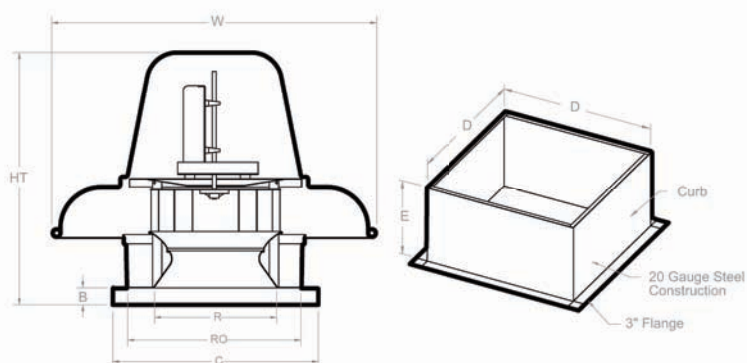


BDCR Belt Drive

Centrifugal Downblast Exhaust Fans



Features & Benefits

- **Complete range of motors** available to meet specific application needs
- **Heavy duty construction**, durable and weather resistant
- **Non-overloading backward inclined wheels, blades and inlets** fabricated from 3003-H14 aluminum
- **Wall mount applications**; units up to 24" nominal wheel can be wall mounted up to 2 hp
- **Forced fresh air** through the motor compartment cools motor and ensures long motor life
- **Quick release latches** allow for easy access to motor compartment
- **Standard bird screen**
- **Variable pitch motor pulley** allows for field adjustment and system balancing
- **High efficiency** combined with low tip speeds result in quiet operation
- **Disconnect switch**
- **Vibration isolation**

Options

- Gravity Damper
- Motorized Damper
- Wall Mount Sleeve
- Roof Curb

Certifications



FloAire certifies that Models BDCR7 thru BDCR36 shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests & procedures performed in accordance with AMCA Publication 211 and Publication 311, and comply with the requirements of the AMCA Certified Ratings Program.



Models BDCR7 thru BDCR36 are ETL Listed and comply with UL705 (electrical) Standards and CSA Std. C22.2, No. 113.

Measurements

MODEL	HT	W	B	C	D	E	R	RO	Weight Lbs	Damper Sq.
BDCR7	25 1/2	26 1/4	2	21	19 1/2	12	12 1/8	16	90	15
BDCR8	25 1/2	26 1/4	2	21	19 1/2	12	12 1/8	16	90	15
BDCR9	25 1/2	26 1/4	2	21	19 1/2	12	12 1/8	16	90	15
BDCR11	25 1/2	26 1/4	2	21	19 1/2	12	12 1/8	16	105	15
BDCR13	27 1/4	29 5/8	2	21	19 1/2	12	13 1/4	16	105	15
BDCR15	30 5/8	33 1/4	2	24 3/4	23	12	14 7/8	20	130	19
BDCR18	32 3/4	38 1/4	2	28	26 1/2	12	16 1/2	24	190	23
BDCR20	32 3/4	38 1/4	2	28	26 1/2	12	18	24	195	23
BDCR24	37 3/4	42 1/2	2	33	31 1/2	12	23 7/8	28	215	27
BDCR30	40	52	2	40	38 1/2	12	24	36	380	35
BDCR36	45 9/16	63 7/16	2	44	43	12	25 1/4	40	420	35 1/2

Motor Availability

HP	Single Phase		Three Phase	
	Open	2 Speed	Open	2 Speed
1/4	*	na	na	na
1/3	*	na	na	na
1/2	*	*	*	*
3/4	*	*	*	*
1	*	*	*	*
1 1/2	*	na	*	*
2	*	na	*	*
3	*	na	*	*
5	na	na	*	*

Motor Frame

Model	Largest Frame
BDCR7	56
BDCR8	56
BDCR9	56
BDCR11	56
BDCR13	56
BDCR15	145T
BDCR18	145T
BDCR20	145T
BDCR24	182T
BDCR30	182T
BDCR36	213T

BHP (Brake Horsepower): The actual power developed by a motor as measured by the force applied to a shaft or flywheel.

Performance		0.00 sp	0.25 sp	0.50 sp	0.75 sp	1.00 sp	1.25 sp	1.50 sp	1.75 sp	2.00 sp
MODEL	CFM	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP
BDCR7	250	500 0.5 / 0.01	839 1.9 / 0.03	1082 5.2 / 0.06	1295 6.2 / 0.10					
BDCR7	350	693 1.9 / 0.02	975 4.4 / 0.05	1182 6 / 0.09	1362 6.6 / 0.13	1528 9.4 / 0.17	1683 11.1 / 0.22			
BDCR7	450	891 4.1 / 0.03	1128 5.8 / 0.07	1316 6.5 / 0.12	1475 8.6 / 0.17	1619 10.9 / 0.22				
BDCR7	550	1089 6.2 / 0.06	1291 6.7 / 0.11	1463 9.4 / 0.16	1608 11.7 / 0.21					
BDCR7	650	1287 6.7 / 0.10	1461 9.6 / 0.15	1617 12.2 / 0.21						
BDCR7	750	1482 10.9 / 0.15	1638 12.6 / 0.22							
BDCR7	850	1680 13.6 / 0.23								
BDCR8	400	550 1.1 / 0.01	820 3.2 / 0.04	1028 5.7 / 0.07						
BDCR8	500	687 2.3 / 0.02	916 4.6 / 0.05	1101 6.4 / 0.09	1266 8.1 / 0.13	1425 9.8 / 0.18				
BDCR8	600	824 3.9 / 0.03	1022 6.2 / 0.07	1190 7.5 / 0.11	1339 8.7 / 0.15	1478 10.9 / 0.21				
BDCR8	700	962 5.8 / 0.05	1133 7.4 / 0.09	1289 8.9 / 0.14	1426 9.8 / 0.19	1552 12.4 / 0.24				
BDCR8	800	1097 7.3 / 0.07	1250 8.9 / 0.12	1394 10.2 / 0.17	1521 12.9 / 0.23					
BDCR8	900	1235 9 / 0.10	1370 10.2 / 0.15	1503 12.9 / 0.21						
BDCR8	1000	1372 10.3 / 0.14	1495 12.8 / 0.19							
BDCR8	1100	1509 13.2 / 0.19	1620 14.8 / 0.24							
BDCR8	1200	1646 15.3 / 0.24								
BDCR9	600	670 2.5 / 0.02	916 5.6 / 0.05	1124 7.9 / 0.10	1299 9.7 / 0.15	1456 10.9 / 0.20				
BDCR9	800	892 5.2 / 0.04	1081 7.7 / 0.09	1258 9.9 / 0.14	1416 10.2 / 0.19					
BDCR9	1000	1115 8.2 / 0.08	1266 10.1 / 0.13	1414 11.4 / 0.19						
BDCR9	1200	1338 10.7 / 0.14	1463 13.5 / 0.20							
BDCR9	1400	1561 15.6 / 0.22								
BDCR11	700	698 2 / 0.02	949 3.1 / 0.06	1133 4.3 / 0.11	1299 4.9 / 0.15					
BDCR11	900	897 3.3 / 0.05	1104 4.8 / 0.10	1273 5.6 / 0.15	1415 7.1 / 0.21	1549 11.1 / 0.27	1676 11.9 / 0.33			
BDCR11	1100	1095 6.2 / 0.08	1267 6.3 / 0.14	1425 9.1 / 0.21	1558 12.8 / 0.28					
BDCR11	1300	1295 6.5 / 0.14	1436 10.8 / 0.21	1583 14.3 / 0.28						
BDCR11	1500	1494 15 / 0.21	1613 15.7 / 0.29							
BDCR11	1700	1693 18.1 / 0.31								
BDCR13	900	600 3.2 / 0.03	752 4.4 / 0.07	934 6.1 / 0.13						
BDCR13	1100	680 4.3 / 0.04	847 5.5 / 0.10	994 7.4 / 0.16	1143 10.4 / 0.23					
BDCR13	1300	803 5.7 / 0.07	950 7.4 / 0.13	1075 9.4 / 0.20	1200 12.1 / 0.28	1327 11.2 / 0.36				
BDCR13	1500	926 7.7 / 0.10	1058 9.9 / 0.18	1170 11.9 / 0.25	1277 12.1 / 0.34	1385 12 / 0.43				
BDCR13	1700	1049 10.2 / 0.15	1169 12.8 / 0.23	1272 13.4 / 0.32	1367 13.2 / 0.41	1462 13.7 / 0.05				
BDCR13	1900	1173 13.3 / 0.21	1282 14 / 0.30	1377 14.3 / 0.40	1464 15.7 / 0.50					
BDCR13	2100	1296 13.9 / 0.28	1396 14.9 / 0.38	1484 15.9 / 0.49						
BDCR13	2300	1420 16.3 / 0.37	1512 16.8 / 0.48							
BDCR13	2500	1543 18.2 / 0.48								
BDCR15	1200	500 2.3 / 0.03	654 3.2 / 0.08	821 5 / 0.16	970 6.4 / 0.25	1107 9.5 / 0.34				
BDCR15	1600	619 3.8 / 0.06	765 5.4 / 0.13	901 6.9 / 0.22	1028 7.1 / 0.32	1146 12 / 0.42	1257 12.4 / 0.54	1363 12.9 / 0.67	1465 13.7 / 0.80	
BDCR15	2000	773 6.4 / 0.12	892 8 / 0.21	1006 9.2 / 0.31	1114 10.4 / 0.42	1217 11.7 / 0.53	1315 13.1 / 0.66	1409 13.4 / 0.79	1500 14 / 0.93	
BDCR15	2400	928 9.5 / 0.20	1027 9.9 / 0.30	1124 12.3 / 0.42	1218 12.9 / 0.55	1308 15 / 0.67	1395 15.5 / 0.81	1480 15.2 / 0.95		
BDCR15	2800	1082 10.3 / 0.32	1168 13.5 / 0.44	1252 15.7 / 0.57	1334 16.5 / 0.71	1412 17.4 / 0.85	1492 17.9 / 1.00			
BDCR15	3200	1237 15.1 / 0.47	1312 17 / 0.61	1386 18 / 0.75	1459 18.8 / 0.91					
BDCR15	3600	1392 18.6 / 0.68	1458 19.5 / 0.82	1524 20 / 0.99						
BDCR15	4000	1546 21 / 0.93								

Performance shown is for installation Type A: Free Inlet, Free Outlet. Power Rating (BHP) does not include Drive Losses. Performance Ratings do not include the effects of appurtenances in the air stream. The Sound Ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standards 301. Values shown are for installation Type A: Free inlet fan sone levels. The AMCA Certified Ratings Sound Seal applies to Sone Ratings only.

BHP (Brake Horsepower): The actual power developed by a motor as measured by the force applied to a shaft or flywheel.

Performance		0.00 sp	0.25 sp	0.50 sp	0.75 sp	1.00 sp	1.25 sp	1.50 sp	1.75 sp	2.00 sp
MODEL	CFM	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP
BDCR18	1600	408 2.5 / 0.05	543 3.7 / 0.13	670 5.9 / 0.23						
BDCR18	2000	510 4.1 / 0.09	622 5.6 / 0.19	722 7.4 / 0.29	825 9.3 / 0.42	930 11.1 / 0.58				
BDCR18	2400	612 6.2 / 0.15	709 8.1 / 0.27	793 9.3 / 0.39	877 10.4 / 0.52	962 11.7 / 0.68	1049 12 / 0.85	1137 13.8 / 1.06		
BDCR18	2800	714 9.3 / 0.24	800 10.6 / 0.37	874 11.2 / 0.51	945 12 / 0.66	1017 12 / 0.82	1089 12.8 / 0.99	1163 14.3 / 1.18	1238 15.6 / 1.40	1315 17 / 1.64
BDCR18	3200	816 11.9 / 0.36	893 12.7 / 0.51	960 13.4 / 0.67	1023 13.1 / 0.83	1085 12.7 / 1.00	1147 14 / 1.18	1211 15.8 / 1.37	1275 16.5 / 1.58	1340 17.5 / 1.80
BDCR18	3600	918 14.1 / 0.52	988 14.7 / 0.68	1049 14.6 / 0.86	1106 14.8 / 1.04	1162 16.2 / 1.22	1217 17.4 / 1.41	1273 17.8 / 1.61	1329 18.3 / 1.82	
BDCR18	4000	1020 15.1 / 0.71	1084 16.5 / 0.89	1140 17.1 / 1.08	1193 18.6 / 1.28	1244 19.2 / 1.48	1294 19.6 / 1.69	1344 20 / 1.90		
BDCR18	4400	1122 17.6 / 0.94	1181 19.5 / 1.14	1233 21 / 1.35	1282 21 / 1.57	1330 22 / 1.79				
BDCR18	4800	1224 21 / 1.22	1278 22 / 1.43	1328 23 / 1.66	1374 24 / 1.90					
BDCR18	5200	1326 24 / 1.55	1376 25 / 1.78							
BDCR18	5600	1428 26 / 1.94								
BDCR20	2500	436 3.8 / 0.08	546 5 / 0.20	654 6.4 / 0.33	758 8.3 / 0.49					
BDCR20	3000	523 5.6 / 0.14	614 6.8 / 0.27	707 8.4 / 0.43	796 8.8 / 0.59	883 10.9 / 0.78				
BDCR20	3500	610 7.8 / 0.23	687 9 / 0.38	768 10.4 / 0.55	846 10 / 0.73	922 11.9 / 0.92	997 13.7 / 1.14	1071 14.9 / 1.37		
BDCR20	4000	697 10.4 / 0.34	764 11.6 / 0.51	834 11.6 / 0.69	904 13.7 / 0.89	972 13.2 / 1.11	1039 15.2 / 1.33	1105 15.8 / 1.57	1170 17 / 1.82	
BDCR20	4500	784 12.4 / 0.49	843 13 / 0.67	905 14.8 / 0.87	968 15.8 / 1.09	1029 17 / 1.32	1090 17.1 / 1.56	1149 17.4 / 1.81		
BDCR20	5000	872 14.7 / 0.67	924 16.2 / 0.87	979 17.6 / 1.09	1036 18.2 / 1.33	1092 18.7 / 1.57	1147 19.3 / 1.83			
BDCR20	5500	959 17.4 / 0.89	1006 18.9 / 1.11	1056 19.3 / 1.35	1107 19.9 / 1.60	1158 21 / 1.86				
BDCR20	6000	1046 21 / 1.15	1089 21 / 1.39	1134 21 / 1.65	1181 23 / 1.92					
BDCR20	6500	1133 23 / 1.46	1172 24 / 1.72	1214 25 / 1.99						
BDCR20	7000	1220 27 / 1.82								
BDCR24	3000	317 3.6 / 0.07	434 5.8 / 0.22	542 7.8 / 0.41	641 10.8 / 0.64	734 14.1 / 0.89	819 16.1 / 1.16			
BDCR24	4000	422 6.5 / 0.17	511 8.3 / 0.36	598 9.4 / 0.58	679 12.1 / 0.83	756 14.9 / 1.10	831 16.3 / 1.40	903 17.6 / 1.73	972 19.7 / 2.08	1037 22 / 2.43
BDCR24	5000	527 9.5 / 0.34	597 11.1 / 0.56	670 13.2 / 0.82	739 15.4 / 1.10	805 15.9 / 1.40	868 16.9 / 1.72	930 18.2 / 2.06	990 20 / 2.43	1049 23 / 2.81
BDCR24	6000	633 13.3 / 0.59	690 14.7 / 0.85	751 17.1 / 1.14	811 17.6 / 1.46	869 18 / 1.79	924 18 / 2.14	978 19.9 / 2.51	1031 22 / 2.89	1083 24 / 3.29
BDCR24	7000	738 17.4 / 0.93	786 18.8 / 1.23	838 18.8 / 1.56	891 18.9 / 1.92	942 20 / 2.29	992 21 / 2.67	1040 23 / 3.07	1088 26 / 3.48	1134 27 / 3.91
BDCR24	8000	844 19.6 / 1.39	885 20 / 1.72	930 21 / 2.09	976 23 / 2.48	1022 24 / 2.90	1067 26 / 3.32	1111 28 / 3.76	1154 29 / 4.20	1196 30 / 4.66
BDCR24	9000	949 22 / 1.98	986 24 / 2.35	1025 25 / 2.75	1065 28 / 3.18	1106 30 / 3.63	1147 31 / 4.09	1187 32 / 4.57		
BDCR24	10000	1055 27 / 2.71	1087 30 / 3.12	1122 30 / 3.56	1158 31 / 4.02	1194 33 / 4.51				
BDCR24	11000	1160 33 / 3.61	1189 33 / 4.05	1220 34 / 4.53						
BDCR24	12000	1265 37 / 4.69								
BDCR30	4000	244 2.3 / 0.10	329 3.6 / 0.29	407 5.3 / 0.52						
BDCR30	5000	305 4 / 0.20	372 5.1 / 0.42	441 6.6 / 0.69	502 8.2 / 0.98	554 9.6 / 1.27				
BDCR30	6000	366 5.9 / 0.34	422 7 / 0.61	478 8.2 / 0.90	536 9.2 / 1.23	587 10.5 / 1.58	632 11.8 / 1.93	675 13.1 / 2.29		
BDCR30	7000	426 8.1 / 0.54	476 9.3 / 0.86	522 10.4 / 1.17	572 10 / 1.53	621 11.5 / 1.93	666 12.8 / 2.33	707 14 / 2.74	745 15 / 3.14	781 16 / 3.56
BDCR30	8000	487 10.7 / 0.81	532 11.8 / 1.18	572 11.7 / 1.52	613 11.7 / 1.90	657 12.5 / 2.33	700 13.8 / 2.77	741 14.9 / 3.23	778 15.9 / 3.70	813 16.8 / 4.16
BDCR30	9000	548 12.3 / 1.15	589 13.7 / 1.57	624 13.4 / 1.96	660 14.5 / 2.36	698 14.9 / 2.80	737 14.8 / 3.28	775 15.8 / 3.78	812 16.8 / 4.30	847 18.4 / 4.81
BDCR30	10000	609 14.4 / 1.58	647 15.7 / 2.06	679 16.1 / 2.49	711 16.1 / 2.92	743 17 / 3.38	777 17.7 / 3.88	812 16.8 / 4.41	848 19.5 / 4.96	
BDCR30	11000	670 16.5 / 2.11	705 17.7 / 2.64	735 18.3 / 3.11	764 17.6 / 3.58	793 18.4 / 4.07	823 20 / 4.59			
BDCR30	12000	731 18.6 / 2.74	764 19.8 / 3.32	792 21 / 3.85	818 22 / 4.36	844 22 / 4.88				
BDCR30	13000	792 21 / 3.48	823 24 / 4.12	849 24 / 4.70						
BDCR30	14000	853 26 / 4.34								

Performance shown is for installation Type A: Free Inlet, Free Outlet. Power Rating (BHP) does not include Drive Losses. Performance Ratings do not include the effects of appurtenances in the air stream. The Sound Ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standards 301. Values shown are for installation Type A; Free inlet fan sone levels. The AMCA Certified Ratings Sound Seal applies to Sone Ratings only.

BHP (Brake Horsepower): The actual power developed by a motor as measured by the force applied to a shaft or flywheel.

Performance		0.00 sp	0.25 sp	0.50 sp	0.75 sp	1.00 sp	1.25 sp	1.50 sp	1.75 sp	2.00 sp
MODEL	CFM	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP	RPM Sone/BHP
BDCR36	9000	307 6.2 / 0.47	359 7.6 / 0.90	409 9.0 / 1.36	461 10.5 / 1.88	513 13.0 / 2.46	563 15.7 / 3.09			
		375 9.3 / 0.86	418 10.5 / 1.38	459 11.7 / 1.91	501 12.5 / 2.49	543 14.6 / 3.11	586 17.0 / 3.79	628 19.3 / 4.51	669 22 / 5.27	710 24 / 6.08
BDCR36	11000	443 12.9 / 1.41	490 13.3 / 2.03	515 14.5 / 2.65	550 16.1 / 3.29	585 17.1 / 3.97	621 18.9 / 4.70	657 21 / 5.46	693 23 / 6.26	729 25 / 7.11
		511 16.1 / 2.17	544 17.9 / 2.89	574 18.3 / 3.59	604 19.5 / 4.31	634 21 / 5.06	665 22 / 5.84	696 23 / 6.66		
BDCR36	15000	579 20 / 3.16	609 22 / 3.98	636 22 / 4.77	662 23 / 5.58	689 24 / 6.40	715 26 / 7.25			
		647 24 / 4.41	674 26 / 5.33	699 27 / 6.22	723 28 / 7.11					
BDCR36	19000	715 29 / 5.95	740 30 / 6.97							
BDCR36	21000									

Performance shown is for installation Type A; Free Inlet, Free Outlet. Power Rating (BHP) does not include Drive Losses. Performance Ratings do not include the effects of appurtenances in the air stream. The Sound Ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standards 301. Values shown are for installation Type A; Free inlet fan sone levels. The AMCA Certified Ratings Sound Seal applies to Sone Ratings only.