

**CARNES CEILING FANS — Features**

Carnes Models VCDD and VCDK Ceiling Ventilators have been designed to give quality conscious architects, design engineers, builders and specifiers the ultimate in heavy-duty, quiet ventilation.

Available from 100 to 2000 CFM, all units use centrifugal blower wheels and low RPM motors on resilient mounts. Most have acoustic insulation inside a rugged, heavy-duty housing for further sound reduction.

Perfect for offices, conference rooms, bathrooms, hospital rooms... anywhere quiet, high-capacity ventilation is needed.

*Their features include:*

- Available in standard ceiling fan models and dedicated in-line models.
- Low RPM motors mounted on resilient mounts for quiet, vibration-free operation.
- Motors designed for continuous operation permanently lubricated.
- Acoustic insulation inside rugged, heavy-gauge galvanized steel housing (except sizes 005C in-line units).
- May be installed in ceiling or wall (size permitting).
- Balanced blower wheels for extremely low sound levels.
- Attractive, low profile grilles.
- May be ducted horizontally, vertically or as an in-line blower.
- Quiet, built-in backdraft dampers.
- AMCA Licensed.
- UL and cUL Listed.

*Available Accessories Include:*

- Radiation Dampers.
- Wall Caps.
- Roof Caps.
- In-line Adapters.
- Vibration Isolators.
- Brick Vents.
- Speed Controllers.
- Time Delay Switches.

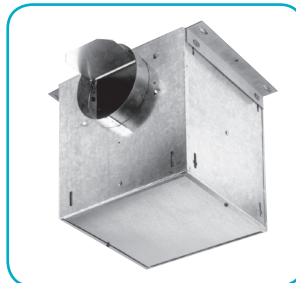
**Model VCDD 005C**



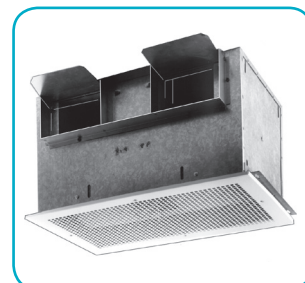
**Models VCDD 010-030C**



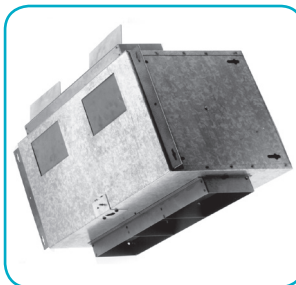
**Models VCDD 010-030I**



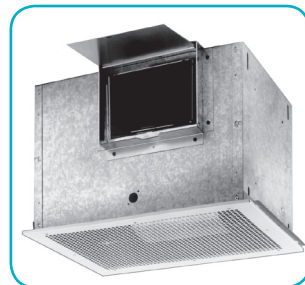
**Models VCDD 040-070C**



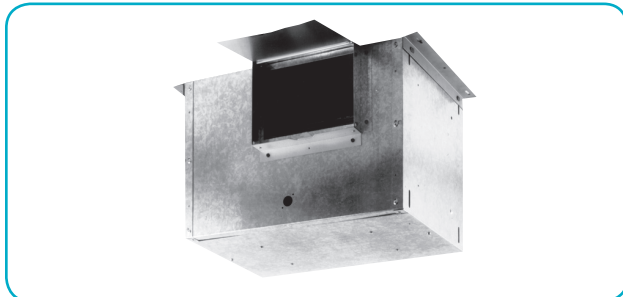
**Models VCDD 040-070I**



**Models VCDD 090-150C**



**Models VCDD 090-150I**



**CARNES CEILING FANS — Features**

The Carnes Model VZDDZ are Lo-Sone ceiling fans which automatically monitor and adjust CFM output for continuous ventilation needs, multi-speed models may be precisely set as low as 30 CFM to avoid costly over-ventilating. A second dial controls runtime at maximum CFM. The DC motor is the most efficient in our ceiling fan line. The VZDDZ08 uses only 5.8 watts.

*Their features include:*

- DC motor for the efficiency well beyond ENERGY STAR® requirements.
- Multi-speed capability ideal for meeting ASHRAE 62.2, LEED and ENERGY STAR® for Homes requirements. Can be used to comply with CA Title 24, as well as local/spot ventilation needs.
- Powerful operation maintained over a wide range of real-world installations (CFM ratings maintained through at least 0.25" static pressure).
- Infinitely adjustable low CFM setting allows precise adjustment to prevent over-ventilating and maximize efficiency.
- Adjustable time delay sets how long fan will run on high speed before returning to a continuous lower speed.
- Rated for Continuous Operation.

*Sound Technology:*

- HVI certified, best-achievable <0.3 Sone level provides nearly silent operation for a relaxing environment.
- State-of-the-art blower and duct outlet design smooths airflow.
- High tech DC motor designed for nearly silent operation.

*Installation Technology:*

- Unique telescoping mounting frame fits through retrofit drywall opening to allow easy installation from the room side. No attic access needed!
- Captive screws allow for easy new construction installation.
- Mounting frame positioning tabs provide easy vertical positioning for new construction.
- Easy to insert and remove snap-in housing. New screws required!
- Easy to insert and remove snap-in blower.
- Inside or outside duct connector and knock-out plate mounting provides flexibility for new construction or retrofit.

Model VZDDZ



UL Listed for use over bathtubs and showers when connected to a GFCI protected branch circuit (ceiling mount only).

Use only ON/OFF switch, mechanical timer or relay-switched control.

**CARNES CEILING FANS — Performance Data**

**Standard Ceiling Fan Arrangement - VCDD**

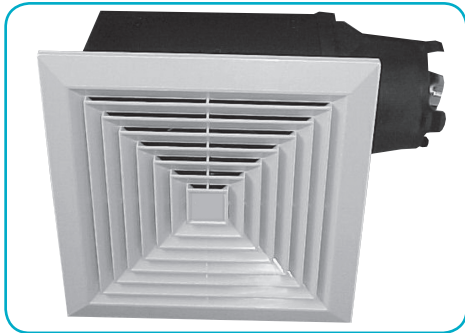
CFM/SONES — AT STATIC PRESSURE (P <sub>s</sub> - Inches of H <sub>2</sub> O)															
Model No.	Nom. Voltage	Standard Arrangement	0.0" P <sub>s</sub>	.10" P <sub>s</sub>	.125" P <sub>s</sub>	.250" P <sub>s</sub>	.375" P <sub>s</sub>	.50" P <sub>s</sub>	.625" P <sub>s</sub>	.750" P <sub>s</sub>	.875" P <sub>s</sub>	1.0" P <sub>s</sub>	Nom. RPM	Amps @ 60 Hz	Watts
VCDD005C	120 VAC	CFM Horizontal	52	49	47	42	29						1870	0.7	48
		SONES Horz.	3.9	4.3	4.4	4.6	5.5								
VCDD015C	120 VAC	CFM Horizontal	181	161	157	141	132	124	114	94	62		710	1.4	102
		SONES Horz.	1.3	1.4	1.5	2.2	2.6	3.1	3.6	4.1	4.6				
VCDD020C	120 VAC	CFM Horizontal	231	214	210	196	186	177	165	144	113	51	740	1.8	131
		SONES Horz.	1.6	1.8	1.7	2.3	2.9	3.5	4.1	4.9	5.3	5.3			
VCDD025C	120 VAC	CFM Horizontal	272	261	259	250	242	233	218	201	165	99	830	2.2	169
		SONES Horz.	2.1	2.3	2.2	2.9	3.3	3.9	4.4	4.8	5.5	5.8			
VCDD030C	120 VAC	CFM Horizontal	312	309	308	303	296	287	273	254	219	125	905	2.7	207
		SONES Horz.	2.8	2.9	2.9	3.3	3.5	3.9	4.3	4.7	5.1	5.6			
VCDD040C	120 VAC	CFM Horizontal	480	442	434	388	344	299	229	182	114	33	735	1.6	171
		SONES Horz.	2.0	2.4	2.3	2.8	3.3	3.8	4.5	4.8	5.4	5.6			
VCDD050C	120 VAC	CFM Horizontal	538	520	514	491	463	434	389	339	282	186	810	2.2	221
		SONES Horz.	3.0	3.1	3.3	3.6	4.0	4.4	5.0	5.7	6.2	6.7			
VCDD070C	120 VAC	CFM Horizontal	722	704	701	667	640	607	571	534	453	333	960	2.8	300
		SONES Horz.	4.5	4.6	4.7	4.8	5.0	5.2	5.6	6.2	7.1	7.2			
VCDD090C	120 VAC	CFM Horizontal	918	905	901	877	842	793	725	636	536	390	650	2.7	289
		SONES Horz.	3.8	4.0	4.1	4.0	4.2	4.3	4.4	4.9	4.5	5.3			
VCDD150C	120 VAC	CFM Horizontal	1578	1526	1513	1438	1371	1285	1198	1103	1000	816	955	6.0	613
		SONES Horz.	8.6	8.4	8.4	8.1	7.5	7.0	6.7	6.2	5.8	5.8			

Performance ratings include the effect 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 shown 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 hemispherical sone levels. Performance certified is for installation type B: Free inlet, Ducted outlet.

Carnes Company certifies that the models 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.



**Models VCDK 008C-009C**



**Standard Ceiling Fan Arrangement - VCDK**

CFM — AT STATIC PRESSURE (P <sub>s</sub> - Inches of H <sub>2</sub> O)														
Model No.	Nom. Voltage	Standard Arrangement	*HVI sones	0.0" Ps	0.10" Ps	0.125" Ps	0.250" Ps	0.375" Ps	0.50" Ps	0.625" Ps	0.750" Ps	Nom. RPM	Amps @ 60 Hz	Watts
VCDK008C	120 VAC	CFM Horz. SONES Horz.	1.0	84 2.1	74 2.2	72 2.2	60 2.6	41 3.3	27 4.1			1500	.29	35
VCDK009C	120 VAC	CFM Horz. SONES Horz.	1.0	115 2.1	104 2.1	101 2.1	88 2.3	74 3.1	59 3.9			1330	.38	45

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

\*HVI SONE VALUES have been tested in accordance to the standard HVI test criteria by an independent, AMCA certified lab. The sone values are measurements listed in 0.5 multiples. ie. 0.7 sone is listed at 0.5 and 0.8 sone is listed at 1.0 sone.

**Standard Ceiling Fan Arrangement - VZDDZ**

Airflow Rate Setting (CFM)	Duct Size	Performance @ Static Pressure (Ps) - Inches Water Gage													Volts	Hz.	Nom. RPM
		0.100" Ps			0.125" Ps		0.250" Ps		0.375" Ps		0.500" Ps		0.625" Ps				
		CFM	Sones	Watts	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones			
08	4" Round	80	< 0.3	7.8	80	0.3	80	1.0	78	1.8	64	2.4	37	3.0	120	60	985
	6" Round	80	< 0.3	6.1	80	< 0.3	80	0.6	78	1.4	66	2.2	38	3.0	120	60	935
10	6" Round	110	< 0.3	8.4	110	< 0.3	109	1.4	100	2.3	62	3.0	28	3.6	120	60	940

Performance ratings include the effects of inlet grille and backdraft damper. 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 spherical free field calculated per AMCA Std. 301. Values shown are for Installation Type B: free inlet hemispherical sone levels. Performance certified is for installation type B: Free inlet, Duct outlet.



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Ceiling & Cabinet Fans

Standard In-Line Fan Arrangement - VCDD

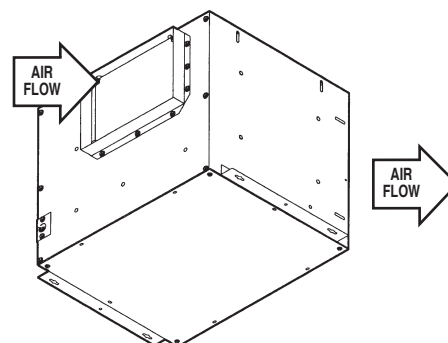
CFM/SONES — AT STATIC PRESSURE (P <sub>S</sub> - Inches of H <sub>2</sub> O)															
Model No.	Nom. Voltage	Standard Arrangement	0.0" P <sub>S</sub>	.10" P <sub>S</sub>	.125" P <sub>S</sub>	.250" P <sub>S</sub>	.375" P <sub>S</sub>	.50" P <sub>S</sub>	.625" P <sub>S</sub>	.750" P <sub>S</sub>	.875" P <sub>S</sub>	1.0" P <sub>S</sub>	Nom. RPM	Amps @ 60 Hz	Watts
VCDD010I	120 VAC	CFM Std. Thr.	121	108	106	97	93	86	70	44	17		760	1.1	87
		SONES Std. Thr.	.5	.7	.7	1.1	1.4	1.8	2.1	2.4	2.6				
VCDD015I	120 VAC	CFM Std. Thr.	153	148	147	140	134	125	111	91	54	18	920	1.3	100
		SONES Std. Thr.	.9	1.0	1.1	1.4	1.6	1.9	2.1	2.2	2.4	2.6			
VCDD020I	120 VAC	CFM Std. Thr.	205	196	195	190	185	175	158	135	96	47	865	1.8	127
		SONES Std. Thr.	1.7	1.9	1.9	2.1	2.3	2.4	3.0	3.3	3.4	3.4			
VCDD025I	120 VAC	CFM Std. Thr.	248	245	245	241	235	224	208	183	141	84	1005	2.1	166
		SONES Std. Thr.	2.0	2.3	2.3	2.6	2.8	3.2	3.4	3.6	3.9	3.8			
VCDD030I	120 VAC	CFM Std. Thr.	300	294	293	285	274	259	243	214	168	113	1145	2.6	212
		SONES Std. Thr.	2.9	3.0	3.1	3.3	3.4	3.5	3.6	3.7	4.0	3.9			
VCDD040I	120 VAC	CFM Std. Thr.	450	415	406	360	313	271	223	167	90	6	775	1.4	146
		SONES Std. Thr.	1.4	1.6	1.6	1.9	2.2	2.6	2.9	3.4	3.6	3.9			
VCDD050I	120 VAC	CFM Std. Thr.	546	526	519	496	472	447	407	364	306	232	890	2.2	232
		SONES Std. Thr.	2.4	2.4	3.4	3.7	3.9	3.8	3.9	4.0	4.3	4.3			
VCDD070I	120 VAC	CFM Std. Thr.	704	686	681	656	631	604	575	533	480	412	1090	2.9	313
		SONES Std. Thr.	3.6	3.8	3.7	3.9	4.0	4.2	4.3	4.4	4.9	5.0			
VCDD090I	120 VAC	CFM Std. Thr.	930	902	894	853	807	754	685	587	442	300	810	3.0	306
		SONES Std. Thr.	3.7	3.8	3.8	3.8	3.7	3.8	3.9	4.0	4.0	4.1			
VCDD150I	120 VAC	CFM Std. Thr.	1275	1228	1214	1152	1092	1029	958	871	764	631	1065	5.0	468
		SONES Std. Thr.	6.8	6.8	6.7	6.5	6.3	6.0	6.8	6.0	6.0	6.1			

Performance ratings include the effects of backdraft damper in the airstream. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown 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 D: Ducted inlet, Ducted outlet. Ratings do not include the effect of duct end correction. Performance ratings include the effects of 18 feet of round inlet duct and, if needed, a rectangular to round duct transition in the airstream. Values shown are for installation type D: free inlet hemispherical sone levels. Performance certified is for installation type D: Ducted inlet, Ducted outlet.

VCDD210I	120 VAC	CFM Std. Thr.	1891	1803	1791	1657	1508	1347	1165	808	284		965	5.8	567
		SONES Std. Thr.	10.3	9.8	9.4	9.0	8.6	9.1	8.9	7.0	6.7				

Performance ratings do not include the effects of accessories. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are for 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 D: Ducted inlet, Ducted outlet. Ratings do not include the effect of duct end correction. Values shown are for installation type D: free inlet hemispherical sone levels. Performance certified is for installation type D: Ducted inlet, Ducted outlet.

- Standard in-line fan arrangement.
- Unit comes factory assembled as an in-line fan.
- Air intakes and discharges in the same direction.
- Unit may be mounted in a variety of ways.



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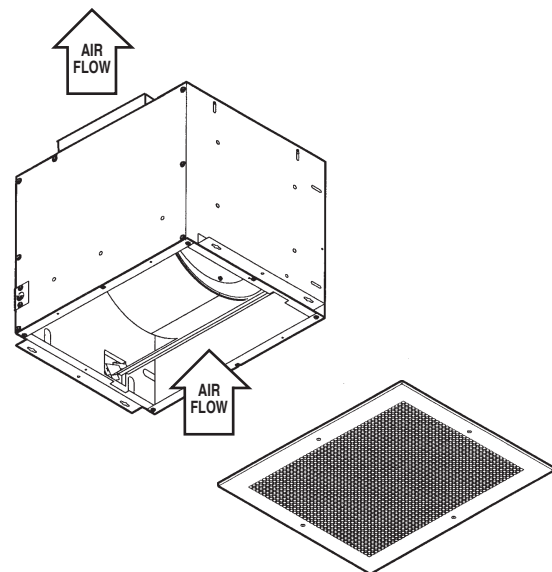


Standard Ceiling Fan Field Converted to Vertical Discharge - VCDD

CFM/SONES — AT STATIC PRESSURE (P <sub>s</sub> - Inches of H <sub>2</sub> O)															
Model No.	Nom. Voltage		0.0" P <sub>s</sub>	.10" P <sub>s</sub>	.125" P <sub>s</sub>	.250" P <sub>s</sub>	.375" P <sub>s</sub>	.50" P <sub>s</sub>	.625" P <sub>s</sub>	.750" P <sub>s</sub>	.875" P <sub>s</sub>	1.0" P <sub>s</sub>	Nom. RPM	Amps @ 60 Hz	Watts
VCDD010C	120 VAC	CFM Vertical SONES Vert.	138 0.7	117 0.9	112 1.0	94 1.3	80 1.8	67 2.2	46 2.8	13 3.0			650	1.1	77
VCDD015C	120 VAC	CFM Vertical SONES Vert.	179 1.4	163 1.6	160 1.6	149 2.0	142 2.5	133 3.0	122 3.3	105 3.6	73 3.9	23 4.2	750	1.4	102
VCDD020C	120 VAC	CFM Vertical SONES Vert.	224 1.5	210 1.8	207 2.0	197 2.3	187 2.7	179 3.4	167 4.0	144 4.5	99 5.1	41 5.2	760	1.8	132
VCDD025C	120 VAC	CFM Vertical SONES Vert.	269 2.3	261 2.6	259 2.7	253 3.0	248 3.3	239 3.7	224 4.2	203 4.7	171 5.4	101 5.6	860	2.3	172
VCDD030C	120 VAC	CFM Vertical SONES Vert.	319 2.6	314 2.9	313 3.0	306 3.4	299 3.6	288 3.8	274 4.4	251 4.7	219 5.0	120 5.5	940	2.7	207
VCDD040C	120 VAC	CFM Vertical SONES Vert.	467 2.3	428 2.6	416 2.6	378 3.0	335 3.5	291 4.0	237 5.1	170 5.5	85 5.7	8 5.9	755	1.6	165
VCDD050C	120 VAC	CFM Vertical SONES Vert.	539 2.9	517 3.1	512 3.2	481 3.4	451 3.8	418 4.2	367 4.8	319 5.9	247 6.3	137 6.4	865	2.1	218
VCDD070C	120 VAC	CFM Vertical SONES Vert.	708 5.2	691 5.0	687 5.0	658 5.7	628 5.8	597 6.1	560 6.4	515 7.4	444 7.1	312 7.6	985	2.9	315
VCDD090C	120 VAC	CFM Vertical SONES Vert.	909 3.8	892 3.4	885 3.4	850 3.5	807 3.6	756 3.7	695 3.9	568 4.2	440 4.3	282 4.4	650	2.6	281
VCDD150C	120 VAC	CFM Vertical SONES Vert.	1590 8.5	1519 8.4	1502 8.4	1423 8.1	1340 7.9	1259 7.5	1176 7.2	1069 7.1	954 6.9	689 6.5	955	6.2	622

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 shown are loudness values in fan sones at 5' (1.5m) in a hemispherical free field calculated per AMCA Std. 301. Values are shown for installation type B: free inlet hemispherical sone levels. Performance certified is for installation type B: Free inlet, Ducted outlet.

- Unit ordered as a standard ceiling fan and converted in the field to vertical discharge.
- Air intakes and discharges in the same direction.
- Grille located in the ceiling.
- Unit may be wall mounted.



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Standard In-Line Fan Field Converted to Vertical Discharge - VCDD

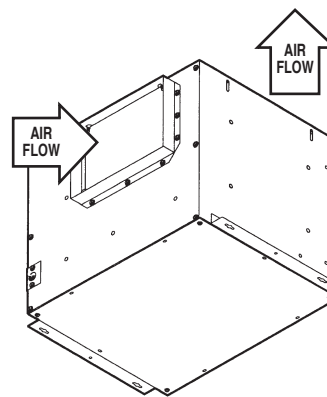
CFM/SONES — AT STATIC PRESSURE (P <sub>s</sub> - Inches of H <sub>2</sub> O)															
Model No.	Nom. Voltage	Right Arrangement	0.0" P <sub>s</sub>	.10" P <sub>s</sub>	.125" P <sub>s</sub>	.250" P <sub>s</sub>	.375" P <sub>s</sub>	.50" P <sub>s</sub>	.625" P <sub>s</sub>	.750" P <sub>s</sub>	.875" P <sub>s</sub>	1.0" P <sub>s</sub>	Nom. RPM	Amps @ 60 Hz	Watts
VCDD010I	120 VAC	CFM Rt. Ang.	109	98	96	88	82	78	67	48	16		780	1.1	87
		SONES Rt. Ang.	.5	.8	.8	1.2	1.6	2.0	2.3	2.5	2.8				
VCDD015I	120 VAC	CFM Rt. Ang.	144	138	137	131	123	114	102	83	54	17	950	1.3	100
		SONES Rt. Ang.	1.2	1.4	1.4	1.6	1.9	2.1	2.4	2.5	2.7	2.9			
VCDD020I	120 VAC	CFM Rt. Ang.	183	177	176	170	163	152	137	121	96	51	930	1.8	127
		SONES Rt. Ang.	1.6	1.6	1.6	1.9	2.3	2.7	2.9	3.1	3.4	3.6			
VCDD025I	120 VAC	CFM Rt. Ang.	229	224	222	214	204	193	177	157	132	95	1115	2.1	166
		SONES Rt. Ang.	2.4	2.5	2.6	2.8	3.0	3.2	3.4	3.7	3.8	3.8			
VCDD030I	120 VAC	CFM Rt. Ang.	270	261	259	248	234	220	200	174	146	104	1285	2.6	212
		SONES Rt. Ang.	3.7	3.7	3.7	3.7	3.9	3.9	4.0	4.2	4.4	4.0			
VCDD040I	120 VAC	CFM Rt. Ang.	442	415	408	372	336	296	239	193	111	28	875	1.4	146
		SONES Rt. Ang.	1.6	1.7	1.7	2.0	2.4	2.6	3.1	3.4	3.9	4.1			
VCDD050I	120 VAC	CFM Rt. Ang.	528	516	513	494	470	446	415	389	334	247	990	2.2	232
		SONES Rt. Ang.	2.9	3.8	3.4	3.7	3.5	3.6	3.9	4.0	4.2	4.4			
VCDD070I	120 VAC	CFM Rt. Ang.	680	667	663	664	621	594	557	513	440	342	1205	2.9	313
		SONES Rt. Ang.	5.0	5.0	5.0	5.3	5.2	5.1	5.3	5.5	5.4	5.5			
VCDD090I	120 VAC	CFM Rt. Ang.	795	778	772	743	709	668	613	527	432	291	755	3.0	306
		SONES Rt. Ang.	4.3	4.5	4.4	4.6	4.4	4.2	4.1	4.3	4.2	4.3			
VCDD150I	120 VAC	CFM Rt. Ang.	1160	1117	1106	1051	998	928	856	769	657	499	1020	5.0	468
		SONES Rt. Ang.	7.9	7.8	7.9	7.4	7.1	6.8	6.3	5.9	5.4	5.4			

Performance ratings include the effects of backdraft damper in the airstream. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown 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 D: Ducted inlet, Ducted outlet. Ratings do not include the effect of duct end correction. Performance ratings include the effects of 18 feet of round inlet duct and, if needed, a rectangular to round duct transition in the airstream. Values shown are for installation type D: free inlet hemispherical sone levels. Performance certified is for installation type D: Ducted inlet, Ducted outlet.

VCDD210I	120 VAC	CFM Rt. Ang.	2070	1931	1898	1769	1609	1424	1314	795	228		1020	5.8	608
		SONES Rt. Ang.	11.1	10.3	10.1	9.7	9.4	9.2	8.5	7.0	6.7				

Performance ratings do not include the effects of accessories. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are for 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 D: Ducted inlet, Ducted outlet. Ratings do not include the effect of duct end correction. Values shown are for installation type D: free inlet hemispherical sone levels. Performance certified is for installation type D: Ducted inlet, Ducted outlet.

- Unit ordered as a standard ceiling fan and converted in the field to vertical discharge.
- Air intakes horizontally.
- Air discharge vertically.
- Unit may be mounted in a variety of ways.



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**VCDD Performance with Field Installed Metal Grille Option (Standard Air Discharge)**

CFM/SONES — AT STATIC PRESSURE (P <sub>s</sub> - Inches of H <sub>2</sub> O)															
Model No.	Nom. Voltage	Standard Arrangement	0.0" P <sub>s</sub>	.10" P <sub>s</sub>	.125" P <sub>s</sub>	.250" P <sub>s</sub>	.375" P <sub>s</sub>	.50" P <sub>s</sub>	.625" P <sub>s</sub>	.750" P <sub>s</sub>	.875" P <sub>s</sub>	1.0" P <sub>s</sub>	Nom. RPM	Amps @ 60 Hz	Watts
VCDD010C	120 VAC	CFM Horizontal	144	121	115	97	83	68	46	12			630	1.1	77
		SONES Horz.	0.5	0.8	0.9	1.2	1.8	2.4	3.0	3.3					
VCDD015C	120 VAC	CFM Horizontal	184	165	161	148	141	135	126	108	74	19	710	1.4	103
		SONES Horz.	1.1	1.4	1.4	1.9	1.9	2.3	3.2	3.8	4.1	4.5			
VCDD020C	120 VAC	CFM Horizontal	237	218	215	199	190	180	167	144	108	47	715	1.8	131
		SONES Horz.	1.4	1.8	1.9	2.4	3.0	3.6	4.2	5.1	5.6	5.5			
VCDD025C	120 VAC	CFM Horizontal	280	267	265	254	246	238	224	209	172	105	805	2.2	170
		SONES Horz.	2.1	2.5	2.5	2.9	3.4	3.9	4.3	4.6	5.6	5.9			
VCDD030C	120 VAC	CFM Horizontal	323	317	316	312	305	298	283	266	235	153	860	2.6	212
		SONES Horz.	3.0	2.8	3.0	3.2	3.5	3.9	4.3	4.8	5.2	5.7			

\*Standard ceiling fan arrangement with optional metal grille.

**VCDD Performance with Field Installed Metal Grille Option (Field Convertible to Vertical Air Discharge)**

CFM/SONES — AT STATIC PRESSURE (P <sub>s</sub> - Inches of H <sub>2</sub> O)															
Model No.	Nom. Voltage	Standard Arrangement	0.0" P <sub>s</sub>	.10" P <sub>s</sub>	.125" P <sub>s</sub>	.250" P <sub>s</sub>	.375" P <sub>s</sub>	.50" P <sub>s</sub>	.625" P <sub>s</sub>	.750" P <sub>s</sub>	.875" P <sub>s</sub>	1.0" P <sub>s</sub>	Nom. RPM	Amps @ 60 Hz	Watts
VCDD010C	120 VAC	CFM Vertical	142	119	115	95	80	67	45	13			640	1.1	77
		SONES Vert.	0.5	0.8	0.9	1.4	1.8	2.3	2.9	3.1					
VCDD015C	120 VAC	CFM Vertical	183	165	162	151	143	135	124	107	76	26	725	1.4	104
		SONES Vert.	1.4	1.6	1.6	2.0	2.5	3.0	3.3	3.6	4.0	4.4			
VCDD020C	120 VAC	CFM Vertical	228	213	209	198	190	182	168	145	105	56	730	1.8	133
		SONES Vert.	1.5	1.7	1.8	2.3	2.8	3.4	4.1	4.6	5.1	5.2			
VCDD025C	120 VAC	CFM Vertical	275	263	262	255	250	241	229	210	178	105	830	2.3	172
		SONES Vert.	2.2	2.6	2.7	3.0	3.4	3.8	4.3	4.8	5.5	5.8			
VCDD030C	120 VAC	CFM Vertical	322	315	314	308	302	292	278	259	227	119	885	2.6	212
		SONES Vert.	2.4	2.7	2.8	3.3	3.5	3.9	4.3	4.7	5.1	5.5			

\*Standard ceiling fan field modified for vertical discharge with optional metal grille.

\* NOTE: In many cases, metal grille options provide improved air flow performance over the standard grille.

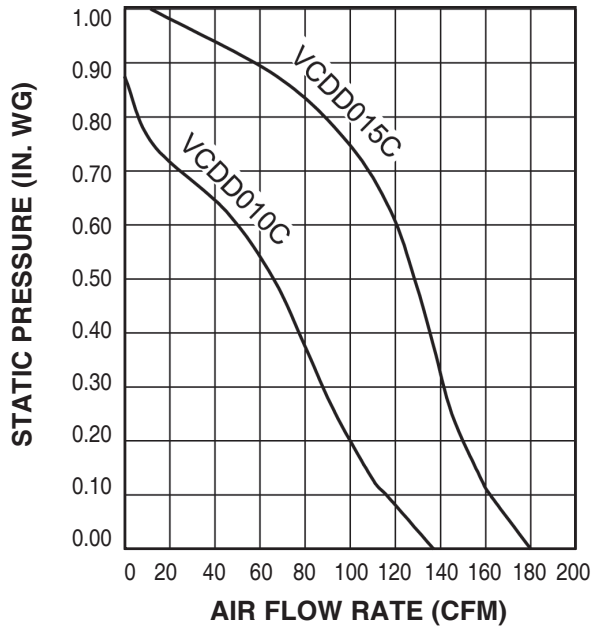
Performance ratings include the effect of inlet grille and backdraft damper in the airstream. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 5' (1.5m) in a hemispherical free field calculated per AMCA Std. 301. Values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

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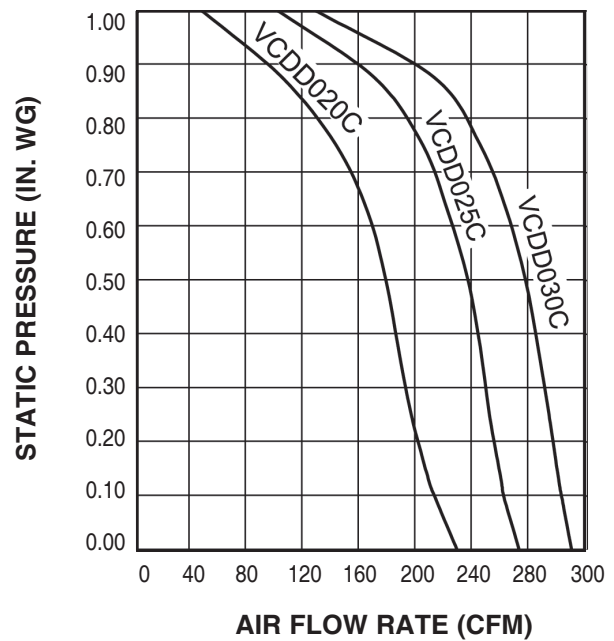




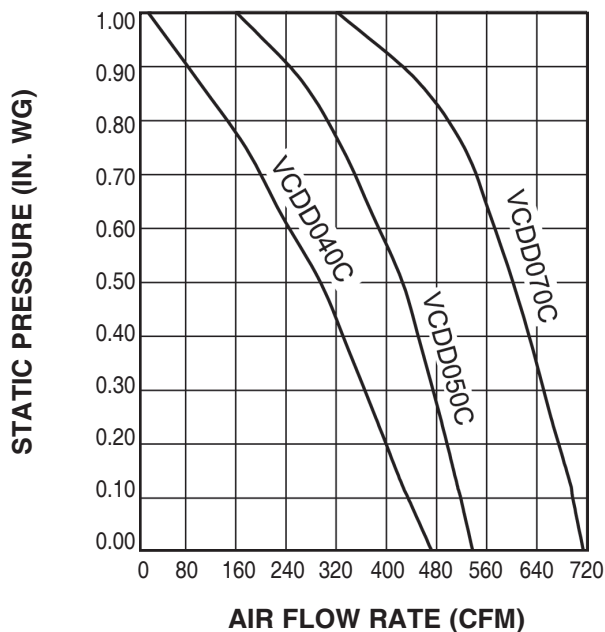
**VCDD 010C and 015C**



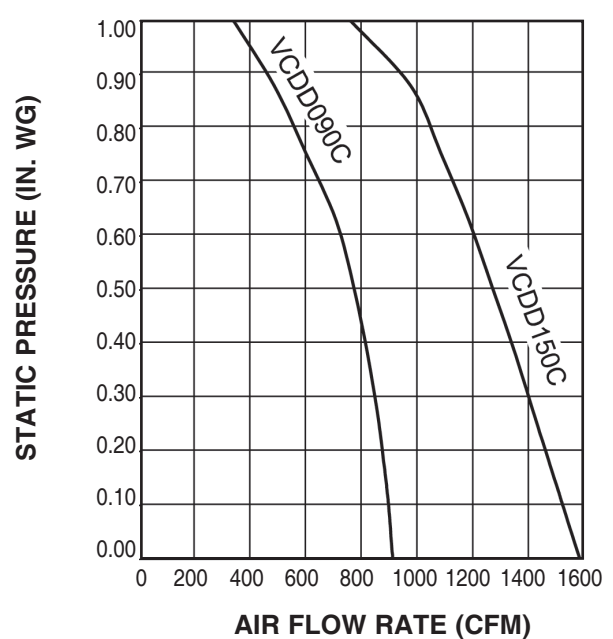
**VCDD 020C, 025C and 030C**



**VCDD 040C, 050C and 070C**



**VCDD 090C and 150C**

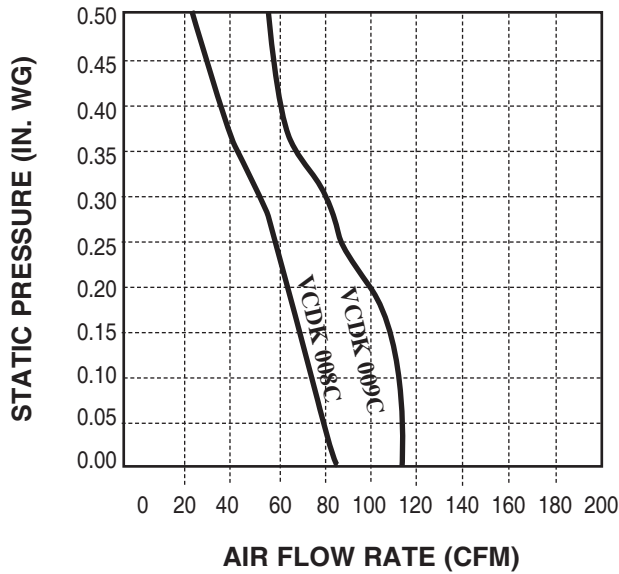


Performance ratings include the effect of inlet grille and backdraft damper in the airstream. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 5' (1.5m) in a hemispherical free field calculated per AMCA Std. 301. Values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

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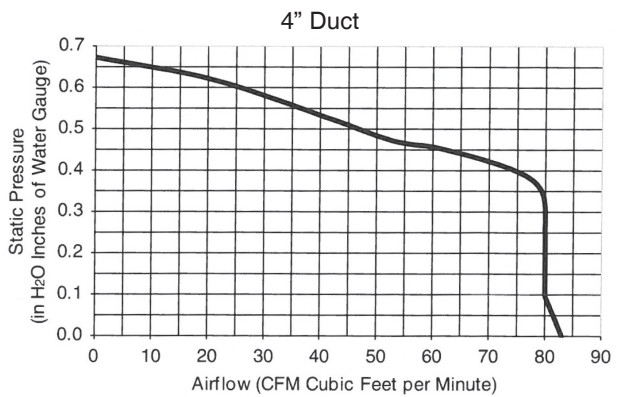
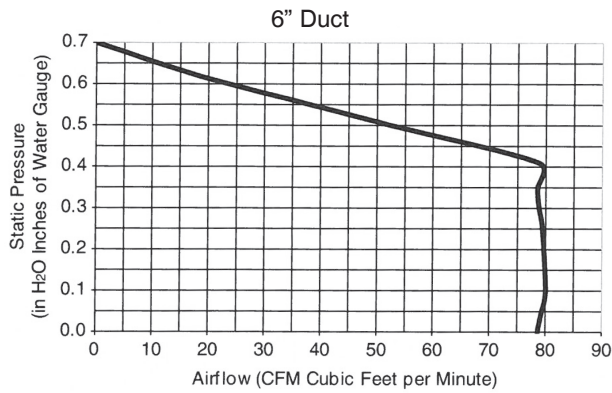


**VCDK 008C and 009C**

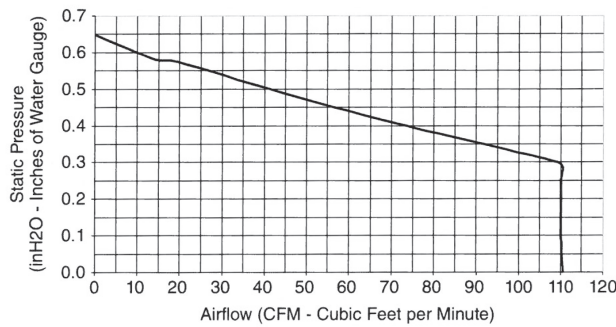


Performance ratings include the effect of inlet grille and backdraft damper in the airstream. Performance certified is for installation type B: Free inlet, Ducted outlet.

**VZDDZ08C**



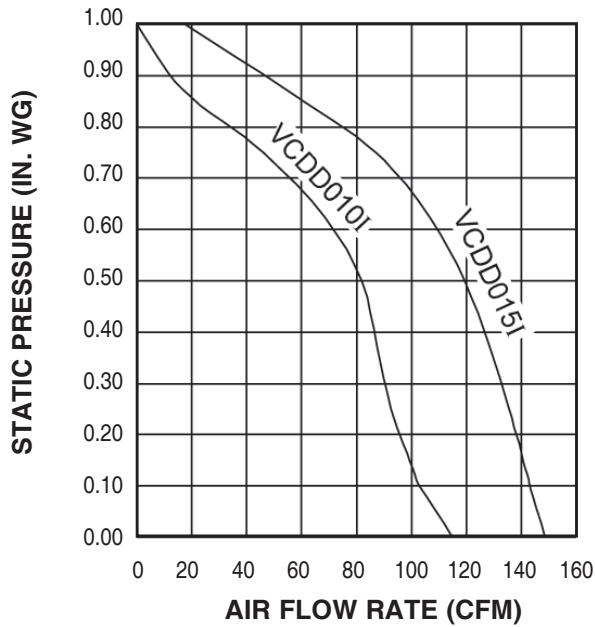
**VZDDZ10C**



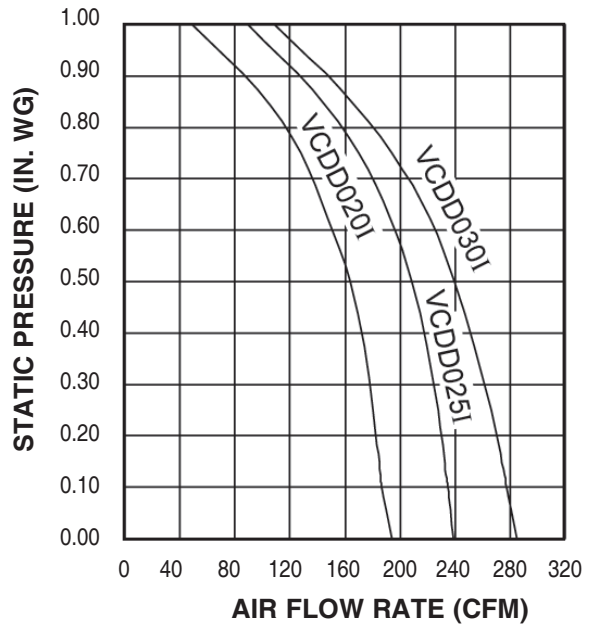
Carnes Company certifies that the models shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311, and comply with the requirements of the AMCA Certified Ratings Program.



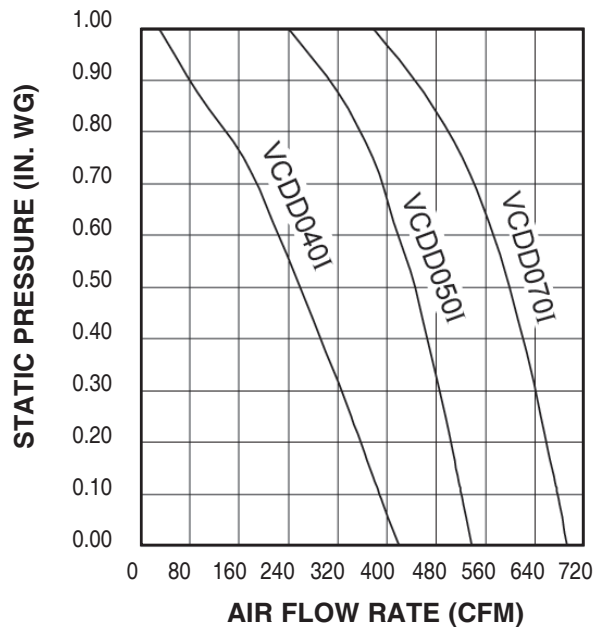
**VCDD 010I and 015I**



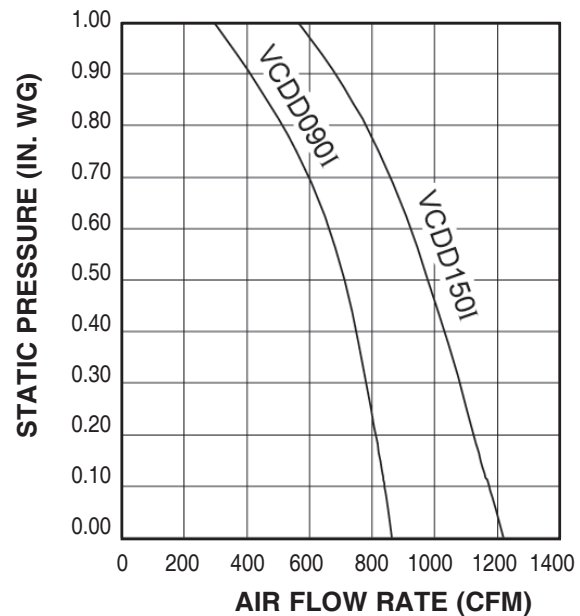
**VCDD 020I, 025I and 030I**



**VCDD 040I, 050I and 070I**



**VCDD 090I and 150I**

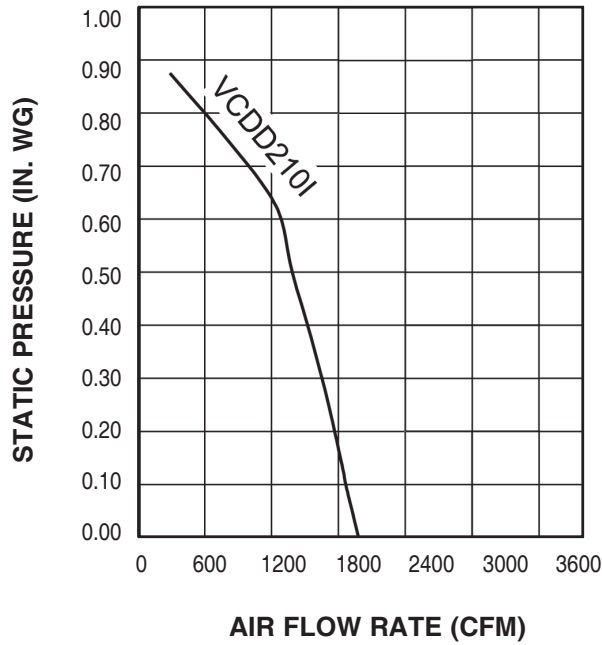


Performance ratings include the effects of backdraft damper in the airstream. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 5' (1.5m) in a hemispherical free field calculated per AMCA Std. 301. Values shown are for installation type D: Ducted inlet, Ducted outlet. Ratings do not include the effect of duct end correction. Performance ratings include the effect of 18 feet or round inlet duct and, if needed, a rectangular to round duct transition in the airstream. Values shown are for installation type D: free inlet hemispherical sone levels. Performance certified is for installation type D: Ducted inlet, Ducted outlet.

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**VCDD 210I**

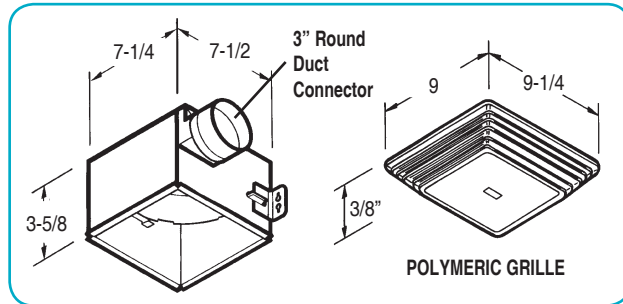


Performance ratings include the effects of backdraft damper in the airstream. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan zones at 5' (1.5m) in a hemispherical free field calculated per AMCA Std. 301. Values shown are for installation type D: Ducted inlet, Ducted outlet. Ratings do not include the effect of duct end correction. Performance ratings include the effect of 18 feet or round inlet duct and, if needed, a rectangular to round duct transition in the airstream. Values shown are for installation type D: free inlet hemispherical sone levels. Performance certified is for installation type D: Ducted inlet, Ducted outlet.

Carnes Company certifies that the models 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.



**CARNES CEILING FANS — VCDD Dimensional Data**



**Model VCDD 005C**

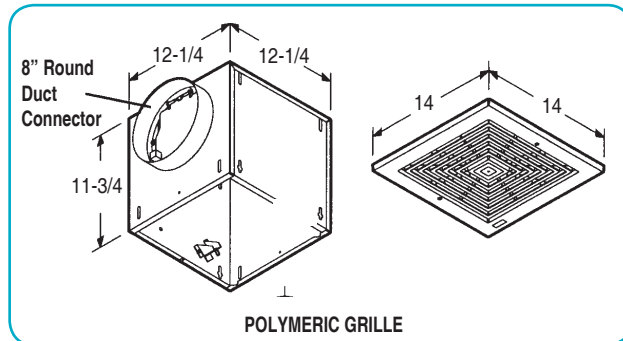
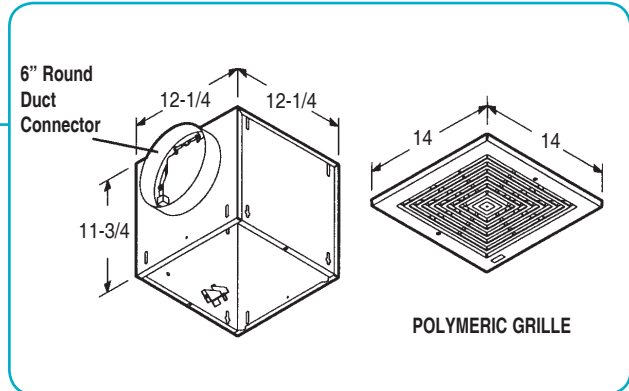
- 120 VAC.
- 3" round duct connector.
- Low profile white polymeric grille.
- Single, impact resistant centrifugal blower wheel.

**Models VCDD 010-015C**

- 120 VAC.
- 6" round duct connector.
- Low profile white polymeric grille.
- Single, impact resistant centrifugal blower wheel.

**Models VCDD 010-015I**

- 120 VAC.
- Two 6" round duct connectors.
- Removable access panel.
- Single, impact resistant centrifugal blower wheel.



**Models VCDD 020-030C**

- 120 VAC.
- 8" round duct connector.
- Low profile white polymeric grille.
- Single, impact resistant centrifugal blower wheel.

**Models VCDD 020-030I**

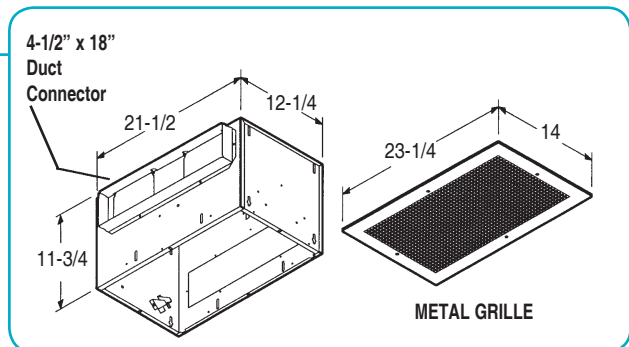
- 120 VAC.
- Two 8" round duct connectors.
- Removable access panel.
- Single, impact resistant centrifugal blower wheel.

**Models VCDD 040-070C**

- 120 VAC.
- 4-1/2" x 18-1/2" duct connector.
- Low profile white metal grille finished with painted white enamel.
- Two impact resistant centrifugal blower wheels.

**Models VCDD 040-070I**

- 120 VAC.
- Two 4-1/2" x 18-1/2" duct connectors.
- Removable access panel.
- Two impact resistant centrifugal blower wheels.



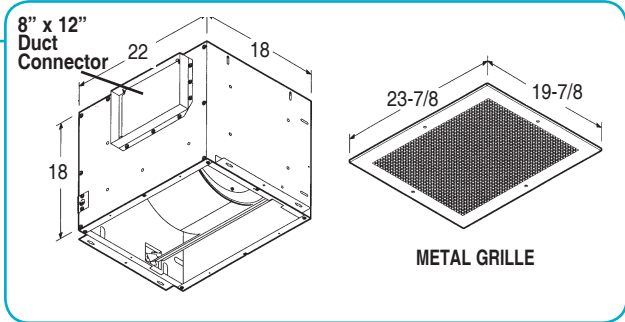
**CARNES CEILING FANS — VCDD Dimensional Data**

**Models VCDD 090-150C**

- 120 VAC.
- 8" x 12" duct connector.
- Sturdy, low profile white metal grille finished with painted white enamel.

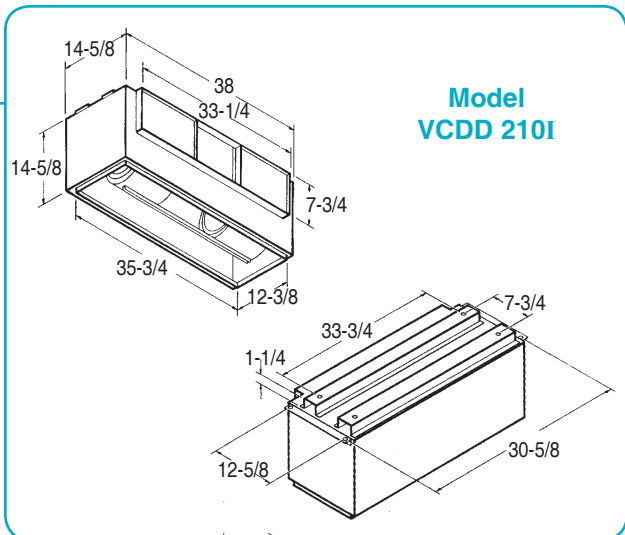
**Models VCDD 090-150I**

- 120 VAC.
- Two 8" x 12" duct connectors.
- Removable access panel.
- Single impact resistant centrifugal blower wheels.



**Model VCDD 210I**

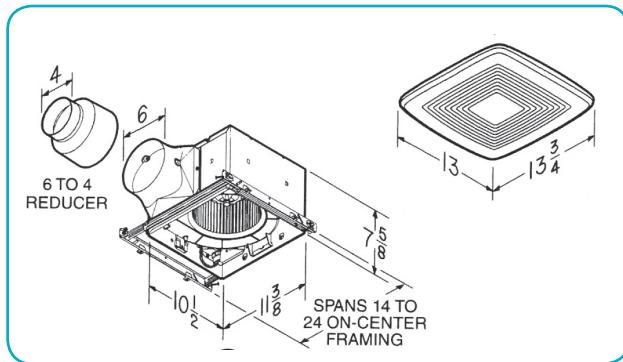
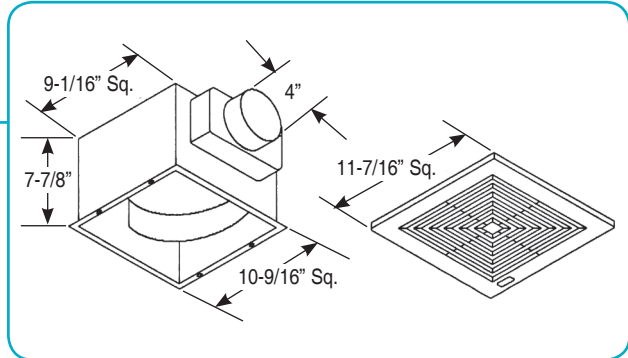
- 120 VAC.
- Fits 7-3/4" x 33-3/4" duct.
- Twin double-inlet blower wheels; 8" dia. x 7-7/8" deep.
- Use Metal Grille Kit for ceiling applications.
- Use Damper Kit for applications where unit will be ducted to outside—twin damper flaps prevent back-drafts.



**CARNES CEILING FANS — VCDK and VZDDZ Dimensional Data**

**Models VCDK 008C-009C**

- 120 VAC.
- 4" round duct connector.
- Low profile white polymeric grille.
- Single, impact resistant centrifugal blower wheel.

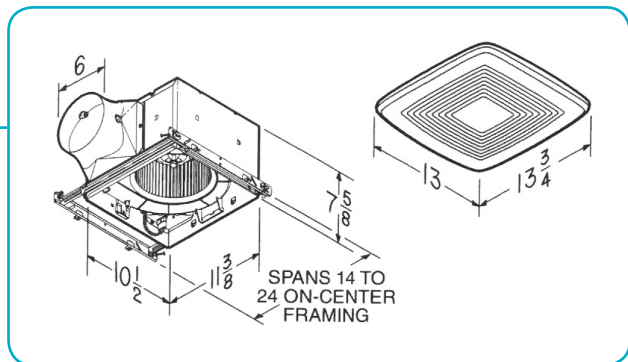


**Models VZDDZ 08CA**

- 120 VAC.
- 6" or 4" reducer.
- DC motor and control technology.
- Single, impact resistant centrifugal blower wheel.

**Models VZDDZ 010CA**

- 120 VAC.
- 4" round duct connector.
- DC motor and control technology.
- Single, impact resistant centrifugal blower wheel.



## SPECIFICATIONS

### VCDK Ceiling Fan Typical Specifications (Sizes 008-009)

Ceiling mounted exhaust fans shall be of the centrifugal direct drive type. The wheel shall be of the forward curved design, balanced for extremely low sound levels. The motor shall be of a low rpm design and permanently lubricated and include integral automatic backdraft dampers. Grilles shall be of a durable, low profile design with a white finish. Units shall be provided with integral mounting flanges to allow for ceiling and wall installations. Cabinets shall be constructed of heavy-gauge steel, painted for corrosion resistance. VCDD sizes 010-030 shall include an acoustical lining.

### VCDD Ceiling Fan Typical Specifications (Sizes 040-170)

Ceiling mounted exhaust fans shall be of the centrifugal direct driven type. The wheel shall be of the forward curved design, balanced for extremely low sound levels. The motor shall be a low rpm and permanently lubricated for continuous operation. The motor shall be resilient mount to help reduce vibration. Duct connectors shall be provided and will include built in automatic backdraft dampers. Grilles shall be of a durable, low profile design with a white finish. 8-way adjustable mounting brackets will be provided to permit a variety of mounting options. Cabinets shall be constructed of heavy-gauge galvanized steel and shall include an acoustic lining.

### VCDD In-Line Fan Typical Specifications (Sizes 040-170)

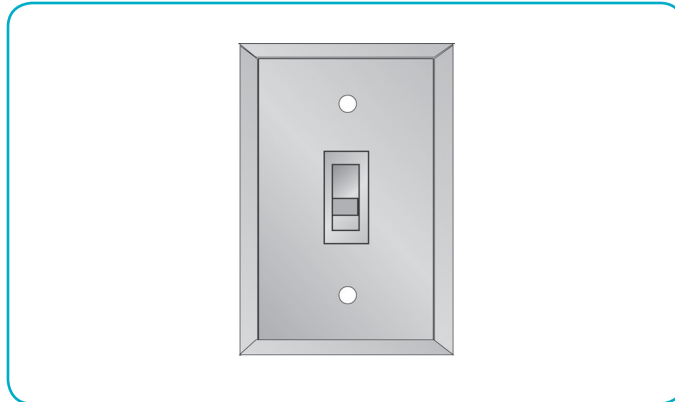
In-line cabinet fans shall be of the centrifugal direct driven type. The wheel shall be of the forward curved design. Balanced for extremely low sound levels. The motor shall be a low rpm and permanently lubricated for continuous operation. The motor shall be a resilient mount to help reduce vibration. Two duct connectors of the same duct size shall be factory installed. The discharge duct connector shall include a built in automatic backdraft damper. 8-way adjustable mounting brackets will be provided to permit a variety of mounting options. Cabinets shall be constructed of heavy-gauge galvanized steel.

### VZDDZ Ceiling Fan Typical Specifications (Sizes 08-010)

Ceiling mounted exhaust fan shall be of the centrifugal direct drive type. The wheel shall be of the forward curved design. The DC Lo-Sone motor shall provide the ability to automatically monitor and adjust CFM output for continuous ventilation. A second dial will control runtime at the maximum CFM. Grilles shall be of a durable, low profile design with a white finish. Duct connections shall be provided and will include a built in automatic damper.



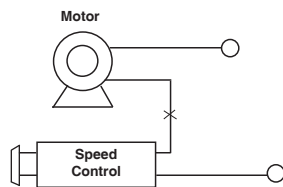
**CARNES CEILING FANS — Accessories**



**Model VXCBT TIME DELAY SWITCH**

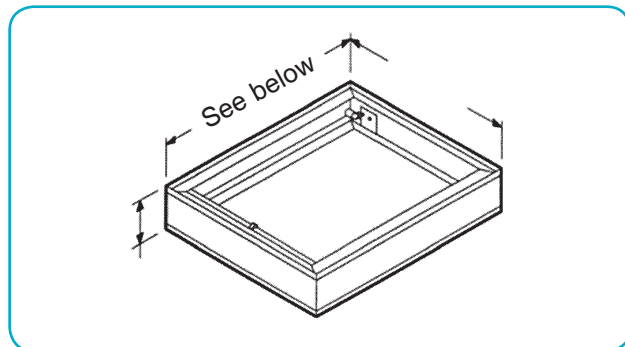
Adjustable from 5-60 minutes.

**Solid State Variable Speed Switch**



- **Model JXUA** — 3 amp
- **Model JXVA** — 6 amp
- **Model JXEA** — 8 amp
- **Model VXCBS** — 6 amp, 240 volt
- **Model VXCMB** — 6 amp, 277 volt
- **Model JTSA** — for use on VCDD010-090 (ceiling and in-line)

- Model JXUA**
- Model JXVA**
- Model JXEA**
- Model VXCBS**
- Model VXCMB**

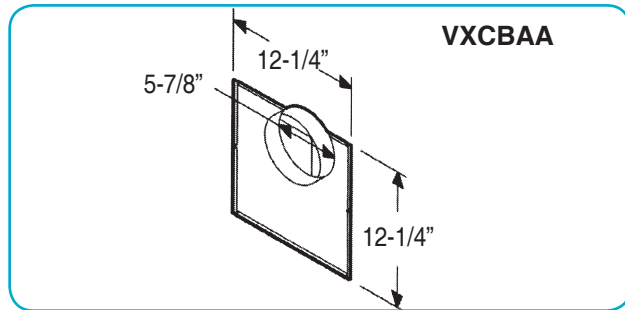


- **VXCBQA** (12-1/4"x12-1/4") fits VCDD 010C-030C.
- **VXCBQB** (21-1/2"x18") fits VCDD 040C-070C.
- **VXCBQC** (22"x18") fits VCDD 090C & VCDD 150C.
- **VXCBQH** (10-9/16" Sq.) fits VCDK 008C-009C.

**Radiation Dampers**

- UL Listed — classified for use in a 4-hour fire-rated ceiling.
- Galvanized steel.
- High temperature, non-asbestos, reinforced fiber thermal fabric.
- 165° fusible link.

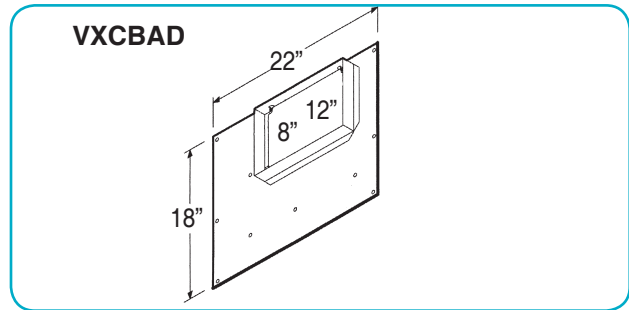
**CARNES CEILING FANS — Accessories**



**VXCBA**

**VXCBA In-Line Adapter Kit**

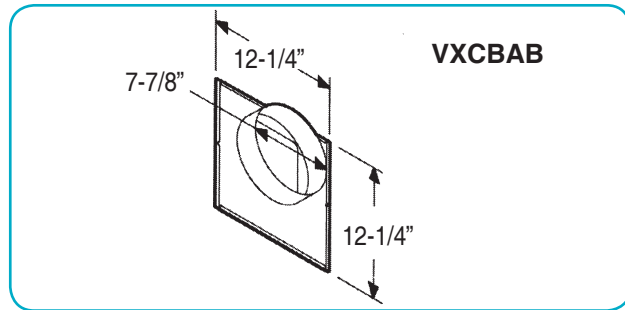
- Galvanized steel.
- Fits VCDD 010C & 015C.
- 6" round duct connection.
- Mounting hardware included.



**VXCBA**

**VXCBA In-Line Adapter Kit**

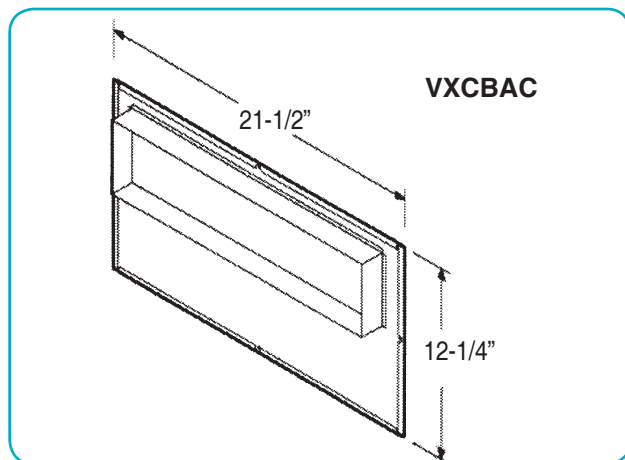
- Galvanized steel.
- Fits VCDD 090C & 150C.
- 8" x 12" duct connection.
- Mounting hardware included.



**VXCBA**

**VXCBA In-Line Adapter Kit**

- Galvanized steel.
- Fits VCDD 020C, 025C & 030C.
- 8" round duct connection.
- Mounting hardware included.



**VXCBA**

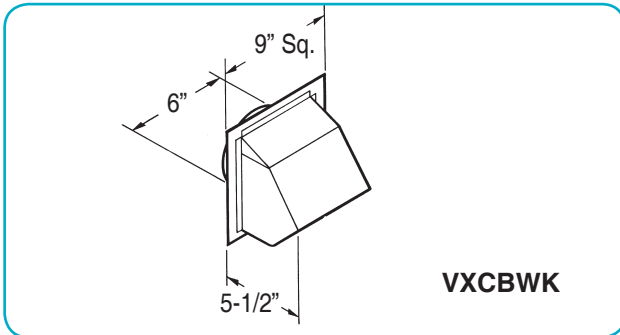
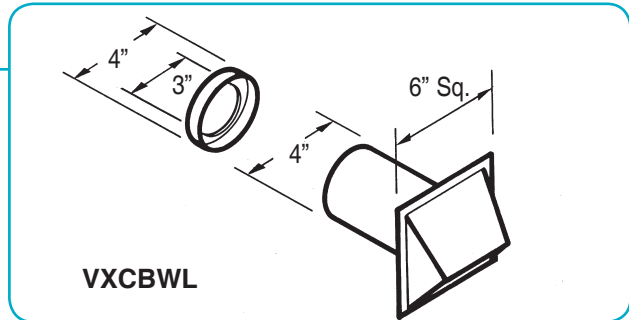
**VXCBA In-Line Adapter Kit**

- Galvanized steel.
- Fits VCDD 040C, 050C & 070C.
- 4-1/2" x 8-1/2" duct connection.
- Mounting hardware included.

**CARNES CEILING FANS — Accessories**

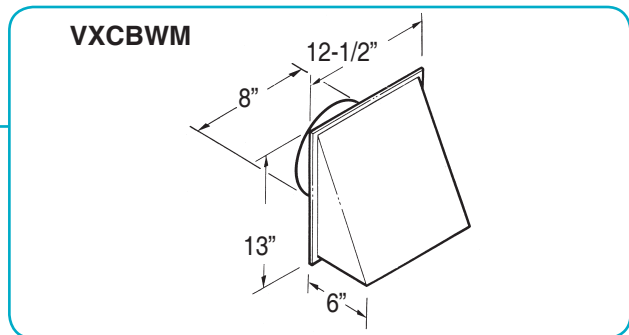
**VXCBWL**

- Aluminum - natural finish.
- Built-in backdraft damper.
- For 4" round duct (4" to 3" transition included).
- For use with VCDD 005 and VCDK 008-009.



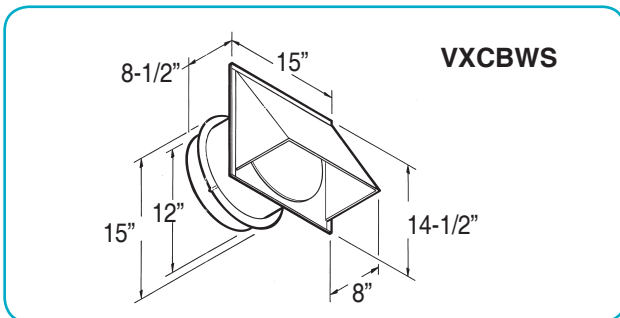
**VXCBWK**

- Aluminum - natural finish.
- Built-in backdraft damper and birdscreen.
- For 6" round duct.
- For use with VCDD 010-015.



**VXCBWM**

- Aluminum - natural finish.
- Built-in backdraft damper.
- For 8" round duct.
- For use with VCDD 020-030.

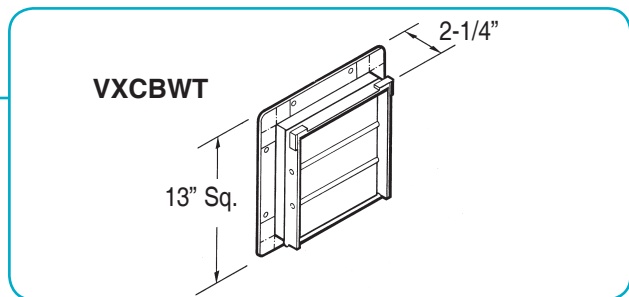


**VXCBWS**

- Aluminum - natural finish.
- Built-in backdraft damper and birdscreen.
- VCDD 040-170. (Transition may be required.)

**VXCBWT**

- Steel frame with aluminum louvers.
- 10" round duct connection.
- VCDD 040-170. (Transition may be required.)

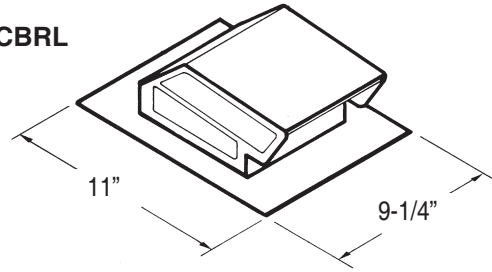


**CARNES CEILING FANS — Accessories**

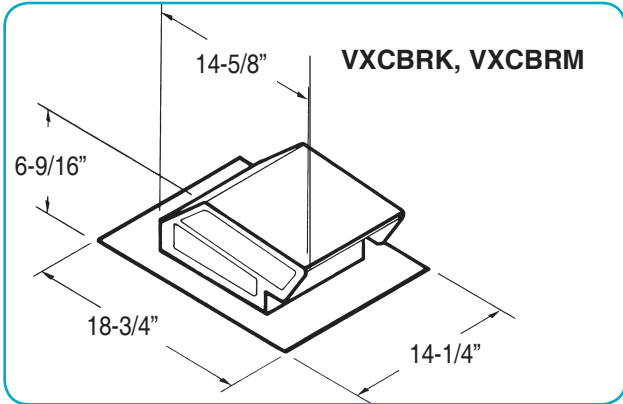
**VXCBRL**

- Steel black electrically bonded epoxy finish.
- Built-in backdraft damper and birdscreen.
- For 3" or 4" round duct.
- For use with VCDD 005 and VCDK 008-009.

**VXCBRL**



**VXCBRK, VXCBRM**



**VXCBRK**

- Steel black electrically bonded epoxy finish.
- Built-in backdraft damper and birdscreen.
- For 6" round duct.
- For use with VCDD.

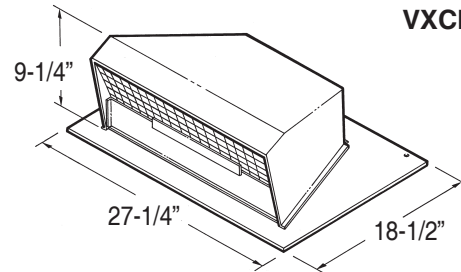
**VXCBRM**

- Steel black electrically bonded epoxy finish.
- Built-in backdraft damper and birdscreen.
- For 3-1/4"x10" or up to 8" round duct.
- For use with VCDD 020-030.

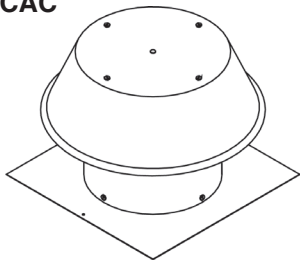
**VXCBRD**

- Steel black electrically bonded epoxy finish.
- Built-in backdraft damper and birdscreen.
- High capacity design - up to 1200 CFM.
- For 10-3/4" x 10-3/4" or up to 10" round duct.
- For use with VCDD 040-090.

**VXCBRD**



**VXCAF, VXCAC**

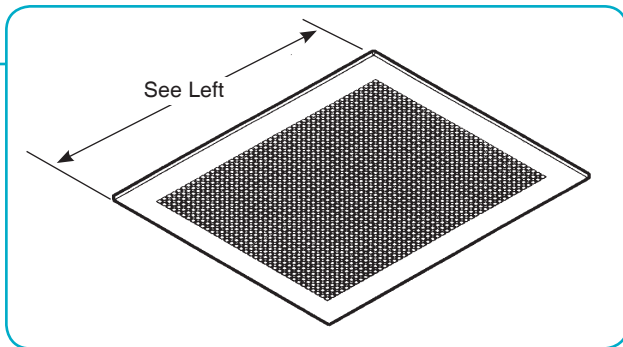


**VXCAF (Flat Roof Cap)  
VXCAC (Curb Mounted Roof Cap)**

- Natural aluminum finish.
- Spun aluminum cover.
- Integral birdscreen.
- Four sizes available - 8", 12", 16" and 20".
- For use with VCDD 005-210 and VCDK 008-009.
- See Carnes Submittal Sheet 26016 for dimensional details (also in gravity vent section).

**Metal Grille Kit**

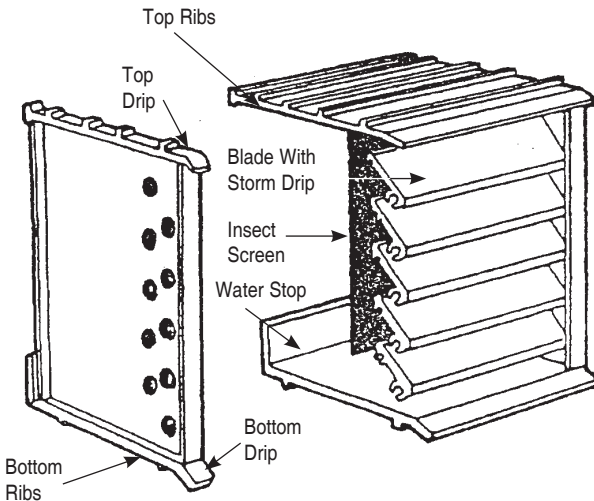
- Aluminum, painted white.
- Mounting clips included.
- **VXCBLK** (11-7/16" Sq.) fits VCDK 008C-009C.
- **VXCBGS** (10-1/4" Sq.) fits VCDD 005C-009C.
- **VXCBGF** (14" Sq.) fits VCDD 010C-030C.
- **VXCBKQ** (16-1/4" x 39-5/8") fits VCDD 210I.



**CARNES CEILING FANS — Accessories**

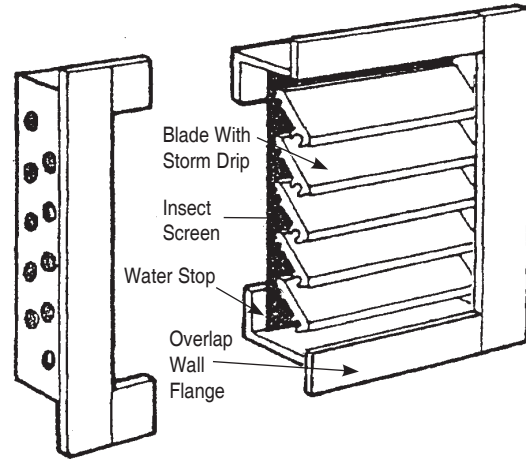
**BRICK VENTS**

**Standard Unit  
Model VXCCB (4" Deep)**



**ADD 1/4" To Nominal Height For Ribs**

**Flanged Unit  
Model VXCCB  
(1-1/2" Deep with 1" Face Flange)**



**ADD 1/4" To Nominal Width For Mechanical Fasteners**

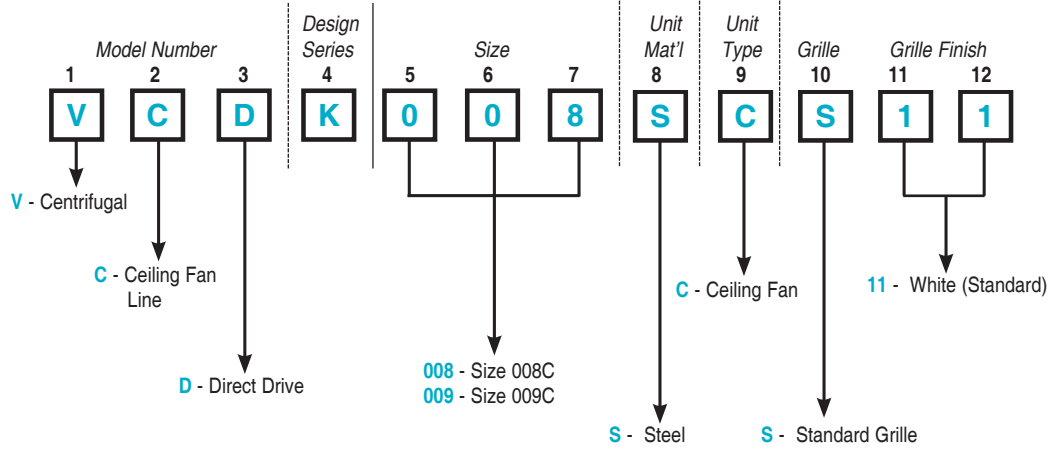
**Standard Features**

- Blades are 1" deep, 1" spaced, 45° angle.
- Frame and blades are aluminum extrusions, minimum .125" thick.
- Two frame styles available.
- Custom sizes available.
- Provides maximum protection against water entering building.
- All units are provided with 204-R1 clear anodized finish as standard. Medium or dark bronze anodized or baked enamel are available.
- Aluminum insect screen, 18" x 16" aluminum mesh is standard.

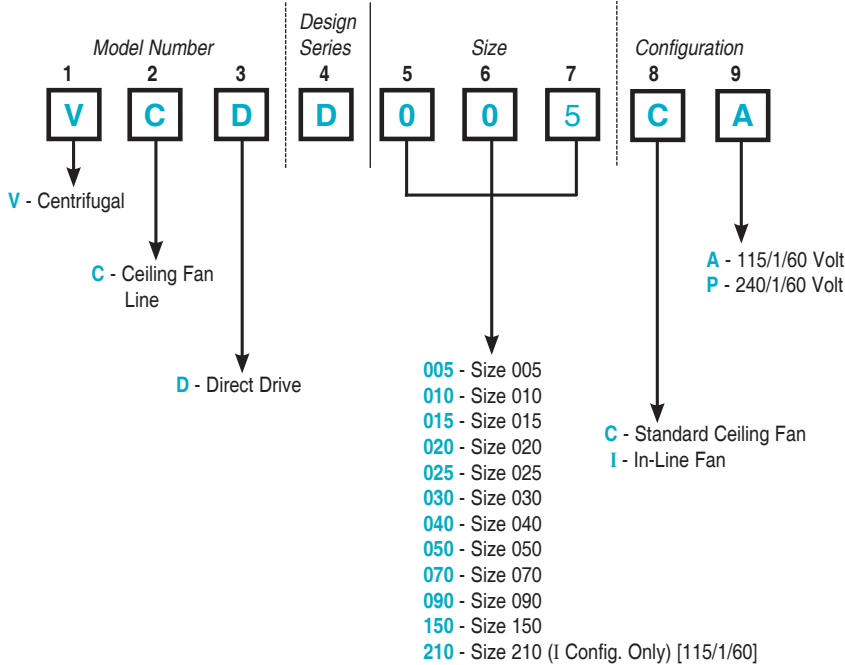
4" Deep (Standard) Model and Number	Flange Model and Number	Nominal Sizes Width x Height*** (See notes below)
VXCCB10051S	VXCCB10051F	8-1/8" x 2-3/8"
VXCCB11051S	VXCCB11051F	8-1/8" x 4-3/4"
VXCCB12051S	VXCCB12051F	8-1/8" x 7-3/4"
VXCCB13051S	VXCCB13051F	12" x 2-3/8"
VXCCB14051S	VXCCB14051F	12" x 4-3/4"
VXCCB15051S	VXCCB15051F	12" x 7-3/4"
VXCCB16051S	VXCCB16051F	12" x 11-3/4"
VXCCB17051S	VXCCB17051F	15-5/8" x 7-3/4"
VXCCB18051S	VXCCB18051F	15-5/8" x 15-3/4"
VXCCB19051S	VXCCB19051F	16-1/2" x 2-3/8"
VXCCB20051S	VXCCB20051F	16-1/2" x 4-3/4"
VXCCB21051S	VXCCB21051F	16-1/2" x 7-3/4"
VXCCB22051S	VXCCB22051F	16-1/2" x 15-3/4"
VXCCB23051S	VXCCB23051F	24" x 2-3/8"
VXCCB24051S	VXCCB24051F	24" x 4-3/4"
VXCCB25051S	VXCCB25051F	24" x 7-3/4"
VXCCB26051S	VXCCB26051F	32" x 7-3/4"
VXCCB27051S	VXCCB27051F	48" x 7-3/4"

- \*\*\*NOTES:**
1. 4" deep, Model **VXCCB** with standard frame will finish 1/4" higher than nominal height listed due to structural ribs on top and bottom.
  2. Flange vent, Model **VXCCB** with flange frame, is 1-1/2" deep with 1" front flange on four sides. Will finish 1/4" wider than nominal width listed due to mechanical fastener heads on sides.

▼ Ceiling Fans — VCDK 008 - 009

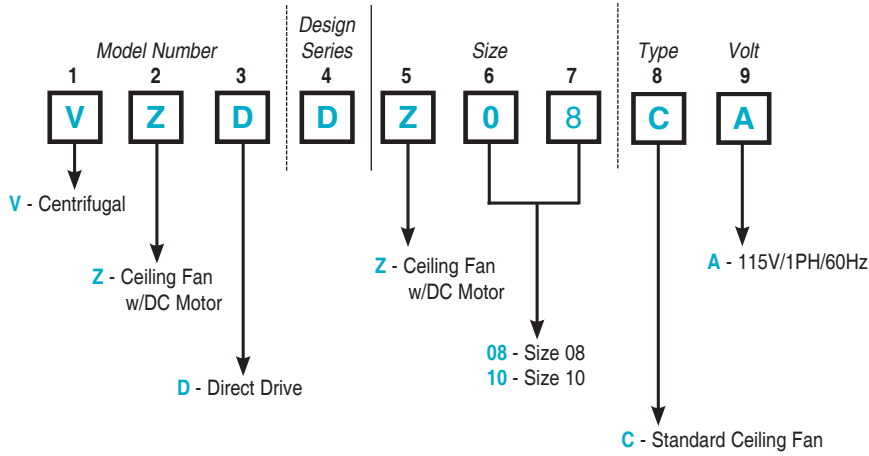


▼ Ceiling Fans

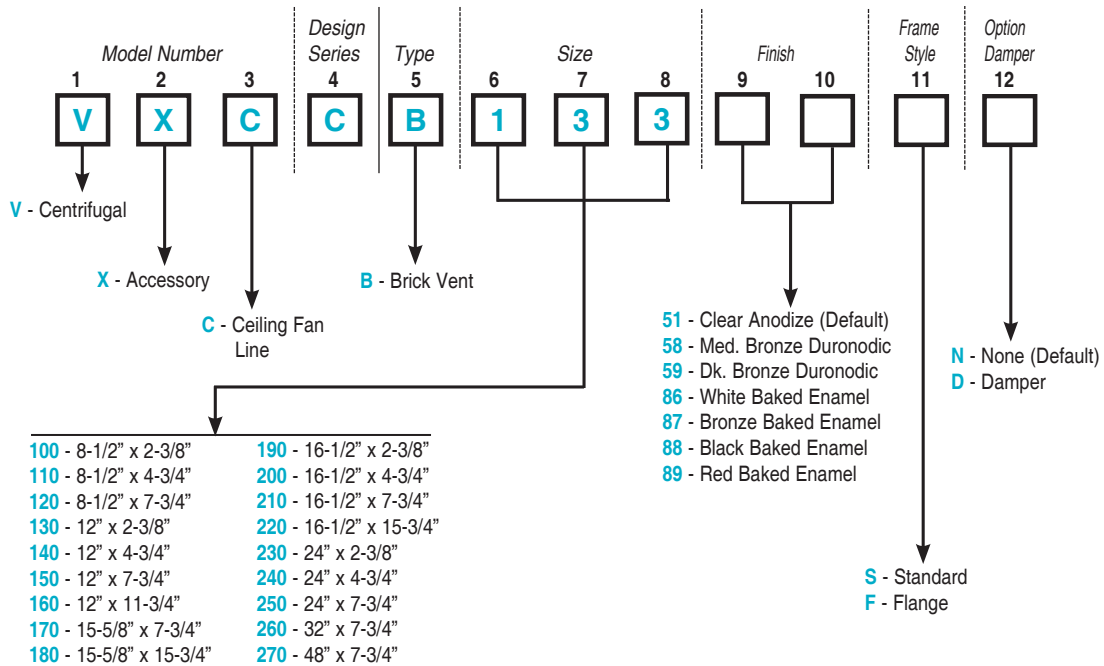


Ceiling & Cabinet Fans

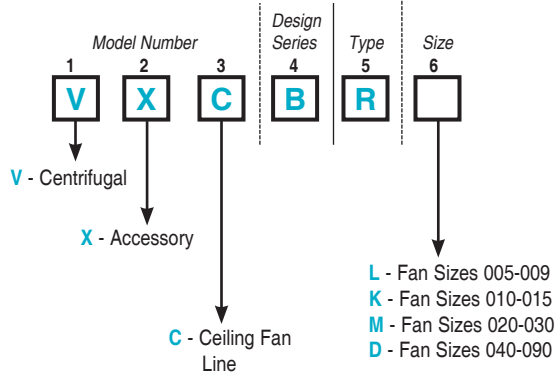
▼ Ceiling Fans



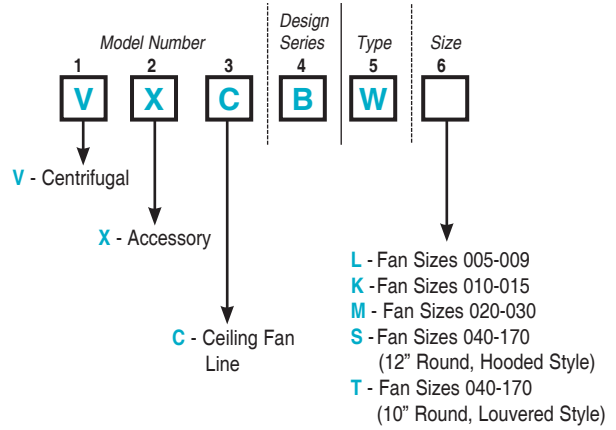
▼ Brick Vents



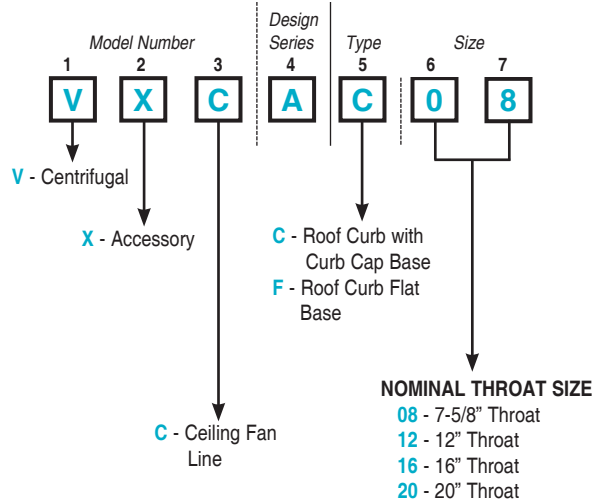
▼ **Roof Jack Cap**



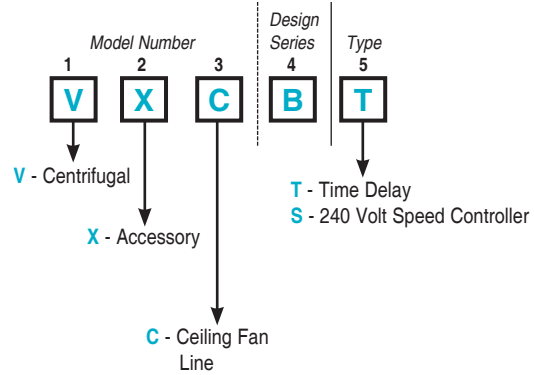
▼ **Wall Cap**



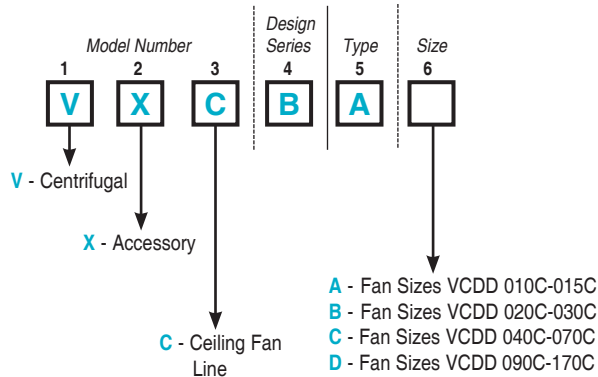
▼ **Spun Roof Cap**



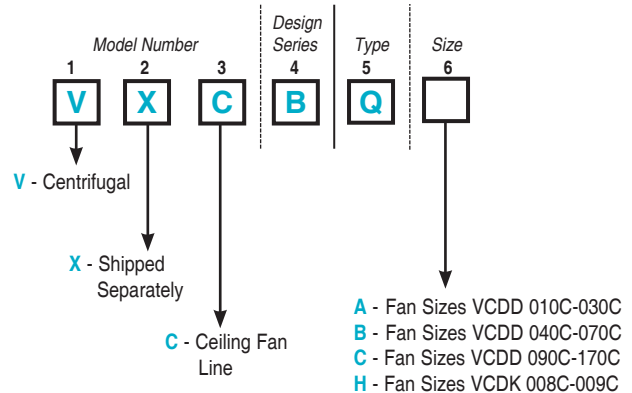
▼ **Time Delay/Speed Controller**



▼ **In-line Adapter**

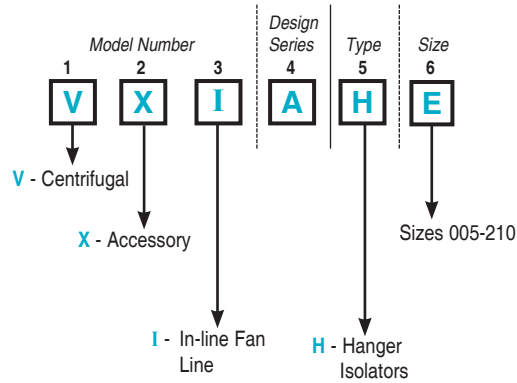


▼ **Radiation Dampers**

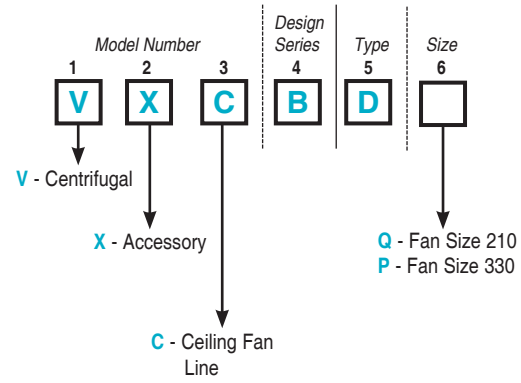




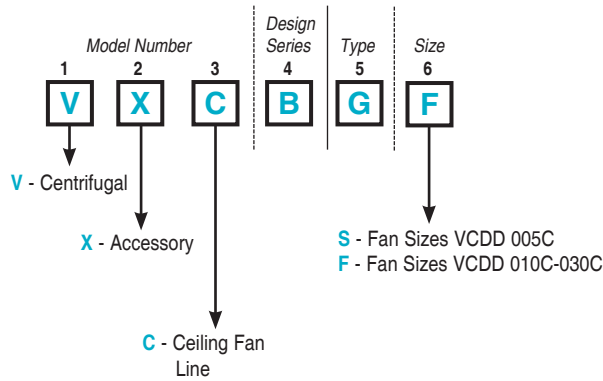
▼ Isolators



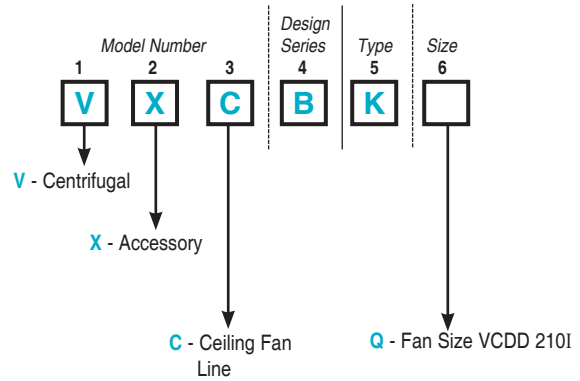
▼ Damper Kit



▼ Metal Grille Kit



▼ Time Delay/Speed Controller



▼ Metal Grille Kit

