



MODEL DB DOWNBLAST BELT DRIVE CENTRIFUGAL ROOF EXHAUSTER

APPLICATION

Model DB belt drive units are used for the exhaust of relatively clean air from a wide range of commercial, industrial and institutional environments such as manufacturing and assembly plants, office buildings, schools, hospitals, restaurants, athletic facilities and many others.

The nonoverloading wheel with its higher static pressure capabilities makes this unit suitable for either ducted or nonducted applications. Its roof mounting permits location near the area to be ventilated, allowing short duct runs and more efficient operation.

The aluminum exterior provides an attractive appearance. Belt drive results in lower operating RPM and sound levels, making the Model DB well suited to applications where quiet operation is important. Belt drive also permits easy performance adjustments when needed to balance the total ventilation system.

CONSTRUCTION

Housing

- Heavy-gauge aluminum for extra strength with prepunched mounting hole.
- Neoprene isolators for reduction of vibration and sound.
- Cover easily removed for quick access to motor compartment.
- Water tight conduit tube for easy electrical connection from below roof.
- Aluminum birdscreen and disconnect are included on standard models.
- Stainless steel exterior fasteners.

Centrifugal Wheel

- All aluminum backward inclined wheel.
- Nonoverloading for safe operation in ducted systems.
- Statically and dynamically balanced for smooth operation.

Drives

- Sized for minimum 150% of drive horsepower.
- Machined cast iron adjustable motor pulleys.
- Adjustable base for belt tensioning.
- Nonstatic oil resistant v-belts.

DIMENSIONAL DATA

MODEL DB	A	B	C	D	E	F	ROOF OPENING	Average Ship Wt. Lbs.
6-8-9	20 1/2	17 1/2	16 1/2	3 1/2	16 1/8	1 3/4	11 1/2	80
11-12-14	28 3/8	23	24	3 1/2	22 1/2	2	19 1/2	135
16	32 1/4	24	24	6	26 1/4	2 1/2	19 1/2	145
18	32 1/2	24	29 1/2	4 1/2	26 1/4	2 1/2	24 3/4	160
20	36 3/4	25	29 1/2	4 1/2	26 1/4	2 1/2	24 3/4	215
24	41 1/4	26 1/2	35 3/4	8 1/2	30	2 1/2	30 3/4	290
30	58 3/8	37	42 1/2	5 1/2	41	2 1/2	37 3/4	465
36	58 3/8	37	42 1/2	10	41	2 1/2	37 3/4	475
42	73	40 1/2	55	10	54 5/8	2 1/2	50 1/4	700
48	73	40 1/2	55	13	54 5/8	2 1/2	50 1/4	830

MODEL DB	RECOMMENDED 12" HIGH MOUNTING CURB		RECOMMENDED GRAVITY DAMPER		FAN LESS MOTOR & DRIVE
	OD	STOCK NO.	OD	STOCK NO.	STOCK NO.
6-8-9	14 3/4	611214	11	411011	DB06LMDS-DB08LMDS-DB09LMDS
11-12-14	22 1/4	611222	18	411018	DB11LMDS-DB12LMDS-DB14LMDS
16	22 1/4	611222	18	411018	DB16LMDS
18	27 3/4	611227	24	411024	DB18LMDS
20	27 3/4	611227	24	411024	DB20LMDS
24	33 3/4	611233	30	411030	DB24LMDS
30	40 3/4	611240	36	611036	DB30LMDS
36	40 3/4	611240	36	611036	DB36LMDS
42	53 1/4	611253	48	611048	DB42LMDS
48	53 1/4	611253	48	611048	DB48LMDS

ALL DIMENSIONS IN INCHES, WEIGHTS IN POUNDS. OD IS OUTSIDE DIMENSION OF SQUARE CURB AND DAMPER. DUE TO CONTINUING RESEARCH, SOLER & PALAU RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.



Motors

- Single speed open drip-proof are standard.
- All motors are rated for continuous duty.
- 182T and larger motors shipped unmounted for field installation.
- Disconnect switch standard with single speed drip-proof motors.

Bearings

- Heavy-duty ball bearing type.
- Prelubricated and permanently sealed.

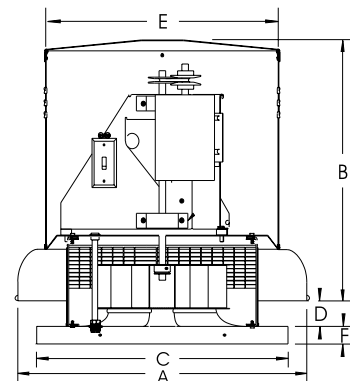
AMCA SEAL



Soler & Palau USA, certifies that the Models DB 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.



LISTED POWER ROOF VENTILATOR
UL STANDARD 705



CENTRIFUGAL ROOF & WALL EXHAUSTERS

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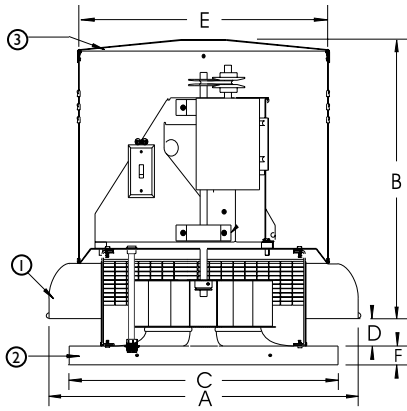
MODEL DB		Downblast Belt Drive Centrifugal Roof Exhauster												Ventilator with Open Drip-proof Motor and Drive Assembly		
Model DB	Motor Hp	Max. BHP	RPM	Sones @ 1/4 SP	CFM at Static Pressure										115/1/60*	208-230/460/3/60
					0	1/8	1/4	3/8	1/2	5/8	3/4	1	1 1/4	Stock No.	Stock No.	
6	1/4	0.10	1400	6.2	459	412	358	295	217	-	-	-	-	DB06MLIS	N/A	
	1/4	0.18	1700	9.4	558	521	478	432	380	325	255	-	-	DB06MHIS	N/A	
8	1/4	0.08	1170	5.1	861	747	604	391	-	-	-	-	-	DB08MLIS	N/A	
	1/4	0.14	1410	7.7	1037	945	839	715	553	249	-	-	-	DB08MMIS	N/A	
	1/4	0.25	1700	11.2	1250	1176	1095	1002	900	785	634	-	-	DB08MHIS	N/A	
9	1/4	0.20	1310	6.6	1339	1238	1112	941	720	390	-	-	-	DB09MHIS	N/A	
	1/3	0.33	1550	9.3	1584	1501	1406	1290	1145	973	760	-	-	DB09PHIS	N/A	
11	1/4	0.26	1535	11.4	1634	1535	1430	1315	1187	1059	918	527	-	DB11MHIS	DB11MH3S	
	1/3	0.34	1685	13.5	1793	1704	1609	1510	1400	1281	1165	894	485	DB11PHIS	DB11PH3S	
12	1/4	0.27	1280	12.1	1919	1801	1676	1536	1383	1215	992	-	-	DB12MHIS	DB12MH3S	
	1/3	0.35	1390	13.9	2084	1976	1862	1740	1603	1461	1301	839	-	DB12PHIS	DB12PH3S	
	1/2	0.53	1600	17.8	2399	2306	2209	2108	2001	1882	1760	1489	1109	DB12QHIS	DB12QH3S	
14	1/4	0.18	875	8.2	2004	1857	1680	1439	1065	-	-	-	-	DB14MHIS	DB14MH3S	
	1/3	0.34	1075	12.0	2462	2346	2215	2067	1885	1642	1328	-	-	DB14PHIS	DB14PH3S	
	1/2	0.50	1225	15.2	2806	2705	2595	2474	2340	2183	1988	1408	-	DB14QHIS	DB14QH3S	
	3/4	0.75	1400	19.2	3207	3119	3026	2926	2819	2703	2572	2240	1782	DB14RHIS	DB14RH3S	
16	1/4	0.26	800	8.3	2970	2674	2320	1905	1205	-	-	-	-	DB16MHIS	DB16MH3S	
	1/3	0.34	870	9.8	3230	2958	2649	2293	1853	965	-	-	-	DB16PHIS	DB16PH3S	
	1/2	0.52	1000	12.7	3712	3476	3228	2939	2623	2256	1712	-	-	DB16QHIS	DB16QH3S	
	3/4	0.79	1155	16.7	4288	4084	3878	3648	3395	3125	2831	1980	-	DB16RHIS	DB16RH3S	
18	1/3	0.33	805	10.8	3056	2838	2579	2274	1873	-	-	-	-	DB18PHIS	DB18PH3S	
	1/2	0.52	940	14.0	3568	3385	3183	2944	2681	2358	1965	-	-	DB18QHIS	DB18QH3S	
	3/4	0.78	1075	17.8	4080	3922	3752	3563	3351	3123	2863	2167	-	DB18RHIS	DB18RH3S	
	1	0.99	1165	21.0	4422	4276	4123	3957	3770	3570	3356	2824	-	DB18SHIS	DB18SH3S	
	1 1/2	1.52	1345	26.0	5105	4979	4849	4713	4569	4408	4237	3873	3434	DB18THIS	DB18TH3S	
	2	2.02	1480	31.0	5618	5504	5386	5265	5139	5005	4859	4546	4206	DB18VHIS	DB18VH3S	
20	1/3	0.35	665	8.7	3562	3318	3021	2658	2145	1281	-	-	-	DB20PHIS	DB20PH3S	
	1/2	0.52	760	10.7	4071	3861	3625	3338	3007	2567	1963	-	-	DB20QHIS	DB20QH3S	
	3/4	0.79	875	13.9	4687	4506	4312	4091	3838	3560	3210	2229	-	DB20RHIS	DB20RH3S	
	1	1.12	985	17.5	5276	5117	4949	4768	4562	4336	4098	3476	2589	DB20SHIS	DB20SH3S	
	1 1/2	1.56	1100	22.0	5892	5750	5602	5447	5280	5092	4889	4451	3874	DB20THIS	DB20TH3S	
	2	2.08	1210	26.0	6482	6353	6220	6082	5937	5782	5610	5241	4821	DB20VHIS	DB20VH3S	
24	1/3	0.33	490	8.6	4879	4400	3751	2388	-	-	-	-	-	DB24PHIS	DB24PH3S	
	1/2	0.49	560	11.5	5576	5169	4688	3972	2614	-	-	-	-	DB24QHIS	DB24QH3S	
	3/4	0.75	645	14.3	6422	6078	5683	5219	4557	3374	1906	-	-	DB24RHIS	DB24RH3S	
	1	1.00	710	17.2	7069	6761	6412	6033	5549	4848	3773	-	-	DB24SHIS	DB24SH3S	
	1 1/2	1.54	820	22.0	8164	7902	7613	7299	6968	6567	6073	4360	-	DB24THIS	DB24TH3S	
	2	2.04	900	26.0	8961	8723	8467	8190	7899	7590	7218	6180	4490	DB24VHIS	DB24VH3S	
30	1/2	0.52	410	6.6	7098	6406	5512	4350	2246	-	-	-	-	DB30QHIS	DB30QH3S	
	3/4	0.76	465	7.7	8050	7456	6735	5866	4743	2961	-	-	-	DB30RHIS	DB30RH3S	
	1	1.03	515	8.7	8916	8388	7775	7074	6215	5132	3571	-	-	DB30SHIS	DB30SH3S	
	1 1/2	1.55	590	10.6	10214	9761	9257	8683	8030	7315	6472	3860	-	DB30THIS	DB30TH3S	
	2	2.13	655	13.1	11339	10936	10496	10010	9469	8871	8231	6617	4024	DB30VHIS	DB30VH3S	
	3	3.13	745	16.7	12897	12546	12171	11768	11332	10857	10343	9220	7827	N/A	DB30WH3S	
36	3/4	0.80	355	9.1	10134	9166	7936	5730	-	-	-	-	-	DB36RHIS	DB36RH3S	
	1	1.02	385	10.3	10990	10122	9075	7268	5137	-	-	-	-	DB36SHIS	DB36SH3S	
	1 1/2	1.58	445	13.0	12703	11985	11118	10124	8417	6731	-	-	-	DB36THIS	DB36TH3S	
	2	2.11	490	15.7	13987	13351	12574	11770	10712	8982	7516	-	-	DB36VHIS	DB36VH3S	
	3	3.15	560	20.0	15986	15445	14803	14106	13387	12494	11151	8338	-	N/A	DB36WH3S	
	5	5.16	660	27.0	18840	18393	17884	17315	16722	16130	15470	13586	11030	N/A	DB36XH3S	
42	1 1/2	1.56	340	12.9	16051	14909	13323	11079	7073	-	-	-	-	DB42THIS	DB42TH3S	
	2	2.18	380	15.8	17940	16925	15681	14051	11690	7879	-	-	-	DB42VHIS	DB42VH3S	
	3	3.05	425	19.1	20064	19158	18187	16827	15279	13084	10122	-	-	N/A	DB42WH3S	
	5	5.11	505	26.0	23841	23076	22309	21432	20267	19070	17584	13399	-	N/A	DB42XH3S	
48	3	2.96	345	15.3	21003	19243	17628	15033	12358	9228	5498	-	-	N/A	DB48WH3S	
	5	5.16	415	21.0	25041	23683	22249	20797	19140	17240	14643	8394	-	N/A	DB48XH3S	

Power ratings (BHP) do not include transmission losses.
 Performance certified is for installation type A-free inlet, free outlet. Performance ratings include the effects of birdscreen in the airstream.
 The sound ratings shown are loudness values in fan sones @ 5' (1.5m) in a hemispherical free field calculated per AMCA Standard 301.
 Values shown are for installation Type A-Free inlet fan sone levels.
 *Tri-voltage (115-208-230) is standard on 3/4 through 1 1/2 Hp Single phase motors. Tri-voltage is available for the 1/2 Hp motors. Inquire for price and delivery.
 575/3/60 ODP Motors are available for most motor HP's - Refer to Price List.

DB - BELT DRIVE CENTRIFUGAL ROOF EXHAUSTER



SUBMITTAL DRAWING



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STANDARD CONSTRUCTION FEATURES

- All aluminum exterior construction.
- Stainless steel exterior fasteners.
- Ventilated motor compartment.
- Prepunched curb cap with welded corners.
- Aluminum nonoverloading wheel.
- Adjustable v-belt drive.
- Motor & drive factory mounted (except I82T and larger).
- Mounted service disconnect (except 2 speed and XP motors).
- Pillow block ball bearings (L50 = 200k with lube fittings).
- Internal wiring chase.
- Aluminum birdscreen and windband.
- Neoprene vibration isolators.
- AMCA Certified Air and Sound.

SIZE	DIMENSIONS (IN.)								Damper OD	MIN. METAL THICKNESS (ALUM.)			AVG. SHIP WT. LBS.
	A	B	C	D	E	F	G	H		SKIRT ①	CURB CAP ②	LID COVER ③	
6-8-9	20 1/2	17 1/2	16 1/2	3 1/2	16 1/8	1 3/4	14 3/4	11 1/2	11	.063	.050	.050	80
11	28 3/8	23	24	3 1/2	22 1/2	2	22 1/4	19 1/2	18	.080	.080	.050	130
12	28 3/8	23	24	3 1/2	22 1/2	2	22 1/4	19 1/2	18	.080	.080	.050	130
14	28 3/8	23	24	3 1/2	22 1/2	2	22 1/4	19 1/2	18	.080	.080	.050	140
16	32 1/4	24	24	6	26 1/4	2 1/2	22 1/4	19 1/2	18	.080	.080	.050	145
18	32 1/4	24	29 1/2	4 1/2	26 1/4	2 1/2	27 3/4	24 3/4	24	.090	.080	.050	160
20	36 3/4	24 1/2	29 1/2	4 1/2	26 1/4	2 1/2	27 3/4	24 3/4	24	.090	.080	.050	215
24	41 1/4	26 1/2	35 3/4	8 1/2	30	2 1/2	33 3/4	30 3/4	30	.090	.080	.050	290
30	58 3/8	37	42 1/2	5 1/2	41	2 1/2	40 3/4	37 3/4	36	.100	.090	.050	465
36	58 3/8	37	42 1/2	10	41	2 1/2	40 3/4	37 3/4	36	.100	.090	.050	475
42	73	40 1/2	55	10	54 5/8	2 1/2	53 1/4	50 1/4	48	.100	.090	.050	700
48	73	40 1/2	55	13	54 5/8	2 1/2	53 1/4	50 1/4	48	.100	.090	.050	830

- A - Skirt OD (Dia). E - Motor cover OD (Dia).
 B - Height. F - Curb cap flange.
 C - Curb cap OD. G - Recommended roof curb OD (allows 3/4" for flashing).
 D - Skirt height. H - Recommended roof opening.

DIMENSIONS REPRESENT GENERAL CONSTRUCTION AND MAY VARY SLIGHTLY. CONTACT FACTORY FOR CERTIFIED DRAWINGS.

FAN SPECIFICATIONS									MOTOR SPECIFICATIONS				
Line	Qty.	Model No.	Tag	CFM	SP	Fan RPM	BHP	Sones	HP	Volts	Phase	Hertz	Encl
1													
2													
3													
4													
5													

ACCESSORY ITEMS					ACCESSORY ITEMS						
	1	2	3	4	5		1	2	3	4	5
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