (N/m <sup>2</sup> )	1	10 <sup>-5</sup>	9.87 10 <sup>-6</sup>	0.0075	0.1	10 <sup>-4</sup>	1.02 10 <sup>-5</sup>	0.021	1.45 10 <sup>-4</sup>	2.96 10 <sup>-4</sup>	4.02 10 <sup>-3</sup>
bar	105	1	0.987	750	1.01910 <sup>4</sup>	10.197	1.0197	2090	14.5	29.61	402
atmosphere	1.01 10 <sup>5</sup>	1.013	1	759.9	10332	10.332	1.03	2117.5	14.69	29.92	407
mm Hg	133.3	1.33 10 <sup>-3</sup>	1.32 10 <sup>-3</sup>	1	13.3	0.013	1.36 10 <sup>-3</sup>	2.79	0.019	0.039	0.54
mm H <sub>2</sub> O	10	0.000097	9.87 10 <sup>-5</sup>	0.075	1	0.001	1.02 10 <sup>-4</sup>	0.209	1.45 10 <sup>-3</sup>	2.96 10 <sup>-3</sup>	0.04
m H <sub>2</sub> O	104	0.097	9.87 10 <sup>-2</sup>	75	1000	1	0.102	209	1.45	2.96	40.2
kg/cm <sup>2</sup>	9.8 10 <sup>4</sup>	0.98	0.97	735	10000	10	1	2049	14.21	29.03	394
lb/ft <sup>2</sup>	47.8	4.78 10 <sup>-4</sup>	4.72 10 <sup>-4</sup>	0.36	4.78	4.78 10 <sup>-3</sup>	4.88 10 <sup>-4</sup>	1	0.0069	0.014	0.19
lb/in <sup>2</sup> (psi)	6894.76	0.069	0.068	51.7	689.7	0.69	0.07	144	1	2.04	27.7
inches Hg	3377	0.0338	0.033	25.4	337.7	0.337	0.034	70.8	0.49	1	13.57
inches H <sub>2</sub> O	248.8	2.49 10 <sup>-3</sup>	2.46 10 <sup>-3</sup>	1.87	25.4	0.0254	0.0025	5.2	0.036	0.074	1

**Volume Flow Units**

Convert from	Convert to										
	m <sup>3</sup> /s	m <sup>3</sup> /min	m <sup>3</sup> /h	liter/sec	liter/min	liter/h	cfm	US gpd	US gpm	IMP gpd	IMP gpm
m <sup>3</sup> /s	1	60	3600	1000	60000	3600000	2119	22800000	15852	19000000	13200
m <sup>3</sup> /min	0.0167	1	60	16.67	1000	60000	35.32	380000	264.2	316667	220
m <sup>3</sup> /h	0.000278	0.0167	1	0.278	16.67	1000	0.589	6333.3	4.403	5277.8	3.67
liter/sec	0.001	0.06	3.6	1	60	3600	2.119	22800	15.852	19000	13.2
liter/min	1.67 10 <sup>-5</sup>	0.001	0.06	0.0167	1	60	0.0353	380	0.2642	316.7	0.22
liter/h	2.7 10 <sup>-7</sup>	0.000017	0.001	0.00028	0.0167	1	0.00059	6.33	0.0044	5.28	0.0037
cfm	0.00047	0.028	1.699	0.472	28.32	1698.99	1	10760.3	7.48	8966.9	6.23
US gpd	4.39 10 <sup>-8</sup>	2.6 10 <sup>-6</sup>	0.000158	0.000044	0.0026	0.158	0.000093	1	0.000695	0.833	0.000579
US gpm	0.000063	0.00379	0.227	0.063	3.785	227.1	0.1337	1438.3	1	1198.6	0.833
IMP gpd UK	5.26 10 <sup>-8</sup>	3.2 10 <sup>-6</sup>	0.000189	5.26 10 <sup>-5</sup>	0.00316	0.1895	0.00011	1.2	0.00083	1	0.00069
IMPgpm UK	0.000076	0.0046	0.272	0.076	4.55	272.7	0.161	1727.3	1.2	1439.4	1



## Fan Introduction

Saudi Silent Fan is manufactured from a combination of fine quality components in order to satisfy requirements of modern residential and commercial zones . Silent fan is the first fan of its kind to incorporate muffler .This acoustically muffler along with high quality forward curved radial impeller provides excellent airflow performance with exceptional quietness.Fans of this series have been constructed according to AMCA standards, its airflow and sound levels satisfy the governing laws .

## Advantages

- Compact and space saving design .
- Exceptionally lower noise level .
- High quality acoustical insulation .
- Create significant static pressure .
- Easy access for maintenance and repair .
- 100 % speed controllable external rotor motor
- Extremely low starting current .



## Types

Ceiling exhaust  
Cabinet Inline exhaust

## Application

Saudi silent fan is versatile application due to low sound level .This fan can be used in ventilation, air conditioning system for modern and residential and commercial zones .

Range : 18 Models

Flow rate : upto 600 CFM

## Construction

### • Housing:

The fan housing made from G90 graded galvanized steel sheet with acoustic insulation. The covering grill for Ceiling Fan and two access doors for cabinet in-line fan can easily be unscrewed to gain for cleaning and maintenance. The motor is removable with spiral scroll.

### • Impeller:

Impeller is forward curved made from galvanized steel directly mounted on external rotor motor and dynamically and statically balanced in accordance with DIN/ISO 1940 G2.5 on two levels .

### • Motors:

The 100 % speed controllable external rotor motor satisfies protection class IP 44 according to DIN 40050 .Maintenance free ball bearings closed on both sides ,sealed for life . Motor winding comply to insulation class F with moisture impregnation and built-in thermal overload protection .



**Construction**

• **Electrical connection**

The electrical connection can be made via an IP 54 terminal box , which can be fitted inside/outside of the casing .

• **Installation**

Rigid spiral –seam duct ,rectangular duct ,flexible aluminium or plastic ducts with standard diameter can be used .During silent fan installation ,the local laws on fire protection have to be observed .

• **Air flow and Pressure**

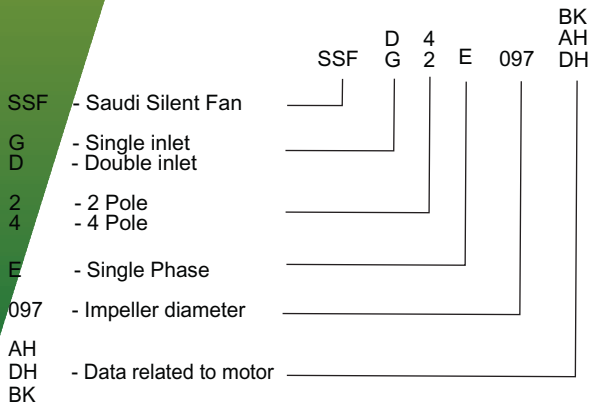
The tabulated performance data has been measured at maximum permitted volume flow rate on 230 V 60 Hz .The air flow and performance characteristics are measured at discharge side of the fan in accordance with AMCA 210 Standard

• **Sound level**

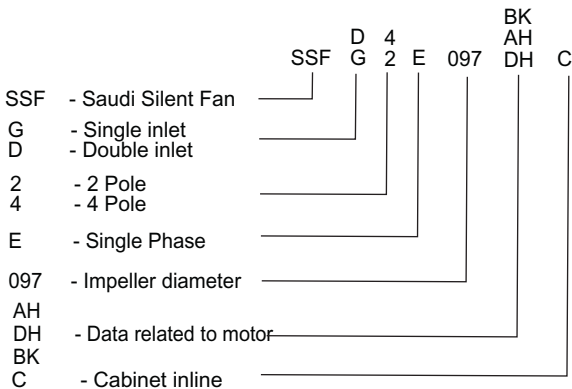
The tabulated sound levels are in accordance with AMCA 300-08 standard .

**Reference Codes :**

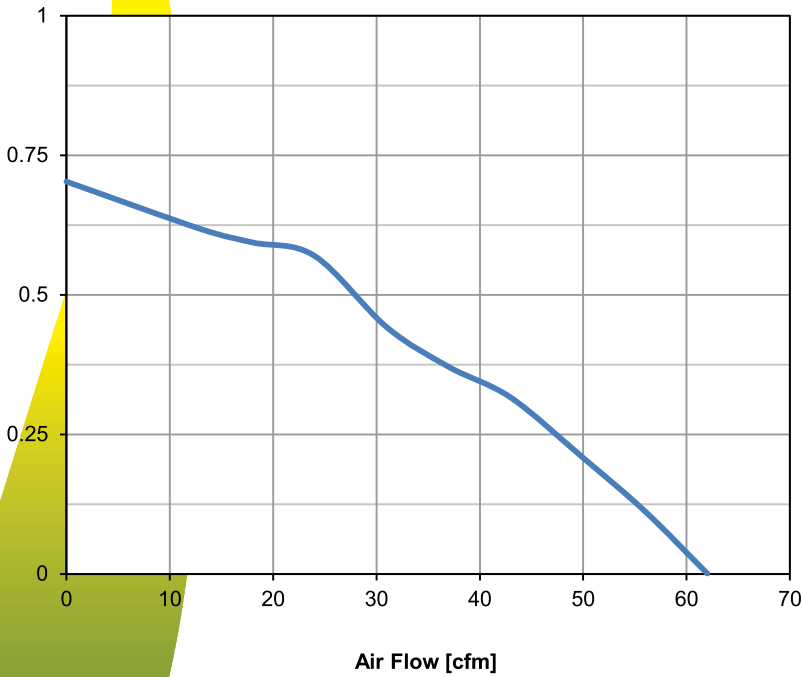
• **SSF - Ceiling Exhaust**



• **SSF – Cabinet Inline Exhaust**



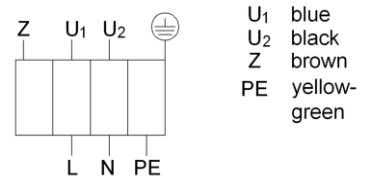
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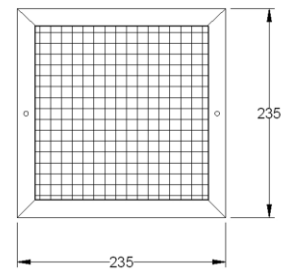
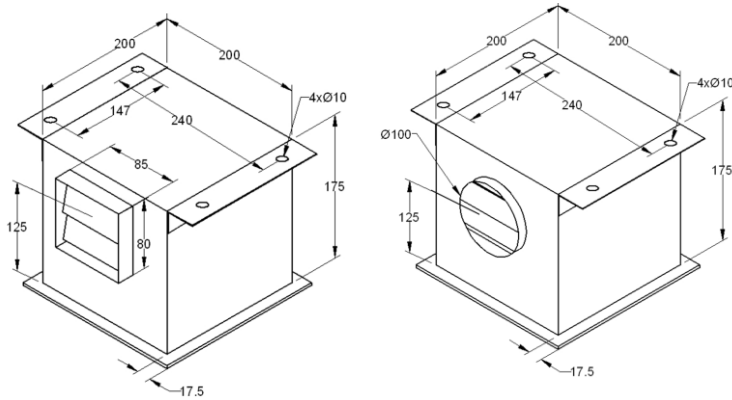
Fan Data	
Fan Weight [kg]	9
Grill neck Size [mm]	175 X 175
Outlet Design	
□ Rectangle[mm]	85 X 80
○ Round[mm]	100

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	30
Current [A]	0.14
Speed[RPM]	2800
Wir.Diagram	01.009

Wiring Diagram



Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet grill and back draft damper. The Sound ratings shown are loudness values in fan zones at 1.5 m ( 5 ft ) in a hemispherical free field calculated per AMCA International Standard 301. Values shown are for : Installation Type A : free inlet hemispherical zone levels.

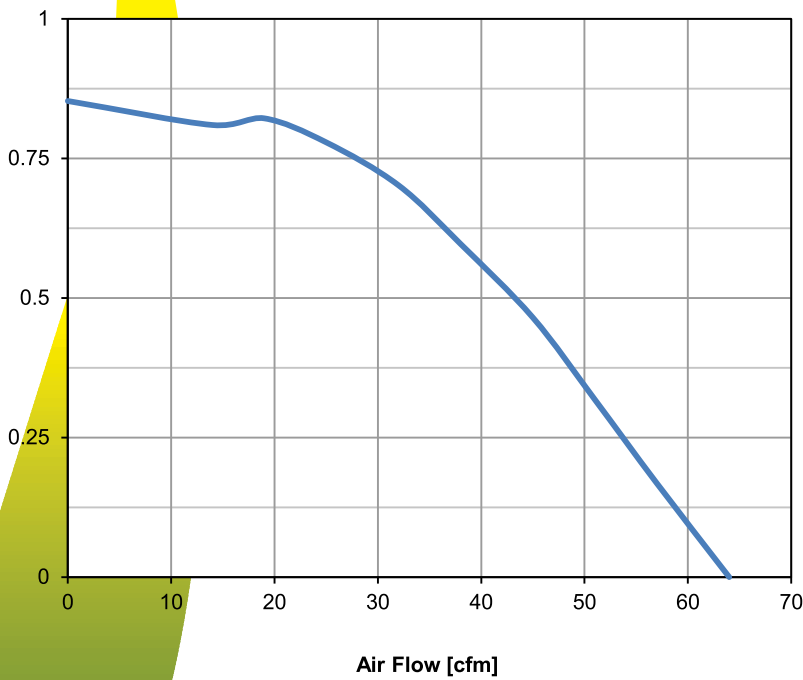


All Dimensions are in mm

Direct Drive	Operating Volt	Static Pressure in Inches wg					
			0	0.125	0.25	0.375	0.5
100% Speed Controllable Motor	230	CFM	62	55	47	37	28
		SONES	6.8	6.8	5.8	5.6	5.6
		WATTS	35.5	34.8	34.1	33.4	33.2



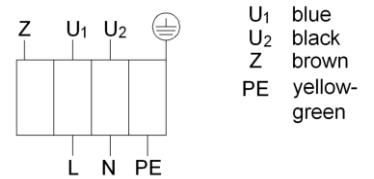
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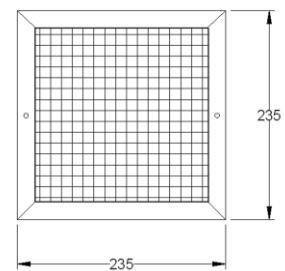
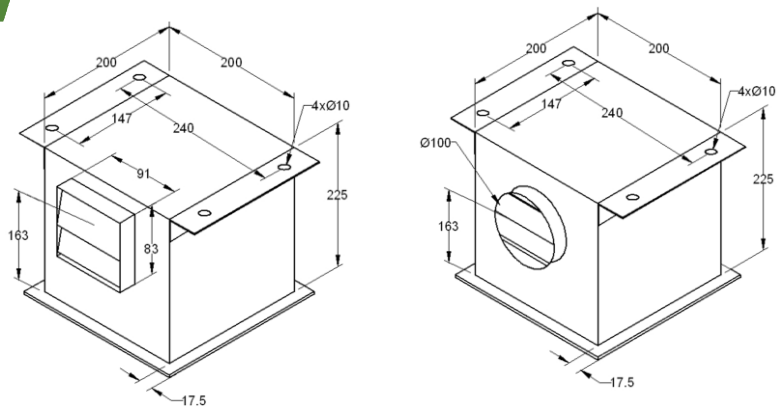
Fan Data	
Fan Weight [kg]	9
Grill neck Size [mm]	175 X 175
Outlet Design	
☐ Rectangle[mm]	91 X 83
○ Round[mm]	100

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	37
Current [A]	0.17
Speed[RPM]	2300
Wir.Diagram	01.009

Wiring Diagram



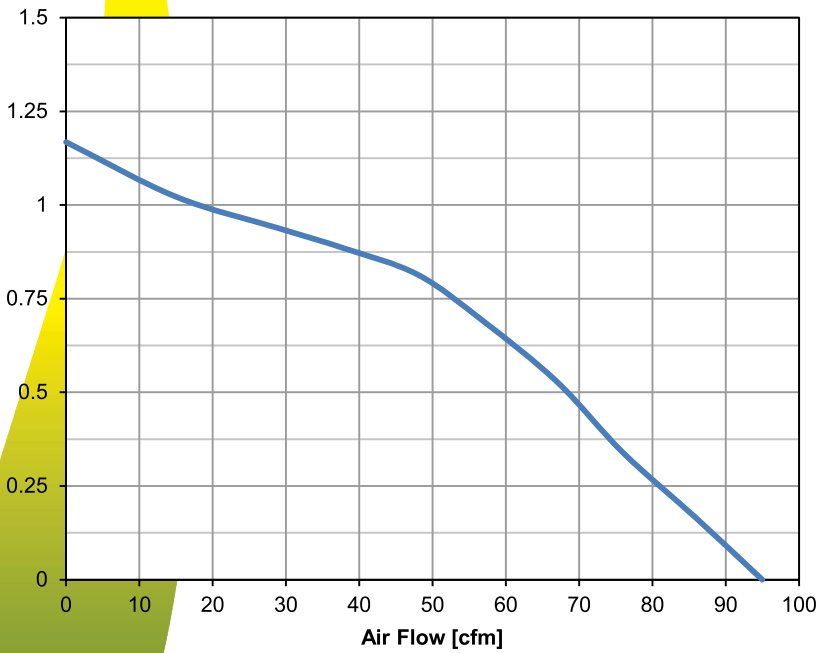
Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet grill and back draft damper. The Sound ratings shown are loudness values in fan zones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301. Values shown are for: Installation Type A: free inlet hemispherical zone levels.



All Dimensions are in mm

Direct Drive	Operating Volt	Static Pressure in Inches wg						
			0	0.125	0.25	0.375	0.5	0.75
100% Speed Controllable Motor	230	CFM	64	59	54	49	43	28
		SONES	5.4	5.4	5.3	5.3	5.1	5.1
		WATTS	36.4	36.3	35.9	35.5	35.1	34.0

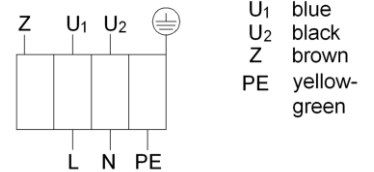
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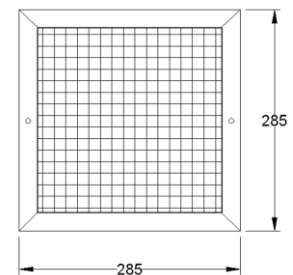
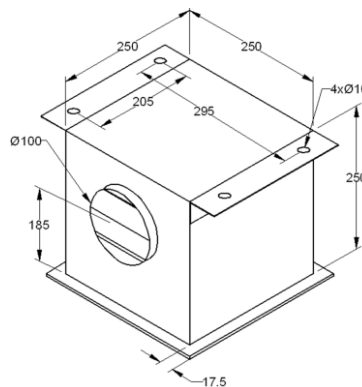
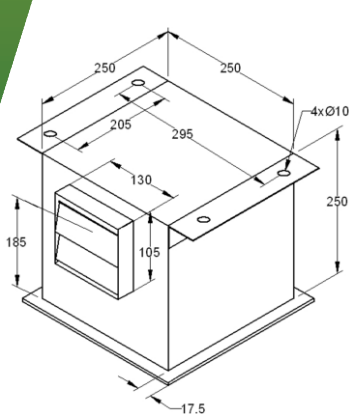
Fan Data	
Fan Weight [kg]	12
Grill neck Size [mm]	225x225
Outlet Design	
□ Rectangle[mm]	130x105
○ Round[mm]	100

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	35
Current [A]	0.16
Speed[RPM]	1850
Wir.Diagram	01.009

Wiring Diagram



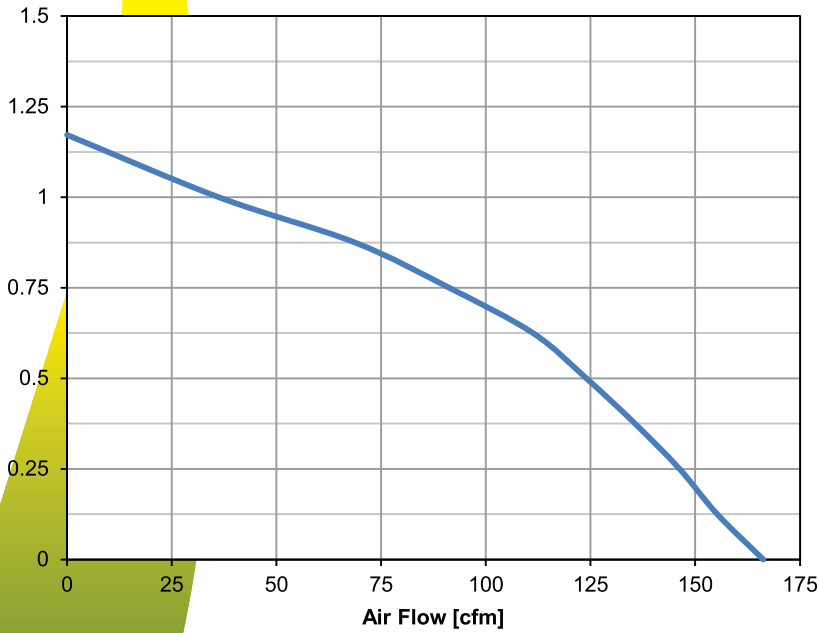
Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet grill and back draft damper. The Sound ratings shown are loudness values in fan zones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels.



All Dimensions are in mm

Direct Drive	Operating Volt		Static Pressure in Inches wg					
			0	0.125	0.25	0.375	0.5	0.75
100% Speed Controllable Motor	230	CFM	95	88	81	74	68	53
		SONES	5.6	5.4	5.4	5.3	5.2	5.2
		WATTS	34.0	33.3	32.7	32.0	31.3	29.6

Pstatic [In.wg]

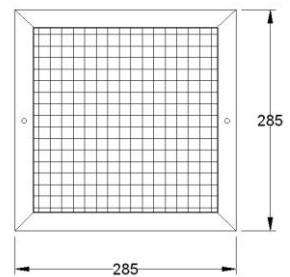
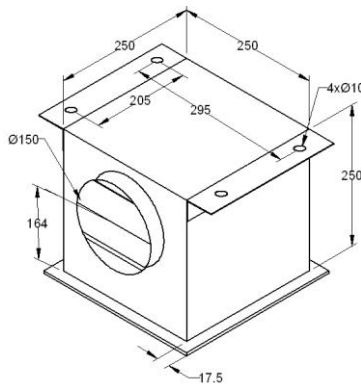
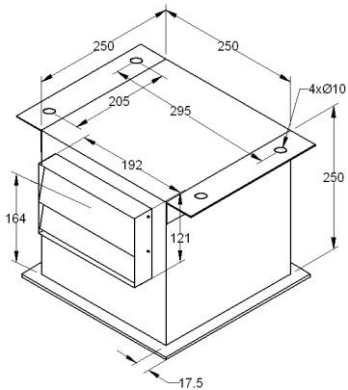
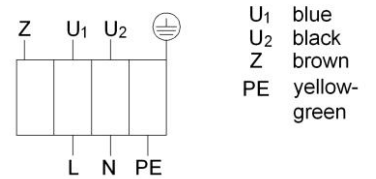


Fan Data	
Fan Weight [kg]	12
Grill neck Size [mm]	225x225
Outlet Design	
□ Rectangle[mm]	192 x121
○ Round[mm]	150

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	55
Current [A]	0.25
Speed[RPM]	1250
Wir.Diagram	01.009

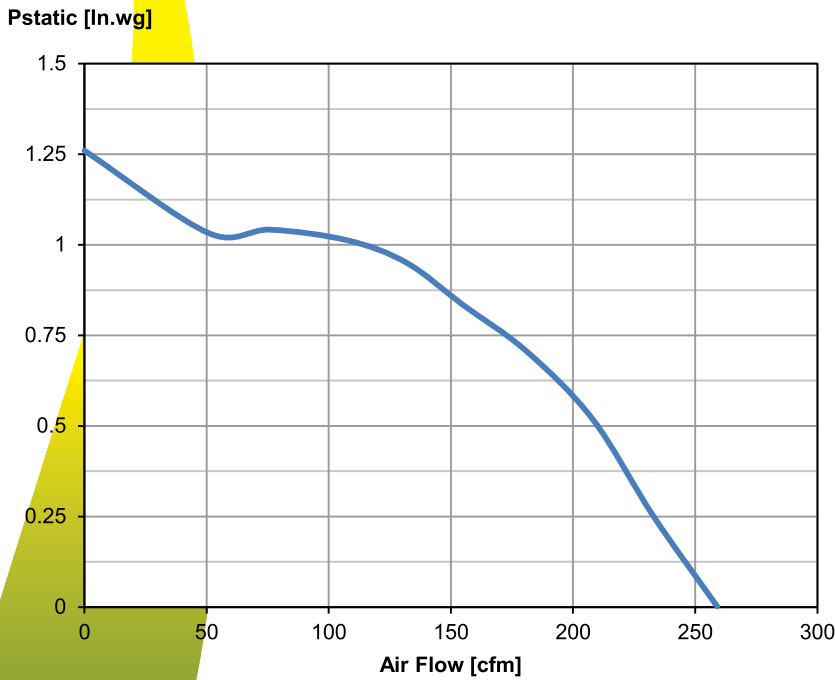
Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet and back draft damper. However the model is not bearing AMCA Certified Seal.

Wiring Diagram



All Dimensions are in mm

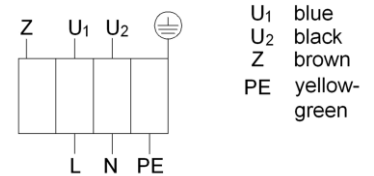
Direct Drive	Operating Volt		Static Pressure in Inches wg						
			0	0.125	0.25	0.375	0.5	0.75	1
100% Speed Controllable Motor	230	CFM	166	155	146	135	124	91	36
		SONES	-	-	-	-	-	-	-
		WATTS	-	-	-	-	-	-	-



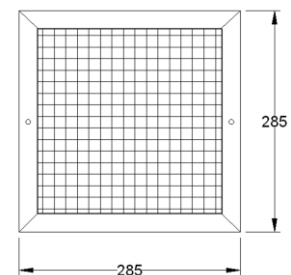
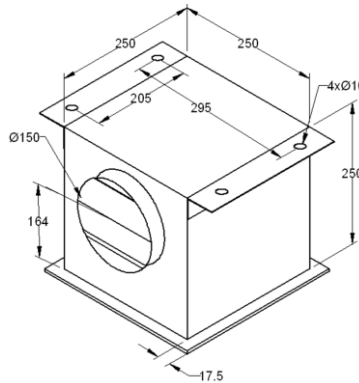
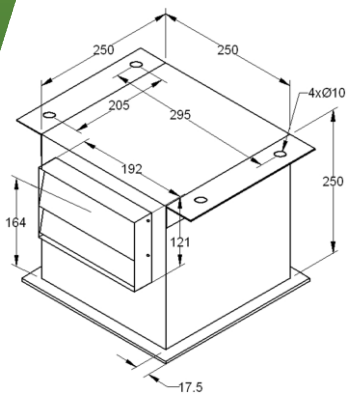
Fan Data	
Fan Weight [kg]	12
Grill neck Size [mm]	225x225
Outlet Design	
□ Rectangle[mm]	192X121
○ Round[mm]	150

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	100
Current [A]	0.45
Speed[RPM]	1950
Wir.Diagram	01.009

Wiring Diagram



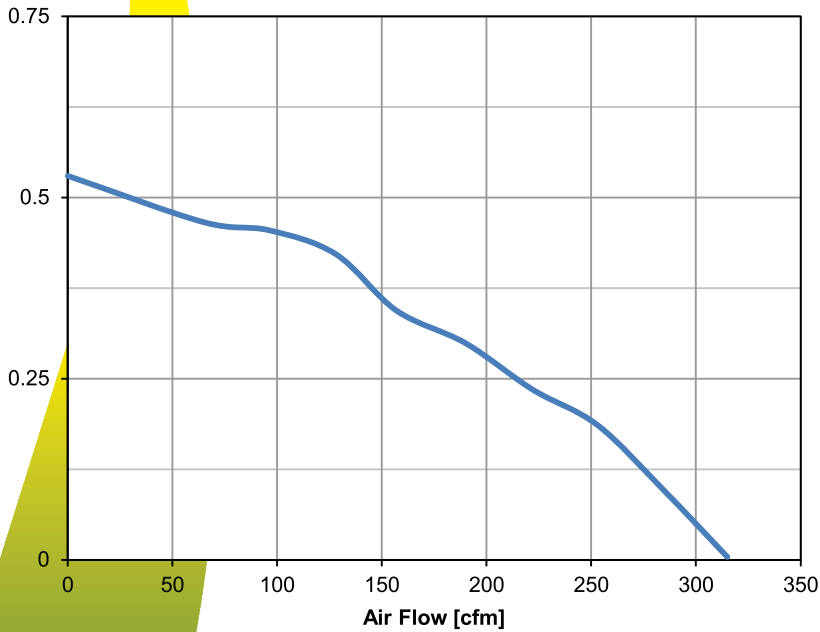
Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet grill and back draft damper. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels.



All Dimensions are in mm

Direct Drive	Operating Volt		Static Pressure in Inches wg						
			0	0.125	0.25	0.375	0.5	0.75	1
100% Speed Controllable Motor	230	CFM	259	246	233	221	210	172	113
		SONES	8.4	8.4	7.9	7.6	7.6	7.1	7.1
		WATTS	96.5	94.3	92.0	90.3	88.6	82.8	74.8

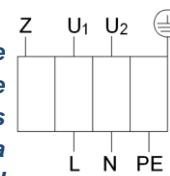
Pstatic [In.wg]



Fan Data	
Fan Weight [kg]	20
Grill neck Size [mm]	295 X 225
Outlet Design	
Rectangle[mm]	255 X 111

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	81
Current [A]	0.036
Speed[RPM]	1240
Wir.Diagram	01.009

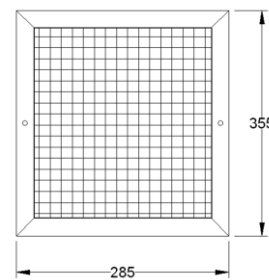
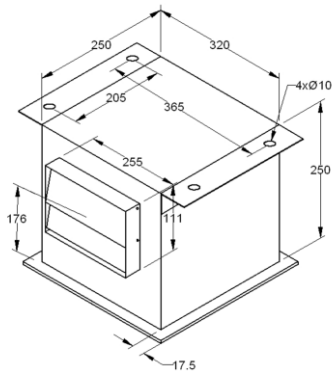
Wiring Diagram



- U<sub>1</sub> blue
- U<sub>2</sub> black
- Z brown
- PE yellow-green



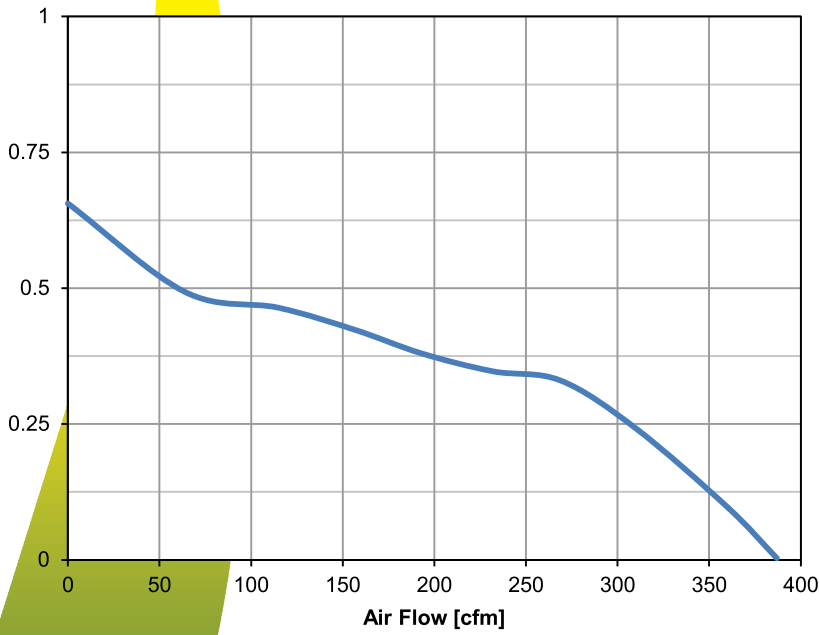
Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet grill and back draft damper. The Sound ratings shown are loudness values in fan sones at 1.5 m ( 5 ft ) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type A : free inlet hemispherical sone levels .



All Dimensions are in mm

Direct Drive	Operating Volt	Static Pressure in Inches wg					
		0	0.125	0.25	0.375	0.5	
100% Speed Controllable Motor	230	CFM	315	274	215	145	30
		SONES	5.8	5.2	4.7	4.1	4.1
		WATTS	76.7	74.3	71.9	69.5	67.1

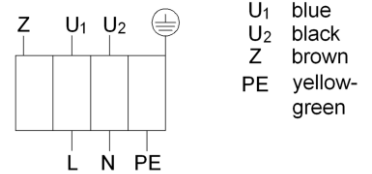
Pstatic [In.wg]



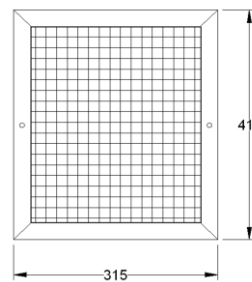
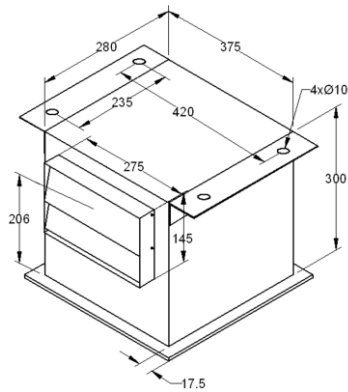
Fan Data	
Fan Weight [kg]	16
Grill neck Size [mm]	350 X 255
Outlet Design	
Rectangle[mm]	275 X 145

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	83
Current [A]	0.37
Speed[RPM]	1100
Wir.Diagram	01.009

Wiring Diagram

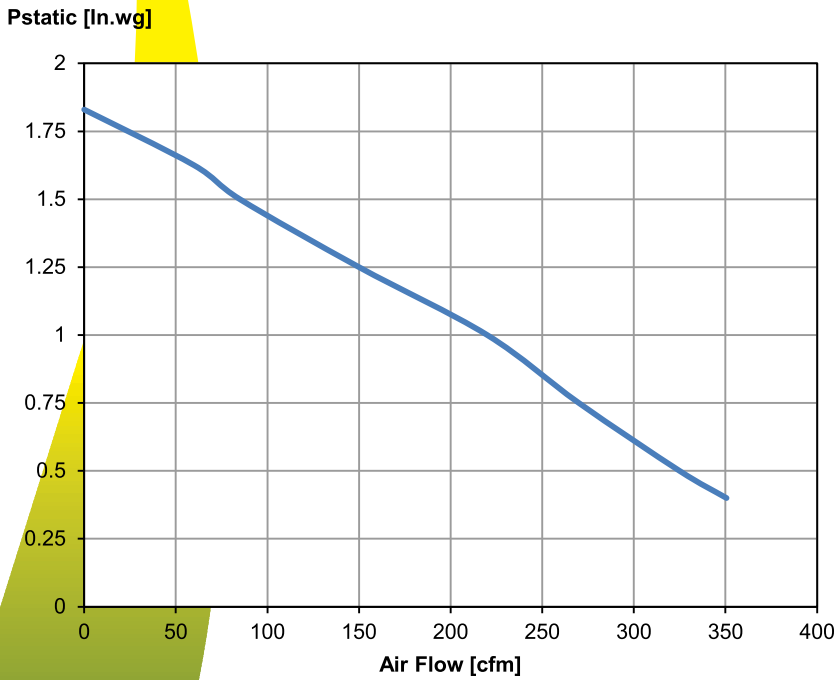


Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet grill and back draft damper. The Sound ratings shown are loudness values in fan zones at 1.5 m ( 5 ft ) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type A : free inlet hemispherical sone levels .



All Dimensions are in mm

Direct Drive	Operating Volt	Static Pressure in Inches wg					
			0	0.125	0.25	0.375	0.5
100% Speed Controllable Motor	230	CFM	387	350	306	199	61
		SONES	6.0	5.2	5.2	4.2	4.4
		WATTS	79.7	77.9	75.4	71.3	68.1

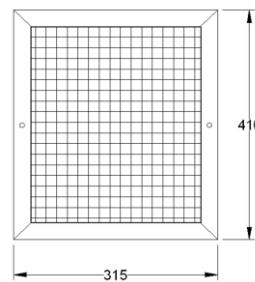
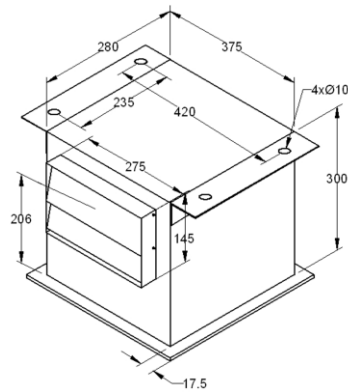
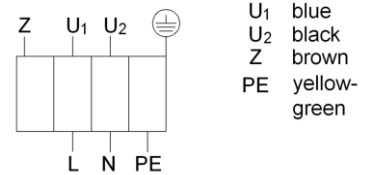


Fan Data	
Min Pstatic [In.wg]	0.4
Fan Weight [kg]	16
Grill neck Size [mm]	350 X 255
<input type="checkbox"/> Outlet Design	
Rectangle[mm]	275 X 145

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	195
Current [A]	0.85
Speed[RPM]	1550
Wir.Diagram	01.009

Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet grill and back draft damper. However the model is not bearing AMCA Certified Seal.

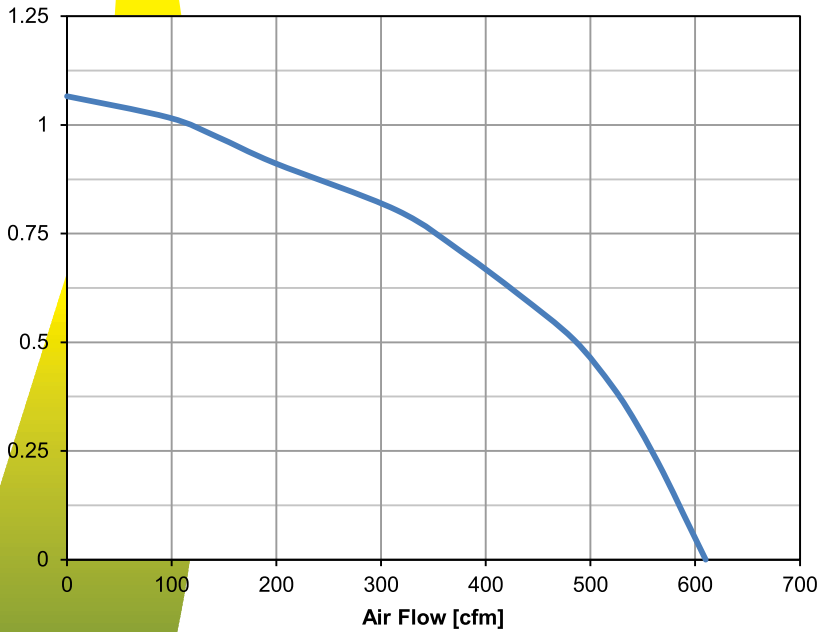
Wiring Diagram



All Dimensions are in mm

Direct Drive	Operating Volt	Static Pressure in Inches wg						
			0.4	0.5	0.75	1	1.25	1.5
100% Speed Controllable Motor	230	CFM	351	325	270	220	150	85
		SONES	-	-	-	-	-	-
		WATTS	-	-	-	-	-	-

Pstatic [In.wg]

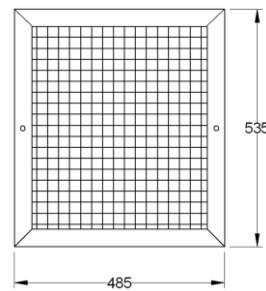
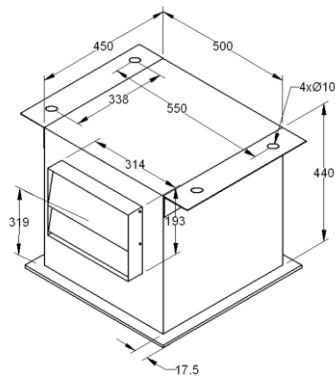
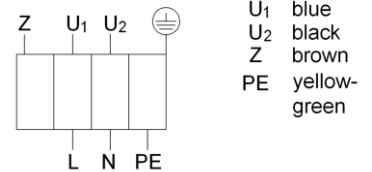


Fan Data	
Fan Weight [kg]	30
Grill neck Size [mm]	475 X 425
Outlet Design	
Rectangle[mm]	314 X 193

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	230
Current [A]	1.05
Speed[RPM]	960
Wir.Diagram	01.025

Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet grill and back draft damper. However the model is not bearing AMCA Certified Seal.

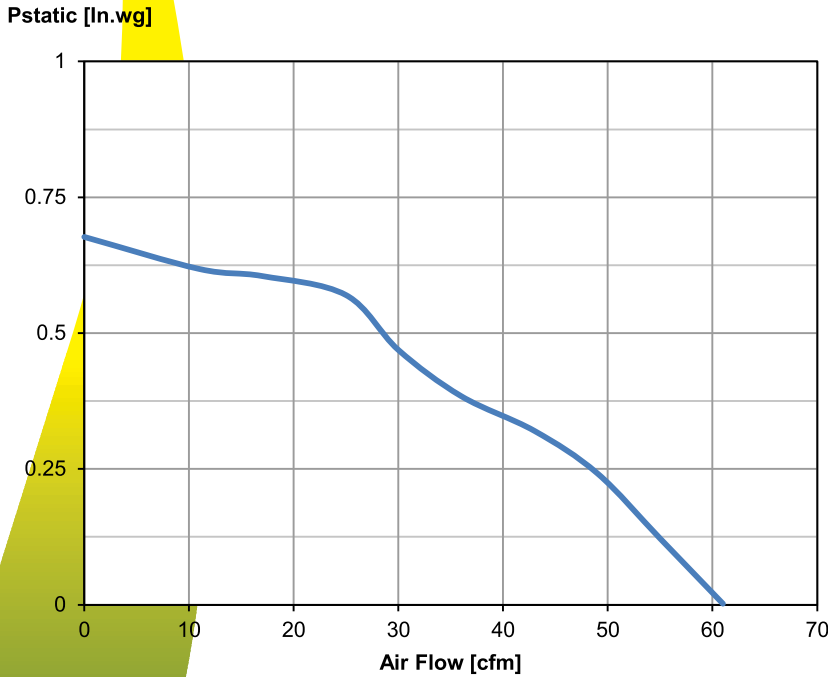
Wiring Diagram



All Dimensions are in mm

Direct Drive	Operating Volt	Static Pressure in Inches wg						
		0	0.125	0.25	0.375	0.5	0.75	
100% Speed Controllable Motor	230	CFM	610	585	558	527	486	350
		SONES	-	-	-	-	-	-
		WATTS	-	-	-	-	-	-

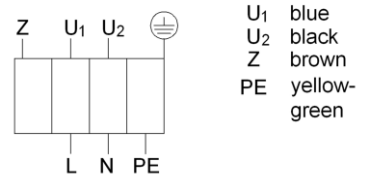




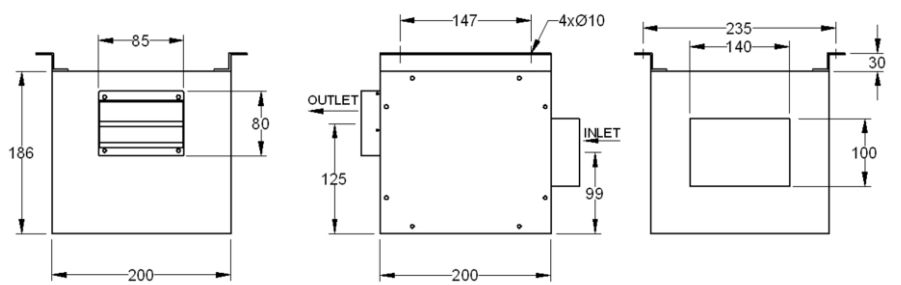
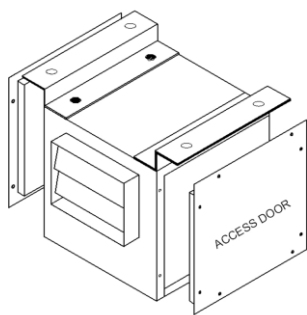
Fan Data	
Fan Weight [kg]	8
Outlet Design	
Rectangle[mm]	85 X 80
Inlet Design	
Rectangle[mm]	140 X 100

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	30
Current [A]	0.14
Speed[RPM]	2800
Wir.Diagram	01.009

Wiring Diagram



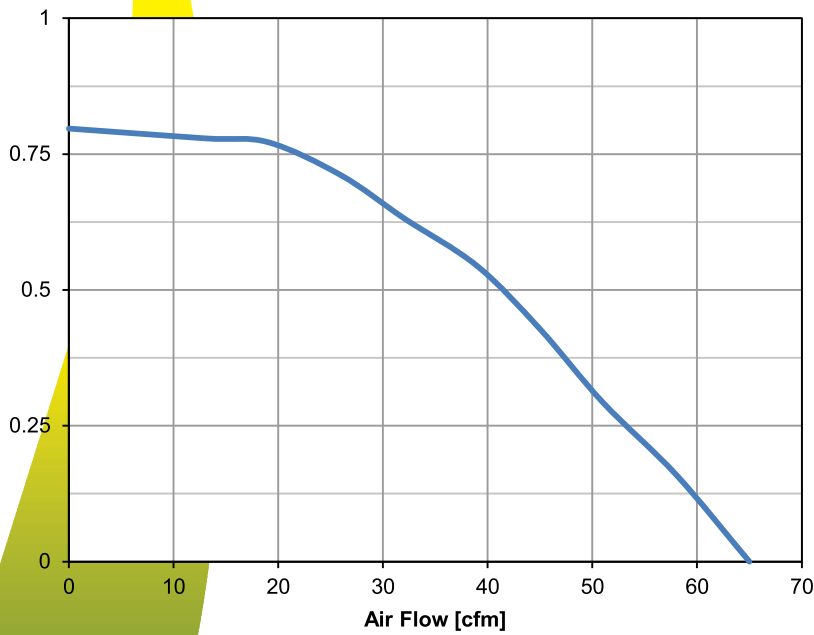
Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet and back draft damper. The Sound ratings shown are loudness values in fan sones at 1.5 m ( 5 ft ) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type A: free inlet hemispherical sone levels .



All Dimensions are in mm

Direct Drive	Operating Volt	Static Pressure in Inches wg					
		0	0.125	0.25	0.375	0.5	
100% Speed Controllable Motor	230	CFM	61	55	48	37	28
		SONES	6.6	6.4	5.9	5.6	5.6
		WATTS	36.2	35.2	34.5	33.6	33.0

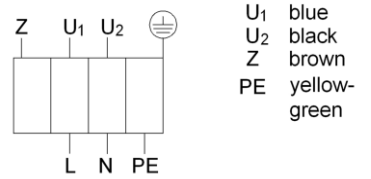
Pstatic [In.wg]



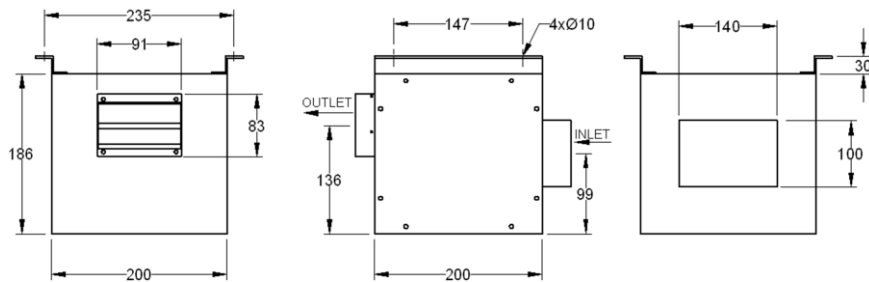
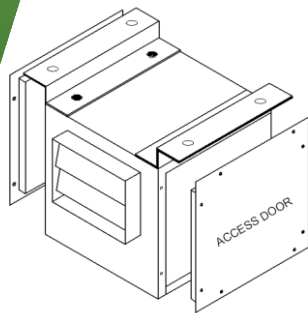
Fan Data	
Fan Weight [kg]	9
Outlet Design	
Rectangle[mm]	91 X 83
Inlet Design	
Rectangle[mm]	140 X 100

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	37
Current [A]	0.17
Speed[RPM]	2300
Wir.Diagram	01.009

Wiring Diagram

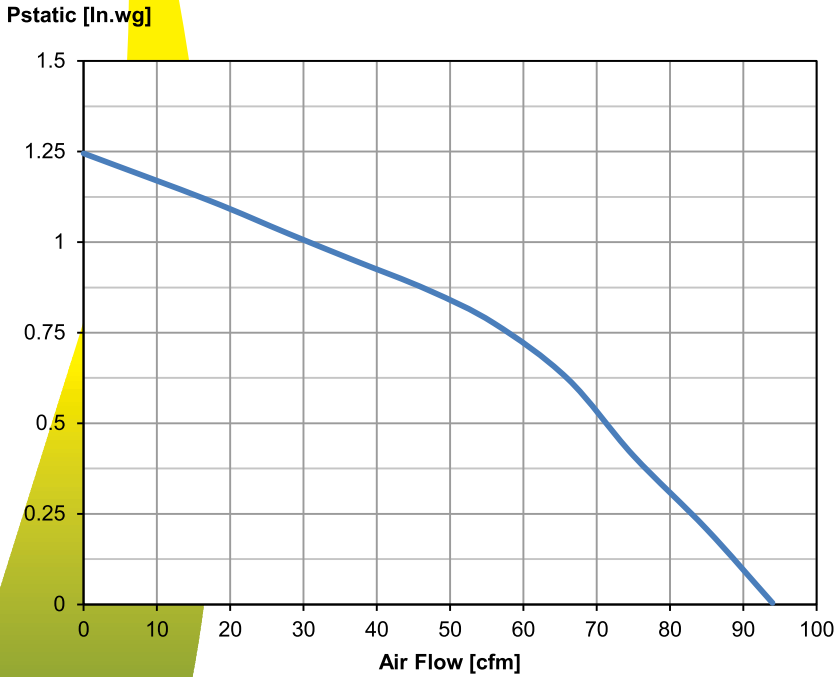


Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet and back draft damper. The Sound ratings shown are loudness values in fan sones at 1.5 m ( 5 ft ) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type A: free inlet hemispherical sone levels .



All Dimensions are in mm

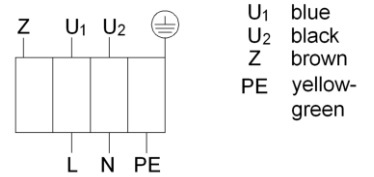
Direct Drive	Operating Volt	Static Pressure in Inches wg						
		0	0.125	0.25	0.375	0.5	0.75	
100% Speed Controllable Motor	230	CFM	65	60	53	47	41	22
		SONES	5.8	5.7	5.8	5.8	5.4	5.4
		WATTS	36.3	35.9	35.5	34.9	34.5	32.9



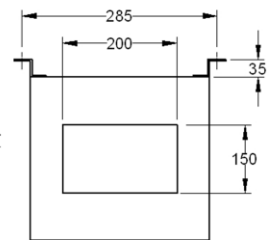
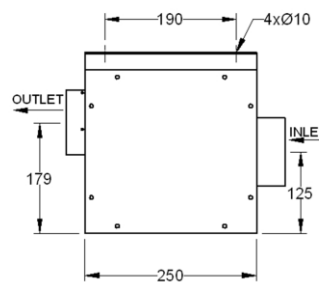
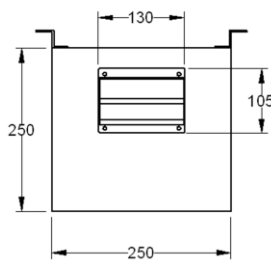
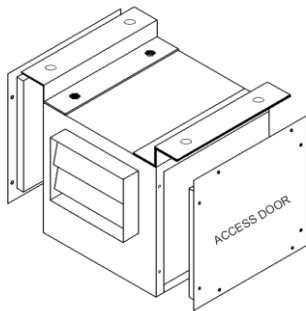
Fan Data	
Fan Weight [kg]	12
Outlet Design	
Rectangle[mm]	130 X 105
Inlet Design	
Rectangle[mm]	200 X 150

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	35
Current [A]	0.16
Speed[RPM]	1850
Wir.Diagram	01.009

Wiring Diagram



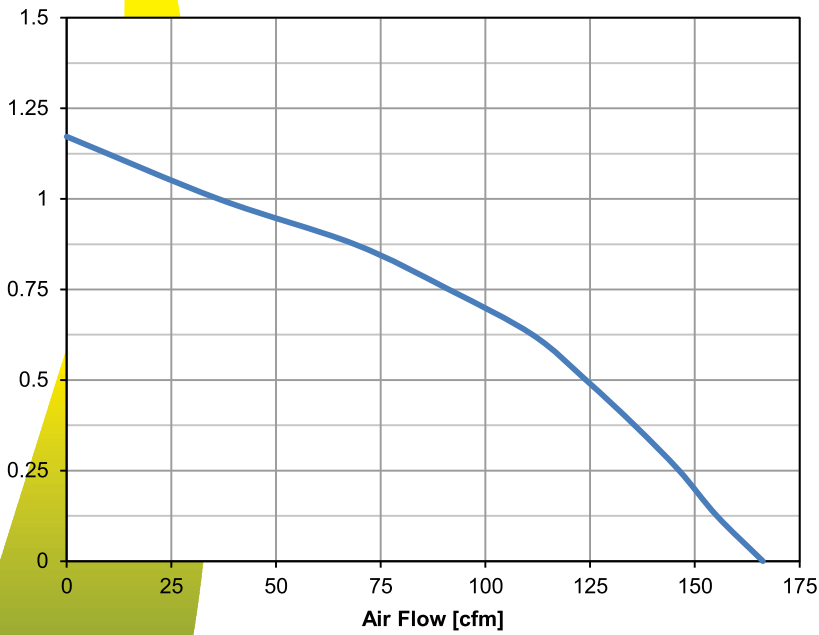
Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet and back draft damper. The Sound ratings shown are loudness values in fan sones at 1.5 m ( 5 ft ) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type A: free inlet hemispherical sone levels .



All Dimensions are in mm

Direct Drive	Operating Volt	Static Pressure in Inches wg						
		0	0.125	0.25	0.375	0.5	0.75	
100% Speed Controllable Motor	230	CFM	94	89	83	77	71	58
		SONES	5.2	5.4	5.4	5.4	5.4	5.4
		WATTS	35.1	34.5	33.9	33.1	32.4	30.5

Pstatic [In.wg]

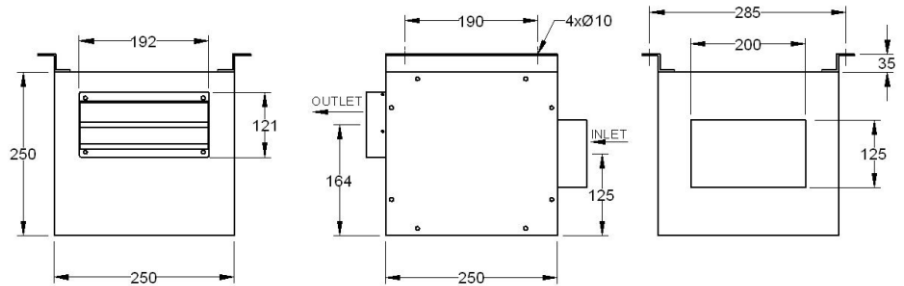
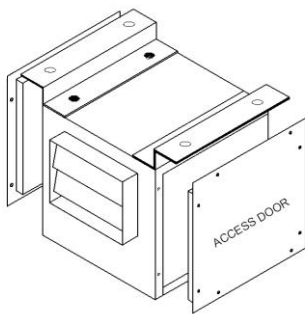
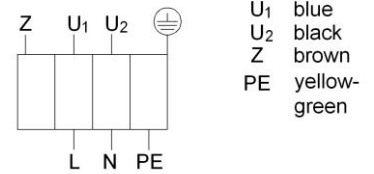


Fan Data	
Fan Weight [kg]	12
Outlet Design	
Rectangle[mm]	192 X 121
Inlet Design	
Rectangle[mm]	200 X 125

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	55
Current [A]	0.25
Speed[RPM]	1250
Wir.Diagram	01.009

**Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet and back draft damper. However the model is not bearing AMCA Certified Seal.**

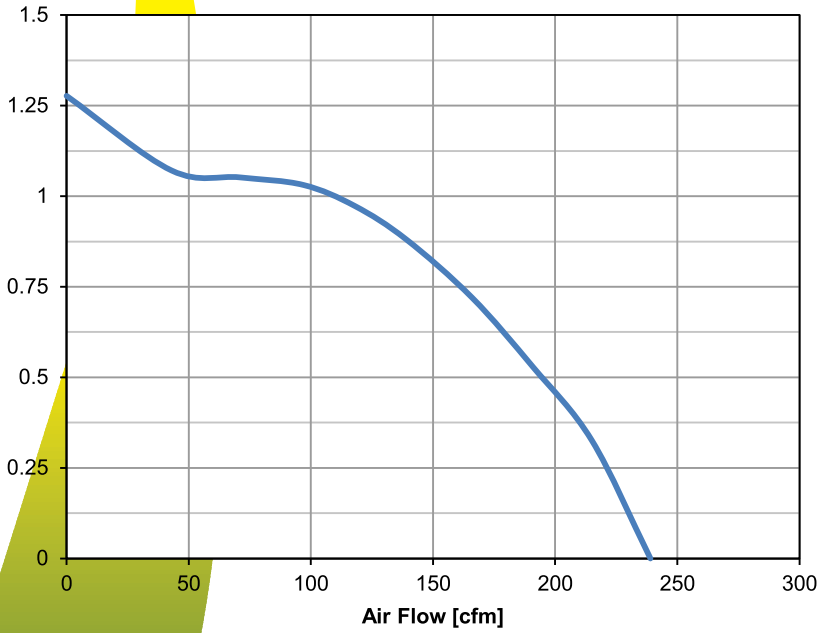
Wiring Diagram



All Dimensions are in mm

Direct Drive	Operating Volt		Static Pressure in Inches wg						
			0	0.125	0.25	0.375	0.5	0.75	1
100% Speed Controllable Motor	230	CFM	166	155	146	135	124	91	36
		SONES	-	-	-	-	-	-	-
		WATTS	-	-	-	-	-	-	-

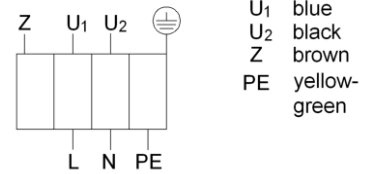
Pstatic [In.wg]



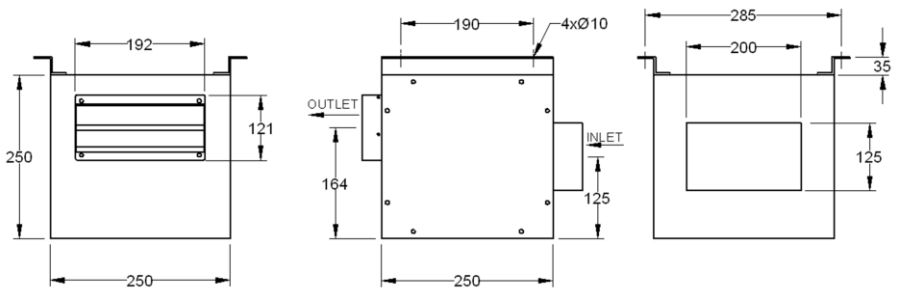
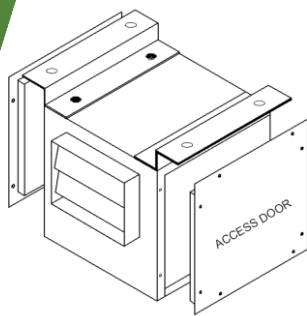
Fan Data	
Fan Weight [kg]	12
Outlet Design	
Rectangle[mm]	192 X 121
Inlet Design	
Rectangle[mm]	200 X 125

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	100
Current [A]	.45
Speed[RPM]	1950
Wir.Diagram	01.009

Wiring Diagram

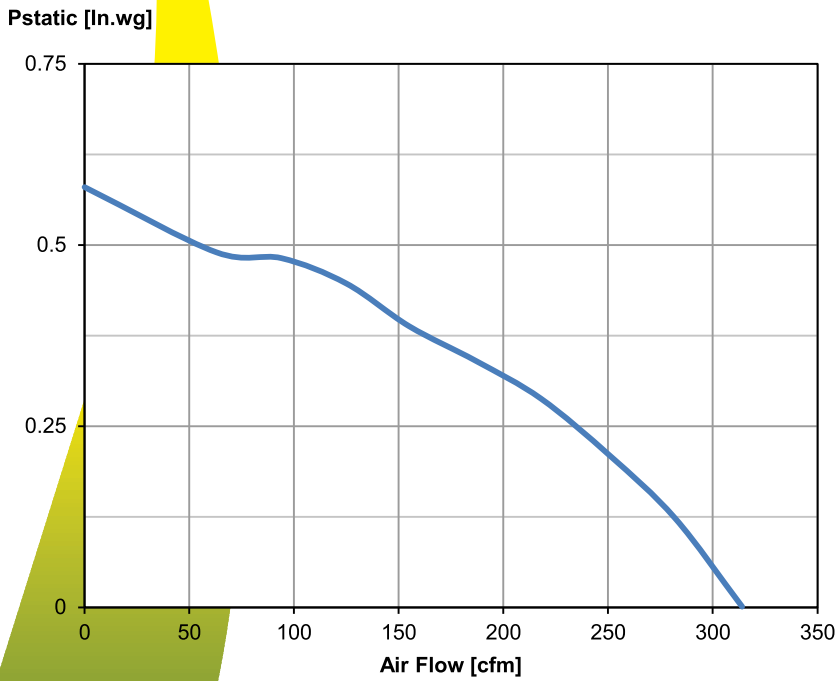


Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet and back draft damper. The Sound ratings shown are loudness values in fan sones at 1.5 m ( 5 ft ) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type A: free inlet hemispherical sone levels .



All Dimensions are in mm

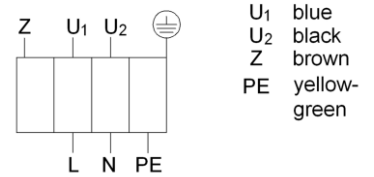
Direct Drive	Operating Volt	Static Pressure in Inches wg							
			0	0.125	0.25	0.375	0.5	0.75	1
100% Speed Controllable Motor	230	CFM	239	230	221	209	194	161	108
		SONES	8.0	8.0	8.2	8.1	8.1	7.4	7.4
		WATTS	97.4	96.2	95.0	93.4	91.0	85.3	76.1



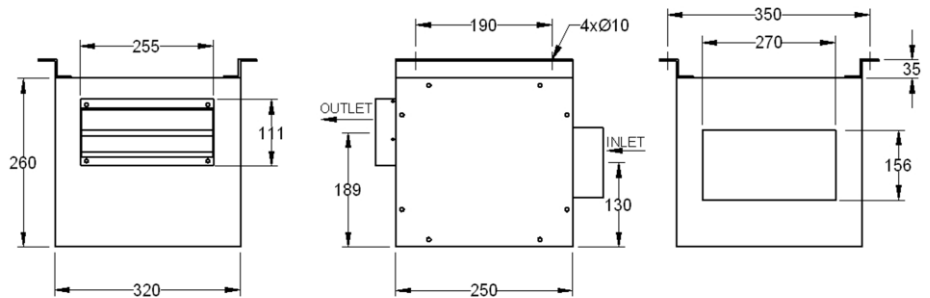
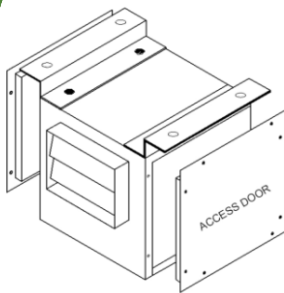
Fan Data	
Fan Weight [kg]	20
Outlet Design	
Rectangle[mm]	255 X 111
Inlet Design	
Rectangle[mm]	270 X 156

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	81
Current [A]	0.36
Speed[RPM]	1240
Wir.Diagram	01.009

Wiring Diagram

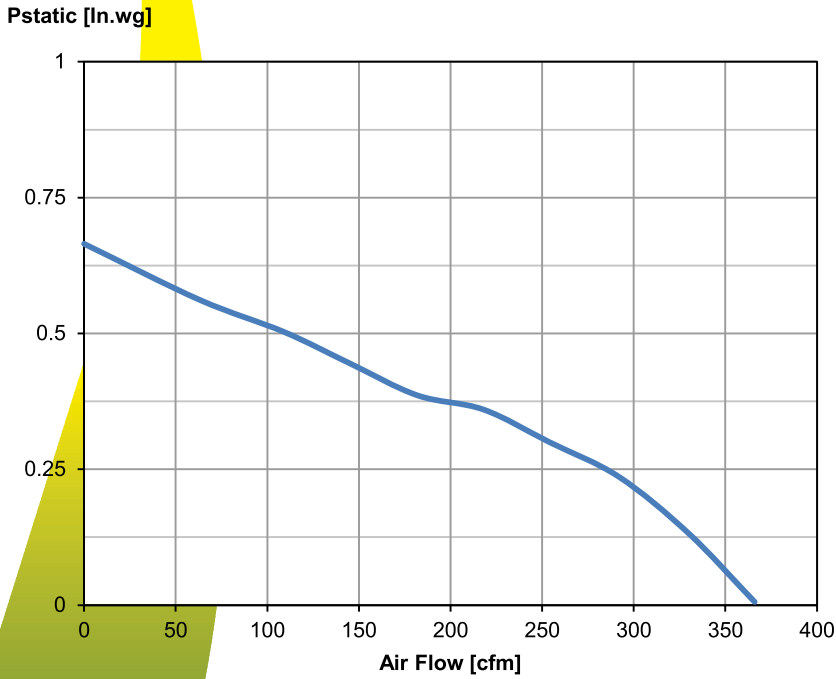


Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet and back draft damper. The Sound ratings shown are loudness values in fan sones at 1.5 m ( 5 ft ) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type A: free inlet hemispherical sone levels .



All Dimensions are in mm

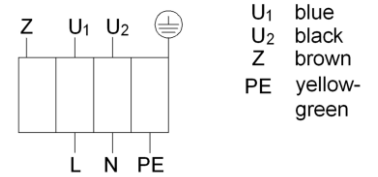
Direct Drive	Operating Volt	Static Pressure in Inches wg					
		0	0.125	0.25	0.375	0.5	
100% Speed Controllable Motor	230	CFM	314	281	234	164	56
		SONES	6.1	5.3	4.7	4.1	4.1
		WATTS	80.4	77.8	74.8	71.0	68.3



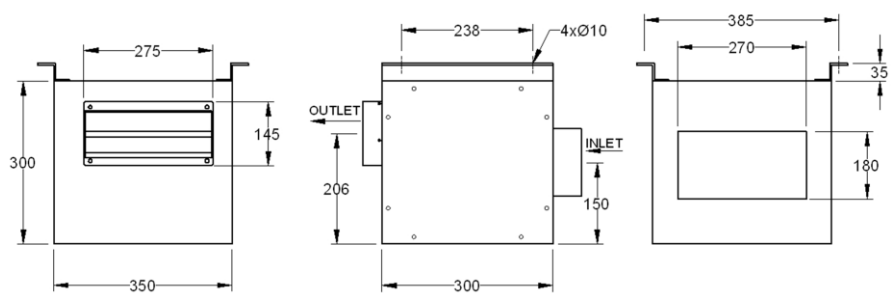
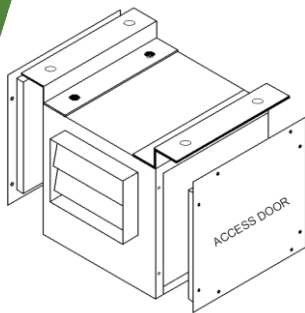
Fan Data	
Fan Weight [kg]	16
Outlet Design	
Rectangle[mm]	275 x145
Inlet Design	
Rectangle[mm]	270 x180

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	83
Current [A]	0.37
Speed[RPM]	1100
Wir.Diagram	01.009

Wiring Diagram



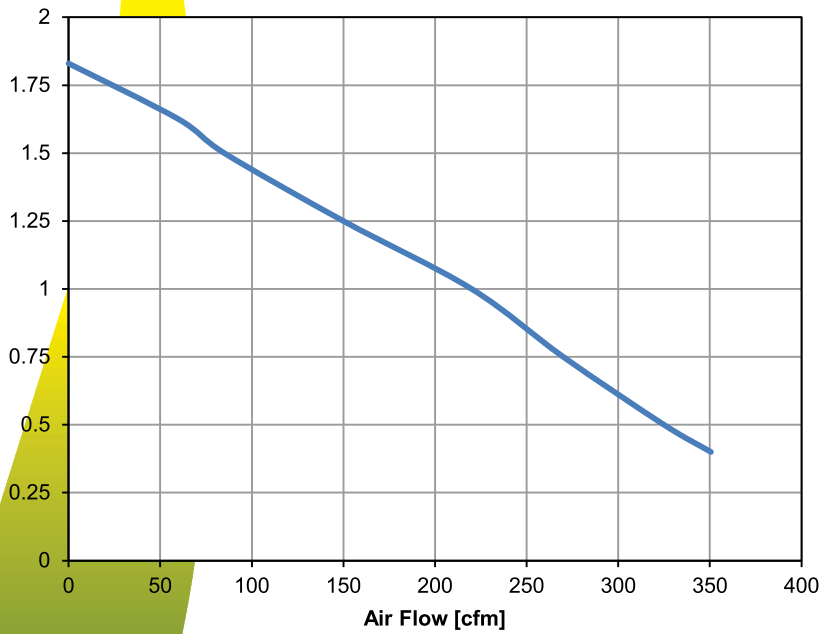
Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet and back draft damper. The Sound ratings shown are loudness values in fan sones at 1.5 m ( 5 ft ) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type A: free inlet hemispherical sone levels .



All Dimensions are in mm

Direct Drive	Operating Volt	Static Pressure in Inches wg					
		0	0.125	0.25	0.375	0.5	
100% Speed Controllable Motor	230	CFM	366	332	284	197	111
		SONES	5.4	5.0	5.0	4.6	4.6
		WATTS	81.3	79.4	76.6	73.3	70.5

Pstatic [In.wg]

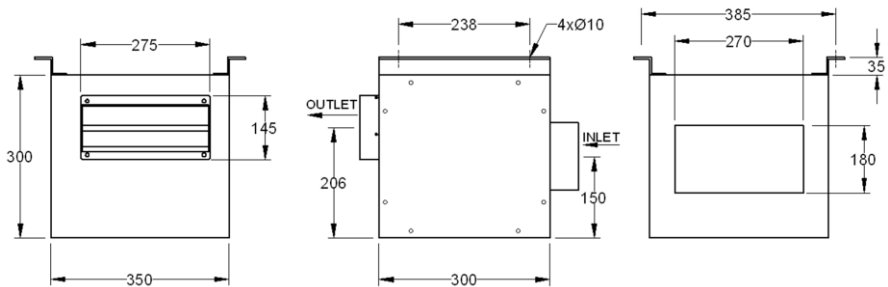
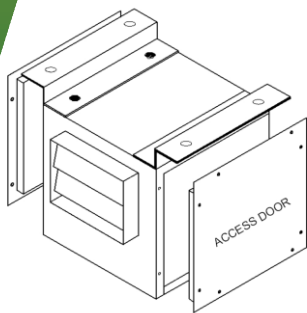
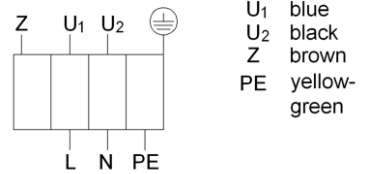


Fan Data	
Min Pstatic [In.wg]	0.4
Fan Weight [kg]	16
Outlet Design	
Rectangle [mm]	275 x 145
Inlet Design	
Rectangle [mm]	270 x 180

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	195
Current [A]	0.85
Speed [RPM]	1550
Wir. Diagram	01.009

Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet and back draft damper. However the model is not bearing AMCA Certified Seal.

Wiring Diagram

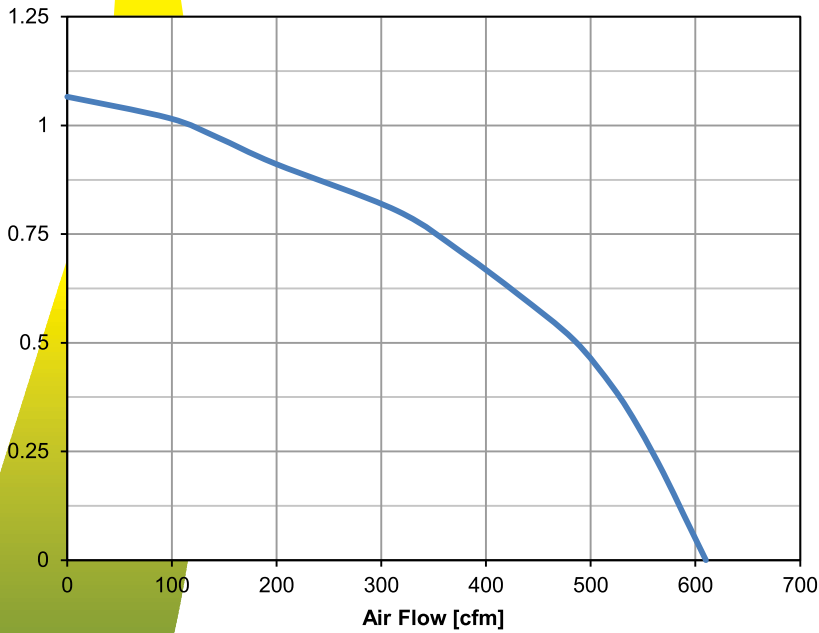


All Dimensions are in mm

Direct Drive	Operating Volt	Static Pressure in Inches wg						
			0.4	0.5	0.75	1	1.25	1.5
100% Speed Controllable Motor	230	CFM	351	325	270	220	150	85
		SONES	-	-	-	-	-	-
		WATTS	-	-	-	-	-	-



Pstatic [In.wg]

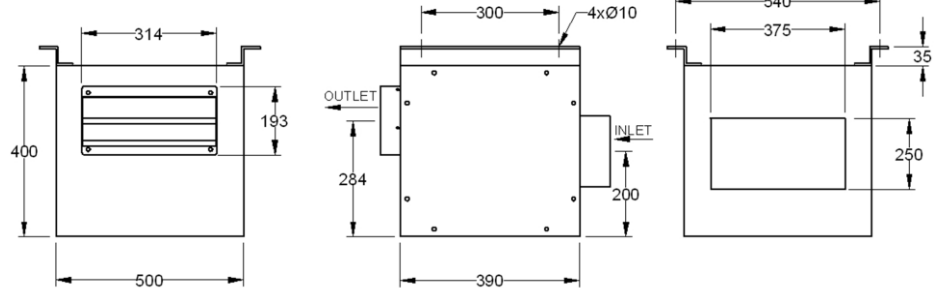
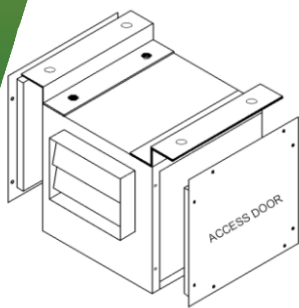
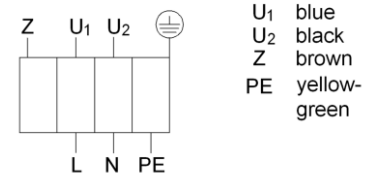


Fan Data	
Fan Weight [kg]	30
Outlet Design	
Rectangle[mm]	314 X 193
Inlet Design	
Rectangle[mm]	375 X 250

Motor Data	
Voltage [V]	230
Frequency [Hz]	60
Power [W]	230
Current [A]	1.05
Speed[RPM]	960
Wir.Diagram	01.025

Performance certified is for installation type A: Free inlet, Free outlet per AMCA Standard 210. Performance ratings include the effects of inlet and back draft damper. However the model is not bearing AMCA Certified Seal.

Wiring Diagram



All Dimensions are in mm

Direct Drive	Operating Volt	Static Pressure in Inches wg						
		0	0.125	0.25	0.375	0.5	0.75	
100% Speed Controllable Motor	230	CFM	610	585	558	527	486	350
		SONES	-	-	-	-	-	-
		WATTS	-	-	-	-	-	-



**Speed Controller**

Reducing Speed for fan . Available for Use with External rotor motors.  
 They provide an economical means of system balancing with direct drive fans.

**Disconnecting Switch**

A wide range selection of NEMA rated Switches are available for positive electrical shutoff and safety , including dust tight,rainproof,corrosion resistant.

Switches may be internally or externally mounted.



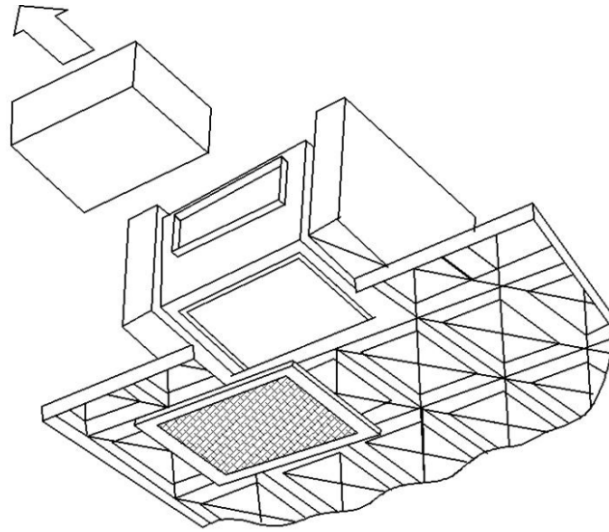
Saudi silent fans shall be Ceiling mounted , inline cabinet mounted , or wall mounted type (upon request) completed with a direct drive /close coupled centrifugal fan with either single width single inlet (**G**) or double width double inlet (**D**) where required .

Motor power supply shall be 230 V-1 Ph- 50 Hz or 60 Hz.

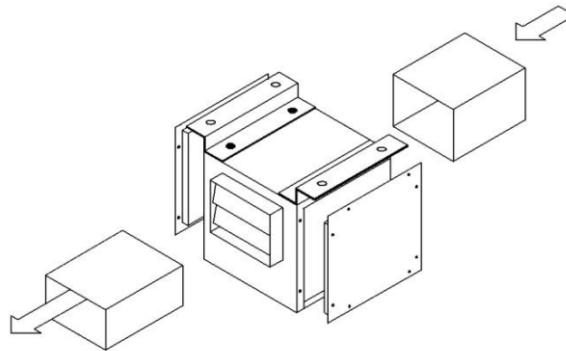
- The direct drive motor shall be external rotor motor type and shall have an aluminium casing . Fan motor speed shall be selected as 2 pole motor or 4 pole motor . The motor shall be compatible with ordinary electronic speed controllers, where necessary the insulation Class will be “B” or greater with built-in thermal overload protection .
- The centrifugal wheel shall be made from galvanized steel sheet and shall be balanced per DIN/ISO 1940 G2.5 standard.
- The scroll housing shall be either aluminium die casted or GI and shall be compact as one assembly together with the impeller & motor .
- The complete fan shall be assembled into rectangular housing made from galvanized steel sheet having grade G90 and shall be insulated with rigid fibre glass wool x 48 kg / m<sup>3</sup> density X 12 mm thick re-inforced with a black mat facing .
- Where ceiling type exhaust fan is required , the manufacturer shall provide a decorative grill made from aluminium and shall be finished with powder coating . The outlet design shall be available at either round design or rectangular design.
- The fan casing shall be fitted with an integral aluminium back draft damper at fan discharge to avoid entry of dust during “Off –cycle”.



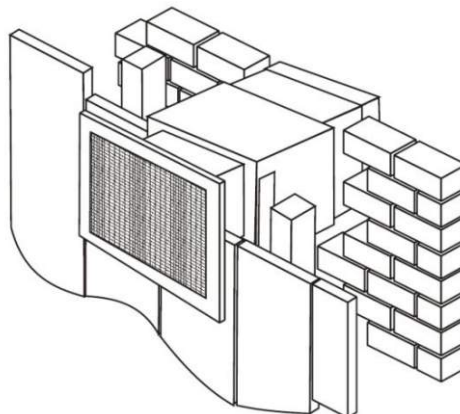
**Ceiling Installation**



**Cabinet Inline installation**

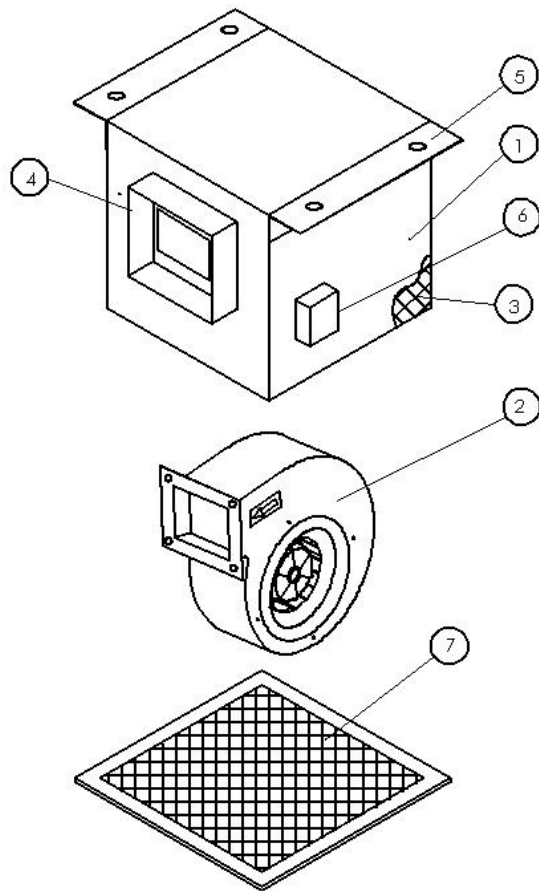


**Wall installation – Custom made upon request**



**Ceiling Fan**

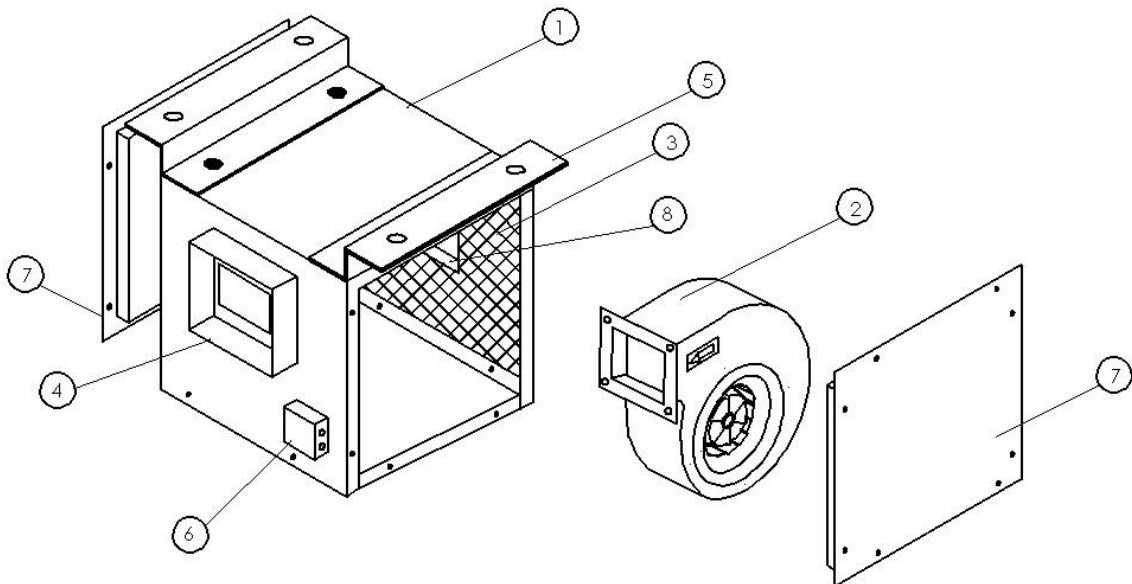
1. Fan Housing Assembly .
2. Fan Motor Assembly
3. Acoustic Liner
4. Outlet Duct Connection
5. Mounting Bracket
6. Electrical Connection Box
7. Grill



**Cabinet Inline Fan**

1. Fan Housing Assembly .
2. Fan Motor Assembly
3. Acoustic Liner
4. Outlet Duct Connection

5. Mounting Bracket
6. Electrical Connection Box
7. Access Door
8. Inlet Duct Connection



## Warranty

Saudi Fan Industries warrants this equipment to be free from defects in material and workmanship for a period of One year from the Delivery date .

### Terms :

- This warranty will cover for defective parts only excluding labour.
- The warranty does not cover the following
  - a. Defects or malfunction resulting from mishandling&improper operation
  - b. Damage caused by abuse, accident,fire,flood.....etc :and
  - c. Defects due to absence of magnetic starters sized to correct overload rating
- Any units or parts ,which proved defective during the warranty period will be replaced at our option when returned to our factory .

Saudi Fan Industries



**For contacts & inquiry**

**Refrigeration House Group**  
P. O. Box 1823 - Al-Khobar 31952  
SAUDI ARABIA

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Saudi Fan Industries Tel. : (03) 812 1866 Fax : (03) 812 1894

■ **Contracting Divisions**  
Klimatechnik Tel. : (03) 882 3534 Fax : (03) 882 2807  
Riyadh Tel. : (01) 465 6198 Fax : (01) 462 8347

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Al-Khobar Tel. : (03) 869 1043 Fax : (03) 898 4161  
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Jeddah Tel. : (02) 665 2276 Fax : (02) 661 2265

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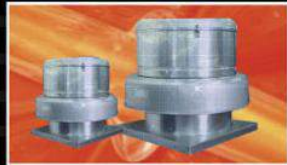
**Saudi Fan<sup>®</sup>**  
Industries

Second Manufacturing Division of

Refrigeration House Group



Centrifugal Roof Fan  
Direct Drive DH / DV



Centrifugal Roof Fan  
Belt & Direct Driven / RTC



Centrifugal Radial Fan  
Direct Drive ERAS-ERAD / DRAS-DRAD



Centrifugal Radial Fan  
Belt Driven HRE-TRR / HRZ-TRZ



Square Inline Fans  
Belt & Direct Driven / ISG



Fresh Air Musfan  
Belt & Direct Driven / MJ



Air Box Fresh Air Fan  
Belt & Direct Driven AirBox



Centrifugal Twin Fan  
Belt & Direct Driven / TW



Axial Low Pressure Fan  
Direct Drive EG / DG



Axial High Pressure Fan  
Direct Drive AND



Inline Centrifugal Duct Fan  
Direct Drive EKAE / EKAD



Inline Centrifugal Tube Fan  
Direct Drive R / RS



Centrifugal Silent Fan  
Direct Drive SSF



Axial Circulation Fan  
Direct Drive SAOF 30" - 36"



Axial Agricultural Fan  
Direct Drive SAAF 125"



Axial Portable Tunnel Fan  
Direct Drive SPTF 8" - 12"

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