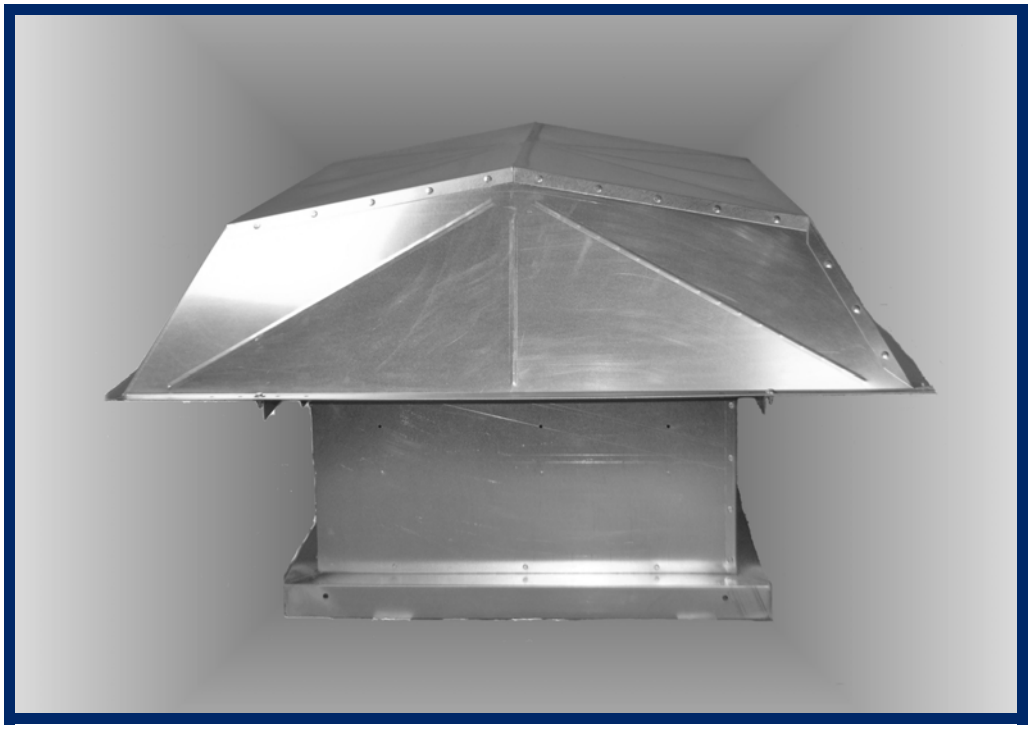
Type P-
Hooded
Power Roof
Ventilators



AMERICAN Coolair®

Type P PRVs

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Application

General ventilation power roof ventilators designed to move large volumes of air quietly, efficiently and dependably.

They are suggested for use in commercial and industrial applications including factories, warehouses and large commercial buildings.

These rugged PRVs are available in a broad range of CFMs and a variety of configurations.

There are types offering belt and direct driven propellers, exhaust, supply or reversible air movement, and filtered supply air.

Most hooded PRVs can be supplied less fan component for use as a gravity ventilator or as an air intake.

At a later date this unit can be converted to a power roof ventilator by simply installing the proper style American Coolair Type C fan.

Combinations of these various types can be used and still maintain a uniform and attractive rooftop appearance.

Use of the proper combination of hooded power roof ventilators assures an effective ventilation system at exceptionally low cost.

Hooded PRVs

Construction

Years of experience have gone into the design and construction of American Coolair power roof ventilators.

MATERIALS: The hood and PE, PS base are made of galvanized steel for rigidity, long life and years of protection against corrosion. A finish coat of epoxy can be specified.

The curb cap and support system is of heavy gauge steel for strength and rigidity.

Fan unit materials are described in the Fan Components section.

Painted parts are coated with epoxy to provide a protective coating rated excellent for hardness, impact resistance, adhesion and chemical resistance. For protective coating options see Accessories section.

METHODS: Fan unit construction methods are described in the Fan Components section.

The hood can be pivoted for rooftop access to the fan components.

All units except Types PB and PD have a large removable panel for access to the fan and backdraft damper.

Parts requiring painting are processed through the advanced American Coolair multi-stage pretreatment system prior to the application of any coatings to ensure maximum finish adhesion. These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400°F to a smooth, hard, continuous finish.

Drive Mechanism

BELT DRIVE: Available in sizes from 24 inch to 84 inch. Belt driven models are designed for quieter operation and lower initial cost. They use standardly available 1750 RPM motors.

DIRECT DRIVE: Available in sizes from 10 inch to 60 inch. Direct driven models require less maintenance, offer longer operating life, increased efficiency and reduced operating cost.

VARIABLE PITCH PULLEYS: Nearly all belt driven models are equipped with a variable pitch motor pulley which allows fan speed adjustment where desirable. The settings made at the factory allow the fan to operate within the maximum safe capabilities of the motor. The pulley may be opened to reduce fan speed and thus decrease air flow.

If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustment.

Bearings

See fan component section for bearing information.

Motors

The American Coolair air-over-motor design provides extra capacity and economy because it serves to dissipate heat and thus increase horsepower capability. Totally enclosed motors are standard. Several alternatives, such as explosion proof motors, energy efficient motors and severe duty motors, are available to fit your specific needs.

Only nationally recognized brand motors with nationwide service facilities are used.

Listings

c UL US LISTED

UL705 – E39944

Type P, PE, PS, RP, PEUD and PSUD ventilators are listed by Underwriters Laboratory, Inc. to U.S. and Canadian safety standards.

Certified ratings licensed by AMCA (Air Movement and Control Association International, Inc.), for both air and sound performance, are available for Type P, PE and PS fans. These, along with dimensional drawings are included in this form.

Additional Information Available

Octave band sound power levels are available for use by the acoustical engineer in predicting on-the-job sound levels.

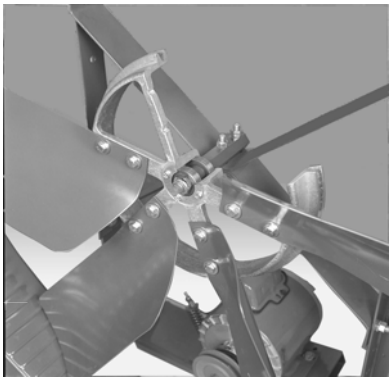
American Coolair will provide installation instructions and maintenance information at your request, as well as information on any air movement need you may have. Simply contact your American Coolair representative.

American Coolair wishes to provide you with every assistance in determining your air movement requirements.

Fan Components

All hooded PRVs incorporate American Coolair fan components. These fans are available in a large selection of CFMs and pressures. They are rugged and dependable. All blade assemblies are dynamically balanced.

Style 'H'



Style 'H' (belt drive)

These fan components utilize an additional cross-frame to support American Coolair's unique bearing and shaft assembly. (See assembly cutaway above.) Power is applied directly to the fan/hub assembly in the same plane as the bearings. This reduces bearing load and dramatically increases fan life. Bearings are permanently lubricated and sealed.

The six die-formed steel propeller blades are securely attached to the hub to form a strong, rigid propeller assembly.

The motor pulley can be opened to reduce fan speed and thus decrease air flow on most models. If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustment.

Style 'HX' (belt drive)

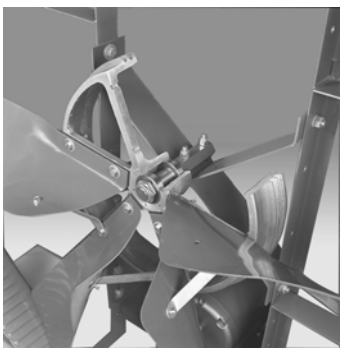
Similar to the Style 'H' components, the Style 'HX' fan utilizes a cross-frame to support American Coolair's unique bearing and shaft assembly. This stationary shaft mounts on the cross-frame member and the power is applied directly to the heavy-duty cast aluminum hub through a dual belt configuration. (See assembly cutaway below.)

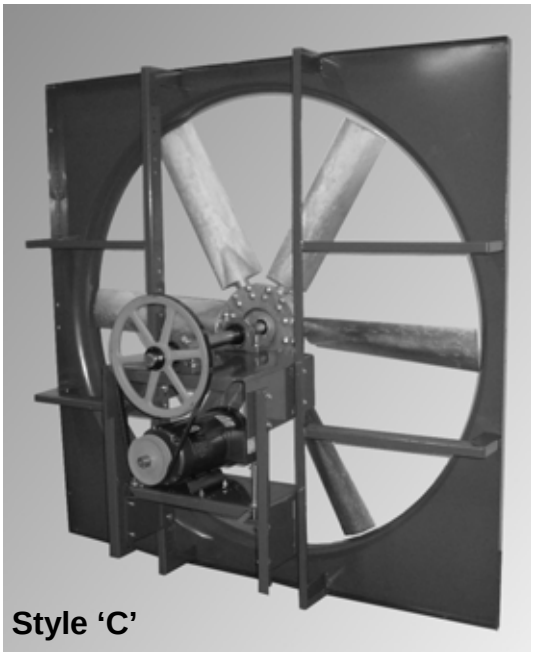
Bearings are permanently lubricated and sealed.

The six die-formed steel propeller blades are securely attached to the hub to form a strong, rigid propeller assembly.

If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustments.

Style 'HX'





Style 'C'

Style C (belt drive)

The structure for Style 'C' fan components is formed by American Coolair's Type 'C' panel and rugged angle frame. The steel shaft is supported by two pillow-block ball bearings attached to this frame.

Cast aluminum adjustable pitch airfoil blades are securely attached to a heavy cast aluminum hub. Blade pitch is set for catalog performance.

The blade pitch should not be adjusted without first contacting your American Coolair representative.

Style 'C' fan components incorporate specifically engineered airfoil sections and hub sizes for optimum efficiency and physical strength.

The motor pulley can be opened to reduce fan speed and thus decrease air flow on all models. If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustment.

Style C (direct drive)

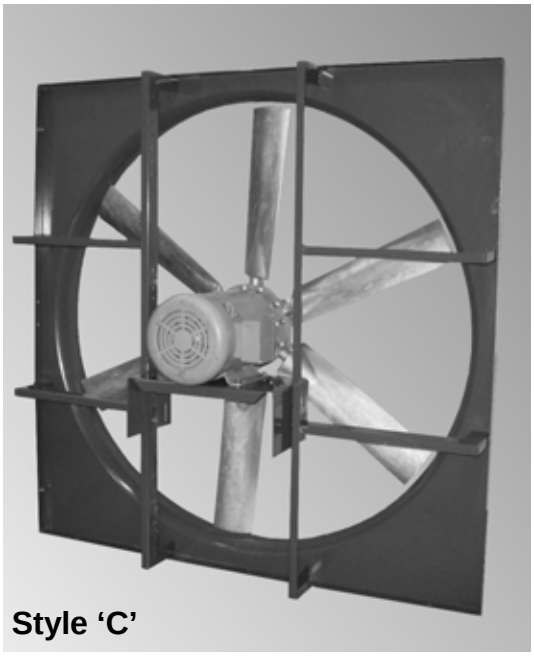
The structure for Style 'C' fan components is formed by American Coolair's Type 'C' panel and rugged angle frame.

The propeller assembly is connected directly to the motor shaft. There are no bearings or belts to require maintenance.

From 3 to 6 cast aluminum adjustable pitch airfoil blades are securely attached to a heavy cast aluminum hub. Blade pitch is set for catalog performance.

Style 'C' fan components incorporate specifically engineered airfoil sections and hub size for optimum efficiency and physical strength.

The blade pitch should not be adjusted without first contacting your American Coolair representative.



Style 'C'

Style 'U'

Style U (direct drive)

The structure for Style 'U' fan components is formed by American Coolair's Type 'UD' steel panel and rigid angle steel upright supports.

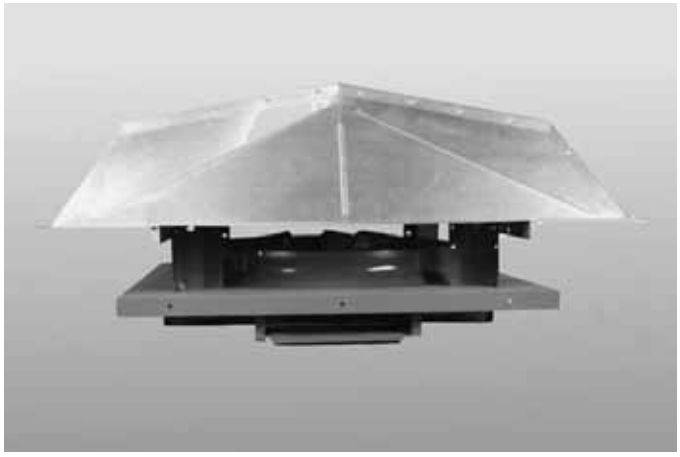
A formed orifice fan panel and unique blade design provide a super-quiet, efficient propeller fan.

The Type 'U' propeller assembly utilizes three formed steel blades for optimum efficient operation. Blades are statically and dynamically balanced.

The steel propeller assembly is connected directly to the motor shaft. There are no bearings or belts to require maintenance. Most motors are permanently lubricated.

Type PB

EXHAUST — BELT DRIVE — 2,900 to 85,500 CFM
0" to $^3/_4$" STATIC PRESSURE

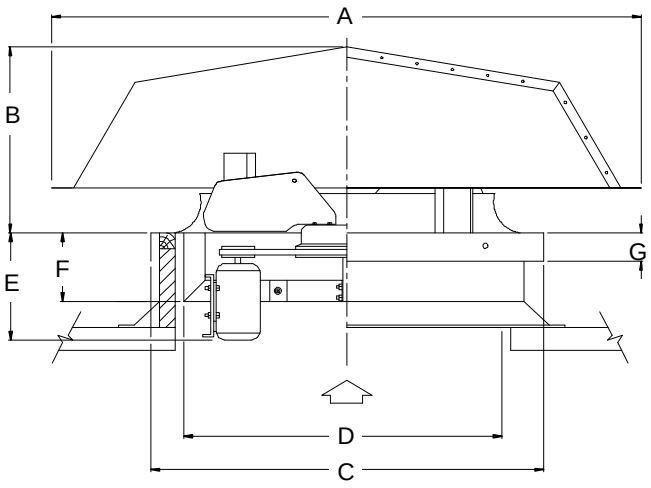


Application and Features

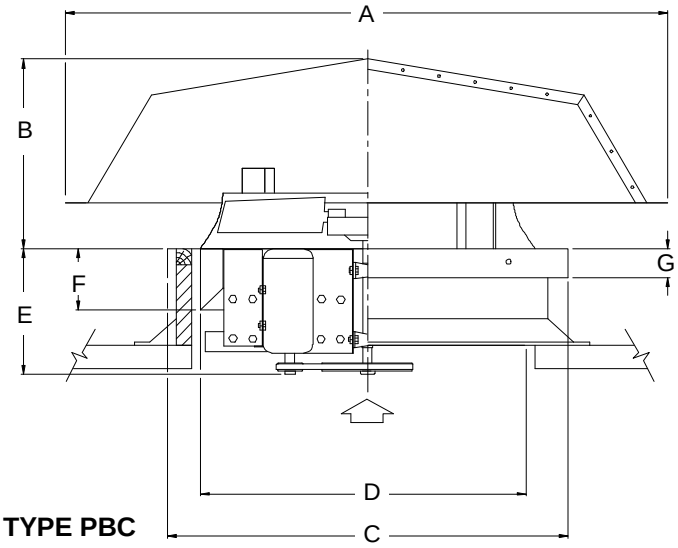
Type PB PRVs are designed to be economical, low-profile roof exhausters.

The pleasing appearance of its low profile is accomplished by recessing the fan unit into the curb opening. Consequently, a mounting sleeve or higher-than-standard curb may be required for clearance between fan motor and damper when a backdraft damper is used.

Type PB PRVs incorporate Style H fan components for models in the 24 inch to 54 inch sizes, Style HX components for models in the 48 inch to 60 inch sizes and Style C components for models in the 24 inch to 84 inch sizes. These fan styles are described in the *Fan Component* section on Pages 4-5.



TYPE PBH and PBHX



TYPE PBC

Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the inside curb minimum.

Dimension E is the maximum projection of the motor below top of curb for constant speed, 3-phase TEFC motor of maximum frame size for PRV size and style indicated. This dimension will vary with the type and HP of the motor actually selected.

Dimension F is the depth of the fan angle structure.

Dimension G is the curb cap flange.

Fan	Dimensions in Inches						
	A	B	C	D	E	F	G
H24	57	23 1/4	38	32	11 7/8	5 1/8	2
C24					18 1/4		
H30	57	23 1/4	44	38	16 3/4	5 1/8	2
C30					18 1/4		
H36	67	27	50	44	17	5 1/8	2
C36					19 1/2		
H42	78	28 3/4	56	50	17	5 1/8	2
C42					19 1/2		
H48	88	29 3/4	62	56	17	5 1/8	2
HX48					20 1/4	6 5/8	
C48					24 1/2	6 5/8	
H54	98	35 1/4	68	60	17	5 1/8	2
HX54					20 1/4	6 5/8	
C54					24 1/2	6 5/8	
HX60	109	42 1/4	77	69	21 1/4	7 5/8	3
C60					25 1/2		
72	127 7/8	28 7/8	89	81	26	12 3/8	3
84	139 1/2	37 5/8	101	93	26	12 3/8	3

Performance Ratings

American Coolair Corporation certifies that the Type PB PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Typical Specifications

Hooded exhaust power roof ventilators shall be American Coolair Type PBH, PBHX, and/or PBC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Curb cap and structural angle supports shall be of welded steel construction, hoods shall be of galvanized steel. (Insert additional specifications from below for specific style PRV.) PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

ADDITIONAL SPECIFICATIONS STYLE H and HX: Die-formed steel blades shall be firmly attached to cast aluminum hub, which also serves as driven sheave. Fan hub shall rotate on fixed shaft using oversized sealed ball bearings. Belt load shall be applied to hub in the same plane as bearings, eliminating overhung load on bearings and increasing bearing life. Motor pulleys shall be variable pitch.

ADDITIONAL SPECIFICATIONS STYLE C: Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of the heavy-duty pillow block type. Motor pulleys shall be variable pitch.

Item	Cubic Feet Per Minute (CFM) at Static Pressure[1,6]								Fan	Motor	Fan	Sone	Max	Approx.
No.	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Size[3]	HP	RPM	Rating[4]	BHP[5,6]	Ship Wt.
1	4,903	4,264	3,602	---	---	---	---	**PBH24H**		1/3	740	14.4	0.42	230
2	5,552	4,989	4,417	3,775	---	---	---	**PBH24J**		1/2	838	18.2	0.61	235
3	6,334	5,841	5,342	4,836	4,238	---	---	**PBH24K**		3/4	956	23	0.91	250
4	7,070	6,628	6,183	5,734	5,272	4,719	---	**PBH24L***		1	1067	28	1.26	255
5	7,540	7,127	6,710	6,289	5,866	5,410	4,823	**PBH24M***		1 1/2	1138	30	1.53	285
6	5,232	4,868	4,439	3,964	3,512	---	---	**PBC24J**	24	1/2	1144	17.3	0.61	307
7	5,973	5,659	5,305	4,905	4,488	4,091	---	**PBC24K**		3/4	1306	22	0.91	312
8	6,640	6,362	6,055	5,714	5,344	4,969	4,611	**PBC24L**		1	1452	25	1.25	317
9	7,358	7,109	6,840	6,547	6,228	5,892	5,553	**PBC24M**		1 1/2	1609	30	1.70	323
10	8,149	7,926	7,688	7,435	7,161	6,870	6,566	**PBC24N**		2	1782	35	2.23	336
11	9,425	9,233	9,033	8,823	8,602	8,368	8,121	**PBC24P**		3	2061	45	3.34	354
12	6,234	5,171	3,910	---	---	---	---	**PBH30H**		1/3	548	11.5	0.42	305
13	7,042	6,102	5,175	---	---	---	---	**PBH30J**		1/2	619	15.3	0.61	310
14	8,077	7,262	6,442	5,577	---	---	---	**PBH30K**		3/4	710	19.1	0.92	330
15	8,930	8,196	7,446	6,726	5,761	---	---	**PBH30L**		1	785	22	1.25	330
16	9,908	9,249	8,573	7,909	7,253	6,290	---	**PBH30M**		1 1/2	871	27	1.70	365
17	10,853	10,251	9,637	9,021	8,429	7,810	6,887	**PBH30N**		2	954	33	2.24	370
18	12,229	11,697	11,155	10,606	10,062	9,539	9,005	**PBH30P***	30	3	1075	42	3.20	395
19	8,113	7,446	6,636	5,873	5,174	---	---	**PBC30K**		3/4	957	19.0	0.91	341
20	8,986	8,395	7,693	6,958	6,301	5,670	---	**PBC30L**		1	1060	22	1.24	344
21	9,969	9,445	8,843	8,168	7,531	6,948	6,381	**PBC30M**		1 1/2	1176	26	1.70	351
22	10,936	10,463	9,935	9,338	8,725	8,158	7,630	**PBC30N**		2	1290	30	2.24	357
23	12,487	12,077	11,634	11,147	10,615	10,075	9,567	**PBC30P**		3	1473	37	3.33	381
24	14,895	14,555	14,197	13,817	13,410	12,974	12,520	**PBC30Q**		5	1757	51	5.58	394
25	7,937	6,334	4,551	---	---	---	---	**PBH36H**		1/3	450	9.6	0.42	375
26	8,925	7,505	6,027	---	---	---	---	**PBH36J**		1/2	506	12.1	0.61	380
27	10,230	8,988	7,718	6,418	---	---	---	**PBH36K**		3/4	580	15.8	0.91	385
28	11,342	10,217	9,100	7,919	6,654	---	---	**PBH36L**		1	643	18.9	1.25	390
29	12,541	11,521	10,520	9,467	8,416	7,179	---	**PBH36M**		1 1/2	711	22	1.69	440
30	13,811	12,882	11,974	11,048	10,072	9,128	8,002	**PBH36N**		2	783	26	2.25	445
31	15,734	14,916	14,114	13,317	12,496	11,637	10,799	**PBH36P**		3	892	32	3.34	470
32	18,803	18,117	17,440	16,771	16,106	15,430	14,729	**PBH36Q***	36	5	1066	44	5.62	487
33	10,288	9,313	8,272	7,335	6,275	---	---	**PBC36L**		1	901	24	1.24	508
34	11,395	10,525	9,579	8,696	7,841	6,856	---	**PBC36M**		1 1/2	998	29	1.68	514
35	12,549	11,765	10,917	10,070	9,303	8,508	7,608	**PBC36N**		2	1099	33	2.25	520
36	14,284	13,602	12,877	12,115	11,383	10,711	10,034	**PBC36P**		3	1251	41	3.31	552
37	17,047	16,480	15,890	15,272	14,633	14,003	13,411	**PBC36Q**		5	1493	56	5.62	564
38	19,651	19,161	18,657	18,136	17,597	17,043	16,490	**PBC36R**		7 1/2	1721	72	8.49	621
39	21,649	21,206	20,752	20,286	19,806	19,314	18,811	**PBC36S**		10	1896	87	11.21	632

(chart continues next page)

Type PB Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure[1,6] 0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Fan Size[3]	Motor HP	Fan RPM	Sone Rating[4]	Max BHP[5,6]	Approx. Ship Wt.
40	11,431	9,069	---	---	---	---	---	**PBH42J**		1/2	387	9.1	0.61	465
41	13,026	10,942	9,088	---	---	---	---	**PBH42K**		3/4	441	13.8	0.91	470
42	14,444	12,595	10,812	9,036	---	---	---	**PBH42L**		1	489	16.7	1.26	495
43	16,039	14,409	12,676	11,239	9,403	---	---	**PBH42M**		1 1/2	543	20	1.70	525
44	17,545	16,078	14,443	13,071	11,693	---	---	**PBH42N**		2	594	23	2.24	530
45	20,026	18,763	17,349	15,973	14,816	13,628	12,150	**PBH42P**		3	678	28	3.34	575
46	23,925	22,885	21,761	20,548	19,381	18,371	17,426	**PBH42Q**	42	5	810	38	5.63	592
47	15,210	14,041	12,624	11,006	9,694	---	---	**PBC42M**		1 1/2	832	28	1.69	641
48	16,691	15,642	14,418	12,968	11,588	10,413	---	**PBC42N**		2	913	33	2.24	627
49	19,068	18,164	17,155	16,004	14,701	13,473	12,446	**PBC42P**		3	1043	42	3.34	658
50	22,706	21,958	21,154	20,279	19,317	18,258	17,144	**PBC42Q**		5	1242	55	5.60	672
51	26,399	25,762	25,090	24,379	23,620	22,806	21,933	**PBC42R**		7 1/2	1444	71	8.61	729
52	28,903	28,323	27,719	27,085	26,418	25,714	24,965	**PBC42S**		10	1581	84	11.15	740
53	15,440	12,728	9,775	---	---	---	---	**PBH48K**		3/4	354	13.3	0.91	580
54	17,054	14,639	11,885	---	---	---	---	**PBH48L**		1	391	16.0	1.24	585
55	18,929	16,778	14,319	11,999	---	---	---	**PBH48M**		1 1/2	434	19.4	1.69	635
56	20,805	18,861	16,730	14,452	12,165	---	---	**PBH48N**		2	477	22	2.25	640
57	23,771	22,082	20,300	18,304	16,367	14,499	---	**PBH48P**		3	545	27	3.35	680
58	28,220	26,807	25,345	23,813	22,133	20,405	18,903	**PBH48Q**		5	647	36	5.60	697
59	32,580	31,535	30,377	29,064	27,631	26,259	25,035	**PBHX48R***	48	7 1/2	751	55	8.59	825
60	35,574	34,623	33,591	32,452	31,185	29,868	28,625	**PBHX48S***		10	820	65	11.18	836
61	20,393	18,672	17,049	15,121	12,830	10,216	---	**PBC48N**		2	724	31	2.24	701
62	23,322	21,800	20,377	18,916	17,146	15,160	12,874	**PBC48P**		3	828	38	3.35	743
63	27,688	26,392	25,162	23,977	22,754	21,363	19,759	**PBC48Q**		5	983	51	5.60	760
64	31,913	30,782	29,694	28,647	27,620	26,570	25,433	**PBC48R**		7 1/2	1133	66	8.54	840
65	35,012	33,976	32,975	32,006	31,064	30,127	29,168	**PBC48S**		10	1243	78	11.17	900
66	19,337	16,123	12,532	---	---	---	---	**PBH54L**		1	375	17.3	1.24	954
67	21,400	18,376	15,547	---	---	---	---	**PBH54M**		1 1/2	415	21	1.70	958
68	23,514	20,642	18,355	15,095	---	---	---	**PBH54N**		2	456	24	2.25	964
69	26,866	24,193	22,266	19,955	16,997	---	---	**PBH54P**		3	521	30	3.36	989
70	32,107	30,140	27,954	25,592	23,249	21,056	---	**PBHX54Q**		5	549	34	5.59	1114
71	36,961	35,274	33,450	31,475	29,411	27,362	25,421	**PBHX54R**	54	7 1/2	632	42	8.53	1166
72	39,885	38,330	36,669	34,886	33,002	31,081	29,198	**PBHX54S***		10	682	48	10.72	1175
73	23,961	21,709	18,954	---	---	---	---	**PBC54N**		2	573	29	2.23	920
74	27,474	25,557	23,312	20,760	---	---	---	**PBC54P**		3	657	37	3.37	940
75	32,492	30,905	29,138	27,150	24,993	22,621	---	**PBC54Q**		5	777	49	5.57	975
76	37,468	36,108	34,641	33,038	31,289	29,432	27,468	**PBC54R**		7 1/2	896	63	8.54	1040
77	41,023	39,788	38,475	37,066	35,544	33,916	32,213	**PBC54S**		10	981	74	11.21	1075

(chart continues next page)

Type PB Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure[1,6] 0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Fan Size[3]	Motor HP	Fan RPM	Sone Rating[4]	Max BHP[5,6]	Approx. Ship Wt.
78	24,174	20,231	---	---	---	---	---	**PBHX60M**		1 1/2	321	14.5	1.68	1296
79	26,659	23,533	---	---	---	---	---	**PBHX60N**		2	354	17.5	2.24	1302
80	30,349	27,908	23,570	19,938	---	---	---	**PBHX60P**		3	403	22	3.34	1327
81	35,997	34,097	31,069	27,418	---	---	---	**PBHX60Q**		5	478	30	5.57	1339
82	41,494	39,912	37,840	34,526	31,572	29,110	---	**PBHX60R**		7 1/2	551	38	8.53	1391
83	45,485	44,068	42,337	39,880	36,597	34,182	31,930	**PBHX60S**	60	10	604	45	11.24	1404
84	26,116	22,283	19,402	14,451	---	---	---	**PBC60N**		2	545	29	2.24	1140
85	29,854	26,650	23,541	21,203	16,051	---	---	**PBC60P**		3	623	36	3.35	1165
86	35,221	32,686	29,527	27,364	25,422	21,885	---	**PBC60Q**		5	735	47	5.50	1175
87	40,588	38,470	35,791	33,269	31,508	29,864	27,685	**PBC60R**		7 1/2	847	59	8.42	1250
88	44,613	42,721	40,435	37,871	35,914	34,387	32,892	**PBC60S**		10	931	70	11.19	1280
89	32,432	24,996	17,360	---	---	---	---	**PBC72N**		2	309	18.9	2.30	1560
90	37,051	31,027	23,247	--	---	---	---	**PBC72P**		3	353	24	3.44	1578
91	43,873	39,397	32,737	26,483	---	---	---	**PBC72Q**		5	418	31	5.72	1592
92	50,276	46,615	41,112	35,441	30,089	26,057	---	**PBC72R**	72	7.5	479	38	8.60	1643
93	55,314	52,085	47,595	42,170	37,025	32,522	28,885	**PBC72S***		10	527	44	11.46	1671
94	63,291	60,553	57,157	52,594	47,933	43,484	39,073	**PBC72T***		15	603	56	17.18	1735
95	69,588	67,138	64,255	60,581	56,159	52,050	48,000	**PBC72U***		20	663	68	22.82	1765
96	39,659	28,137	---	---	---	---	---	**PBC84N**		2	239	16.0	2.28	2028
97	45,467	35,816	25,427	---	---	---	---	**PBC84P**		3	274	20	3.44	2049
98	53,763	46,528	36,519	28,663	---	---	---	**PBC84Q**		5	324	27	5.71	2072
99	61,562	55,800	47,081	38,612	32,386	---	---	**PBC84R**	84	7.5	371	35	8.58	2123
100	67,868	62,865	55,321	47,595	40,383	34,838	---	**PBC84S**		10	409	41	11.49	2151
101	77,658	73,462	67,804	60,612	53,965	47,417	42,663	**PBC84T***		15	468	49	17.22	2217
102	85,457	81,721	77,065	70,809	64,480	58,389	52,454	**PBC84U***		20	515	57	22.96	2247

1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).

2 — The first three or four letters of the model number identify **fan type, drive configuration** and **style.** The next two numbers indicate **fan size,** the next letter identifies motor **horsepower.** Example: Model PBH24H is Type 'P,' belt drive, Style 'H,' 24" size, 1/3 HP.

3 — On Style 'H' & 'HX,' die-formed steel blades are standard. On Style 'C,' an adjustable pitch propeller with cast aluminum airfoil blades is standard.

4 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.

5 — Maximum brake horsepower (BHP) within the catalog performance range. Power ratings (BHP) do not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.

6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m^3/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

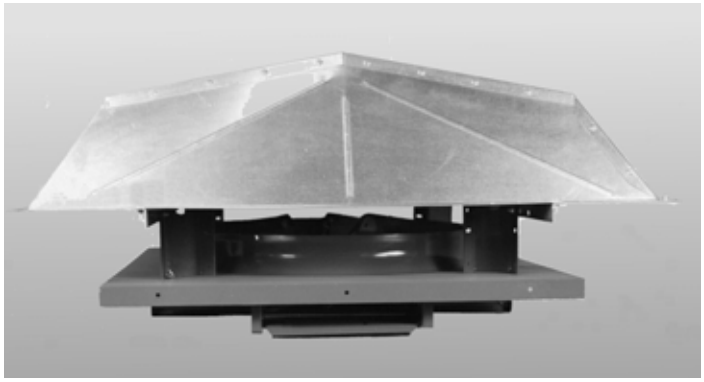
Example: 3904 CFM x .000472 = 1.8427 m^3/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

*These models have fixed pitch motor pulleys.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type PDC

EXHAUST — DIRECT DRIVE — 2,600 to 39,000 CFM
0" to $^{3}/_{4}$" STATIC PRESSURE

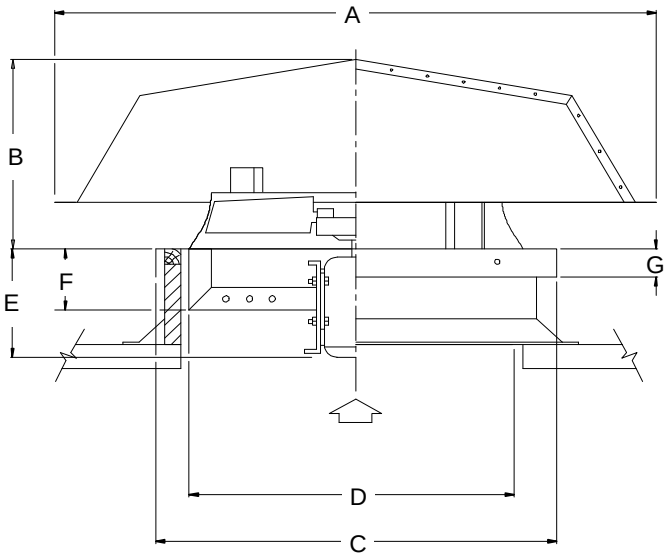


Application and Features

Type PDC PRVs are designed to be economical, low-profile roof exhausters.

The pleasing appearance of its low profile is accomplished by recessing the fan unit into the curb opening. Consequently a mounting sleeve or higher-than-standard curb may be required for clearance between the fan motor and damper when backdraft damper is used. Type PD PRVs incorporate Style 'C' fan components.

This fan style is described in the *Fan Component* section on Pages 4-5.



	Dimensions in Inches						
Fan Size	**A**	**B**	**C**	**D**	**E**	**F**	**G**
24	57	23 1/4	38	32	12 3/8	5 1/8	2
30	57	23 1/4	44	38	13 3/4	5 1/8	2
36	67	27	50	44	15 1/4	5 1/8	2
42	78	28 3/4	56	50	15 1/4	5 1/8	2
48	88	29 3/4	62	56	19 3/8	6 5/8	2
54	98	35 1/4	68	62	19 3/4	6 5/8	2
60	109	42 1/4	77	69	20 3/4	7 5/8	3

Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the inside curb minimum.

Dimension E is the maximum projection of the motor below top of curb for constant speed, 3-phase TEFC motor of maximum frame size for PRV size and style indicated. This dimension will vary with the type and HP of the motor actually selected.

Dimension F is the depth of the fan angle structure.

Dimension G is the curb cap flange.

Performance Ratings

American Coolair Corporation certifies that the Type PDC PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Typical Specifications

Hooded exhaust power roof ventilators shall be American Coolair Type PDC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Curb cap and structural angle supports shall be of welded steel construction, hoods shall be of galvanized steel. Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Entire blade assembly shall be mounted directly to the motor shaft. PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

Item	Cubic Feet Per Minute (CFM) at Static Pressure[1,6]								Fan	Motor	Fan	Sone	Max	Blade Desc.[5]		Approx.
No.	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Size	HP	RPM	Rating[3]	BHP[4,6]	No.	Pitch	Ship Wt.
1	3,981	3,541	2,937	---	---	---	---	**PDC24G8**		1/4	870	14.0	0.28	6	18.5°	308
2	4,667	4,239	3,739	3,024	---	---	---	**PDC24H11**		1/3	1160	19.8	0.37	3	15.5°	293
3	5,402	5,058	4,602	3,961	---	---	---	**PDC24J11**		1/2	1160	27	0.58	4	20.5°	303
4	6,306	5,953	5,557	5,048	4,151	---	---	**PDC24K11**		3/4	1160	27	0.85	4	27°	321
5	5,914	5,622	5,317	4,973	4,564	4,073	3,488	**PDC24K17**	24	3/4	1750	38	0.84	3	11°	293
6	6,695	6,404	6,098	5,785	5,445	5,047	4,553	**PDC24L17**		1	1750	38	1.13	3	14°	293
7	7,833	7,577	7,310	7,029	6,724	6,383	5,992	**PDC24M17**		1 1/2	1750	40	1.70	3	19.5°	318
8	8,935	8,681	8,417	8,141	7,847	7,529	7,174	**PDC24N17**		2	1750	46	2.27	3	26.5°	323
9	10,176	9,929	9,674	9,409	9,131	8,840	8,529	**PDC24P17**		3	1750	51	3.38	4	30.5°	349
10	6,714	6,085	5,289	3,998	---	---	---	**PDC30J8**		1/2	870	18.5	0.57	4	18.5°	425
11	7,753	7,241	6,643	5,883	4,606	---	---	**PDC30K8**		3/4	870	19.0	0.85	6	19°	446
12	8,677	8,199	7,644	6,953	5,979	---	---	**PDC30L11**		1	1160	25	1.14	3	19.5°	436
13	9,759	9,332	8,853	8,298	7,615	6,681	5,173	**PDC30M11**	30	1 1/2	1160	29	1.70	4	22°	463
14	10,857	10,494	10,097	9,656	9,161	8,594	7,906	**PDC30N11**		2	1160	33	2.24	6	20.5°	484
15	10,470	10,148	9,805	9,434	9,021	8,544	7,971	**PDC30N17**		2	1750	46	2.25	3	12°	426
16	12,239	11,925	11,595	11,245	10,868	10,457	9,999	**PDC30P17**		3	1750	47	3.39	3	17°	458
17	14,683	14,378	14,057	13,716	13,350	12,954	12,520	**PDC30Q17**		5	1750	54	5.60	3	25.5°	474
18	8,530	7,779	6,797	5,207	---	---	---	**PDC36K8**		3/4	870	26	0.84	3	15°	506
19	9,112	8,527	7,852	7,034	6,003	4,573	---	**PDC36L8**		1	870	29	1.14	6	11°	533
20	10,792	10,228	9,575	8,779	7,737	6,193	---	**PDC36M8**		1 1/2	870	31	1.72	6	17°	544
21	12,052	11,448	10,763	9,957	8,934	7,434	5,091	**PDC36N8**		2	870	34	2.27	6	22.5°	590
22	10,545	9,991	9,360	8,604	7,661	6,443	---	**PDC36M11**		1 1/2	1160	39	1.70	3	12.5°	530
23	11,905	11,384	10,783	10,078	9,232	8,139	6,378	**PDC36N11**	36	2	1160	40	2.28	3	17.5°	544
24	13,517	13,098	12,645	12,147	11,595	10,971	10,251	**PDC36P11**		3	1160	56	3.44	6	14.5°	586
25	16,320	15,869	15,386	14,864	14,296	13,669	12,961	**PDC36Q11**		5	1160	65	5.61	6	23.5°	610
26	15,084	14,740	14,381	14,003	13,602	13,166	12,688	**PDC36Q17**		5	1750	103	5.56	3	10.5°	540
27	17,939	17,608	17,262	16,901	16,522	16,122	15,695	**PDC36R17**		7 1/2	1750	106	8.52	3	16.5°	582
28	19,838	19,514	19,178	18,831	18,472	18,100	17,709	**PDC36S17**		10	1750	109	11.40	3	21°	602
29	12,001	10,986	9,735	7,705	---	---	---	**PDC42L6**		1	680	22	1.15	4	15°	575
30	13,735	12,863	11,772	10,270	7,947	---	---	**PDC42M6**		1 1/2	680	25	1.69	6	16°	621
31	15,309	14,482	13,521	12,189	9,356	---	---	**PDC42N6**		2	680	27	2.30	6	21.5°	641
32	11,600	10,571	9,379	7,784	---	---	---	**PDC42L8**		1	870	27	1.14	3	8°	562
33	13,417	12,563	11,612	10,486	8,977	---	---	**PDC42M8**		1 1/2	870	31	1.69	4	10°	575
34	14,954	14,175	13,305	12,279	10,967	8,926	---	**PDC42N8**	42	2	870	34	2.25	4	14°	615
35	17,385	16,723	15,983	15,132	14,124	12,878	11,242	**PDC42P8**		3	870	37	3.42	6	15.5°	641
36	14,376	13,648	12,858	11,967	10,884	9,411	7,436	**PDC42N11**		2	1160	43	2.29	3	6°	569
37	17,141	16,435	15,655	14,778	13,788	12,660	11,301	**PDC42P11**		3	1160	46	3.42	3	11°	612
38	20,725	20,043	19,318	18,539	17,685	16,729	15,608	**PDC42Q11**		5	1160	51	5.55	3	18.5°	641
39	22,481	21,998	21,502	20,991	20,464	19,916	19,343	**PDC42R17**		7 1/2	1750	93	8.57	3	7°	610
40	25,496	25,036	24,557	24,056	23,529	22,976	22,394	**PDC42S17**		10	1750	98	11.35	3	10.5°	631

(chart continues next page)

Type PDC Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure[1,6] 0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Fan Size	Motor HP	Fan RPM	Sone Rating[3]	Max BHP[4,6]	Blade Desc.[5] No.	Blade Desc.[5] Pitch	Approx. Ship Wt.
41	14,345	12,819	11,240	8,720	---	---	---	**PDC48L6**	48	1	680	29	1.14	4	5.5°	713
42	17,028	15,638	14,003	11,855	---	---	---	**PDC48M6**		1 1/2	680	28	1.70	4	11°	755
43	18,644	17,544	16,308	14,775	12,573	---	---	**PDC48N6**		2	680	34	2.27	6	10.5°	787
44	18,591	17,273	15,859	14,237	11,860	---	---	**PDC48N8**		2	870	51	2.30	3	8.5°	752
45	21,534	20,471	19,299	18,016	16,555	14,660	11,305	**PDC48P8**		3	870	43	3.45	4	10.5°	787
46	25,463	24,620	23,716	22,737	21,655	20,419	18,913	**PDC48Q8**		5	870	52	5.56	6	13°	828
47	29,683	28,857	27,990	27,063	26,043	24,899	23,600	**PDC48R8**		7 1/2	870	58	8.68	6	21°	857
48	25,221	24,262	23,252	22,198	21,093	19,894	18,498	**PDC48Q11**		5	1160	97	5.67	3	9°	775
49	30,106	29,205	28,262	27,273	26,221	25,077	23,787	**PDC48R11**		7 1/2	1160	99	8.40	3	15°	816
50	31,805	31,178	30,533	29,867	29,174	28,448	27,677	**PDC48S11**		10	1160	91	11.24	6	10.5°	857
51	19,538	17,882	15,952	---	---	---	---	**PDC54M6**	54	1 1/2	680	38	1.71	4	5.5°	964
52	21,682	19,979	17,954	15,567	---	---	---	**PDC54N6**		2	680	39	2.22	4	8.5°	984
53	25,260	23,798	22,096	20,166	17,833	---	---	**PDC54P8**		3	870	57	3.44	3	8°	979
54	29,801	28,586	27,281	25,806	24,053	22,013	19,561	**PDC54Q8**		5	870	65	5.61	4	11°	1035
55	34,664	33,744	32,744	31,636	30,400	29,032	27,552	**PDC54R8**		7 1/2	870	73	8.55	6	12.5°	1064
56	34,222	33,202	32,083	30,847	29,490	28,023	26,448	**PDC54R11**		7 1/2	1160	96	8.50	3	8.5°	1011
57	37,788	36,821	35,856	34,862	33,801	32,596	31,134	**PDC54S11**		10	1160	101	11.20	3	12.5°	1054
58	25,304	22,096	19,082	---	---	---	---	**PDC60N6**	60	2	680	41	2.27	3	6°	1430
59	34,247	32,278	29,844	27,035	24,465	21,049	---	**PDC60Q8**		5	870	65	5.57	3	8°	1471
60	39,274	38,000	36,664	35,209	33,601	31,822	29,852	**PDC60R8**		7 1/2	870	85	8.58	6	6°	1515

1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).

2 — The first three letters of the model number identify **fan type, drive configuration** and **style.** The next two numbers indicate **fan size,** the next letter identifies motor **horsepower,** the last number (or numbers) indicates **RPM** in hundreds**.** Example: Model PDC24G8 is Type 'P,' direct drive, Style 'C,' 24" size, 1/4 HP, 870 RPM.

3 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.

4 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.

5 — An adjustable pitch propeller with cast aluminum airfoil blades is standard.

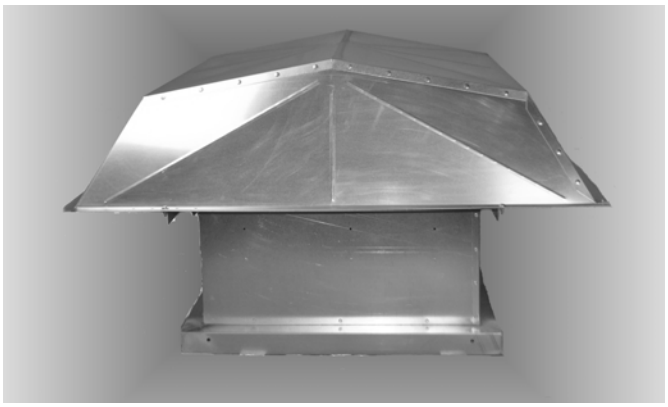
6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m^3/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m^3/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type PEB

EXHAUST — BELT DRIVE — 3,900 to 90,800 CFM
0" to $^{3}/_{4}$" STATIC PRESSURE



Application and Features

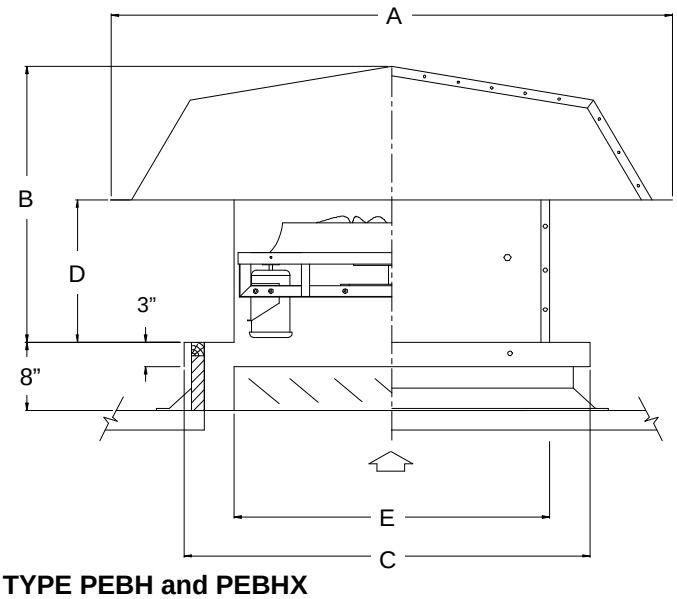
Type PEB exhaust power roof ventilators are designed for maximum efficiency, ease of damper installation and a uniform appearance for both exhaust and supply roof ventilators. They are compatible in appearance and design with the PS, PS-F, RP and P-UD units.

The fan unit is elevated above the roof curb, eliminating the possible damper clearance problem of the Type PB unit.

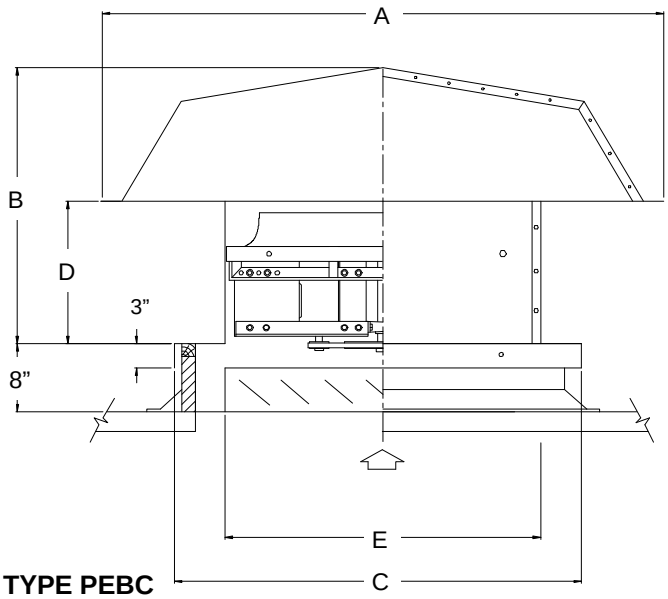
The backdraft damper should be mounted in the standard roof curb.

Type PEB PRVs incorporate Style 'H' fan components for models in the 24 inch to 54 inch size, Style 'HX' fan components for models in the 48 inch to 60 inch size and Style 'C' fan components for models in the 24 inch to 84 inch size. These fan styles are described in the *Fan Component* section on Pages 4-5.

The unit can also be specified less the fan component for use as a gravity ventilator.



TYPE PEBH and PEBHX



TYPE PEBC

Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

Fan	Dimensions in Inches				
	A	B	C	D	E
24	67	38 1/4	38	20 3/4	28 3/8
30	78	40	44	20 3/4	34 3/8
36	88	41	50	20 3/4	40 3/8
42	98	46 1/2	56	20 3/4	46 3/8
48	109	55 3/8	62	23 5/8	52 3/8
54	118	58 5/8	68	23 5/8	58 3/8
60	118	58 5/8	77	23 5/8	64 3/8
72	127 7/8	54	89	33 5/8	80 3/4
84	139 1/2	62 3/4	101	33 5/8	92 3/4

Performance Ratings

American Coolair Corporation certifies that the Type PEB PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Typical Specifications

Hooded exhaust power roof ventilators shall be American Coolair Type PEBH, PEBHX, and/or PEBC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. (Insert additional specifications from below for specific style PRV.) PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

ADDITIONAL SPECIFICATIONS STYLE H and HX: Die-formed steel blades shall be firmly attached to cast aluminum hub, which also serves as driven sheave. Fan hub shall rotate on fixed shaft using oversized sealed ball bearings. Belt load shall be applied to hub in the same plane as bearings, eliminating overhung load on bearings and increasing bearing life. Motor pulleys shall be variable pitch.

ADDITIONAL SPECIFICATIONS STYLE C: Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of the heavy-duty pillow block type. Motor pulleys shall be variable pitch.

Item	Cubic Feet Per Minute (CFM) at Static Pressure[1,6]								Fan	Motor	Fan	Sone	Max	Approx.
No.	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Size[3]	HP	RPM	Rating[4]	BHP[5,6]	Ship Wt.
1	5,023	4,380	3,748	3,028	---	---	---	**PEBH24H**		1/3	740	15.2	0.42	330
2	5,688	5,124	4,550	4,001	3,311	---	---	**PEBH24J**		1/2	838	19.5	0.61	335
3	6,496	6,005	5,498	5,010	4,524	3,928	---	**PEBH24K**		3/4	957	26	0.91	350
4	7,222	6,782	6,329	5,876	5,447	5,003	4,474	**PEBH24L***		1	1064	31	1.25	355
5	7,772	7,364	6,945	6,521	6,111	5,716	5,289	**PEBH24M***		1 1/2	1145	34	1.56	375
6	5,301	4,877	4,474	4,068	3,639	3,105	---	**PEBC24J**	24	1/2	1140	18.2	0.61	359
7	6,050	5,675	5,317	4,967	4,608	4,234	3,819	**PEBC24K**		3/4	1301	22	0.91	364
8	6,761	6,425	6,100	5,785	5,471	5,149	4,816	**PEBC24L**		1	1454	27	1.26	369
9	7,487	7,182	6,886	6,598	6,315	6,030	5,740	**PEBC24M**		1 1/2	1610	31	1.68	375
10	8,291	8,015	7,746	7,483	7,225	6,969	6,713	**PEBC24N**		2	1783	37	2.23	388
11	9,602	9,363	9,128	8,898	8,672	8,449	8,228	**PEBC24P**		3	2065	49	3.34	406
12	6,812	5,584	4,413	---	---	---	---	**PEBH30H**		1/3	540	12.2	0.41	420
13	7,783	6,681	5,548	4,679	---	---	---	**PEBH30J**		1/2	617	16.7	0.61	425
14	8,893	7,891	6,999	6,036	5,228	---	---	**PEBH30K**		3/4	705	21	0.91	445
15	9,877	8,947	8,180	7,236	6,522	5,664	---	**PEBH30L**		1	783	24	1.25	450
16	10,911	10,048	9,343	8,597	7,729	7,141	6,442	**PEBH30M**		1 1/2	865	30	1.69	480
17	11,971	11,168	10,504	9,872	9,106	8,364	7,843	**PEBH30N**		2	949	36	2.23	485
18	13,699	12,979	12,365	11,813	11,256	10,598	9,885	**PEBH30P***	30	3	1086	49	3.33	515
19	8,624	7,885	7,091	6,224	5,372	---	---	**PEBC30K**		3/4	953	19.8	0.91	491
20	9,574	8,912	8,214	7,459	6,679	5,904	---	**PEBC30L**		1	1058	23	1.25	494
21	10,569	9,973	9,350	8,694	7,988	7,289	6,591	**PEBC30M**		1 1/2	1168	27	1.68	501
22	11,610	11,069	10,509	9,926	9,310	8,661	8,027	**PEBC30N**		2	1283	31	2.23	507
23	13,311	12,841	12,359	11,863	11,351	10,817	10,256	**PEBC30P**		3	1471	40	3.32	531
24	16,017	15,628	15,232	14,828	14,417	13,998	13,568	**PEBC30Q**		5	1770	55	5.61	544
25	8,495	6,826	4,782	---	---	---	---	**PEBH36H**		1/3	451	9.3	0.42	487
26	9,569	8,128	6,407	---	---	---	---	**PEBH36J**		1/2	508	11.6	0.61	493
27	10,963	9,717	8,262	6,811	---	---	---	**PEBH36K**		3/4	582	15.1	0.91	498
28	12,149	11,028	9,825	8,408	---	---	---	**PEBH36L**		1	645	18.2	1.25	520
29	13,411	12,396	11,353	10,099	8,902	---	---	**PEBH36M**		1 1/2	712	21	1.68	550
30	14,749	13,826	12,894	11,867	10,660	9,626	---	**PEBH36N**		2	783	25	2.24	555
31	16,858	16,052	15,242	14,410	13,484	12,418	11,470	**PEBH36P**		3	895	31	3.34	585
32	20,023	19,345	18,664	17,980	17,282	16,540	15,701	**PEBH36Q***	36	5	1063	43	5.52	602
33	10,658	9,703	8,778	7,874	6,706	---	---	**PEBC36L**		1	897	23	1.25	658
34	11,763	10,896	10,050	9,231	8,380	7,239	---	**PEBC36M**		1 1/2	990	27	1.68	664
35	12,939	12,149	11,375	10,619	9,881	9,077	8,021	**PEBC36N**		2	1089	32	2.23	670
36	14,757	14,063	13,379	12,706	12,047	11,401	10,729	**PEBC36P**		3	1242	39	3.31	702
37	17,644	17,062	16,487	15,917	15,354	14,797	14,251	**PEBC36Q**		5	1485	52	5.60	714
38	20,460	19,958	19,459	18,965	18,474	17,987	17,505	**PEBC36R**		7 1/2	1722	68	8.52	771
39	22,539	22,083	21,630	21,179	20,732	20,287	19,845	**PEBC36S**		10	1897	82	11.19	783

(chart continues next page)

Type PEB Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure[1,6] 0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Fan Size[3]	Motor HP	Fan RPM	Sone Rating[4]	Max BHP[5,6]	Approx. Ship Wt.
40	12,089	9,713	7,383	---	---	---	---	**PEBH42J**		1/2	385	9.7	0.61	641
41	13,785	11,759	9,665	7,500	---	---	---	**PEBH42K**		3/4	439	12.6	0.91	646
42	15,230	13,453	11,465	9,638	---	---	---	**PEBH42L**		1	485	15.3	1.23	668
43	16,862	15,303	13,451	11,811	10,104	---	---	**PEBH42M**		1 1/2	537	18.4	1.67	697
44	18,558	17,171	15,506	13,926	12,449	10,867	---	**PEBH42N**		2	591	22	2.23	700
45	21,259	20,074	18,702	17,210	15,871	14,589	13,239	**PEBH42P**		3	677	26	3.35	730
46	25,152	24,170	23,087	21,875	20,607	19,435	18,347	**PEBH42Q**	42	5	801	34	5.53	747
47	15,611	14,161	12,756	11,350	9,783	---	---	**PEBC42M**		1 1/2	809	26	1.68	822
48	17,135	15,811	14,523	13,253	11,938	10,459	---	**PEBC42N**		2	888	30	2.23	808
49	19,566	18,403	17,265	16,147	15,035	13,890	12,639	**PEBC42P**		3	1014	39	3.32	839
50	23,387	22,410	21,448	20,502	19,566	18,636	17,704	**PEBC42Q**		5	1212	50	5.62	853
51	26,976	26,127	25,289	24,460	23,641	22,829	22,022	**PEBC42R**		7 1/2	1398	63	8.48	910
52	29,736	28,965	28,201	27,446	26,697	25,956	25,219	**PEBC42S**		10	1541	76	11.22	921
53	16,309	13,047	---	---	---	---	---	**PEBH48K**		3/4	352	12.2	0.91	840
54	18,116	15,210	12,153	---	---	---	---	**PEBH48L**		1	391	15.0	1.25	845
55	19,969	17,344	14,532	11,833	---	---	---	**PEBH48M**		1 1/2	431	18.0	1.68	902
56	21,962	19,579	17,079	14,593	---	---	---	**PEBH48N**		2	474	21	2.22	905
57	25,158	23,081	20,968	18,702	16,590	---	---	**PEBH48P**		3	543	26	3.35	950
58	29,931	28,187	26,432	24,634	22,723	20,865	19,156	**PEBH48Q**		5	646	34	5.64	968
59	33,831	32,406	31,057	29,771	28,499	27,179	25,749	**PEBHX48R***	48	7 1/2	736	46	8.16	1149
60	37,141	35,836	34,590	33,398	32,239	31,076	29,870	**PEBHX48S***		10	808	54	10.79	1160
61	20,842	19,062	16,718	14,525	12,363	---	---	**PEBC48N**		2	724	31	2.22	1115
62	23,923	22,431	20,526	18,461	16,585	14,728	12,651	**PEBC48P**		3	831	38	3.36	1143
63	28,385	27,166	25,735	24,025	22,275	20,657	19,112	**PEBC48Q**		5	986	51	5.61	1160
64	32,588	31,545	30,377	29,031	27,511	25,974	24,533	**PEBC48R**		7 1/2	1132	65	8.50	1215
65	35,783	34,842	33,812	32,663	31,364	29,956	28,559	**PEBC48S**		10	1243	77	11.23	1265
66	20,793	17,202	---	---	---	---	---	**PEBH54L**		1	371	15.0	1.25	1136
67	22,811	19,643	16,067	---	---	---	---	**PEBH54M**		1 1/2	407	17.7	1.65	1140
68	25,221	22,455	19,100	16,168	---	---	---	**PEBH54N**		2	450	21	2.23	1146
69	28,920	26,602	23,729	20,911	18,390	---	---	**PEBH54P**		3	516	26	3.35	1171
70	34,978	32,755	30,647	28,271	25,057	22,750	20,403	**PEBHX54Q**		5	544	33	5.54	1296
71	40,250	38,303	36,449	34,606	32,463	29,606	27,339	**PEBHX54R**	54	7 1/2	626	41	8.45	1348
72	43,851	42,057	40,336	38,664	36,906	34,751	32,089	**PEBHX54S***		10	682	49	10.91	1357
73	25,940	22,636	18,955	---	---	---	---	**PEBC54N**		2	574	28	2.23	1235
74	29,646	26,737	23,703	20,748	18,871	---	---	**PEBC54P**		3	656	35	3.33	1260
75	35,159	32,683	30,285	27,542	25,006	23,377	---	**PEBC54Q**		5	778	47	5.56	1290
76	40,446	38,280	36,192	34,071	31,605	29,289	27,716	**PEBC54R**		7 1/2	895	61	8.46	1350
77	44,423	42,445	40,527	38,637	36,628	34,294	32,223	**PEBC54S**		10	983	72	11.21	1380

(chart continues next page)

Type PEB Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure[1,6] 0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Fan Size[3]	Motor HP	Fan RPM	Sone Rating[4]	Max BHP[5,6]	Approx. Ship Wt.
78	25,154	21,231	---	---	---	---	---	**PEBHX60M**		1 1/2	320	16.4	1.65	1341
79	27,591	23,998	20,352	---	---	---	---	**PEBHX60N**		2	351	19.3	2.23	1347
80	31,522	28,343	25,239	22,093	---	---	---	**PEBHX60P**		3	401	25	3.34	1372
81	37,339	34,620	32,042	29,358	26,680	24,201	---	**PEBHX60Q**		5	475	33	5.57	1384
82	42,920	40,536	38,266	36,024	33,659	31,295	29,165	**PEBHX60R**		7 1/2	546	42	8.46	1436
83	47,243	45,067	42,982	40,952	38,888	36,711	34,567	**PEBHX60S**	60	10	601	50	11.20	1449
84	27,387	23,306	19,172	---	---	---	---	**PEBC60N**		2	545	28	2.24	1360
85	31,257	27,500	24,199	20,906	---	---	---	**PEBC60P**		3	622	35	3.33	1385
86	36,985	33,602	31,025	27,894	25,125	23,278	---	**PEBC60Q**		5	736	46	5.52	1415
87	42,614	39,539	37,181	34,953	32,083	29,511	27,827	**PEBC60R**		7 1/2	848	59	8.44	1475
88	46,835	43,961	41,705	39,704	37,561	34,780	32,502	**PEBC60S**		10	932	70	11.21	1510
89	34,440	27,475	20,343	---	---	---	---	**PEBC72N**		2	304	19.9	2.30	1732
90	39,425	33,429	27,009	21,416	---	---	---	**PEBC72P**		3	348	26	3.45	1754
91	46,675	41,602	36,317	30,984	26,140	---	---	**PEBC72Q**		5	412	34	5.71	1769
92	53,473	49,016	44,611	39,764	35,219	30,868	27,562	**PEBC72R**	72	7.5	472	40	8.60	1826
93	58,797	54,726	50,764	46,527	42,116	38,064	34,104	**PEBC72S**		10	519	46	11.43	1857
94	67,407	63,838	60,375	56,881	53,117	49,240	45,643	**PEBC72T***		15	595	60	17.24	1928
95	74,205	70,953	67,787	64,655	61,410	57,932	54,408	**PEBC72U***		20	655	75	22.99	1962
96	42,090	31,405	21,826	---	---	---	---	**PEBC84N**		2	235	16.3	2.27	2254
97	48,179	39,056	29,558	---	---	---	---	**PEBC84P**		3	269	21	3.42	2277
98	57,314	49,724	41,564	33,907	---	---	---	**PEBC84Q**		5	320	29	5.57	2302
99	65,553	58,890	52,054	44,923	38,315	33,314	---	**PEBC84R**	84	7.5	366	39	8.59	2352
100	72,180	66,100	60,084	53,465	47,283	41,387	36,939	**PEBC84S**		10	403	45	11.49	2390
101	82,568	77,221	72,029	66,569	60,733	55,321	49,993	**PEBC84T***		15	461	54	17.19	2463
102	90,807	85,928	81,196	76,412	71,244	65,957	61,068	**PEBC84U***		20	507	61	22.88	2497

1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).

2 — The first four or five letters of the model number identify **fan type, drive configuration** and **style.** The next two numbers indicate **fan size,** the next letter identifies motor **horsepower.** Example: Model PEBH24H is Type 'PE,' belt drive, Style 'H,' 24" size, 1/3 HP.

3 — On Style 'H' and 'HX,' die-formed steel blades are standard. On Style 'C,' an adjustable pitch propeller with cast aluminum airfoil blades is standard.

4 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.

5 — Maximum brake horsepower (BHP) within the catalog performance range. Power ratings (BHP) do not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.

6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m^3/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

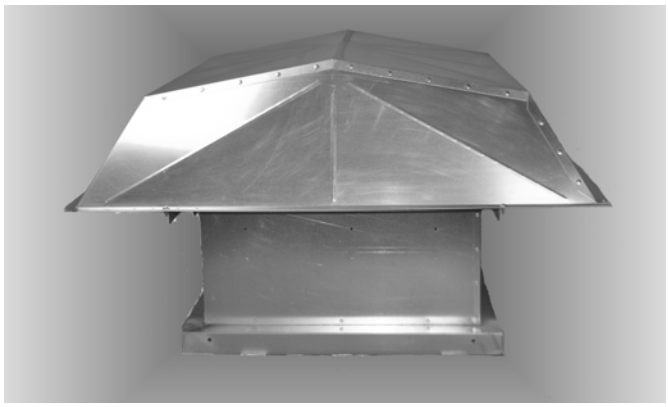
Example: 3904 CFM x .000472 = 1.8427 m^3/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

*These models have fixed pitch motor pulleys.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type PEDC

EXHAUST — DIRECT DRIVE — 2,900 to 40,400 CFM
0" to $^{3}/_{4}$" STATIC PRESSURE



Application and Features

Type PEDC exhaust power roof ventilators are designed for maximum efficiency, ease of damper installation and a uniform appearance for both exhaust and supply roof ventilators.

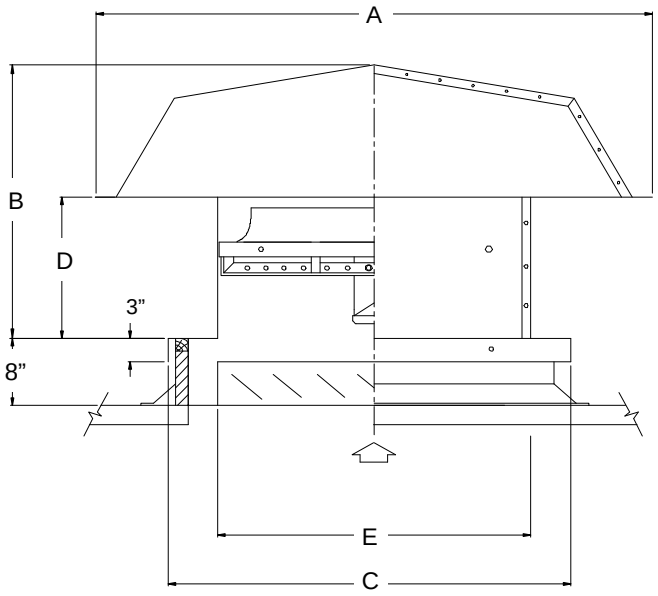
They are compatible in appearance and design with the PS, PSF, RP and PUD units.

The fan unit is elevated above the roof curb, eliminating the possible damper clearance problem of the Type PDC unit.

The backdraft damper should be mounted in the standard roof curb.

Type PEDC PRVs incorporate Style 'C' fan components. This fan style is described in the *Fan Component* section on Pages 4-5.

The unit can be specified less the fan component for use as a gravity ventilator.



TYPE PEDC

Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

Fan Size	Dimensions in Inches				
	A	B	C	D	E
24	67	38 1/4	38	20 3/4	28 3/8
30	78	40	44	20 3/4	34 3/8
36	88	41	50	20 3/4	40 3/8
42	98	46 1/2	56	20 3/4	46 3/8
48	109	55 3/8	62	23 5/8	52 3/8
54	118	58 5/8	68	23 5/8	58 3/8
60	118	58 5/8	77	23 5/8	64 3/8

Performance Ratings

American Coolair Corporation certifies that the Type PEDC PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Typical Specifications

Hooded exhaust power roof ventilators shall be American Coolair Type PEDC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Entire blade assembly shall be mounted directly to the motor shaft. PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

Item	Cubic Feet Per Minute (CFM) at Static Pressure[1,6]								Fan	Motor	Fan	Sone	Max	Blade Desc.[5]		Approx.
No.	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Size	HP	RPM	Rating[3]	BHP[4,6]	No.	Pitch	Ship Wt.
1	4,531	4,078	3,369	---	---	---	---	**PEDC24G8**		1/4	870	12.4	0.29	3	27.5°	375
2	5,493	5,146	4,698	3,839	---	---	---	**PEDC24J8**		1/2	870	15.3	0.57	6	30.5°	385
3	4,703	4,360	3,922	3,278	---	---	---	**PEDC24H11**		1/3	1160	17.3	0.38	3	16°	370
4	5,606	5,283	4,902	4,404	3,399	---	---	**PEDC24J11**		1/2	1160	18.4	0.58	3	23°	380
5	5,973	5,716	5,423	5,070	4,588	3,795	3,065	**PEDC24K11**	24	3/4	1160	21	0.87	6	22.5°	385
6	6,769	6,516	6,235	5,906	5,481	4,779	3,723	**PEDC24L11**		1	1160	23	1.13	6	27°	396
7	6,647	6,407	6,152	5,882	5,588	5,242	4,772	**PEDC24L17**		1	1750	32	1.13	3	14°	385
8	7,834	7,623	7,401	7,164	6,907	6,617	6,279	**PEDC24M17**		1 1/2	1750	34	1.70	3	19.5°	390
9	8,993	8,787	8,570	8,340	8,095	7,827	7,527	**PEDC24N17**		2	1750	40	2.26	3	26.5°	396
10	9,776	9,617	9,452	9,279	9,095	8,899	8,686	**PEDC24P17**		3	1750	43	3.48	6	25°	426
11	7,209	6,528	5,566	---	---	---	---	**PEDC30J8**		1/2	870	15.7	0.58	3	22.5°	500
12	9,041	8,556	7,998	7,305	6,313	---	---	**PEDC30L11**		1	1160	24	1.14	3	19.5°	515
13	9,757	9,385	8,993	8,563	8,061	7,451	6,685	**PEDC30M11**		1 1/2	1160	28	1.72	6	16.5°	545
14	11,296	10,938	10,544	10,104	9,604	9,026	8,328	**PEDC30N11**	30	2	1160	29	2.24	6	20.5°	560
15	10,848	10,515	10,165	9,790	9,377	8,906	8,336	**PEDC30N17**		2	1750	45	2.25	3	12°	510
16	12,739	12,415	12,076	11,719	11,336	10,920	10,459	**PEDC30P17**		3	1750	47	3.39	3	17°	535
17	15,360	15,053	14,730	14,388	14,024	13,629	13,197	**PEDC30Q17**		5	1750	57	5.68	3	25.5°	550
18	12,252	11,357	10,249	7,992	---	---	---	**PEDC36L6**		1	680	24	1.13	6	23.5°	625
19	13,913	12,896	11,647	9,847	---	---	---	**PEDC36M6**		1 1/2	680	23	1.67	6	30°	670
20	11,557	10,772	9,877	8,725	6,217	---	---	**PEDC36L8**		1	870	27	1.14	4	15.5°	615
21	13,282	12,669	11,968	11,147	10,076	7,870	---	**PEDC36M8**		1 1/2	870	30	1.72	6	17°	620
22	15,312	14,638	13,910	13,078	11,959	9,878	---	**PEDC36N8**		2	870	34	2.26	6	22.5°	670
23	17,621	16,858	16,006	15,044	13,914	12,120	---	**PEDC36P8**		3	870	34	3.41	6	29.5°	690
24	13,001	12,315	11,557	10,671	9,556	7,621	---	**PEDC36M11**	36	1 1/2	1160	36	1.70	3	12.5°	615
25	14,858	14,097	13,269	12,456	11,543	10,084	7,574	**PEDC36N11**		2	1160	38	2.23	3	17°	620
26	16,493	16,032	15,535	15,024	14,466	13,835	13,089	**PEDC36P11**		3	1160	55	3.41	6	14.5°	670
27	20,900	20,403	19,878	19,322	18,727	18,079	17,341	**PEDC36Q11**		5	1160	66	5.66	6	23.5°	690
28	18,310	17,875	17,428	16,966	16,485	15,980	15,446	**PEDC36Q17**		5	1750	82	5.56	3	10.5°	620
29	22,312	21,884	21,445	20,995	20,532	20,052	19,550	**PEDC36R17**		7 1/2	1750	90	8.52	3	16.5°	670
30	25,093	24,641	24,178	23,702	23,213	22,707	22,184	**PEDC36S17**		10	1750	90	11.19	3	20.5°	690
31	14,237	12,782	11,087	8,502	---	---	---	**PEDC42L6**		1	680	20	1.15	4	15°	740
32	16,117	15,037	13,794	12,074	8,485	---	---	**PEDC42M6**		1 1/2	680	28	1.69	6	16°	790
33	18,125	17,033	15,808	14,336	11,524	---	---	**PEDC42N6**		2	680	29	2.29	6	21.5°	810
34	15,752	14,658	13,366	11,831	9,858	---	---	**PEDC42M8**		1 1/2	870	30	1.69	4	10°	740
35	17,693	16,577	15,373	14,037	12,379	9,562	---	**PEDC42N8**		2	870	31	2.25	4	14°	790
36	20,383	19,559	18,681	17,699	16,541	15,021	12,697	**PEDC42P8**	42	3	870	44	3.42	6	15.5°	810
37	16,859	15,795	14,667	13,477	12,124	10,247	---	**PEDC42N11**		2	1160	46	2.29	3	6°	740
38	20,237	19,279	18,265	17,142	15,827	14,191	12,219	**PEDC42P11**		3	1160	52	3.43	3	11°	790
39	24,287	23,472	22,620	21,722	20,776	19,780	18,714	**PEDC42Q11**		5	1160	50	5.70	4	15°	810
40	26,495	25,819	25,116	24,383	23,620	22,828	22,012	**PEDC42R17**		7 1/2	1750	104	8.57	3	7°	790
41	30,061	29,442	28,811	28,164	27,491	26,788	26,048	**PEDC42S17**		10	1750	127	11.35	3	10.5°	810

(chart continues next page)

Type PEDC Performance Ratings (cont'd.)

Item	Cubic Feet Per Minute (CFM) at Static Pressure[1,6]								Fan	Motor	Fan	Sone	Max	Blade Desc.[5]		Approx.
No.	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Size	HP	RPM	Rating[3]	BHP[4,6]	No.	Pitch	Ship Wt.
42	15,381	13,432	11,383	8,395	---	---	---	**PEDC48L6**	48	1	680	30	1.14	4	5.5°	970
43	18,276	16,467	14,333	11,678	---	---	---	**PEDC48M6**		1 1/2	680	28	1.70	4	11°	1010
44	20,002	18,556	16,989	15,103	12,350	---	---	**PEDC48N6**		2	680	33	2.26	6	10.5°	1035
45	19,701	17,881	15,983	13,942	11,148	---	---	**PEDC48N8**		2	870	46	2.22	3	8°	1010
46	23,123	21,741	20,204	18,520	16,687	14,367	---	**PEDC48P8**		3	870	42	3.45	4	10.5°	1030
47	27,681	26,588	25,434	24,193	22,827	21,272	19,384	**PEDC48Q8**		5	870	55	5.73	6	13.5°	1075
48	31,747	30,531	29,344	28,133	26,833	25,366	23,681	**PEDC48R8**		7 1/2	870	61	8.67	6	21°	1150
49	26,239	25,175	24,042	22,797	21,509	20,322	19,218	**PEDC48Q11**		5	1160	79	5.65	4	5.5°	1030
50	31,176	30,164	29,109	27,986	26,790	25,527	24,210	**PEDC48R11**		7 1/2	1160	74	8.44	4	11°	1065
51	34,120	33,294	32,445	31,576	30,683	29,764	28,805	**PEDC48S11**		10	1160	91	11.24	6	10.5°	1105
52	21,557	19,055	16,630	---	---	---	---	**PEDC54M6**	54	1 1/2	680	35	1.70	4	5.5°	1150
53	23,797	21,586	18,881	---	---	---	---	**PEDC54N6**		2	680	36	2.22	4	8.5°	1170
54	27,243	25,329	23,057	20,470	17,541	---	---	**PEDC54P8**		3	870	60	3.31	3	7.5°	1165
55	31,188	29,869	28,602	27,300	25,785	23,883	21,799	**PEDC54Q8**		5	870	74	5.56	6	6.5°	1215
56	37,725	36,463	35,211	33,902	32,434	30,705	28,719	**PEDC54R8**		7 1/2	870	68	8.51	6	12.5°	1245
57	36,774	35,314	33,812	32,380	31,010	29,612	28,075	**PEDC54R11**		7 1/2	1160	91	8.46	4	5.5°	1205
58	40,595	39,323	38,047	36,698	35,231	33,612	31,897	**PEDC54S11**		10	1160	93	11.03	4	8.5°	1235
59	26,064	23,253	19,792	---	---	---	---	**PEDC60N6**	60	2	680	41	2.28	3	6°	1350
60	35,398	33,491	31,311	28,437	25,579	22,348	---	**PEDC60Q8**		5	870	64	5.63	3	8°	1390
61	40,215	38,948	37,646	36,259	34,722	33,001	31,076	**PEDC60R8**		7 1/2	870	78	8.58	6	6°	1440

1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).

2 — The first four letters of the model number identify **fan type, drive configuration** and **style.** The next two numbers indicate **fan size,** the next letter identifies motor **horsepower;** the last number (or numbers) indicates **RPM** in hundreds**.** Example: Model PEDC24G8 is Type 'PE,' direct drive, Style 'C,' 24" size, 1/4 HP, 870 RPM.

3 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.

4 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.

5 — An adjustable pitch propeller with cast aluminum airfoil blades is standard.

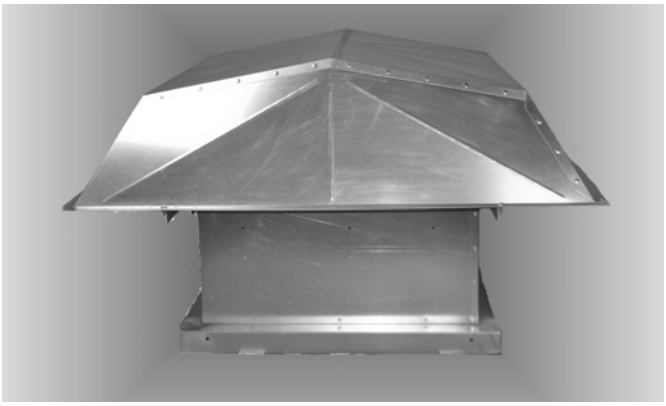
6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m^3/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m^3/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type PSB

SUPPLY — BELT DRIVE — 3,300 to 106,500 CFM
0" to $^3/_4$" STATIC PRESSURE



Application and Features

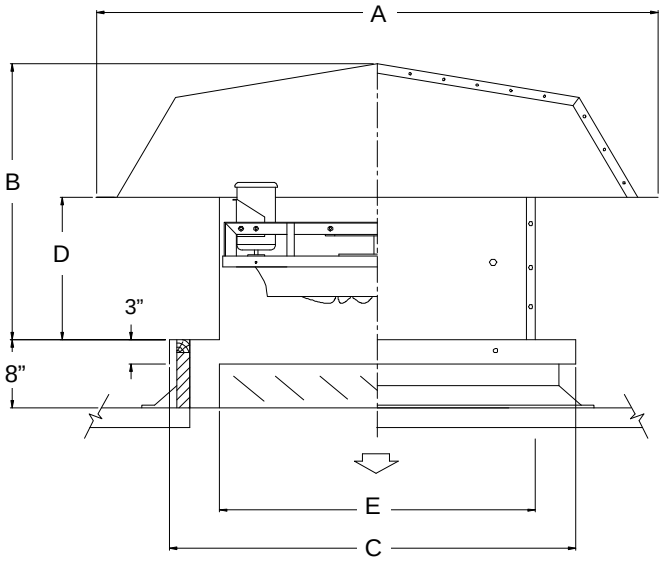
American Coolair's Type PSB unit is identical to the Type PEB unit, but with the fan component inverted to produce air supply rather than exhaust.

A PSB unit can be converted to PEB, and vice versa, after the unit has been installed. Simply remove the fan component, turn it over and re-install it in the PRV base.

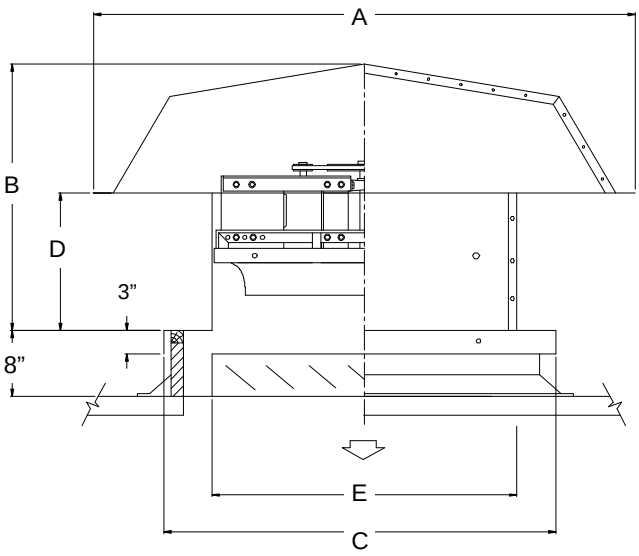
The combination of PEs and PSs allows a complete ventilation system with a uniform appearance on the building roof.

Type PSB PRVs incorporate Style 'H' fan components for models in the 24 inch to 54 inch size, Style 'HX' fan components for models in the 48 inch to 60 inch size and Style 'C' fan components for models in the 24 inch to 84 inch size. These fan styles are described in the *Fan Component* section on Pages 4-5.

The unit can also be specified less the fan component for use as a gravity ventilator.



TYPE PSBH and PSBHX



TYPE PSBC

Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

Fan	Dimensions in Inches				
	A	B	C	D	E
24	57	33 3/4	38	20 3/4	28 3/8
30	67	38 1/2	44	20 3/4	34 3/8
36	78	41 3/4	50	20 3/4	40 3/8
42	88	43 7/8	56	20 3/4	46 3/8
48	98	51	62	23 5/8	52 3/8
54	109	55 5/8	68	23 5/8	58 3/8
60	109	55 5/8	77	23 5/8	64 3/8
72	127 7/8	54	89	33 5/8	80 3/4
84	139 1/2	62 3/4	101	33 5/8	92 3/4

Performance Ratings

American Coolair Corporation certifies that the Type PSB PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Typical Specifications

Hooded supply power roof ventilators shall be American Coolair Type PSBH, PSBHX, and/or PSBC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. (Insert additional specifications from below for specific style PRV.) PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

ADDITIONAL SPECIFICATIONS STYLE H and HX: Die-formed steel blades shall be firmly attached to cast aluminum hub, which also serves as driven sheave. Fan hub shall rotate on fixed shaft using oversized sealed ball bearings. Belt load shall be applied to hub in the same plane as bearings, eliminating overhung load on bearings and increasing bearing life. Motor pulleys shall be variable pitch.

ADDITIONAL SPECIFICATIONS STYLE C: Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of the heavy-duty pillow block type. Motor pulleys shall be variable pitch.

Item	Cubic Feet Per Minute (CFM) at Static Pressure[1,6]								Fan	Motor	Fan	Sone	Max	Approx.
No.	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Size[3]	HP	RPM	Rating[4]	BHP[5,6]	Ship Wt.
1	5,225	4,344	3,316	---	---	---	---	**PSBH24H**		1/3	723	15.9	0.41	330
2	5,919	5,218	4,266	3,390	---	---	---	**PSBH24J**		1/2	819	19.6	0.61	335
3	6,757	6,198	5,334	4,563	3,805	---	---	**PSBH24K**		3/4	935	25	0.91	350
4	7,487	7,007	6,270	5,533	4,828	4,157	---	**PSBH24L***		1	1036	29	1.24	355
5	8,297	7,879	7,289	6,559	5,936	5,293	4,689	**PSBH24M***		1 1/2	1148	35	1.68	375
6	6,088	5,279	3,985	---	---	---	---	**PSBC24H**	24	1/3	987	17.6	0.41	355
7	6,970	6,264	5,409	4,132	---	---	---	**PSBC24J**		1/2	1130	22	0.62	359
8	7,969	7,350	6,720	5,691	4,646	---	---	**PSBC24K**		3/4	1292	28	0.93	364
9	8,790	8,227	7,670	6,997	5,912	5,002	---	**PSBC24L**		1	1425	32	1.24	369
10	9,715	9,205	8,702	8,176	7,428	6,437	5,617	**PSBC24M**		1 1/2	1575	39	1.67	375
11	10,689	10,225	9,767	9,308	8,793	8,023	7,124	**PSBC24N**		2	1733	46	2.23	388
12	12,293	11,889	11,489	11,092	10,691	10,255	9,699	**PSBC24P**		3	1993	60	3.37	406
13	7,394	5,623	---	---	---	---	---	**PSBH30H**		1/3	529	13.8	0.39	420
14	8,428	6,983	5,211	---	---	---	---	**PSBH30J**		1/2	603	17.7	0.61	425
15	9,616	8,631	6,890	5,310	---	---	---	**PSBH30K**		3/4	688	22	0.91	445
16	10,706	9,919	8,265	6,954	5,462	---	---	**PSBH30L**		1	766	27	1.25	450
17	11,838	11,171	9,760	8,517	7,249	---	---	**PSBH30M**		1 1/2	847	32	1.69	480
18	12,984	12,400	11,404	9,962	8,919	7,727	---	**PSBH30N**		2	929	37	2.24	485
19	14,606	14,105	13,416	12,106	11,018	10,095	9,038	**PSBH30P***	30	3	1045	47	3.17	515
20	10,823	9,540	8,272	---	---	---	---	**PSBC30K**		3/4	964	25	0.91	491
21	12,047	10,854	9,853	8,262	---	---	---	**PSBC30L**		1	1073	30	1.25	494
22	13,316	12,202	11,310	10,217	---	---	---	**PSBC30M**		1 1/2	1186	35	1.69	501
23	14,629	13,589	12,758	11,917	10,682	---	---	**PSBC30N**		2	1303	41	2.24	507
24	16,695	15,754	14,984	14,283	13,522	12,464	11,132	**PSBC30P**		3	1487	52	3.34	531
25	19,884	19,067	18,369	17,748	17,161	16,556	15,860	**PSBC30Q**		5	1771	73	5.64	544
26	9,167	7,050	---	---	---	---	---	**PSBH36H**		1/3	445	13.6	0.41	487
27	10,671	9,080	---	---	---	---	---	**PSBH36J**		1/2	518	18.1	0.61	493
28	11,825	10,483	8,351	---	---	---	---	**PSBH36K**		3/4	574	22	0.91	498
29	12,958	11,787	9,960	8,120	---	---	---	**PSBH36L**		1	629	26	1.24	520
30	14,297	13,272	11,813	9,972	8,307	---	---	**PSBH36M**		1 1/2	694	30	1.67	550
31	15,801	14,897	13,721	12,099	10,552	8,952	---	**PSBH36N**		2	767	35	2.25	555
32	18,026	17,254	16,330	15,142	13,656	12,287	11,033	**PSBH36P**		3	875	44	3.35	585
33	21,857	21,236	20,544	19,750	18,805	17,670	16,411	**PSBH36Q***	36	5	1061	65	5.62	602
34	13,354	11,760	9,939	---	---	---	---	**PSBC36L**		1	858	28	1.23	658
35	14,770	13,335	11,801	9,731	---	---	---	**PSBC36M**		1 1/2	949	33	1.68	664
36	16,218	14,914	13,560	11,980	9,605	---	---	**PSBC36N**		2	1042	38	2.24	670
37	18,568	17,432	16,273	15,046	13,608	11,635	---	**PSBC36P**		3	1193	48	3.35	702
38	22,132	21,182	20,219	19,240	18,217	17,091	15,774	**PSBC36Q**		5	1422	65	5.61	714
39	25,432	24,606	23,772	22,930	22,075	21,191	20,249	**PSBC36R**		7 1/2	1634	86	8.49	771
40	27,876	27,123	26,364	25,599	24,827	24,042	23,232	**PSBC36S**		10	1791	103	11.16	785

(chart continues next page)

Type PSB Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure[1,6] 0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Fan Size[3]	Motor HP	Fan RPM	Sone Rating[4]	Max BHP[5,6]	Approx. Ship Wt.
41	13,153	10,469	---	---	---	---	---	**PSBH42J**		1/2	385	14.4	0.61	641
42	14,690	12,485	---	---	---	---	---	**PSBH42K**		3/4	430	17.6	0.91	646
43	16,432	14,567	11,622	---	---	---	---	**PSBH42L**		1	481	21	1.24	668
44	18,038	16,393	13,999	11,212	---	---	---	**PSBH42M**		1 1/2	528	25	1.68	697
45	19,746	18,278	16,352	13,689	11,071	---	---	**PSBH42N**		2	578	30	2.24	700
46	22,684	21,440	19,954	17,996	15,639	13,496	---	**PSBH42P**		3	664	37	3.36	730
47	27,091	26,073	24,936	23,623	22,020	20,014	18,172	**PSBH42Q**	42	5	793	51	5.62	747
48	18,821	16,743	14,046	---	---	---	---	**PSBC42M**		1 1/2	789	33	1.68	822
49	20,753	18,946	16,523	13,784	---	---	---	**PSBC42N**		2	870	39	2.25	808
50	23,687	22,164	20,180	18,036	15,397	---	---	**PSBC42P**		3	993	49	3.34	839
51	28,052	26,809	25,330	23,534	21,726	19,839	16,582	**PSBC42Q**		5	1176	66	5.60	853
52	32,370	31,312	30,123	28,733	27,148	25,567	24,022	**PSBC42R**		7 1/2	1357	85	8.53	910
53	35,399	34,441	33,388	32,202	30,842	29,368	27,932	**PSBC42S**		10	1484	100	11.15	921
54	18,030	12,716	---	---	---	---	---	**PSBH48K**		3/4	348	17.8	0.91	840
55	20,051	15,199	---	---	---	---	---	**PSBH48L**		1	387	22	1.25	845
56	22,071	17,730	13,124	---	---	---	---	**PSBH48M**		1 1/2	426	26	1.69	902
57	24,299	20,788	16,383	---	---	---	---	**PSBH48N**		2	469	30	2.24	905
58	27,667	25,042	20,658	17,002	---	---	---	**PSBH48P**		3	534	38	3.32	950
59	32,951	30,965	27,441	24,166	21,126	18,012	---	**PSBH48Q**		5	636	51	5.61	967
60	37,200	35,511	33,093	29,378	26,861	24,151	21,274	**PSBHX48R***	48	7 1/2	718	66	8.07	1149
61	41,863	40,404	38,562	35,698	32,554	30,367	28,063	**PSBHX48S***		10	808	66	11.47	1160
62	23,180	20,538	17,247	---	---	---	---	**PSBC48N**		2	707	39	2.26	1145
63	26,360	24,010	21,674	17,115	---	---	---	**PSBC48P**		3	804	49	3.33	1148
64	31,442	29,444	27,559	25,489	21,942	---	---	**PSBC48Q**		5	959	69	5.65	1160
65	35,999	34,240	32,569	30,921	29,038	26,139	---	**PSBC48R**		7 1/2	1098	91	8.47	1215
66	39,606	37,999	36,461	34,973	33,437	31,622	28,939	**PSBC48S**		10	1208	111	11.28	1265
67	24,391	21,525	---	---	---	---	---	**PSBH54M**		1 1/2	416	26	1.66	1140
68	26,560	23,971	20,847	---	---	---	---	**PSBH54N**		2	453	30	2.23	1146
69	30,019	27,778	25,219	21,679	---	---	---	**PSBH54P**		3	512	38	3.32	1171
70	36,147	34,176	32,040	29,582	26,230	21,417	---	**PSBHX54Q**		5	541	56	5.56	1296
71	41,893	40,208	38,426	36,517	34,355	31,633	28,008	**PSBHX54R**		7 1/2	627	71	8.48	1348
72	45,568	44,025	42,409	40,706	38,870	36,770	34,163	**PSBHX54S***	54	10	682	82	10.56	1357
73	26,327	22,299	---	---	---	---	---	**PSBC54N**		2	592	37	2.24	1235
74	30,063	26,917	22,551	---	---	---	---	**PSBC54P**		3	676	45	3.34	1260
75	35,399	32,926	29,228	25,776	21,529	---	---	**PSBC54Q**		5	796	58	5.45	1290
76	40,958	38,850	36,195	32,812	29,872	26,459	---	**PSBC54R**		7 1/2	921	78	8.44	1350
77	45,050	43,131	41,010	37,924	35,092	32,409	29,279	**PSBC54S**		10	1013	95	11.23	1380

(chart continues next page)

Type PSB Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure[1,6] 0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Fan Size[3]	Motor HP	Fan RPM	Sone Rating[4]	Max BHP[5,6]	Approx. Ship Wt.
78	27,512	23,427	---	---	---	---	---	**PSBHX60M**		1 1/2	328	24	1.65	1341
79	30,112	26,499	22,087	---	---	---	---	**PSBHX60N**		2	359	29	2.25	1347
80	34,054	30,988	27,215	22,259	---	---	---	**PSBHX60P**		3	406	37	3.32	1372
81	40,093	37,591	34,546	31,311	27,203	21,722	---	**PSBHX60Q**		5	478	50	5.61	1384
82	46,132	44,007	41,544	38,746	35,948	32,694	27,601	**PSBHX60R**		7 1/2	550	63	8.39	1436
83	51,249	49,360	47,245	44,840	42,283	39,774	36,932	**PSBHX60S**	60	10	611	76	11.15	1449
84	29,633	24,807	---	---	---	---	---	**PSBC60N**		2	555	40	2.23	1360
85	33,851	29,693	25,082	---	---	---	---	**PSBC60P**		3	634	49	3.33	1385
86	39,831	36,412	32,626	28,475	24,321	---	---	**PSBC60Q**		5	746	64	5.42	1415
87	46,132	43,267	39,992	36,751	33,072	29,501	24,220	**PSBC60R**		7 1/2	864	85	8.42	1475
88	50,830	48,275	45,354	42,385	39,384	35,939	32,727	**PSBC60S**		10	952	104	11.27	1510
89	40,092	34,163	27,135	---	---	---	---	**PSBC72N**		2	308	26	2.18	1732
90	46,080	41,207	35,450	24,115	---	---	---	**PSBC72P**		3	354	33	3.32	1754
91	54,671	50,648	45,845	41,225	33,973	---	---	**PSBC72Q**		5	420	44	5.52	1769
92	62,611	59,087	55,343	50,869	46,951	41,423	---	**PSBC72R**	72	7.5	481	56	8.32	1826
93	69,119	65,910	62,707	58,781	54,919	51,359	46,405	**PSBC72S***		10	531	67	11.18	1857
94	79,142	76,321	73,583	70,611	67,060	63,641	60,576	**PSBC72T***		15	608	87	16.80	1928
95	87,083	84,511	82,018	79,471	76,565	73,267	70,178	**PSBC72U***		20	669	105	22.38	1962
96	49,066	39,776	---	---	---	---	---	**PSBC84N**		2	239	22	2.17	2254
97	56,251	48,472	39,689	---	---	---	---	**PSBC84P**		3	274	28	3.29	2277
98	66,722	60,560	53,058	45,028	---	---	---	**PSBC84Q**		5	325	38	5.50	2302
99	76,576	71,270	64,949	58,776	51,127	---	---	**PSBC84R**	84	7.5	373	48	8.30	2352
100	84,377	79,562	74,283	68,166	62,802	54,650	---	**PSBC84S**		10	411	58	11.13	2390
101	96,695	92,475	88,221	83,069	77,830	73,204	67,602	**PSBC84T**		15	471	74	16.74	2463
102	106,549	102,706	98,920	94,708	89,729	85,154	80,971	**PSBC84U***		20	519	89	22.37	2497

1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).

2 — The first four or five letters of the model number identify **fan type, drive configuration** and **style.** The next two numbers indicate **fan size,** the next letter identifies motor **horsepower.** Example: Model PSBH24H is Type 'PS,' belt drive, Style 'H,' 24" size, 1/3 HP.

3 — On Style 'H' & 'HX,' die-formed steel blades are standard. On Style 'C,' an adjustable pitch propeller with cast aluminum airfoil blades is standard.

4 — The sound ratings shown are loudness values in hemispherical sones at a distance of 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free outlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.

5 — Maximum brake horsepower (BHP) within the catalog performance range. Power ratings (BHP) do not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.

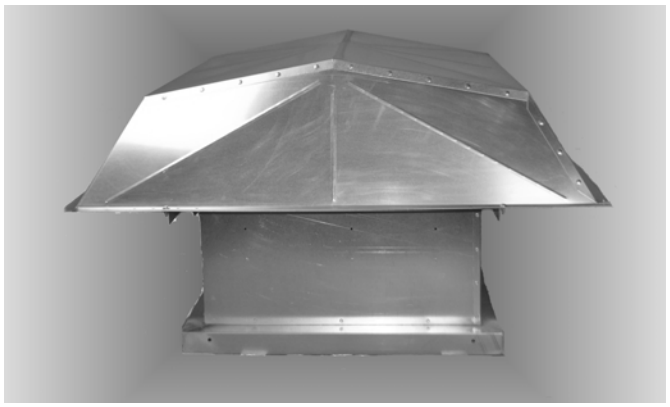
6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m^3/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m^3/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

*These models have fixed pitch motor pulleys.

Type PSDC

SUPPLY — DIRECT DRIVE — 3,200 to 48,200 CFM
0" to $^{3}/_{4}$" STATIC PRESSURE



Application and Features

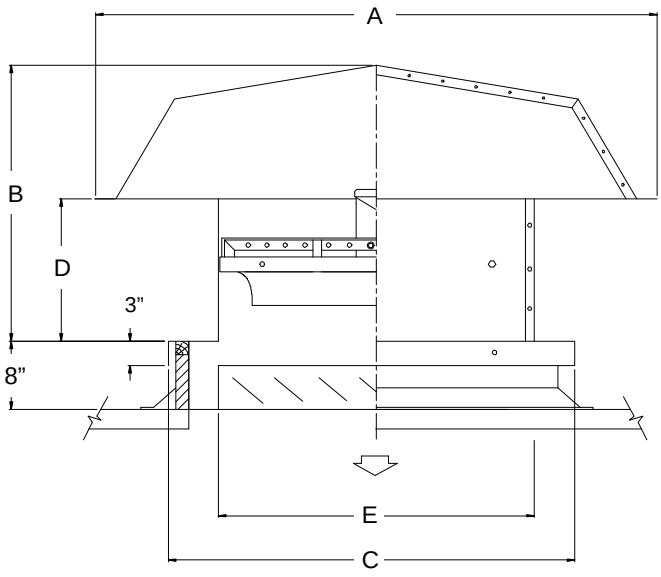
American Coolair 's Type PSDC unit is identical to the Type PEDC unit, but with the fan component inverted to produce air supply rather than exhaust.

A PSDC unit can be converted to PEDC, and vice versa, after the unit has been installed. Simply remove the fan component, turn it over and re-install it in the PRV base.

The combination of PEs and PSs allow a complete ventilation system with a uniform appearance on the building roof.

Type PSD PRVs incorporate Style 'C' fan components. This fan style is described in the *Fan Component* section on Pages 4-5.

The unit can also be specified less the fan component for use as a gravity ventilator.



TYPE PSDC

Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

Fan Size	Dimensions in Inches				
	A	B	C	D	E
24	57	34 1/2	38	20 3/4	28 3/8
30	67	38 1/4	44	20 3/4	34 3/8
36	78	40	50	20 3/4	40 3/8
42	88	41	56	20 3/4	46 3/8
48	98	49 3/8	62	23 5/8	52 3/8
54	109	55 3/8	68	23 5/8	58 3/8
60	109	55 3/8	77	23 5/8	64 3/8

Performance Ratings

American Coolair Corporation certifies that the Type PSDC PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Typical Specifications

Hooded supply power roof ventilators shall be American Coolair Type PSDC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. Fan blades shall be of aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Entire blade assembly shall be mounted directly to the motor shaft. PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

Item	Cubic Feet Per Minute (CFM) at Static Pressure[1,6]								Fan	Motor	Fan	Sone	Max	Blade Desc.[5]		Approx.
No.	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Size	HP	RPM	Rating[3]	BHP[4,6]	No.	Pitch	Ship Wt.
1	5,112	4,202	2,957	---	---	---	---	**PSDC24G8**		1/4	870	14.5	0.29	3	27.5°	375
2	6,220	5,573	4,736	3,168	---	---	---	**PSDC24J8**		1/2	870	17.8	0.58	6	30.5°	385
3	5,132	4,632	3,886	2,892	---	---	---	**PSDC24H11**		1/3	1160	19.7	0.37	3	15.5°	370
4	6,313	5,688	5,000	4,158	---	---	---	**PSDC24J11**		1/2	1160	22	0.57	3	23°	380
5	6,753	6,278	5,810	5,229	4,403	3,391	---	**PSDC24K11**	24	3/4	1160	27	0.86	6	22.5°	385
6	7,634	7,215	6,711	6,133	5,345	4,094	---	**PSDC24L11**		1	1160	28	1.13	6	27°	396
7	7,373	7,034	6,681	6,180	5,694	5,153	4,469	**PSDC24L17**		1	1750	37	1.13	3	14°	385
8	8,821	8,433	7,998	7,563	7,120	6,637	6,074	**PSDC24M17**		1 1/2	1750	43	1.70	3	19.5°	390
9	10,148	9,724	9,280	8,825	8,360	7,877	7,346	**PSDC24N17**		2	1750	48	2.26	3	26.5°	396
10	11,056	10,781	10,481	10,163	9,841	9,509	9,155	**PSDC24P17**		3	1750	53	3.44	6	25°	426
11	8,874	7,597	6,046	---	---	---	---	**PSDC30J8**		1/2	870	20	0.56	3	22°	525
12	9,692	8,953	8,076	6,858	---	---	---	**PSDC30K8**		3/4	870	22	0.85	6	19°	515
13	11,067	10,268	9,401	8,281	6,231	---	---	**PSDC30L8**		1	870	23	1.14	6	23.5°	545
14	9,573	8,727	7,736	6,619	---	---	---	**PSDC30K11**		3/4	1160	29	0.83	3	14.5°	500
15	11,195	10,243	9,278	8,206	6,554	---	---	**PSDC30L11**	30	1	1160	32	1.14	3	19.5°	515
16	12,914	11,918	10,882	9,790	8,228	---	---	**PSDC30M11**		1 1/2	1160	34	1.70	3	26°	545
17	13,781	13,208	12,633	12,034	11,354	10,500	9,342	**PSDC30N11**		2	1160	37	2.32	6	21°	560
18	13,086	12,493	11,879	11,270	10,638	9,969	9,196	**PSDC30N17**		2	1750	57	2.25	3	12°	510
19	15,680	14,994	14,450	13,864	13,214	12,522	11,798	**PSDC30P17**		3	1750	60	3.39	3	17°	535
20	19,297	18,651	17,970	17,283	16,614	15,952	15,261	**PSDC30Q17**		5	1750	69	5.68	3	25.5°	550
21	13,365	11,880	10,119	---	---	---	---	**PSDC36L6**		1	680	25	1.13	6	23.5°	625
22	15,379	13,503	11,220	---	---	---	---	**PSDC36M6**		1 1/2	680	28	1.67	6	30°	670
23	11,643	9,977	8,446	---	---	---	---	**PSDC36K8**		3/4	870	27	0.86	3	15.5°	585
24	13,201	11,467	9,413	6,758	---	---	---	**PSDC36L8**		1	870	30	1.15	3	20°	615
25	15,155	13,315	11,310	---	---	---	---	**PSDC36M8**		1 1/2	870	33	1.72	3	28°	620
26	16,643	15,199	13,377	10,444	---	---	---	**PSDC36N8**		2	870	38	2.29	4	28.5°	670
27	14,124	12,985	11,869	10,614	9,070	---	---	**PSDC36M11**	36	1 1/2	1160	41	1.70	3	12.5°	615
28	16,390	15,169	13,747	12,477	11,187	9,063	---	**PSDC36N11**		2	1160	48	2.30	3	17.5°	620
29	18,973	17,724	16,393	14,798	13,192	10,655	---	**PSDC36P11**		3	1160	55	3.43	3	24°	670
30	22,798	21,945	21,082	20,184	19,236	18,219	17,024	**PSDC36Q11**		5	1160	66	5.64	6	23.5°	690
31	20,184	19,472	18,772	18,075	17,373	16,656	15,914	**PSDC36Q17**		5	1750	84	5.80	3	11°	620
32	24,228	23,477	22,737	22,004	21,275	20,547	19,811	**PSDC36R17**		7 1/2	1750	94	8.52	3	16.5°	670
33	27,423	26,593	25,743	24,889	24,041	23,198	22,359	**PSDC36S17**		10	1750	103	11.19	3	20.5°	690
34	16,467	13,643	10,366	---	---	---	---	**PSDC42L6**		1	680	29	1.15	3	18.5°	740
35	18,342	15,822	13,467	10,562	---	---	---	**PSDC42M6**		1 1/2	680	31	1.69	4	21.5°	790
36	19,855	18,245	16,644	14,747	---	---	---	**PSDC42N6**		2	680	39	2.28	6	21.5°	810
37	14,893	13,065	10,848	8,246	---	---	---	**PSDC42L8**	42	1	870	36	1.14	3	8°	730
38	17,989	15,882	13,794	11,259	---	---	---	**PSDC42M8**		1 1/2	870	40	1.69	3	13°	740
39	20,503	18,398	16,118	13,574	---	---	---	**PSDC42N8**		2	870	44	2.27	3	17.5°	790
40	23,909	21,701	19,076	16,189	13,297	---	---	**PSDC42P8**		3	870	55	3.43	3	25°	810

(chart continues next page)

Type PSDC Performance Ratings (cont'd.)

Item	Cubic Feet Per Minute (CFM) at Static Pressure[1,6]								Fan	Motor	Fan	Sone	Max	Blade Desc.[5]		Approx.
No.	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Size	HP	RPM	Rating[3]	BHP[4,6]	No.	Pitch	Ship Wt.
41	18,325	16,918	15,409	13,872	12,224	9,943	---	**PSDC42N11**	42	2	1160	57	2.29	3	6°	740
42	22,207	20,745	19,354	17,907	16,238	14,120	11,737	**PSDC42P11**		3	1160	66	3.43	3	11°	790
43	27,700	26,120	24,490	22,793	20,998	19,081	16,961	**PSDC42Q11**		5	1160	76	5.53	3	18°	810
44	28,796	27,878	27,011	26,054	25,059	24,018	22,939	**PSDC42R17**		7 1/2	1750	129	8.57	3	7°	790
45	32,874	31,921	31,002	30,103	29,207	28,297	27,352	**PSDC42S17**		10	1750	143	11.35	3	10.5°	810
46	16,711	13,732	10,579	---	---	---	---	**PSDC48L6**	48	1	680	30	1.13	3	8.5°	970
47	19,378	17,161	14,580	11,403	---	---	---	**PSDC48M6**		1 1/2	680	37	1.70	4	11°	1010
48	21,466	18,964	16,588	13,701	---	---	---	**PSDC48N6**		2	680	36	2.24	4	15°	1035
49	21,001	18,732	16,321	13,920	10,668	---	---	**PSDC48N8**		2	870	46	2.26	3	8°	1010
50	24,879	22,601	20,251	17,673	14,602	---	---	**PSDC48P8**		3	870	51	3.40	3	13.5°	1030
51	29,047	27,086	24,925	22,676	20,478	18,053	---	**PSDC48Q8**		5	870	60	5.48	4	17.5°	1075
52	33,860	32,042	30,403	28,891	27,338	25,573	23,501	**PSDC48R8**		7 1/2	870	76	8.63	6	20.5°	1105
53	28,507	26,827	25,096	23,261	21,489	19,718	17,641	**PSDC48Q11**		5	1160	80	5.59	3	8.5°	1030
54	34,271	32,471	30,693	28,903	27,101	25,220	23,114	**PSDC48R11**		7 1/2	1160	90	8.63	3	14.5°	1065
55	37,592	35,903	34,146	32,168	29,752	27,200	24,872	**PSDC48S11**		10	1160	96	11.33	3	19°	1105
56	23,085	19,927	---	---	---	---	---	**PSDC54M6**	54	1 1/2	680	39	1.67	3	8°	1150
57	26,188	22,366	19,358	---	---	---	---	**PSDC54N6**		2	680	43	2.27	3	12°	1170
58	28,938	26,560	23,963	20,863	---	---	---	**PSDC54P8**		3	870	61	3.34	3	7.5°	1165
59	35,293	32,929	29,145	26,733	24,200	---	---	**PSDC54Q8**		5	870	73	5.47	3	14°	1215
60	41,389	37,842	33,814	30,995	28,199	23,587	---	**PSDC54R8**		7 1/2	870	88	8.58	3	22°	1245
61	39,381	37,351	35,627	33,825	31,763	29,394	26,938	**PSDC54R11**		7 1/2	1160	105	8.28	3	8°	1205
62	44,674	42,600	40,142	37,980	36,225	34,547	32,637	**PSDC54S11**		10	1160	117	11.29	3	12°	1235
63	27,520	24,515	20,042	---	---	---	---	**PSDC60N6**	60	2	680	49	2.29	3	6°	1350
64	37,691	35,181	32,651	29,313	25,741	---	---	**PSDC60Q8**		5	870	80	5.72	3	8°	1390
65	44,218	41,704	39,122	35,682	30,970	26,301	---	**PSDC60R8**		7 1/2	870	90	8.53	3	14°	1440
66	46,947	45,289	43,598	41,618	38,747	35,916	33,834	**PSDC60S11**		10	1160	137	11.37	3	6°	1440

1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).

2 — The first four letters of the model number identify **fan type, drive configuration** and **style.** The next two numbers indicate **fan size,** the next letter identifies motor **horsepower;** the last number (or numbers) indicates **RPM** in hundreds**.** Example: Model PSDC24G8 is Type "PS", direct drive, Style "C", 24" size, 1/4 H.P., 870 RPM.

3 — The sound ratings shown are loudness values in hemispherical sones at a distance of 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free outlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.

4 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.

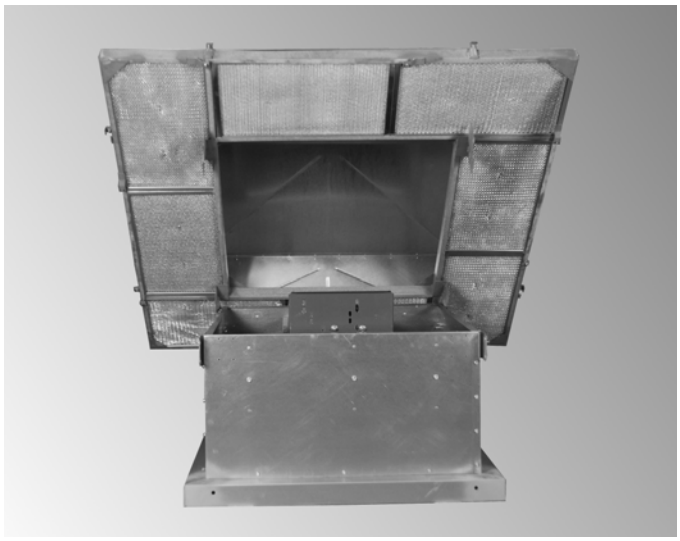
5 — An adjustable pitch propeller with cast aluminum airfoil blades is standard.

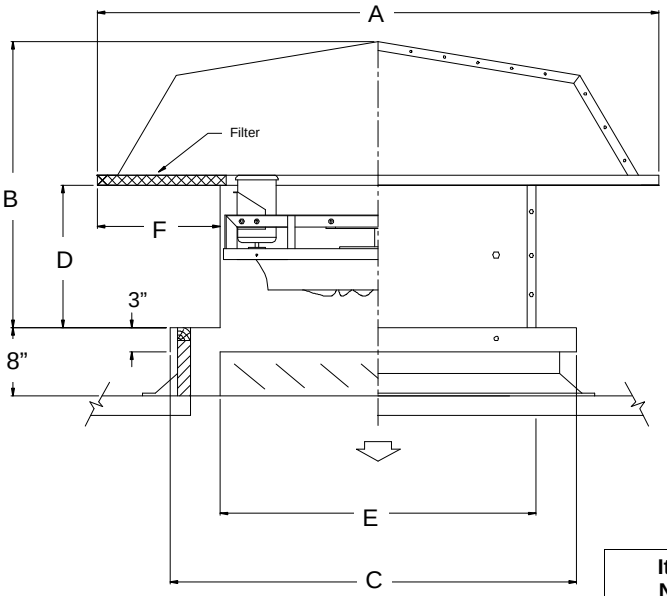
6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m^3/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m^3/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

Type PSB-F

FILTERED SUPPLY — BELT DRIVE — 3,400 to 49,700 CFM — 0" to $^3/_4$" STATIC PRESSURE





TYPE PSBH-F and PSBHX-F

Application and Features

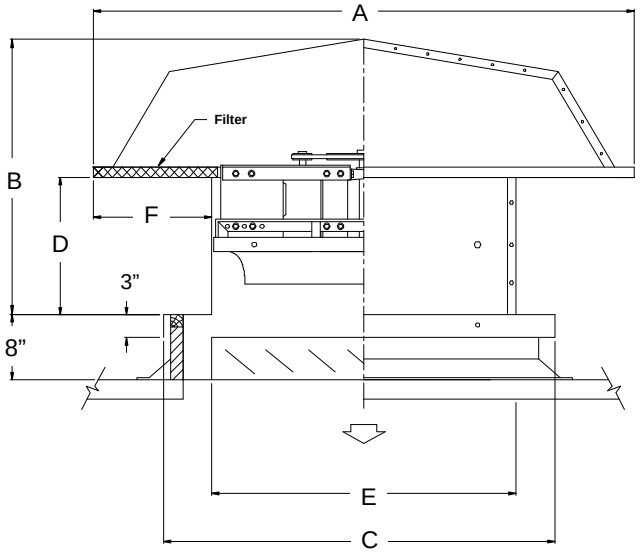
Type PSB-F PRVs provide filtered make-up air from an economical roof mounted unit.

The Type PSB-F unit is similar to the Type PSB, except that the PSB-F unit is furnished with two-inch thick, permanent, cleanable filters.

The filters are easily mounted into the filter rack when the unit is installed at the job site.

American Coolair's performance data provides net CFM ratings with hood and filters in place. We have eliminated the need to estimate the effect of filters on the PRV performance!

Type PSB-F PRVs incorporate Style 'H' fan components for models in the 24 inch to 54 inch size, Style 'HX' fan components for models in the 48 inch to 60 inch size and Style 'C' fan components for models in the 24 inch to 72 inch size. These fan styles are described in the *Fan Component* section on Pages 4-5.



TYPE PSBC-F

Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

Dimension F is the distance of the filter overhang.

Item No.[1]	Fan Size	Dimensions in Inches						Filter Area, ft^2
		A	B	C	D	E	F	
1-3, 6-8	**24**	57	36 1/4	38	20 1/4	28 3/8	12 1/2	13.2
4, 5, 9-12		67	40				17 1/2	21.3
13-15, 20, 21	**30**	67	40	44	20 1/4	34 3/8	14 1/2	18.4
16-19, 22-24		78	41 3/4				20	29.0
25-27, 33, 34	**36**	78	41 3/4	50	20 1/4	40 3/8	17	25.6
28-32, 35-37		88	42 3/4				22	36.7
38-40, 45	**42**	88	42 3/4	56	20 1/4	46 3/8	19	32.8
41-44, 46-48		98	48 1/4				24	45.3
49-52, 56	**48**	98	51 1/8	62	23 1/8	52 3/8	21	40.9
53-55, 57-59		109	57 1/8				26 1/2	56.3
60-62, 66, 67	**54**	109	57 1/8	68	23 1/8	58 3/8	23 1/2	51.3
63-65, 68-70		127 7/8	45 3/4				32 7/8	81.8
71-74, 77-79	**60**	127 7/8	57 3/8	77	23 1/8	64 3/8	29 7/8	76.4
75, 76, 80, 81		139 1/2	45 3/4				35 3/4	97.3
82	**72**	127 7/8	56 3/8	89	33 1/2	80 3/4	23 3/4	64.1
83, 84		139 1/2	65 1/4				29 1/2	84.9

Performance Ratings

American Coolair Corporation certifies that the performance data for the type PSB-F PRV models shown below are based on tests conducted in an accredited laboratory in accordance with ANSI Standards 210-07 and 300-08.

Typical Specifications

Hooded supply power roof ventilators shall be American Coolair Type PSBH-F and/or PSBC-F, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. PRVs shall be furnished with 2" thick, permanent, cleanable filters. (Insert additional specifications from below for specific style PRV.) Performance ratings shall be from tests of complete PRV and so certified by the PRV manufacturer. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

ADDITIONAL SPECIFICATIONS STYLE H and HX: Die-formed steel blades shall be firmly attached to cast aluminum hub, which also serves as driven sheave. Fan hub shall rotate on fixed shaft using oversized sealed ball bearings. Belt load shall be applied to hub in the same plane as bearings, eliminating overhung load on bearings and increasing bearing life. Motor pulleys shall be variable pitch.

ADDITIONAL SPECIFICATIONS STYLE C: Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of the heavy-duty pillow block type. Motor pulleys shall be variable pitch.

Item	Cubic Feet Per Minute (CFM) at Static Pressure[1,6]													
No.	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Fan Size[3]	Motor HP	Fan RPM	Sone Rating[4]	Max BHP[5,6]	Approx. Ship Wt.
1	4,830	3,948	3,094	---	---	---	---	**PSBH24HF**		1/3	723	16.3	0.45	355
2	5,472	4,683	3,935	3,186	---	---	---	**PSBH24JF**		1/2	819	19.3	0.62	360
3	6,247	5,559	4,896	4,226	3,575	---	---	**PSBH24KF**		3/4	935	24	0.91	375
4	7,274	6,738	6,003	5,353	4,686	4,055	---	**PSBH24LF***		1	1036	29	1.25	390
5	8,061	7,597	6,957	6,325	5,745	5,140	4,575	**PSBH24MF***		1 1/2	1148	31	1.44	410
6	5,473	4,678	3,564	---	---	---	---	**PSBC24HF**	24	1/3	987	17.6	0.41	455
7	6,266	5,633	4,648	3,729	---	---	---	**PSBC24JF**		1/2	1130	22	0.62	458
8	7,164	6,635	5,858	5,006	4,201	---	---	**PSBC24KF**		3/4	1292	28	0.93	463
9	8,401	7,890	7,351	6,552	5,626	4,799	---	**PSBC24LF**		1	1425	32	1.24	468
10	9,285	8,823	8,352	7,790	6,927	6,133	5,385	**PSBC24MF**		1 1/2	1575	39	1.67	474
11	10,216	9,796	9,375	8,919	8,320	7,496	6,785	**PSBC24NF**		2	1733	46	2.23	487
12	11,749	11,383	11,019	10,647	10,243	9,747	9,065	**PSBC24PF**		3	1993	60	3.37	505
13	6,715	5,047	---	---	---	---	---	**PSBH30HF**		1/3	529	14.2	0.44	455
14	7,654	6,151	4,712	---	---	---	---	**PSBH30JF**		1/2	603	19.9	0.70	460
15	8,733	7,352	6,169	4,791	---	---	---	**PSBH30KF**		3/4	688	23	0.96	480
16	10,345	9,272	7,883	6,634	5,202	---	---	**PSBH30LF**		1	766	27	1.31	495
17	11,439	10,572	9,173	8,130	6,939	---	---	**PSBH30MF**		1 1/2	847	32	1.72	525
18	12,546	11,812	10,496	9,507	8,501	7,408	---	**PSBH30NF**	30	2	929	38	2.24	530
19	14,113	13,499	12,467	11,357	10,526	9,622	8,647	**PSBH30PF***		3	1045	49	3.38	560
20	9,378	8,404	6,976	5,250	---	---	---	**PSBC30KF**		3/4	964	25	0.91	642
21	10,439	9,604	8,403	6,987	5,435	---	---	**PSBC30LF**		1	1073	30	1.25	645
22	12,389	11,570	10,719	9,457	7,952	6,259	---	**PSBC30MF**		1 1/2	1186	35	1.69	652
23	13,611	12,860	12,123	11,175	9,894	8,463	6,924	**PSBC30NF**		2	1303	41	2.24	658
24	15,533	14,867	14,235	13,550	12,659	11,531	10,349	**PSBC30PF**		3	1487	52	3.34	682
25	8,434	6,341	---	---	---	---	---	**PSBH36HF**		1/3	445	12.7	0.42	547
26	9,818	8,058	6,163	---	---	---	---	**PSBH36JF**		1/2	518	15.9	0.59	553
27	10,879	9,349	7,653	5,699	---	---	---	**PSBH36KF**		3/4	574	20	0.90	553
28	12,446	11,182	9,395	7,755	---	---	---	**PSBH36LF**		1	629	24	1.27	595
29	13,733	12,630	11,095	9,538	7,876	---	---	**PSBH36MF**		1 1/2	694	28	1.73	625
30	15,177	14,210	12,935	11,419	10,113	8,493	---	**PSBH36NF**		2	767	32	2.27	630
31	17,314	16,491	15,482	14,233	12,908	11,770	10,503	**PSBH36PF**	36	3	875	43	3.45	660
32	20,995	20,335	19,588	18,718	17,709	16,598	15,533	**PSBH36QF***		5	1061	50	5.54	687
33	11,843	10,469	8,640	6,005	---	---	---	**PSBC36LF**		1	858	28	1.23	802
34	13,099	11,878	10,398	8,236	---	---	---	**PSBC36MF**		1 1/2	949	33	1.68	808
35	15,227	14,047	12,764	11,166	8,765	---	---	**PSBC36NF**		2	1042	38	2.24	814
36	17,433	16,408	15,336	14,138	12,670	10,629	---	**PSBC36PF**		3	1193	48	3.35	846
37	20,780	19,923	19,048	18,130	17,133	16,000	14,636	**PSBC36QF**		5	1422	65	5.61	858
38	11,909	9,146	---	---	---	---	---	**PSBH42JF**		1/2	385	14.1	0.64	706
39	13,301	10,895	8,059	---	---	---	---	**PSBH42KF**		3/4	430	17.9	0.94	711
40	14,879	12,831	10,422	---	---	---	---	**PSBH42LF**		1	481	21	1.29	733
41	17,114	15,394	12,955	10,522	---	---	---	**PSBH42MF**	42	1 1/2	528	26	1.76	777
42	18,735	17,206	15,133	12,896	10,293	---	---	**PSBH42NF**		2	578	30	2.38	785
43	21,522	20,231	18,649	16,624	14,741	12,589	---	**PSBH42PF**		3	664	37	3.35	815
44	25,703	24,651	23,456	22,046	20,345	18,674	17,148	**PSBH42QF**		5	793	49	5.50	842

(chart continues next page)

Type PSB-F Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure[1,6] 0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Fan Size[3]	Motor HP	Fan RPM	Sone Rating[4]	Max BHP[5,6]	Approx. Ship Wt.
45	16,442	14,432	11,922	---	---	---	---	**PSBC42MF**	42	1 1/2	789	33	1.68	997
46	19,343	17,381	15,305	12,015	---	---	---	**PSBC42NF**		2	870	39	2.25	983
47	22,078	20,399	18,574	16,659	13,253	---	---	**PSBC42PF**		3	993	49	3.34	1014
48	26,146	24,772	23,224	21,704	20,107	17,949	14,311	**PSBC42QF**		5	1176	66	5.60	1028
49	15,212	10,937	---	---	---	---	---	**PSBH48KF**	48	3/4	348	17.5	0.92	965
50	16,917	13,145	9,183	---	---	---	---	**PSBH48LF**		1	387	21	1.25	920
51	18,622	15,225	11,664	---	---	---	---	**PSBH48MF**		1 1/2	426	26	1.77	977
52	20,501	17,380	14,144	10,898	---	---	---	**PSBH48NF**		2	469	29	2.24	980
53	25,541	21,956	19,084	15,793	---	---	---	**PSBH48PF**		3	534	37	3.35	1040
54	30,419	27,478	24,701	22,299	19,470	16,945	---	**PSBH48QF**		5	636	51	5.52	1230
55	34,760	33,585	32,380	31,055	29,344	26,824	24,553	**PSBHX48RF***		7 1/2	760	74	8.48	1350
56	20,440	18,112	---	---	---	---	---	**PSBC48NF**		2	707	39	2.27	1223
57	24,492	22,510	19,913	---	---	---	---	**PSBC48PF**		3	804	49	3.34	1228
58	28,635	26,952	25,118	22,405	---	---	---	**PSBC48QF**		5	940	66	5.33	1342
59	32,899	31,435	29,932	28,166	25,620	21,751	17,688	**PSBC48RF**		7 1/2	1080	85	8.10	1398
60	22,208	19,491	14,166	---	---	---	---	**PSBH54MF**	54	1 1/2	416	25	1.69	1370
61	24,184	21,738	17,987	---	---	---	---	**PSBH54NF**		2	453	30	2.28	1376
62	27,333	25,207	22,606	17,645	---	---	---	**PSBH54PF**		3	512	32	3.37	1401
63	34,916	33,025	30,947	28,426	25,019	---	---	**PSBHX54QF**		5	546	57	5.56	1526
64	40,160	38,531	36,799	34,889	32,615	29,745	---	**PSBHX54RF**		7 1/2	628	71	8.38	1578
65	43,741	42,252	40,689	39,014	37,141	34,914	32,194	**PSBHX54SF***		10	691	85	10.85	1587
66	23,152	19,451	---	---	---	---	---	**PSBC54NF**		2	592	37	2.21	1545
67	26,437	23,152	19,809	---	---	---	---	**PSBC54PF**		3	676	45	3.29	1576
68	33,894	31,120	27,816	24,697	20,374	---	---	**PSBC54QF**		5	801	70	5.52	1621
69	38,844	36,593	33,574	30,902	28,126	24,565	---	**PSBC54RF**		7 1/2	918	95	8.30	1681
70	42,991	41,045	38,366	35,801	33,425	30,849	27,667	**PSBC54SF**		10	1016	114	11.26	1693
71	25,051	21,008	15,034	---	---	---	---	**PSBHX60MF**	60	1 1/2	320	23	1.67	1825
72	27,869	24,254	19,639	---	---	---	---	**PSBHX60NF**		2	356	28	2.24	1831
73	31,783	28,648	25,302	20,143	---	---	---	**PSBHX60PF**		3	406	37	3.38	1856
74	37,889	35,315	32,562	29,654	25,184	---	---	**PSBHX60QF**		5	484	51	5.68	1868
75	44,362	42,174	39,696	37,144	34,520	30,826	---	**PSBHX60RF**		7 1/2	552	64	8.33	1920
76	49,024	47,069	44,887	42,569	40,278	37,845	34,513	**PSBHX60SF**		10	613	77	11.22	1933
77	27,364	23,056	---	---	---	---	---	**PSBC60NF**		2	558	40	2.23	1902
78	31,385	27,666	23,484	---	---	---	---	**PSBC60PF**		3	640	49	3.36	1927
79	37,122	33,971	30,718	27,076	23,271	---	---	**PSBC60QF**		5	757	69	5.57	1935
80	43,755	40,867	37,947	34,876	31,453	28,229	---	**PSBC60RF**		7 1/2	864	89	8.33	2003
81	48,161	45,552	42,878	40,223	37,248	34,170	31,255	**PSBC60SF**		10	951	110	11.11	2015
82	34,018	28,954	18,543	---	---	---	---	**PSBC72NF**	72	2	308	26	2.18	2139
83	41,875	36,930	31,965	17,715	---	---	---	**PSBC72PF**		3	354	33	3.32	2159
84	49,682	45,522	41,486	36,840	24,597	---	---	**PSBC72QF**		5	420	44	5.52	2175

1 — Performance shown for Installation Type A: free inlet, free outlet. Performance ratings include the effects of 2" aluminum filters.

2 — The first four or five letters of the model number identify **fan type, drive configuration** and **style.** The next two numbers indicate **fan size,** the next letter identifies motor **horsepower.** The following 'F' indicates that it is a **filtered** unit. Example: Model PSBH24HF is Type 'PS,' belt drive, Style 'H,' 24" size, 1/3 HP, filtered.

3 — On Style 'H' & 'HX,' die-formed steel blades are standard. On Style 'C,' an adjustable pitch propeller with cast aluminum airfoil blades is standard.

4 — The sound ratings shown are loudness values in hemispherical sones at a distance of 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free outlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.

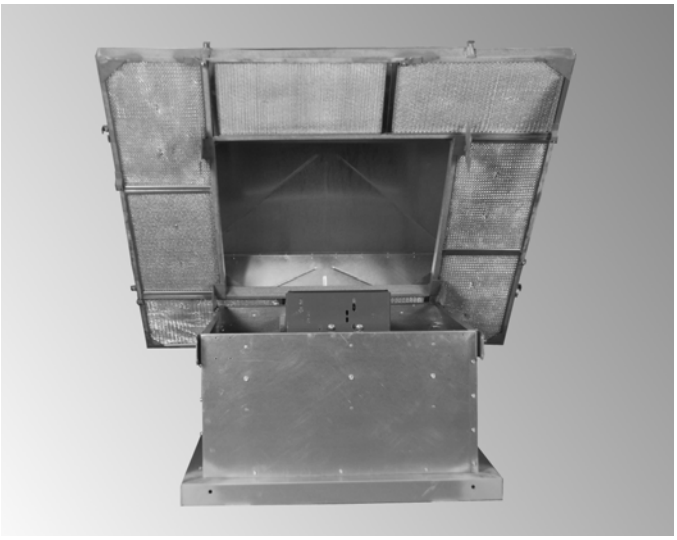
5 — Maximum brake horsepower (BHP) within the catalog performance range. Power ratings (BHP) do not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.

6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m^3/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

*These models have fixed pitch motor pulleys.

Type PSD-F

FILTERED SUPPLY — DIRECT DRIVE — 2,700 to 46,000 CFM — 0" to $^{3}/_{4}$" STATIC PRESSURE



Application and Features

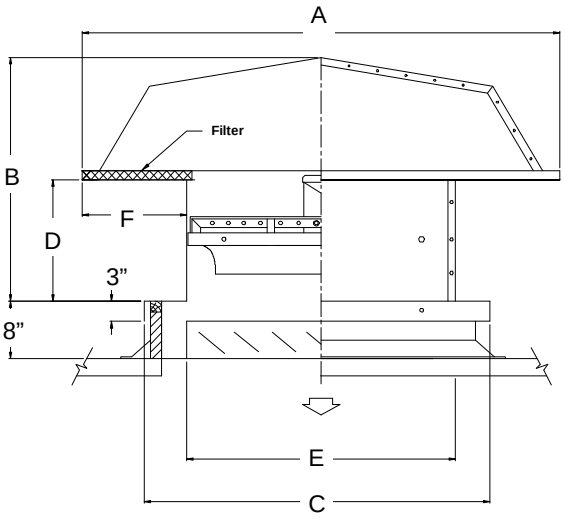
Type PSD-F PRVs provide filtered make-up air from an economical roof mounted unit.

The Type PSD-F unit is similar to the Type PSDC, except that the PSD-F unit is furnished with two-inch thick, permanent, cleanable filters.

The filters are easily mounted into the filter rack when the unit is installed at the job site.

American Coolair's performance data provides net CFM ratings with hood and filters in place. We have eliminated the need to estimate the effect of filters on the PRV performance!

Type PSD-F PRVs incorporate the Style C fan components. This fan style is described in the *Fan Component* section on Pages 4-5.



TYPE PSDC-F

Item No.[1]	Fan Size	Dimensions in Inches A	B	C	D	E	F	Filter Area ft²
1-5	**24**	57	36 1/4	38	20 1/4	28 3/8	12 1/2	13.2
6-10		67	40				17 1/2	21.3
11,12	**30**	67	40	44	20 1/4	34 3/8	14 1/2	18.4
13-20		78	41 3/4				20	29.0
21,23,24	**36**	78	41 3/4	50	20 1/4	40 3/8	17	25.6
22,25-33		88	42 3/4				22	36.7
34,35,37,38	**42**	88	42 3/4	56	20 1/4	46 3/8	19	32.8
36,39-45		98	48 1/4				24	45.3
46-49	**48**	98	51 1/8	62	23 1/8	52 3/8	21	40.9
50-55		109	57 1/8				26 1/2	56.3
56,57	**54**	109	57 1/8	68	23 1/8	58 3/8	23 1/2	51.3
58-62		127 7/8	45 3/4				32 7/8	81.8
63,64	**60**	127 7/8	57 3/8	77	23 1/8	64 3/8	29 7/8	76.4
65,66		139 1/2	45 3/4				35 3/4	97.3

1 — Numbers are inclusive and identify each model for which dimensions apply.

Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

Dimension F is the distance of the filter overhang

Performance Ratings

American Coolair Corporation certifies that the performance data for the type PSD-F PRV models shown below are based on tests conducted in an accredited laboratory in accordance with ANSI Standards 210-07 and 300-08.

Typical Specifications

Hooded supply power roof ventilators shall be American Coolair Type PSDC-F, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. PRVs shall be furnished with 2" thick, permanent, cleanable filters. Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Entire blade assembly shall be mounted directly to the motor shaft. Performance ratings shall be from tests of complete PRV and so certified by the PRV manufacturer. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

Item	Cubic Feet Per Minute (CFM) at Static Pressure[1,6]								Fan	Motor	Fan	Sone	Max	Blade Desc.[5]		Approx.
No.	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Size	HP	RPM	Rating[3]	BHP[4,6]	No.	Pitch	Ship Wt.
1	4,653	3,848	2,555	---	---	---	---	**PSDC24G8F**		1/4	870	14.5	0.29	3	27.5°	400
2	5,724	5,097	4,194	2,867	---	---	---	**PSDC24J8F**		1/2	870	17.8	0.58	6	30.5°	410
3	4,860	4,317	3,633	2,659	---	---	---	**PSDC24H11F**		1/3	1160	19.7	0.37	3	15.5°	400
4	5,813	5,246	4,604	3,776	---	---	---	**PSDC24J11F**		1/2	1160	22	0.58	3	23°	405
5	6,300	5,896	5,418	4,820	4,000	3,179	---	**PSDC24K11F**	24	3/4	1160	27	0.86	6	22.5°	410
6	7,432	6,999	6,498	5,916	5,088	3,920	---	**PSDC24L11F**		1	1160	28	1.13	6	27°	431
7	6,985	6,655	6,218	5,791	5,339	4,798	4,140	**PSDC24L17F**		1	1750	37	1.13	3	14°	420
8	8,173	7,802	7,424	7,036	6,614	6,136	5,573	**PSDC24M17F**		1 1/2	1750	43	1.70	3	19.5°	425
9	9,259	8,879	8,491	8,092	7,671	7,207	6,680	**PSDC24N17F**		2	1750	48	2.26	3	26.5°	431
10	10,764	10,479	10,179	9,875	9,564	9,235	8,874	**PSDC24P17F**		3	1750	53	3.49	6	25°	461
11	7,906	6,802	5,177	---	---	---	---	**PSDC30J8F**		1/2	870	20	0.56	3	22°	560
12	8,963	8,238	7,323	6,115	---	---	---	**PSDC30K8F**		3/4	870	22	0.85	6	19°	550
13	10,627	9,866	9,004	7,816	5,608	---	---	**PSDC30L8F**		1	870	23	1.15	6	23.5°	590
14	9,244	8,376	7,458	6,335	---	---	---	**PSDC30K11F**		3/4	1160	29	0.84	3	14.5°	545
15	10,676	9,774	8,888	7,812	6,085	---	---	**PSDC30L11F**	30	1	1160	32	1.14	3	19.5°	560
16	12,192	11,263	10,330	9,231	7,546	---	---	**PSDC30M11F**		1 1/2	1160	34	1.70	3	26°	590
17	13,281	12,746	12,197	11,596	10,882	9,979	8,786	**PSDC30N11F**		2	1160	37	2.32	6	21°	605
18	12,639	12,047	11,484	10,902	10,294	9,634	8,835	**PSDC30N17F**		2	1750	57	2.24	3	12°	555
19	14,931	14,433	13,893	13,298	12,667	12,011	11,301	**PSDC30P17F**		3	1750	60	3.39	3	17°	580
20	18,217	17,603	16,993	16,397	15,794	15,162	14,466	**PSDC30Q17F**		5	1750	69	5.67	3	25.5°	595
21	12,011	10,672	8,740	---	---	---	---	**PSDC36L6F**		1	680	25	1.13	6	23.5°	685
22	14,266	12,436	10,401	---	---	---	---	**PSDC36M6F**		1 1/2	680	28	1.66	6	30°	745
23	10,975	9,489	7,990	---	---	---	---	**PSDC36K8F**		3/4	870	27	0.86	3	15.5°	645
24	12,278	10,592	8,915	6,207	---	---	---	**PSDC36L8F**		1	870	30	1.14	3	20°	675
25	15,030	13,223	11,216	---	---	---	---	**PSDC36M8F**		1 1/2	870	33	1.71	3	28°	695
26	15,592	14,110	12,365	8,907	---	---	---	**PSDC36N8F**		2	870	38	2.27	4	28.5°	745
27	14,042	12,929	11,820	10,569	9,021	---	---	**PSDC36M11F**	36	1 1/2	1160	41	1.70	3	12.5°	690
28	16,292	15,081	13,665	12,423	11,126	8,998	---	**PSDC36N11F**		2	1160	48	2.29	3	17.5°	695
29	18,835	17,607	16,274	14,692	13,104	10,508	---	**PSDC36P11F**		3	1160	55	3.40	3	24°	745
30	21,570	20,786	19,969	19,111	18,195	17,147	15,810	**PSDC36Q11F**		5	1160	66	5.65	6	23.5°	765
31	19,361	18,715	18,069	17,417	16,753	16,067	15,349	**PSDC36Q17F**		5	1750	84	5.79	3	11°	695
32	23,006	22,340	21,675	21,011	20,343	19,665	18,967	**PSDC36R17F**		7 1/2	1750	94	8.52	3	16.5°	745
33	25,708	24,954	24,202	23,452	22,701	21,949	21,191	**PSDC36S17F**		10	1750	103	11.20	3	20.5°	765
34	14,265	11,932	9,035	---	---	---	---	**PSDC42L6F**		1	680	29	1.13	3	18.5°	805
35	15,883	14,015	12,108	---	---	---	---	**PSDC42M6F**		1 1/2	680	31	1.68	4	21.5°	855
36	18,701	17,292	15,746	13,849	---	---	---	**PSDC42N6F**		2	680	39	2.29	6	21.5°	895
37	13,604	11,908	9,925	7,502	---	---	---	**PSDC42L8F**	42	1	870	36	1.14	3	8°	795
38	15,923	14,252	12,403	9,941	---	---	---	**PSDC42M8F**		1 1/2	870	40	1.67	3	13°	805
39	18,980	17,077	14,997	12,643	---	---	---	**PSDC42N8F**		2	870	44	2.26	3	17.5°	875
40	21,791	19,677	17,309	14,958	11,959	---	---	**PSDC42P8F**		3	870	55	3.38	3	25°	895

(chart continues next page)

Type PSD-F Performance Ratings (cont'd.)

Item	Cubic Feet Per Minute (CFM) at Static Pressure[1,6]								Fan	Motor	Fan	Sone	Max	Blade Desc.[5]		Approx.
No.	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Size	HP	RPM	Rating[3]	BHP[4,6]	No.	Pitch	Ship Wt.
41	17,470	16,131	14,733	13,308	11,698	9,419	---	**PSDC42N11F**	42	2	1160	57	2.29	3	6°	825
42	20,906	19,655	18,379	16,973	15,293	13,285	11,100	**PSDC42P11F**		3	1160	66	3.43	3	11°	875
43	25,592	24,182	22,713	21,168	19,528	17,762	15,729	**PSDC42Q11F**		5	1160	76	5.50	3	18°	895
44	27,429	26,600	25,720	24,806	23,854	22,873	21,878	**PSDC42R17F**		7 1/2	1750	129	8.57	3	7°	875
45	31,044	30,234	29,427	28,610	27,771	26,895	25,969	**PSDC42S17F**		10	1750	143	11.35	3	10.5°	895
46	15,081	12,547	9,644	---	---	---	---	**PSDC48L6F**	48	1	680	30	1.11	3	8.5°	1045
47	17,673	15,640	13,329	10,239	---	---	---	**PSDC48M6F**		1 1/2	680	37	1.70	4	11°	1085
48	19,170	17,230	15,071	12,229	---	---	---	**PSDC48N6F**		2	680	36	2.17	4	15°	1110
49	18,980	16,980	15,036	12,717	9,700	---	---	**PSDC48N8F**		2	870	46	2.22	3	8°	1085
50	23,267	21,223	19,069	16,623	13,734	---	---	**PSDC48P8F**		3	870	51	3.32	3	13.5°	1120
51	27,153	25,286	23,318	21,358	19,354	16,895	---	**PSDC48Q8F**		5	870	60	5.33	4	17.5°	1165
52	31,519	30,112	28,762	27,367	25,811	24,033	22,008	**PSDC48R8F**		7 1/2	870	76	8.46	6	20.5°	1195
53	26,909	25,374	23,738	22,112	20,527	18,809	16,760	**PSDC48Q11F**		5	1160	80	5.52	3	8.5°	1120
54	31,879	30,324	28,751	27,159	25,505	23,698	21,653	**PSDC48R11F**		7 1/2	1160	90	8.38	3	14.5°	1155
55	34,872	33,290	31,489	29,402	27,260	25,245	23,249	**PSDC48S11F**		10	1160	96	11.04	3	19°	1195
56	20,879	18,063	14,603	---	---	---	---	**PSDC54M6F**	54	1 1/2	680	39	1.65	3	8°	1240
57	22,955	20,424	17,169	11,877	---	---	---	**PSDC54N6F**		2	680	43	2.22	3	12°	1260
58	27,764	25,573	22,974	20,070	16,818	---	---	**PSDC54P8F**		3	870	61	3.31	3	7.5°	1275
59	33,753	30,648	27,887	25,802	22,879	17,131	---	**PSDC54Q8F**		5	870	73	5.37	3	14°	1325
60	38,226	34,690	31,952	29,555	26,572	21,602	---	**PSDC54R8F**		7 1/2	870	88	8.36	3	22°	1355
61	37,562	35,966	34,323	32,511	30,423	28,180	25,900	**PSDC54R11F**		7 1/2	1160	105	8.25	3	8°	1315
62	42,331	40,139	38,162	36,511	34,958	33,286	31,126	**PSDC54S11F**		10	1160	117	11.15	3	12°	1345
63	26,144	22,746	19,157	13661.9	---	---	---	**PSDC60N6F**	60	2	680	49	2.28	3	6°	1460
64	35,440	33,219	30,591	27,277	24,386	20,377	---	**PSDC60Q8F**		5	870	80	5.63	3	8°	1500
65	42,237	39,932	37,219	33,388	29,264	24,823	---	**PSDC60R8F**		7 1/2	870	90	8.43	3	14°	1555
66	45,441	43,870	42,107	39,728	36,922	34,772	32,892	**PSDC60S11F**		10	1160	137	11.35	3	6°	1555

1 — Performance shown for Installation Type A: free inlet, free outlet. Performance ratings include the effects of 2" aluminum filters.

2 — The first four letters of the model number identify **fan type, drive configuration** and **style.** The next two numbers indicate **fan size,** the next letter identifies motor **horsepower;** the next number (or numbers) indicates **RPM** in hundreds. The following 'F' indicates that it is a **filtered** unit. Example: Model PSDC24G8F is Type 'PS,' direct drive, Style 'C,' 24" size, 1/4 HP, 870 RPM, filtered.

3 — The sound ratings shown are loudness values in hemispherical sones at a distance of 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free outlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.

4 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.

5 — An adjustable pitch propeller with cast aluminum airfoil blades is standard.

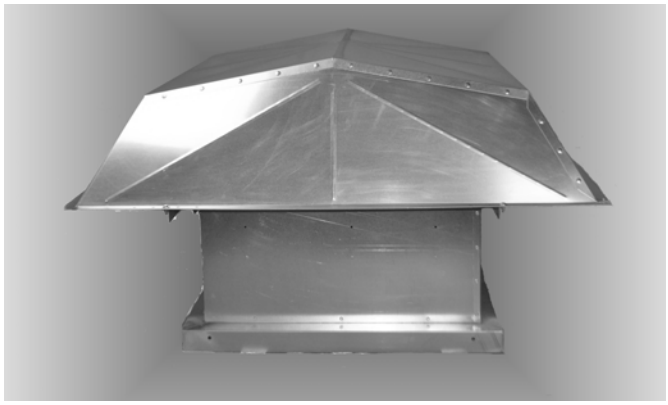
6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m^3/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m^3/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type RPBC and RPDC

REVERSIBLE — BELT OR DIRECT DRIVE —
2,600 to 42,000 CFM
0" to $^{3}/_{4}$" STATIC PRESSURE



Application and Features

Type RPBC (belt drive) and RPDC (direct drive) PRVs are single units designed for both exhaust and supply.

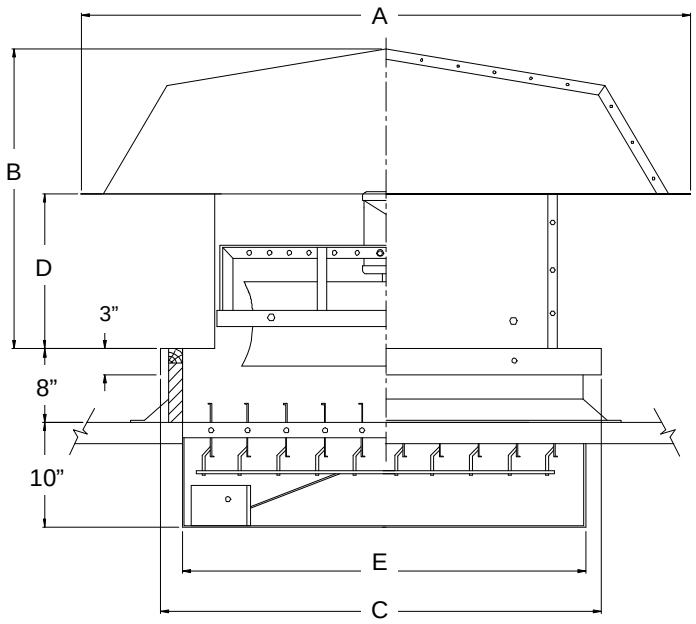
They are identical in exterior appearance to the PE, PS and PS-F units.

Type RPBC and RPDC PRVs use adjustable pitch cast aluminum airfoil propeller blades with alternate blades turned 180° and a double orifice attached to the fan panel. The result is essentially equal air movement abilities in either exhaust or supply mode.

The exhaust capability is reduced slightly due to air flow restrictions imposed by the hood, even through the propeller performs equally in both directions.

To prevent backdraft when the unit is not energized, a center pivoted, motorized damper is recommended.

Type RP models incorporate American Coolair Style 'C' fan components. These fans are described in the *Fan Component* section on Pages 4-5.



TYPE RPB-RPD

Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-3/8 inches on all sides.

	Dimensions in Inches				
Fan Size	**A**	**B**	**C**	**D**	**E**
24	57	34 1/2	38	20 3/4	28 3/8
30	67	38 1/4	44	20 3/4	34 3/8
36	78	40	50	20 3/4	40 3/8
42	88	41	56	20 3/4	46 3/8
48	98	49 3/8	62	23 5/8	52 3/8
54	109	55 3/8	68	23 5/8	58 3/8
60	109	55 3/8	77	23 5/8	64 3/8

Performance Ratings

American Coolair Corporation certifies that the performance data for the type RPB & RPD PRV models shown below are based on tests conducted in an accredited laboratory in accordance with ANSI Standards 210-07 and 300-08.

Typical Specifications

Reversible hooded power roof ventilators shall be American Coolair Type RP, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable and blade shall be designed to move air equally in either direction, exhaust or supply. (For belt drive models: Ball bearings shall be of the heavy-duty pillow block type. Motor pulleys shall be variable pitch.) (For direct drive models: Entire propeller assembly shall be mounted directly to the motor shaft.) Performance ratings shall be based on tests in accordance with industry test standards and procedures and so certified by the manufacturer. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch; bird screen; heavy duty, center-pivoted, motor operated, backdraft damper; prefabricated curb and special protective coating.)

Item	Cubic Feet Per Minute (CFM) at Static Pressure[1,6]								Fan	Motor	Fan	Sone	Max	Blade[5]	Approx.
No.	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Size	HP	RPM	Rating[3]	BHP[4,6]	Pitch	Ship Wt.
1	5,013	4,204	2,555	---	---	---	---	**RP-C24H11**		1/3	1160	20	0.38	20°	415
2	6,253	5,297	3,648	---	---	---	---	**RP-C24J11**		1/2	1160	24	0.58	29°	430
3	6,402	5,890	5,369	4,720	3,531	---	---	**RP-C24K17**	24	3/4	1750	35	0.90	15°	435
4	7,562	7,057	6,514	5,830	4,943	---	---	**RP-C24L17**		1	1750	40	1.23	20°	440
5	8,602	8,066	7,447	6,716	5,851	4,187	---	**RP-C24M17**		1 1/2	1750	43	1.79	25°	445
6	7,558	6,137	3,232	---	---	---	---	**RP-C30J8**		1/2	870	18.8	0.53	20.5°	540
7	7,302	6,247	4,962	---	---	---	---	**RP-C30J11**		1/2	1160	27	0.60	12°	540
8	8,716	7,674	6,547	4,329	---	---	---	**RP-C30K11**		3/4	1160	28	0.89	16°	545
9	10,496	9,418	8,213	6,199	---	---	---	**RP-C30L11**	30	1	1160	32	1.26	22°	560
10	11,335	10,292	8,975	7,124	4,618	---	---	**RP-C30M11**		1 1/2	1160	33	1.69	25°	560
11	11,293	10,624	9,939	9,159	8,295	7,215	5,625	**RP-C30N17**		2	1750	53	2.31	12.5°	565
12	14,308	13,652	12,980	12,228	11,403	10,519	9,358	**RP-C30P17**		3	1750	59	3.41	18.5°	585
13	18,147	17,495	16,760	15,929	15,001	13,994	12,926	**RP-C30Q17**		5	1750	67	5.69	27.5°	600
14	8,900	7,215	4,298	---	---	---	---	**RP-C36J8**		1/2	870	24	0.59	10.5°	630
15	11,738	9,993	7,844	---	---	---	---	**RP-C36K8**		3/4	870	26	0.90	16.5°	635
16	13,194	11,541	9,399	5,252	---	---	---	**RP-C36L8**		1	870	28	1.28	20°	645
17	15,432	13,716	11,356	6,953	---	---	---	**RP-C36M8**		1 1/2	870	32	1.79	26°	650
18	11,538	10,292	9,105	6,649	---	---	---	**RP-C36L11**		1	1160	39	1.27	10°	645
19	12,850	11,586	10,173	8,489	5,767	---	---	**RP-C36M11**		1 1/2	1160	40	1.64	12°	650
20	15,373	14,087	12,777	11,347	8,645	6,112	---	**RP-C36N11**	36	2	1160	43	2.31	16°	655
21	18,835	17,537	16,124	14,572	12,527	8,768	---	**RP-C36P11**		3	1160	51	3.46	22.5°	675
22	14,355	13,446	12,570	11,521	10,264	8,906	7,614	**RP-C36P17**		3	1750	73	3.41	7°	675
23	20,871	20,019	19,202	18,406	17,551	16,564	15,446	**RP-C36Q17**		5	1750	83	5.64	13.5°	690
24	26,121	25,296	24,477	23,663	22,821	21,903	20,879	**RP-C36R17**		7 1/2	1750	95	8.57	19.5°	740
25	29,540	28,755	27,935	27,024	26,045	25,030	23,950	**RP-C36S17**		10	1750	108	11.50	24°	760
26	13,138	11,437	8,849	5,584	---	---	---	**RP-C42L8**		1	870	36	1.26	10°	765
27	15,996	14,263	12,022	8,382	---	---	---	**RP-C42M8**		1 1/2	870	39	1.72	14°	770
28	17,905	16,026	13,979	10,313	7,074	---	---	**RP-C42N8**		2	870	41	2.31	17°	775
29	21,483	19,521	17,293	14,083	9,729	---	---	**RP-C42P8**	42	3	870	49	3.45	23.5°	795
30	15,022	13,605	11,833	9,583	7,530	---	---	**RP-C42N11**		2	1160	55	2.31	7.5°	775
31	18,490	17,083	15,690	14,176	11,609	8,917	6,875	**RP-C42P11**		3	1160	60	3.39	11°	795
32	25,053	23,750	22,292	20,686	18,945	16,513	12,631	**RP-C42Q11**		5	1160	71	5.71	18.5°	810

(chart continues next page)

Type RPB & RPD Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure[1,6] 0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	Fan Model[2]	Fan Size	Motor HP	Fan RPM	Sone Rating[3]	Max BHP[4,6]	Blade[5] Pitch	Approx. Ship Wt.
33	19,751	17,160	13,504	---	---	---	---	**RP-C48M6**		1 1/2	680	32	1.77	16°	1110
34	22,443	19,886	16,425	---	---	---	---	**RP-C48N6**		2	680	33	2.27	20°	1115
35	25,314	22,430	18,847	12,515	---	---	---	**RP-C48P6**		3	680	37	3.42	25°	1135
36	19,295	17,421	15,328	11,007	---	---	---	**RP-C48N8**		2	870	44	2.29	10°	1115
37	23,419	21,523	19,297	16,149	11,909	---	---	**RP-C48P8**	48	3	870	47	3.38	14°	1135
38	29,350	27,367	25,143	22,373	18,129	13,353	---	**RP-C48Q8**		5	870	52	5.74	21°	1150
39	25,727	24,308	22,914	21,418	19,420	15,699	13,115	**RP-C48Q11**		5	1160	75	5.61	10°	1150
40	33,134	31,671	30,200	28,679	27,019	24,940	21,832	**RP-C48R11**		7 1/2	1160	83	8.53	15.5°	1205
41	38,285	36,878	35,402	33,769	31,909	29,860	27,569	**RP-C48S11**		10	1160	88	11.33	20°	1255
42	22,792	19,722	16,065	10,023	---	---	---	**RP-C54N6**		2	680	37	2.21	10.5°	1235
43	28,268	25,318	22,100	15,999	10,245	---	---	**RP-C54P6**		3	680	42	3.31	15°	1260
44	36,574	33,283	29,556	24,654	16,639	---	---	**RP-C54Q6**		5	680	49	5.74	23.5°	1290
45	33,037	30,726	28,207	25,201	21,423	16,082	---	**RP-C54Q8**	54	5	870	64	5.64	13°	1290
46	42,053	39,775	37,373	34,555	31,305	26,903	---	**RP-C54R8**		7 1/2	870	77	8.48	19.5°	1350
47	34,533	32,689	30,899	28,970	26,739	23,262	20,021	**RP-C54R11**		7 1/2	1160	95	8.55	8.5°	1350
48	41,961	40,202	38,403	36,421	34,386	32,240	29,844	**RP-C54S11**		10	1160	103	11.24	12°	1380
49	29,192	26,251	22,755	15,941	---	---	---	**RP-C60P6**		3	680	49	3.39	10°	1375
50	38,113	34,973	31,625	26,766	19,707	---	---	**RP-C60Q6**	60	5	680	55	5.76	16°	1405
51	31,032	28,414	24,996	21,103	17,215	13,704	---	**RP-C60Q8**		5	870	73	5.65	7°	1405
52	40,352	37,767	35,130	32,350	28,926	23,306	19,053	**RP-C60R8**		7 1/2	870	80	8.55	11.5°	1465

1 — Performance shown is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream.

2 — The first four letters of the model number identify **fan type, drive configuration** and **style.** (Drive configuration has been omitted in the above table. Replace the '-' with a 'D' for direct drive or 'B' for belt drive to complete model number.) The next two numbers indicate **fan size,** the next letter identifies motor **horsepower;** the last number (or numbers) indicates **RPM** in hundreds. Example: Model RPDC24H11 is Type 'RP,' direct drive, Style 'C,' 24" size, 1/3 HP, 1160 RPM.

3 — The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet fan sone levels. The sound ratings shown are at 0" static pressure.

4 — Maximum brake horsepower (BHP) within the catalog performance range. On belt drive models, power ratings (BHP) do not include transmission losses. Bearing losses are included. On both belt and direct drive models, BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.

5 — All models use a four bladed adjustable pitch propeller with cast aluminum airfoil blades. Alternate blades are pitched 180° apart. Blade pitch in degrees from plane of hub is shown.

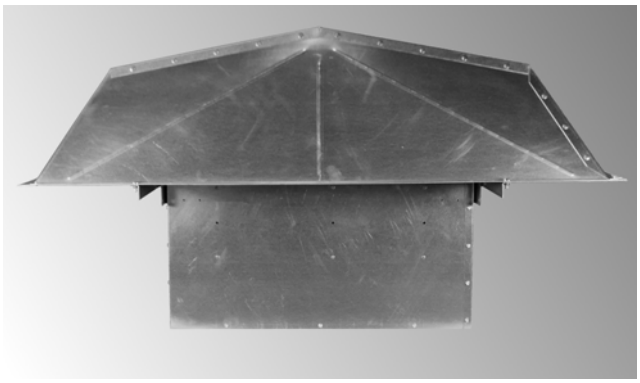
6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m^3/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m^3/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type P-UD

LOW CFM — DIRECT DRIVE — 460 to 4,800 CFM
0" to $^1/_2$" STATIC PRESSURE



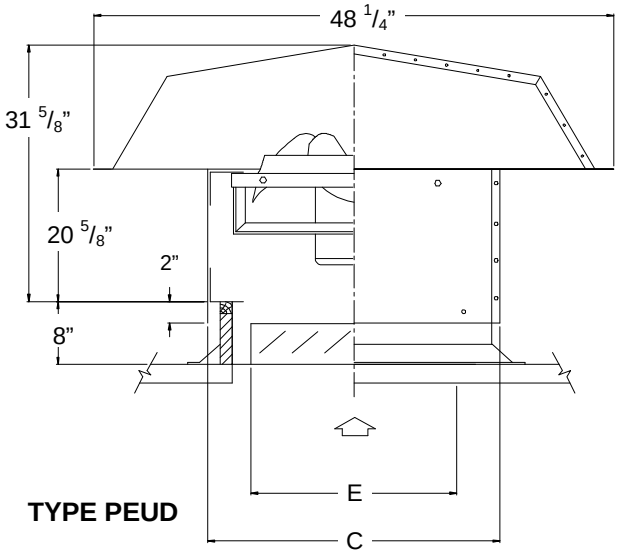
Application and Features

Type P-UD PRVs combine the heavy-duty construction and reliability needed for industrial applications with unusually low noise levels.

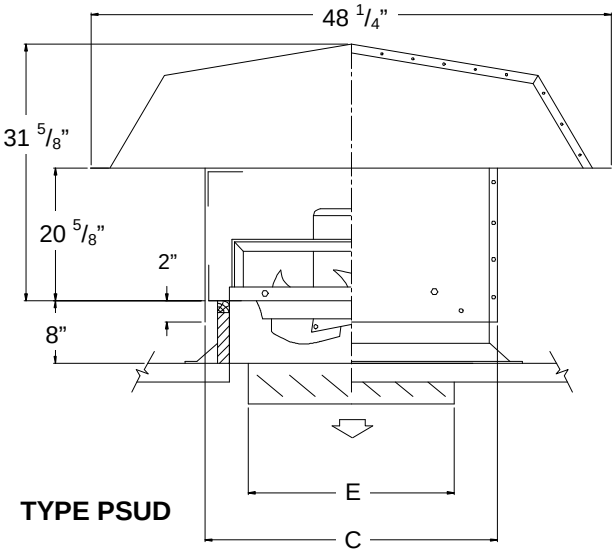
P-UD PRVs can be specified for exhaust, supply or filtered supply. A wide selection of motor speeds are offered.

In addition, many models can be supplied with a solid state speed control for precise adjustment of performance.

Type P-UD PRVs incorporate Style U fan components. This fan style is described in the fan component section.



TYPE PEUD



TYPE PSUD

Dimensions

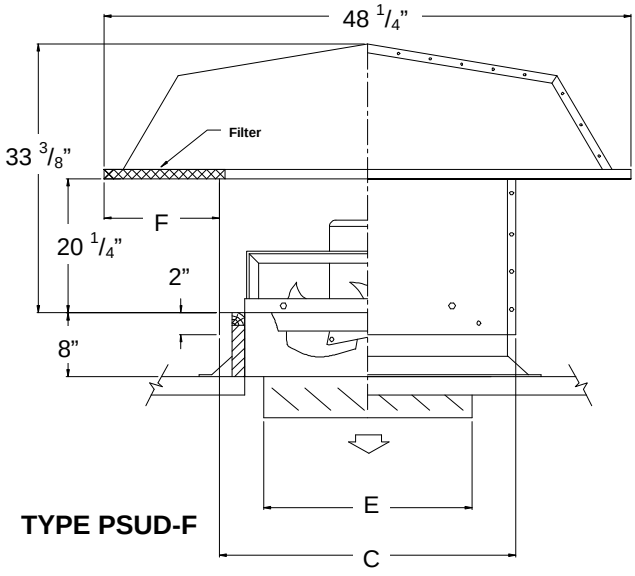
Dimension C is the I.D. of the internal curb cap flange.

Dimension E is the damper net length and width, flanges add 1-5/8 inches on all sides.

Dimension F is the distance of the filter overhang for Type PSUD-F.

	Dimensions in Inches			
Fan Size	**C**	**E**	**F**	**Filter Area, ft²**
10* & 12	24	14 1/4	12 1/8	9.9
14 &16	28	18 1/4	10 1/8	8.6
18 & 20	32	22 1/4	8 1/8	7.1

* - The P-UD10 models feature aluminum blades, all other sizes feature epoxy-coated steel blades.



TYPE PSUD-F

Performance Ratings

American Coolair Corporation certifies that the performance data for the type P-UD PRV models shown below are based on tests conducted in an accredited laboratory in accordance with ANSI Standards 210-07 and 300-08.

Typical Specifications

Hooded propeller power roof ventilators shall be American Coolair Type PEUD, PSUD, and/or PSUD-F as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Propellers shall be designed for high efficiency and low noise level. PRV hood and base shall be of galvanized steel for protection against rust and corrosion. Entire blade assembly shall be mounted directly to the motor shaft. Performance ratings shall be based on tests in accordance with industry test standards and procedures and so certified by the manufacturer. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated roof curb and special protective coating.)

Item	Cubic Feet Per Minute (CFM) at Static Pressure[1,6]						Fan	Motor	Fan	Sone	Max	Blade	Approx.
No.	0"	1/8"	1/4"	3/8"	1/2"	Fan Model[2]	Size	HP	RPM	Rating[3]	BHP[4,6]	Pitch	Ship Wt.
EXHAUST													
1	790	635	---	---	---	**PEUD10B15[5]**	10	1/20	1550	7.1	0.05	40°	83
2	1,470	1,354	1,190	904	603	**PEUD12F17**	12	1/6	1750	7.2	0.16	33°	96
3	1,625	1,449	941	469	---	**PEUD14H11[5]**	14	1/3	1160	6.5	0.16	41°	106
4	1,985	1,873	1,749	1,424	1,188	**PEUD14F17**	14	1/6	1750	8.8	0.22	29°	113
5	2,286	2,059	1,800	1,137	---	**PEUD16H11[5]**	16	1/3	1160	8.9	0.23	41°	107
6	2,735	2,619	2,478	2,319	2,124	**PEUD16H17**	16	1/3	1750	15.5	0.39	32°	115
7	2,677	2,487	2,241	1,557	1,242	**PEUD18H11[5]**	18	1/3	1160	8.4	0.29	32°	136
8	3,387	3,301	3,165	3,024	2,849	**PEUD18J17**	18	1/2	1750	15.1	0.57	25°	135
9	3,530	3,314	3,068	2,790	---	**PEUD20H11[5]**	20	1/3	1160	10.8	0.39	31°	137
10	4,575	4,462	4,328	4,186	4,026	**PEUD20K17**	20	3/4	1750	22	0.89	24°	142
SUPPLY													
11	786	632	---	---	---	**PSUD10B15[5]**	10	1/20	1550	7.1	0.05	40°	83
12	1,485	1,368	1,202	913	610	**PSUD12F17**	12	1/6	1750	7.2	0.16	33°	96
13	1,634	1,456	946	471	---	**PSUD14H11[5]**	14	1/3	1160	6.5	0.16	41°	106
14	2,005	1,892	1,767	1,438	1,200	**PSUD14F17**	14	1/6	1750	8.8	0.22	29°	113
15	2,358	2,123	1,857	1,173	---	**PSUD16H11[5]**	16	1/3	1160	8.9	0.23	41°	107
16	2,913	2,790	2,640	2,471	2,263	**PSUD16H17**	16	1/3	1750	15.5	0.39	32°	115
17	2,820	2,619	2,360	1,640	1,308	**PSUD18H11[5]**	18	1/3	1160	8.4	0.29	32°	136
18	3,662	3,569	3,421	3,269	3,080	**PSUD18J17**	18	1/2	1750	15.1	0.57	25°	135
19	3,604	3,384	3,136	2,802	1,903	**PSUD20H11[5]**	20	1/3	1160	10.8	0.39	31°	137
20	4,793	4,674	4,534	4,385	4,217	**PSUD20K17**	20	3/4	1750	22	0.89	24°	142
FILTERED SUPPLY													
21	760	611	---	---	---	**PSUD10B15F[5]**	10	1/20	1550	7.1	0.05	40°	118
22	1,440	1,326	1,165	885	591	**PSUD12F17F**	12	1/6	1750	7.2	0.16	33°	131
23	1,590	1,417	921	459	---	**PSUD14H11F[5]**	14	1/3	1160	6.5	0.16	41°	146
24	1,944	1,834	1,713	1,394	1,163	**PSUD14F17F**	14	1/6	1750	8.8	0.22	29°	153
25	2,234	2,012	1,759	1,111	---	**PSUD16H11F[5]**	16	1/3	1160	8.9	0.23	41°	147
26	2,675	2,563	2,424	2,269	2,078	**PSUD16H17F**	16	1/3	1750	15.5	0.39	32°	155
27	2,529	2,349	2,117	1,471	1,173	**PSUD18H11F[5]**	18	1/3	1160	8.4	0.29	32°	181
28	3,271	3,188	3,056	2,920	2,751	**PSUD18J17F**	18	1/2	1750	15.1	0.57	25°	180
29	3,483	3,270	3,027	2,753	---	**PSUD20H11F[5]**	20	1/3	1160	10.8	0.39	31°	182
30	4,511	4,399	4,267	4,128	3,970	**PSUD20K17F**	20	3/4	1750	22	0.89	24°	187

1 — Performance shown is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). Models PSUD-F include the effects of filters in the airstream.

2 — The first four letters of the model number identify **fan type, drive configuration** and **style.** The next two numbers indicate **fan size,** the next letter identifies motor **horsepower;** the next number (or numbers) indicates **RPM** in hundreds. An additional letter 'F' is added for **filtered** model**.** Example: Model PEUD10B15 is Type 'PE,' Style 'U,' direct drive, 10" size, 1/20 HP, 1550 RPM.

3 — The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet fan sone levels. The sound ratings shown are at 0" static pressure.

4 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.

5 — Manually adjustable variable speed control is available as an option with these models. Control provides infinite variation of motor from full speed to 50 percent of full speed. It is available only with single phase motors. Specify "variable speed control" when this accessory is desired.

6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m^3/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Installation, Selection, and Maintenance

INSTALLATION: Hooded PRVs are shipped in two packages (fan base and hood) for quick assembly and installation onto a roof curb. Type PSF units have additional packages containing filter rack and filters. The base section, fan, and motor should be securely attached to a roof curb. The hood (and filter rack, if applicable) can then be easily attached to the base. Before connecting the fan motor to a power source, check the motor nameplate to be sure of correct phase and voltage. Also, check the motor wiring connections on dual-voltage motors to make sure of the correct motor voltage. Make sure propeller turns freely without striking fan frame or any foreign object which may interfere with its operation. Note the arrow on the fan orifice to make sure the propeller is rotating in the correct direction when power is applied.

SOUND RATINGS: When sound is a critical issue, ventilator selection should be made from accurate sound data. The only completely accurate sound ratings are octave band sound power levels. Your American Coolair representative can furnish these for each PRV model on request. With this data, the acoustical engineer can accurately predict on-the-job sound levels. Published sound ratings are in Sones. Your American Coolair representative can also provide sound ratings in dBA. Both Sones and dBA ratings are calculated from the octave band sound power ratings. They may be used as a guide in ventilator selection where noise is NOT critical. Both Sones and dBA ratings are determined from laboratory testing according to AMCA Standards 300 & 301.

MAINTENANCE: American Coolair's power roof ventilators are factory lubricated for extended service. Fan bearings on Style 'H' and 'HX' belt drive units are permanently lubricated, and require no further maintenance for the life of the fan. Style 'C' belt drive units use pillow-block ball bearings and should be lubricated annually or more frequently, depending upon conditions and operating cycle. Refer to the maintenance instructions shipped with the fan. For lubrication of the electric motor, see the motor manufacturer's instructions.

On belt drive units, the belt tension should be checked within the first 24 hours of the fan's operation. After which, belt tension should be checked as part of maintenance routine to assure maximum efficiency and belt life. Refer to the instructions shipped with the fan for proper belt tension maintenance.

Accessories

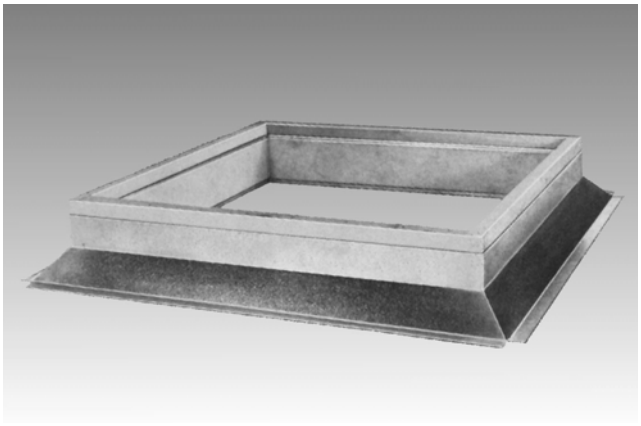
American Coolair provides a complete line of accessories for it's hooded roof ventilators. Note that fan ratings are determined without accessories. An allowance for resistance for a backdraft damper or other accessory is recommended. As resistance (static pressure loss) is dependent upon the fan's flow rate, there can be no precise resistance figure or average pressure loss for a given accessory. For specific resistance values for a given accessory for a particular fan unit, consult your American Coolair representative.

BACKDRAFT DAMPER: An aluminum backdraft damper prevents the intrusion of outside air when the unit is not running. The damper features American Coolair's exclusive "Type S" shutter design modified to operate in a horizontal position. A mounting sleeve for the damper or an extended height curb may be required to provide proper clearance between the ventilator motor and damper for PBH, PBHX, PBC, and PDC units. Refer to dimension drawings for details.

BIRD SCREEN: This galvanized or PVC coated wire mesh will prevent entry of birds and rodents. This accessory not necessary on filtered units, as filters provide this protection.

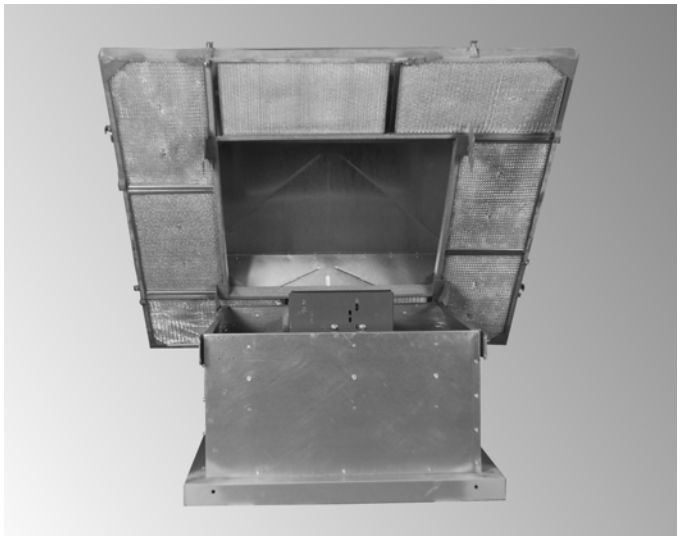
CENTER PIVOTED BACKDRAFT DAMPER: A heavy duty motorized backdraft damper specifically suited for reversible air flow (for RPBC and RBDC units) is available. It features extruded aluminum blades and frame, and a heavy-duty damper motor. With center pivoted blades, no fan delay switch is necessary. The damper should be mounted in the base of the roof curb, as the damper and damper motor require 12 inches of clearance.

PRE-FABRICATED ROOF CURB: You may specify surface mount or bulb-T style 8-inch standard height curbs. Constructed of welded galvanized steel, these roof curbs are insulated, and feature a wood nailer. Construction to accommodate a single- or double-pitched roof slope is also available.



SPARK RESISTANT CONSTRUCTION: For hazardous locations, most PRV's not standardly supplied with an aluminum blade assembly can be ordered with a non-ferrous blade assembly and explosion-proof motors. Motors only qualify for Class I Group D and Class II Groups F & G hazards.

FILTERS: (Type PS-F) Type PS-F units come with a set of filters for mounting during installation. They are 2-inch thick, permanent, cleanable filters as manufactured by Research Products Corp., or equivalent. They are factory coated with filter adhesive. Filters are easily cleaned by flushing with water. Adhesive must be reapplied after cleaning. Filter racks are designed for easy filter removal and replacement. Filters are designed to handle air velocities up to 650 feet per minute. They should not be specified where ambient temperature will be above 120°F.



FILTER GAUGE: (Type PS-F) A factory installed filter gauge with signal light alarm is preset for recommended maximum filter load. The gauge measures the pressure differential across the filters and signals when the filters require cleaning. It operates on a 24 volt power supply.

PROTECTIVE COATINGS: For most applications, the American Coolair powder coating system will provide the necessary surface protection for painted parts. This system includes a thermosetting epoxy powder coating to an average thickness of 3 mils and baked at 400° F for hardness, impact resistance, adhesion, and chemical resistance.

The hood on Type PB and PD PRVs is made of galvanized steel. Both hood and base on all other units are made of galvanized steel. A finish coat of epoxy can be specified. For maximum corrosion resistance, hot dip galvanized finish on fan frame and supports (and curb cap on Type P PRV) may be specified.

For applications that require more specialized surface protection, American Coolair offers alternatives: 6 mil epoxy, hot dip galvanizing, and others. For more information about special protective coatings, contact your American Coolair representative.

UNDERCOATING: A special undercoating to reduce condensation and add sound-deadening insulation may be specified. This coating is factory applied to interior surfaces of the hood on Type P units and hood and base for Type PE, PS, and Type RP models.

FIBERGLASS INSULATION: The inner crown of the hood on all units and inside the base section on models other than Type P can be lined with one inch thick fiberglass insulation to eliminate condensation in cold weather.

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized modifications, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

WARNING CAUTION

DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

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REPRESENTED BY:

Form No. 340-15-9 (September, 2010)