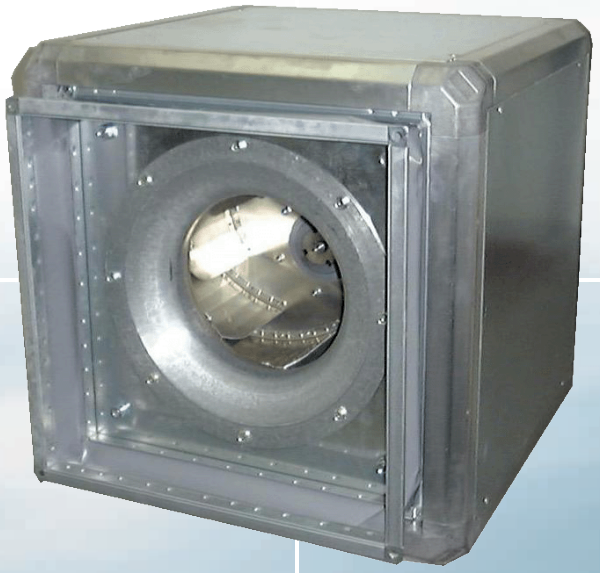


In-Line Centrifugal Fans

- WMF Series

Air in Motion.

Wolter Fans.

K01.WMF

wolter

Table of Content

Subject to change without prior notice.

WMF 250PF to 1000PF

c/w 25 or 50mm acoustic as optional
13 diameters - 250, 280, 315, 355, 400, 450, 500, 560, 630, 710, 800, 900 and 1000mm

Design features

Performance

The in-line centrifugal flow fan has all the advantage of axial flow and centrifugal fans. i.e. straight airflow, light weight, compact and space saving design, easy installation, high-pressure stability, low noise level and low running costs. The fans are specially designed with build-in inlet cone to achieve high static efficiency and high volume flow. The performance range is from 50 up to 50,000 m3/hrs on air volume, at static pressure up to 3000 Pa.

Fan Housing

Wolter's WMF250PF to 1000PF rigidly constructed fans box housing made from extruded Aluminium profiles with flame retardant plastic or aluminium corners, side plates and mounting feet for bolting onto supports are fabricated from heavy gauge pre-galvanised sheet.

Fans inlet and outlet can be fitted with DW142 flanges suitable for direct connection to flexible connector are designed for easy removal and installation. The fans housing are design for easy access to the impeller and drive with access panel to facilitated easy maintenance. All steel components are supplied with zinc plated and finish as standard. For special applications, motors can be installed externally on fan housing.

Acoustic Housing - Optional 50mm Acoustic Panel

Frame housing made from extruded Aluminium profiles with flame retardant plastic or aluminium corners The external side plates are made from pre-galvanized sheet metal with internal perforated galvanized sheet as standard. Epoxy coat as optional. Access panel are provided on each enclosure so that all removable parts can be assessed for maintenance purpose.

Cabinet housing insulated to ensure low noise levels are internally acoustic lining with 32 kg/m3 Fibreglass of inert, non-hygroscopic, vermin and moisture proof as well as asbestos and CFC free and not support growth of bacteria. Servicing side door on request. For weatherproof version, side plates are made of aluminium and a weather-hood is added.

Centrifugal Plug fan Impeller

Wolter backward curve impellers are manufactured from sheet steel as standard.

Finished in epoxy paint as optional. The special design blade configuration guarantees high volume flow and static efficiency with low noise operation. Impellers are statically and dynamically balanced in accordance to quality level G2,5 ISO 21940-11:2017-03 / VDI 2060 Q2.5 / AMCA 204.

Motor

Wolter uses standard closed squirrel cage motor with airstreams rated to IEC 34, if required also in accordance to EPACT. The standard motors have Class F and enclosure IP54 or IP55. Continuous operating ranges from -40°C to +40°C, other operating condition on demand. Multi speed versions with 2 or 3 speeds as optional, TAB or DUAL wounded are also available. The motor bearings have a L10 life. The motors are single/three phase, 50/60 Hz suitable for 220~240 or 380~415 volts. All other voltage can be supplied upon request.

Model with suffix "R" come with external rotor motors are in protection class IP44, IP54 available upon request.

The winding insulation corresponds to insulation Class F with thermal contacts, wired in series suitable for 5-step or 100% speed controllers. Max allowed voltage tolerance of plus and minus 10% is valid. Flying leads as standard. Special cable lengths and fans with mounted terminal box on request

Accessories (optional)

The following accessories are available:

- Flexible connection:
  The flexible connection consists of two galvanized flange, assembled with a gas-tight canvas.Please note that the dimensions of suction side and outlet side can be different and the correct one has to be chosen
- Inlet and outlet flange:
  Equivalent to flexible connection fitting flanges of specification in accordance to DW142 for inlet and outlet side can be ordered. They are pre-galvanized on both sides
- Dampers:
  The self-working dampers with blades made of weatherproof plastic and aluminium frames has to be mounted at the suction side. Motor driven volume control dampers "JK" made of strong extruded aluminium profile are also available at Wolter with any dimension

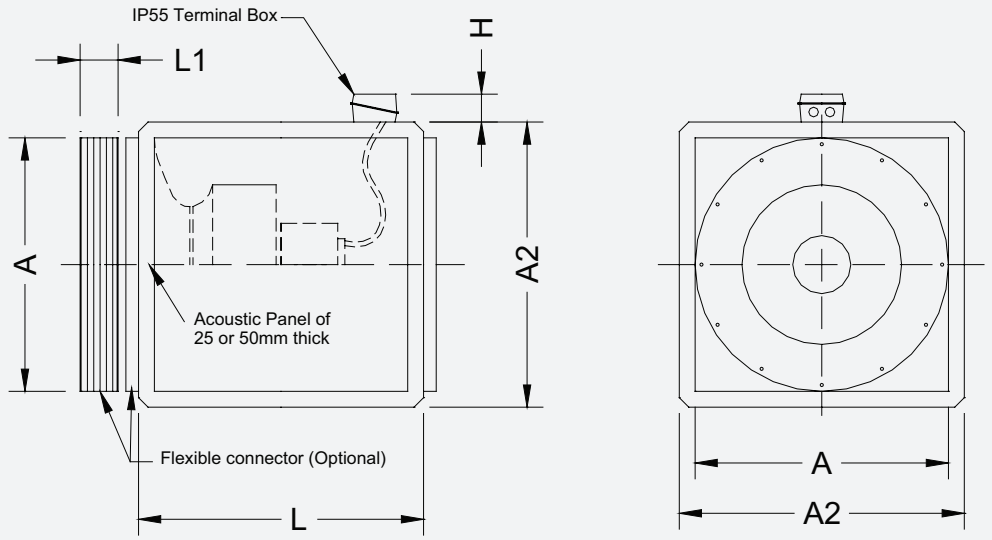
- Motor with 100% speed controllable
- Motor with protection through thermal contact
- Protective guard
- Anti-vibration mounting isolators

Sound levels

The ascertaining of the sound level follows the Reverberant Room Method in accordance to AMCA 300. The A-weighted sound power levels is shown on the performance curves.

The sound power level at the different octave band mid-frequencies relevant for the interpretation of sound absorbers can be calculated by means of an equation.

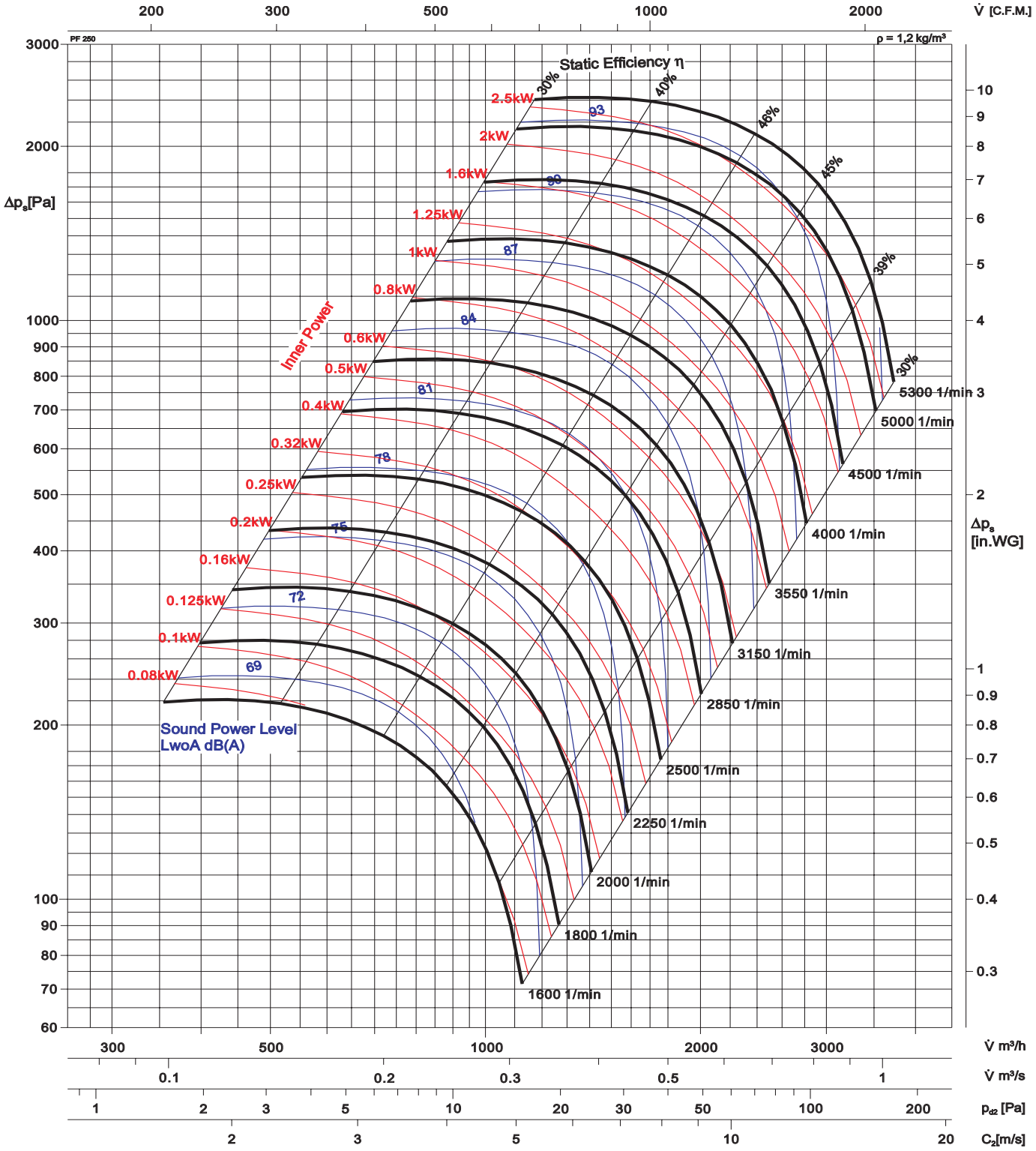
Dimensions



WMF	A	A2						H	L			L1	Weight
		Single Skinned PF25	Double Skinned PF25	Single Skinned PF50	Double Skinned PF50	Single Skinned PF100	Double Skinned PF100		PF25	PF50	PF100		PF50 w/o Motor
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]
250	450	500	500	550	550	-	-	60	450	500	-	140	30
280	500	550	550	600	600	-	-	60	500	550	-	140	34
315	550	600	600	650	650	-	-	60	550	600	-	140	37
355	600	650	650	700	700	-	-	60	600	650	-	140	41
400	650	700	700	750	750	-	-	60	650	700	-	140	45
450	700	750	750	800	800	-	-	60	700	750	-	140	64
500	800	850	850	900	900	-	-	88	800	850	-	140	81
560	850	900	900	950	950	-	-	88	850	900	-	140	99
630	900	950	950	1000	1000	-	-	88	900	950	-	140	118
710	1000	1050	1050	1100	1100	1200	1200	88	1000	1050	1050	140	182
800	1100	-	-	1200	1200	1300	1300	88	1100	1150	1150	140	210
900	1250	-	-	1350	1350	1450	1450	88	1250	1300	1300	140	242
1000	1350	-	-	1450	1450	1550	1550	88	1350	1400	1400	140	278

• We reserve the right to alter measurements without notice in case of technical improvements.

WMF 250PF

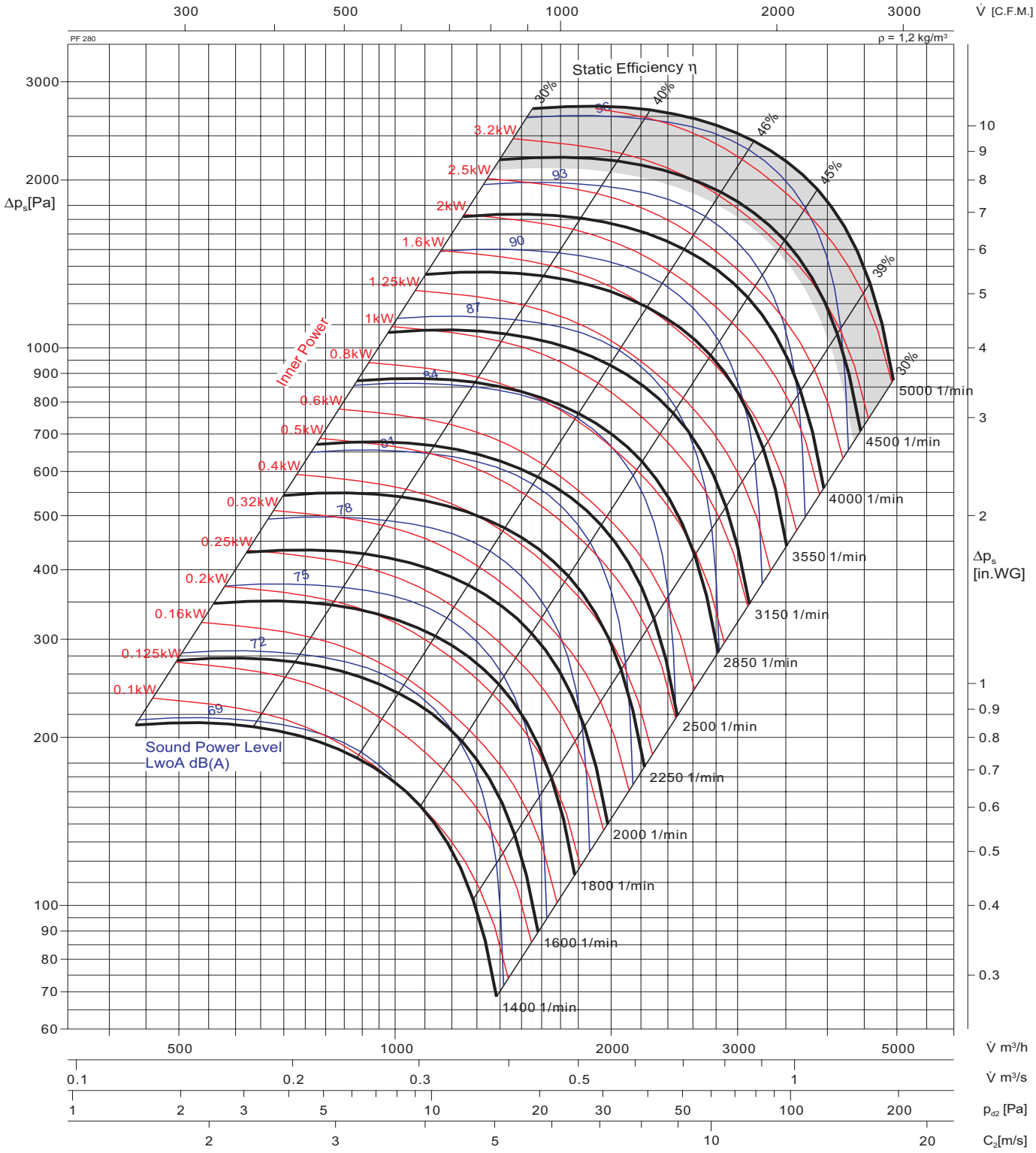


Relative frequency spectrum in ΔdB/Okt

N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
2 Pole	-7.5	-7.5	-8.6	-9.0	-7.1	-10.8	-11.1	-16.5
4 Pole	-6.7	-7.8	-8.2	-6.4	-10.0	-10.3	-15.7	-17.8

Note: Perforamnce test method per AMCA 210 / ISO 5801 with one side open

WMF 280PF

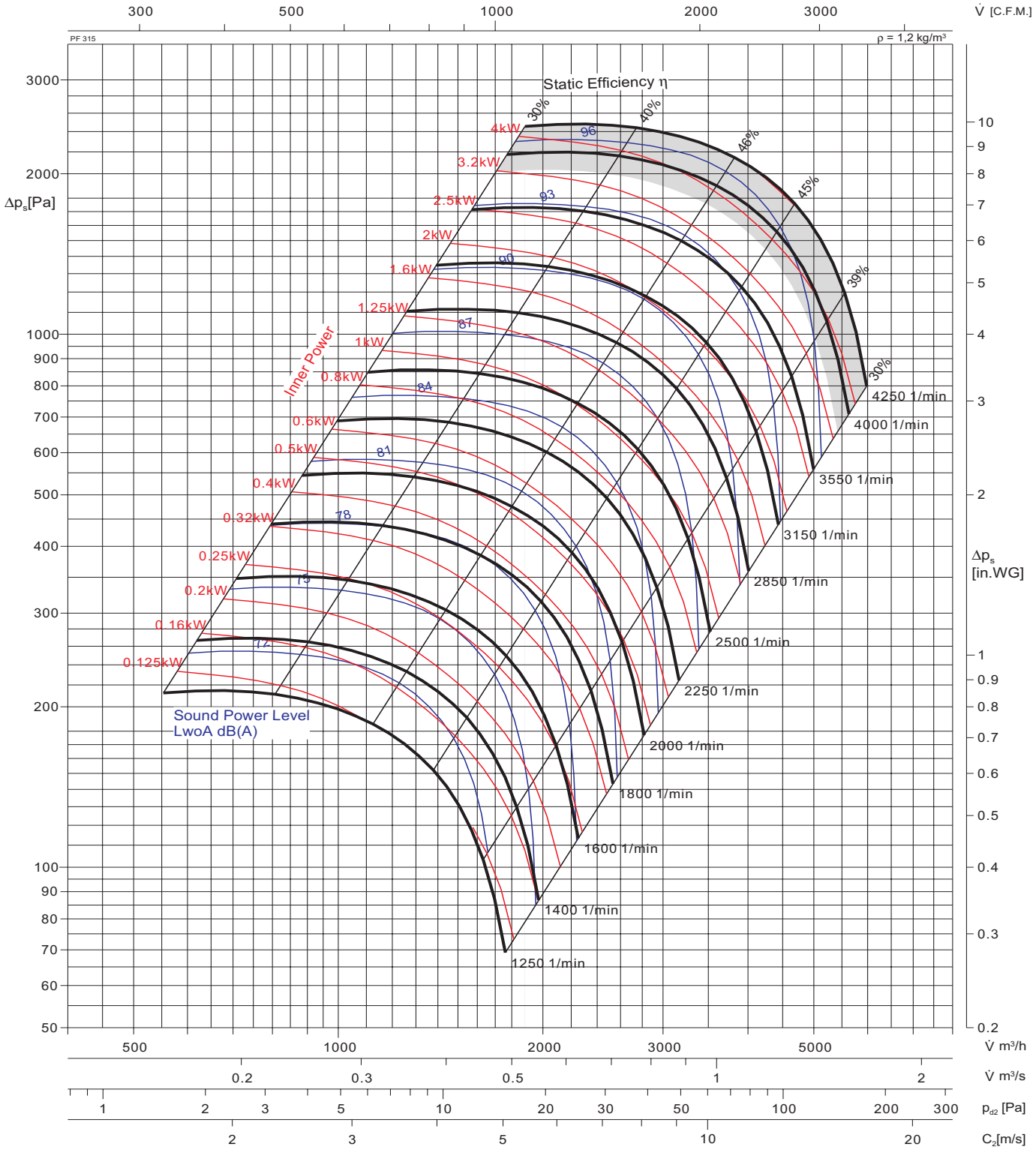


Relative frequency spectrum in ΔdB/Okt

N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
2 Pole	-7.2	-7.2	-8.5	-8.9	-7.3	-11.2	-11.7	-17.1
4 Pole	-6.4	-7.7	-8.0	-6.4	-10.4	-10.8	-16.2	-18.4

Note: Perforamnce test method per AMCA 210 / ISO 5801 with one side open

WMF 315PF



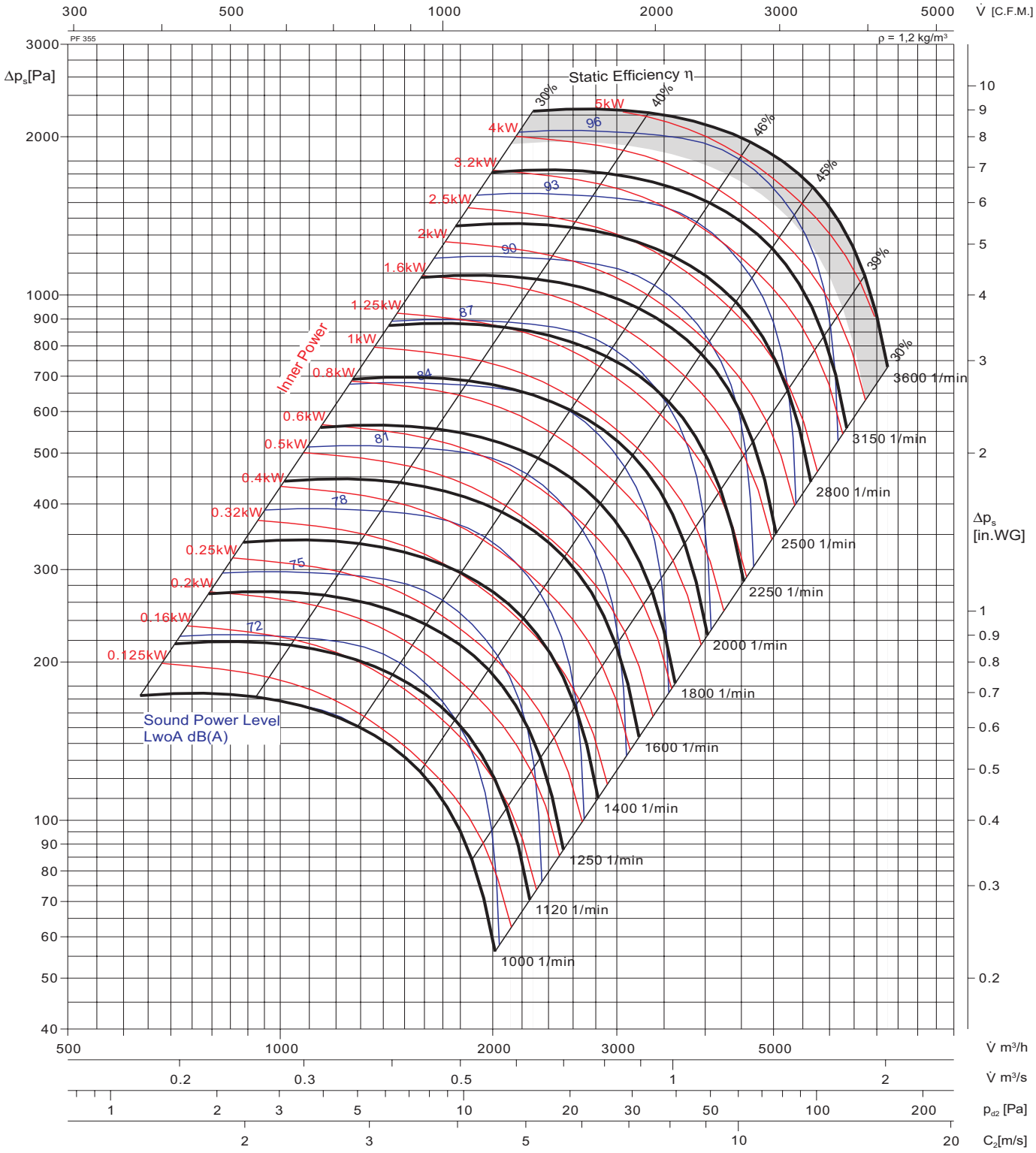
Relative frequency spectrum in ΔdB/Okt

N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
2 Pole	-7.0	-7.0	-8.5	-8.8	-7.5	-11.7	-12.2	-17.7
4 Pole	-6.0	-7.5	-7.9	-6.6	-10.7	-11.3	-16.8	-18.9

Note: Perforamnce test method per AMCA 210 / ISO 5801 with one side open

-7.0 -8.5 -8.8 -7.5 -11.7 -12.2 -17.7
-7.5 -7.9 -6.6 -10.7 -11.3 -16.8 -18.9

WMF 355PF



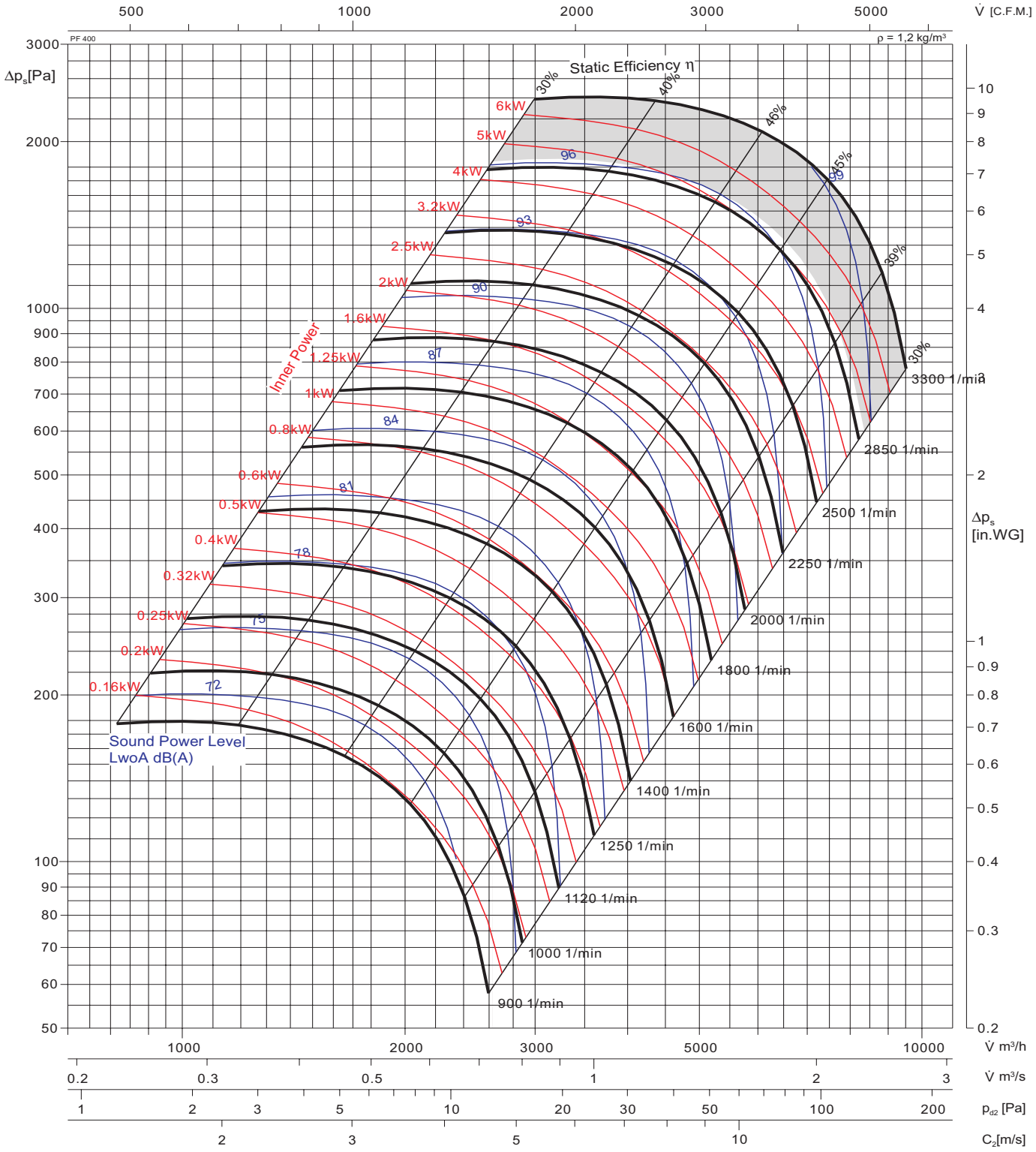
Relative frequency spectrum in ΔdB/Okt

N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
2 Pole	-6.7	-6.7	-8.5	-8.7	-7.8	-12.2	-13.1	-17.8
4 Pole	-5.6	-7.4	-7.7	-6.7	-11.1	-12.0	-16.7	-20.0

Note: Perforamnce test method per AMCA 210 / ISO 5801 with one side open

In-Line Centrifugal Fan
Performance Curves

WMF 400PF



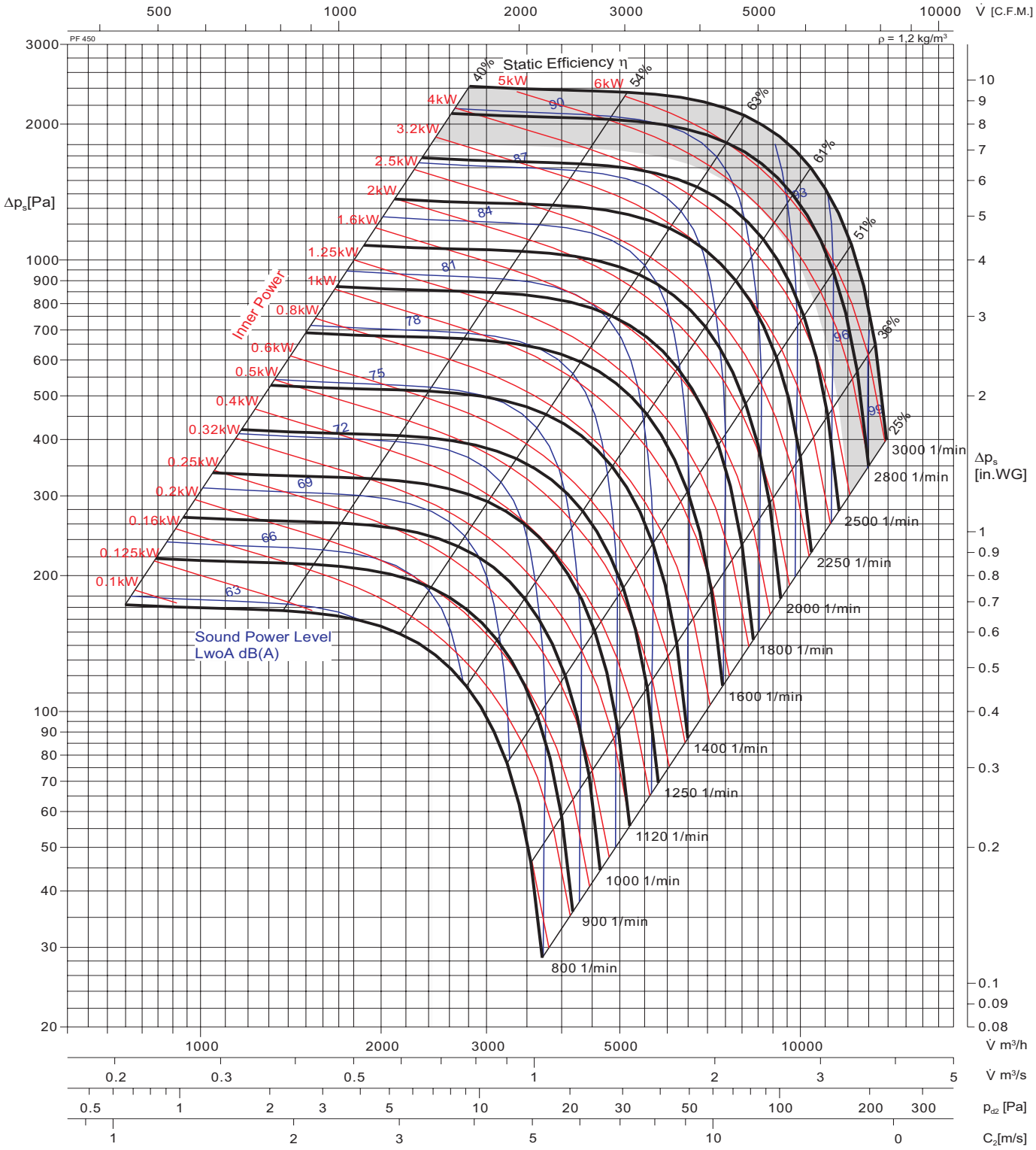
Relative frequency spectrum in ΔdB/Okt

N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
2 Pole	-6	-6	-9	-9	-8	-13	-14	-19
4 Pole	-5	-7	-8	-7	-12	-12	-18	-20
6 Pole	-6	-7	-6	-9	-12	-14	-19	-19

Note: Perforamnce test method per AMCA 210 / ISO 5801 with one side open

-6.4 -6.4 -8.5 -8.7 -8.1 -12.7 -13.5 -19.0
-5.3 -7.4 -7.7 -7.0 -11.6 -12.4 -17.9 -20.1
-5.7 -6.6 -6.1 -8.6 -11.6 -14.2 -19.3 -18.9

WMF 450PF

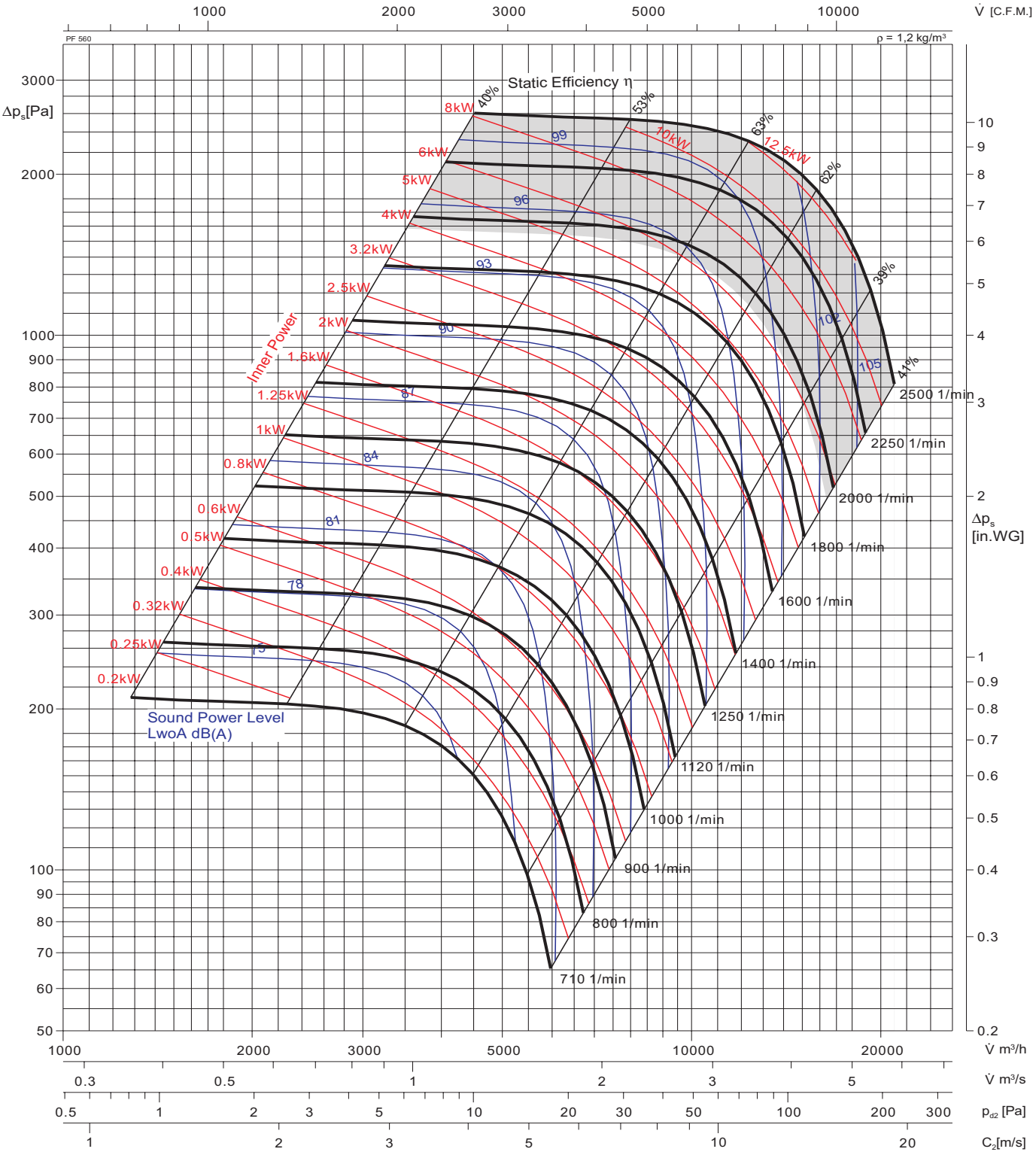


Relative frequency spectrum in ΔdB/Okt

N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
2 Pole	-14	-14	-8	-8	-7	-6	-9	-15
4 Pole	-14	-8	-8	-7	-6	-9	-15	-22
6 Pole	-11	-8	-7	-6	-7	-12	-19	-26

Note: Perforamnce test method per AMCA 210 / ISO 5801 with one side open

WMF 500PF

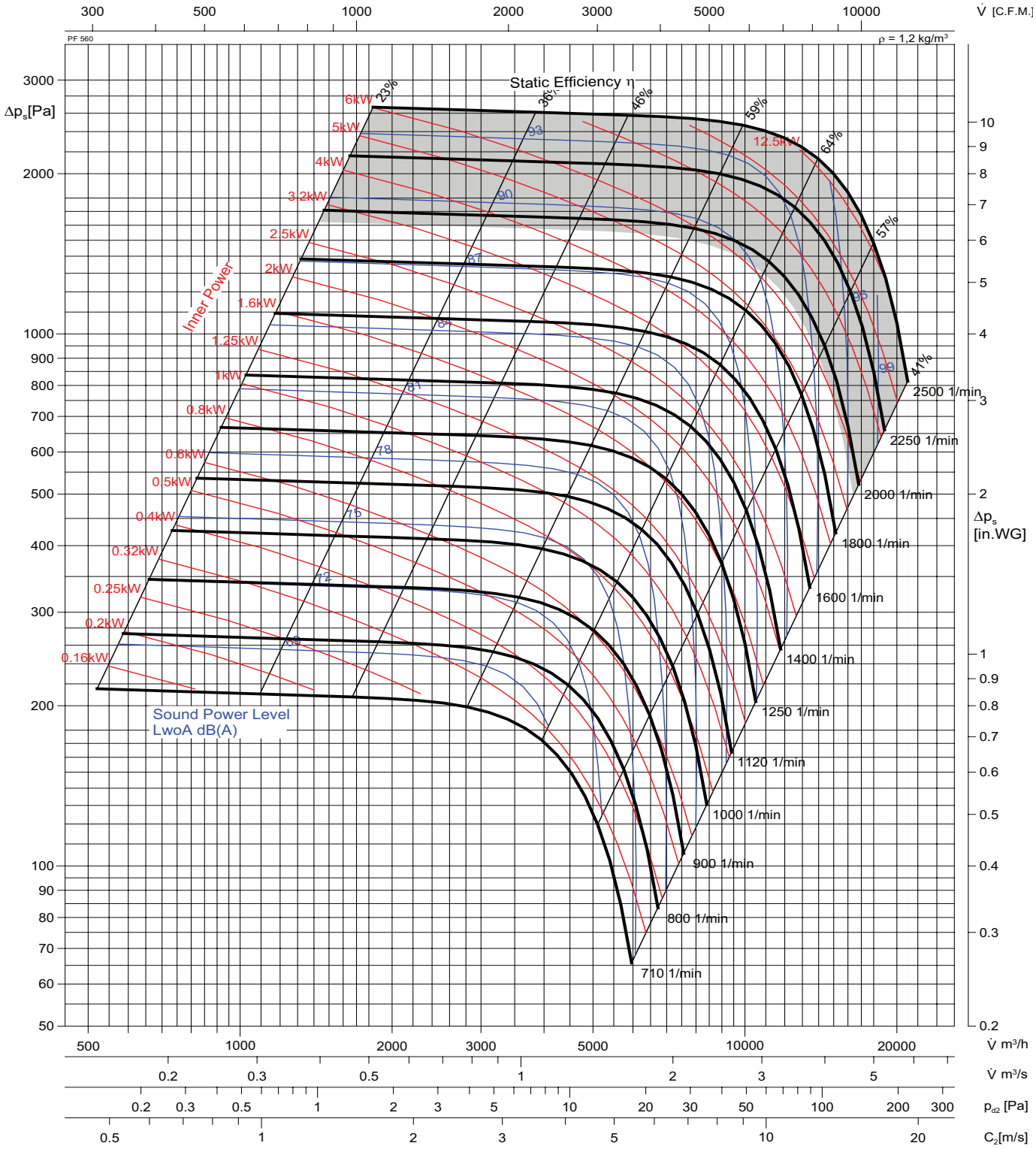


Relative frequency spectrum in ΔdB/Okt

N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
4 Pole	-13	-8	-8	-7	-6	-9	-15	-23
6 Pole	-10	-7	-7	-6	-7	-12	-20	-26

Note: Perforamnce test method per AMCA 210 / ISO 5801 with one side open

WMF 560PF

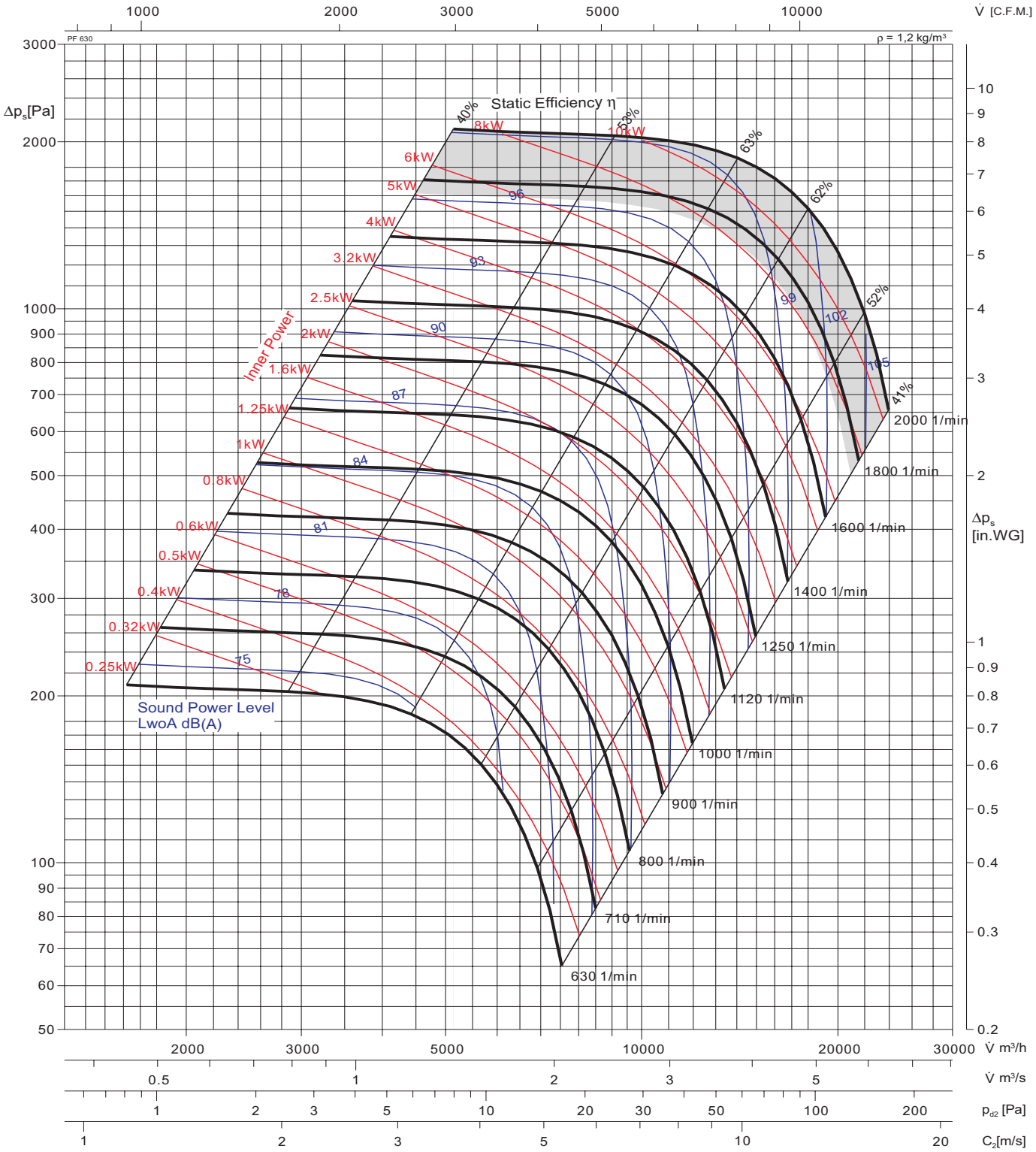


Relative frequency spectrum in ΔdB/Okt

N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
4 Pole	-13	-8	-7	-7	-6	-9	-16	-23
6 Pole	-10	-7	-7	-6	-7	-12	-20	-27

Note: Perforamnce test method per AMCA 210 / ISO 5801 with one side open

WMF 630PF

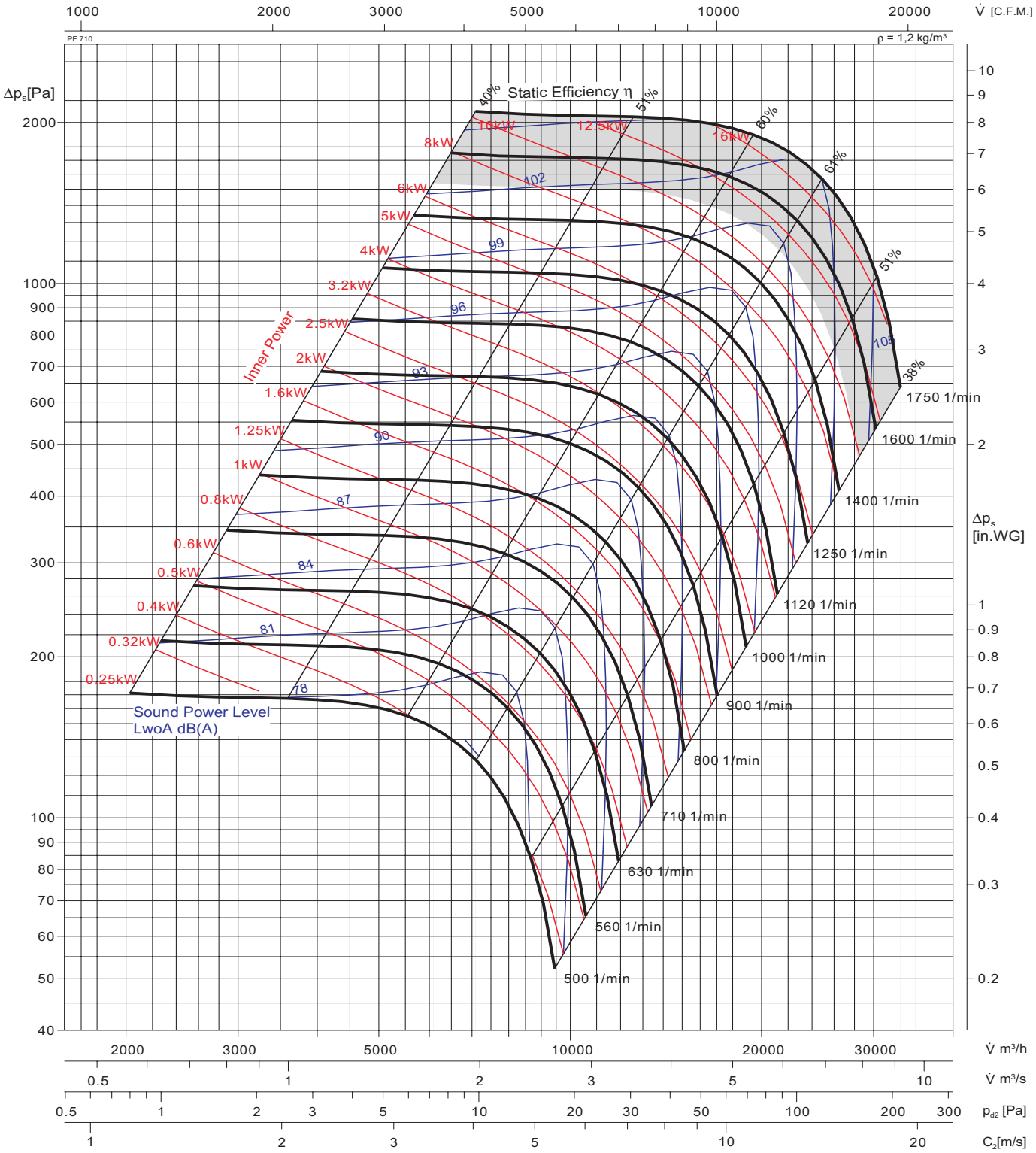


Relative frequency spectrum in ΔdB/Okt

N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
4 Pole	-12	-8	-7	-7	-6	-9	-16	-23
6 Pole	-9	-7	-7	-6	-7	-13	-20	-27
8 Pole	-8	-7	-7	-6	-9	-16	-23	-30

Note: Perforamnce test method per AMCA 210 / ISO 5801 with one side open

WMF 710PF

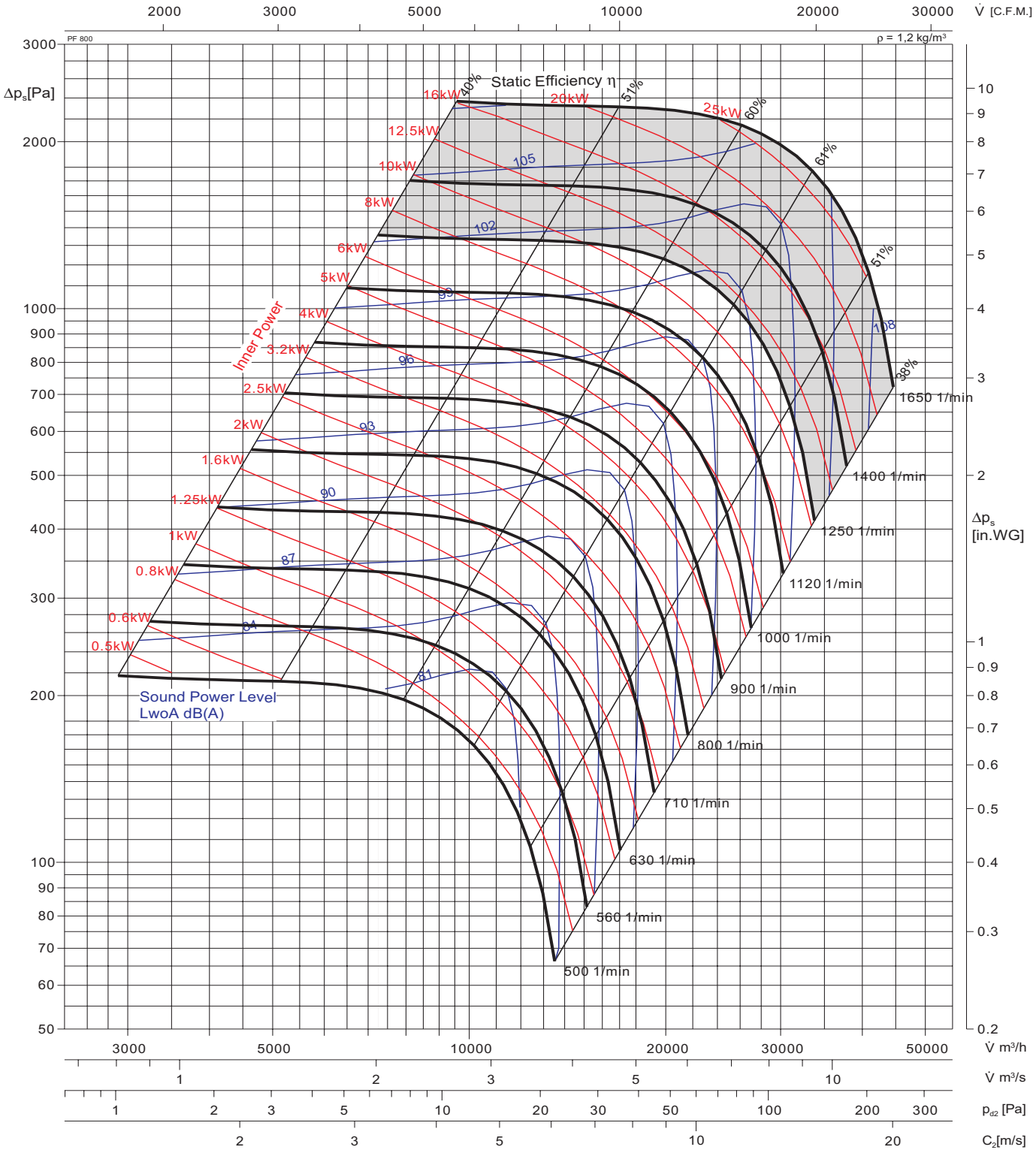


Relative frequency spectrum in ΔdB/Okt

N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
4 Pole	-12	-13	-8	-6	-7	-8	-12	-20
6 Pole	-13	-8	-6	-6	-7	-10	-17	-25
8 Pole	-13	-7	-5	-6	-7	-12	-20	-28

Note: Perforamnce test method per AMCA 210 / ISO 5801 with one side open

WMF 800PF

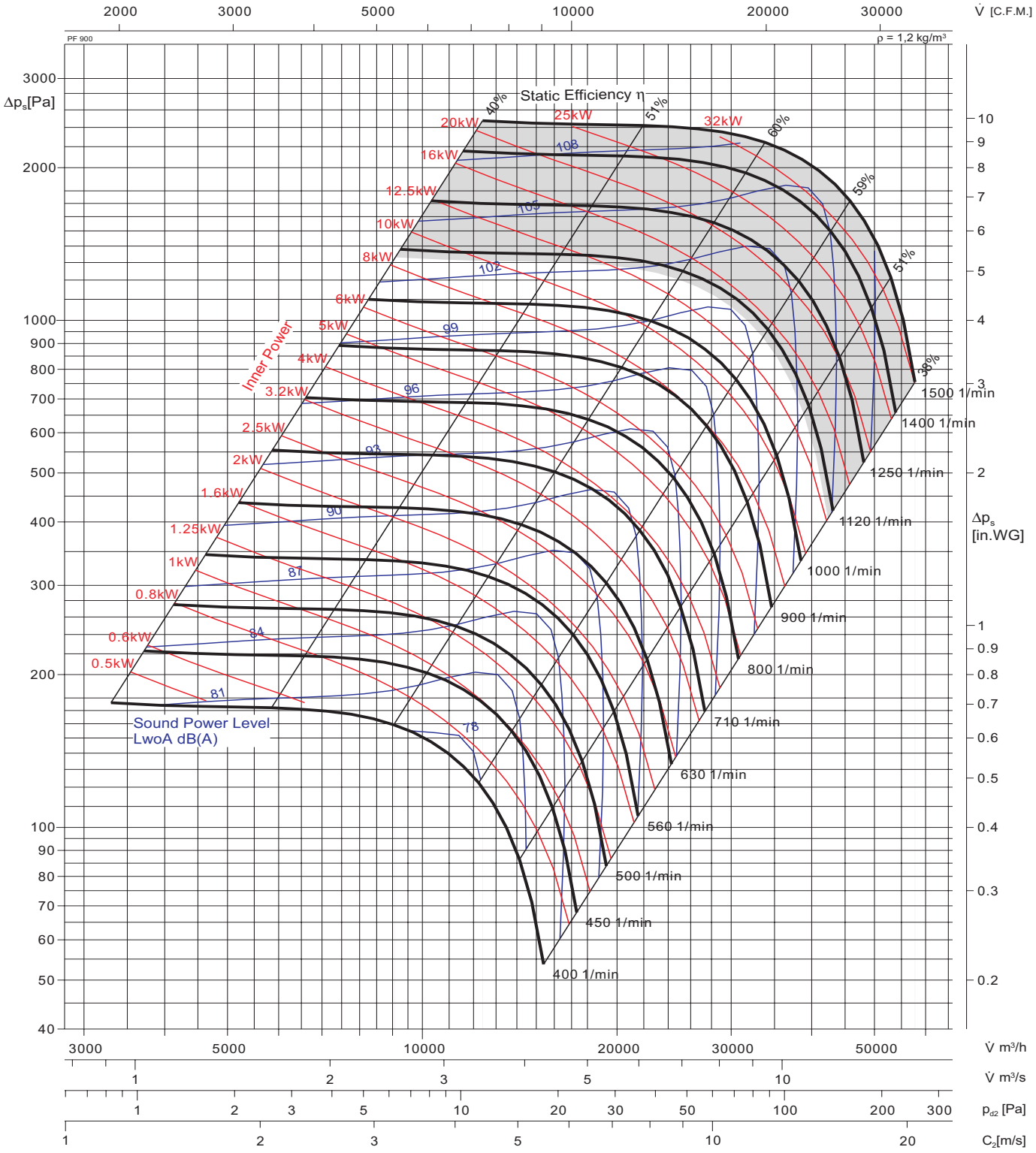


Relative frequency spectrum in ΔdB/Okt

N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
4 Pole	-11	-12	-8	-6	-7	-8	-13	-21
6 Pole	-13	-8	-6	-6	-7	-10	-17	-26
8 Pole	-12	-7	-5	-7	-7	-12	-20	-28

Note: Perforamnce test method per AMCA 210 / ISO 5801 with one side open

WMF 900PF

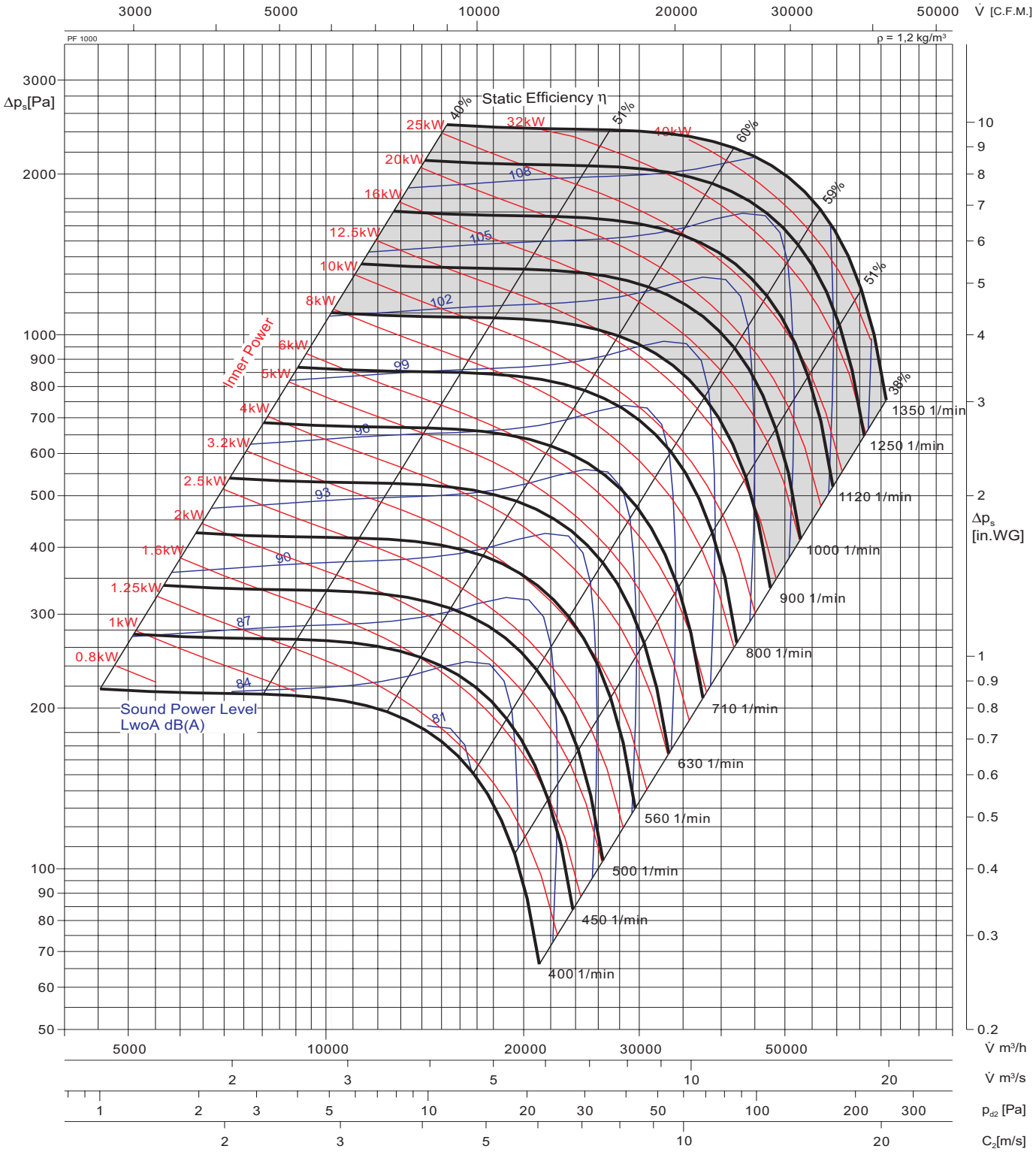


Relative frequency spectrum in ΔdB/Okt

N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
4 Pole	-10	-6	-7	-7	-8	-13	-18	-25
6 Pole	-7	-6	-7	-7	-10	-15	-22	-30
8 Pole	-5	-7	-6	-8	-12	-18	-25	-32

Note: Perforamnce test method per AMCA 210 / ISO 5801 with one side open

WMF 1000PF



Relative frequency spectrum in ΔdB/Okt

N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
4 Pole	-10	-12	-8	-6	-7	-8	-13	-21
6 Pole	-12	-7	-6	-7	-8	-10	-17	-26
8 Pole	-11	-7	-6	-7	-8	-13	-20	-29

Note: Perforamnce test method per AMCA 210 / ISO 5801 with one side open

Sales Network

Deutschland

Wolter GmbH.
Maschinen-und Apparatebau KG.
DE-76316 Malsch
T +49 (0) 72 04 / 92 01 0
F +49 (0) 72 04 / 92 01 11
info@wolter.eu

Europe

Denmark:

L.ØLAND VENTILATION A/S
DK-2605 Brøndby
T +45 (0) 70 / 20 19 11
salg@airforce.dk

Netherlands:

DE WIT Ventilatoren BV
NL-3821 CG Amersfoort
T +31 (0) 33 / 76 00 240
info@dewitventilatoren.nl

Sweden:

Nordisk Ventilator AB
SE-142 50 Skogås
T +46 (0) 8 / 72 70 250
se@nordiskventilator.se

Switzerland:

Anson AG Zürich
CH-8055 Zürich
T +41 (0) 44 / 46 11 111
F +41 (0) 44 / 46 13 111
info@anson.ch

OZ Tech SA
CH-1122 Romanel-sur-Morges
T +41 (0) 76 / 41 11 572
info@oztech.ch

United Kingdom:

Wolter (UK) Ltd.
GB-Leicestershire LE65 1AL
T +44 (0) 15 30 / 41 24 73
info@wolteruk.com

Middle East

UAE, Saudi Arabia, Qatar, Lebanon:

Please contact Wolter head office

Wolter GmbH.
Maschinen-und Apparatebau KG.
DE-76316 Malsch
T +49 (0) 72 04 / 92 01 0
F +49 (0) 72 04 / 92 01 11
info@wolter.eu

Asia

China:

Guangdong Wolter Chemco Ventilation Ltd.
Boluo, Huizhou, Guangdong

Dongguan Wolter Chemco Ventilation Ltd.
Shipai, Dongguan, Guangdong
T +86 (0) 769 / 8655 7298
F +86 (0) 769 / 8655 7278
info@wolter.com.hk

Taizhou Wolter Ventilation Co. Ltd.
Hengjie, Luqiao District,
Taizhou, Zhejiang
T +86 (0) 576 / 26 22 666 (26 52 888)
F +86 (0) 576 / 26 56 830

China - Hong Kong, Macau:

Wolter Asia Ltd
Kowloon, Hong Kong
T +852 (0) 2456 0198
F +852 (0) 2456 0290
info@wolter.com.hk

China - Taiwan:

Waxlink International Co., Ltd.
8F-2 No.218 Roosevelt Rd.,
Sec,6, Taipei, Taiwan
T +886 (0) 2 / 8932 1196
F +886 (0) 2 / 8932 1197
waxlink@mail.waxlinktw.com

India:

Wolter Ventilators India Pvt. Ltd.
867 D, Block-A, Sushant Lok, Phase-I,
Gurgaon - 122009 (Haryana)
T +91 (0) 124 2577797, 4261001-3
sales@wolterindia.in

Korea:

Kaceco-Wolter
14-1, Dang-dong, Gunpo-shi,
Gyeonggi-do
T +(82) 0 31 / 4773 104
F +(82) 0 31 / 4773 132
wolter@kaceco.com
info@kaceco.com

Malaysia:

Vibrantech (M) Sdn Bhd.
47200 Petaling Jaya Selangor
T +603 (0) 7847 3500
F +603 (0) 7847 3380
sales@vibrantech-sb.com

Singapore:

Wolter Pte. Ltd.
SG-569738 Singapore
T +65 (0) 63 / 52 95 48
F +65 (0) 63 / 52 95 47
info@wolterfans.com.sg

Thailand:

Wolter Ventilation Co., Ltd.
Thamai Kratumban Samutsakorn
74110 Thailand
T +66 (0) 84 555 2936
kongsakol@wolterfan.com

Australia

The Sydney Fan Company.
NSW 2147, Sydney, Australia
T +61 (0) 2 / 9624 4000
F +61 (0) 2 / 9624 4100
sales@thesydneyfancompany.com

Wolter GmbH
Maschinen-und Apparatebau KG
Am Wasen 11
DE-76316 Malsch / Germany
T +49 (0) 72 04 / 92 01 0
F +49 (0) 72 04 / 92 01 11
www.wolter.eu
info@wolter.eu

Air in Motion

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Dongguan Wolter Chemco Ventilation Ltd. (Wolter Asia)
Shipai, Dongguan City, Guangdong Province, P.R.China
Tel. (+86)769 8655 7298, Fax (+86)769 8655 7278
www.wolterfans.com
info@wolterfans.com