# HUMIDIN





A.C.HUMIDIN AIR SYSTEMS PVT LTD. certifies that the Aerofoil Plug Fan Model HPF shown herein is 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.

# **PLUG FAN**

for extraordinary ambiance



## When Quality Speaks For Itself

As a leading manufacturer of Plug Fan, today HUMIDIN enjoys an an enviable position in customer mind-space.

HUMIDIN boasts of a modern plant & a talented team of qualified professionals who sets an exacting standards of quality for themselves.

In sum, HUMIDIN stands for quality & customer satisfaction that are instrumental bringing them on par with what the world calls the world class.





Humidin High Efficiency Aerofoil Plug Fans, with Aerofoil blades are designed for clean air applications and for moist air systems. The plug fan eliminates the conventional in-efficient belt drive transmission. Its sizes from 280mm to 1000mm diameter offers wide air quantity and pressure.

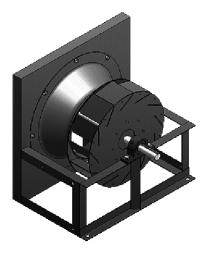
#### Model HPF

#### **Features**

- 1. Capacity selection upto 30000 CFM
- 2. Available for high and low temperature applications
- 3. Available with and without Fan housing
- 4. Pressure Range upto 2200Pa
- 5. Spun Wheel venturi for Smooth, efficient flow
- 6. Available in Flame Proof Construction as optional

#### Application

- Heating and Air-conditioning system
- Chemical
- Energy
- Food Processing
- Glass
- Petrochemical
- Pulp and Paper
- Steel
- Textile
- Pharmaceutical



#### Advantages

- Saves space
- High efficiency
- Low cost
- Low noise



## Construction features

Wheels: The wheels are aerofoil design for high efficiency ranging from 280mm to 1000mm diameter made out of mild steel with continously welded construction, suitable upto 400degC temperature.





- 2. Inlet cones: are designed to serve the air with the free, aerodynamic flow at the inlet and to provide maximum adjustability, preventing wheel rubbing in both axial and radial planes. All inlet cones are made of heavy gauge spun steel.
- 3. Drive panels: panels made of heavy gauge steel provides maximum rigidity and strength and designed to ensure precise drive alignments. All sides are flanged offering flexible and easy installation. Pre-punched to accommodate adjustable motor base features. Bearing bracket is bolted and removable for easy bearing surface.





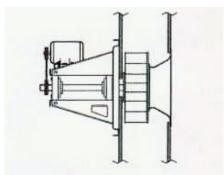
- 4. Bearings: are heavy duty ball or roller pillow block bearing through various sizes. All bearings are grease lubricated. Engineered for horizontal and vertical operation.
- 5. Fan shafts: EN-8 turned and polished steel that is sized so the first critical speed is at least 25% over the maximum operating speed for each pressure class. Available in stainless steel.



6. Vibration: All fans are statically and dynamically balanced down to G2.5 in all three planes at the design operating speed. All fans undergo vibration test before being dispatched.

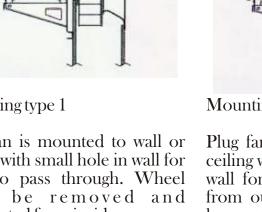


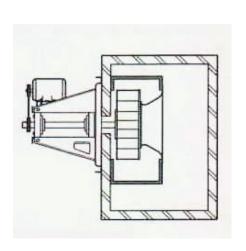
## **INSTALLATIONS**



#### Mounting type 1

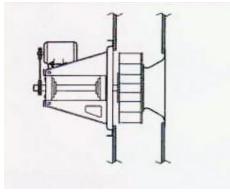
Plug fan is mounted to wall or ceiling with small hole in wall for shaft to pass through. Wheel must be removed and remounted from inside.





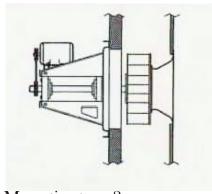
#### Mounting type 4

Housed plug fans can be mounted in any of the ways shown. Housing must be mounted from inside and is mounted either to insulated plug or to interior of wall.



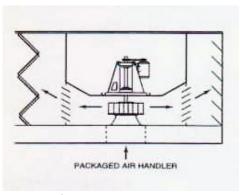
Mounting type 2

Plug fan is mounted to wall or ceiling with large round in hall in wall for wheel to pass through from outside. Wheel does not have to be removed for mounting fan



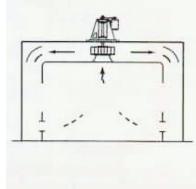
Mounting type 3

Plug fan is mounted to wall or ceiling with square hole in wall for insulated plug. Wheel does not have to be removed for mounting fan.



Mounting type 5

Plug fan is mounted vertically or horizontally in packaged air handling unit. Fan pulls air from system and discharges into the plenum containing filters, coils, dampers etc. and supplies conditioned air back to building.



Mounting type 6

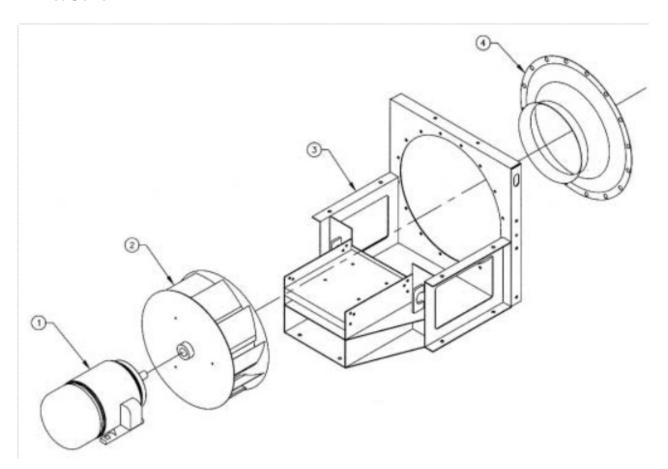
Plug fan is mounted vertically to ceiling to large square hole in wall for insulated plug or with small hole for shaft to pass through. Fan pulls air up inside the plenum and discharges back to the bottom of plenum through peripheral ducting.

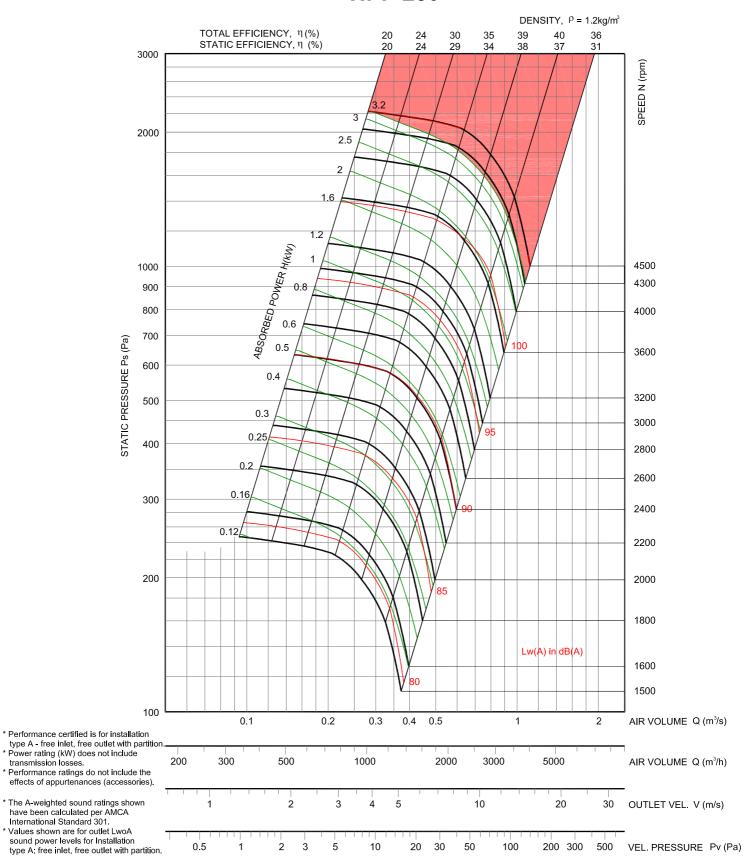


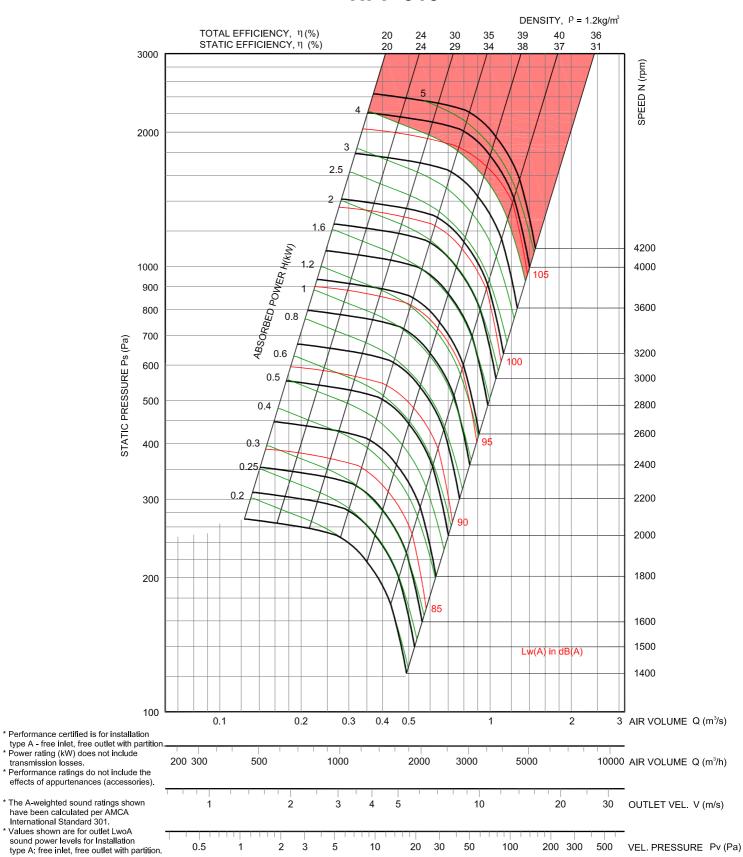


## Parts List

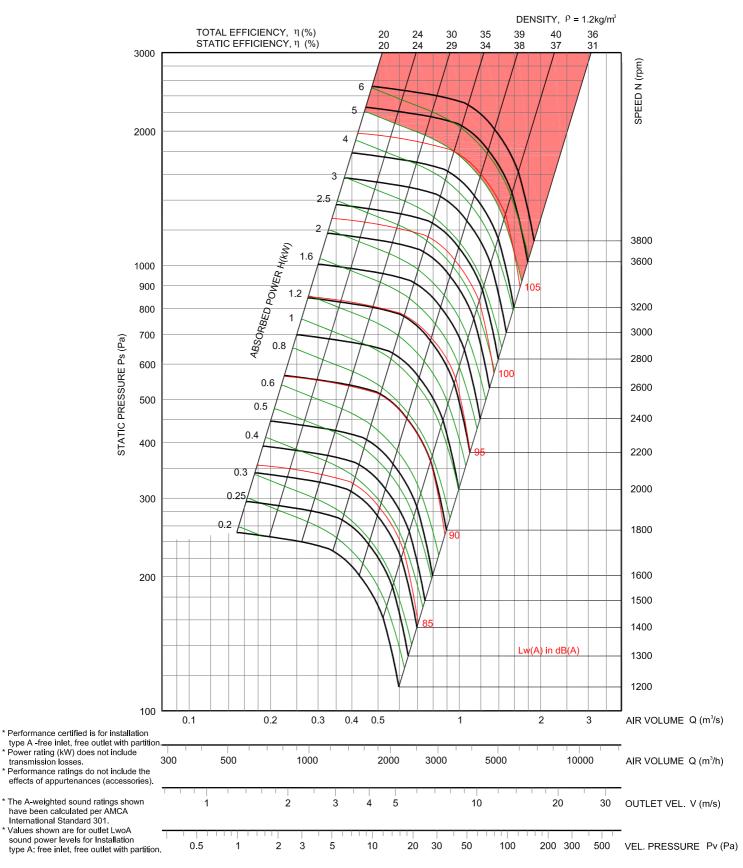
- 1. Motor
- 2. Wheel
- 3. Base Mounting Panel
- 4. Inlet Cone

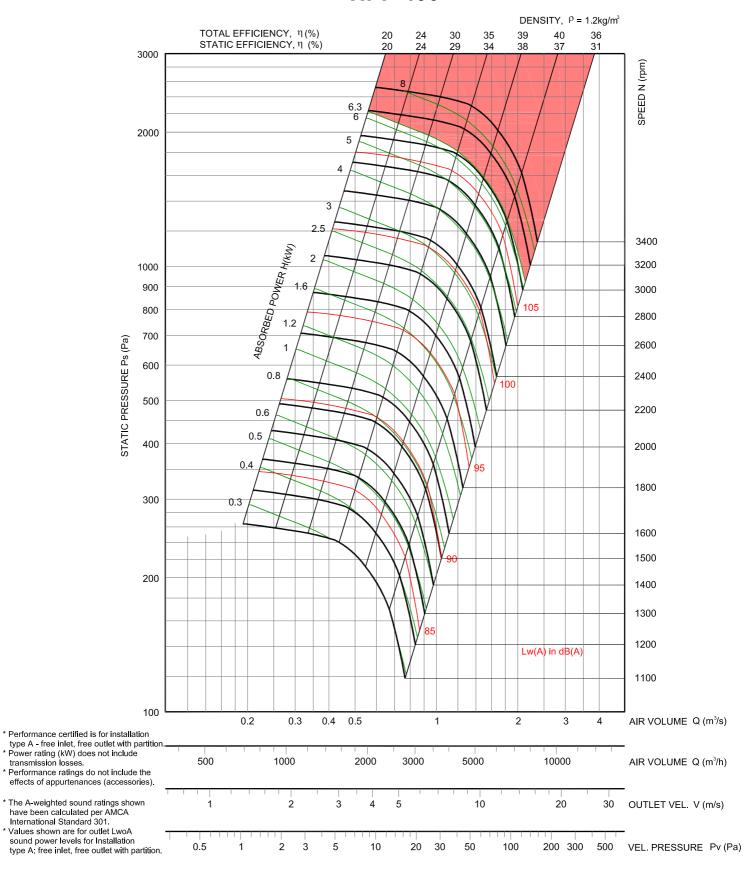


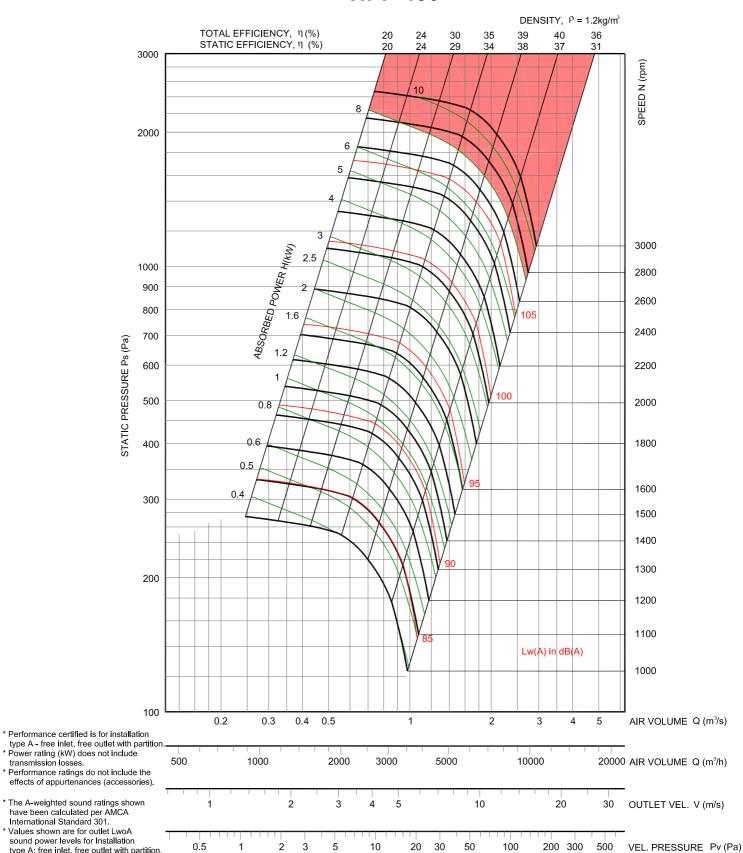




International Standard 301.

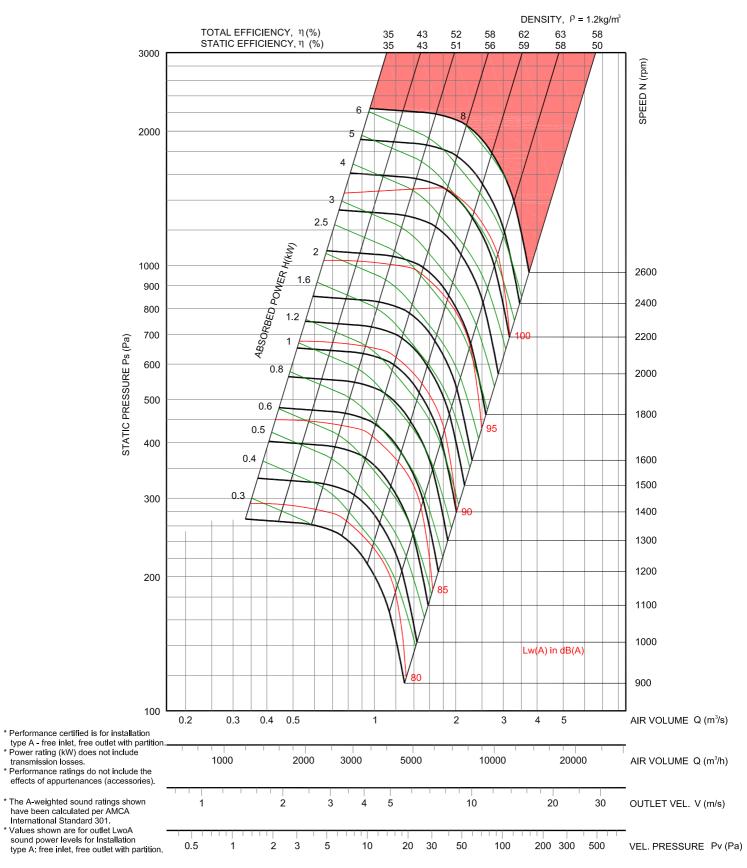


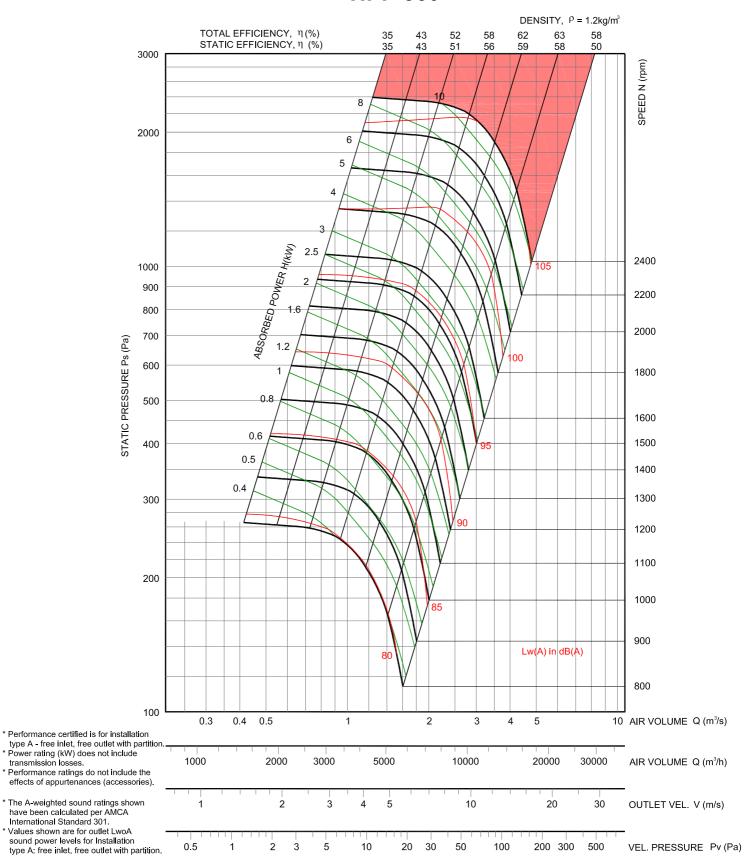


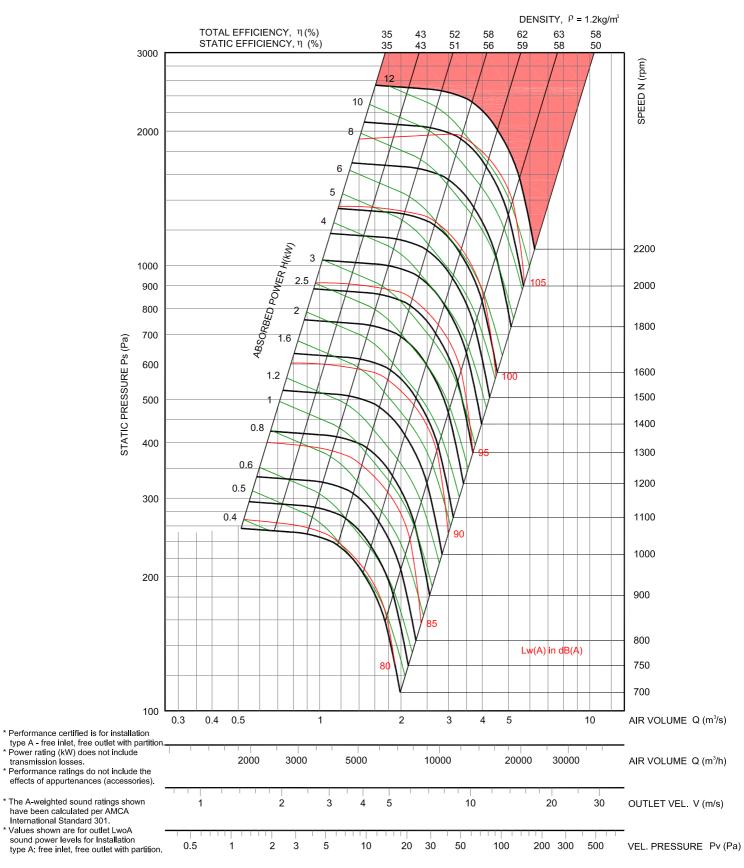


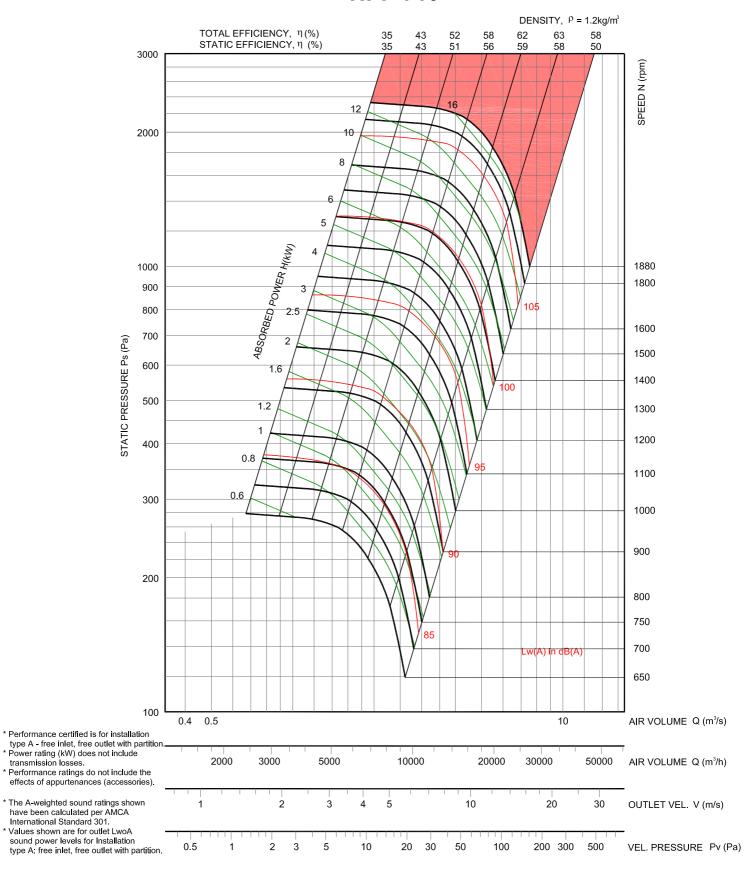
International Standard 301.

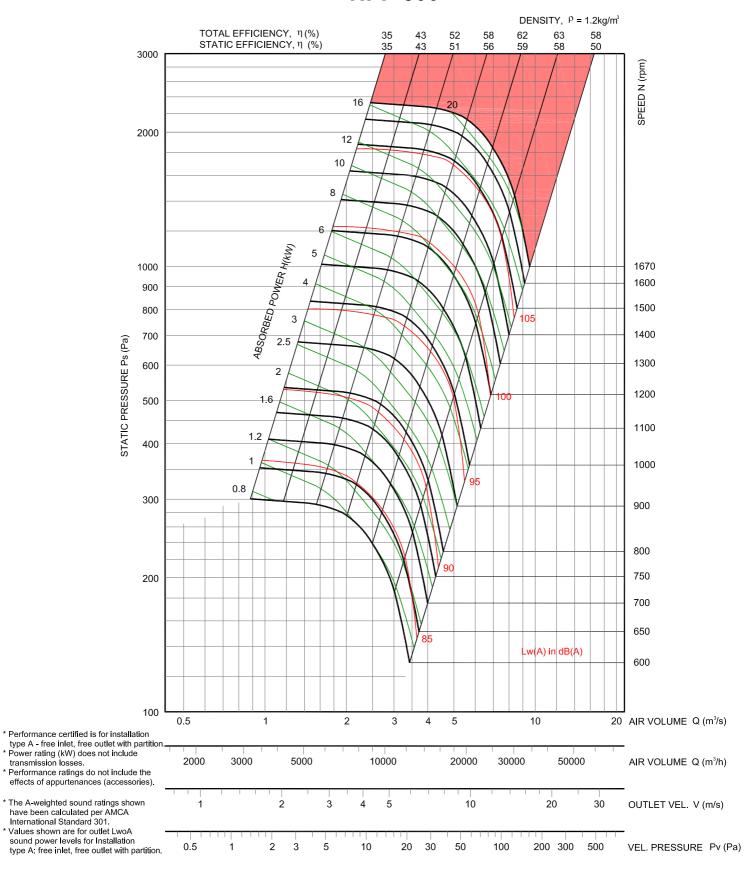
type A: free inlet, free outlet with partition.

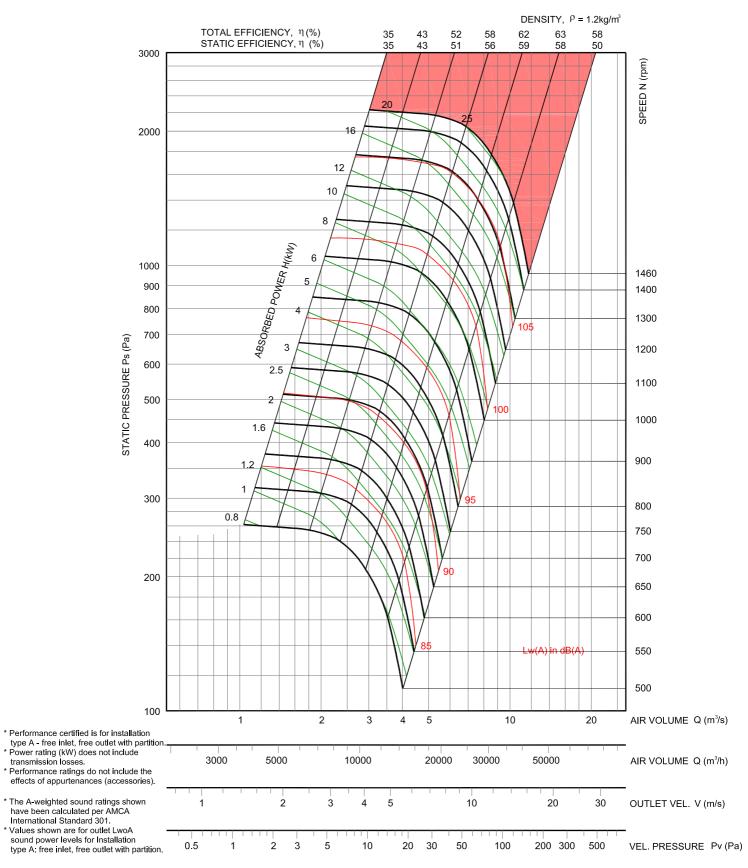


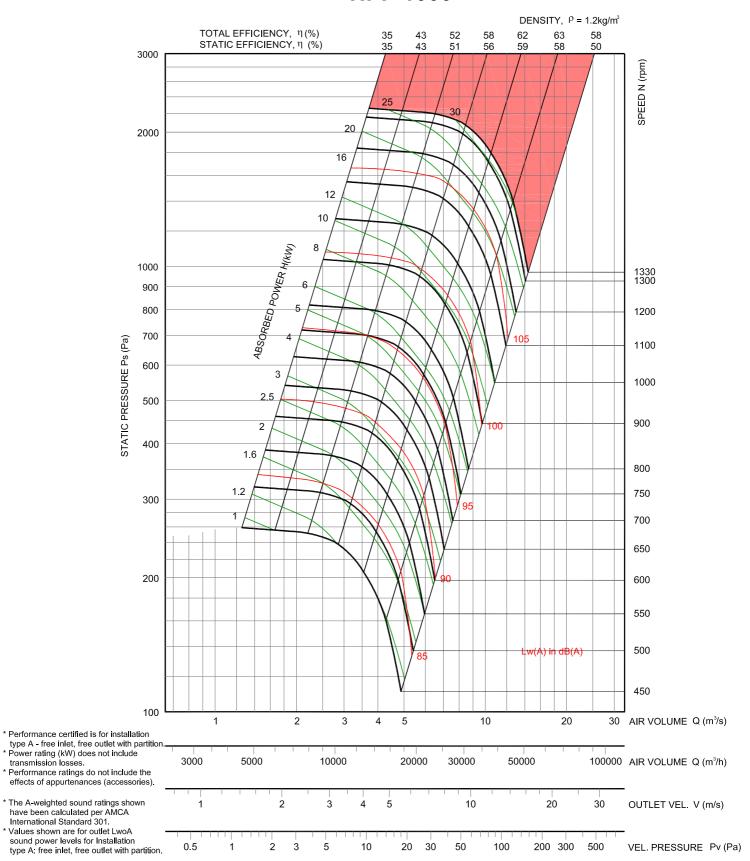








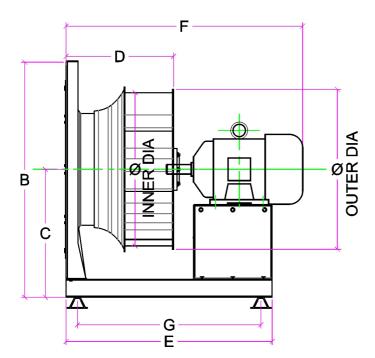


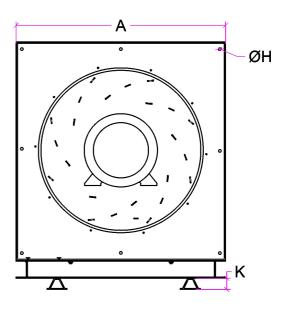


## HUMIDIN

## PLUG FAN (HPF SERIES)







Dimensions of Plug Fan											
MODEL	Α	В	С	D	E	F	G	øΗ	K	INNER DIA (Ø)	OUTER DIA (Ø)
HPF-280	390	431	236	187	408	489	308	10	57	288	323
HPF-315	430	471	256	207	428	509	328	10	57	323	363
HPF-355	470	511	276	227	477	569	377	10	57	363	406
HPF-400	514	555	298	257	536	609	436	10	57	406	455
HPF-450	582	623	332	282	561	684	461	10	94	455	510
HPF-500	645	727	405	309	598	711	498	12	57	510	570
HPF-560	715	798	440	319	707	805	607	12	94	570	640
HPF-630	790	873	478	360	748	910	648	12	94	640	718
HPF-710	875	955	517	405	902	955	802	12	94	718	808
HPF-800	985	1075	582	456	1016	1075	903	12	94	805	890
HPF-900	1095	1175	627	505	1050	1139	966	12	94	905	995
HPF-1000	1230	1310	695	552	1050	1329	966	12	94	1000	1120

units - mm

The intention of this brochure is to introduce you to, and acquaint you with the capabilities of the HUMIDIN organization in the offered product areas. It will not answer all your immediate questions, and indeed, it will no doubt raise others. We welcome your interest in our products and shall be very pleased to provide further information. **GUARANTEE** 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. In accordance with our policy of continual improvement in design, we reserve the right to depart from the details given in this brochure. A.C. HUMIDIN AIR SYSTEMS PVT. LTD. C-18, SECTOR A2, TRONICA CITY, LONI, UP, INDIA 201102

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HPF Series Ver 1.0

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