



Premium *Choice* Series



Ventilation Solutions

S&P is the world's leading producer of air movement products. S&P manufactures and supplies fans, dampers, louvers and recovery ventilators (ERVs & HRVs). These products are used in various industries including residential, commercial, industrial, and institutional buildings.

One of S&P's most popular line of fans is our Premium Choice (PC) Series. The PC series was first introduced in March of 2013. There was no shortage of fan options on the market, however S&P saw a need for scalable, customizable fans. No two fan applications are alike. At S&P we wanted to ensure the end user received a fan designed for their exact needs not a fan designed for some of their needs. So we designed the Premium Choice Series as the first scalable fans on the market.

S&P's Premium CHOICE Series gives you maximum flexibility to create the ventilation system that you need. The simplicity of S&P's PC fans is in the options. While other premium fans come as lighted fans or humidity sensing fans; with a speed control or humidity sensor built-in, our Premium CHOICE fans give you the flexibility to choose your grille and control separately. Our fans even allow you to change your mind after you install them! Our Premium CHOICE fans come with standard grilles and you have the option of a lighted grille or motion sensing grille. You pick the fan model, the grille and the controls you need. The CHOICE is yours!

Premium *Choice* Series



Ventilation & IAQ	4
ASHRAE 62.2.....	5
Bathroom Fan Sizing	6
The PC Difference	7
Plug-&-Play CHOICE.....	8
IAQ Sense	9
AC Standard Models	10-13
DC Motor Models.....	14-16
DC High Volume Model	17
Value Models	18-19
Low Profile Models	20-22
PC Recessed Vent Light.....	23-24
Radiation Dampers.....	25-26
Wall Control Options.....	27-28
Ducting Accessories	29-30
Additional Products.....	31

Today's homes are built to be tighter and more energy efficient than ever before. Builders and homeowners use vapor barriers, caulking, and better sealed doors and windows to reduce energy loss caused by air infiltration. Tighter homes also mean that pollutants are trapped indoors. Poor indoor air quality, caused by trapped pollutants, is not only uncomfortable to the occupants, but also a health hazard. The EPA has stated that indoor air quality is often two to five times worse than outdoor air, and that indoor air pollution is among today's top five most significant risks to public health.

Everyday activities such as showering, cooking, doing laundry, even breathing are just a few ways that moisture is generated in your home (one gallon per person, everyday). Moisture that is trapped in your home can lead to structural damage. Signs of structural damage include heavy condensation on windows, water damage on window sills and molds forming in corners of the home.

Healthy indoor air quality (IAQ) is key to the health of the home and its inhabitants. A combination of both local and whole house mechanical ventilation should be utilized to insure a healthy, comfortable home.

Local Exhaust

Local exhaust, also known as intermittent or spot ventilation, is used in rooms or localized areas to remove odors, moisture and pollutants quickly. The most common area for spot ventilation is bath or powder rooms. Other areas such as laundry rooms, closets, bedrooms, kitchens, garages, and utility rooms also benefit from air changes using mechanical ventilation to maintain good indoor air quality.

Whole House Ventilation

Whole house, or continuous, ventilation involves exhausting air on a low, continuous basis. Whole house ventilation is currently required by many building codes or green building standards. Most of the codes and standards have adopted the ASHRAE 62.2 residential ventilation standard.



ASHRAE 62.2

The ASHRAE 62.2 Standard applies to all residential spaces that are “intended for human occupancy” in single family homes and multi-family structures up to three stories. These spaces include living rooms, bedrooms, kitchens, bathrooms, hallways, closets, store rooms, laundry rooms, garages, and basements.

There are two components of the ASHRAE 62.2 standard that relate to ventilation fans: Whole Building Ventilation & Local Exhaust.

Local Exhaust Requirement

A local mechanical exhaust system shall be installed in each kitchen and bathroom:

- Kitchens: 100 CFM intermittent or 5 ACH continuous (based on kitchen volume)
- Bathrooms: 50 CFM intermittent or 20 CFM continuous

Use a PC Premium Choice Bath Fan in each bathroom to meet the ASHRAE 62.2 Local Exhaust Requirement. Please note each bathroom fan counts towards meeting the ASHRAE 62.2 Whole Building Requirement.

Whole Building Requirement

Required ventilation is based on the size of the house and number of expected occupants.

1. Calculation:

$$\text{Required Rate} = \text{Floor Area} / 100 + (\text{Number of Bedrooms} + 1) \times 7.5$$

If the number of occupants exceeds the assumed 2 persons for the first bedroom and 1 for each additional room, increase the ventilation rate as follows: Number of additional occupants x 7.5 CFM

2. Use the Whole Building Ventilation Requirements CFM chart from the ASHRAE 62.2 Standard:

Floor Area (sq. ft.)	Number of Bedrooms				
	0-1	2-3	4-5	6-7	>7
	CFM Requirements				
<1500	30	45	60	75	90
1501-3000	45	60	75	90	105
3001-4500	60	75	90	105	120
4501-6000	75	90	105	120	135
6001-7500	90	105	120	135	150
>7500	105	120	135	150	165

Bathroom Fan Sizing

The following recommendations follow the Home Ventilating Institute (HVI) guidelines:

Fan Sizing for Bathrooms Under 100 Square Feet

The standard rule for bathrooms 100 square feet or smaller is one CFM per square foot of the bathroom. To find the square footage multiply the length of the bathroom by the width.

Example

Bathroom is 9' x 5' (with 8' ceilings). Multiply $9 \times 5 = 45$ sq. ft.

Bathroom area is 45 sq. ft.

At 1 CFM per square foot the minimum recommendation is a fan rated at least 45 CFM.

Fan Sizing for Bathrooms Over 100 Square Feet

Ventilation for baths over 100 square feet is calculated based on the fixtures in the bathroom (see table to right). Add the CFM for all fixtures and you'll have the total CFM required for the bathroom.

Toilet	50 CFM
Shower	50 CFM
Bath Tub	50 CFM
Jetted Tub	100 CFM

Note: Enclosed toilet rooms must have an operable window or a fan for ventilation.

Example

The bathroom is 20' x 12'. There is a tub (without jets), a shower and a toilet.

Calculation: 1 Toilet +1 Shower +1 Tub =150 CFM

Two Solution Options:

1. Install a 50 CFM fan over the tub, one in the shower and in the water closet. This method is very effective and will provide ventilation where and when it's needed.
2. Install one 150 CFM fan. The air will then be pulled through the entire room and exhausted at a central location.

Duration of Ventilation

HVI recommends that the fan be left on for 20 minutes after use of the bathroom. A timer is a good solution, allowing the fan to turn off automatically at the proper time. For steam showers it is best to have a separate fan in the steam room that can be turned on after use.

Continuous Ventilation

Ventilation may also be provided on a continuous basis at other rates. This may complement the use of fans to provide the HVI recommended rates.

For more information on bath fan sizing and ventilation visit www.hvi.org.

Long Life

Permanently lubricated motors are engineered for trouble-free continuous operations for 30,000 hours on AC motors and 60,000 hours on DC motors. All PC fans have robust steel housings and attractive, sturdy grilles making the Premium Choice Series a fan you can fit and forget.

Energy Efficient



If saving money and conserving energy are concerns S&P's PC80X, PC110X, PC150, PCLP80, PCLP100, PCV80, PCRL80, PCRL80F, PCD110, PCD110H, PCD110M, PCD110MH, PCD110IAQS, and PCD200 fans are ENERGY STAR® qualified. Our fans come standard with high efficiency motors and lighting to reduce energy consumption without sacrificing performance. ENERGY STAR® qualification is especially important when using the PC fan as a whole-house fan that may run all the time. You can learn more about ENERGY STAR® at www.energystar.gov.

Ease of Installation

The Premium Choice Series fans are designed for easy installation for both new construction and retro-fit installation. All models come with adjustable hanger bars which allow the housing to be positioned easily and accurately between the framing. In addition most models are designed to be mounted directly to the joist or i-joist. The PC's unique wiring design allows for in-room or outside wiring. Finally, all PCs come standard with dust-guard packaging to prevent over-spray of paint or ceiling materials when units are installed in new construction applications.



PC with Dust Shield



In-Room Wiring



Outside Wiring

Plug-&-Play Design

The controls and lighted grilles for the PC fans are "Plug-&-Play". Meaning one fan can be modified to be the exact fan needed. You even have the CHOICE to add a control or change the grille after the initial installation (see page 8 for more information).

IAQ Sense

S&P's PC fan with the exclusive, award winning* IAQ Sense is the most intelligent fan on the market. The IAQ sensor (PCIAQS) detects and extracts both Volatile Organic Compounds (VOCs) and humidity when installed with a Premium CHOICE (PC) Series fan. You can set the IAQ sensor to run the fan at high speed if it senses VOCs or humidity, then after a specified amount of time it will automatically adjust to run at low speed (see page 9 for more information).



Longest Warranty



S&P's Premium Choice fans come standard with the industry's longest warranty. All AC models have a 5-year warranty, while DC models have a 6-year warranty.



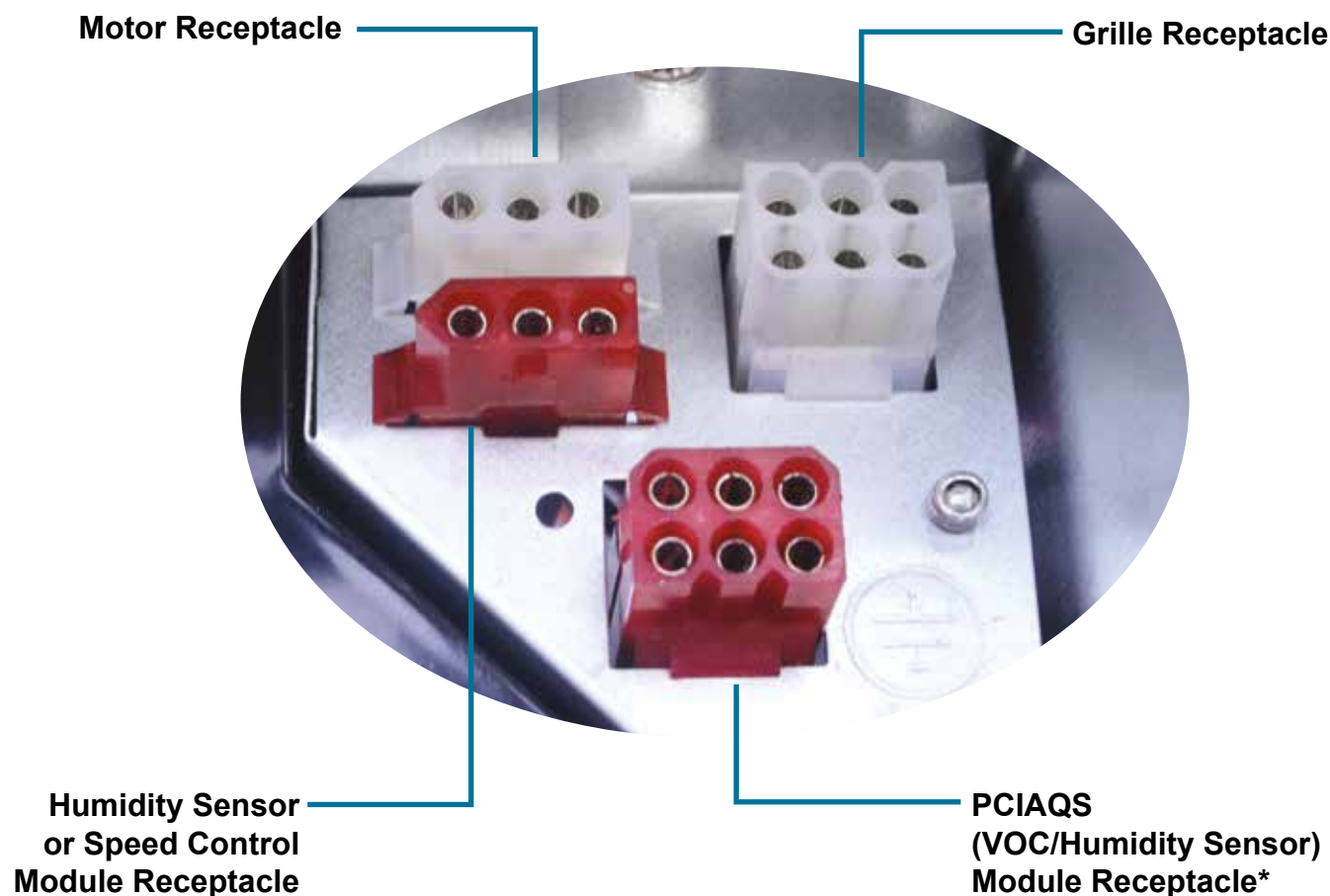
* S&P's IAQ Sense (VOC/Humidity Sensor) is a 2016 POP @ PCBC winner. Winners represent the best in innovation and new product solutions.

Plug-&Play CHOICE

S&P's unique Plug-&Play options make your CHOICE easy. There is a receptacle to plug-in your control CHOICE. Whether it's a Speed Control, Humidity Sensor, or VOC Sensor, the control connects to the receptacle and easily mounts into the pre-drilled holes inside the fan housing.

There is also a receptacle for your grille CHOICE. Need a lighted fan? Choose the fluorescent or LED Lighted Grille Kits. Or need a motion sensing fan? Choose the Motion Sensing Grille Kit. Either grille easily plugs into the grille receptacle to give you the fan of your CHOICE!

PC Fan models include receptacles based on compatibility. Please refer to the specific model in this brochure for module and grille compatibility.



PC with Lighted Grille and Humidity Sensor Installed



Learn More



Scan the code to the left to enroll in S&P University's class on the PC Plug-&Play Product Line!

*The receptacle for the PCIAQS is field installed.



The products in your home, even the building materials inside your house, likely contain harmful chemicals. For example, the antifreeze and windshield washer fluid in your garage contain ethylene glycol which can cause respiratory issues if inhaled. Formaldehyde is in a wide range of products including some furniture, composite core doors, laminate floors, foam insulation, disinfectants, cleaners, air fresheners, carpets, toothpaste, body wash, and more. Oils, furniture refinisher, paint, varnish, car and floor polish, pesticides, herbicides, insect repellent, plastics, leather, and many other products contain harmful vapors like the chemicals listed below. It's important to ventilate these chemicals to reduce acute and long term health risks.

IAQsense

S&P's IAQ sensor (PCIAQS) detects and extracts both Volatile Organic Compounds (VOCs) and humidity when installed with a Premium CHOICE (PC) Series fan.

The VOC sensor has an adjustment knob to set the sensing range based on the concentration of particles (ppm). The humidity sensor detects rapid increases in moisture at the ceiling level where steam and humidity naturally rise, and automatically turns on the fan. You can set the IAQ sensor to run the fan at high speed if it senses VOCs or humidity, then after a specified amount of time it will automatically adjust to run at low speed. The IAQ sensor also includes a speed control to adjust the fan at a percentage of full speed so the fan can be run continuously to meet code requirements.

A PC fan with a PCIAQS is a fan you can trust to keep you, your family, and your home safe.



Products you use every day like hairspray can lead to poor IAQ. Most hair sprays contain polyvinylpyrrolidone and polyvinyl acetate, as well as a mixture of other highly volatile and flammable ingredients such as ethanol or tert-butanol, and dimethyl ether or mixed hydrocarbons.



PC fans with IAQ Sense detect & extract:

- Humidity
- Carbon Monoxide (CO)
- Ammonia
- Acetone
- Benzene
- Ethylene glycol
- Formaldehyde
- Methylene chloride
- other harmful VOCs



* S&P's IAQ Sense (VOC/Humidity Sensor) is a 2016 POP @ PCBC winner. Winners represent the best in innovation and new product solutions.



Features & Construction

- Extremely quiet operation <0.3 to 1.1 Sones
- Single or 2-speed models
- Totally enclosed condenser motor for long life
- Motor rated for 30,000 hours continuous on
- 120V/60Hz, 230V/60Hz, or 230V/50Hz motors
- Built-in backdraft damper
- Robust steel housing
- Attractive, sturdy grille
- ETL Listed
- PC80X, 110X, 110X-2S, & 150 are ENERGY STAR® qualified
- HVI Certified
- AMCA Air & Sound Certified
- 5-year warranty

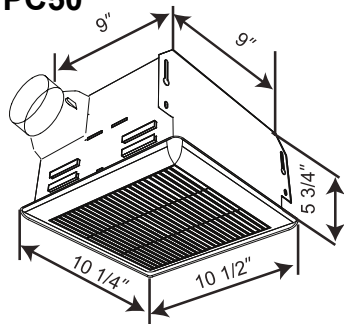
Options & Accessories

(see pages 12-13 for model compatibility)

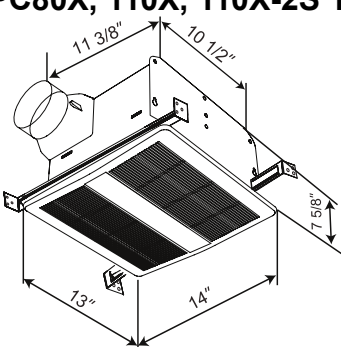
- Lighted Grilles
- Motion Sensing Grilles
- Speed Control
- Humidity Sensor
- IAQ Sense
- Contractor Packs
- Radiation Dampers & Kits
- Metal Grille

Dimensions

PC50



PC80X, 110X, 110X-2S 150



HVI Certified Performance (Single Speed)

Model	Duct Size	CFM	Static Pressure (in W.G.)	Energy Efficiency (CFM/Watts)	Watts	Power (V/Hz)	Sones*	Amps
PC50	4"	50/31	0.1/0.25	3.1	16	120/60	0.6	.13
PC80X	4"	80/58	0.1/0.25	3.0	32	120/60	0.4	.27
	6"	80/63					<0.3	
PC110X	4"	96/70	0.1/0.25	3.2	36	120/60	1.1	.30
	6"	110/87					0.6	
PC150	6"	150/110	0.1/0.25	3.8	41	120/60	1.1	.34

HVI Certified Performance (2-Speed)

Model	Duct Size	CFM (HS)		CFM (LS)	Energy Efficiency (CFM/Watts)	Watts	Power (V/Hz)	Sones		Amps
		0.1" SP	0.25" SP	0.1" SP				HS	LS	
PC110X-2S	4"	100	88	40	3.3	33	120/60	1.2	0.3	0.4
	6"	110	100	50				0.9	0.3	

AMCA Certified Performance

120V, 60Hz Models					
Model	Duct Size	Static Pressure	CFM	Sones*	RPM
PC80X	4"	0	102	1.3	800
	4"	0.1	86	1.6	800
	4"	0.25	59	2.4	800
	6"	0	119	1.0	800
	6"	0.1	89	1.3	800
	6"	0.25	66	2.4	800
PC110X	4"	0	114	1.5	850
	4"	0.1	100	1.7	850
	4"	0.25	76	2.3	850
	6"	0	134	1.4	850
	6"	0.1	112	1.5	850
	6"	0.25	86	2.0	850
PC150	6"	0	159	2.3	1000
	6"	0.1	140	2.2	1000
	6"	0.25	117	2.5	1000

230V, 60Hz Models					
Model	Duct Size	Static Pressure	CFM	Sones*	RPM
PC80X-60-230V	4"	0	96	2.3	900
	4"	0.1	85	2.6	900
	4"	0.25	64	3.2	900
	6"	0	110	1.3	850
	6"	0.1	91	1.4	850
	6"	0.25	66	2.1	850
	6"	0.25	66	2.1	850
PC110X-60-230V	4"	0	113	2.6	1000
	4"	0.1	101	2.4	1000
	4"	0.25	83	2.9	1000
	6"	0	126	1.7	950
	6"	0.1	112	1.9	950
	6"	0.25	93	2.4	950
	6"	0.25	93	2.4	950
PC150-60-230V	6"	0	158	2.9	1050
	6"	0.1	144	2.7	1050
	6"	0.25	124	2.8	1050

230V, 50Hz Models					
Model	Duct Size	Static Pressure	CFM	Sones*	RPM
PC80X-50-230V	4"	0	95	2.0	850
	4"	0.1	82	2.3	850
	4"	0.25	60	2.8	850
	6"	0	108	1.3	800
	6"	0.1	93	1.4	800
	6"	0.25	69	1.8	800
PC110X-50-230V	4"	0	112	2.1	950
	4"	0.1	101	2.2	950
	4"	0.25	79	2.9	950
	6"	0	128	1.7	900
	6"	0.1	114	1.8	900
	6"	0.25	90	2.3	900
PC150-50-230V	6"	0	165	3.2	1000
	6"	0.1	153	3.0	1000
	6"	0.25	133	3.0	1000



S&P USA Ventilation Systems, LLC., Div. of Soler & Palau Ventilation Group, certifies that the Models PC shown herein are licensed to bear the AMCA Seal. The ratings shown are based on test and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirement of the AMCA Certified Ratings Program.

The performance ratings include the effects of inlet grille and backdraft damper in the airstream. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings are loudness values in fan sones at 5' (1.5m) in a hemispherical free field calculated per AMCA Std. 301. Values shown are for Installation Type B: Free inlet fan sone levels. Air performance shown is for Installation Type B: Free inlet, Ducted outlet.

*The difference between sone values certified by HVI for residential use and by AMCA for commercial/industrial use is mainly due to the ANSI S3.4 procedures used to convert measured sound to perceived sound, and because HVI and AMCA have different rules for rounding sone values. ANSI S3.4 specifies a procedure for calculating loudness as perceived by a typical listener under specific conditions. HVI establishes values in a spherical free field at a distance of 5 feet from the fan. AMCA establishes values in a hemispherical free field at a distance of 5 feet from the fan. It is not possible to achieve an exact comparison of HVI and AMCA sone values.

What is a Sone?

A sone is a unit of how loud a sound is perceived. The sone scale is linear. Doubling the perceived loudness doubles the sone value. The lower the sone value, the more comfortable the listening environment. One sone is equivalent to a quiet refrigerator. The quietest possible sone rating is <0.3 sones.

Plug-&-Play Grille Options

Grille Light Kit (PCLK or PCLEDK)

PCLK

- 13 watt GU24 bulb
- 2700K/900 lumens
- 4 watt night light bulb
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



PCLEDK

- 11 watt LED light
- 4100K/1100 lumens
- 2 watt LED night light setting
- 200 lumens
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



Motion Sensing Grille Kit (PCMK or PCLMK)

PCMK

- Automatically turns on fan when motion is sensed
- Adjustable time delay shut-off from 3 to 30 minutes
- Adjustable speed reduced up to 50%
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



PCLMK

- 13 watt GU24 bulb
- 2700K/900 lumens
- 4 watt night light bulb
- Automatically turns on fan when motion is sensed
- Adjustable time delay shut-off from 3 to 30 minutes
- Adjustable speed reduced up to 50%
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



Plug-&-Play Modules

Humidity Sensor (PCHS)

- Detects rapid rise in humidity
- Auto-shut off timer
- Accessible sensitivity adjustment
- Humidity is sensed at the ceiling
- Meets CALGreen bathroom fan requirement
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



Speed Control (PCSC)

- Accessible speed adjustment
- High speed override
- Allows for adjustable continuous speed to meet ASHRAE 62.2
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



IAQ Sense, VOC/Humidity Sensor (PCIAQS)

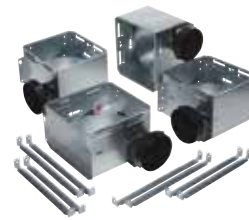
- Detects VOCs and/or rapid rise in humidity
- Semiconductor gas sensor, detecting a wide range of VOCs
- Monitoring range is 400-2000 ppm equivalent CO2
- Continuous speed control to run fan continuously
- Integrated control switch to turn features on/off
- Field adjustable humidity sensitivity with 50-100% range. Factory setting is 75%
- Humidity is sensed at the ceiling
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan
- Meets CALGreen bathroom fan requirement



Contractor Packs

For simple installation the PC80X and PC110X are available as four packs with the fan housings ready for installation first, then after the drywall and painting are complete the motor and grilles are available to finish the job. The housing kit includes the housing and hanger bars. The motor and grille kit includes the motor plate, motor, wheel and standard grille.

Part #	Description (Packs of 4)
PCH	PC80X & PC110X Contractor Pack Housings
PC80F	PC80X Contractor Pack Motor and Grille
PC110F	PC110X Contractor Pack Motor and Grille



Radiation Dampers & Kits

(see page 25 for more information)

Radiation Damper (PCRD)

- 3-hour rating ceiling radiation dampers
- UL Listed Link (165°F Standard)
- UL Approved flexible fire blanket
- Ceramic fiber with fiberglass cover
- Roll-formed frame 22 g. galvanized steel

**Metal Grille****PCMG**

- 13 x 14" Metal Grille
- Ideal for commercial applications

**Radiation Damper Kits***PCMKRD, PCLMKRD, PCLKRD, PCLEDKRD*

- Include PCRD plus:
 - Grille Kit (as indicated)
 - Wiring Extender

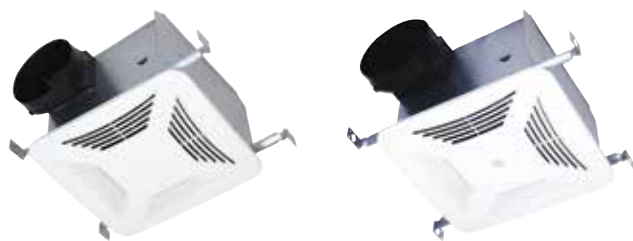
PC Standard AC Fan & Accessory Compatibility

The chart below indicate which plug-&-play or other PC accessories are compatible with each PC Standard AC Model.

Option	PC Standard AC Model				
	PC50	PC80X	PC110X	PC110X-2S	PC150
PCLK	-	✓	✓	✓	✓
PCLEDK	-	✓	✓	✓	✓
PCLMK	-	✓	✓	✓	✓
PCMK	-	✓	✓	✓	✓
PCHS	✓	✓	✓	✓	✓
PCSC	✓	✓	✓	✓	✓
PCIAQS	-	✓	✓	✓	✓
PCRD	-	✓	✓	✓	✓
PCMKRD	-	✓	✓	✓	✓
PCLMKRD	-	✓	✓	✓	✓
PCLKRD	-	✓	✓	✓	✓
PCLEDKRD	-	✓	✓	✓	✓
PCMG	-	✓	✓	✓	✓

The chart below indicates which plug-&-play or other PC accessories can be used together.

	Std. Grille	PCLK	PCLEDK	PCMK	PCLMK	PCHS	PCSC	PCIAQS	PCRD	PCMKRD	PCLMKRD	PCLKRD	PCLEDKRD	PCMG
Std. Grille	-	-	-	-	-	✓	✓	✓	✓	-	-	-	-	-
PCLK	-	-	-	-	-	✓	✓	✓	-	-	-	Included	-	-
PCLEDK	-	-	-	-	-	✓	✓	✓	-	-	-	-	Included	-
PCMK	-	-	-	-	-	-	-	-	-	Included	-	-	-	-
PCLMK	-	-	-	-	-	-	-	-	-	-	Included	-	-	-
PCHS	✓	✓	✓	-	-	-	-	-	✓	-	-	✓	✓	✓
PCSC	✓	✓	✓	-	-	-	-	-	✓	-	-	✓	✓	✓
PCIAQS	✓	✓	✓	-	-	-	-	-	✓	-	-	✓	✓	✓
PCRD	✓	-	-	-	-	✓	✓	✓	-	Included	Included	Included	Included	✓
PCMKRD	-	-	-	Included	-	-	-	-	Included	-	-	-	-	-
PCLMKRD	-	-	-	-	Included	-	-	-	Included	-	-	-	-	-
PCLKRD	-	Included	-	-	-	✓	✓	✓	Included	-	-	-	-	-
PCLEDKRD	-	-	Included	-	-	✓	✓	✓	Included	-	-	-	-	-
PCMG	-	-	-	-	-	✓	✓	✓	✓	-	-	-	-	-



**Most Efficient
2016**
www.energystar.gov



Features & Construction

- Extremely quiet operation 0.3 to 1.2 Sones
- Brushless DC motor for long life
- Motor rated for 60,000 hours continuous on
- High/Low speed delay timer
- Built-in backdraft damper
- Robust steel housing
- Attractive, sturdy grille
- ETL Listed
- ENERGY STAR® qualified
- HVI Certified
- 6-year warranty

Options & Accessories

(see page 16 for model compatibility)

- Lighted Grilles
- Motion Sensing Grilles
- Humidity Sensor
- Radiation Dampers & Kits
- Metal Grille

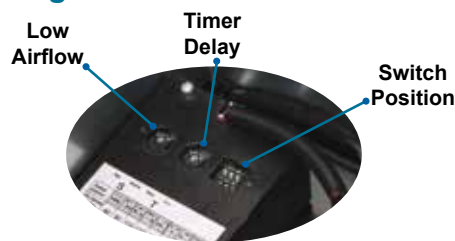
Standard Features Per Model

Model	Built-in Control	Grille
PCD110	-	Standard
PCD110H	Humidity Sensor	Standard
PCD110M	-	Motion Sensing
PCD110MH	Humidity Sensor	Motion Sensing
PCD110IAQS	IAQ Sense	Standard

You CHOOSE Your Airflow!

The built-in **Toggle Switches** and duct connector options allow you to set the PCD fan to the required airflow:

Integrated Controls

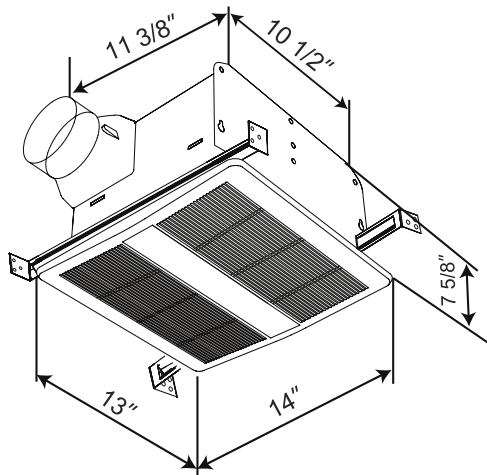


Switch position								
Airflow (CFM)	80	90	110	120	90	110	120	140
Duct diameter (inches)	4"	4"	4"	4"	6"	6"	6"	6"

1 & 2: Airflow • 3: Duct size

Factory setting is 110 CFM with 6" duct

Dimensions



HVI Certified Performance

PCD110, PCD110M, PCD110H, PCD110MH, & PCD110IAQS					
CFM @ 0.1" SP	4" Duct	80	90	110	120
	6" Duct	90	110	120	140
Sones	4" Duct	0.7	0.7	1.0	1.2
	6" Duct	0.3	0.5	0.8	1.1
Watts	4" Duct	5.5	7	11.5	13
	6" Duct	5.5	10	11.5	14.5
Energy Efficiency (CFM/Watt)	4" Duct	14.5	12.9	9.6	9.2
	6" Duct	16.4	11	10.4	9.7
Amps		.16	.18	.22	.23
ENERGY STAR® Qualified		Yes			



Plug-&Play Grille Options

Grille Light Kit (PCLK or PCLEDK)

PCLK

- 13 watt GU24 bulb
- 2700K/900 lumens
- 4 watt night light bulb
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



PCLEDK

- 11 watt LED light
- 4100K/1100 lumens
- 2 watt LED night light setting
- 200 lumens
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



Motion Sensing Grille Kit (PCLMK)

PCLMK

- 13 watt GU24 bulb
- 2700K/900 lumens
- 4 watt night light bulb
- Automatically turns on fan when motion is sensed
- Adjustable time delay shut-off from 3 to 30 minutes
- Adjustable speed reduced up to 50%
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



Radiation Dampers & Kits

(see page 25 for more information)

Radiation Damper (PCRD)

- 3-hour rating ceiling radiation dampers
- UL Listed Link (165°F Standard)
- UL Approved flexible fire blanket
- Ceramic fiber with fiberglass cover
- Roll-formed frame 22 g. galvanized steel



Radiation Damper Kits

PCD110MRD

- Include PCRD plus:
 - Wiring Extender

Radiation Damper Kits

PCLMKRD, PCLKRD, PCLEDKRD

- Include PCRD plus:
 - Grille Kit (as indicated)
 - Wiring Extender

Metal Grille

PCMG

- 13 x 14" Metal Grille
- Ideal for commercial applications



PC DC Fan & Accessory Compatibility

The chart below indicate which plug-&-play or accessories are compatible with each PC DC Model.

Option	PC Models with DC Motor				
	PCD110	PCD110H	PCD110M	PCD110MH	PCD110IAQS
PCLK	✓	✓	-	-	✓
PCLEDK	✓	✓	-	-	✓
PCLMK	-	-	✓	✓	-
PCMG	✓	✓	-	-	-
PCRD	✓	✓	-	-	✓
PCLKRD	✓	✓	-	-	✓
PCLMKRD	-	-	✓	✓	-
PCLEDKRD	✓	✓	-	-	✓
PCD110MRD	-	-	✓	✓	-

The chart below indicates which plug-&-play or other PC accessories can be used together.

	Std. Grille	PCLK	PCLEDK	PCLMK	PCRD	PCLMKRD	PCLKRD	PCLEDKRD	PCD110MRD	PCMG
Std. Grille	-	-	-	-	✓	-	-	-	-	-
PCLK	-	-	-	-	-	-	Included	-	-	-
PCLEDK	-	-	-	-	-	-	-	Included	-	-
PCLMK	-	-	-	-	-	Included	-	-	-	-
PCRD	✓	-	-	-	-	Included	Included	Included	Included	✓
PCLMKRD	-	-	-	Included	Included	-	-	-	-	-
PCLKRD	-	Included	-	-	Included	-	-	-	-	-
PCLEDKRD	-	-	Included	-	Included	-	-	-	-	-
PCD110MRD	-	-	-	-	Included	-	-	-	-	-
PCMG	-	-	-	-	✓	-	-	-	-	-



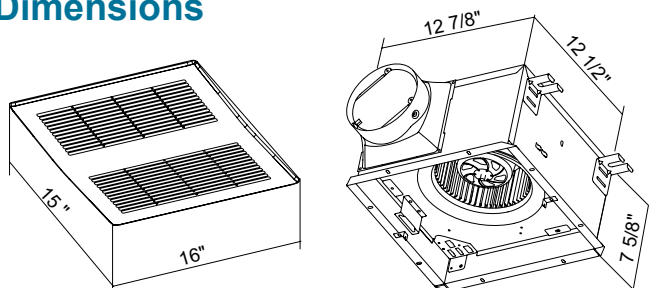
Features & Construction

- Quiet operation, certified at 2.4 Sones
- Brushless DC motor for long life
- Motor rated for 60,000 hours continuous on
- 6" duct connector with built-in backdraft damper
- Robust galvanized steel housing
- Attractive, sturdy grille
- ETL Listed
- ENERGY STAR® qualified
- HVI Certified
- AMCA Air & Sound certified
- 6-year warranty

Options & Accessories

- Humidity Sensor (PCHS)

Dimensions



HVI Certified Performance

PCD200		
Static Pressure (inches w.g.)	0.1	0.25
CFM	200	195
Sones	2.4	N/A
Watts	31W	



AMCA Certified Performance

PCD200												
Speed (RPM)	CFM @ Static Pressure (in. w.g.)											
	0.00	0.10	0.15	0.25	0.375	0.45	0.50	0.60	0.70	0.80	0.90	1.00
1,050	244	210	198	177	162	153	142	113	90	71	47	11

The performance ratings include the effects of inlet grille and backdraft damper in the airstream. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings are loudness values in fan sones at 5' (1.5m) in a hemispherical free field calculated per AMCA Std. 301. Values shown are for Installation Type B: Free inlet fan sone levels. Air performance shown is for Installation Type B: Free inlet, Ducted outlet.



S&P USA Ventilation Systems, LLC., Div. of Soler & Palau Ventilation Group, certifies that the Model PCD200 shown herein are licensed to bear the AMCA Seal. The ratings shown are based on test and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirement of the AMCA Certified Ratings Program.



Features & Construction

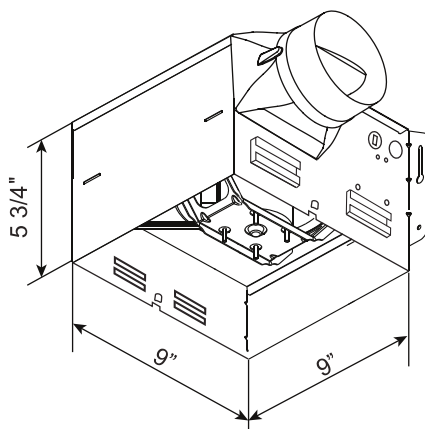
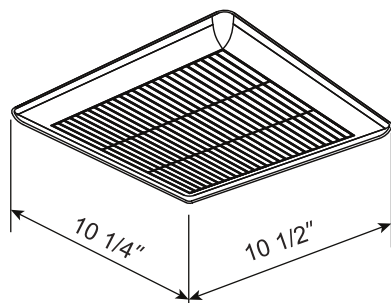
- Quiet operation 1.7 to 2.0 Sones
- 50 and 80 CFM models
- 4" duct connectors
- Built-in backdraft damper
- Robust steel housing
- Attractive, sturdy grille
- Thermally protected motor
- ETL Listed
- HVI Certified
- Model PCV80 is ENERGY STAR® qualified
- 5-year warranty

Options & Accessories

(see page 19 for model compatibility)

- Lighted Grilles
- Humidity Sensor
- Speed Control
- Contractor Packs
- Radiation Damper

Dimensions



HVI Certified Performance

Model	Duct Size	CFM	Static Pressure (in W.G.)	Watts	Power (V/Hz)	Sones
PCV50*	4"	50	0.1	60	120/60	2.0
PCV80**	4"	80	0.1	24	120/60	1.7



*PCV50 is not ENERGY STAR qualified

**PCV80 is ENERGY STAR qualified

Plug-&Play Grille Options

Grille Light Kit (PCVLK or PCVLEDK)

PCVLK

- 13 watt GU24 bulb
- 2700K/900 lumens
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



PCVLEDK

- 13 watt LED light
- 4100K/1100 lumens
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



Plug-&Play Modules

Humidity Sensor (PCHS)

- Detects rapid rise in humidity
- Auto-shut off timer
- Accessible sensitivity adjustment
- Humidity is sensed at the ceiling
- Meets CALGreen bathroom fan requirement
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



Speed Control (PCSC)

- Accessible speed adjustment
- High speed override
- Allows for adjustable continuous speed to meet ASHRAE 62.2
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



Contractor Packs

For simple installation, the PCV50 and PCV80 are available as four packs with the fan housings ready for installation first, then after the drywall and painting are complete the motor and grilles are available to finish the job. The housing kit includes the housing and hanger bars. The motor and grille kit includes the motor plate, motor, wheel and standard grille.

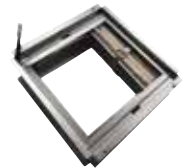
Part #	Description (Packs of 4)
PCV50H	PCV50 Contractor Pack Housings
PCV50F	PCV50 Contractor Pack Motor and Grille
PCV80H	PCV80 Contractor Pack Housings
PCV80F	PCV80 Contractor Pack Motor and Grille

Radiation Damper

(see page 26 for more information)

Radiation Damper (PCVRD)

- For use in 1, 2 and 3-hour rated floor-ceiling and roof-ceiling constructions
- ETL Listed (UL555C standard)
- Ceramic fiber with fiberglass cover
- Roll-formed frame 22 ga. galvanized steel



PC Value Series Fan & Accessory Compatibility

The chart below indicate which plug-&-play or other PC accessories are compatible with each PC Value Model.

Option	PC Value Model	
	PCV50	PCV80
PCVLK	✓	✓
PCVLEDK	✓	✓
PCHS	✓	✓
PCSC	-	✓
PCVRD	✓	✓

The chart below indicates which plug-&-play or other PC accessories can be used together.

	Std. Grille	PCVLK	PCVLEDK	PCHS	PCSC	PCVRD
Std. Grille	-	-	-	✓	✓	✓
PCVLK	-	-	-	✓	✓	✓
PCVLEDK	-	-	-	✓	✓	✓
PCHS	✓	✓	✓	-	-	✓
PCSC	✓	✓	✓	-	-	✓
PCVRD	✓	✓	✓	✓	✓	-

Low Profile Models

The PC Low Profile (PCLP) fans feature ultra low profile housings and are suitable for both wall and ceiling installations. These fans are ideally suited for multi-family housing developments. Installing a PCLP in a wall means that you don't need a radiation damper to meet fire-resistance requirements in the building code like you do when installing the fan in a fire-rated ceiling. This makes the PCLP the more economical CHOICE for multi-family applications.

Each model has a totally enclosed AC condenser model for long life even when operated continuously. All 3 models are just 3-3/4" high and come with an oval duct connector compatible with 4" round duct.

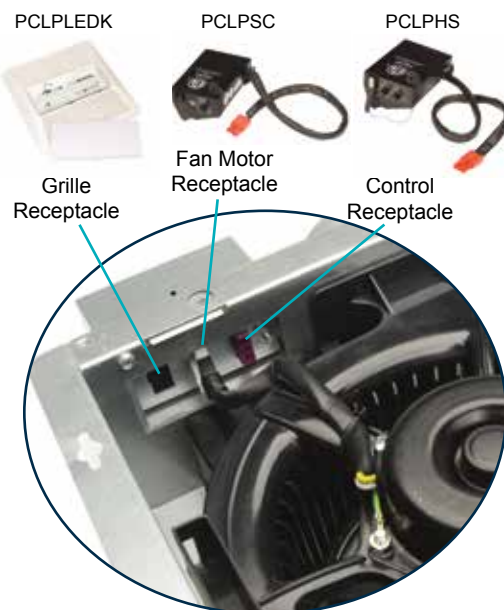


Low Profile - 3/4" high



Suitable for sidewall mounting

Plug & Play Flexibility





Features & Construction

- Low profile housing design
- Quiet operation 1.2 to 2.0 Sones
- Totally enclosed condenser motor for long life
- Motor rated for 30,000 hours continuous on
- Built-in backdraft damper
- Robust steel housing
- Attractive, sturdy grille
- ETL Listed
- ENERGY STAR® qualified
- HVI Certified
- 5-year warranty

Options & Accessories

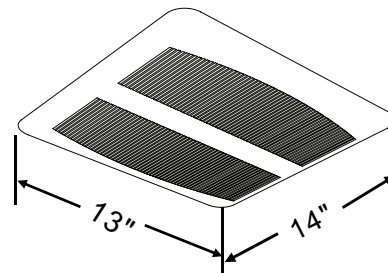
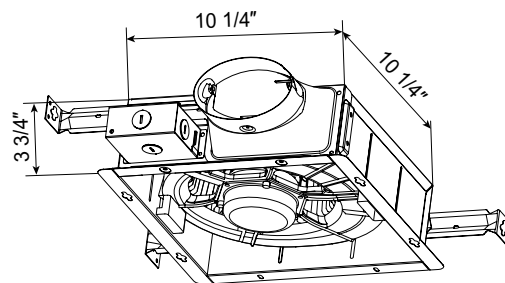
(see page 20 for model compatibility)

- Lighted Grilles
- Humidity Sensor
- Speed Control

HVI Certified Performance

	PCLP80	PCLP100
CFM @ 0.1/0.25" SP	80	100
Sones	1.2	2.0
Watts	25	25
Energy Efficiency (CFMs/Watts)	3.2	4.0
Amps	.35	.40
ENERGY STAR® Qualified	Yes	Yes
Duct Connector Diameter (in)	4" Oval	
Bathroom Size (up to ft ²)	75	95

Dimensions



Contractor Packs

For simple installation, the PCLP80 is available in four packs with the fan housings ready for installation first, then after the drywall and painting are complete the motor and grilles are available to finish the job. The housing kit includes the housing and hanger bars. The motor and grille kit includes the motor plate, motor, wheel and standard grille.

Part #	Description (Packs of 4)
PCLPH	PCLP80 Contractor Pack Housings
PCLP80F	PCLP80 Contractor Pack Motor and Grille

Plug-&-Play Grille Options

Grille Light Kit (PCLPLEDK)

PCLPEDK

- 11 watt LED light
- 4100K/1100 lumens
- 2 watt LED night light setting
- 200 lumens
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



Plug-&-Play Modules

Humidity Sensor (PCLPHS)

- Detects rapid rise in humidity
- Auto-shut off timer
- Accessible sensitivity adjustment
- Humidity is sensed at the ceiling
- Meets CALGreen bathroom fan requirement
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



Speed Control (PCLPSC)

- Accessible speed adjustment
- High speed override
- Allows for adjustable continuous speed to meet ASHRAE 62.2
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



PCLP Fan & Accessory Compatibility

The chart below indicate which plug-&-play or accessories are compatible with each PCLP Model.

Option	PCLP Model	
	PCLP80	PCLP100
PCLPLEDK	✓	✓
PCLPHS	✓	✓
PCLPSC	✓	✓

The chart below indicates which plug-&-play or other PC accessories can be used together.

	Std. Grille	PCLPLEDK	PCLPHS	PCLPSC
Std. Grille	-	-	✓	✓
PCLPLEDK	-	-	✓	✓
PCLPHS	✓	✓	-	-
PCLPSC	✓	✓	-	-



Features & Construction

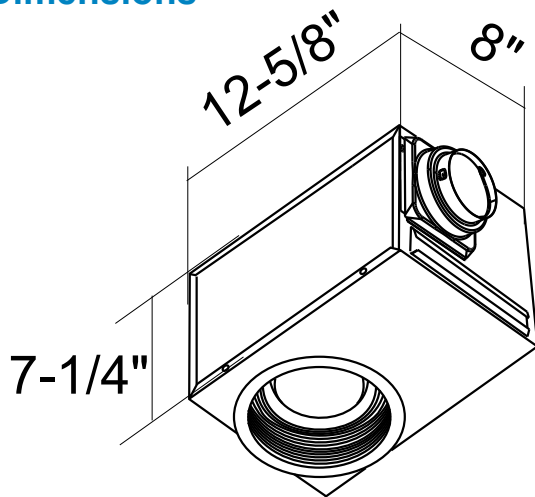
- Designed to look like a recessed can light
- Quiet operation 1.2 Sones
- PCRL80 has a E26 bulb base (bulb sold separately)
- PCRL80F has a GU24 bulb base (CFL spiral bulb included)
- Totally enclosed condenser motor for long life
- Motor rated for 30,000 hours continuous on
- Galvanized housing with black polyester powder coat finish
- Universal 4 or 5" metal duct adaptor
- 14-24" adjustable hanging bars
- Fits 2x8 construction
- ETL Listed
- ENERGY STAR® qualified
- HVI Certified
- 5-year warranty

Options & Accessories

- Light Cover
- Humidity Sensor
- Speed Control



Dimensions



HVI Certified Performance

PCRL80 & PCRL80F					
CFM @ .1" SP	CFM @ .25" SP	Watts	Duct Dia	Sones @ .1" SP	Amps
80	63	28	4 & 5"	1.2	.27



Light Cover Option

PCRL80LC

The Light Cover (PCRL80LC) comes standard with PCRL80F and is optional with PCRL80. The light cover disguises a spiral or non-PAR30 bulb to keep the recessed can light look.



Plug-&Play Modules

Humidity Sensor (PCHS)

- Detects rapid rise in humidity
- Auto-shut off timer
- Accessible sensitivity adjustment
- Humidity is sensed at the ceiling
- Meets CALGreen bathroom fan requirement
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



Speed Control (PCSC)

- Accessible speed adjustment
- High speed override
- Allows for adjustable continuous speed to meet ASHRAE 62.2
- Simple plug-in receptacle in fan housing
- Can be installed with new or pre-installed fan



PC Recessed Vent Light Fan & Accessory Compatibility

The chart below indicate which plug-&-play or other PC accessories are compatible with each PCRL Model.

Option	PC Low Profile Models	
	PCRL80	PCRL80F
PCRL80LC	✓	Included
PCHS	✓	✓
PCSC	✓	✓

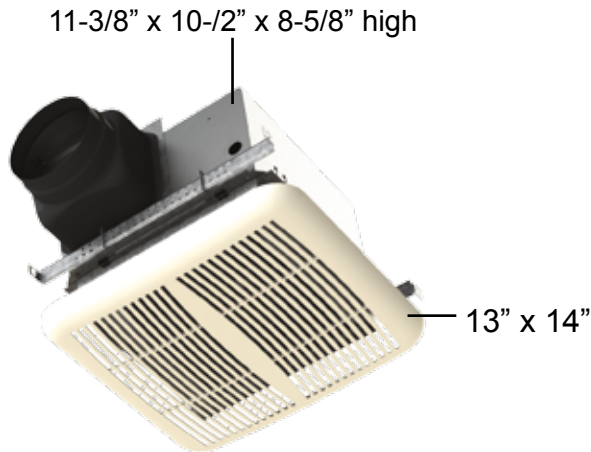
PCRD

Radiation Damper for Standard AC Models and DC Models

- 3-hour rating ceiling radiation dampers
- UL Listed Link (165°F Standard)
- UL Approved flexible fire blanket
- Ceramic fiber with fiberglass cover
- Roll-formed frame 22 ga. galvanized steel



Dimensions (Fan and PCRD)



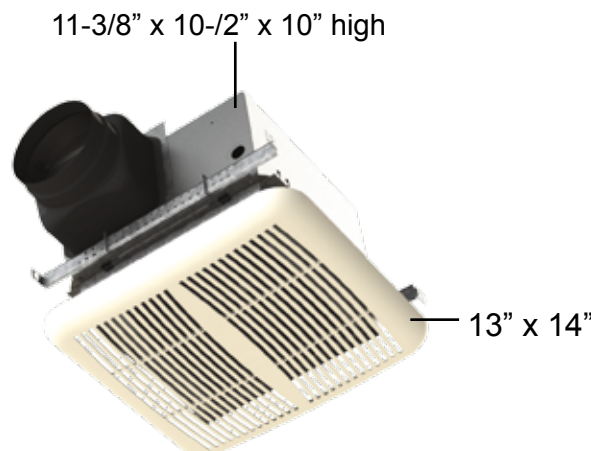
PCRD Grille Kits

Radiation Damper & Grille Kits for Standard AC Models and DC Models

- Kit includes PCRD-P2 and wiring extender
- 3-hour rating ceiling radiation dampers
- UL Listed Link (165°F Standard)
- UL Approved flexible fire blanket
- Ceramic fiber with fiberglass cover
- Roll-formed frame 22 ga. galvanized steel
- Plug-&-Play grille as indicated in table

Radiation Damper Kit	Grille Included
PCMCRD	PCMK
PCLMKRD	PCLMK
PCLKRD	PCLK
PCLEDKRD	PCLEDK
PCD110MRD	N/A

Dimensions (Fan and PCRD)



Grille shown is generic grille

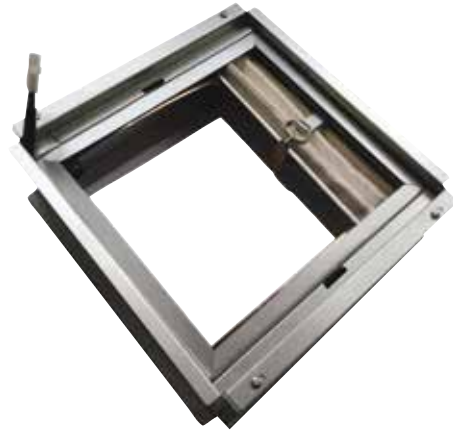
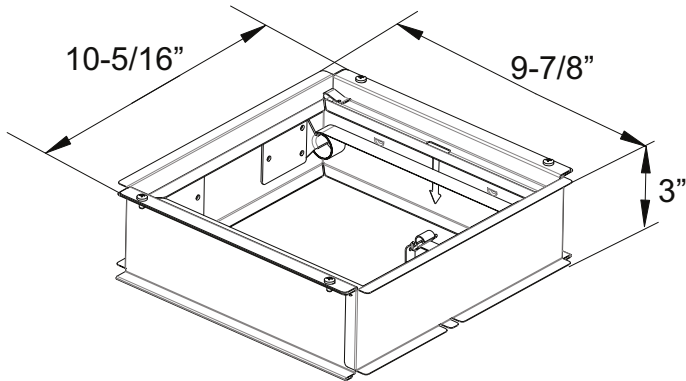
Radiation Dampers

PCVRD

Radiation Damper for PC Value Series Fans

- For use in 1, 2 and 3-hour rated floor-ceiling and roof-ceiling constructions
- ETL Listed (UL555C standard)
- Ceramic fiber with fiberglass cover
- Roll-formed frame 22 ga. galvanized steel

Dimensions (PCVRD)



PC3S

3-Switch Control

The PC3S allows you to control three features of a PC fan with one switch. Designed for PC fans with a Plug-&-Play grille and control option installed. Includes matching wall plate.

Specifications

Grounding	Non-Grounding
Switch Type	Single Pole / Single Pole / Single Pole
Amperage	15 Amp
Voltage	120 Volt
Termination	Quickwire Push-In
Standards & Certifications	UL/CSA



FLTD-60

Fan/Light Delay Timer Switch

Features

- One switch controls fan and light
- Digital timing circuit
- Saves energy by automatically turning exhaust fan off
- Adjustable fan turn off time
- Fits single switch outlet box
- Simple wire nut hook-up
- Cover plate and hardware provided

Specifications

Time Delay	
Adjustment	On-board Trimpot
Range	1 to 60 minutes
Input	
Voltage	120 Volt
Frequency	50/60 Hz
Standards & Certifications	cULus



SRT-30

Rotary Spring Wound Timer

Features

- Hold feature enables user to override the automatic shut-off function
- Supplied time dial plates are designed to fit either toggle (FF) or decorator style (FD) switch plates
- Single or multi-gang with no field modifications required
- Time saving up front terminal connection with teeter-type terminals
- Press-on knob ensures quick and easy installation
- CFL Compatible



Wall Control Options

EPBT-60

Electronic Push Button Timer

Specifications

Switch Type	Single Pole
Timer Type	Four Preset
Style	Decora
Type	Electronic
Time Range	10-20-30-60 Minutes
Load Type	Incandescent / Inductive
Load Rating	1000W / 20A 1HP-120V
Voltage	120 Volt AC 60 Hz
Wire	3
Neutral	Required
Color	White



FT622

ASHRAE 62.2 Bath Fan Ventilation Control

The FT622 is designed to replace bathroom fan and light switches and provide both functions with one easy operation. By using a microprocessor to monitor and control operation, the FT622 delivers a precise amount of ventilation, and is a simple solution to meet ASHRAE 62.2 in conjunction with a S&P fan.

There are only two settings on the FT622: VENTILATION and DELAY. The VENTILATION setting allows the user to set the number of minutes per hour the fan should run. The DELAY setting allows the user to set the number of minutes the fan should run after the bathroom light has been turned off. The DELAY setting provides additional run time for the fan to complete the remaining necessary ventilation after use.



Features

- Programmable DELAY and VENTILATION settings
- Excess manual and/or delay operation is subtracted from the next hour's programmed ventilation time
- Works with ALL incandescent, CFL, fluorescent and LED lights up to 450 watts
- Earn LEED and ENERGY STAR points for enhanced exhaust ventilation

FT247

Programmable Fan Timer

S&P offers the FT247 with easy programming for your bathroom fan ventilation needs. Simply set what time you want the fan to turn on and off and what day or days you want the fan to run.

Features

- Provides 7 ON and 7 OFF events per day
- LCD display
- Rechargeable battery back-up
- Push button activation
- **Note:** Do not use with fluorescent lamp ballasts



PER-W

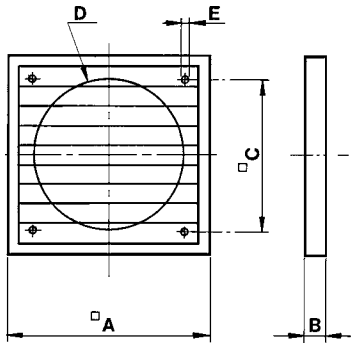
Plastic Louvered Shutter



Louvered backdraft shutters manufactured totally from UV stabilized plastic material.

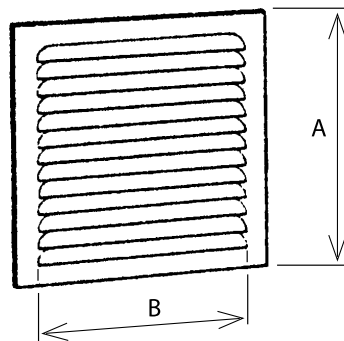
Dimensions in inches/mm

Model	A	B	C	D	E
PER-100W	5 ^{15/16} 151	5/8 16	5 ^{1/2} 140	4 ^{3/16} 106	3/16 5
PER-150W	8 203	9/16 14	7 ^{1/2} 191	6 152	3/16 5



GRA

Aluminum Exterior Fixed Grilles



Dimensions inches/mm

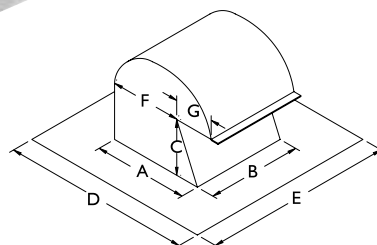
Model	A (External Dimensions)	B (Grill Area)
GR-100	5.12 x 5.12 130 x 130	3.94 x 3.94 100 x 100
GR-150	7.48 x 7.48 190 x 190	5.91 x 5.91 150 x 150

RC

Roof Cap



Galvanized steel roof caps with damper flap closure.



Dimensions in inches/mm

Model	A	B	C	D	E	F	G	Wgt. (lbs)
RC-4	6 150	6 150	3 1/2 90	12 300	12 300	4 1/2 115	2 1/2 60	1
RC-6	8 200	8 200	4 100	14 355	14 355	5 125	4 100	1

Ducting Accessories

PCDC

Duct Collars

Plastic duct collars with built-in backdraft dampers.

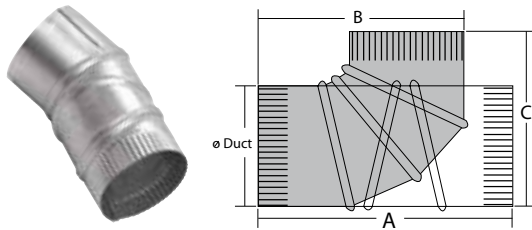
4" duct collar: PCDC4

6" duct collar: PCDC6



ME

Round Adjustable Metal Elbow



Dimensions in inches/mm

Model	o Duct	A	B	C
ME-4	4	8 1/2	7	7
	102	216	178	178
ME-6	6	10 5/8	9 1/4	9 1/4
	152	270	235	235

DC

Duct Connector

4" duct connector: DC-4

6" duct connector: DC-6



WC

Worm Clamp

4" worm clamp: WC-4

6" worm clamp: WC-6



ID

Flexible Insulated Round Duct (25')

4" round duct: ID-4

6" round duct: ID-6



FD

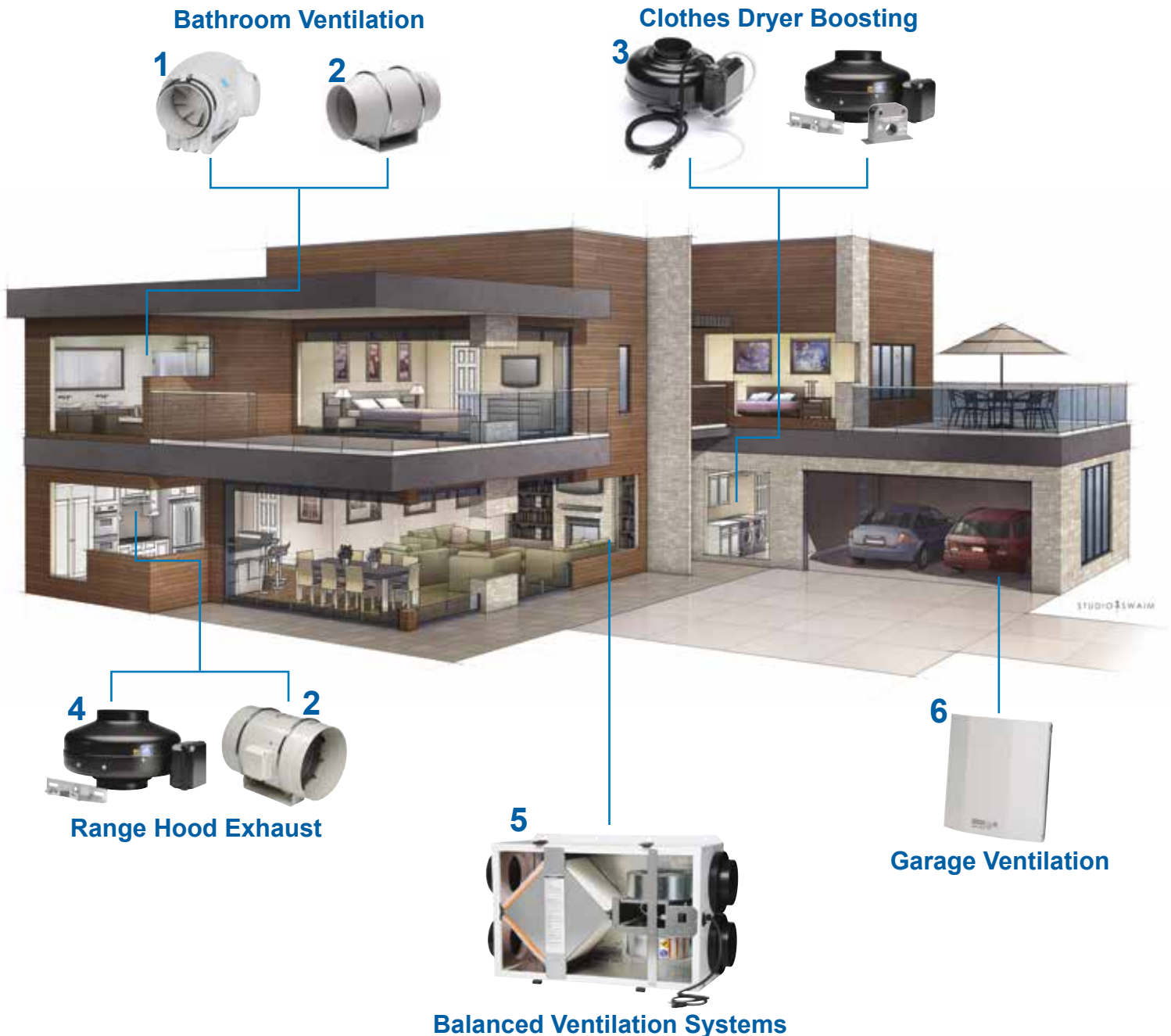
Flexible Round Duct (25')

4" round duct: FD-4

6" round duct: FD-6



S&P offers a comprehensive line of residential/light commercial fans in addition to the Premium Choice Series. Please refer to our website www.solerpalau-usa.com for information on all products shown below as well as additional products not shown.



Product Legend

1. TD-SILENT Series
2. TD-MIXVENT Series
3. Clothes Dryer Boosting Kits featuring PV-100X
4. PV-POWERVENT Series
5. TR - Energy Recovery Ventilators
6. SWF-SIDEWALL Series



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Soler&Palau  **Ventilation Group**