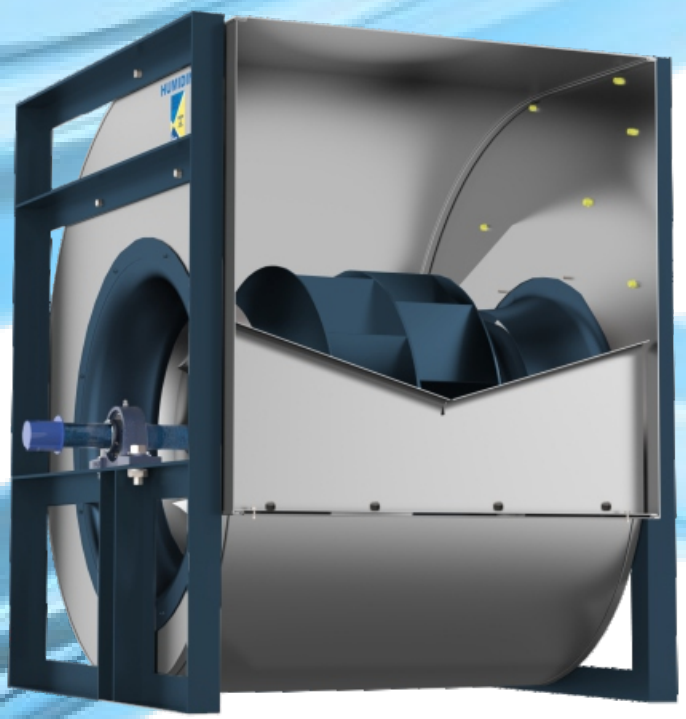
HUMIDIN®

CENTRIFUGAL FAN (DIDW)



MEMBER

Quality Speaks For Itself

BACKWARD CURVED LIMIT LOAD (DIDW)

HUMIDIN CENTRIFUGAL FAN DIDW-BACKWARD CURVED (LIMIT LOAD)

CENTRIFUGAL BLOWERS, DIDW Fans, are designed to move air or gases by converting rotational kinetic energy into pressure energy. These blowers are used in a wide variety of applications where controlled, high-pressure Air moves is required. The (DIDW) designation indicates two inlets and double-width construction, which together allow for higher efficiency and greater Air moves capacity. The blades optimize the blower's performance by reducing the potential for cavitation and improving energy efficiency.

FEATURES:

1. Double Inlet (DIDW):

Two Inlets: The blower has two intake ports (inlets) instead of one, allowing it to draw air from both sides of the unit. This configuration enhances Air moves capacity and helps balance the load across the system.

2. Backward Curved - LIMIT LOAD

Blade Design: The blades are angled in such a way that they curve backward (opposite of the Air moves). This design minimizes turbulence, reduces noise, and increases efficiency compared to other blade types (such as forward curve blades).

Energy Efficiency: blades generally require less energy to achieve the same Air moves, leading to lower power consumption and reduced operating costs.

3. Versatility in Pressure Handling:

High Pressure Capability: DIDW Backward Curve Limit Load Blowers are designed for applications where higher system pressures are encountered, making them ideal for heavy-duty tasks like air handling and fume extraction systems.
Stable Operation: These blowers maintain a consistent Air moves even when the pressure in the system fluctuates, ensuring reliable operation.

4. Noise Reduction:

The backward curve blades also help reduce operational noise, as they generate less turbulence. This makes the blower suitable for environments where noise control is a priority, such as in commercial HVAC systems.

5. Shaft

The shaft used for the fan are made of EN-8/SAE-1040 carbon steel and machined to the prescribed tolerances with standard key ways The Shaft are grinded for better

3. Versatility in Pressure Handling:

High Pressure Capability: DIDW backward curve /Limit Load blowers are designed for applications where higher system pressures are encountered, making them ideal for heavy-duty tasks like air handling and fume extraction systems.
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The backward curve blades also help reduce operational noise, as they generate less turbulence. This makes the blower suitable for environments where noise control is a priority, such as in commercial HVAC systems.

5. Shaft

The shaft used for the fan are made of EN-8/SAE-1040 carbon steel and machined to the prescribed tolerances with standard key ways The Shaft are grinded for better performance and finish. The Shafts are coated with Varnish/Laquer after assembly.

6 Bearings

HUMIDIN Backward curved blower have (NTN/FYH bearings) of international standard The Bearings are either deep groove ball bearings or spherical roller bearings with accentric locking collars/adaptor sleeve sealed at both sides. The Bearings are pre- lubricated and are maintenance free.

MATERIAL OF CONSTRUCTION:

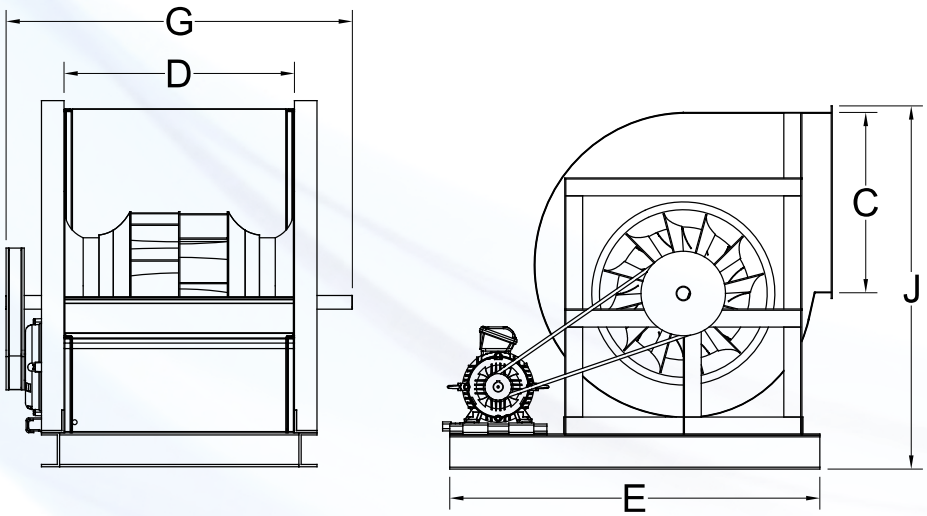
- CASING - GI/MS/SS/MS(HOT DIP GALVANIZED)
- SHAFT - MS (EN 8) / SS
- BEARING - PILLOW BLOCK
- IMPELLER - MS/GI/SS
- IMPELLER HUB - CI / CI WITH TAPPER BUSH ARRANGEMENT
- SIDE FRAME - MS / SS
- INLET CONE - FRP/MS/GI/SS

APPLICATIONS

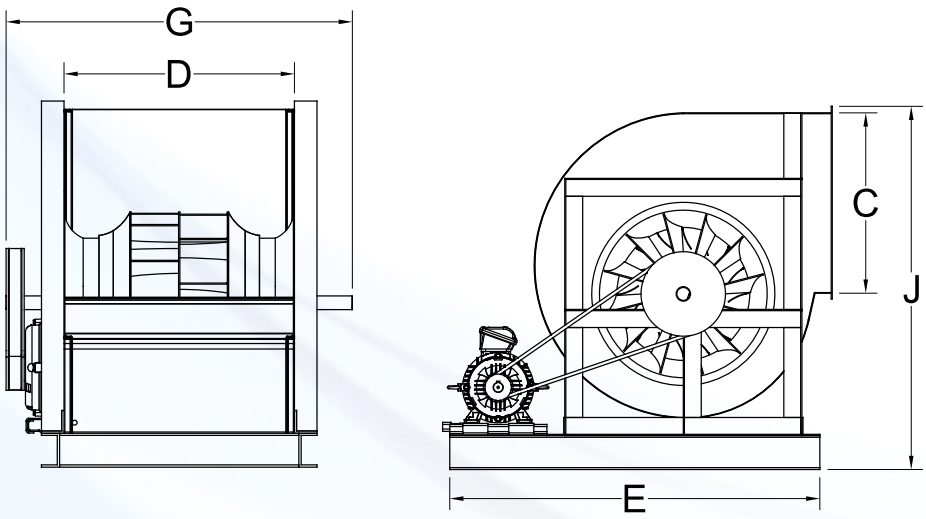
- HVAC Systems:
- Air Handling Units (AHUs):
- Industrial Process Ventilation:
- Clean Room Applications:

HUMIDIN®

DIMENSIONS TABLE OF LIMIT LOAD (DIDW) SERIES



CENTRIFUGAL FAN (LIMIT LOAD BACKWARD CURVED FAN)-DIDW WITH GUIDE VANES AT INLET													
AIR VOLUME (CFM)	STATIC PRESSURE (mmwg)	FAN TYPE	FAN DIA (mm)	Outlet Vel. (m/s)	MOTOR (HP)	TOTAL EFFICIENCY (%)	DB AT 3mtr	RPM	C (mm)	D (mm)	E (mm)	G (mm)	J (mm)
1000	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	40	DIDW	180	7.26	0.5	83.1	54	2724	228	228	570	395	760
	50	DIDW	180	7.26	0.75	84.3	55	2922	228	228	570	395	760
	60	DIDW	180	7.26	0.75	84.5	55	3113	228	228	570	395	760
	70	DIDW	180	7.26	0.75	84.0	55	3298	228	228	570	395	760
	80	DIDW	180	7.26	1	83.2	56	3481	228	228	570	395	760
2000	30	DIDW	250	8.99	1	72.3	57	2264	322	322	666	530	833
	40	DIDW	250	8.99	1	77.1	58	2431	322	322	666	530	833
	50	DIDW	250	8.99	1.5	80.1	60	2581	322	322	666	530	833
	60	DIDW	250	8.99	1.5	82.0	61	2717	322	322	666	530	833
	70	DIDW	250	8.99	1.5	83.1	61	2846	322	322	666	530	833
	80	DIDW	250	8.99	2	83.8	62	2969	322	322	666	530	833
3000	30	DIDW	315	8.69	1.5	74.8	56	1744	404	404	751	625	930
	40	DIDW	315	8.69	1.5	79.2	57	1879	404	404	751	625	930
	50	DIDW	315	8.69	2	81.7	58	1998	404	404	751	625	930
	60	DIDW	315	8.69	2	83.1	59	2107	404	404	751	625	930
	70	DIDW	315	8.69	2	83.9	60	2212	404	404	751	625	930
	80	DIDW	315	8.69	3	84.4	61	2313	404	404	751	625	930
4000	30	DIDW	355	9.26	1.5	73.3	58	1587	452	452	810	710	930
	40	DIDW	355	9.26	2	78.1	59	1706	452	452	810	710	930
	50	DIDW	355	9.26	3	80.9	60	1811	452	452	810	710	930
	60	DIDW	355	9.26	3	82.6	60	1907	452	452	810	710	930
	70	DIDW	355	9.26	3	83.6	61	1998	452	452	847	710	930
	80	DIDW	355	9.26	5	84.3	62	2085	452	452	847	710	930
5000	30	DIDW	400	9.22	2	74.2	58	1397	507	507	916	765	1036
	40	DIDW	400	9.22	3	78.7	59	1503	507	507	916	765	1036
	50	DIDW	400	9.22	3	81.4	60	1596	507	507	916	765	1036
	60	DIDW	400	9.22	3	83.0	60	1682	507	507	916	765	1036
	70	DIDW	400	9.22	5	83.9	61	1763	507	507	916	765	1036
	80	DIDW	400	9.22	5	84.5	62	1841	507	507	916	765	1036
NOTE: ALL TECHNICAL & DIMENSIONS ARE ONLY FOR REFERENCE													



CENTRIFUGAL FAN (LIMIT LOAD BACKWARD CURVED FAN)-DIDW WITH GUIDE VANES AT INLET

AIR VOLUME (CFM)	STATIC PRESSURE (mmwg)	FAN TYPE	FAN DIA (mm)	Outlet Vel. (m/s)	MOTOR (HP)	TOTAL EFFICIENCY (%)	DB AT 3mtr	RPM	C (mm)	D (mm)	E (mm)	G (mm)	J (mm)
	30	DIDW	450	8.77	3	76.0	57	1209	568	568	992	885	1168
6000	40	DIDW	450	8.77	3	80.1	59	1303	568	568	992	885	1168
	50	DIDW	450	8.77	5	82.4	60	1386	568	568	992	885	1168
	60	DIDW	450	8.77	5	83.7	61	1464	568	568	992	885	1168
	70	DIDW	450	8.77	5	84.5	61	1538	568	568	992	885	1168
	80	DIDW	450	8.77	5	84.8	61	1609	568	568	1025	885	1168
8000	30	DIDW	500	9.4	3	73.2	59	1132	634	634	758	950	1168
	40	DIDW	500	9.4	5	78.0	60	1216	634	634	758	950	1168
	50	DIDW	500	9.4	5	80.9	62	1290	634	634	758	950	1168
	60	DIDW	500	9.4	5	82.5	63	1359	634	634	758	950	1168
	70	DIDW	500	9.4	7.5	83.6	63	1423	634	634	758	950	1168
	80	DIDW	500	9.4	7.5	84.3	64	1484	634	634	758	950	1168
9000	30	DIDW	560	8.43	5	76.9	57	956	710	710	1190	1065	1168
	40	DIDW	560	8.43	5	80.8	58	1032	710	710	1190	1065	1168
	50	DIDW	560	8.33	5	82.8	59	1099	710	710	1190	1065	1168
	60	DIDW	560	8.43	7.5	83.9	60	1162	710	710	1190	1065	1168
	70	DIDW	560	8.43	7.5	84.6	61	1223	710	710	1190	1065	1168
	80	DIDW	560	8.43	7.5	84.6	62	1282	710	710	1190	1065	1168
10000	30	DIDW	560	9.37	5	73.3	59	1009	710	710	1190	1065	1290
	40	DIDW	560	9.37	5	78.1	60	1084	710	710	1190	1065	1290
	50	DIDW	560	9.37	7.5	80.9	61	1150	710	710	1190	1065	1290
	60	DIDW	560	9.37	7.5	82.6	62	1211	710	710	1190	1065	1290
	70	DIDW	560	9.37	7.5	83.6	63	1269	710	710	1190	1065	1290
	80	DIDW	560	9.37	10	84.3	64	1324	710	710	1190	1065	1290
12000	30	DIDW	630	8.85	5	75.1	58	872	800	800	1310	1160	1290
	40	DIDW	630	8.85	7.5	79.5	59	939	800	800	1310	1160	1290
	50	DIDW	630	8.85	7.5	81.9	60	999	800	800	1310	1160	1290
	60	DIDW	630	8.85	7.5	83.3	61	1054	800	800	1310	1160	1290
	70	DIDW	630	8.85	10	84.2	62	1106	800	800	1310	1160	1290
	80	DIDW	630	8.85	10	84.6	63	1156	800	800	1460	1160	1290
14000	30	DIDW	710	8.2	5	78.0	57	742	898	898	1418	1265	1461
	40	DIDW	710	8.2	7.5	81.6	58	802	898	898	1418	1265	1461
	50	DIDW	710	8.2	7.5	83.3	59	856	898	898	1418	1265	1461
	60	DIDW	710	8.2	10	84.4	60	906	898	898	1418	1265	1461
	70	DIDW	710	8.2	10	84.7	60	954	898	898	1568	1265	1461
	80	DIDW	710	8.2	15	84.6	61	1002	898	898	1568	1265	1461

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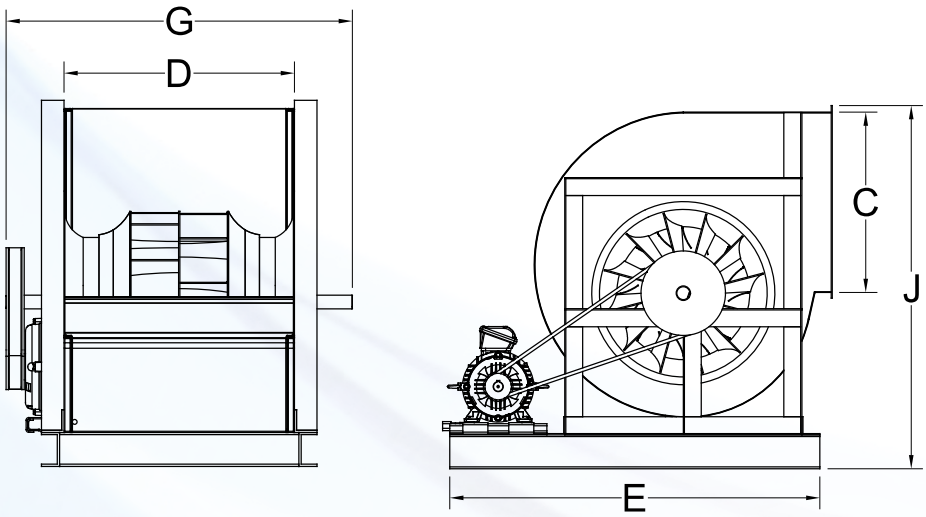

CENTRIFUGAL FAN (DIDW LIMIT LOAD FAN) WITH GUIDE VANES AT INLET

AIR VOLUME (CFM)	STATIC PRESSURE (mmwg)	FAN TYPE	FAN DIA (mm)	Outlet Vel. (m/s)	MOTOR (HP)	TOTAL EFFICIENCY (%)	DB AT 3mtr	RPM	C (mm)	D (mm)	E (mm)	G (mm)	J (mm)
27000	30	DIDW	900	9.95	15	69	64	661	1132	1132	1851	1550	1715
	40	DIDW	900	9.95	15	74.6	65	703	1132	1132	1851	1550	1715
	50	DIDW	900	9.95	15	78.4	65	741	1132	1132	1851	1550	1715
	60	DIDW	900	9.95	20	80.8	66	777	1132	1132	1851	1550	1715
	70	DIDW	900	9.95	20	82.3	67	811	1132	1132	1851	1550	1715
	80	DIDW	900	9.95	20	83.3	68	844	1132	1132	1851	1550	1715
30000	30	DIDW	1000	8.84	15	72.8	62	559	1266	1266	1932	1715	1900
	40	DIDW	1000	8.84	15	78	63	598	1266	1266	1932	1715	1900
	50	DIDW	1000	8.84	15	80.9	63	634	1266	1266	1932	1715	1900
	60	DIDW	1000	8.84	20	82.6	64	668	1266	1266	1932	1715	1900
	70	DIDW	1000	8.84	20	83.5	65	700	1266	1266	1932	1715	1900
	80	DIDW	1000	8.84	25	84	66	732	1266	1266	1932	1715	1900
32000	30	DIDW	1000	9.43	15	70.3	64	581	1266	1266	1932	1715	2000
	40	DIDW	1000	9.43	15	75.8	64	619	1266	1266	1932	1715	2000
	50	DIDW	1000	9.43	20	79.3	65	654	1266	1266	1932	1715	2000
	60	DIDW	1000	9.43	20	81.5	65	686	1266	1266	1932	1715	2000
	70	DIDW	1000	9.43	25	82.8	66	717	1266	1266	1932	1715	2000
	80	DIDW	1000	9.43	25	83.6	67	748	1266	1266	1932	1715	2000
35000	30	DIDW	1120	8.17	15	75.5	61	480	1422	1422	2178	1870	2235
	40	DIDW	1120	8.17	15	79.9	61	516	1422	1422	2178	1870	2235
	50	DIDW	1120	8.17	20	82.2	63	548	1422	1422	2178	1870	2235
	60	DIDW	1120	8.17	20	83.4	64	580	1422	1422	2178	1870	2235
	70	DIDW	1120	8.17	25	84	65	610	1422	1422	2178	1870	2235
	80	DIDW	1120	8.17	30	84.1	66	639	1422	1422	2178	1870	2235
40000	30	DIDW	1120	9.34	15	70.3	64	517	1422	1422	2178	1870	2235
	40	DIDW	1120	9.34	20	75.8	64	551	1422	1422	2178	1870	2235
	50	DIDW	1120	9.34	20	79.3	65	583	1422	1422	2178	1870	2235
	60	DIDW	1120	9.34	25	81.5	66	612	1422	1422	2178	1870	2235
	70	DIDW	1120	9.34	30	82.8	67	640	1422	1422	2178	1870	2235
	80	DIDW	1120	9.34	30	83.5	67	667	1422	1422	2378	1870	2235
44000	30	DIDW	1250	8.27	15	75.2	61	432	1422	1422	2178	1870	2235
	40	DIDW	1250	8.27	20	79.7	62	464	1422	1422	2178	1870	2235
	50	DIDW	1250	8.27	25	82.1	63	493	1422	1422	2178	1870	2235
	60	DIDW	1250	8.27	25	83.4	64	521	1422	1422	2178	1870	2235
	70	DIDW	1250	8.27	30	83.9	65	548	1422	1422	2378	1870	2235
	80	DIDW	1250	8.27	40	84.1	66	574	1422	1422	2378	1870	2235

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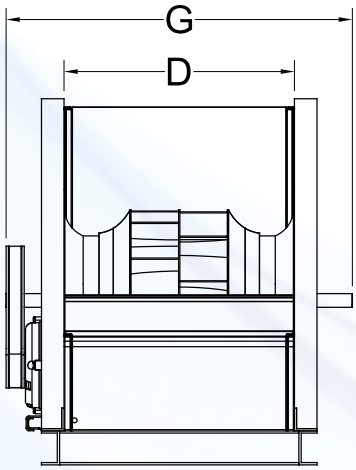
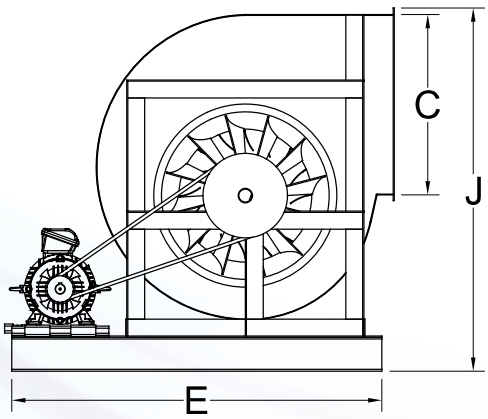
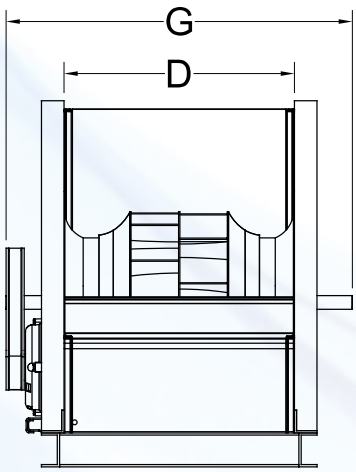


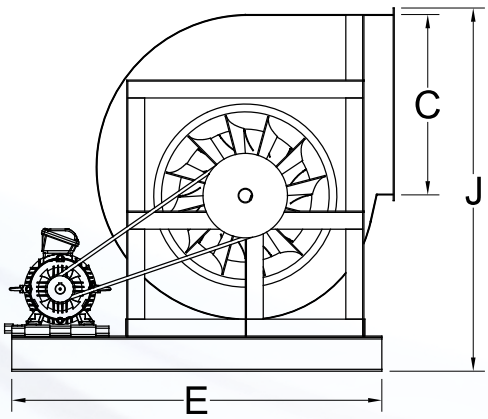


CENTRIFUGAL FAN (DIDW LIMIT LOAD FAN) WITH GUIDE VANES AT INLET

AIR VOLUME (CFM)	STATIC PRESSURE (mmwg)	FAN TYPE	FAN DIA (mm)	Outlet Vel. (m/s)	MOTOR (HP)	TOTAL EFFICIENCY (%)	DB AT 3mtr	RPM	C (mm)	D (mm)	E (mm)	G (mm)	J (mm)
50000	30	DIDW	1250	9.4	20	72.4	64	464	1585	1585	2380	2050	1951
	40	DIDW	1250	9.4	25	78.1	65	495	1585	1585	2380	2050	1951
	50	DIDW	1250	9.4	30	81.7	65	523	1585	1585	2380	2050	1951
	60	DIDW	1250	9.4	30	83.9	66	549	1585	1585	2580	2050	1951
	70	DIDW	1250	9.4	40	85.3	67	574	1585	1585	2580	2050	1951
	80	DIDW	1250	9.4	40	86.0	68	598	1585	1585	2580	2050	1951
55000	30	DIDW	1400	8.24	20	77.6	61	385	1775	1775	2705	2250	2222
	40	DIDW	1400	8.24	25	82.2	62	414	1775	1775	2705	2250	2222
	50	DIDW	1400	8.24	30	84.7	63	440	1775	1775	2705	2250	2222
	60	DIDW	1400	8.24	40	85.9	65	465	1775	1775	2905	2250	2222
	70	DIDW	1400	8.24	40	86.5	66	489	1775	1775	2905	2250	2222
	80	DIDW	1400	8.24	40	86.6	66	512	1775	1775	2905	2250	2222
60000	30	DIDW	1400	8.99	25	74.2	63	404	1775	1775	2705	2250	2222
	40	DIDW	1400	8.99	30	79.5	64	432	1775	1775	2705	2250	2222
	50	DIDW	1400	8.99	30	82.8	65	457	1775	1775	2705	2250	2222
	60	DIDW	1400	8.99	40	84.7	66	481	1775	1775	2705	2250	2222
	70	DIDW	1400	8.99	40	85.8	67	504	1775	1775	2905	2250	2222
	80	DIDW	1400	8.99	50	86.4	68	526	1775	1775	2905	2250	2222
65000	30	DIDW	1400	9.5	25	77.9	68	409	1775	1775	2905	2250	2222
	40	DIDW	1400	9.5	25	84.5	69	437	1775	1775	2905	2250	2222
	50	DIDW	1400	9.5	30	89.0	69	463	1775	1775	2905	2250	2222
	60	DIDW	1400	9.5	40	91.2	70	486	1775	1775	2905	2250	2222
	70	DIDW	1400	9.5	40	92.3	73	508	1775	1775	2905	2250	2222
	80	DIDW	1400	9.5	50	93.4	73	529	1775	1775	2905	2250	2222
70000	40	DIDW	1600	7.5	30	86.8	66	358	2025	2025	3086	2550	3050
	50	DIDW	1600	7.5	40	89.0	67	382	2025	2025	3086	2550	3050
	60	DIDW	1600	7.5	40	90.1	68	404	2025	2025	3086	2550	3050
	70	DIDW	1600	7.5	40	91.2	69	426	2025	2025	3086	2550	3050
	80	DIDW	1600	7.5	50	91.2	70	446	2025	2025	3086	2550	3050
75000	40	DIDW	1600	8.6	30	84.5	67	370	2025	2025	3086	2550	3050
	50	DIDW	1600	7.5	40	87.9	68	393	2025	2025	3086	2550	3050
	60	DIDW	1600	7.5	40	89.0	69	415	2025	2025	3086	2550	3050
	70	DIDW	1600	7.5	50	90.1	70	435	2025	2025	3086	2550	3050
	80	DIDW	1600	7.5	50	91.2	71	455	2025	2025	3086	2550	3050
80000	40	DIDW	1600	9.2	40	82.3	69	382	2025	2025	3086	2550	3050
	50	DIDW	1600	9.2	40	86.8	70	405	2025	2025	3086	2550	3050
	60	DIDW	1600	9.2	50	89.0	70	426	2025	2025	3086	2550	3050
	70	DIDW	1600	9.2	50	90.1	71	446	2025	2025	3086	2550	3050
	80	DIDW	1600	9.2	60	90.1	72	465	2025	2025	3086	2550	3050
85000	40	DIDW	1800	7.7	40	87.9	65	313	2278	2278	3400	2890	3410
	50	DIDW	1800	7.7	40	90.1	67	335	2278	2278	3400	2890	3410
	60	DIDW	1800	7.7	50	91.2	68	355	2278	2278	3400	2890	3410
	70	DIDW	1800	7.7	50	91.2	69	374	2278	2278	3400	2890	3410
	80	DIDW	1800	7.7	60	91.2	70	393	2278	2278	3400	2890	3410
90000	40	DIDW	1800	8.2	40	86.8	66	321	2278	2278	3400	2890	3410
	50	DIDW	1800	8.2	40	89.0	68	342	2278	2278	3400	2890	3410
	60	DIDW	1800	8.2	50	90.1	69	362	2278	2278	3400	2890	3410
	70	DIDW	1800	8.2	60	91.2	69	381	2278	2278	3400	2890	3410
	80	DIDW	1800	8.2	60	91.2	70	399	2278	2278	3400	2890	3410

NOTE: ALL TECHNICAL & DIMENSIONS ARE ONLY FOR REFERENCE





CENTRIFUGAL FAN (DIDW LIMIT LOAD FAN) WITH GUIDE VANES AT INLET

AIR VOLUME	STATIC PRESSURE	FAN TYPE	FAN DIA (mm)	Outlet Vel. (m/s)	MOTOR (HP)	TOTAL EFFICIENCY (%)	DB AT 3mtr	RPM	C (mm)	D (mm)	E (mm)	G (mm)	J (mm)
95000	40	DIDW	1800	8.2	40	86.8	66	321	2278	2278	3400	2890	3410
	50	DIDW	1800	8.2	40	89.0	68	342	2278	2278	3400	2890	3410
	60	DIDW	1800	8.2	50	90.1	69	362	2278	2278	3400	2890	3410
	70	DIDW	1800	8.2	60	91.2	69	381	2278	2278	3400	2890	3410
	80	DIDW	1800	8.2	60	91.2	70	399	2278	2278	3400	2890	3410
100000	40	DIDW	1800	9.1	40	83.4	68	338	2278	2278	3400	2890	3410
	50	DIDW	1800	9.1	50	86.8	69	358	2278	2278	3400	2890	3410
	60	DIDW	1800	9.1	60	89.0	70	377	2278	2278	3400	2890	3410
	70	DIDW	1800	9.1	60	90.1	71	395	2278	2278	3400	2890	3410
	80	DIDW	1800	9.1	75	90.1	72	412	2278	2278	3400	2890	3410
110000	40	DIDW	2000	8.11	50	86.8	67	288	2530	2530	3842	3230	3815
	50	DIDW	2000	8.11	50	89.0	68	307	2530	2530	3842	3230	3815
	60	DIDW	2000	8.11	60	90.1	69	325	2530	2530	3842	3230	3815
	70	DIDW	2000	8.11	75	91.2	70	342	2530	2530	3842	3230	3815
	80	DIDW	2000	8.11	75	91.2	71	358	2530	2530	3842	3230	3815
120000	40	DIDW	2000	8.8	50	84.5	68	300	2530	2530	3842	3230	3815
	50	DIDW	2000	8.8	60	86.8	66	319	2530	2530	3842	3230	3815
	60	DIDW	2000	8.8	75	89.0	70	336	2530	2530	3842	3230	3815
	70	DIDW	2000	8.8	75	90.1	71	352	2530	2530	3842	3230	3815
	80	DIDW	2000	8.8	100	91.2	72	368	2530	2530	3842	3230	3815

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HUMIDIN

Sales & Marketing Department
North India:
Phone: +91-9899055240
Email Id: ahunorth@humidin.com

East India:
Phone:+91-9654781452
Email Id: ahueast@humidin.com

West India:
Phone +91-9899055240
Email id: ahuwest@humidin.com

South India:
Phone +91-9654781452
Email Id: ahusouth@humidin.com

Finance Department
Phone +91-9654452925
Email Id: accounts@humidin.com

After Sales Service Department (24x7)
Phone: +91-9654452926
Email Id: service@humidin.com

COUNTRIES:
RIYADH:
Phone: 9220500368
Email Id: riyadh@humidin.com

EGYPT:
Phone: 9220500367
Email Id: egypt@humidin.com

HR Department
Phone: +91-7290065533
Email Id: hr@humidin.com,
hrmanager@humidin.com

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HUMIDIN guarantees its products to be free of defects in materials and workmanship for a period of one year from the date of delivery from the factory, provided motors are properly installed with overload protector. Humidin agrees to repair or replace defective parts or part to be returned to the factory, all transportation charges prepaid. Humidin does not guarantee against abrasion, corrosion or erosion. Humidin shall not be held responsible for any charges in connection with the removal or replacement of alleged defective equipment nor for incidental consequential damages

A.C HUMIDIN AIR SYSTEMS PVT.LTD.

Plot C18, Sector A2 Tronica City UPSIDC Industrial Area Loni Dist. Ghaziabad Uttar Pardesh-201102