

MODELS BVS & CM

BELT DRIVEN UTILITY VENT SET OVERVIEW

The BVS and CM Series belt driven backward inclined Utility Vent Set fans from S&P offer an excellent choice of product for all medium and high pressure exhaust or supply applications for commercial, institutional or light industrial air moving projects. Both models are supplied complete with motor mounted on an adjustable base; v-belt drives; heavy duty ball bearings and integral mounting platform. The installer friendly design simplifies and reduces the cost of installation. Each complete fan is tested prior to shipping to ensure smooth, vibration free and consistently reliable operation to provide years of dependable service with minimal maintenance.

The BVS, CM, CME & CMI Series from S&P are available in four distinctly different construction arrangements to meet a wide range of demanding specialist exhaust or supply applications.

BVS

Light Duty

Suitable for general or grease laden airstream exhaust applications.



Standard Features

- AMCA Air & Sound Certified (except size 10)
- Performance: 500-18,200 CFM with Static Pressures up to 5.0 in. W.G.
- Backward inclined CW or CCW orientation non-overloading wheels, sizes 10 - 30 ins.
- Corrosion resistant galvanized (G90) sheet metal construction with Tab-Loc scroll lock seam
- Adjustable rotation and discharge orientations in accordance with AMCA 99-2406-83 Standards

Models BVS

- cULus 705, Power Ventilator
- Operating Temp -20°F to +200°F continuous

Models BVS-RHUL

- cULus 762, Power Ventilator for Restaurant Exhaust Applications
- Operating Temp -20°F to +400°F continuous

CM

Heavy Duty

Suitable for general, grease laden or high temperature (Smoke & Heat) airstream exhaust applications.



Standard Features

- AMCA Air and Sound Certified (except size 10)
- Performance: 500-25,000 CFM with Static Pressures up to 5.5 in. W.G.
- Backward inclined CW or CCW orientation non-overloading wheels, sizes 10 - 36 ins
- Steel sheet metal construction with corrosion resistant Epoxy Powder Coating, and welded scroll for airtight lock seam
- Adjustable rotation and discharge orientations in accordance with AMCA 99-2406-83 Standards

Models CM

- cULus 705, Power Ventilator
- Operating Temp -20°F to +200°F continuous

Models CM-RHUL

- cULus 762, Power Ventilator for Restaurant Exhaust Applications
- Operating Temp -20°F to +400°F continuous

Models CM-HT

- cULus 793, Power Ventilator for Smoke Control Systems
- Designed and UL Listed to withstand inlet temperatures of 500°F for 4 hours and 1000°F for 45 minutes.

Model CM-HT is available by special quote only. Please contact the factory for pricing and delivery schedules.

Models CME and CMI are available by special quote only and at longer delivery schedules than regular CM units. Please contact the factory for pricing and size availability.

CME

Heavy Duty

Suitable for potentially explosive or flammable air-stream exhaust applications.



Standard Features:

- AMCA Air & Sound Certified
- Performance: 500-25,000 CFM with Static Pressures up to 5.5 in. W.G.
- Backward inclined CW or CCW orientation non-overloading wheels, sizes 10 - 36 ins.
- Various construction configurations available dependant upon the AMCA 99-0401-86 Standard requirements
- Adjustable rotation and discharge orientations in accordance with AMCA 99-2406-83 Standards

Models CME-C

- cULus705, Power Ventilator
- Operating Temp -20°F to +200°F continuous.
- AMCA TYPE-C Spark Proof Rating
- Corrosion resistant epoxy coated steel wheel and scroll with non-ferrous inlet venturi

Please contact factory for availability and delivery schedules of CME models.

CMI

Heavy Duty

Suitable for corrosive airstream exhaust applications.



Standard Features:

- AMCA Air & Sound Certified
- Performance: 500-25,000 CFM with Static Pressures up to 5.5 in. W.G.
- Backward inclined CW or CCW orientation non-overloading wheels.
- Stainless Steel construction. Includes, scroll (housing), wheel, inlet venturi and shaft
- Adjustable rotation and discharge orientations in accordance with AMCA 99-2406-83 Standards.

Models CMI

- cULus 705, Power Ventilator
- Unit is designed to operate at temperatures of -20°F to +600°F continuous.

Not available in all sizes, please contact factory for availability and delivery schedules of CMI models.



MODEL FEATURES

- Exhaust air to over 21,000 CFM in static pressure capabilities to 5.5"
- Belt drives permit easy performance adjustments when needed
- Backward inclined CW or CCW orientation non-overloading wheels, sizes 10 - 36 ins.
- Steel sheet metal construction with corrosion resistant Epoxy Powder Coating, and welded scroll for airtight lock seam
- Adjustable rotation and discharge orientations in accordance with AMCA 99-2406-83 Standards
- AMCA Air and Sound Licensed
- cULus 705,762, 793 Listed

APPLICATION CONSTRUCTION OPTIONS

MODEL NAME	TYPICAL APPLICATIONS
CM	<ul style="list-style-type: none"> • Suitable for removal of clean or contaminated air in general applications • UL705 listed • Operating Temp -20°F to +200°F continuous
CM-RHUL	<ul style="list-style-type: none"> • Suitable grease laden airstream exhaust applications. • UL762 listed for grease removal • Operating Temp -20°F to +400°F continuous
CM-HT	<ul style="list-style-type: none"> • Suitable for high temperature (Smoke & Heat) airstream exhaust applications. • UL793 listed for smoke control systems • Listed for emergency heat and smoke removal. Designed and UL Listed to withstand inlet temperatures of 500°F for 4 hours and 1000°F for 45 minutes. • <i>Contact Factory for pricing and delivery schedules</i>
CME-C	<ul style="list-style-type: none"> • Suitable for potentially explosive or flammable airstream exhaust applications. • AMCA Type-C Spark Proof Rating • Operating Temp -20°F to +200°F continuous • <i>Contact Factory for availability and delivery schedules</i>
CMI	<ul style="list-style-type: none"> • Suitable for corrosive airstream exhaust applications. • UL705 listed • Unit is designed to operate at temperatures of -20°F to +600°F continuous. • <i>Contact Factory for size availability and delivery schedules</i>

MODEL OVERVIEW

S&P's Model CM is available in a full range of sizes (10 through 36) provides airflow performance from 500 CFM to over 24,500 CFM with static pressure up to 5.5 in. w.g. This single inlet backward inclined utility fan provides substantial benefits for pressure flow, low power consumption and low noise level, ideal for commercial and industrial applications. Typical applications include either supply or exhaust service for ducted systems in schools, theaters, gymnasiums, manufacturing plants, hotels, office buildings, restaurant hoods, and many other general ventilation applications.

The turbine performance, minimizes unnecessary energy losses resulting in a system with high efficiency.

Its design, manufacture and testing guarantee a long operating life with low maintenance. Also having great versatility in arrangements, and available positions with a complete series of mounting accessories for installation and proper operation of equipment for each application.

The mechanical design and construction determines the maximum operating speed and power. The performance ranges shown on the following pages comply with the Class I operating limits as defined in AMCA standard 99.

Models CM & CMRHUL are available in our Quickship program. Many of the sizes are available for 10-day shipping from stock.



1 year fan housing warranty, 1 year motor warranty

All specifications are subject to change without notice unless approved in submittal by Soler & Palau USA.

STANDARD CONSTRUCTION FEATURES

Inlet/L-Flange (Standard): This standard feature allows for easy duct attachment. The inlet collar allows the fan to be removed with minimal disconnecting of the duct work.

Weather cover (Standard): Sheet metal ventilated enclosure for the motor, shaft, belts and drives for safety and weather protection.

Access door (Standard): This standard feature is a bolted access door that allows inspection or cleaning of the wheel compartment.

Threaded Drain Fitting (Standard): This standard feature is a 3/4" I.P.S. coupling positioned at the lowest point in fan housing to drain moisture from the bottom of the fan housing.

Mounting Rails (Standard): Set of galvanized steel rails for easy roof mounting of all units.

cULus705 (Standard on CM Units): For electrical reliability. Includes standard construction features listed above and cULus705 label. Clockwise or counter clockwise top horizontal (CW-TH or CCW-TH) discharge configuration are standard but other positions are available (must specify discharge orientation on order).

cULus762 (Standard on CM-RHUL units): For use in grease laden air or temperatures up to 400 degrees F. Ships with standard construction features listed above and cULus762 label. Clockwise or counter clockwise upblast (CW-UB or CCW-UB) discharge configuration are standard but top angular up (CW-TAU and CCW-TAU) positions are also available (must specify discharge orientation on order).

cULus793 (Standard on CM-HT units): Listed for emergency heat and smoke removal. Designed and UL Listed to withstand inlet temperatures of 500°F for 4 hours and 1000°F for 45 minutes. With this option the fan ships with standard construction features listed above, heat slinger, and cULus793 label. Clockwise or counter clockwise upblast (CW-UB or CCW-UB) discharge configuration are standard but other positions are also available (must specify discharge orientation on order). **Available by special quote only. Please contact the factory for pricing and delivery schedules.**

ACCESSORIES/OPTIONS

Inlet/outlet Guard (Option): Heavy-gauge wire protects people and the fan entrance from unwanted debris in nonducted installations. Outlet Guard comes with outlet flange. (Not for UL762 use).

Outlet Flange (Option): Required on the discharge for mounting of either the optional damper or the optional outlet screen.

U-flange inlet (Option): Available for easy connection to flanged ductwork.

Discharge damper (Option): Heavy-duty interconnecting blade design opens by velocity. It helps prevent the entry of unwanted objects. Outlet Flange is required (included with damper). Maximum temperature is 200 degrees F and maximum face velocity is 3500 FPM. (Not for UL762 use). Damper cannot be used with TAD, DB, & BAD positions.

RIS Vibration Pads (Option): Set of RIS (rubber in shear) or spring type isolators help reduce vibration, improve motion restraint, help provide proper leveling, reduce torque forces, and provide improved stability in the fan installation.

Spring Vibration Pads (Option): Set of spring pads, ship loose for field mounting.

Grease trough (Option): Allows grease to collect in an easy to service container keeping roof area clean. Design allows for water and grease separation.

Shaft seal (Option): Nonasbestos fibrous material is sandwiched between the fan housing and cover plate. It helps reduce heat and the transfer of air from the wheel compartment. Seal does not make the fan air or gas tight. Shaft seal comes standard when ordering cULus793 listing

Disconnect (Option): Available in either open or rain tight enclosure and matches the motor electrical characteristics. Allows for fan electrical cut off for servicing or inspection safety. (Ships loose).



CONSTRUCTION/SPECIFICATION CHECKLIST

Type: UTILITY VENT SET

Type of Wheel: Backward Inclined

Rotation: CW and CCW

Sizes: 10, 12, 14, 16, 18, 20, 22, 24, 27, 30, 36

Construction

Housing & Drive Frame Structure

The unit is solidly built, housing joints are welded intervals (*continuous welding on request, contact factory for availability and delivery schedules*), this provides greater strength, accuracy on the boards and makes a robust unit, which is an added value.

Wheel

Backward inclined centrifugal wheel is constructed of steel blades protected with a polyester powder coat finish. All wheels are statically and dynamically balanced to ISO 1940 and AMCA 204-G2.5 standards.

Paint

The unit is subjected to a coil coating process, where the steel is treated chemically to ensure the adherence of the polyester paint. Subsequently, powder coating is bonded to the parts through an electrostatic process, where after baking the piece takes on its highest characteristics corrosion resistance, with great adhesion properties and impact resistance.

Shafts and Bearings

Turned, ground and polished allow steel shafts sized so the first critical speed is at least 30% over the maximum operating speed. Standard bearings are heavy-duty, self-aligning pillow block ball bearings with minimum L10 life in excess of 100,000 hours at maximum cataloged operating conditions.

Motors

Heavy-duty ball bearing motors are factory mounted on an adjustable base for ease of service and belt maintenance. Standard motor enclosures are available as Open Drip Proof (ODP), Totally Enclosed Fan Cooled (TEFC). Explosion Proof motors are available by special request.

Drives

V-belt drives are selected for a minimum safety factor of 150% of the driven horsepower. Cast iron motor pulleys are adjustable for final system balancing and are factory set to the required RPM range. Dual groove v-belt drives are standard for motors 5 HP thru 10 HP. Three groove v-belt drives are standard on 15 HP units.

Temperature

Standard operating temperature range for cULus 705 units is -20°F to 200°F. For fans with cULus 762 construction the range is -20°F to 400°F. For CM-HT models with cULus 793 listing for emergency heat and smoke removal, designed and UL Listed to withstand inlet temperatures of 500°F for 4 hours and 1000°F for 45 minutes.

cULus 762 Fan Installation

Model CM is available with the 762 grease listing from UL. The fan will operate with continuous airstream temperatures of 400°F. Per NFPA 96, the fan discharge must be at least 40 inches above the roof line and the duct must be of all welded construction with a minimum distance of 18 inches above the roof line.

PHYSICAL DATA

CM Model	Wheel Diameter (in.)	Wheel Weight (lbs.)	WR ² (lbs-ft ²)	Max. Wheel RPM	Max. Motor Frame Size	Fan Weight* (lbs.)
10	10-1/16	4	0.600	3850	145T	62
12	12-11/16	11	1.90	3200	184T	89
14	14-7/8	13	3.56	2800	184T	102
16	16	18	5.22	2500	184T	119
18	17-15/16	24	9.73	2200	213T	160
20	20-3/16	31	16.85	1950	213T	188
22	22-7/16	42	26.10	1800	215T	269
24	25-3/16	59	41.77	1500	215T	340
27	28-1/4	84	78.31	1350	254T	549
30	31-7/8	108	132.18	1200	256T	739
36	35-5/8	140	200	1050	284T	959

*Weight is fan only (without accessories, motors, bases, drives, etc.)

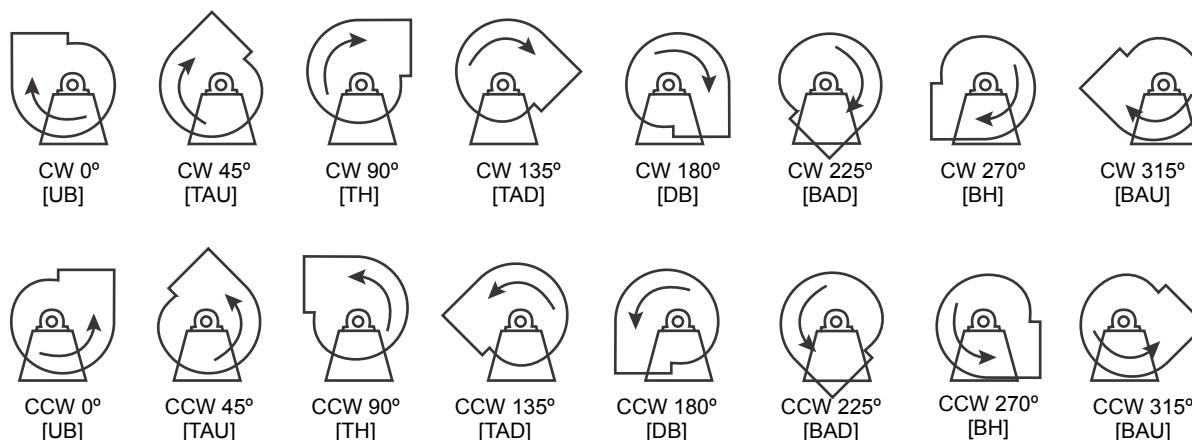
ELEVATED TEMPERATURE DERATE

When elevated temperatures are encountered, maximum RPMs shown above must be derated according to the following table.

Temperature (°F)	Standard Steel	
70	1.00	
200	0.98	Standard Temperature Range
300	0.96	
400	0.95	
500	0.90	High Temperature Range
600	0.86	

ROTATION AND DISCHARGE

The direction of rotation is determined from the drive side of the fan. The direction of discharge is determined in accordance with the diagrams below. The angle of discharge is referred to the horizontal axis of fan and designated in degrees above or below such standard reference axis. ***Not all positions are available for all sizes, see chart below.***



SIZE	OPTIONS OF ROTATIONS								TURN	
	UB	TAU	TH	TAD	DB	BAD	BH	BAU	CW	CCW
10-24	•	•	•	•	•	•	•	•	•	•
27-36	•	•	•						•	•

MODEL BVS

BELT DRIVEN UTILITY VENT SET



MODEL FEATURES

- Exhaust air to over 18,200 CFM in static pressure capabilities to 5"
- Belt drives permit easy performance adjustments when needed
- Backward inclined CW or CCW orientation non-overloading wheels, sizes 10 - 30 ins.
- Corrosion resistant galvanized (G90) sheet metal construction with Tab-Loc scroll lock seam
- Adjustable rotation and discharge orientations in accordance with AMCA 99-2406-83 Standards
- AMCA Air and Sound Licensed
- cULus 705 or 762 Listed

APPLICATION CONSTRUCTION OPTIONS

MODEL NAME	TYPICAL APPLICATIONS
BVS	Removal of clean or contaminated air in general applications Operating Temp -20°F to +200°F continuous
BVSRHUL	UL762 listed for grease removal Operating Temp -20°F to +400°F continuous

MODEL OVERVIEW

The BVS Series belt driven backward inclined Utility Vent Set fans from Soler & Palau USA offer an excellent choice of product for all medium and high pressure exhaust or supply applications for commercial, institutional or light industrial air moving projects. Models are supplied complete with motor mounted on an adjustable base; v-belt drives; heavy-duty ball bearings and integral mounting platform.

The model BVS is a belt driven arrangement 10, Class I centrifugal fan with high efficiency, backward inclined non-overloading wheel. The self-contained packaged unit (also known as a "vent set" or "utility set") is fully factory assembled to reduce installation costs. Each complete fan is test run prior to shipment to provide smooth, vibration free and consistently reliable operation, and will deliver years of dependable service with minimal maintenance – all in the most economical manner. A full range of sizes (10 through 30) provides airflow performance from 500 CFM to over 18,200 CFM with static pressure up to 5 in. w.g.

The model BVS is suitable for indoor or outdoor installation and with appropriate accessories it can be mounted either on the roof or floor. The model BVS may also be suspended from structure overhead. Ductwork may be connected to the inlet side of the fan, to the outlet, or both.

This series is suitable for general or grease laden airstream applications.

1 year fan housing warranty, 1 year motor warranty

All specifications are subject to change without notice unless approved in submittal by Soler & Palau USA.



MODEL BVS

BELT DRIVEN UTILITY VENT SET



STANDARD CONSTRUCTION FEATURES

Inlet/L-Flange (Standard): This standard feature allows for easy duct attachment. The inlet collar allows the fan to be removed with minimal disconnecting of the duct work.

Weather cover (Standard): Sheet metal ventilated enclosure for the motor, shaft, belts and drives for safety and weather protection.

Access door (Standard): This standard feature is a bolted access door that allows inspection or cleaning of the wheel compartment.

Threaded Drain Fitting (Standard): This standard feature is a 3/4" I.P.S. coupling positioned at the lowest point in fan housing to drain moisture from the bottom of the fan housing.

Mounting Rails (Standard): Set of galvanized steel rails for easy roof mounting of all units.

ACCESSORIES/OPTIONS

cULus705 (Option): For electrical reliability. Includes weather cover and cULus705 label. Clockwise or counter clockwise top horizontal (CW-TH or CCW-TH) discharge configuration are standard but other positions are available (must specify discharge orientation on order).

cULus762 (Option): For use in grease laden air and/or temperatures up to 400 degrees F. With this option the fan ships with a weather cover, drain, heat slinger, shaft seal, high temperature insulation, access door, mounting rails, additional motor compartment ventilation and cULus762 label. Clockwise or counter clockwise upblast (CW-UB or CCW-UB) discharge configuration are standard but top angular up (CW-TAU and CCW-TAU) positions are also available (must specify discharge orientation on order).

Inlet/outlet Guard (Option): Heavy-gauge wire protects people and the fan entrance from unwanted debris in nonducted installations. Outlet Guard comes with outlet flange. (Not for UL762 use).

Outlet Flange (Option): Required on the discharge for mounting of either the optional damper or the optional outlet screen.

U-flange inlet (Option): Available for easy connection to flanged ductwork.

Discharge damper (Option): Heavy-duty interconnecting blade design opens by velocity. It helps prevent the entry of unwanted objects. Outlet Flange is required (included with damper). Maximum temperature is 200 degrees F and maximum face velocity is 3500 FPM. (Not for UL762 use). Damper cannot be used with TAD, DB, & BAD positions.

RIS Vibration Pads (Option): Set of RIS (rubber in shear) or spring type isolators help reduce vibration, improve motion restraint, help provide proper leveling, reduce torque forces, and provide improved stability in the fan installation.

Spring Vibration Pads (Option): Set of spring pads, ship loose for field mounting.

Grease trough (Option): Allows grease to collect in an easy to service container keeping roof area clean. Design allows for water and grease separation.

Shaft seal (Option): Nonasbestos fibrous material is sandwiched between the fan housing and cover plate. It helps reduce heat and the transfer of air from the wheel compartment. Seal does not make the fan air or gas tight.

Disconnect (Option): Available in either open or rain tight enclosure and matches the motor electrical characteristics. Allows for fan electrical cut off for servicing or inspection safety. (Ships loose).

Heat Slinger (Option): An aluminum cooling disc mounted on the fan shaft between the inboard bearing and the fan housing. The disc dissipates heat conducted along the fan shaft, and it also promotes circulation in the motor compartment. The additional circulation in the motor compartment extends motor life, because it allows the motor to operate at lower temperatures.

CONSTRUCTION/SPECIFICATION CHECKLIST

Type: UTILITY VENT SET

Type of Wheel: Backward Inclined

Rotation: CW and CCW

Sizes: 10, 12, 14, 16, 18, 20, 22, 24, 27, 30

Housing & Drive Frame Structure

The entire housing is constructed from heavy-gauge galvanized steel for excellent weather resistance. The angle reinforced side sheets are bonded to the fan scroll with a precise lock seam. The flexible design is available in either CW (clockwise) or CCW (counterclockwise) rotation and the housing is field rotatable to 8 discharge positions.

Housing supports, reinforcements, and structural members are formed from heavy-gauge galvanized steel. Robust drive frame members support the motor, shaft and bearings and provide a rigid foundation for the housing assembly.

Wheel

The backward inclined non-overloading centrifugal wheel is constructed of a heavy-gauge steel material with single thickness blades securely welded to a heavy-gauge backplate and wheel cone. Each wheel is statically and dynamically balanced to ISO 1940 and AMCA 204-G2.5 Standards.

Shaft and Bearings

Turned, ground and polished allow steel shafts sized so the first critical speed is at least 30% over the maximum operating speed. Standard bearings are heavy-duty, self-aligning pillow block ball bearings with minimum L10 life in excess of 100,000 hours at maximum cataloged operating conditions.

Motors

Heavy-duty ball bearing motors are factory mounted on an adjustable base for ease of service and belt maintenance. Standard motor enclosures are Open Drip Proof (ODP), Totally Enclosed Fan Cooled (TEFC), in both standard and premium efficiency.

Drives

V-belt drives are selected for a minimum safety factor of 150% of the driven horsepower. Cast iron motor pulleys are adjustable for final system balancing and are factory set to the required RPM range. Dual groove v-belt drives are standard for motors 5 HP thru 10 HP. Three groove v-belt drives are standard on 15 HP units.

Temperature

Standard operating temperature range for cULus 705 is -20°F to 200°F, and for fans with cULus 762 construction the range is -20°F to 400°F.

cULus 762 Fan Installation

Model BVS is available with the 762 grease listing from UL. The fan will operate with continuous airstream temperatures of 400°F. Per NFPA 96, the fan discharge must be at least 40 inches above the roof line and the roof duct must be of all welded construction with a minimum distance of 18 inches above the roof line.



MODEL BVS

BELT DRIVEN UTILITY VENT SET



PHYSICAL DATA

BVS Model	Wheel Diameter (in.)	Wheel Weight (lbs.)	WR ² (lbs-ft ²)	Max. Wheel RPM	Max. Motor Frame Size	Fan Weight* (lbs.)
10	10-1/16	4	0.600	2998	145T	105
12	12-11/16	11	1.90	2873	184T	143
14	14-7/8	13	3.56	2672	184T	165
16	16	18	5.22	2268	184T	187
18	17-15/16	24	9.73	2137	215T	242
20	20-3/16	31	16.85	1823	215T	286
22	22-7/16	42	26.10	1716	215T	352
24	25-3/16	59	41.77	1533	215T	418
27	28-1/4	84	78.31	1297	256T	594
30	31-7/8	108	132.18	1093	256T	726

*Weight is fan only (without accessories, motors, bases, drives, etc.)

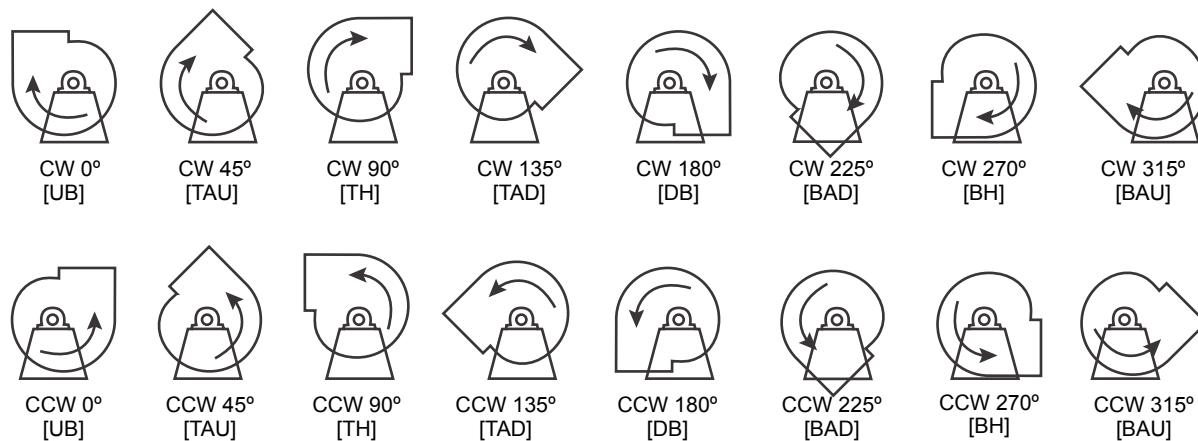
ELEVATED TEMPERATURE DERATE

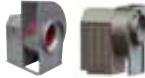
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Temperature (°F)	Standard Steel	
70	1.00	
200	0.98	Standard Temperature Range
300	0.96	
400	0.95	High Temperature Range

ROTATION AND DISCHARGE

The direction of rotation is determined from the drive side of the fan. The direction of discharge is determined in accordance with the diagrams below. The angle of discharge is referred to the horizontal axis of fan and designated in degrees above or below such standard reference axis. ***Not all positions are available for all sizes.***





PERFORMANCE/DIMENSIONS

CM/BVS 10

Wheel Diameter: 10-1/16"
Outlet Area: 0.625 Sq. Ft.
Average Weight: CM - 62 lbs / BVS -105 lbs
Shaft Diameter: 3/4"
Tip Speed: 2.64 x RPM=FPM
Max Fan RPM: 2,998 RPM
Max Motor HP: 3/4 HP

CFM	OV	Static Pressure (Inches W.G.)													
		0.5		1		1.5		2		2.5		3		3.5	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
499	800	1316	0.07	1655	0.12	1939	0.18	-	-	-	-	-	-	-	-
531	850	1353	0.07	1682	0.13	1962	0.19	-	-	-	-	-	-	-	-
562	900	1392	0.08	1710	0.14	1986	0.20	2229	0.27	-	-	-	-	-	-
593	950	1431	0.08	1740	0.15	2011	0.21	2251	0.29	-	-	-	-	-	-
624	1000	1472	0.09	1772	0.16	2037	0.23	2274	0.30	2490	0.38	-	-	-	-
656	1050	1513	0.10	1804	0.17	2065	0.24	2299	0.31	2511	0.40	-	-	-	-
687	1100	1556	0.11	1839	0.18	2093	0.25	2324	0.33	2534	0.41	2729	0.50	-	-
718	1150	1600	0.12	1875	0.19	2123	0.27	2350	0.35	2558	0.43	2751	0.52	-	-
749	1200	1643	0.13	1912	0.20	2154	0.28	2377	0.36	2583	0.45	2774	0.54	2953	0.64
780	1250	1687	0.14	1950	0.21	2186	0.30	2405	0.38	2608	0.47	2798	0.56	2975	0.66
812	1300	1732	0.15	1989	0.23	2219	0.31	2435	0.40	2635	0.49	2822	0.58	2998	0.68
843	1350	1776	0.16	2029	0.24	2254	0.33	2465	0.42	2662	0.51	2847	0.61	-	-
874	1400	1820	0.17	2070	0.26	2290	0.34	2496	0.44	2691	0.53	2873	0.63	-	-
905	1450	1864	0.18	2111	0.27	2327	0.36	2528	0.46	2720	0.56	2900	0.66	-	-
936	1500	1908	0.20	2153	0.29	2365	0.38	2562	0.48	2750	0.58	2928	0.68	-	-
968	1550	1953	0.21	2196	0.30	2404	0.40	2596	0.50	2781	0.61	2957	0.71	-	-
999	1600	1998	0.22	2239	0.32	2442	0.42	2632	0.52	2813	0.63	2987	0.74	-	-
1030	1650	2043	0.24	2283	0.34	2482	0.44	2669	0.54	2846	0.66	-	-	-	-
1061	1700	2089	0.25	2327	0.36	2523	0.46	2706	0.57	2880	0.68	-	-	-	-
1093	1750	2135	0.27	2371	0.38	2564	0.49	2745	0.59	2915	0.71	-	-	-	-
1124	1800	2181	0.29	2415	0.40	2606	0.51	2783	0.62	2951	0.74	-	-	-	-
1155	1850	2228	0.31	2459	0.42	2648	0.54	2822	0.65	-	-	-	-	-	-
1186	1900	2275	0.33	2503	0.45	2691	0.56	2862	0.68	-	-	-	-	-	-
1217	1950	2323	0.35	2547	0.47	2734	0.59	2902	0.70	-	-	-	-	-	-
1249	2000	2371	0.38	2591	0.49	2778	0.62	2943	0.74	-	-	-	-	-	-
1280	2050	2422	0.40	2635	0.52	2821	0.64	-	-	-	-	-	-	-	-
1311	2100	2470	0.43	2680	0.54	2865	0.67	-	-	-	-	-	-	-	-
1342	2150	2519	0.44	2724	0.57	2909	0.70	-	-	-	-	-	-	-	-
1373	2200	2568	0.47	2769	0.59	2954	0.74	-	-	-	-	-	-	-	-
1405	2250	2619	0.50	2814	0.60	-	-	-	-	-	-	-	-	-	-
1436	2300	2669	0.52	2859	0.65	-	-	-	-	-	-	-	-	-	-
1467	2350	2718	0.56	2905	0.68	-	-	-	-	-	-	-	-	-	-
1498	2400	2768	0.59	2950	0.71	-	-	-	-	-	-	-	-	-	-
1530	2450	2820	0.62	2996	0.75	-	-	-	-	-	-	-	-	-	-
1561	2500	2870	0.66	-	-	-	-	-	-	-	-	-	-	-	-
1592	2550	2920	0.68	-	-	-	-	-	-	-	-	-	-	-	-
1623	2600	2971	0.72	-	-	-	-	-	-	-	-	-	-	-	-

Performance certified is for installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories). Power rating (BHP) does not include transmission losses.



UL STANDARD 705
UL STANDARD 762
UL STANDARD 793 (CM ONLY)
Optional - Must be specified



MODELS CM & BVS

BELT DRIVEN UTILITY VENT SET



SOUND CHARACTERISTICS

CM/BVS 10

RPM	Sound Performance Sones / LwA (Inches w.g.)						
	0.5	1	1.5	2	2.5	3	3.5
1325	4.4 / 60.1	-	-	-	-	-	-
1500	5.7 / 64.2	-	-	-	-	-	-
1700	7.5 / 68.6	6.6 / 65.9	-	-	-	-	-
1875	9.5 / 72.1	8.2 / 69.5	-	-	-	-	-
2050	11.7 / 75.4	9.9 / 72.6	9.3 / 70.9	-	-	-	-
2250	14.4 / 78.7	12.2 / 76.0	11.4 / 74.6	11.1 / 73.2	-	-	-
2450	17.0 / 81.5	14.5 / 78.9	13.5 / 77.5	13.1 / 76.6	-	-	-
2625	19.1 / 83.5	17.1 / 81.5	15.7 / 80.0	15.0 / 79.1	14.6 / 78.1	-	-
2825	21 / 85.2	19.6 / 84.0	17.9 / 82.3	17.1 / 81.3	16.6 / 80.6	16.3 / 79.7	-
3000	23 / 86.7	22 / 85.9	19.8 / 84.1	19.0 / 83.2	18.4 / 82.5	18.1 / 81.8	18.1 / 81.2

CM/BVS 12

RPM	Sound Performance Sones / LwA (Inches w.g.)									
	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
1025	4.7 / 60.7	-	-	-	-	-	-	-	-	-
1225	7.1 / 67.4	-	-	-	-	-	-	-	-	-
1450	10.2 / 73.3	8.8 / 70.4	-	-	-	-	-	-	-	-
1650	13.7 / 77.9	11.5 / 75.1	10.7 / 73.3	-	-	-	-	-	-	-
1850	17.6 / 81.9	14.8 / 79.2	13.7 / 77.5	13.1 / 76.3	-	-	-	-	-	-
2050	21 / 84.9	18.6 / 82.8	17.2 / 81.3	16.3 / 80.1	15.9 / 79.2	-	-	-	-	-
2275	25 / 88.0	24 / 86.8	21 / 85	20 / 84	19.6 / 83.1	19.3 / 82.4	-	-	-	-
2475	30 / 90.5	28 / 89.9	26 / 88.1	24 / 87.1	23 / 86.3	23 / 85.5	23 / 85	-	-	-
2700	34 / 92.8	34 / 92.6	31 / 91.3	29 / 90.0	28 / 89.3	27 / 88.6	26 / 87.9	26 / 87.5	26 / 87.2	-
2900	38 / 94.5	38 / 94.3	36 / 93.6	33 / 92.3	32 / 91.4	31 / 90.9	30 / 90.3	29 / 89.7	29 / 89.3	29 / 89.1

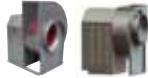
CM/BVS 14

RPM	Sound Performance Sones / LwA (Inches w.g.)									
	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
900	4.8 / 60.6	-	-	-	-	-	-	-	-	-
1100	7.7 / 68.7	-	-	-	-	-	-	-	-	-
1300	10.8 / 74.4	9.4 / 71.7	-	-	-	-	-	-	-	-
1500	14.4 / 79.0	12.5 / 76.8	11.3 / 74.8	-	-	-	-	-	-	-
1700	18.4 / 82.9	16.5 / 81.2	15.0 / 79.7	13.9 / 78.2	-	-	-	-	-	-
1900	23 / 86.3	21 / 85.1	19.3 / 83.9	18.0 / 82.8	17.0 / 81.7	15.5 / 79.4	-	-	-	-
2100	27 / 89.4	25 / 88.4	24 / 87.5	23 / 86.7	22 / 85.9	21 / 85.2	19.4 / 83.9	-	-	-
2300	32 / 92.2	30 / 91.3	29 / 90.6	28 / 90.1	26 / 89.4	25 / 88.8	25 / 88.4	23 / 87.5	-	-
2500	37 / 94.2	35 / 93.5	33 / 92.9	32 / 92.4	31 / 91.8	30 / 91.2	29 / 90.7	28 / 90.3	27 / 89.7	26 / 88.7
2700	41 / 96.2	40 / 95.6	38 / 95.0	37 / 94.5	36 / 94.1	34 / 93.6	33 / 93.1	32 / 92.6	31 / 92.2	31 / 91.8

The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.



Soler & Palau USA, Div. of Soler & Palau Ventilation Group certifies that the Models CM and BVS shown herein are licensed to bear the AMCA Seal (except BVS10 AND CM10). The ratings shown are based on test and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirement of the AMCA Certified Ratings Program.



MODELS CM & BVS

BELT DRIVEN UTILITY VENT SET



CM/BVS 16

RPM	Sound Performance Sones / LwA (Inches w.g.)									
	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
800	5.0 / 61.1	-	-	-	-	-	-	-	-	-
1000	8.6 / 70.3	-	-	-	-	-	-	-	-	-
1150	11.6 / 75.3	9.4 / 71.6	-	-	-	-	-	-	-	-
1300	15.2 / 79.7	12.4 / 76.4	10.7 / 73.7	-	-	-	-	-	-	-
1450	19.3 / 83.5	16.1 / 80.7	14.2 / 78.5	12.4 / 75.9	-	-	-	-	-	-
1625	24 / 87.0	21 / 85.0	18.6 / 83.0	17.1 / 81.5	15.3 / 79.3	-	-	-	-	-
1800	29 / 90.1	27 / 88.9	24 / 87.1	22 / 85.5	20 / 84.4	18.5 / 82.6	-	-	-	-
1950	34 / 92.6	32 / 92.0	29 / 90.1	26 / 88.8	25 / 87.6	23 / 86.7	21 / 85.1	20.0 / 83.4	-	-
2150	39 / 95.1	39 / 94.8	35 / 93.5	32 / 92.2	30 / 91.1	28 / 90.1	27 / 89.4	26 / 88.4	24 / 86.8	23 / 85.5
2300	44 / 96.7	43 / 96.5	40 / 95.7	37 / 94.4	35 / 93.4	33 / 92.4	31 / 91.6	30 / 91.0	29 / 90.2	27 / 88.8

CM/BVS 18

RPM	Sound Performance Sones / LwA (Inches w.g.)									
	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
700	4.8 / 60.4	-	-	-	-	-	-	-	-	-
875	8.4 / 69.5	-	-	-	-	-	-	-	-	-
1025	12.3 / 75.4	9.5 / 71.5	-	-	-	-	-	-	-	-
1175	17.0 / 80.3	13.9 / 77.4	11.3 / 74.2	-	-	-	-	-	-	-
1350	23 / 85.2	19.9 / 83.2	16.9 / 80.7	14.6 / 78	14.4 / 76.9	-	-	-	-	-
1500	27 / 88.0	24 / 86.6	22 / 84.7	19.0 / 82.7	16.9 / 80.5	16.5 / 79.3	-	-	-	-
1650	31 / 90.4	29 / 89.6	26 / 88.1	24 / 86.5	21 / 84.8	19.4 / 83	18.4 / 81.4	-	-	-
1825	35 / 93.1	34 / 92.6	32 / 91.5	29 / 90.3	27 / 89.0	25 / 87.6	23 / 86.1	21 / 84.6	22 / 84.3	-
2000	42 / 95.8	40 / 95.4	39 / 94.7	36 / 93.7	34 / 92.7	32 / 91.6	30 / 90.5	28 / 89.2	26 / 88.0	25 / 86.7
2150	48 / 98.0	47 / 97.7	46 / 97.3	43 / 96.5	41 / 95.6	38 / 94.7	36 / 93.7	34 / 92.7	32 / 91.6	30 / 90.5

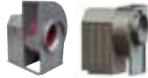
CM/BVS 20

RPM	Sound Performance Sones / LwA (Inches w.g.)									
	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
650	5.6 / 62.7	-	-	-	-	-	-	-	-	-
775	8.4 / 69.7	-	-	-	-	-	-	-	-	-
900	12.0 / 75.3	9.3 / 71.1	-	-	-	-	-	-	-	-
1050	17.3 / 81	13.9 / 77.7	12.2 / 74.8	-	-	-	-	-	-	-
1175	22 / 85.0	18.4 / 82.1	16.5 / 80.2	14.9 / 77.8	-	-	-	-	-	-
1300	27 / 88.4	24 / 86.3	21 / 84.4	19.7 / 82.9	18.0 / 81	-	-	-	-	-
1450	33 / 91.5	31 / 90.2	27 / 88.3	25 / 87	24 / 85.9	22 / 84.6	20 / 82.6	-	-	-
1550	37 / 93.2	34 / 92.2	31 / 90.6	28 / 89.2	27 / 88.1	25 / 87.1	24 / 85.7	22 / 84.1	-	-
1700	42 / 95.6	40 / 94.8	37 / 93.6	34 / 92.3	32 / 91.3	30 / 90.4	29 / 89.4	28 / 88.5	26 / 86.9	-
1825	47 / 97.5	45 / 96.9	43 / 96.0	39 / 94.9	36 / 93.7	35 / 92.9	33 / 92.2	32 / 91.3	31 / 90.5	29 / 89.3

The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.



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MODELS CM & BVS

BELT DRIVEN UTILITY VENT SET



CM/BVS 22

RPM	Sound Performance Sones / LwA (Inches w.g.)									
	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
575	5.7 / 62.7	-	-	-	-	-	-	-	-	-
700	9.0 / 70.3	-	-	-	-	-	-	-	-	-
825	13.1 / 76.4	10.6 / 72.9	-	-	-	-	-	-	-	-
950	18.1 / 81.5	14.9 / 78.4	13.4 / 76.1	-	-	-	-	-	-	-
1075	23 / 85.7	19.9 / 83.2	17.8 / 81.1	16.5 / 79.3	-	-	-	-	-	-
1225	30 / 89.7	27 / 88.2	24 / 86.4	22 / 84.9	21 / 83.3	19.8 / 82.1	-	-	-	-
1350	35 / 92.6	34 / 91.7	31 / 90.2	28 / 88.9	26 / 87.6	25 / 86.2	24 / 85.0	-	-	-
1475	40 / 94.8	39 / 94.4	36 / 93.2	34 / 91.9	32 / 90.9	30 / 89.8	28 / 88.7	27 / 87.7	26 / 86.9	-
1600	46 / 96.9	45 / 96.7	42 / 95.8	40 / 94.7	37 / 93.7	35 / 92.8	33 / 91.9	32 / 91.0	31 / 90.2	30 / 89.4
1725	51 / 98.9	50 / 98.7	49 / 98.2	46 / 97.3	43 / 96.4	41 / 95.6	39 / 94.8	37 / 94.0	36 / 93.3	35 / 92.6

CM/BVS 24

RPM	Sound Performance Sones / LwA (Inches w.g.)									
	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
500	5.2 / 61.9	-	-	-	-	-	-	-	-	-
625	9.5 / 71.7	-	-	-	-	-	-	-	-	-
725	13.4 / 77.1	10.2 / 72.8	-	-	-	-	-	-	-	-
825	17.6 / 81.4	14.3 / 78.4	12.1 / 75.2	-	-	-	-	-	-	-
950	23 / 85.9	20.0 / 84.0	17.4 / 81.4	15.5 / 79.2	-	-	-	-	-	-
1050	28 / 88.9	25 / 87.5	22 / 85.7	19.9 / 83.6	18.4 / 81.9	16.4 / 79.1	-	-	-	-
1175	34 / 92.1	32 / 91.4	29 / 90.1	26 / 88.5	24 / 86.8	23 / 85.5	20 / 83.2	-	-	-
1275	39 / 94.4	39 / 94.1	35 / 92.9	32 / 91.8	30 / 90.3	28 / 89.0	26 / 87.9	24 / 86.0	-	-
1400	45 / 96.8	45 / 96.5	42 / 95.8	39 / 94.9	36 / 93.9	34 / 92.7	32 / 91.5	30 / 90.6	29 / 89.7	26 / 87.6
1500	50 / 98.6	50 / 98.3	48 / 97.9	45 / 97.1	42 / 96.4	40 / 95.4	37 / 94.4	35 / 93.3	34 / 92.5	33 / 91.7

CM/BVS 27

RPM	Sound Performance Sones / LwA (Inches w.g.)									
	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
450	5.6 / 62.1	-	-	-	-	-	-	-	-	-
550	9.4 / 71.0	-	-	-	-	-	-	-	-	-
650	14.0 / 77.5	10.8 / 73.1	-	-	-	-	-	-	-	-
750	18.9 / 82.5	15.6 / 79.4	12.9 / 75.9	-	-	-	-	-	-	-
825	22 / 85.4	19.4 / 83.2	16.7 / 80.5	14.4 / 77.5	-	-	-	-	-	-
925	27 / 88.7	25 / 87.4	22 / 85.5	19.6 / 83.2	17.5 / 80.8	-	-	-	-	-
1025	32 / 91.6	31 / 91.0	28 / 89.5	25 / 87.9	23 / 86.0	21 / 83.9	19.8 / 82.5	-	-	-
1100	36 / 93.6	36 / 93.3	33 / 92.1	30 / 90.8	28 / 89.3	25 / 87.6	23 / 85.8	22 / 84.5	-	-
1200	42 / 96.1	42 / 95.8	40 / 95.2	37 / 94.2	34 / 93.1	32 / 91.8	29 / 90.3	27 / 88.7	26 / 87.5	-
1300	48 / 98.2	47 / 98.0	47 / 97.7	44 / 96.9	41 / 96.0	39 / 95.0	36 / 93.9	34 / 92.7	31 / 91.3	30 / 90.1

The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.



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CM/BVS 30

RPM	Sound Performance Sones / LwA (Inches w.g.)									
	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
400	5.6 / 62.2	-	-	-	-	-	-	-	-	-
475	8.8 / 69.9	-	-	-	-	-	-	-	-	-
550	12.7 / 75.7	9.5 / 70.8	-	-	-	-	-	-	-	-
625	16.8 / 80.4	13.3 / 76.5	11.1 / 73.1	-	-	-	-	-	-	-
700	21 / 84.2	17.6 / 81.3	14.9 / 78.3	13.5 / 76	-	-	-	-	-	-
775	26 / 87.5	22 / 85.3	19.4 / 82.8	17.2 / 80.5	16.3 / 78.9	-	-	-	-	-
875	32 / 91.2	29 / 89.8	26 / 87.9	23 / 86.0	21 / 84.1	20 / 82.8	-	-	-	-
950	38 / 93.7	35 / 92.7	32 / 91.1	29 / 89.5	26 / 87.8	24 / 86.3	23 / 85.2	-	-	-
1025	43 / 96.0	41 / 95.1	38 / 93.9	34 / 92.6	32 / 91.1	29 / 89.7	28 / 88.4	27 / 87.4	27 / 87.4	-
1100	49 / 97.9	46 / 97.1	44 / 96.2	40 / 95.1	37 / 93.9	35 / 92.7	32 / 91.4	31 / 90.3	29 / 89.3	29 / 89.0

CM 36

RPM	Sound Performance Sones / LwA (Inches w.g.)									
	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
350	5.6 / 61.6	-	-	-	-	-	-	-	-	-
425	9.1 / 69.9	-	-	-	-	-	-	-	-	-
500	13.7 / 76.6	10.4 / 72.0	-	-	-	-	-	-	-	-
575	19.8 / 82.1	16.0 / 78.3	13.1 / 75.0	-	-	-	-	-	-	-
650	26 / 86.4	22 / 83.4	19.3 / 81.1	16.8 / 78.3	-	-	-	-	-	-
725	32 / 89.8	28 / 87.7	25 / 85.5	22 / 83.5	20.0 / 81.3	-	-	-	-	-
800	37 / 92.6	34 / 91.2	30 / 89.1	28 / 87.6	25 / 85.9	23 / 84.0	23 / 83.1	-	-	-
875	43 / 95.2	40 / 94.2	37 / 92.5	33 / 90.9	31 / 89.7	29 / 88.2	26 / 86.6	26 / 85.4	-	-
950	49 / 97.6	47 / 96.7	44 / 95.6	40 / 94.1	37 / 93.0	35 / 91.9	33 / 90.7	30 / 89.3	30 / 88.2	30 / 87.7
1025	56 / 99.9	54 / 99.2	51 / 98.4	48 / 97.2	44 / 96.0	42 / 95.1	40 / 94.2	37 / 93.1	35 / 91.9	34 / 90.9

The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

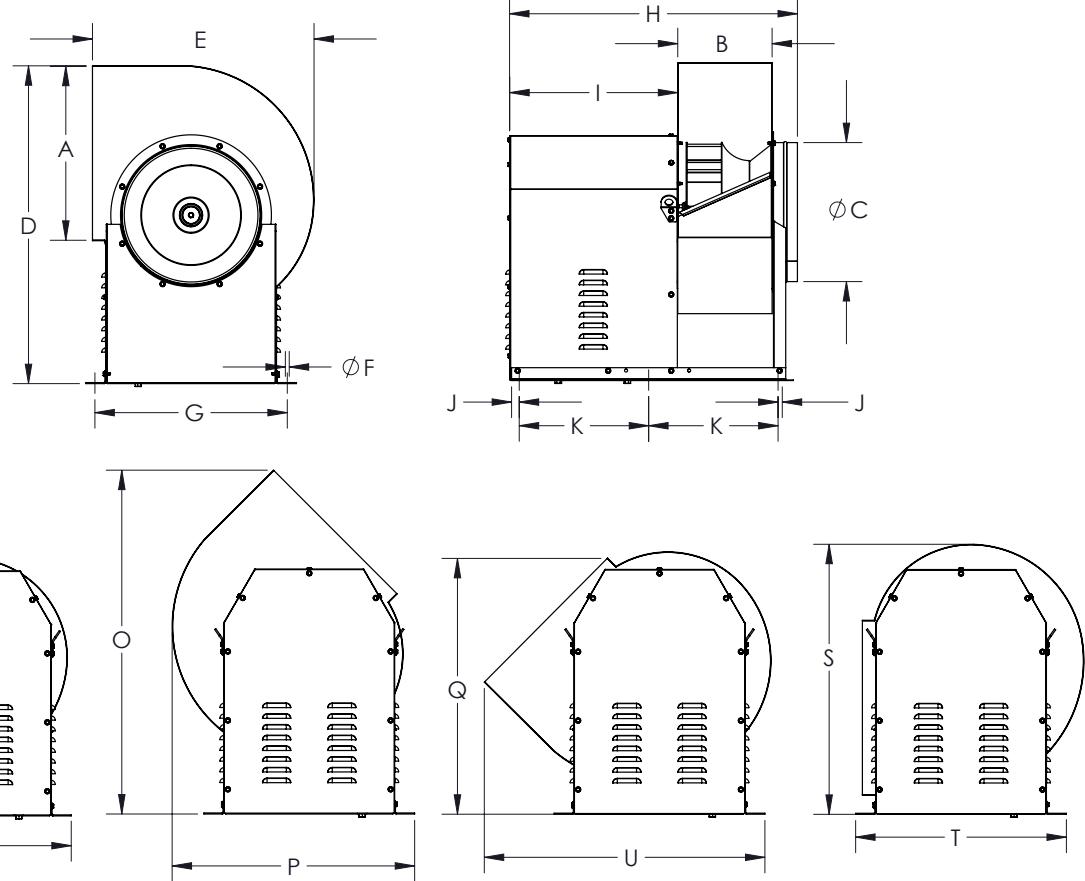


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MODEL CM

Dimensional Data



Model	A	B	C	D	E	F	G	H	I	J	K
10	12-5/8	7-1/8	9-7/8	23-7/8	17-1/4	1/2	16-7/8	25-3/8	15-1/2	1	10-7/8
12	16	8-3/4	12-3/8	29-1/8	21-3/8	1/2	19-5/8	28-3/4	17	1	12-1/2
14	18	10	14	32-3/4	22-3/4	1/2	19-5/8	30-3/4	17-7/8	1	13-1/4
16	20	10-3/4	15-3/4	36-3/4	25-1/4	1/2	21-7/8	31-5/8	18	1	13-7/8
18	22-1/2	12-1/8	17-3/4	40-7/8	28-1/2	1/2	24-3/4	37	21-5/8	1	16-5/8
20	25-1/4	13-5/8	19-3/4	44-7/8	31-1/4	1/2	27-1/2	38-3/8	21-5/8	1	17-1/2
22	28-1/4	15-1/4	22	49-3/8	35	1/2	29-7/8	40-1/8	21-5/8	1	18-1/4
24	31-5/8	17	24-3/4	55-1/2	39-1/8	1/2	33-1/4	41-7/8	21-5/8	1	19-1/8
27	35-1/2	18-7/8	28	66-7/8	44	1/2	35-1/4	50	27-1/4	4	20-1/4
30	39-3/4	21	31-1/2	74	49-1/4	1/2	39-3/8	53-3/4	28-3/4	2	24
36	44-3/4	23-3/8	35-1/2	82-1/2	55-1/4	1/2	45	59-1/8	32-1/2	2	27-1/8

Model	L	M	N	O	P	Q	S	T	U
10	12-3/4	21-5/8	20	25-7/8	19-3/8	21-5/8	20-3/8	18-7/8	22-7/8
12	16	26	24-1/4	32-1/2	23-1/8	24-3/4	24-7/8	21-7/8	27-1/2
14	18	28	25-7/8	35-5/8	24-5/8	27	28-1/4	23-1/4	29-3/8
16	20	31-1/8	29-1/4	39-7/8	27-5/8	29-7/8	31-3/8	26	32-1/4
18	22-1/2	34-3/8	32-3/4	44-1/8	38-1/4	33-3/4	34-3/4	29-1/4	36-7/8
20	35-1/4	37-1/2	36-1/8	48-3/8	34-1/4	37-1/8	38-1/8	32-3/8	40-1/2
22	28-1/4	41	40-1/8	53-1/4	37-3/4	40-3/4	42	35-3/4	45-3/8
24	31-5/8	45-7/8	44-5/8	59-3/4	42-1/8	45-1/2	47	39-7/8	50-3/4
27	35-1/2	55-5/8	50-5/8	71-1/2	46-1/8	54-7/8	57-1/4	44	57-1/2
30	39-3/4	62-3/8	57-1/8	80-1/8	51-1/4	62-1/2	63-1/4	49-1/4	61-1/4
36	44-3/4	70-1/2	64-3/8	89-3/4	57-1/2	70-5/8	70-5/8	55-1/4	72-3/8

