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# WING TON FAN INDUSTRY LIMITED



**DTF-BF Series Backward Curved Belt Driven Fans**

**CATA-AMCA-DTF-BF January, 2014**

**<http://www.wington.com>**



# DTF-BF Series Backward Curved Belt Driven Fans



Wing Ton Fan Industry Limited certifies that the DTF-BF Series Backward Curved Belt Driven Fan, Model DTF-BF250, BF315, BF400, BF500 and BF630 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.

## General Description:

- The DTF-BF is a belt driven cabinet fan. It incorporates double inlet backward curved centrifugal fan. It offers a wide range of airflow and static pressure development performances. The range comprises of ten nominal product sizes with a selection of motor powers between 0.37 to 22.0kW.
- Air performance ranges from 1300 m<sup>3</sup>/h up to 23000 m<sup>3</sup>/h with the static pressure developments up to 2000 Pa. Due to the flexible design, the range can be supplied with either a horizontal or vertical discharge configuration to suit the most demanding applications.
- It is suitable for many general ventilation applications where precise continuous volume flow rates are required. Typical applications

### include:

- Commercial office
- Public Buildings
- Restaurants
- Commercial and Industrial Kitchens



## Construction:

### • Casing:

The casings are made from heavy gauge galvanized sheet steel with double thickness side panels. All panels are internally lined with high density acoustic insulation, and the motor/belt access panel is supplied with pressure locks providing secure and fast maintenance. The DTF-BF ranges are supplied, as standard, with access door (for motor, pulley and belt assembly).

### • Fan/Impeller:

All models incorporate a double inlet backward curved centrifugal impeller. The impeller is housed in a specially designed galvanized metal scroll casing. The complete impeller and motor assembly is then mounted within the fan cabinet on anti-vibration mounts and connected to the discharge port with a regular flexible coupling. All models are supplied as standard, in horizontal discharge configuration. However, other discharge configuration can be supplied to special order. Please enquire.

### • Motor:

All models incorporate three phase induction motors with a squirrel cage rotor in die cast aluminum. All motors are IP55 Protection.

# HOW TO CHOOSE A RIGHT FAN

## Fan Selection:

Please select fans within the curve. Do not select above curve end, fan will work in stall and will be damaged. For a non-overloading selecting you can select motor on the peak-kW from each fan speed which marks and cover maximum on absorbed

## Example:

Required duty point by customer

- Airflow: 2000 m<sup>3</sup>/h (A)
- Static Pressure: 200 Pa (For total pressure 218 Pa (C), please add dynamic pressure 18 Pa (B) to static pressure 70 Pa)

After choosing right fan performance curve, please draw volume flow and pressure. In the cross you will find the following fan data:

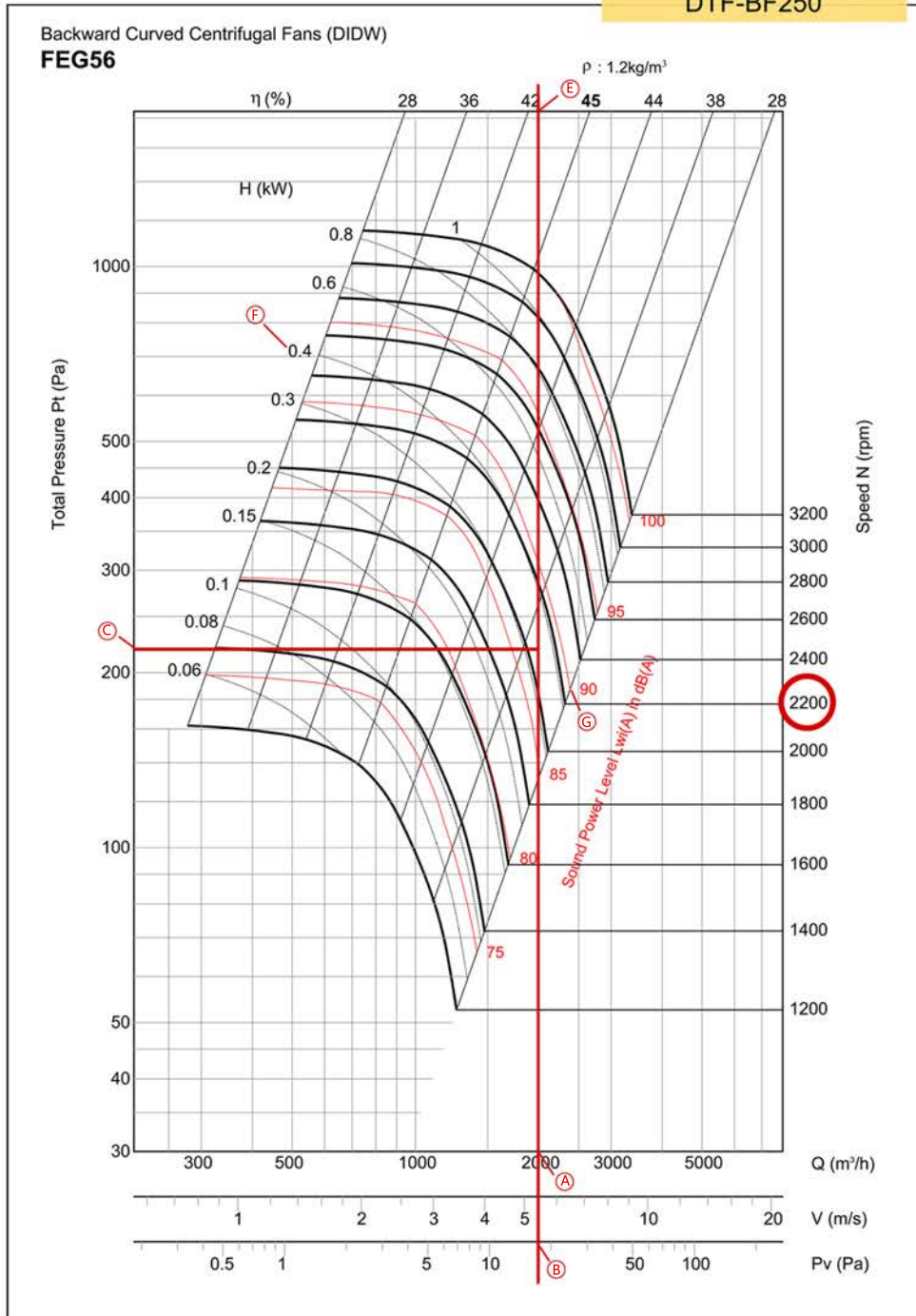
- Fan Speed: 2200 RPM
  - Fan Efficiency: 43% (E)
  - Sound Power Level: 89 dB (G)
  - The peak absorbed power is 0.4 Kw (F)
- The Motor Power to be advised by manufacturer



## DTF-BF Series Backward Curved Belt Driven Fans



DTF-BF250



- Performance certified is for installation type D - Ducted inlet, Ducted outlet. Power rating kW does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories)  
- The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwA sound power levels for installation Type D: ducted inlet, ducted outlet.



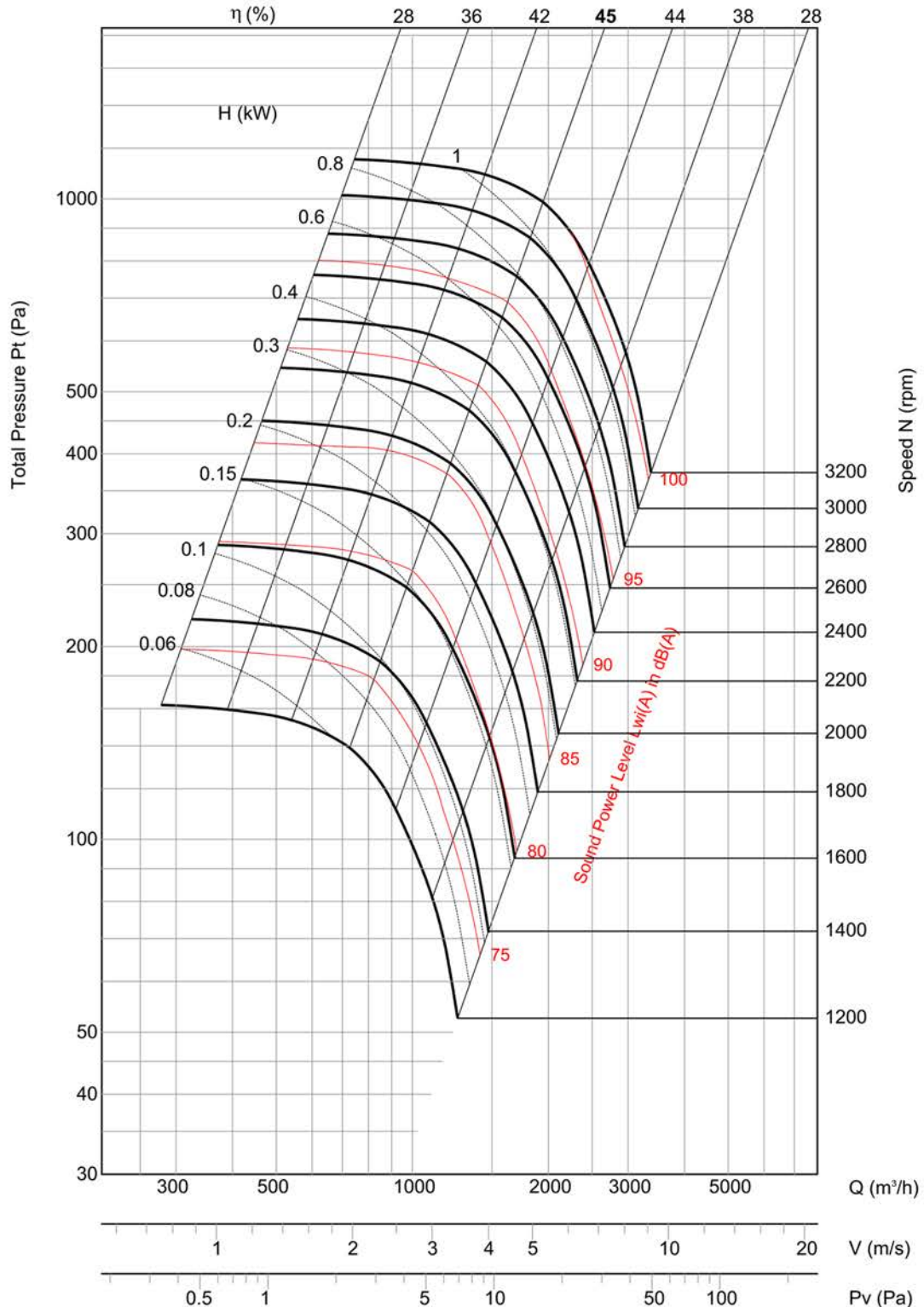
# DTF-BF Series Backward Curved Belt Driven Fans



## DTF-BF250

Backward Curved Centrifugal Fans (DIDW)  
FEG56

$\rho : 1.2\text{kg/m}^3$



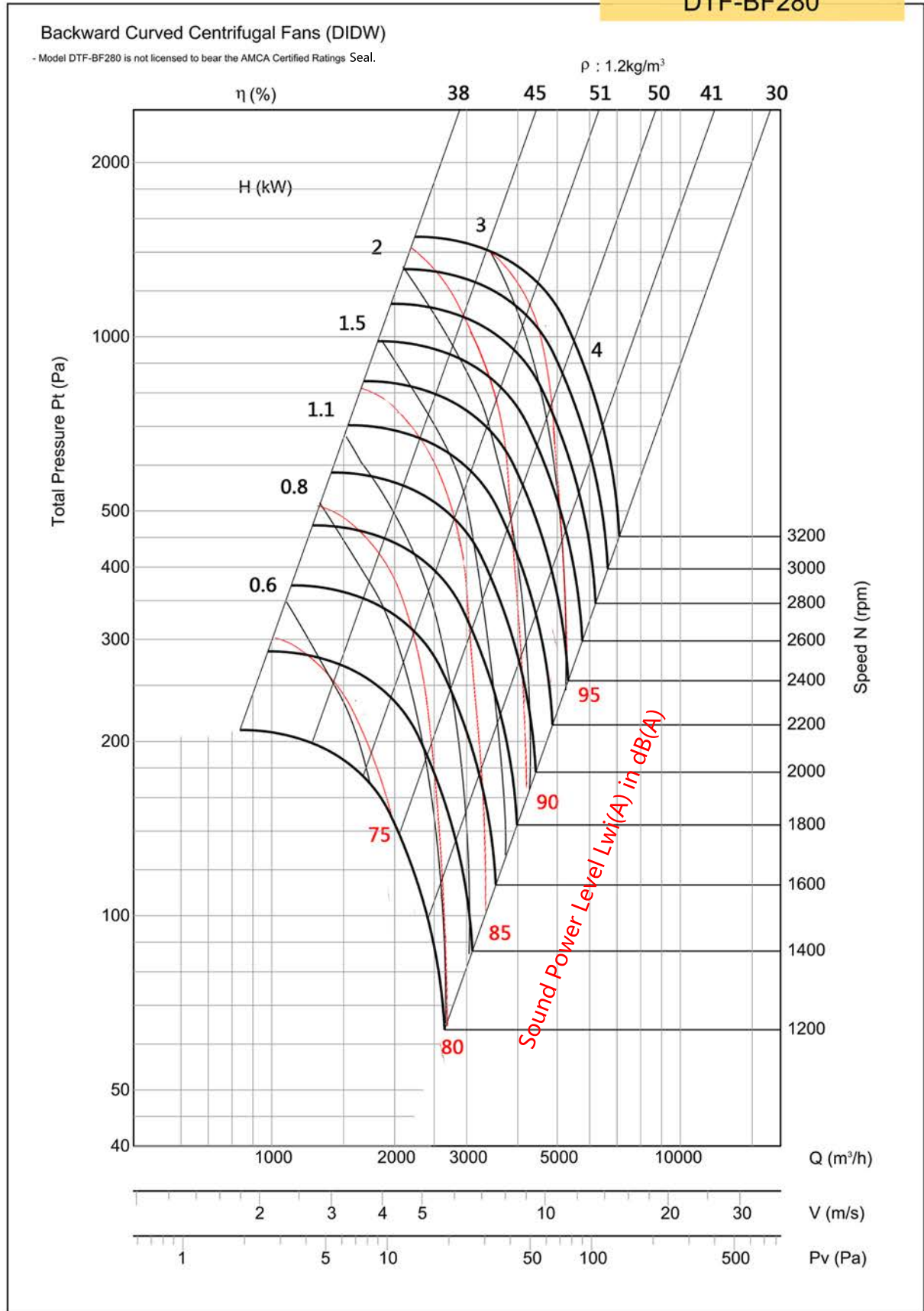
- Performance certified is for installation type D - Ducted inlet, Ducted outlet. Power rating kW does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories)  
- The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet Lwi(A) sound power levels for installation Type D: ducted inlet, ducted outlet.



# DTF-BF Series Backward Curved Belt Driven Fans



## DTF-BF280



- Performance is for installation type D - Ducted inlet, Ducted outlet. Power rating kW does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories)  
 - The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for installation Type D: ducted inlet, ducted outlet.



# DTF-BF Series Backward Curved Belt Driven Fans

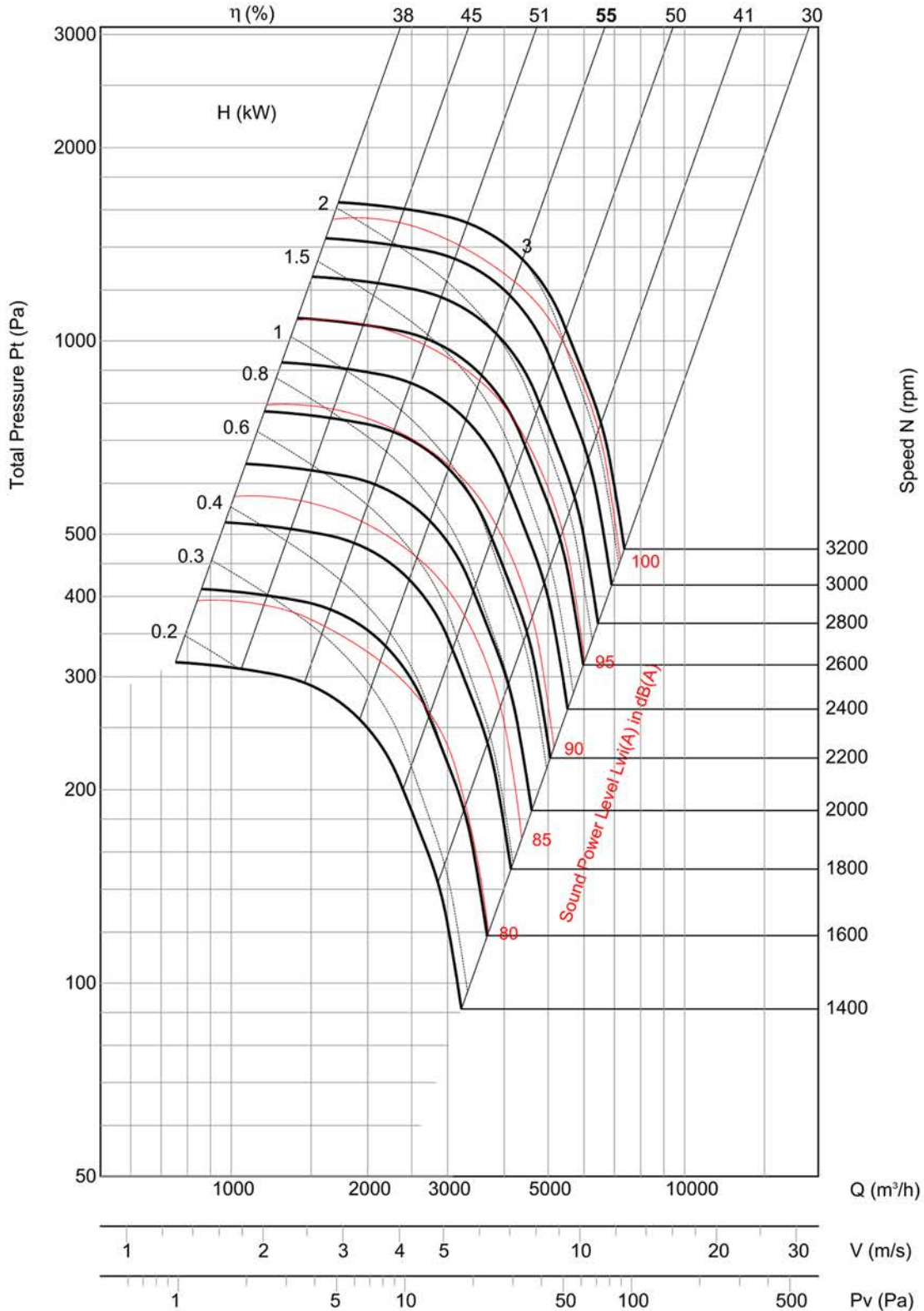


**DTF-BF315**

Backward Curved Centrifugal Fans (DIDW)

**FEG63**

$\rho : 1.2\text{kg/m}^3$



- Performance certified is for installation type D - Ducted inlet, Ducted outlet. Power rating kW does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories)  
 - The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwA sound power levels for installation Type D: ducted inlet, ducted outlet.



# DTF-BF Series Backward Curved Belt Driven Fans

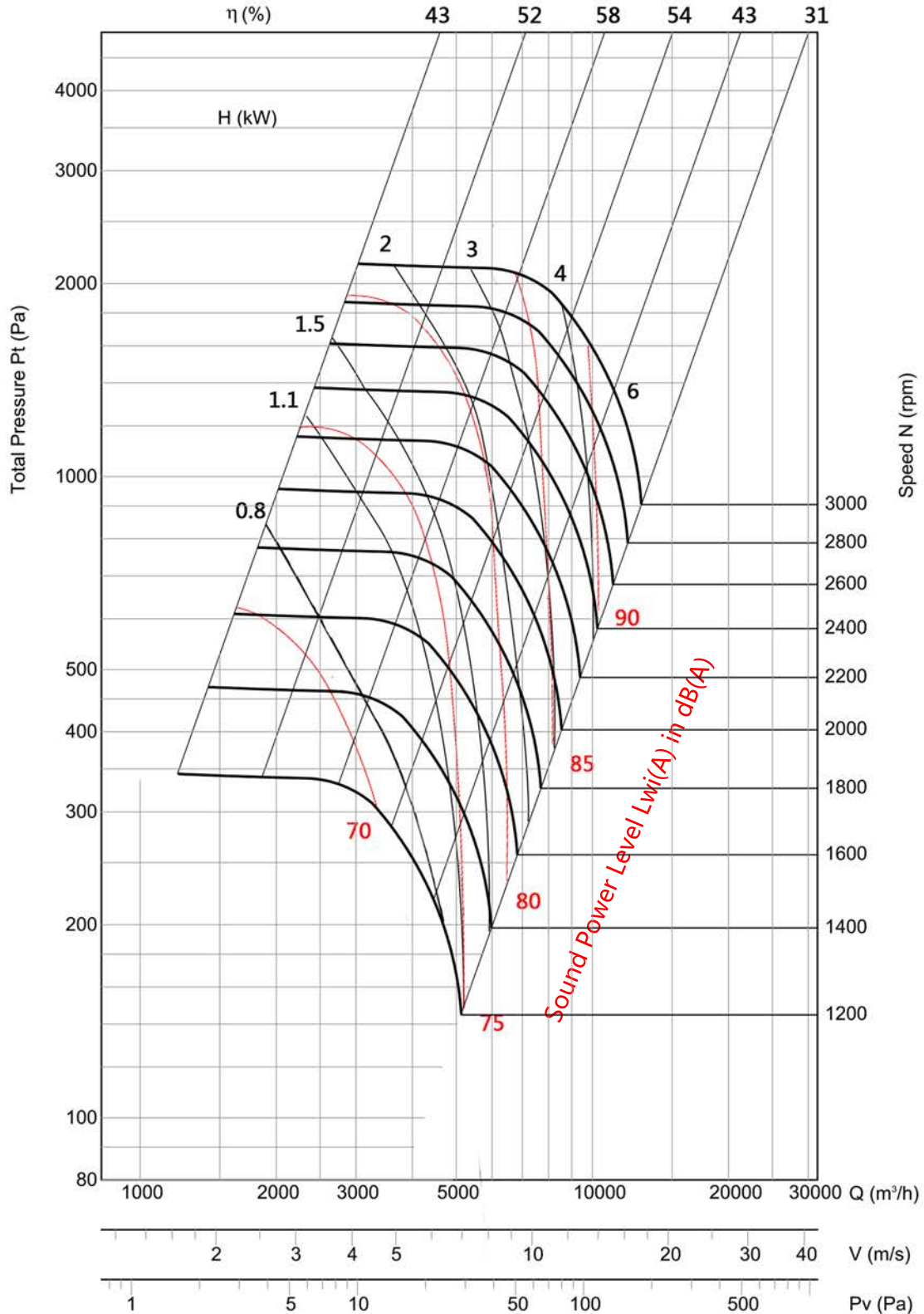


DTF-BF355

Backward Curved Centrifugal Fans (DIDW)

- Model DTF-BF355 is not licensed to bear the AMCA Certified Ratings Seal.

$\rho : 1.2\text{kg/m}^3$



- Performance is for installation type D - Ducted inlet, Ducted outlet. Power rating kW does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories)  
 - The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for installation Type D: ducted inlet, ducted outlet.





# DTF-BF Series Backward Curved Belt Driven Fans

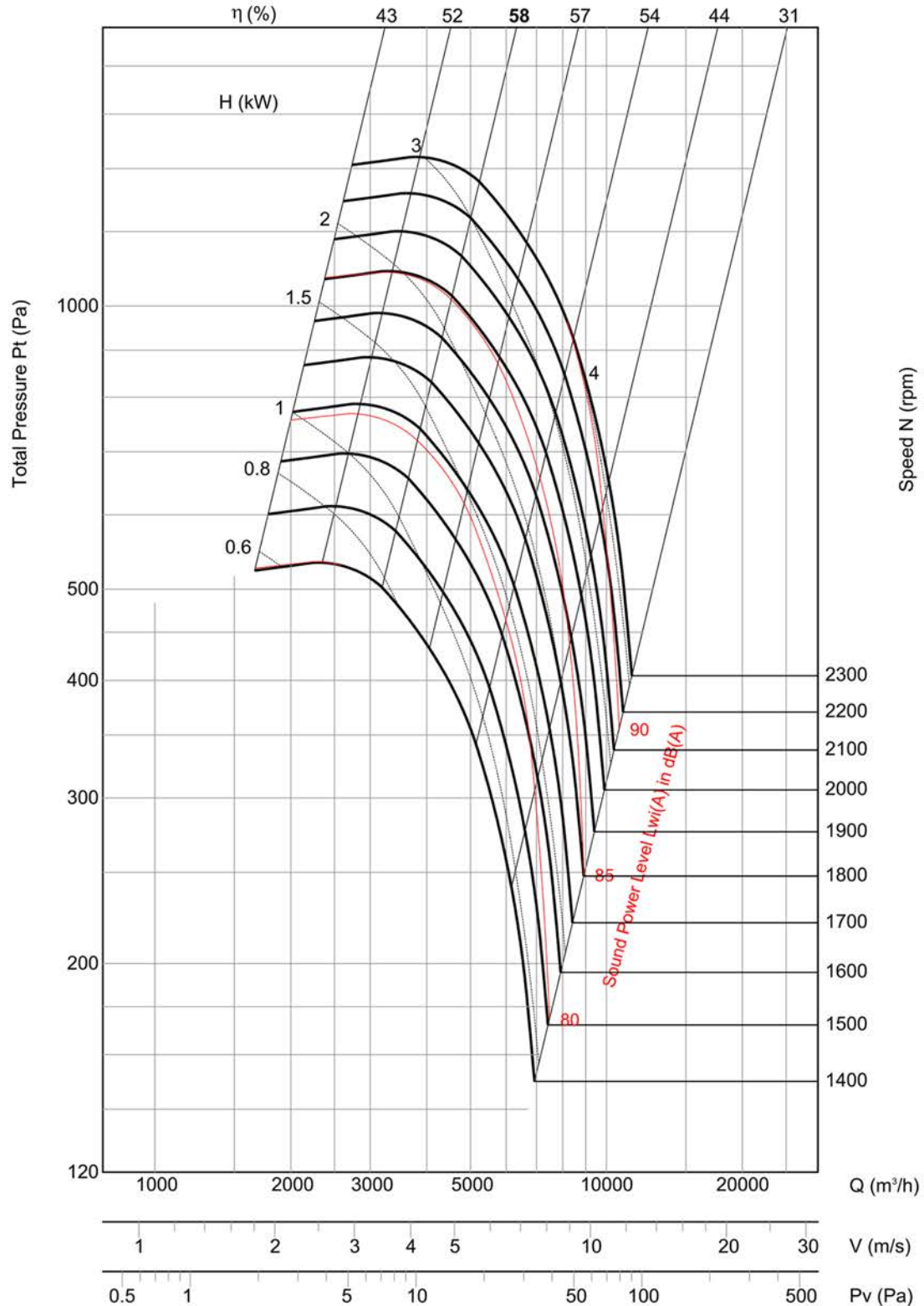


## DTF-BF400

Backward Curved Centrifugal Fans (DIDW)

**FEG63**

$\rho : 1.2\text{kg/m}^3$



- Performance certified is for installation type D - Ducted inlet, Ducted outlet. Power rating kW does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories)  
 - The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet Lwi(A) sound power levels for installation Type D: ducted inlet, ducted outlet.



# DTF-BF Series Backward Curved Belt Driven Fans

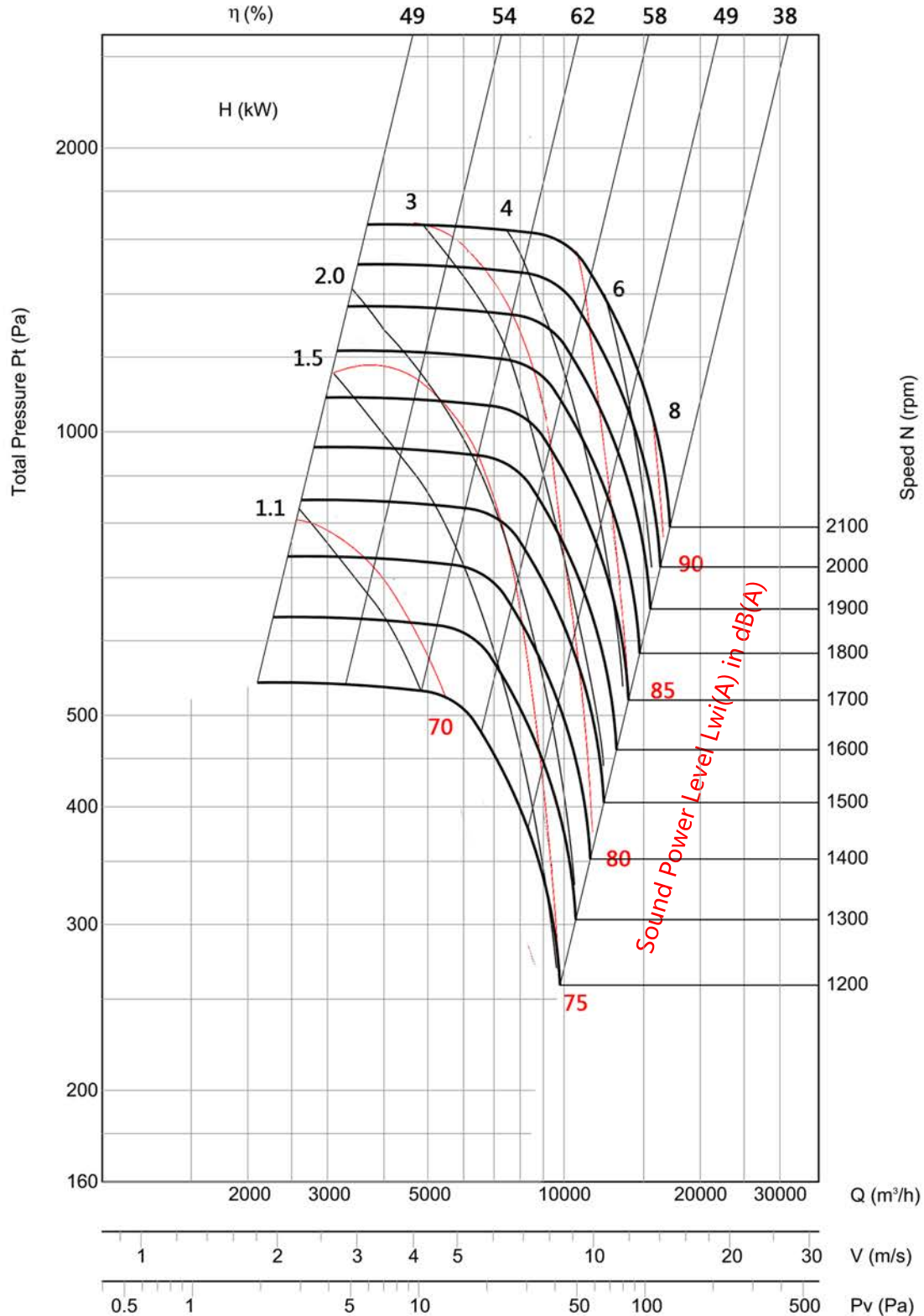


## DTF-BF450

### Backward Curved Centrifugal Fans (DIDW)

- Model DTF-BF450 is not licensed to bear the AMCA Certified Ratings Seal.

$\rho : 1.2\text{kg/m}^3$



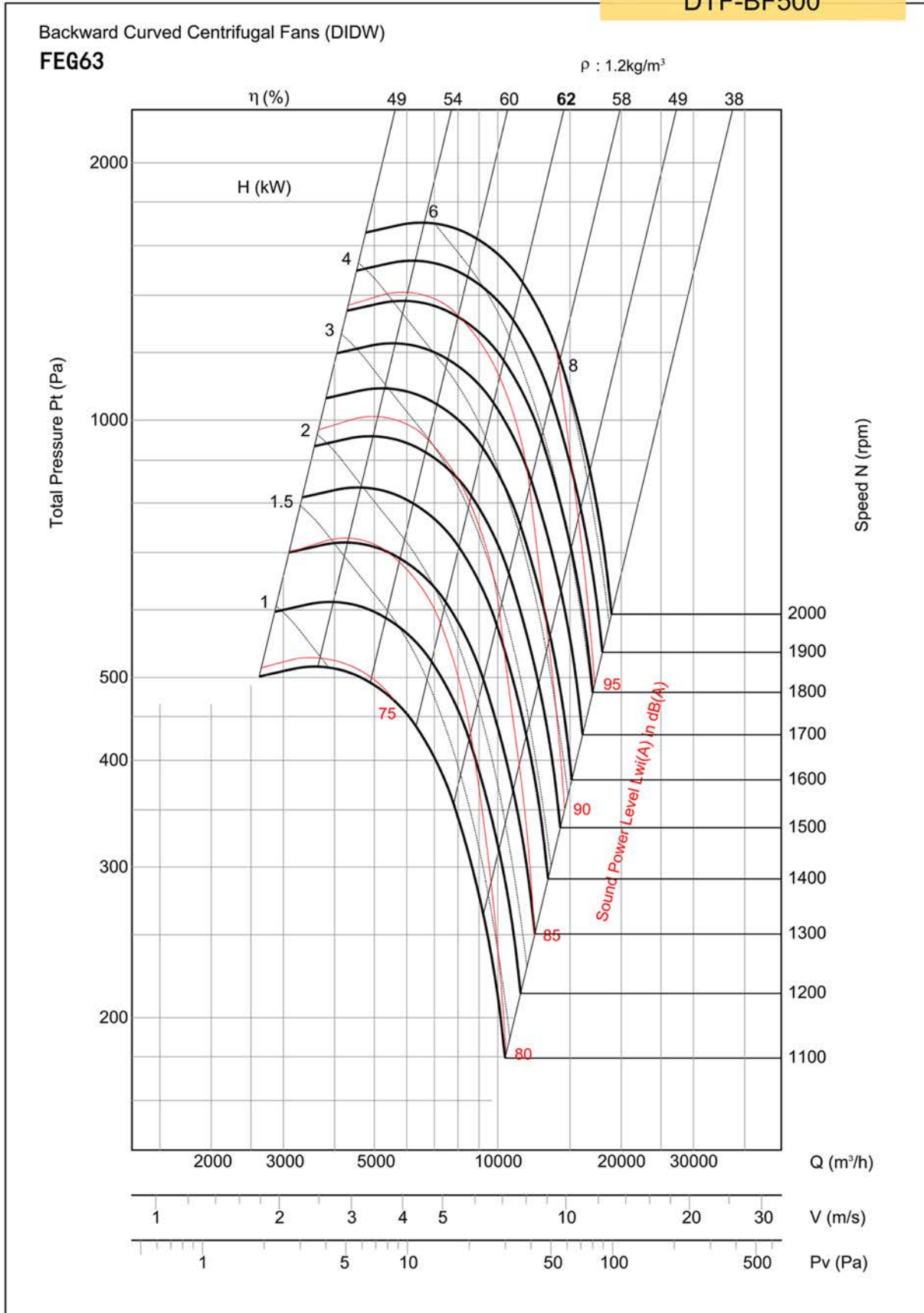
- Performance is for installation type D - Ducted inlet, Ducted outlet. Power rating kW does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories)  
 - The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwiA sound power levels for installation Type D: ducted inlet, ducted outlet.



# DTF-BF Series Backward Curved Belt Driven Fans



DTF-BF500



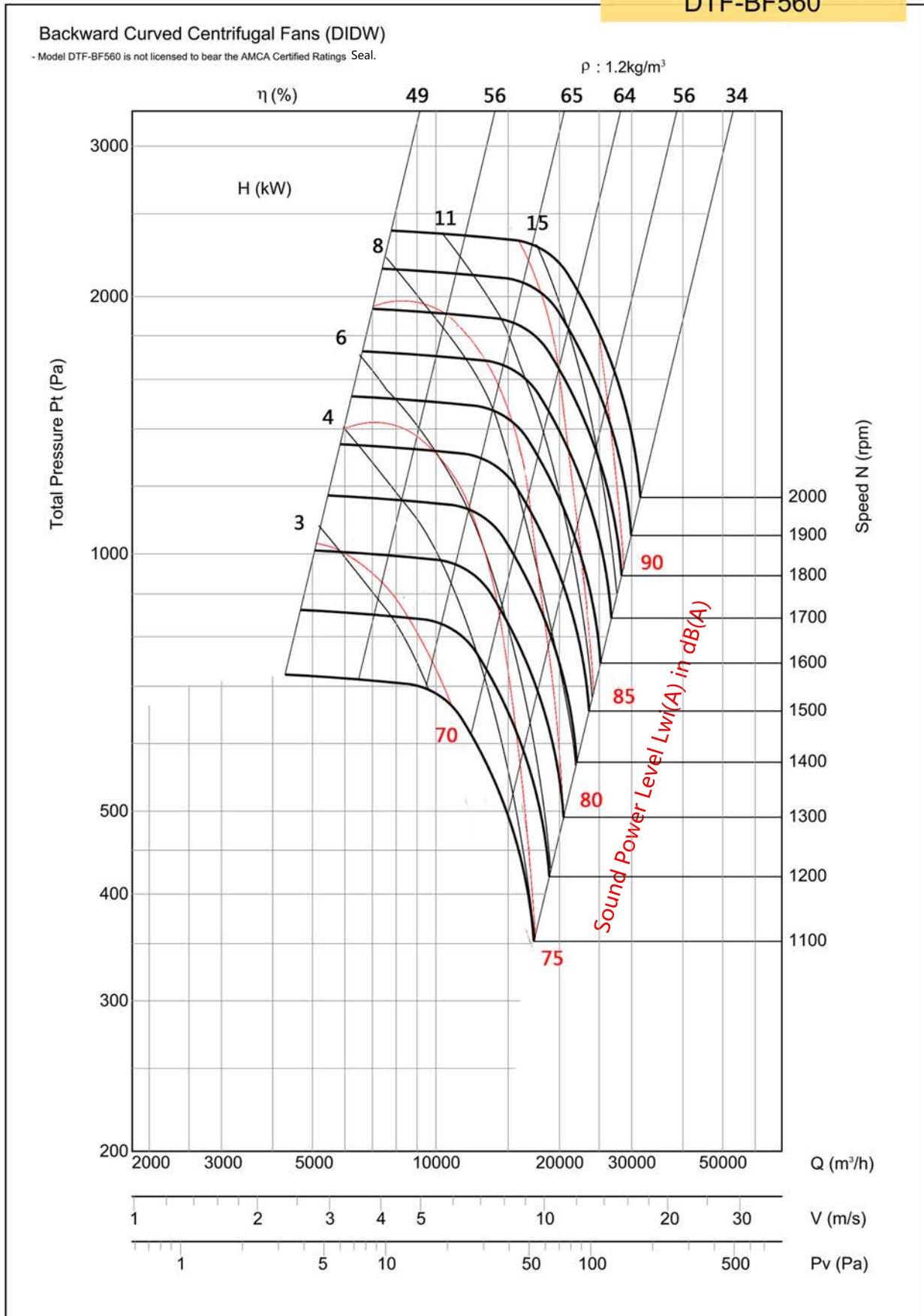
- Performance certified is for installation type D - Ducted inlet, Ducted outlet. Power rating kW does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories)  
 - The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for installation Type D: ducted inlet, ducted outlet.



# DTF-BF Series Backward Curved Belt Driven Fans



## DTF-BF560



- Performance is for installation type D - Ducted inlet, Ducted outlet. Power rating kW does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories)  
 - The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for installation Type D: ducted inlet, ducted outlet.

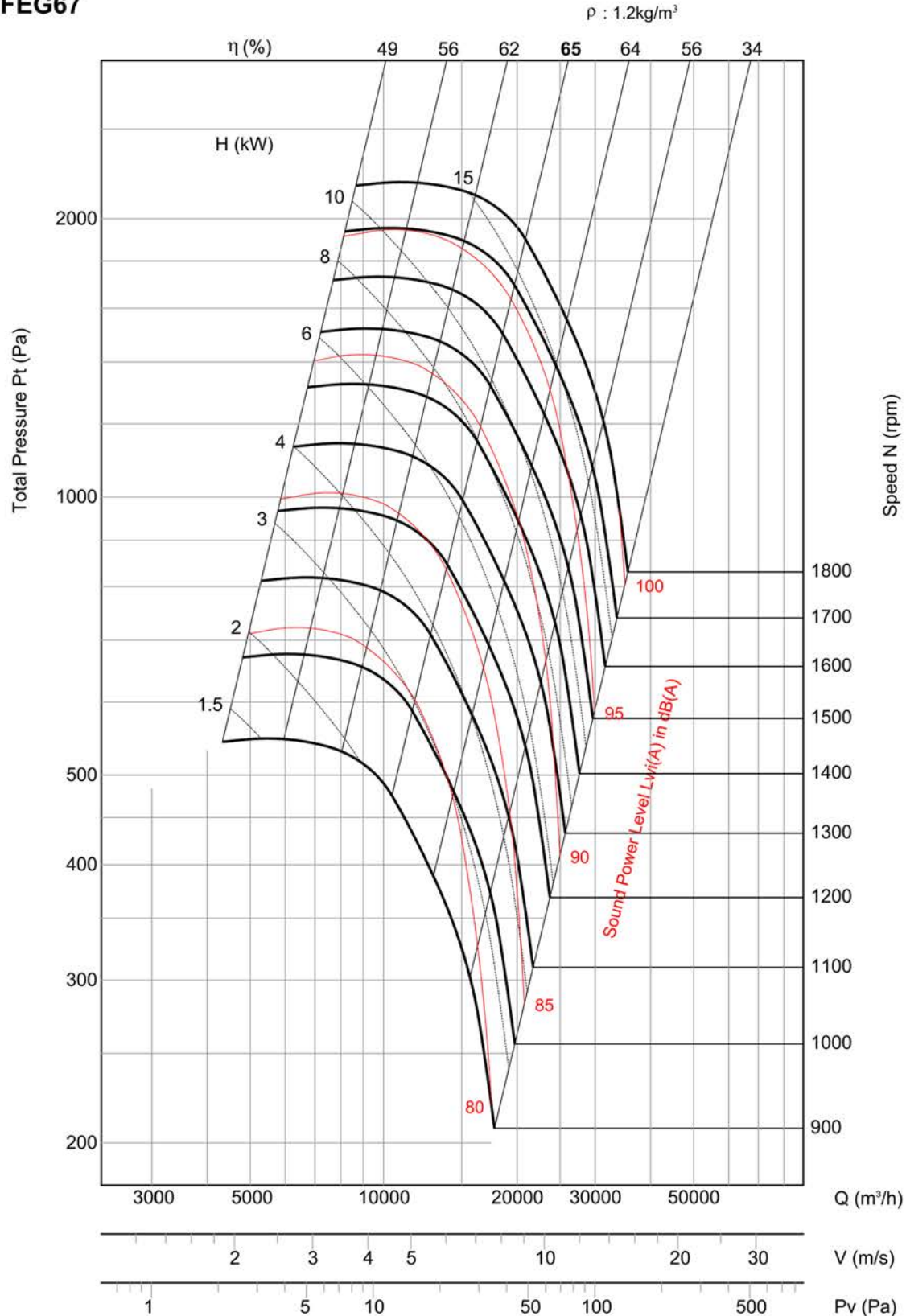


# DTF-BF Series Backward Curved Belt Driven Fans



**DTF-BF630**

Backward Curved Centrifugal Fans (DIDW)  
**FEG67**



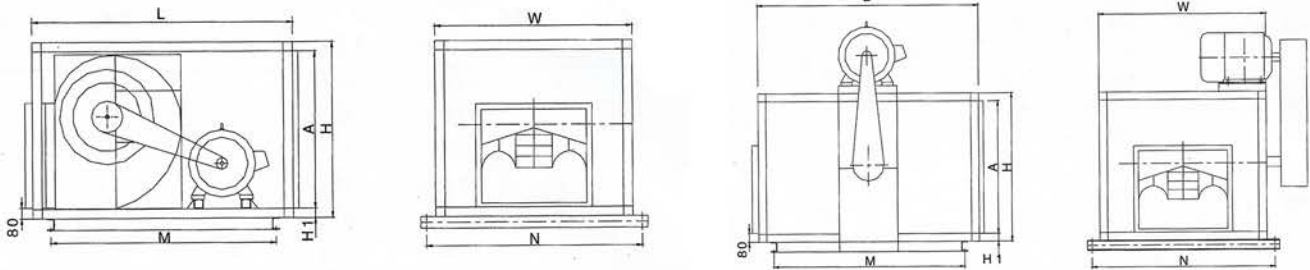
- Performance certified is for installation type D - Ducted inlet, Ducted outlet. Power rating kW does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories)  
 - The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet Lw(A) sound power levels for installation Type D: ducted inlet, ducted outlet.



# DTF-BF Series Backward Curved Belt Driven Fans



## DIMENSION (mm)



Model No	Length		Width	Height	Outlet Dimension		Inlet Dimension		Mounting Feet Dimension				Weight (Kg)	
	Type A	Type B			A	B	A	B	Type A		Type B		Type A	Type B
									M	N	M	N		
250	610	960	610	576	320	320	507	473	710	575	925	710	90	88
280	670	1040	670	634	360	360	567	531	770	635	1005	770	95	92
315	770	1150	770	694	404	404	667	591	870	730	1115	870	120	115
355	844	1210	844	770	452	452	743	667	944	820	1175	944	141	113
400	890	1280	890	852	506	506	887	749	990	865	1255	990	161	152
450	1060	1400	1060	943	568	568	957	840	1160	1020	1360	1160	228	219
500	1180	1470	1180	1034	638	638	1077	931	1280	1140	1430	1280	298	289
560	1290	1630	1290	1146	714	714	1187	1043	1390	1250	1590	1390	402	392
630	1460	1750	1460	1273	800	800	1357	1170	1560	1420	1710	1560	482	472

## GENERAL TECHNICAL CHARACTERISTICS

Model Type	Motor Power Kw		Fan Speed (RPM)		Air Volume (m <sup>3</sup> /h)		Max weight with motor (Kg)
	Min	Max	Min	Max	Min	Max	
DTF-BF/250	0.37	1.5	2000	3200	1300	3900	142
DTF-BF/280	0.75	3	2200	5900	2200	5200	133
DTF-BF/315	0.75	4	1700	3000	2400	7800	189
DTF-BF/355	1.1	5.5	1600	2800	2400	9800	238
DTF-BF/400	1.1	5.5	1300	2300	2800	10000	258
DTF-BF/450	1.5	7.5	1200	2100	3500	14000	325
DTF-BF/500	2.1	11	1100	2000	3800	21000	454
DTF-BF/560	3	15	1100	1800	5700	23000	541
DTF-BF/630	5.5	22	1100	1700	8200	23000	692



# WING TON FAN INDUSTRY LIMITED



READY IN 2014



Address: 3C Kam Shing Industrial Building 1-11 Kwai Wing Road Kowloon, Hong Kong.

Tel: 852-2410 9038

Fax: 852-2487 7317

E-mail: [wtfans@netvigator.com](mailto:wtfans@netvigator.com)

[gary @wington.net](mailto:gary@wington.net)

<http://www.wington.com>

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