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TWIN CITY FAN

INDUSTRIAL PROCESS AND
COMMERCIAL VENTILATION SYSTEMS

CENTRIFUGAL ROOFTOP EXHAUST FANS
LOW PROFILE HOODED & LOUVERED

DCLH | BCLH | DCLP | BCLP

CATALOG 4135 | FEBRUARY 2017

WWW.TCF.COM

Overview

DCLH I BCLH I DCLP I BCLP

Model DCLH
Direct Drive

Now Available with

GRIDSMART™ EC MOTORS

see page 7

Twin City Fan & Blower's line of Low Profile Centrifugal Roof Exhausters provide quiet and efficient ventilation in general, clean air applications. These units are designed to offer world class performance and quality. The compact design and low contour minimizes the extension above the roof line and gives the BCL and DCL series an inconspicuous appearance. This makes them the ideal choice for installations viewed from street level to maintain an attractive architectural appearance.

Typical Applications Include

Agriculture, Automotive, Boilers, Brick, Car Wash, Commercial Plan & Spec, Composting, Ethanol, Food & Beverage, Foundry, General Manufacturing, Glass, HVAC, Institutional & Hospitality, Metal & Minerals, Microchip, OEM, Pharmaceutical, Power Generation, Recycling, Textile, Transportation

Wheel Types

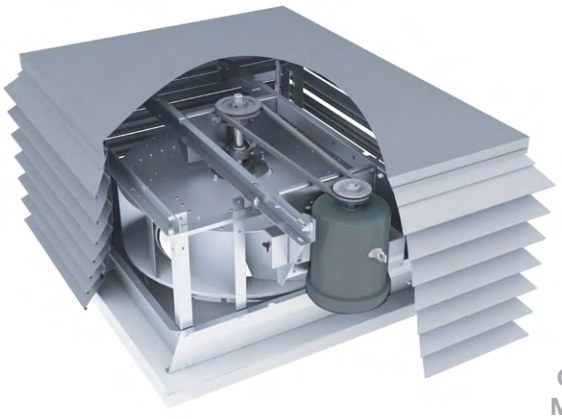
Backward Inclined Centrifugal

Optional Construction

Special Coatings, UL 705

Certifications

UL 705 Listed for Electrical



Cutaway of
Model BCLP

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DCLH, BCLH, DCLP & BCLP models are cULus 705 listed for electrical, File No. E158680.

For complete product performance, drawings and available accessories, download our Fan Selector program at tcf.com.

Overview

DCLH I BCLH I DCLP I BCLP

Hooded

Hooded models DCLH (direct drive) and BCLH (belt driven) are available for exhaust service in general, clean air applications. They feature a hinged, removable galvanized steel hood for cleaning and servicing the fan and a galvanized steel wire birdscreen along the perimeter of the hood.

DCLH (Direct Drive)
8 to 12.38" wheel diameters
Airflow to 2,000 CFM
Static pressure to 1" w.g.

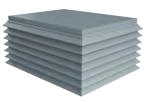
BCLH (Belt Driven)
8.5 to 55.12" wheel diameters
Airflow to 36,000 CFM
Static pressure to 3.25" w.g.

General HVAC Exhaust
(Hooded Roof Exhausters)

Louvered

Louvered penthouse models DCLP (direct drive) and BCLP (belt driven) are available for exhaust service in general, clean air applications. These models feature a tiered aluminum louvered penthouse enclosure with a removable aluminum top cover and a galvanized steel mesh birdscreen positioned vertically behind the louvers.

DCLP (Direct Drive)
8 to 12.38" wheel diameters
Airflow to 2,000 CFM
Static pressure to 1" w.g.



BCLP (Belt Driven)
8.5 to 55.12" wheel diameters
Airflow to 36,000 CFM
Static pressure to 3.25" w.g.

General HVAC Exhaust
(Louvered Roof Exhausters)

CONSTRUCTION

Model BCLH

Model BCLP

Wheel

Quiet and efficient non-overloading wheels with backwardly curved blades are precisely matched to a deep spun venturi. All wheels are statically and dynamically balanced to ensure smooth and quiet operation.

Housing

DCLH/BCLH - Models DCLH and BCLH are equipped with the Twin City Fan & Blower modular hood. Interlocking galvanized steel panels offer superior strength and rigidity compared with conventional hood designs. The profile of the hoods also allows rain and snow to run off, making the units completely weather tight. Hoods either pivot open or can be removed completely to allow for convenient access, inspection and maintenance.

DCLP/BCLP - Models DCLP and BCLP feature extruded aluminum louvers with precision mitered and welded corners. The tiered louver design not only gives these models structural rigidity, but also makes them aesthetically pleasing. Removable, cross broke aluminum top covers make for quick and easy inspection of the internal components.

Curb Cap

One-piece curb cap/inlet venturi assembly provides complete protection from weather. Prepunched mounting holes provide easy and accurate attachment to the roof curb.

Vibration Isolation

Motor and drive assembly is completely isolated from the fan supports by rubber isolators to reduce transmission of noise and vibration.

Motors

ODP, TEFC and explosion proof, single and three phase motors are carefully matched to the fan load.

Galvanized Bird Screen

Both hooded and louvered units feature galvanized steel birdscreens to protect the wheel, inlet and internal components from entry of birds.

Disconnect Switch

Standard on all units. Fans are provided with a NEMA 1 type disconnect switch mounted in the motor compartment when ODP or TEFC motors are used. When explosion proof motors are specified, a NEMA 7/9 disconnect switch will be shipped loose for field mounting and wiring.

HOOD CONSTRUCTION

The Twin City Fan & Blower modular hood provides numerous benefits over conventional sheet metal hood designs.

BCLH, Belt Driven
(Showing how hood
panels stack together)

Hood Construction

- The Twin City Fan & Blower modular hood design features ribbed panels, which provide added strength and rigidity. This is particularly important in climates where snow loads are a consideration.
- Hood profile allows rain and snow to run off.
- Hoods are galvanized steel as standard, but can also be constructed of aluminum or painted steel to accommodate specific application requirements.

Easy Access

- Fan sizes 14 to 36 incorporate a pivoted hood design. By removing two fasteners, the hood can be opened up for convenient cleaning and service.
- Fan sizes 42 to 60 allow for the entire hood to be taken off by removing four fasteners.
- Exhaust and supply fans are constructed with motor and drive components easily accessible from the roof. There is no need to try and access components below the roof line or through an access door.
- Units include removable birdscreens, which can be removed with the hood still in place to allow for quick and easy inspection of the fan components without taking off the hood.

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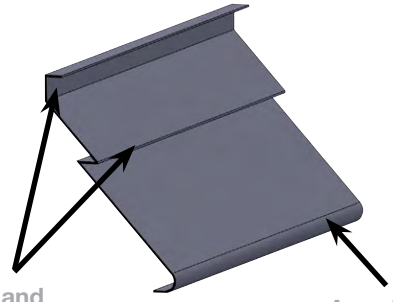
DESIGN FLEXIBILITY

Penthouse Models DCLP and BCLP

Durable Design

Models DCLP and BCLP utilize an aluminum louvered penthouse enclosure. The louvers are made from extruded aluminum and corners are precision miter cut and welded. The tiered louver design not only gives these models structural rigidity, but also makes them aesthetically pleasing.



Double weather and snow baffles

Aerodynamic design provides efficient performance

Weather Resistance

The extruded aluminum louvers have double weather and snow baffles for added weather protection. In addition, the curb base features a vertical baffle to guard against storm driven rain and snow.

Accessibility

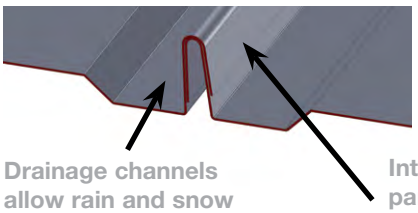
All fans feature a heavy duty removable, cross broke aluminum top cover. The easily removable top covers provide access to motor, drives and wheel.

Model BCLP

Hooded Models BCLH and DCLH

Durable Design

Hooded models BCLH and DCLH feature the Twin City Fan & Blower modular hood design. Individual galvanized steel panels interlock to create a hood assembly that offers superior strength over conventional style hoods. The smooth curves and clean lines of the modular hood also give it a more pleasing appearance than traditional hoods.



Drainage channels allow rain and snow to run off

Interlocking hood panels add strength and rigidity

Weather Resistance

The profile of the hoods allows for rain and snow to run off while the overlapping ribs ensure a weather tight fit. The curb base features a vertical baffle to guard against storm driven rain and snow.

Accessibility

Fans incorporate a pivoted hood design. By simply removing two fasteners, the hood can be easily opened for access to internal components. The hood can also be completely removed by unbolting four fasteners. Accessibility for inspection, cleaning and maintenance is fast and simple with the modular hood on models DCLH and BCLH.

Models BCLH and DCLH

Twin City Fan & Blower offers its own line of custom engineered Electronically Commutated (EC) motors. Electronic commutation is the latest motor technology to be used in direct drive fans. Also known in the industry as Brush Free or Brushless DC, the EC motors utilize an electronic circuit board to control the functionality of the motor. The motor operates off of single phase AC power, which is converted to DC power within the motor's circuitry. TCF has motor options available for 115V, 208-230V or 277V single phase electrical power. The result is a highly efficient motor, even at part load, with an expanded speed control range and a variety of speed control options from which to choose. EC motors are available in ODP, TENV and TEFC enclosures.

GRIDSMART™ EC MOTORS

Model DCLH
With GridSmart™ EC Motor

Benefits

- Efficiencies up to 85%
- Constant efficiency as the motor speed is varied
- Up to 66% energy savings over traditional PSC motors
- Performance range comparable to a belt drive fan with reduced maintenance benefits of a direct drive fan
- 80% usable turndown range as compared with 40% maximum on PSC motors
- Soft start gives fans smooth, quiet start
- Lower operating temperatures result in longer life and reduces energy consumption
- Heavy-duty ball bearings are permanently lubricated
- Elimination of VFD results in lower initial cost

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EC Motor Options

1/6HP to 1HP

- 1/6HP: 115V, single phase
- 1/4HP – 1HP: 115V, 208-230V, 277V, single phase
- ODP or TENV Enclosure
- Motor mounted speed control dial as standard
- 0-10VDC control leads as standard
- Available with remote mounted speed control dial

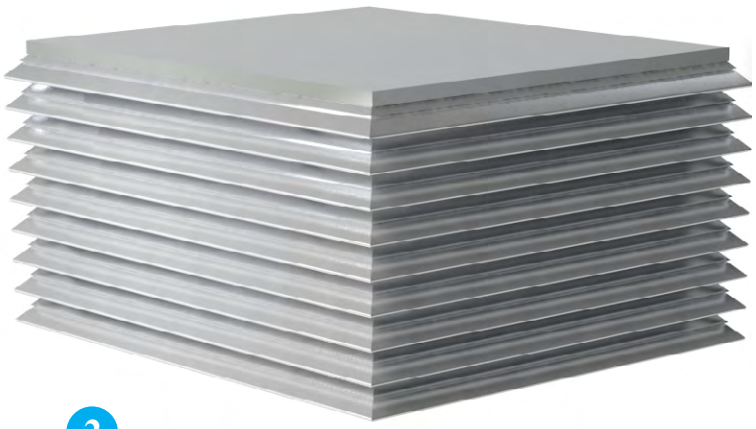
1HP & 2HP

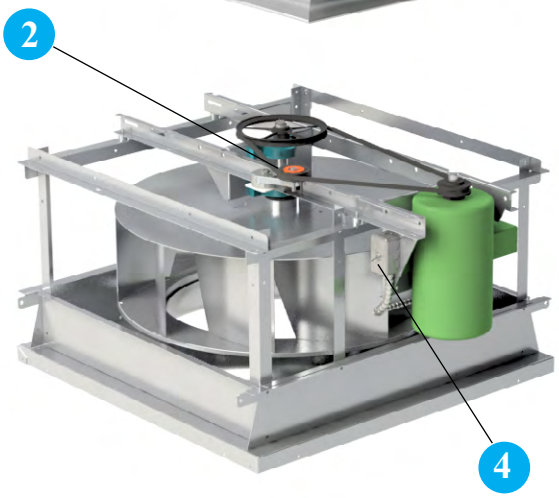
- 1HP: 115V, 208-230V, single phase
- 2HP: 208-230V, single phase
- TEFC enclosure (totally enclosed fan cooled)
- Available with motor mounted speed dial or 0-10VDC control lead

1HP & 2HP
GridSmart™ EC Motors

1/6HP to 1HP
GridSmart™ EC Motors

OPTIONS/ACCESSORIES





1 **Self-Flashing Roof Curb** Prefabricated roof curbs are available in heavy duty galvanized steel or aluminum construction, in heights of 8", 12" or 18". The self-flashing curb is provided with a factory installed $^{3}/_{16}$" polystyrene gasket. Curbs are provided with 1.5" of insulation as standard and feature continuously welded seams for added rigidity and moisture protection. Prefabricated curbs are also available in raised cant, pitched and peak models. Refer to Catalog 4910 for complete details on roof curb options. Minimum 12" high curbs are recommended for use with motorized dampers.

2 **Auto Belt Tensioner** Spring loaded pulley used for automatic belt tensioning. Eliminates the need for regular belt tensioning and extends belt life.

3 **Backdraft Damper** Backdraft dampers with automatic or motorized operation, feature a felt seal on the edge of the damper blades for quiet operation. Damper frames are constructed of galvanized steel and blades are constructed of 26-gauge aluminum. All dampers ship loose for field mounting in ductwork. Motorized dampers are recommended for low CFM applications to assure unrestricted airflow. Motorized dampers are available with 115, 208, 230, 460, 575 or 24 volt service. End switches are available. When a motorized damper option is selected a 12" (or greater) high roof curb is required.

4 **NEMA 1 Disconnect Switch** A NEMA 1 disconnect switch is available shipped loose for field mounting and wiring or factory mounted and wired with ODP or TEFC motors.

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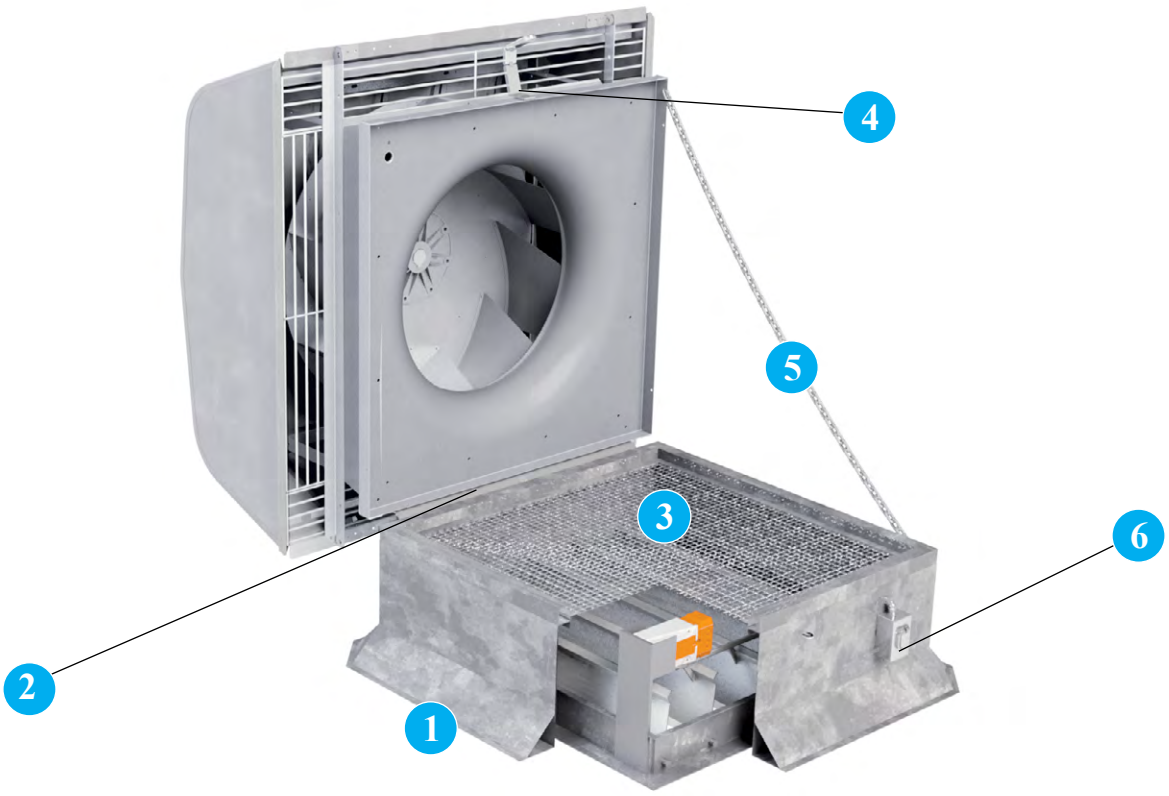


1 **Canted Roof Curb** Prefabricated roof curbs are available in heavy duty galvanized steel or aluminum construction, in heights of 8", 12" or 18". The canted curb is provided with a factory installed wood nailer. Curbs are provided with 1.5" of insulation as standard and feature continuously welded seams for added rigidity and moisture protection. Prefabricated curbs are also available in raised cant, pitched and peak models. Refer to Catalog 4910 for complete details on roof curb options. Minimum 12" high curbs are recommended for use with motorized dampers.

2 **Curb Hinge** The curb hinge arrangement provides easy access to the exhaust fan, backdraft damper and duct for servicing and cleaning. The curb hinge is of the piano type, running the entire length of the fan's curb base. The curb hinge option ships loose and is designed for use with a standard canted curb only (1.5" less than fan base). This option cannot be used with self-flashing curbs.

3 **Insect Screen** Provides protection from entry of insects into the interior of the building through the wheel inlet.

4 **Security Hasp** A security hasp is available in conjunction with the curb hinge arrangement to prevent removal of the unit from the unit curb cap and prevent entrance into the building through the roof's ductwork.

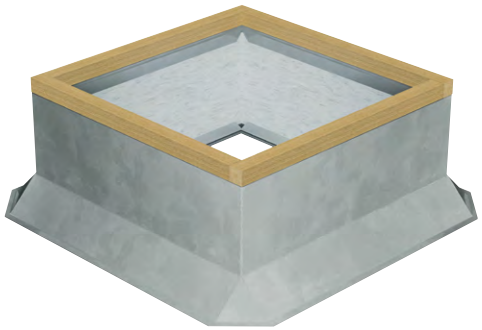
5 **Retaining Chain** is available in conjunction with the curb hinge arrangement to stabilize the unit and to prevent damage from occurring to the unit while servicing and cleaning.

6 **NEMA 3R Disconnect Switch** A NEMA 3R, rain proof, disconnect is available shipped loose for field mounting & wiring or factory mounted and wired.

OTHER ACCESSORIES/OPTIONS:

- Special Coatings
- 2-Speed Switch (Single Phase, 1 HP and below)
- Firestat (Single Phase)
- Performance Baffle
- NEMA Disconnect Switch (see page 11)
- Roof Curbs (see page 10)
- Variable Speed Control

PREFABRICATED ROOF CURBS

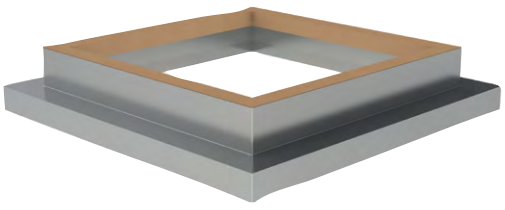


Canted Roof Curbs

- Constructed of 18-gauge galvanized steel with continuous welded seams
- Large 3" built-in 45° cant to accommodate roofing material to top of curb. Cant is beveled at corners for better support of roofing material
- Wood nailer (1½") secured to top ledge
- Lined with 1½" fiberglass fire-resistant, sound-absorbing insulation
- Damper shelf standard
- Options: aluminum (16-gauge) construction, burglar security bars, metal liner (galvanized or aluminum), special heights up to 24", single or double pitched curbs for sloping roofs

Self-Flashing & Straight-Sided Roof Curbs

- Constructed of 18-gauge galvanized steel with continuous welded seams
- Wide base plate (flashing) to insure watertight seal to roof
- Top ledge covered with 3⁄16" polystyrene gasket (self-flashing) for weather seal and to reduce metal-to-metal conducted noise
- Wood nailer secured to top ledge (straight-sided)
- Lined with 1½" fiberglass fire-resistant, sound-absorbing insulation
- Damper shelf standard
- Straight-sided roof curbs are constructed with the same features as the self-flashing curbs, but are one dimensional to allow for field supplied cants and roofing material to be brought up to the top of the curb
- Options: Aluminum (16-gauge) construction, burglar security bars, metal liner (galvanized or aluminum), special heights up to 24", single or double pitched curbs for sloping roofs



Curb Adapters

- Constructed of heavy-gauge galvanized steel with continuous welded seams
- Top ledge covered with 3⁄16" polystyrene gasket to reduce metal-to-metal conducted noise and act as a weather seal
- Available in enlarger or reducer (shown) models

Disconnect switches provide positive electrical shutoff during fan cleaning or maintenance.

NEMA 1 Disconnect Switch (Standard)

A NEMA 1 disconnect switch is available shipped loose for field mounting and wiring or factory mounted and wired with ODP or TEFC motors.

NEMA 1 Disconnect Switch

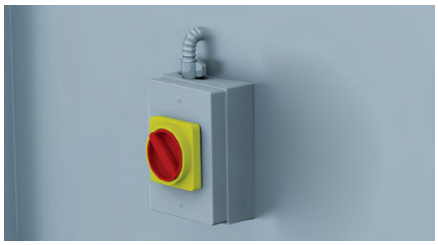
NEMA 3R Disconnect Switch

A NEMA 3R, rain proof, disconnect is available shipped loose for field mounting and wiring or factory mounted and wired externally.

NEMA 3R Disconnect Switch

NEMA 4 Disconnect Switch

A NEMA 4, water and dust tight, disconnect is available shipped loose for field mounting and wiring or factory mounted and wired externally.



NEMA 4 Disconnect Switch

NEMA 7/9 Disconnect Switch

A NEMA 7/9 disconnect switch is recommended on fans with explosion proof motors. The NEMA 7/9 switch is designed for use with fans operating in hazardous environments. Available shipped loose for field mounting and wiring. (Not shown.)

Model BCLP

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060 – 085 DCLH / DCLP

EC MOTOR SIZE	EC MOTOR MTR HP	PSC MOTOR SIZE	PSC MOTOR MTR HP	RPM	STATIC PRESSURE (INCHES W.G.) 0.00 BHP	0.00 Sone	0.10 BHP	0.10 Sone	0.125 BHP	0.125 Sone	0.25 BHP	0.25 Sone	0.375 BHP	0.375 Sone	0.50 BHP	0.50 Sone	0.625 BHP	0.625 Sone	0.75 BHP	0.75 Sone	0.875 BHP	0.875 Sone	1.00 BHP	1.00 Sone
060E	1/6	060	1/8	950	155	0.01	2.1	103	0.01	1.8	87	0.01	1.8															
				1150	187	0.01	3.4	149	0.01	3.4	136	0.01	3.0															
				1350	220	0.01	4.6	189	0.01	4.9	180	0.01	4.9	125	0.01	4.1												
				1425	232	0.02	5.0	203	0.02	5.2	195	0.02	5.2	145	0.02	4.5												
				1500	244	0.02	5.4	217	0.02	5.6	209	0.02	5.7	163	0.02	5.1	94	0.02	4.9									
				1575	257	0.02	6.0	231	0.02	6.1	224	0.02	6.2	181	0.02	5.6	129	0.02	5.5									
				1650	269	0.02	6.5	244	0.03	6.5	238	0.03	6.6	198	0.03	6.0	152	0.03	5.8									
		---	---	1750	285	0.03	7.1	262	0.03	7.1	256	0.03	7.1	221	0.03	7.1	179	0.03	6.4	118	0.03	6.5						
070E	1/6	070	1/8	950	245	0.01	2.2	153	0.01	2.0	126	0.01	2.1															
				1150	297	0.01	3.4	226	0.01	3.4	204	0.01	3.3															
				1350	348	0.01	4.8	290	0.02	5.1	274	0.02	4.9	182	0.02	4.7												
				1425	368	0.02	5.2	312	0.02	5.6	298	0.02	5.6	212	0.02	4.9												
				1500	387	0.02	5.6	334	0.02	6.0	321	0.02	6.0	241	0.02	5.2												
				1575	406	0.02	6.1	356	0.02	6.2	344	0.02	6.5	270	0.03	5.9	183	0.03	6.0									
				1650	426	0.03	6.5	378	0.03	6.7	366	0.03	7.0	297	0.03	6.4	221	0.03	6.3									
		---	---	1750	452	0.03	7.1	406	0.03	7.1	395	0.03	7.5	333	0.03	7.2	262	0.03	6.9									
080E	1/6	080	1/8	950	303	0.01	2.2	180	0.01	2.0	141	0.01	2.2															
				1150	367	0.01	3.5	269	0.01	3.4	243	0.01	3.3															
				1350	431	0.01	4.8	349	0.02	4.9	328	0.02	4.8	204	0.01	4.8												
				1425	455	0.02	5.2	378	0.02	5.6	357	0.02	5.3	247	0.02	5.2												
				1500	478	0.02	5.7	406	0.02	6.0	387	0.02	6.0	284	0.02	5.3												
				1575	502	0.02	6.2	434	0.02	6.5	416	0.02	6.5	320	0.02	6.0												
				1650	526	0.02	6.6	461	0.03	6.9	444	0.03	7.0	354	0.03	6.5	248	0.03	6.6									
		---	---	1750	558	0.03	7.1	497	0.03	7.5	481	0.03	7.6	397	0.03	7.2	305	0.03	7.1									
085E	1/6	085	1/8	950	413	0.02	4.2	340	0.02	4.3	320	0.02	4.1	191	0.02	3.9												
				1150	500	0.04	6.2	443	0.04	6.4	426	0.04	6.4	338	0.04	5.9	221	0.04	5.9									
				1350	587	0.06	8.1	539	0.06	8.1	526	0.06	8.2	456	0.06	8.1	376	0.06	7.5	276	0.06	7.6						
				1425	620	0.07	8.8	575	0.07	8.8	563	0.07	8.8	497	0.08	8.8	425	0.08	8.4	338	0.07	8.2	208	0.06	8.1			
				1500	652	0.08	9.4	610	0.09	9.4	598	0.09	9.4	537	0.09	9.8	471	0.09	9.1	393	0.09	8.5	300	0.08	8.9			
				1575	685	0.09	10.2	645	0.10	10.2	634	0.10	10.2	577	0.10	10.7	514	0.10	10.0	445	0.10	9.5	364	0.10	9.5	251	0.09	9.5
				1650	718	0.11	10.9	679	0.11	10.9	669	0.11	10.9	615	0.12	11.5	556	0.12	10.9	493	0.12	10.5	420	0.12	10.0	334	0.11	10.4
		---	---	1750	761	0.13	12.4	725	0.13	12.4	716	0.13	12.4	666	0.14	12.4	611	0.14	12.5	554	0.14	11.9	490	0.14	11.4	417	0.14	11.3
																										330	0.13	11.5

EC Motor is an Electronically Commutated Motor.
PSC Motor is a Permanent Split Capacitor Motor.

NOTES:

1. Performance shown is for installation Type A: Free inlet, Free outlet.
2. Performance ratings do not include the effects of appurtenances (accessories).
3. Sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301-90. Type A: Free inlet fan hemispherical sone levels.
4. Highlighted speeds indicate nominal speeds without speed control on PSC motors. All other speeds are intermediate speeds set with the solid-state speed controller.
5. 1/8 HP motor is 3-speed (1650 RPM/1500 RPM/1350 RPM).
6. Speed control is available for ODP 115/60/1 only. PSC motors are wired at either the 1650 or the 1500 RPM taps.

090 – 120 DCLH / DCLP

EC MOTOR SIZE	EC MOTOR MTR HP	PSC MOTOR SIZE	PSC MOTOR MTR HP	RPM	STATIC PRESSURE (INCHES W.G.) 0.00 BHP	0.00 Sone	0.10 BHP	0.10 Sone	0.125 BHP	0.125 Sone	0.25 BHP	0.25 Sone	0.375 BHP	0.375 Sone	0.50 BHP	0.50 Sone	0.625 BHP	0.625 Sone	0.75 BHP	0.75 Sone	0.875 BHP	0.875 Sone	1.00 BHP	1.00 Sone
090E	1/4	090	1/8	950	534	0.02 4.7	442	0.03 4.7	415	0.03 4.4	242	0.02 4.2												
				1150	646	0.04 6.9	575	0.04 7.0	554	0.04 7.0	435	0.05 6.3	281	0.04 6.3										
				1350	759	0.06 8.8	700	0.07 8.8	684	0.07 8.8	591	0.07 8.7	481	0.07 8.0	350	0.07 8.1								
				1425	801	0.07 9.8	745	0.08 9.8	730	0.08 9.8	646	0.08 9.9	546	0.09 8.9	429	0.08 8.7	261	0.07 8.6						
				1500	843	0.08 10.4	791	0.09 10.4	777	0.09 10.4	698	0.10 10.7	608	0.10 9.7	501	0.10 9.0	381	0.09 9.5						
				1575	885	0.10 11.3	836	0.10 11.3	822	0.10 11.3	750	0.11 11.5	666	0.12 10.7	570	0.11 10.1	461	0.11 10.1	320	0.10 10.1				
				1650	927	0.11 12.1	880	0.12 12.1	868	0.12 12.1	800	0.13 12.4	722	0.13 11.9	635	0.13 11.2	535	0.13 10.7	425	0.13 11.1				
		---	---	1750	984	0.13 13.2	939	0.14 13.2	928	0.14 13.2	865	0.15 13.4	794	0.16 13.3	716	0.16 12.7	627	0.16 12.0	530	0.15 12.1	422	0.15 12.3		
095E	1/4	095	1/8	950	721	0.03 5.0	590	0.03 5.0	553	0.03 4.7	291	0.03 4.6												
				1150	873	0.05 7.1	770	0.05 7.4	741	0.05 7.5	580	0.05 6.7	333	0.05 6.7										
				1350	1025	0.07 9.3	939	0.08 9.3	916	0.08 9.4	789	0.09 9.2	641	0.09 8.5	423	0.08 8.6								
				1425	1082	0.09 10.0	1001	0.09 10.0	979	0.10 10.0	861	0.10 10.4	729	0.10 9.6	550	0.10 9.3	314	0.08 9.1						
				1500	1138	0.10 10.8	1062	0.11 10.8	1042	0.11 10.8	931	0.12 11.2	811	0.12 10.4	663	0.12 9.8	457	0.10 9.9						
				1575	1195	0.12 11.6	1123	0.13 11.6	1104	0.13 11.6	1001	0.14 12.2	889	0.14 11.5	760	0.14 10.7	585	0.13 10.9	380	0.11 10.7				
				1650	1252	0.14 12.9	1184	0.14 12.9	1166	0.15 12.9	1069	0.15 13.1	963	0.16 12.5	847	0.16 12.0	703	0.15 11.5	513	0.14 11.7				
		---	---	1750	1328	0.16 14.0	1264	0.17 14.0	1247	0.17 14.0	1158	0.18 14.2	1059	0.19 14.1	956	0.19 13.4	836	0.19 12.8	681	0.18 12.9	498	0.16 12.8		
100E	1/4	100	1/15	500	443	0.01 1.1																		
				700	620	0.01 2.9	402	0.02 2.7	327	0.02 2.7														
				860	762	0.03 4.3	599	0.03 4.4	550	0.03 4.1	237	0.02 4.1												
			1/8	1000	886	0.04 5.9	749	0.05 6.0	712	0.05 5.9	479	0.04 5.5												
				1160	1028	0.07 7.8	911	0.07 7.9	881	0.07 8.0	707	0.07 7.4	481	0.07 7.3										
			1/3	1450	1285	0.13 10.8	1193	0.13 10.8	1169	0.13 10.8	1046	0.14 11.3	903	0.14 10.7	734	0.13 9.9	540	0.12 10.5						
				1750	1550	0.23 14.9	1475	0.23 14.9	1455	0.23 14.9	1357	0.24 15.0	1253	0.24 15.1	1137	0.24 14.3	1006	0.24 13.9	858	0.23 13.7	698	0.22 14.1	533	0.20 14.1
120E	1/2	120	1/15	500	590	0.01 1.5																		
				700	825	0.02 3.6	588	0.02 3.5	514	0.02 3.3														
				860	1014	0.04 5.4	830	0.04 5.5	779	0.04 5.1	464	0.04 5.2												
			1/8	1000	1179	0.06 7.0	1025	0.07 7.1	983	0.07 7.2	745	0.07 6.5	431	0.06 6.7										
				1160	1368	0.09 9.0	1238	0.10 9.0	1203	0.10 9.3	1014	0.11 8.8	792	0.10 8.6	511	0.09 8.7								
			1/3	1450	1710	0.17 12.8	1607	0.19 12.8	1581	0.19 12.8	1441	0.20 13.4	1288	0.21 12.8	1118	0.21 12.2	930	0.20 12.0	703	0.19 12.6				
				1750	2063	0.30 17.0	1979	0.32 17.0	1958	0.32 17.0	1847	0.34 17.1	1728	0.35 18.1	1603	0.36 17.2	1469	0.36 17.1	1323	0.36 16.2	1167	0.35 15.9	999	0.34 16.6

EC Motor is an Electronically Commutated Motor.
PSC Motor is a Permanent Split Capacitor Motor.

* 3-phase units are supplied with 1/8 HP 860 RPM, 1/4 HP 1160 RPM and 1/2 HP 1750 RPM motors.

NOTES:

1. Performance shown is for installation Type A: Free inlet, Free outlet.
2. Performance ratings do not include the effects of appurtenances (accessories).
3. Sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301-90. Type A: Free inlet fan hemispherical sone levels.
4. Highlighted speeds indicate nominal speeds without speed control on PSC motors. All other speeds are intermediate speeds set with the solid-state speed controller.
5. Speed control is available for ODP 115/60/1 only.

100 BCLH / BCLP

MOTOR HP	RPM	STATIC PRESSURE (INCHES W.G.)																					
		0.00		0.125		0.25		0.375		0.50		0.625		0.75		0.875		1.00		1.125		1.25		1.50	
		BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone
1/4	775	746		609		461																			
		0.03	4.1	0.04	4.3	0.04	4.0																		
	925	891		772		671		513																	
		0.05	5.8	0.06	5.8	0.06	5.6	0.06	5.4																
	1250	1204		1112		1029		952		881		777													
		0.13	8.6	0.14	8.6	0.15	9.4	0.15	9.3	0.15	9.0	0.15	8.4												
	1510	1454		1377		1305		1238		1174		1114		1054		973		837							
		0.24	11.4	0.24	11.4	0.25	11.6	0.26	12.1	0.26	12.3	0.27	12.1	0.27	11.8	0.27	11.6	0.26	10.8						
1/3	1590	1531		1458		1389		1324		1263		1203		1148		1088		999		860					
		0.28	12.2	0.28	12.2	0.29	12.2	0.30	13.3	0.30	13.3	0.31	13.1	0.31	13.0	0.32	12.8	0.31	12.4	0.30	11.8				
	1665	1603		1533		1467		1404		1345		1287		1232		1179		1116		1020		877			
		0.32	13.3	0.33	13.3	0.33	13.3	0.34	14.0	0.35	14.6	0.35	14.5	0.36	14.3	0.36	13.9	0.36	14.0	0.36	13.3	0.34	12.6		

120 BCLH / BCLP

MOTOR HP	RPM	STATIC PRESSURE (INCHES W.G.)																					
		0.00		0.125		0.25		0.375		0.50		0.625		0.75		0.875		1.00		1.125		1.25		1.50	
		BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone
1/4	575	767		580																					
		0.02	3.1	0.02	3.0																				
	825	1101		967		842		651																	
		0.06	6.3	0.07	6.4	0.07	6.1	0.07	5.9																
	1050	1401		1292		1197		1099		971															
		0.12	9.1	0.13	9.1	0.14	9.6	0.14	9.3	0.14	8.6														
	1300	1734		1645		1562		1487		1412		1323		1217		1100									
		0.23	11.9	0.24	11.9	0.25	11.9	0.26	12.9	0.26	12.9	0.27	12.1	0.27	11.6	0.27	11.1								
1/3	1365	1821		1736		1656		1582		1513		1435		1342		1237		1116							
		0.26	12.8	0.28	12.8	0.29	12.8	0.30	13.5	0.30	14.0	0.31	13.7	0.31	12.7	0.31	12.3	0.31	11.6						
	1430	1908		1826		1749		1677		1611		1542		1460		1365		1263		1132					
		0.30	13.7	0.32	13.7	0.33	13.7	0.34	14.3	0.34	14.9	0.35	14.9	0.36	14.0	0.36	13.3	0.36	13.1	0.36	12.3				
1/2	1540	2054		1978		1906		1837		1774		1712		1646		1569		1481		1387		1283			
		0.38	15.2	0.39	15.2	0.41	15.2	0.42	15.6	0.43	16.3	0.43	16.5	0.44	16.3	0.44	15.8	0.45	15.2	0.45	14.6	0.45	14.2		
	1650	2201		2130		2062		1996		1935		1877		1819		1756		1684		1603		1515		1302	
		0.46	17.0	0.48	17.0	0.50	17.0	0.51	17.0	0.52	18.0	0.53	18.7	0.53	18.8	0.54	18.6	0.55	17.8	0.55	17.5	0.55	16.8	0.55	15.5

140 BCLH / BCLP

MOTOR HP	RPM	STATIC PRESSURE (INCHES W.G.)																					
		0.00		0.125		0.25		0.375		0.50		0.625		0.75		0.875		1.00		1.125		1.25		1.50	
		BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone
1/4	475	876		601																					
		0.02	2.8	0.02	2.5																				
	550	1014		785																					
		0.03	3.9	0.03	3.5																				
	825	1521		1385		1219		1048																	
		0.10	8.1	0.11	8.1	0.11	7.6	0.11	7.3																
	1105	2038		1939		1832		1708		1582		1458		1302											
		0.23	12.8	0.25	12.8	0.26	12.8	0.26	12.7	0.27	11.9	0.27	11.2	0.27	10.6										
1/3	1165	2148		2055		1955		1842		1720		1605		1477											
		0.27	13.7	0.29	13.7	0.30	13.7	0.31	13.7	0.31	13.3	0.31	12.4	0.31	12.1										
	1225	2259		2171		2076		1973		1857		1745		1634		1501									
		0.31	14.5	0.33	14.5	0.35	14.5	0.36	14.7	0.36	14.5	0.36	13.6	0.37	13.0	0.36	12.5								
1/2	1310	2416		2334		2247		2153		2049		1940		1837		1732		1606							
		0.38	15.5	0.40	15.5	0.42	15.5	0.43	15.9	0.44	15.8	0.44	15.5	0.45	14.5	0.45	14.4	0.45	13.6						
	1400	2582		2505		2425		2339		2246		2145		2045		1949		1850		1591					
		0.47	17.2	0.49	17.2	0.51	17.2	0.53	17.2	0.54	17.5	0.54	17.1	0.54	16.8	0.54	16.3	0.55	15.8	0.54	14.7				
3/4	1500	2766		2695		2621		2542		2460		2369		2274		2181		2092		1895					
		0.58	19.0	0.60	19.0	0.62	19.0	0.64	19.0	0.65	19.0	0.66	19.3	0.66	19.1	0.67	18.3	0.67	17.7	0.67	17.2				
	1605	2960		2893		2824		2753		2677		2597		2510		2421		2334		2167		1969			
		0.71	21	0.73	21	0.76	21	0.78	21	0.79	21	0.80	22	0.81	22	0.81	21	0.82	20	0.82	19.4	0.82	18.7		
1	1685	3107		3044		2979		2911		2841		2767		2687		2603		2518		2357		2190		1979	
		0.82	23	0.84	23	0.87	23	0.89	23	0.91	23	0.93	23	0.93	23	0.94	23	0.94	23	0.95	22	0.95	21	0.94	19.6
	1765	3255		3195		3133		3068		3002		2933		2860		2781		2700		2542		2391		2216	
		0.94	25	0.97	25	0.99	25	1.02	25	1.04	25	1.06	25	1.07	25	1.08	25	1.08	25	1.09	24	1.09	23	1.09	22

NOTES:
1. Performance shown is for Installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
5. Type A: Free inlet fan hemispherical sone levels.

160 BCLH / BCLP

MOTOR HP	RPM	STATIC PRESSURE (INCHES W.G.)																					
		0.00		0.125		0.25		0.375		0.50		0.625		0.75		0.875		1.00		1.25		1.50		1.75	
		BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone
1/4	475	1361		1031																					
		0.03	3.9	0.04	3.3																				
	625	1791		1564		1272																			
		0.07	6.5	0.08	6.6	0.08	5.6																		
	775	2220		2047		1837		1597		1235															
		0.14	9.4	0.15	9.4	0.16	9.0	0.16	8.1	0.15	8.0														
	930	2664		2523		2365		2181		1984		1748													
		0.24	12.5	0.25	12.5	0.26	12.7	0.27	12.0	0.27	10.8	0.27	10.7												
1/3	975	2793		2659		2511		2341		2156		1954		1683											
		0.27	13.4	0.28	13.4	0.30	13.4	0.31	13.4	0.31	12.3	0.31	11.4	0.31	10.9										
	1020	2922		2795		2655		2497		2323		2141		1921		1593									
		0.31	14.7	0.32	14.7	0.34	14.7	0.35	14.7	0.36	13.8	0.36	12.5	0.36	12.0	0.34	11.6								
1/2	1100	3152		3034		2907		2768		2612		2447		2275		2066		1775							
		0.39	16.4	0.40	16.4	0.42	16.4	0.43	16.5	0.44	16.2	0.45	15.0	0.45	14.4	0.45	13.5	0.43	13.1						
	1180	3381		3271		3155		3030		2891		2741		2587		2424		2229							
		0.48	17.7	0.50	17.7	0.51	17.7	0.52	17.7	0.54	18.1	0.55	17.3	0.56	16.2	0.56	15.6	0.55	15.0						
3/4	1260	3610		3508		3400		3286		3162		3027		2884		2739		2585		2180					
		0.59	19.1	0.60	19.1	0.62	19.1	0.63	19.1	0.65	19.4	0.66	19.2	0.67	18.5	0.68	17.5	0.68	17.2	0.66	15.2				
	1340	3839		3743		3643		3538		3425		3304		3173		3038		2902		2589		2120			
		0.71	20	0.72	20	0.74	20	0.76	20	0.77	20	0.79	21	0.80	20	0.81	19.7	0.82	19.3	0.81	18.1	0.78	16.8		
1	1405	4025		3934		3839		3740		3635		3523		3402		3275		3146		2875		2526			
		0.82	22	0.83	22	0.85	22	0.87	22	0.88	22	0.90	22	0.91	22	0.93	22	0.94	21	0.94	20	0.93	18.7		
	1475	4226		4139		4049		3956		3858		3754		3643		3525		3403		3155		2869		2483	
		0.94	24	0.96	24	0.98	24	1.00	24	1.01	24	1.03	24	1.05	24	1.06	23	1.08	23	1.09	21	1.09	21	1.06	19.6

180 BCLH / BCLP

MOTOR HP	RPM	STATIC PRESSURE (INCHES W.G.)																					
		0.00		0.125		0.25		0.375		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25	
		BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone
1/4	475	2393		1883		1420																			
		0.09	3.9	0.10	4.4	0.10	5.0																		
	575	2897		2464		2101		1684																	
		0.15	6.3	0.17	6.8	0.18	6.8	0.18	7.3																
	660	3325		2948		2596		2296		1912															
		0.23	8.1	0.25	8.2	0.26	8.6	0.27	9.0	0.27	9.3														
1/3	690	3476		3115		2769		2486		2151															
		0.26	8.7	0.28	8.8	0.30	9.2	0.31	9.4	0.32	9.8														
	725	3653		3308		2973		2696		2402															
		0.31	9.6	0.33	9.6	0.34	10.0	0.35	10.1	0.36	10.7														
1/2	780	3930		3608		3293		3016		2766		2085													
		0.38	11.0	0.41	11.0	0.42	11.6	0.44	11.6	0.45	12.0	0.44	12.7												
	830	4182		3879		3581		3304		3071		2518													
		0.46	12.2	0.49	12.2	0.50	13.1	0.52	12.9	0.53	13.0	0.55	13.7												
3/4	890	4484		4201		3924		3653		3421		2956		2302											
		0.57	14.0	0.59	14.0	0.62	14.7	0.63	15.0	0.65	14.5	0.67	15.8	0.65	16.4										
	950	4786		4521		4261		4002		3767		3354		2841		2036									
		0.69	16.4	0.72	16.4	0.74	16.6	0.76	17.0	0.78	17.1	0.81	17.6	0.82	18.3	0.74	18.5								
1	1000	5038		4786		4539		4291		4057		3663		3219		2623									
		0.80	17.5	0.84	17.5	0.86	17.5	0.88	18.8	0.90	18.3	0.93	18.6	0.96	19.4	0.93	19.9								
	1045	5265		5023		4786		4550		4319		3929		3532		3035		2290							
		0.92	18.6	0.95	18.6	0.98	18.6	1.00	19.8	1.02	19.3	1.06	19.5	1.08	20	1.09	21	0.99	21						
1-1/2	1120	5643		5417		5195		4975		4754		4363		4018		3613		3107		2351					
		1.13	21	1.17	21	1.20	21	1.22	21	1.25	21	1.29	21	1.32	22	1.34	23	1.33	23	1.20	24				
	1195	6020		5809		5600		5394		5187		4795		4468		4126		3724		3219		2480			
		1.37	22	1.41	22	1.45	22	1.48	23	1.50	24	1.55	23	1.58	23	1.61	25	1.64	25	1.60	25	1.45	25		
2	1255	6323		6121		5922		5725		5529		5144		4817		4510		4156		3744		3218			
		1.59	24	1.63	24	1.67	24	1.70	24	1.73	25	1.78	25	1.82	25	1.85	26	1.88	26	1.89	27	1.83	27		
	1315	6625		6432		6242		6054		5867		5494		5163		4872		4559		4201		3780		3241	
		1.83	25	1.87	25	1.91	25	1.95	25	1.98	26	2.03	27	2.08	27	2.12	27	2.15	28	2.18	28	2.17	29	2.08	29

NOTES:
1. Performance shown is for Installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
5. Type A: Free inlet fan hemispherical sone levels.

210 BCLH / BCLP

MOTOR HP	RPM	STATIC PRESSURE (INCHES W.G.)																			
		0.00		0.125		0.25		0.375		0.50		0.625		0.75		1.00		1.25		1.50		1.75		2.00	
		BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone
1/4	480	3171		2753		2259		1581																	
		0.16	6.1	0.17	6.5	0.19	6.2	0.18	6.6																
	535	3534		3172		2726		2269		1515															
		0.22	7.9	0.24	7.9	0.26	7.5	0.27	7.9	0.24	8.1														
1/3	550	3633		3284		2849		2416		1760															
		0.24	8.4	0.26	8.4	0.28	8.3	0.29	8.3	0.27	8.6														
	595	3931		3612		3219		2829		2380		1635													
		0.30	9.9	0.32	9.9	0.34	9.9	0.36	9.5	0.37	9.8	0.33	10.0												
1/2	650	4294		4006		3665		3295		2931		2479		1756											
		0.39	11.6	0.41	11.6	0.44	11.7	0.46	11.2	0.48	11.2	0.48	11.5	0.43	11.5										
	680	4492		4219		3902		3542		3205		2821		2253											
		0.44	12.3	0.47	12.3	0.50	13.0	0.52	12.0	0.54	12.3	0.55	12.1	0.52	12.3										
3/4	720	4756		4500		4211		3870		3550		3214		2814											
		0.53	13.8	0.55	13.8	0.58	14.1	0.61	13.7	0.64	13.0	0.65	13.5	0.65	13.3										
	770	5087		4848		4586		4279		3965		3669		3342		2367									
		0.65	15.3	0.67	15.3	0.70	15.3	0.73	15.6	0.76	15.0	0.79	14.7	0.80	15.0	0.74	15.4								
1	800	5285		5056		4807		4520		4211		3927		3626		2827									
		0.72	16.3	0.75	16.3	0.78	16.3	0.81	16.6	0.85	16.1	0.87	15.5	0.89	16.0	0.87	16.5								
	855	5648		5435		5206		4952		4663		4385		4119		3514		2552							
		0.88	18.4	0.91	18.4	0.95	18.4	0.98	18.9	1.01	18.5	1.04	17.7	1.07	17.6	1.10	17.8	1.01	18.1						
1-1/2	900	5945		5744		5529		5295		5029		4754		4500		3963		3242							
		1.03	21	1.06	21	1.10	21	1.13	21	1.17	21	1.20	20	1.23	19.3	1.28	19.9	1.24	20						
	975	6441		6256		6060		5852		5623		5369		5119		4650		4126		3390					
		1.31	24	1.35	24	1.38	24	1.42	24	1.46	25	1.50	24	1.53	23	1.60	23	1.63	23	1.56	23				
2	1010	6672		6494		6306		6107		5893		5653		5406		4951		4467		3878		2992			
		1.46	25	1.49	25	1.53	25	1.57	25	1.61	25	1.65	25	1.69	25	1.76	24	1.80	24	1.79	25	1.66	25		
	1075	7101		6935		6760		6576		6382		6169		5938		5493		5066		4589		3979		3119	
		1.76	27	1.80	27	1.83	27	1.87	27	1.91	27	1.96	28	2.00	28	2.08	26	2.15	26	2.18	26	2.14	27	2.00	27

240 BCLH / BCLP

MOTOR HP	RPM	STATIC PRESSURE (INCHES W.G.)																			
		0.00		0.125		0.25		0.375		0.50		0.625		0.75		0.875		1.00		1.25		1.50		1.75	
		BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone
1/4	410	4252		3631		2919		2040																	
		0.17	5.4	0.21	5.8	0.23	6.0	0.22	6.7																
	435	4511		3923		3275		2562																	
		0.20	6.1	0.25	6.5	0.27	6.4	0.27	7.2																
1/3	460	4770		4212		3630		2972		1905															
		0.24	7.0	0.29	7.2	0.31	7.2	0.32	7.9	0.29	8.0														
	480	4978		4442		3903		3263		2517															
		0.27	7.8	0.32	7.9	0.35	8.2	0.36	8.3	0.36	8.9														
1/2	530	5496		5010		4538		3972		3415		2652													
		0.37	9.8	0.42	9.8	0.46	10.7	0.48	9.9	0.49	10.4	0.48	10.9												
	550	5704		5235		4780		4258		3707		3092													
		0.41	10.8	0.47	10.8	0.51	11.4	0.54	10.4	0.55	10.9	0.55	11.6												
3/4	580	6015		5570		5137		4675		4130		3621		2890											
		0.48	12.1	0.55	12.1	0.59	12.6	0.62	12.2	0.64	12.0	0.65	12.4	0.63	13.1										
	625	6481		6068		5662		5259		4773		4288		3794		3081									
		0.60	13.7	0.67	13.7	0.73	14.1	0.76	14.3	0.79	13.3	0.80	13.7	0.81	14.1	0.78	14.8								
1	650	6740		6343		5951		5568		5127		4640		4195		3644									
		0.68	14.5	0.75	14.5	0.81	14.8	0.85	15.2	0.88	14.6	0.90	14.5	0.91	14.9	0.91	15.6								
	690	7155		6781		6409		6050		5668		5211		4773		4345		3799							
		0.81	15.6	0.89	15.6	0.95	15.6	1.00	16.8	1.04	16.3	1.07	15.8	1.08	16.3	1.09	16.5	1.08	16.9						
1-1/2	750	7778		7433		7090		6755		6423		6051		5624		5222		4836		3763					
		1.05	18.1	1.13	18.1	1.20	18.1	1.26	19.2	1.31	19.4	1.35	18.7	1.37	18.1	1.39	18.5	1.40	18.9	1.36	19.3				
	790	8192		7865		7539		7218		6906		6576		6194		5786		5416		4601					
		1.22	19.6	1.31	19.6	1.39	19.6	1.45	21	1.51	21	1.55	20	1.59	19.4	1.61	19.8	1.62	20	1.63	21				
2	840	8711		8403		8096		7792		7496		7199		6875		6502		6121		5429		4548			
		1.47	21	1.56	21	1.65	21	1.72	22	1.78	23	1.84	23	1.88	22	1.91	21	1.94	22	1.96	22	1.95	23		
	870	9022		8724		8428		8134		7846		7562		7263		6923		6551		5867		5123		3923	
		1.63	23	1.73	23	1.82	23	1.90	23	1.97	24	2.02	25	2.07	24	2.11	23	2.14	23	2.17	24	2.18	24	2.05	25

NOTES:
1. Performance shown is for Installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
5. Type A: Free inlet fan hemispherical sone levels.

300 BCLH / BCLP

MOTOR HP	RPM	STATIC PRESSURE (INCHES W.G.)																					
		0.00		0.125		0.25		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25		2.50	
		BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone
1/4	330	5145		4204		3256																			
		0.15	4.0	0.18	5.0	0.21	5.7																		
	360	5612		4712		3992																			
		0.19	4.7	0.23	5.7	0.27	6.4																		
1/3	380	5924		5044		4387																			
		0.22	5.2	0.26	6.2	0.30	6.6																		
	405	6314		5457		4850																			
		0.27	5.9	0.31	6.7	0.36	7.3																		
1/2	430	6704		5867		5300		3310																	
		0.32	6.6	0.36	7.2	0.41	8.2	0.44	9.1																
	450	7016		6195		5656		4090																	
		0.37	7.3	0.41	7.8	0.46	9.1	0.54	9.8																
3/4	470	7327		6523		6002		4701																	
		0.42	8.1	0.47	8.6	0.52	10.1	0.61	10.8																
	520	8107		7345		6845		5866		3552															
		0.57	10.5	0.62	10.5	0.67	12.3	0.79	12.9	0.74	12.9														
1	530	8263		7509		7011		6062		4220															
		0.61	11.1	0.65	11.1	0.71	13.0	0.83	13.0	0.84	13.7														
	565	8808		8083		7589		6718		5442															
		0.74	12.5	0.78	12.5	0.84	14.3	0.97	15.0	1.07	15.2														
1-1/2	600	9354		8655		8164		7350		6393		4054													
		0.88	14.0	0.93	14.0	0.99	15.1	1.13	16.6	1.26	17.1	1.13	17.0												
	650	10134		9470		8984		8236		7442		6210													
		1.12	15.7	1.17	15.7	1.24	16.6	1.38	19.2	1.53	18.8	1.62	19.0												
2	670	10445		9795		9312		8580		7821		6798		4442											
		1.23	16.5	1.28	16.5	1.35	17.3	1.50	19.6	1.65	19.6	1.77	19.8	1.55	19.7										
	715	11147		10525		10052		9340		8646		7879		6579											
		1.49	18.5	1.55	18.5	1.62	18.5	1.77	21	1.94	22	2.10	22	2.16	22										
3	750	11692		11091		10628		9923		9273		8582		7625		5990									
		1.72	20	1.78	20	1.85	20	2.01	23	2.18	24	2.36	23	2.49	24	2.39	24								
	820	12784		12221		11775		11078		10498		9882		9232		8309		6884							
		2.25	23	2.31	23	2.39	23	2.56	25	2.74	27	2.93	28	3.12	27	3.25	28	3.18	27						
5	850	13252		12703		12265		11570		11007		10422		9815		9076		7910		5886					
		2.51	24	2.57	24	2.65	24	2.82	27	3.01	29	3.20	29	3.40	29	3.57	30	3.63	29	3.25	29				
	970	15122		14628		14218		13539		13003		12516		12003		11477		10918		10202		9161		7811	
		3.73	33	3.79	33	3.88	33	4.07	34	4.28	37	4.50	39	4.72	38	4.94	38	5.17	39	5.34	40	5.40	38	5.18	38

360 BCLH / BCLP

MOTOR HP	RPM	STATIC PRESSURE (INCHES W.G.)																					
		0.00		0.125		0.25		0.375		0.50		0.625		0.75		0.875		1.00		1.25		1.50		1.75	
		BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone
1/3	250	7612		6008		3071																			
		0.21	4.1	0.26	4.5	0.23	4.8																		
	280	8525		7143		49973																			
		0.30	5.3	0.36	5.7	0.36	5.9																		
1/2	300	9134		7856		6062																			
		0.37	6.3	0.43	6.6	0.45	6.5																		
	320	9743		8551		7041		4762																	
		0.45	7.2	0.52	7.5	0.55	6.9	0.51	7.7																
3/4	340	10352		9235		7934		5930																	
		0.54	8.0	0.61	8.1	0.66	7.8	0.64	8.3																
	365	11113		10079		8948		7296		5198															
		0.67	8.8	0.75	8.8	0.80	9.1	0.81	9.2	0.75	9.7														
1	380	11570		10580		9516		8058		6143															
		0.75	9.5	0.84	9.5	0.90	10.1	0.92	9.7	0.88	10.3														
	400	12179		11242		10248		8995		7252		5229													
		0.88	10.4	0.97	10.4	1.04	11.2	1.07	10.3	1.05	10.9	0.95	11.1												
1-1/2	420	12788		11899		10959		9870		8347		6581													
		1.01	11.2	1.12	11.2	1.19	12.0	1.23	11.7	1.24	12.0	1.18	12.3												
	460	14006		13198		12349		11453		10301		8811		7204											
		1.33	14.1	1.45	14.1	1.53	14.8	1.59	15.0	1.63	13.9	1.62	14.3	1.54	14.7										
2	480	14615		13843		13032		12192		11185		9878		8341		6678									
		1.51	15.9	1.63	15.9	1.73	16.1	1.80	16.6	1.84	15.3	1.86	15.6	1.80	15.9	1.68	16.1								
	505	15376		14644		13878		13090		12216		11087		9713		8259		6540							
		1.76	17.6	1.89	17.6	1.99	17.6	2.07	18.2	2.13	17.7	2.17	17.0	2.15	17.4	2.07	17.7	1.90	17.7						
3	550	16746		16076		15381		14663		13923		13066		11996		10739		9397							
		2.28	21	2.42	21	2.54	21	2.63	22	2.70	21	2.76	20	2.80	19.9	2.78	20	2.70	20						
	575	17507		16867		16205		15522		14826		14066		13138		12042		10768		8072					
		2.60	22	2.75	22	2.88	22	2.99	23	3.07	23	3.13	22	3.18	21	3.20	22	3.15	22	2.90	22				
5	650	19791		19227		18648		18053		17445		16830		16177		15428		14543		12432		10155			
		3.76	27	3.93	27	4.08	27	4.22	27	4.33	28	4.42	29	4.49	28	4.56	27	4.61	26	4.57	26	4.36	27		
	685	20856		20322		19775		19214		18639		18062		17467		16823		16081		14281		12134		9871	
		4.40	30	4.58	30	4.74	30	4.89	30	5.02	30	5.12	31	5.21	31	5.28	31	5.35	30	5.41	28	5.27	28	4.95	29

NOTES:
1. Performance shown is for Installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
5. Type A: Free inlet fan hemispherical sone levels.

420 BCLH / BCLP

MOTOR HP	RPM	STATIC PRESSURE (INCHES W.G.)																					
		0.00		0.125		0.25		0.375		0.50		0.625		0.75		1.00		1.25		1.50		1.75		2.00	
		BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone
1/2	230	9696		8168		5987																			
		0.32	4.7	0.39	5.4	0.42	5.8																		
	250	10539		9138		7522																			
		0.41	5.9	0.49	6.1	0.53	6.4																		
3/4	270	11382		10088		8686		6112																	
		0.52	7.0	0.60	7.2	0.65	7.2	0.65	7.7																
	285	12015		10790		9497		7638																	
		0.61	7.9	0.70	7.9	0.76	8.2	0.80	8.4																
1	300	12647		11487		10283		8810		5635															
		0.72	8.8	0.81	8.8	0.87	9.2	0.92	9.2	0.82	9.2														
	315	13279		12176		11042		9747		7435															
		0.83	9.5	0.93	9.5	1.00	10.2	1.05	9.7	1.05	10.0														
1-1/2	330	13912		12861		11784		10600		8901		5558													
		0.95	10.5	1.06	10.5	1.14	11.1	1.19	10.5	1.24	10.8	1.02	10.6												
	360	15177		14216		13232		12209		11034		9121													
		1.24	12.1	1.36	12.1	1.45	12.6	1.51	12.7	1.57	12.1	1.60	12.6												
2	370	15598		14664		13707		12726		11619		10043		7220											
		1.34	12.9	1.47	12.9	1.56	13.4	1.63	13.5	1.69	12.9	1.74	13.3	1.57	13.4										
	395	16652		15778		14884		13981		13000		11876		10052											
		1.63	14.3	1.77	14.3	1.88	14.4	1.96	15.1	2.02	14.9	2.09	14.8	2.12	15.1										
3	430	18128		17326		16509		15683		14835		13903		12838		8670									
		2.11	16.7	2.26	16.7	2.38	16.7	2.48	17.6	2.56	17.7	2.63	17.2	2.70	17.3	2.50	17.4								
	455	19181		18425		17655		16875		16089		15248		14335		11502									
		2.50	18.8	2.66	18.8	2.79	18.8	2.91	19.1	2.99	19.7	3.07	19.5	3.15	19.0	3.24	19.5								
5	500	21078		20391		19694		18986		18277		17556		16786		15045		11971							
		3.31	23	3.49	23	3.65	23	3.79	23	3.90	24	3.98	24	4.07	24	4.23	23	4.24	23						
	540	22765		22129		21486		20834		20175		19518		18845		17371		15542		12225					
		4.17	27	4.37	27	4.54	27	4.70	27	4.83	28	4.94	28	5.03	29	5.22	27	5.38	27	5.23	27				
7-1/2	580	24451		23860		23262		22658		22046		21434		20821		19523		18082		16135		12810			
		5.17	31	5.38	31	5.57	31	5.75	31	5.90	31	6.04	33	6.15	33	6.34	32	6.54	30	6.70	30	6.41	29		
	615	25927		25369		24807		24238		23664		23086		22510		21330		20038		18590		16439		13084	
		6.17	34	6.39	34	6.59	34	6.78	34	6.96	34	7.11	35	7.24	35	7.46	36	7.67	34	7.87	33	8.02	33	7.52	33

480 BCLH / BCLP

MOTOR HP	RPM	STATIC PRESSURE (INCHES W.G.)																					
		0.00		0.125		0.25		0.375		0.50		0.625		0.75		0.875		1.00		1.25		1.50		1.75	
		BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone
1/2	190	10809		8862		4551																			
		0.31	4.1	0.38	4.8	0.33	5.0																		
	210	11947		10187		7615																			
		0.42	5.0	0.50	5.6	0.53	6.0																		
3/4	225	12800		11149		9175																			
		0.52	5.7	0.60	6.2	0.66	6.6																		
	240	13653		12098		10434		6844																	
		0.63	6.6	0.72	6.9	0.79	7.2	0.73	7.6																
1	250	14222		12726		11200		8393																	
		0.71	7.3	0.81	7.4	0.88	8.0	0.88	8.1																
	265	15076		13663		12278		10221																	
		0.85	8.2	0.95	8.2	1.04	9.2	1.08	8.8																
1-1/2	285	16213		14900		13625		12053		9166															
		1.06	9.7	1.17	9.7	1.26	10.7	1.34	9.8	1.29	10.4														
	300	17067		15819		14602		13250		11134		7112													
		1.23	11.0	1.35	11.0	1.45	11.9	1.54	11.3	1.56	11.3	1.29	11.0												
2	320	18204		17034		15881		14719		13136		10448													
		1.50	12.5	1.62	12.5	1.73	13.0	1.83	13.0	1.90	12.3	1.83	12.7												
	335	19058		17940		16831		15751		14403		12399		8945											
		1.72	13.5	1.85	13.5	1.96	13.9	2.07	14.5	2.16	13.2	2.18	13.6	1.91	13.5										
3	350	19911		18841		17774		16749		15573		13977		11366											
		1.96	14.6	2.09	14.6	2.22	14.8	2.33	15.5	2.43	14.7	2.49	14.8	2.39	14.6										
	380	21618		20632		19648		18691		17724		16539		14985		12559		9102							
		2.50	16.3	2.65	16.3	2.79	16.3	2.92	17.5	3.04	17.6	3.14	17.2	3.19	17.0	3.08	17.3	2.64	16.6						
5	420	23893		23002		22111		21225		20374		19482		18410		17080		15229							
		3.38	19.7	3.55	19.7	3.70	19.7	3.85	20	3.99	21	4.12	21	4.23	20	4.30	20	4.27	20						
	455	25884		25061		24239		23417		22615		21830		20988		19989		18793		15125					
		4.30	23	4.48	23	4.65	23	4.81	23	4.97	24	5.12	25	5.26	25	5.37	24	5.46	23	5.30	24				
7-1/2	500	28444		27695		26947		26198		25452		24731		24016		23262		22401		20232		16786		11480	
		5.70	29	5.90	29	6.09	29	6.28	29	6.45	29	6.62	30	6.79	30	6.94	30	7.08	29	7.27	28	7.06	28	5.89	27
	520	29582		28862		28142		27422		26703		26000		25316		24615		23856		21978		19329		15041	
		6.42	30	6.62	30	6.82	30	7.02	30	7.20	30	7.38	32	7.55	33	7.72	33	7.87	32	8.12	30	8.14	30	7.43	30

NOTES:
1. Performance shown is for Installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
5. Type A: Free inlet fan hemispherical sone levels.

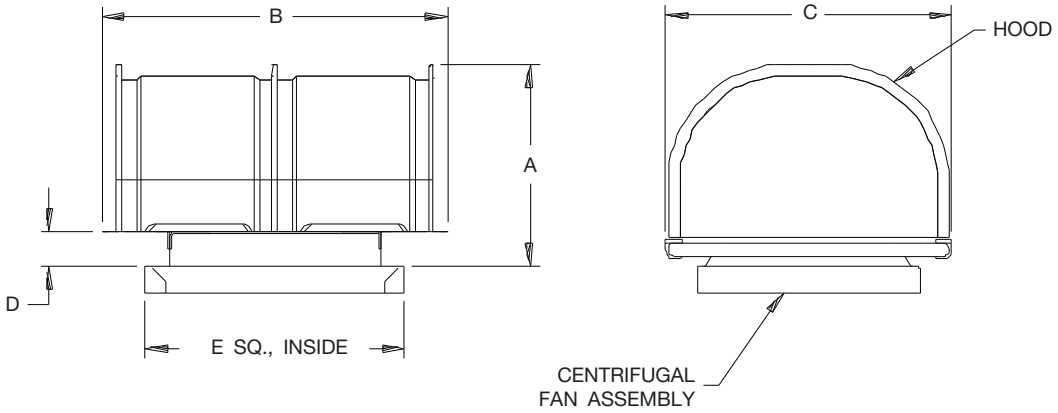
540 BCLH / BCLP

MOTOR HP	RPM	STATIC PRESSURE (INCHES W.G.)																					
		0.00		0.125		0.25		0.375		0.50		0.75		1.00		1.25		1.50		1.75		2.00		2.25	
		BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone
1	200	16243		14151		11655																			
		0.66	5.8	0.77	6.2	0.84	6.7																		
	215	17461		15505		13436		9116																	
		0.82	6.7	0.94	6.8	1.03	7.6	0.96	7.8																
1-1/2	230	18679		16847		15031		12100																	
		1.00	7.6	1.13	7.6	1.23	8.5	1.27	8.8																
	245	19897		18177		16505		14281		9755															
		1.21	8.8	1.35	8.8	1.46	9.8	1.55	9.6	1.38	9.7														
2	260	21116		19494		17918		16083		12970															
		1.45	10.0	1.59	10.0	1.72	11.1	1.82	10.6	1.82	11.0														
	275	22334		20801		19299		17717		15435															
		1.72	11.4	1.87	11.4	2.01	12.3	2.12	12.4	2.19	12.1														
3	290	23552		22098		20661		19239		17374															
		2.01	13.2	2.17	13.2	2.32	13.6	2.45	13.9	2.55	13.0														
	310	25176		23816		22460		21157		19654		14233													
		2.46	15.1	2.63	15.1	2.79	15.2	2.94	16.2	3.06	15.3	2.99	15.2												
5	345	28019		26797		25576		24383		23199		20005		13444											
		3.39	17.8	3.58	17.8	3.77	17.8	3.94	18.7	4.09	19.1	4.32	17.9	3.82	17.9										
	370	30049		28910		27771		26640		25553		23005		18768											
		4.18	20	4.39	20	4.59	20	4.77	21	4.95	21	5.25	20	5.26	20										
7-1/2	395	32080		31012		29945		28879		27848		25689		22658		17217									
		5.09	22	5.31	22	5.53	22	5.73	22	5.92	23	6.27	23	6.49	22	6.05	22								
	420	34110		33106		32102		31100		30110		28169		25739		22104		15856							
		6.12	24	6.36	24	6.58	24	6.80	24	7.01	26	7.40	26	7.71	25	7.76	26	6.78	25						
10	445	36140		35193		34245		33299		32354		30538		28501		25775		21465		14846					
		7.28	28	7.53	28	7.77	28	8.01	28	8.23	28	8.66	29	9.02	28	9.27	28	9.03	27	7.59	27				
	470	38171		37273		36376		35480		34584		32849		31065		28826		25811		20969					
		8.57	30	8.84	30	9.10	30	9.35	30	9.59	30	10.05	32	10.47	33	10.80	31	10.93	31	10.30	31				
15	495	40201		39349		38497		37646		36795		35126		33487		31597		29194		25817		20693			
		10.02	35	10.30	35	10.57	35	10.84	35	11.09	35	11.58	36	12.04	37	12.44	36	12.73	35	12.68	34	11.67	34		
	520	42231		41420		40610		39799		38989		37382		35835		34185		32166		29635		25940		20759	
		11.61	39	11.91	39	12.20	39	12.48	39	12.75	39	13.27	39	13.76	42	14.22	41	14.59	39	14.81	38	14.55	38	13.24	37

NOTES:
1. Performance shown is for Installation Type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
5. Type A: Free inlet fan hemispherical sone levels.

TCF
TWIN CITY FAN

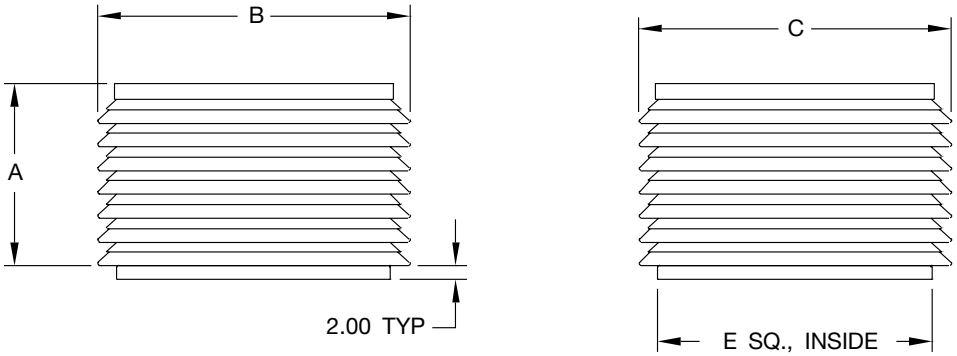
DCLH



SIZE	FAN DIMENSIONS					MAX HP	MAX FRAME	CURB DIMS.	DAMPER SIZE	AVG. SHIP WT. (LBS.)
	A MAX.	B	C	D	E. SQ.					
060	14.13	26.13	22.00	2.00	17.00	1/8	48	15.50 x 15.50	10.00 x 10.00	55
070	14.13	26.13	22.00	2.00	17.00	1/8	48	15.50 x 15.50	10.00 x 10.00	55
080	14.13	26.13	28.00	2.00	17.00	1/8	48	15.50 x 15.50	10.00 x 10.00	59
085	15.88	26.13	28.00	2.38	17.00	1/8	48	15.50 x 15.50	10.00 x 10.00	62
090	15.88	26.13	28.00	2.38	17.00	1/8	48	15.50 x 15.50	10.00 x 10.00	62
095	15.88	26.13	28.00	2.38	17.00	1/8	48	15.50 x 15.50	10.00 x 10.00	62
100	18.88	26.63	30.00	2.38	17.00	1/4	48	15.50 x 15.50	10.00 x 10.00	78
120	19.13	26.63	30.00	2.63	20.00	1/4	48	18.50 x 18.50	14.00 x 14.00	81

D4135-2C

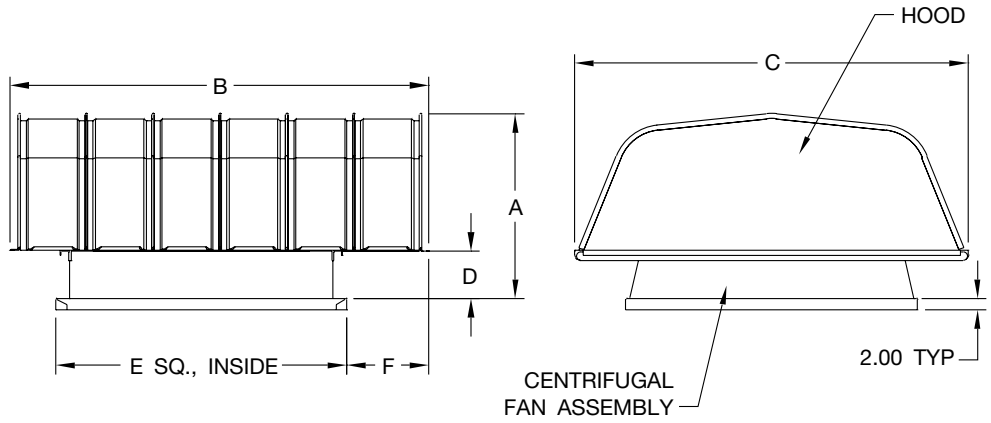
DCLP



SIZE	FAN DIMENSIONS				MAX HP	MAX FRAME	CURB DIMS.	DAMPER SIZE	AVG. SHIP WT. (LBS.)
	A MAX.	B	C	E. SQ.					
060	14.75	22.00	24.00	17.00	1/8	48	15.50 x 15.50	10.00 x 10.00	39
070	14.75	22.00	24.00	17.00	1/8	48	15.50 x 15.50	10.00 x 10.00	39
080	14.75	25.00	25.00	17.00	1/8	48	15.50 x 15.50	10.00 x 10.00	40
085	14.75	25.00	25.00	17.00	1/8	48	15.50 x 15.50	10.00 x 10.00	43
090	14.75	25.00	25.00	17.00	1/8	48	15.50 x 15.50	10.00 x 10.00	43
095	14.75	25.00	25.00	17.00	1/8	48	15.50 x 15.50	10.00 x 10.00	43
100	18.25	25.00	25.00	17.00	1/4	48	15.50 x 15.50	10.00 x 10.00	53
120	18.25	28.00	28.00	20.00	1/4	48	18.50 x 18.50	14.00 x 14.00	59

D4135-4D

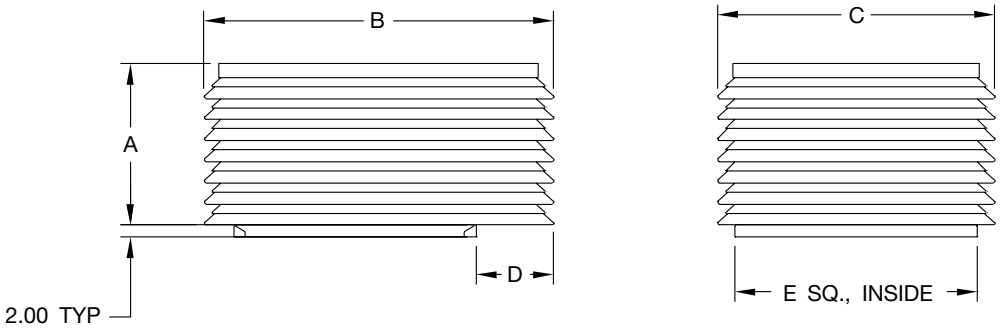
BCLH



SIZE	FAN DIMENSIONS						MAX HP	MAX FRAME	CURB DIMS.	DAMPER SIZE	AVG. SHIP WT. (LBS.)
	A MAX.	B	C	D	E. SQ.	F					
100	17.75	38.63	28.00	3.00	20.00	10.00	1/3	56	18.50 x 18.50	14.00 x 14.00	110
120	18.50	38.63	28.00	3.75	20.00	10.00	1/2	56	18.50 x 18.50	14.00 x 14.00	113
140	19.81	39.13	35.00	4.00	24.00	9.38	1	145T	22.50 x 22.50	18.00 x 18.00	126
160	20.25	39.13	35.00	4.38	26.00	9.38	1	145T	24.50 x 24.50	20.00 x 20.00	131
180	21.13	51.13	40.00	4.38	30.00	10.50	2	145T	28.50 x 28.50	24.00 x 24.00	168
210	23.13	51.13	43.00	5.00	30.00	12.00	2	184T	28.50 x 28.50	24.00 x 24.00	185
240	23.63	51.13	46.25	5.75	34.00	11.50	2	184T	32.50 x 32.50	28.00 x 28.00	203
300	26.75	63.13	52.50	5.50	40.00	11.50	5	184T	38.50 x 38.50	34.00 x 34.00	307
360	31.13	63.13	62.50	7.13	46.00	12.75	5	215T	44.50 x 44.50	40.00 x 40.00	363
420	33.25	75.13	70.63	8.50	52.00	14.75	7 1/2	215T	50.50 x 50.50	46.00 x 46.00	488
480	36.13	87.13	75.63	9.25	58.00	14.50	7 1/2	215T	56.50 x 56.50	50.00 x 50.00	555
540	43.84	87.13	85.50	10.38	64.00	17.00	15	254T	62.50 x 62.50	56.00 x 56.00	690

D4135-1D

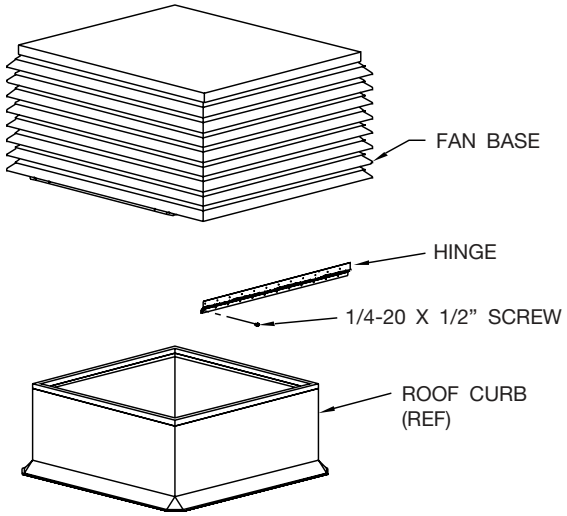
BCLP



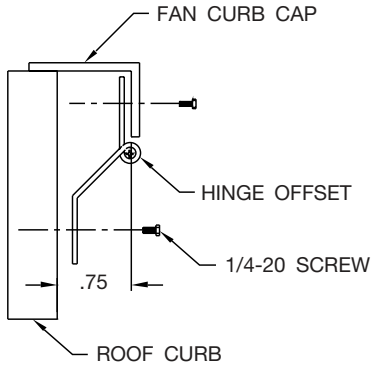
SIZE	FAN DIMENSIONS					MAX HP	MAX FRAME	CURB DIMS.	DAMPER SIZE	AVG. SHIP WT. (LBS.)
	A MAX.	B	C	D	E. SQ.					
100	19.88	38.50	28.00	12.19	20.00	1/3	56	18.50 x 18.50	14.00 x 14.00	87
120	20.63	38.50	28.00	12.19	20.00	1/2	56	18.50 x 18.50	14.00 x 14.00	89
140	20.88	40.00	32.00	11.00	24.00	1	145T	22.50 x 22.50	18.00 x 18.00	95
160	21.25	40.00	32.00	11.00	26.00	1	145T	24.50 x 24.50	20.00 x 20.00	107
180	24.50	46.00	36.00	11.00	30.00	2	145T	28.50 x 28.50	24.00 x 24.00	128
210	25.13	46.00	38.00	12.50	30.00	2	184T	28.50 x 28.50	24.00 x 24.00	138
240	29.38	49.50	42.00	11.69	34.00	2	184T	32.50 x 32.50	28.00 x 28.00	155
300	29.13	58.00	46.00	12.88	40.00	5	184T	38.50 x 38.50	34.00 x 34.00	255
360	37.75	63.75	54.75	14.25	46.00	5	215T	44.50 x 44.50	40.00 x 40.00	290
420	39.13	70.50	60.00	15.25	52.00	7 1/2	215T	50.50 x 50.50	46.00 x 46.00	380
480	43.38	76.50	66.00	15.25	58.00	7 1/2	215T	56.50 x 56.50	50.00 x 50.00	428
540	51.50	85.75	73.75	17.75	64.00	15	254T	62.50 x 62.50	56.00 x 56.00	560

D4135-3E

Curb Hinge



CURB HINGE DETAIL



	SIZE	LENGTH
DCLH/DCLP	060	15.00
	070	15.00
	080	15.00
	085	15.00
	090	15.00
	095	15.00
	100	15.00
	120	19.00
BCLH/BCLP	100	19.00
	120	19.00
	140	23.50
	160	24.50
	180	29.00
	210	29.00
	240	34.00

57962501

Notes:
1. Hinge requires curb to be 1.5" less than fan base.
2. When needed, holes can be added to base for attaching hinge.
3. Field is responsible for attaching curb hinge to roof curb and fan.

Backdraft Damper

FIG. A (NO EXTERNAL FLANGE)

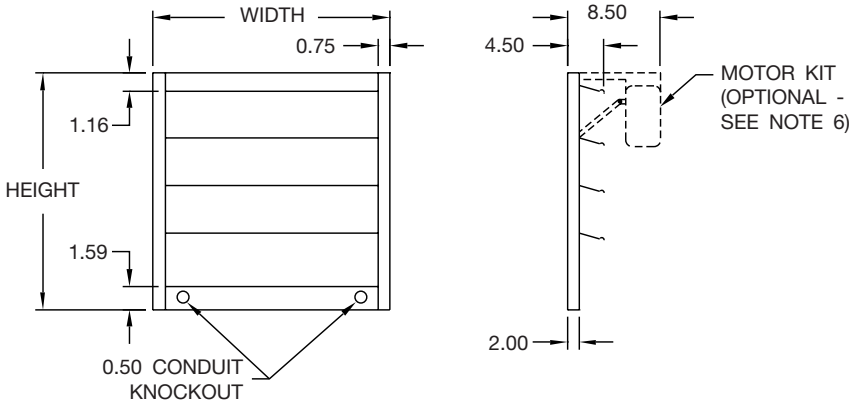
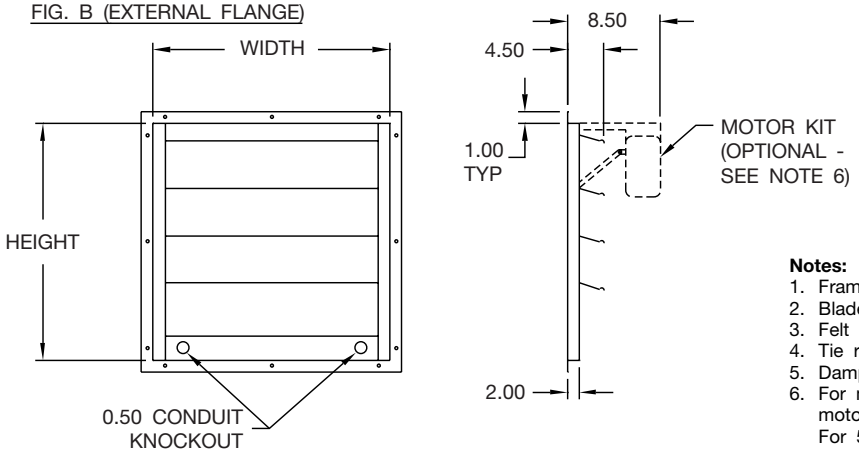


FIG. B (EXTERNAL FLANGE)

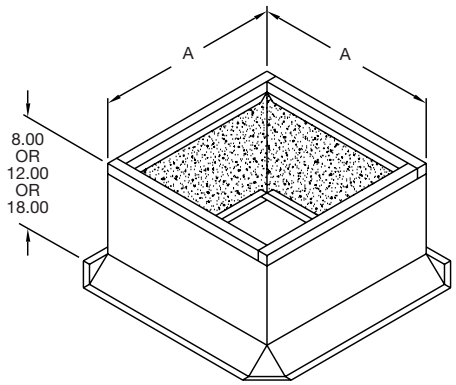


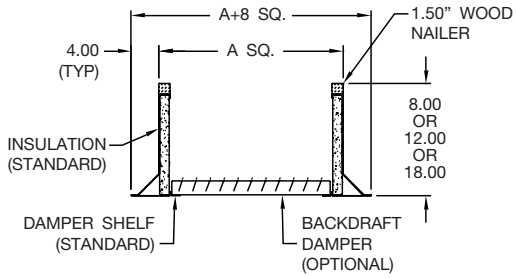
	SIZE	FIG	HEIGHT	WIDTH
DCLH/DCLP	060	A	10.00	10.00
	070	A	10.00	10.00
	080	A	10.00	10.00
	085	A	10.00	10.00
	090	A	10.00	10.00
	095	A	10.00	10.00
	100	A	10.00	10.00
	120	A	14.00	14.00
BCLH/BCLP	100	A	14.00	14.00
	120	A	14.00	14.00
	140	A	18.00	18.00
	160	A	20.00	20.00
	180	A	24.00	24.00
	210	A	24.00	24.00
	240	A	28.00	28.00
	300	A	34.00	34.00
	360	A	40.00	40.00
	420	A	46.00	46.00
	480	B	50.00	50.00
	540	B	56.00	56.00

28-145J

Notes:
1. Frame: 19-ga. galvanized steel.
2. Blades: 26-ga. mill finish aluminum.
3. Felt seal on leading edge of blades.
4. Tie rod attached to all blades.
5. Dampers individually packaged.
6. For motorized applications (opt.), 115/230, 460 and 575V motor pack available.
   For 575V applications a transformer is required.

Canted Roof Curb



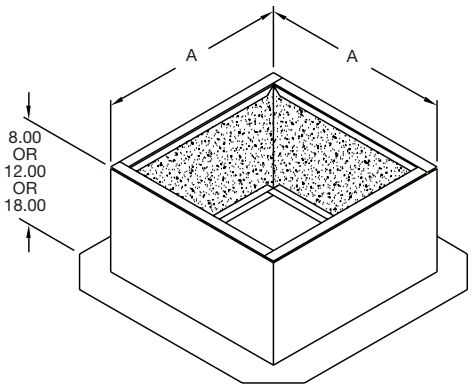


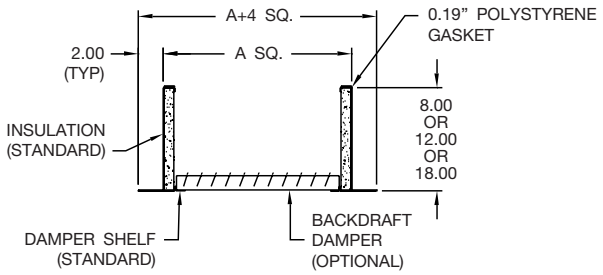
	SIZE	A. SQ.
DCLH/DCLP	060	15.50 x 15.50
	070	15.50 x 15.50
	080	15.50 x 15.50
	085	15.50 x 15.50
	090	15.50 x 15.50
	095	15.50 x 15.50
	100	15.50 x 15.50
	120	18.50 x 18.50
BCLH/BCLP	100	18.50 x 18.50
	120	18.50 x 18.50
	140	22.50 x 22.50
	160	24.50 x 24.50
	180	28.50 x 28.50
	210	28.50 x 28.50
	240	32.50 x 32.50
	300	38.50 x 38.50
	360	44.50 x 44.50
	420	50.50 x 50.50
	480	56.50 x 56.50
	540	62.50 x 62.50

RCPF

Notes:
1. Inside of curb is 3" less than Dimension 'A'.
2. Curbs are sized 1.50" less than fan base (cap) to allow .75" each side for flashing material and clearance.
3. When using a motor operated damper in the curb, a 12" high (minimum) curb is required.
4. All dimensions $\pm 1/8$".
5. Straight sided curbs have above dimensions, with wood nailer, but are built like the self-flashing curb.

Self-Flashing Roof Curb





	SIZE	A. SQ.
DCLH/DCLP	060	16.50 x 16.50
	070	16.50 x 16.50
	080	16.50 x 16.50
	085	16.50 x 16.50
	090	16.50 x 16.50
	095	16.50 x 16.50
	100	16.50 x 16.50
	120	19.50 x 19.50
BCLH/BCLP	100	19.50 x 19.50
	120	19.50 x 19.50
	140	23.50 x 23.50
	160	25.50 x 25.50
	180	29.50 x 29.50
	210	29.50 x 29.50
	240	33.50 x 33.50
	300	39.50 x 39.50
	360	45.50 x 45.50
	420	51.50 x 51.50
	480	57.50 x 57.50
	540	63.50 x 63.50

RCSF-A

Notes:
1. Inside of curb is 3" less than Dimension 'A'.
2. Curbs are sized .50" less than fan base (cap) to allow .25" each side for clearance.
3. When using a motor operated damper in the curb, a 12" high (minimum) curb is required.
4. All dimensions $\pm 1/8$".
5. Straight-sided curbs are built like above, less gasket, but have canted 'A' dimension.

Model

BCLH

Roof exhaust fans shall be of the belt driven centrifugal type, Model BCLH (Hooded) as manufactured by Twin City Fan & Blower, Minneapolis, Minnesota.

PERFORMANCE — Fans shall be tested in accordance with AMCA test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels. Models shall be cULus 705 listed.

CONSTRUCTION — Model BCLH shall be constructed of hoods with interlocking galvanized steel panels for durability and appearance. Hoods shall be hinged as standard to allow for ease of access to internal components. Units shall have a deep formed inlet venturi to prevent snow and rain entry into the building. The fan base shall include prepunched mounting holes for ease of installation and shall provide protection from weather. Fans shall bear a permanently attached nameplate displaying model and serial number of the unit for future identification.

MOTOR AND DRIVE ASSEMBLY — Motor and drive assembly shall be mounted on vibration isolators to eliminate vibration and noise transmission into the ductwork.

WHEEL — Fan wheels shall be of the centrifugal backward inclined type, containing a matching inlet venturi for optimum unit performance. Wheels shall be statically and dynamically balanced.

SHAFT — Fan shafts shall be precision-ground and polished. Shafts shall have a first critical speed of at least 125% of the fan's maximum operating speed.

BEARINGS — Bearings shall be of the one-piece, pillow block type with relubricable zerk fittings. Bearings shall be designed for air handling service with a minimum L-10 life in excess of 100,000 hours; L-50 500,000 hours at the maximum cataloged operating speed. Bearing mounting plate shall have self-aligning tabs for exact locating and alignment of bearings.

DRIVE — Drive assembly shall be constructed of heavy-gauge galvanized steel. Drives shall be sized for a minimum of 150% of driven horsepower. Machined, cast iron motor sheaves shall be adjustable for final system balance.

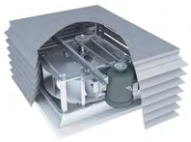
MOTOR — Motors shall be heavy-duty ball bearing type, closely matched to the fan load. All single-phase ODP motors shall contain thermal overload protection. All motors shall be UL and /or CSA recognized. Motor adjustment shall allow precise belt tensioning for optimum belt life and one-person adjustment and servicing.

DISCONNECT SWITCH — A NEMA 1 disconnect switch shall be supplied with wiring leading from the motor to the junction box (ODP and TEFC motors).

ACCESSORIES — When specified, accessories such as backdraft damper, roof curb, curb hinge, retaining chain, security hasp, NEMA 3R and NEMA 4 disconnect switch, 2-speed switch, firestat, aluminum bird screen, aluminum insect screen, and special coatings shall be provided by Twin City Fan & Blower to maintain one source responsibility.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each wheel shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical, and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its roof mounted centrifugal exhaust fans for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.



Model

BCLP

Roof exhaust fans shall be of the belt driven centrifugal type, Model BCLP (Penthouse), as manufactured by Twin City Fan & Blower, Minneapolis, Minnesota.

PERFORMANCE — Fans shall be tested in accordance with AMCA test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels. Models shall be cULus 705 listed.

CONSTRUCTION — Model BCLP shall be constructed of a heavy-duty extruded aluminum louvered enclosure with mitered and welded corners. Louvered enclosures shall have an easily removable aluminum top cover for ease of access to internal components. Units shall have a deep formed inlet venturi to prevent snow and rain entry into the building. The fan base shall include prepunched mounting holes for ease of installation and shall provide protection from weather. Fans shall bear a permanently attached nameplate displaying model and serial number of the unit for future identification.

MOTOR AND DRIVE ASSEMBLY — Motor and drive assembly shall be mounted on vibration isolators to eliminate vibration and noise transmission into the ductwork.

WHEEL — Fan wheels shall be of the centrifugal backward inclined type, containing a matching inlet venturi for optimum unit performance. Wheels shall be statically and dynamically balanced.

SHAFT — Fan shafts shall be precision-ground and polished. Shafts shall have a first critical speed of at least 125% of the fan's maximum operating speed.

BEARINGS — Bearings shall be of the one-piece, pillow block type with relubricable zerk fittings. Bearings shall be designed for air handling service with a minimum L-10 life in excess of 100,000 hours; L-50 500,000 hours at the maximum cataloged operating speed. Bearing mounting plate shall have self-aligning tabs for exact locating and alignment of bearings.

DRIVE — Drive assembly shall be constructed of heavy-gauge galvanized steel. Drives shall be sized for a minimum of 150% of driven horsepower. Machined, cast iron motor sheaves shall be adjustable for final system balance.

MOTOR — Motors shall be heavy-duty ball bearing type, closely matched to the fan load. All single-phase ODP motors shall contain thermal overload protection. All motors shall be UL and /or CSA recognized. Motor adjustment shall allow precise belt tensioning for optimum belt life and one-person adjustment and servicing.

DISCONNECT SWITCH — A NEMA 1 disconnect switch shall be supplied with wiring leading from the motor to the junction box (ODP and TEFC motors).

ACCESSORIES — When specified, accessories such as backdraft damper, roof curb, curb hinge, retaining chain, security hasp, NEMA 3R and NEMA 4 disconnect switch, 2-speed switch, firestat, aluminum bird screen, aluminum insect screen, and special coatings shall be provided by Twin City Fan & Blower to maintain one source responsibility.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each wheel shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical, and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

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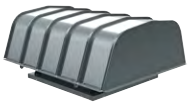

Model

DCLH

Roof exhaust fans shall be of the direct drive centrifugal type, Model DCLH (Hooded), as manufactured by Twin City Fan & Blower, Minneapolis, Minnesota.

PERFORMANCE — Fans shall be tested in accordance with AMCA test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels. Models shall be cULus 705 listed.

CONSTRUCTION — Model DCLH shall be constructed of hoods with interlocking galvanized steel panels for durability and appearance. Hoods shall be hinged as standard to allow for ease of access to internal components. Units shall have a deep formed inlet venturi to prevent snow and rain entry into the building. The fan base shall include prepunched mounting holes for ease of installation and shall provide protection from weather. Fans shall bear a permanently attached nameplate displaying model and serial number of the unit for future identification.

MOTOR ASSEMBLY — Motor assembly shall be mounted on vibration isolators to eliminate vibration and noise transmission into the ductwork.

WHEEL — Fan wheels shall be of the centrifugal backward inclined type, containing a matching inlet venturi for optimum unit performance. Wheels shall be statically and dynamically balanced.

MOTOR — Motors shall be heavy-duty ball bearing type, closely matched to the fan load. All single-phase ODP motors shall contain thermal overload protection. All motors shall be UL and /or CSA recognized. Motors for use with speed control shall provide good speed controllability without any objectionable noise.

DISCONNECT SWITCH — A NEMA 1 disconnect switch shall be supplied with wiring leading from the motor to the junction box (ODP and TEFC motors).

ACCESSORIES — When specified, accessories such as backdraft damper, roof curb, curb hinge, retaining chain, security hasp, variable speed controller, NEMA 3R, 4 disconnect switch, 2-speed switch, firestat, aluminum bird screen, aluminum insect screen, and special coatings shall be provided by Twin City Fan & Blower to maintain one source responsibility.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each wheel shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical, and horizontal directions. Records shall be maintained and a written copy shall be available upon request.

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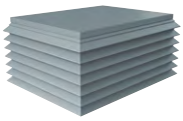

Model

DCLP

Roof exhaust fans shall be of the direct drive centrifugal type, Model DCLP (Penthouse), as manufactured by Twin City Fan & Blower, Minneapolis, Minnesota.

PERFORMANCE — Fans shall be tested in accordance with AMCA test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels. Models shall be cULus 705 listed.

CONSTRUCTION — Model DCLP shall be constructed of a heavy-duty extruded aluminum louvered enclosure with mitered and welded corners. Louvered enclosures shall have an easily removable aluminum top cover for ease of access to internal components. Units shall have a deep formed inlet venturi to prevent snow and rain entry into the building. The fan base shall include prepunched mounting holes for ease of installation and shall provide protection from weather. Fans shall bear a permanently attached nameplate displaying model and serial number of the unit for future identification.

MOTOR ASSEMBLY — Motor assembly shall be mounted on vibration isolators to eliminate vibration and noise transmission into the ductwork.

WHEEL — Fan wheels shall be of the centrifugal backward inclined type, containing a matching inlet venturi for optimum unit performance. Wheels shall be statically and dynamically balanced.

MOTOR — Motors shall be heavy-duty ball bearing type, closely matched to the fan load. All single-phase ODP motors shall contain thermal overload protection. All motors shall be UL and /or CSA recognized. Motors for use with speed control shall provide good speed controllability without any objectionable noise.

DISCONNECT SWITCH — A NEMA 1 disconnect switch shall be supplied with wiring leading from the motor to the junction box (ODP and TEFC motors).

ACCESSORIES — When specified, accessories such as backdraft damper, roof curb, curb hinge, retaining chain, security hasp, variable speed controller, NEMA 3R, 4 disconnect switch, 2-speed switch, firestat, aluminum bird screen, aluminum insect screen, and special coatings shall be provided by Twin City Fan & Blower to maintain one source responsibility.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each wheel shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical, and horizontal directions. Records shall be maintained and a written copy shall be available upon request.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its roof mounted centrifugal exhaust fans for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.

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