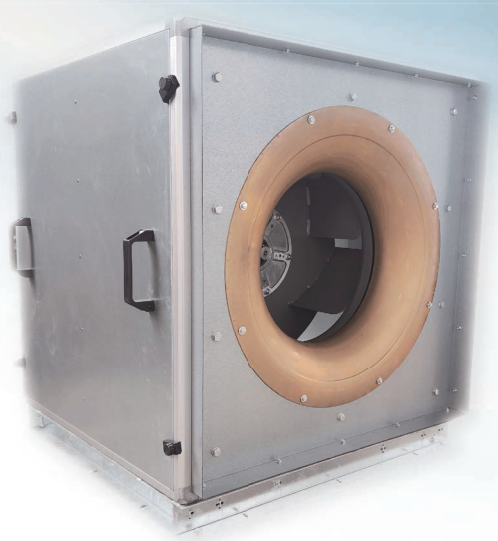
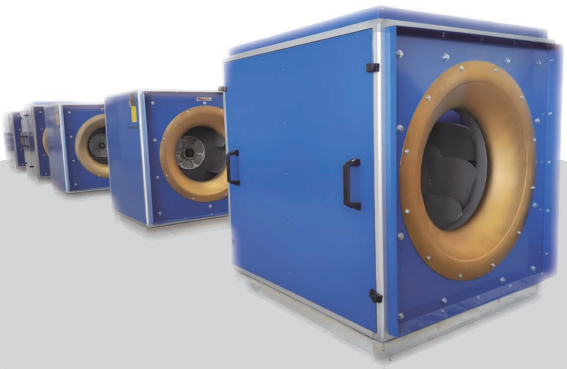
Air in Motion. - Wolter Fans

In-Line Centrifugal Fans

- WMF Explosion Proof Series
- 15 sizes from size 250 to 1250
- 25, 50 or 100mm acoustic as optional







Cert. No.:
TI26ATEX 16862X

K01.WMF.EX

wolter

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Subject to change without prior notice.

ATEX Explosion Proof -
In-Line Centrifugal Fan
General Information

Fan type code

WMF 500 - 4 Ex

- Explosion Proof ATEX
- Number of poles of motor: 2, 4, 6, 8
- Sizes 250 to 1250
- Model name



The marking of the fan included the flowing:
II 2 G Ex h IIB+H_2 T6 Gb **-20°C ≤ T_{amb} ≤ +60°C**

The Certificate Number: **TI26ATEX 16862X**

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. Standard size from 250 to 1250 are available. The performance range is from 220 up to 100,000 m^3/hrs on air volume, at static pressure up to 2,600Pa. The performance curves have been established in according to AMCA 210 / ISO 5801 / GB/T 1236.

Explosion proof fans with size from 250 to 1250 are available upon requested.

- Certified according to Directive 2014/34/EU as well as EN 60079-0, EN 1127-1, EN ISO 80079-36, EN ISO 80079-37 and EN 14986
- Applicable in categorie 2, zone 1 and 2
- Ex e increased safety respectively and Ex d = flameproof enclosure
- The fans are applicable for group IIA, IIB and IIC and also additional usable for hydrogen.
- Motor protection by cold conductor. Only certified when connected with a motor protection device

Fan Housing

Wolter's WMF 250 to 1250 rigidly constructed fans box housing made from extruded aluminium profiles and can be of flame retardant plastic or aluminium corners. Side plates and mounting feet for bolting onto supports are fabricated from heavy gauge pre-galvanised sheet, can be of aluminium or stainless steel sheet as well.

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. Explosion proof fans inlet cone come with sheet metal type with non-sparking material protection (such as brass, copper and etc) as per the requirements and application.

Acoustic Housing - Optional 50mm Acoustic Panel

Frame housing are made from extruded aluminium profiles and corners. The external side plates are made from pre-galvanized sheet metal with internal perforated galvanized sheet as standard. Aluminium or stainless steel are available upon requested. 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/m^3 fiberglass of insert, 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, weather-hood can be added as requested.

Sound levels

In order to make possible an assessment of sound projection adequate to human ear the A-assessed description of sound levels has been chosen. The ascertaining of the sound level follows the reverberant room method in accordance to AMCA 300 / ISO 13347-2 / GB/T 34877.2. 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.

Centrifugal Plug Fan Impeller

Wolter backward curve impellers are manufactured from powder coated sheet steel as standard. Aluminium or stainless steel sheet are available upon requested, 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 ISO 21940-11 / AMCA 204.

Motor

Wolter uses fully enclosed high-efficiency flameproof asynchronous motors, which complies with the national standards IEC 60079-0 (GB/T 3836.1) “Explosive Atmospheres Part 1: General Requirements” and IEC 60079-1 (GB/T 3836.2) “Explosive Atmospheres Part 2: Equipment Protected by Flameproof Enclosures ‘d’”. Meanwhile the power levels and installation dimensions comply with the provisions of IEC 60072-1 (GB/T 4772.1) and IEC 60072-2 (GB/T 4772.2) standards. The standard motors have Class F (H for optional) and enclosure IP55. Continuous operating ranges from -15°C to +40°C, other operating condition on demand.

For explosion proof application, motor shaft are fitted with non-sparking sleeve to prevent impeller movement.

For explosion proof fans, the following table shows possible temperature classifications:

Protection type	Description
i	intrinsic safety
c	constructional safety
d	flameproof enclosure
e	increased safety
p	pressurisation
o	oil immersion
m	encapsulation
q	powder filling
nA	non sparking

Temperature classification	Ignition temp.of different gas mixtures	Max. surface temp. of electrial equipment
T1	> 450 °C	450 °C
T2	> 300 - > 450 °C	300 °C
T3	> 200 - > 300 °C	200 °C
T4	> 135 - > 200 °C	135 °C
T5	> 100 - > 135 °C	100 °C
T6	> 85 - > 100 °C	85 °C

Group	Gases and vapours of substances
IIA	acetone, ammonia, ethyl alcohol, fuel, benzene, methane, propane, carbon dioxide
IIB	ethylene, town gas, diethylether
IIC	hydrogen, carbon, disulphide, acetylene

- Wolter Test certification with T6 is valid for T5, T4, T3, T2 and T1 but not vice versa.
- For normal application or without specific instructions, motor will be delivered with T3/T4 motor as standard
- Motor certification on protection type with Ex “d” can be valid for Ex “e” but not vice versa. Wolter supplied motor on Ex“d“ will come with certification, Ex“e“ certification may not be necessary.

For explosion proof application

The electrical connections of the fan shall be carried out according to the instructions of the motor manufacturer. Wiring connection must come with certified cable glands entries and closing unused holes of the terminal box shall be certified according to the standards: EN 60079-0, EN 60079-1 and EN 60079-31. Extra mounted terminal box and other accessories are upon request.

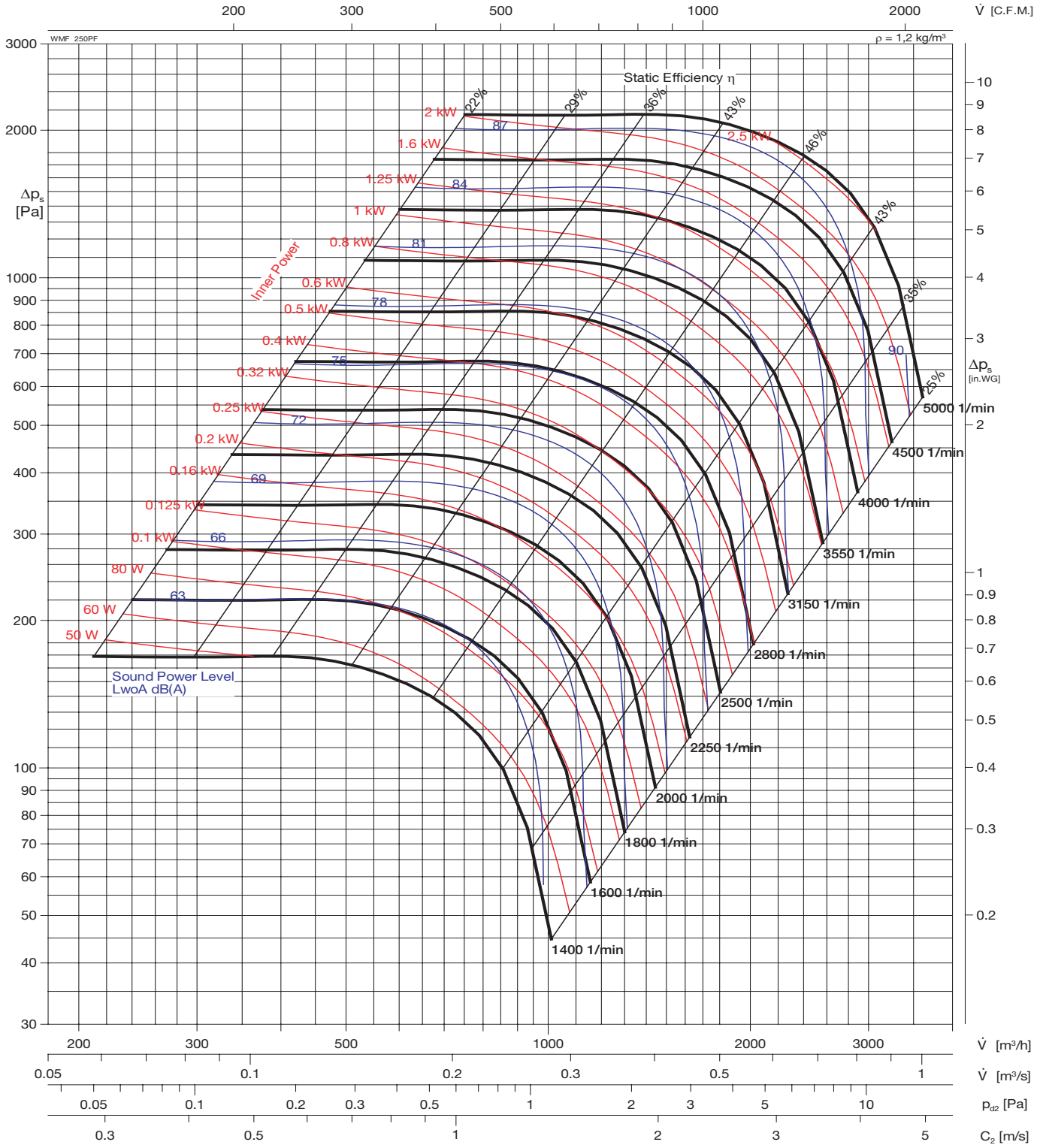
Accessories (optional)

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 made of strong extruded aluminium profile or stainless steel are also available with any dimension in width.
- Motor with 100% speed controllable
- Motor with protection through thermal contact
- Protective guard
- Anti-vibration mounting isolators



WMF 250 Ex



Relative frequency spectrum in ΔdB/Okt

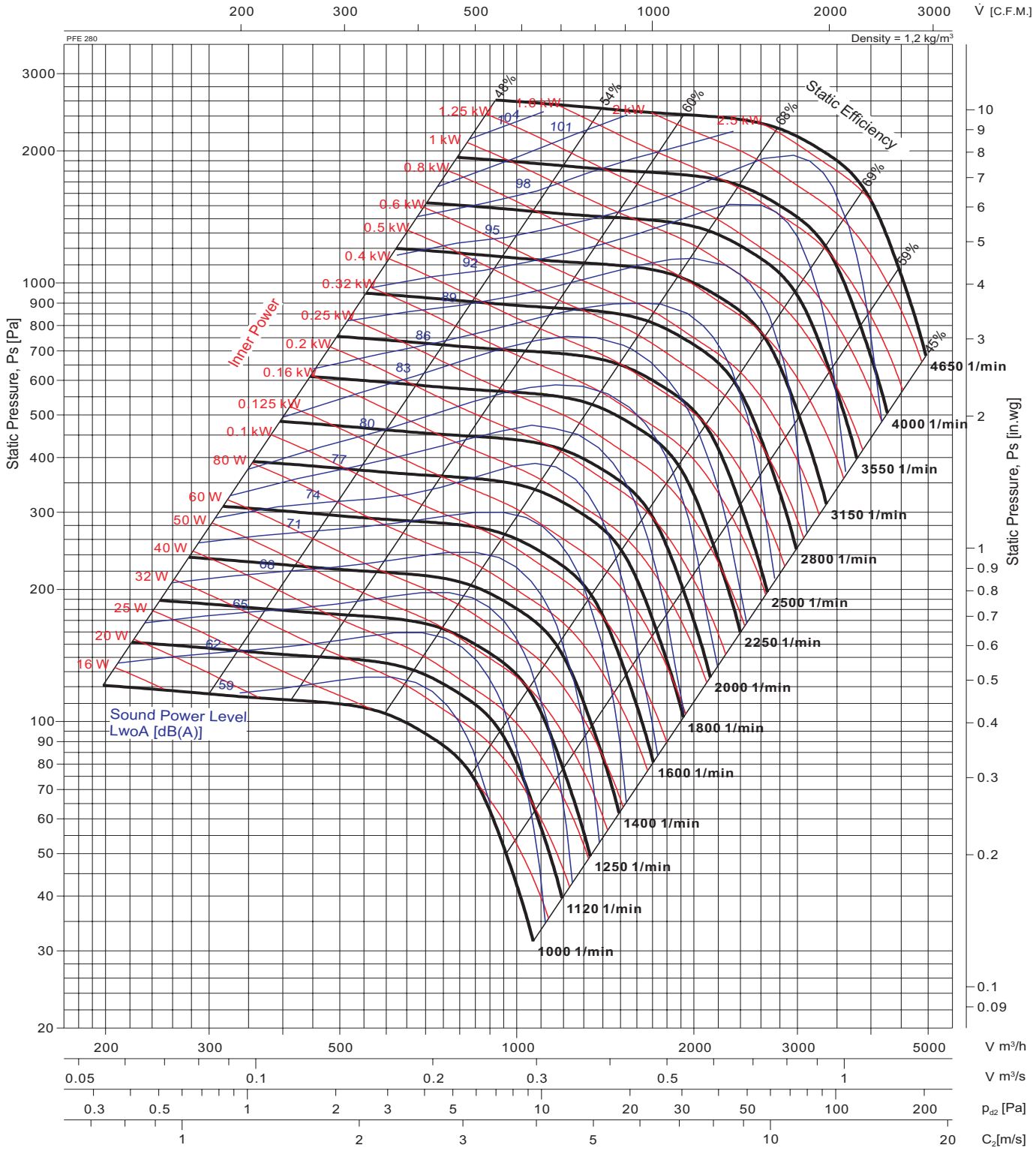
N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
2 Pole	-7.5	-7.5	-8.6	-9.0	-7.1	-10.8	-11.1	-16.5
4 Pole	-6.7	-7.8	-8.2	-6.4	-10.0	-10.3	-15.7	-17.8

Cert.No.:
TI26ATEX 16862X

Air and sound Perforamnce testing was according to AMCA 210 and AMCA 300 with one side open in an accredited laboratory by AMCA; The A-weighted sound ratings shown have been calculated per AMCA International Standard 301nances.



WMF 280 Ex



Relative frequency spectrum in ΔdB/Okt

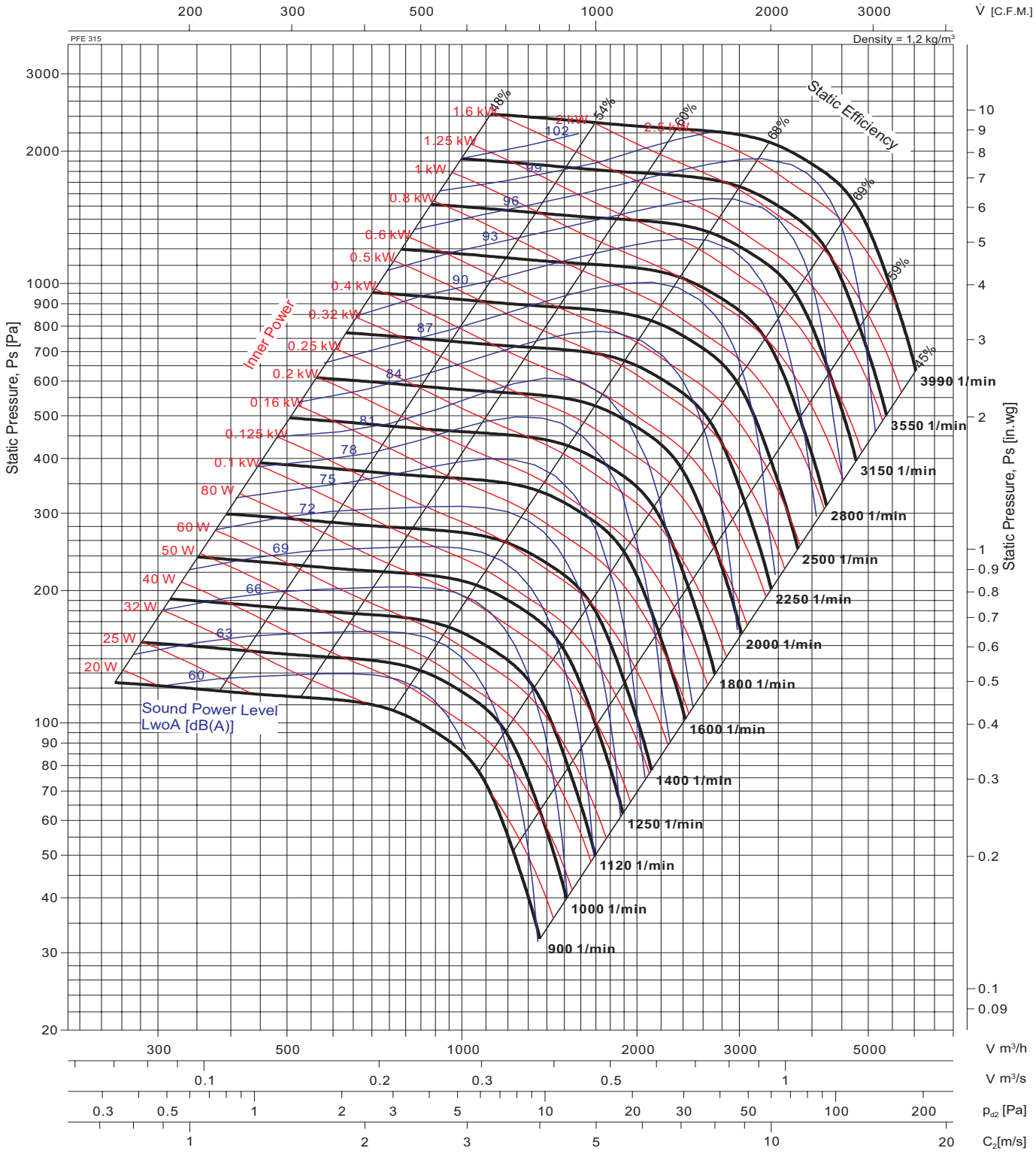
N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
2 Pole	-7.2	-7.2	-8.5	-8.9	-7.3	-11.2	-11.7	-17.1
4 Pole	-6.4	-7.7	-8.0	-6.4	-10.4	-10.8	-16.2	-18.4

Cert.No.:
TI26ATEX 16862X

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WMF 315 Ex



Relative frequency spectrum in ΔdB/Okt

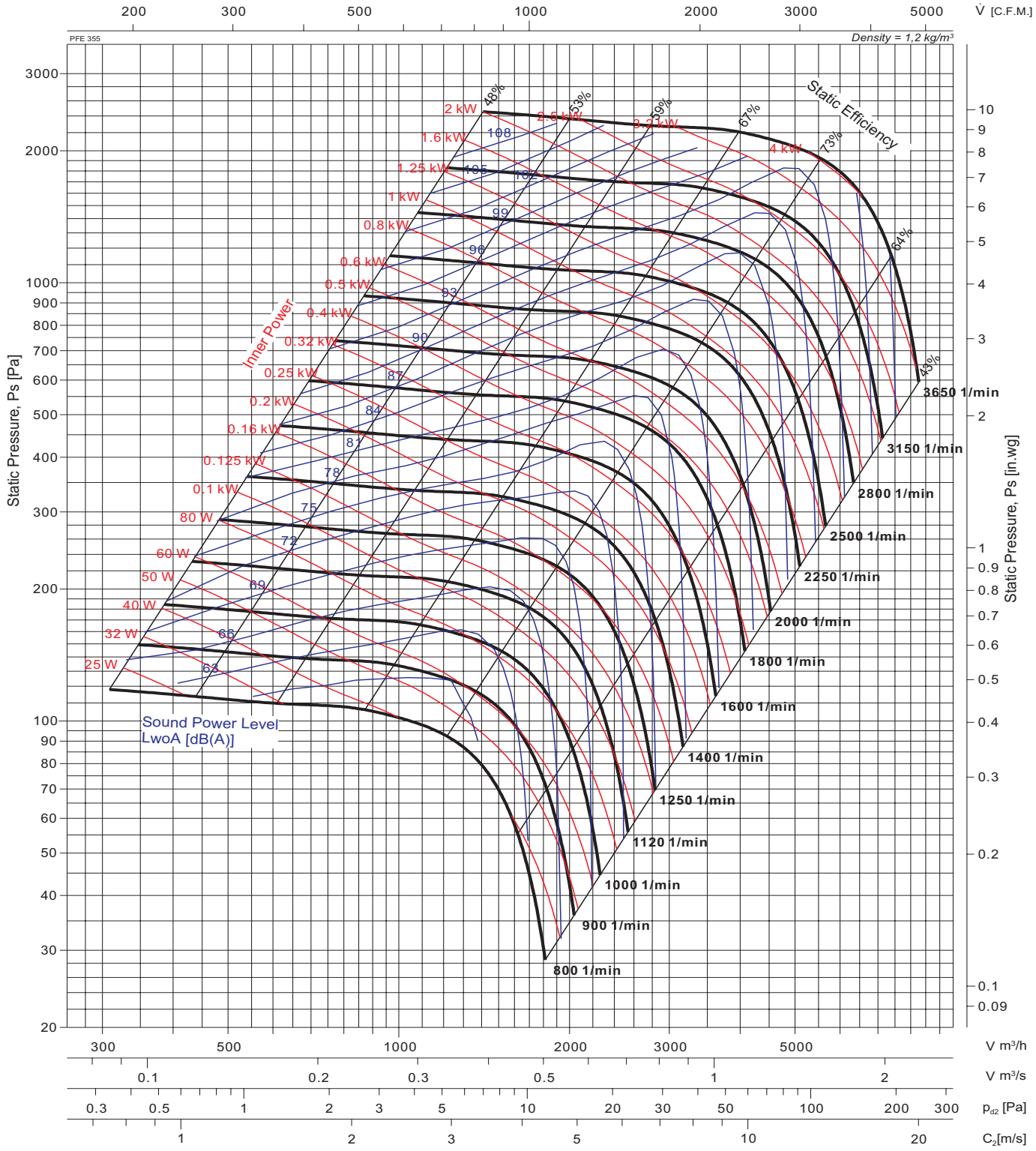
N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
2 Pole	-7.0	-7.0	-8.5	-8.8	-7.5	-11.7	-12.2	-17.7
4 Pole	-6.0	-7.5	-7.9	-6.6	-10.7	-11.3	-16.8	-18.9

Cert.No.:
TI26ATEX 16862X

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WMF 355 Ex



Relative frequency spectrum in ΔdB/Okt

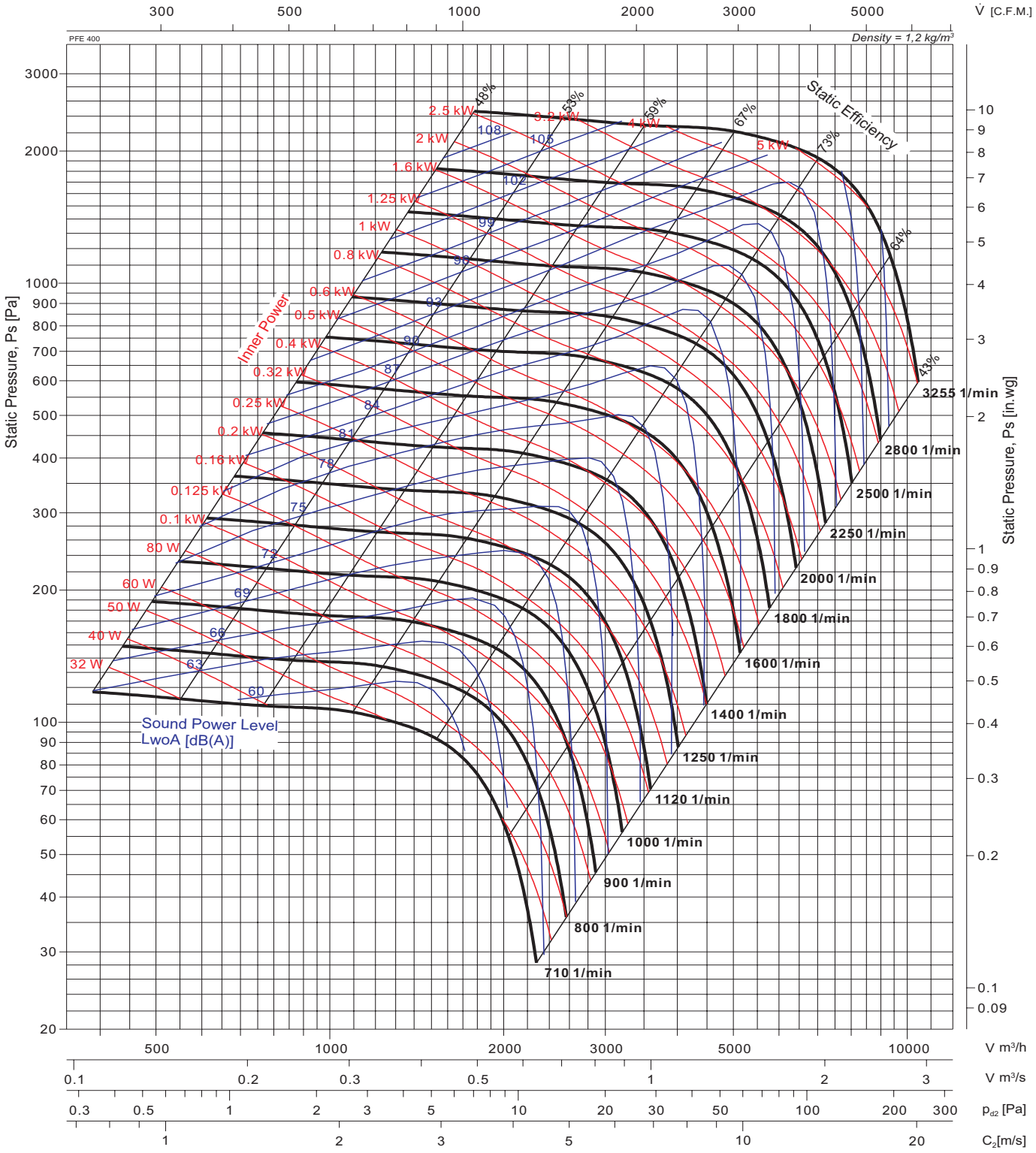
N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
2 Pole	-6.7	-6.7	-8.5	-8.7	-7.8	-12.2	-13.1	-17.8
4 Pole	-5.6	-7.4	-7.7	-6.7	-11.1	-12.0	-16.7	-20.0

Cert.No.:
TI26ATEX 16862X

Air and sound Performamnce testing was according to AMCA 210 and AMCA 300 with one side open in an accredited laboratory by AMCA; The A-weighted sound ratings shown have been calculated per AMCA International Standard 301nances.



WMF 400 Ex



Relative frequency spectrum in ΔdB/Okt

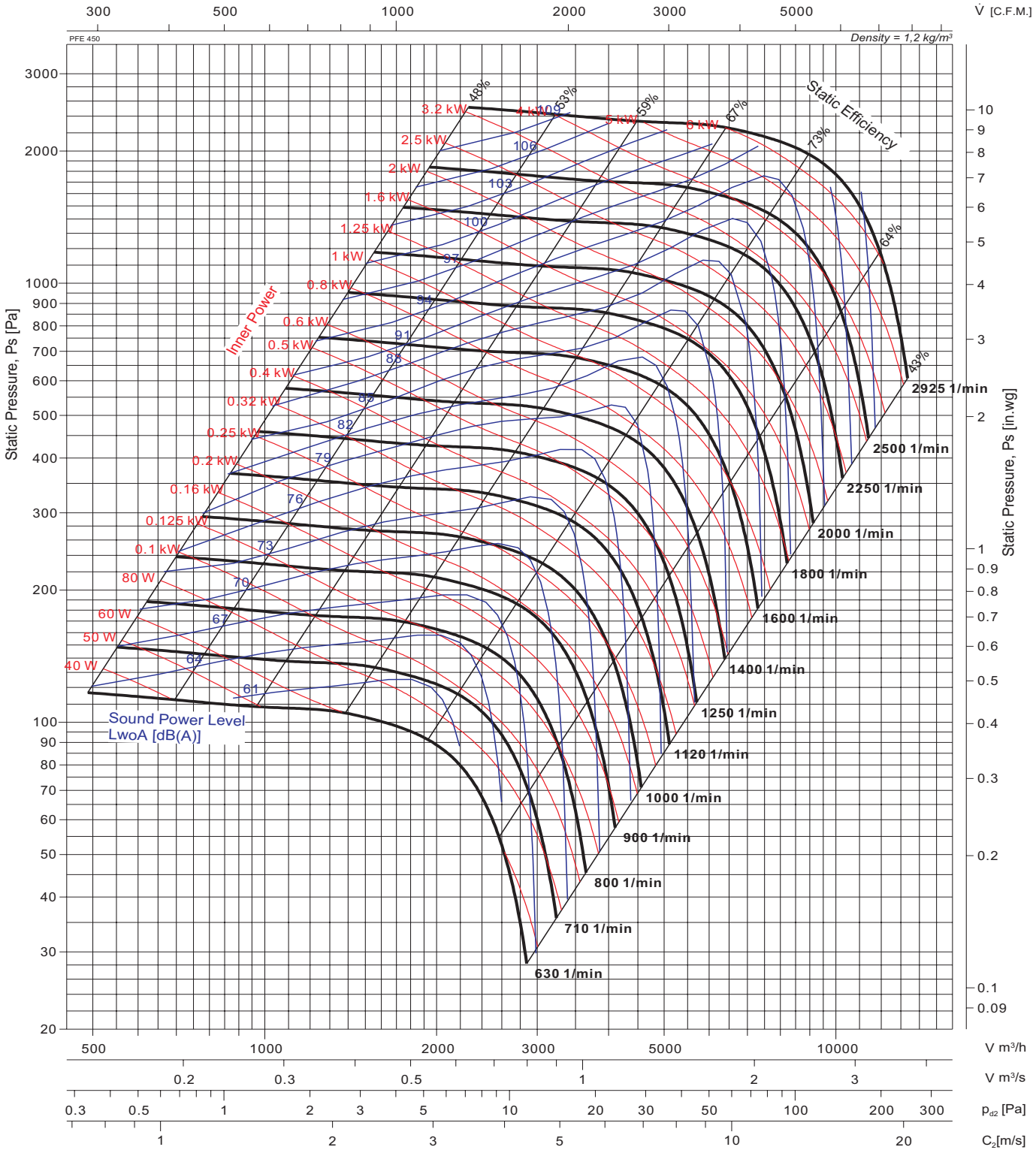
N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
2 Pole	-6	-6	-9	-9	-8	-13	-14	-19
4 Pole	-5	-7	-8	-7	-12	-12	-18	-20
6 Pole	-6	-7	-6	-9	-12	-14	-19	-19

Cert.No.:
TI26ATEX 16862X

Air and sound Perforamnce testing was according to AMCA 210 and AMCA 300 with one side open in an accredited laboratory by AMCA; The A-weighted sound ratings shown have been calculated per AMCA International Standard 301nances.



WMF 450 Ex



Relative frequency spectrum in ΔdB/Okt

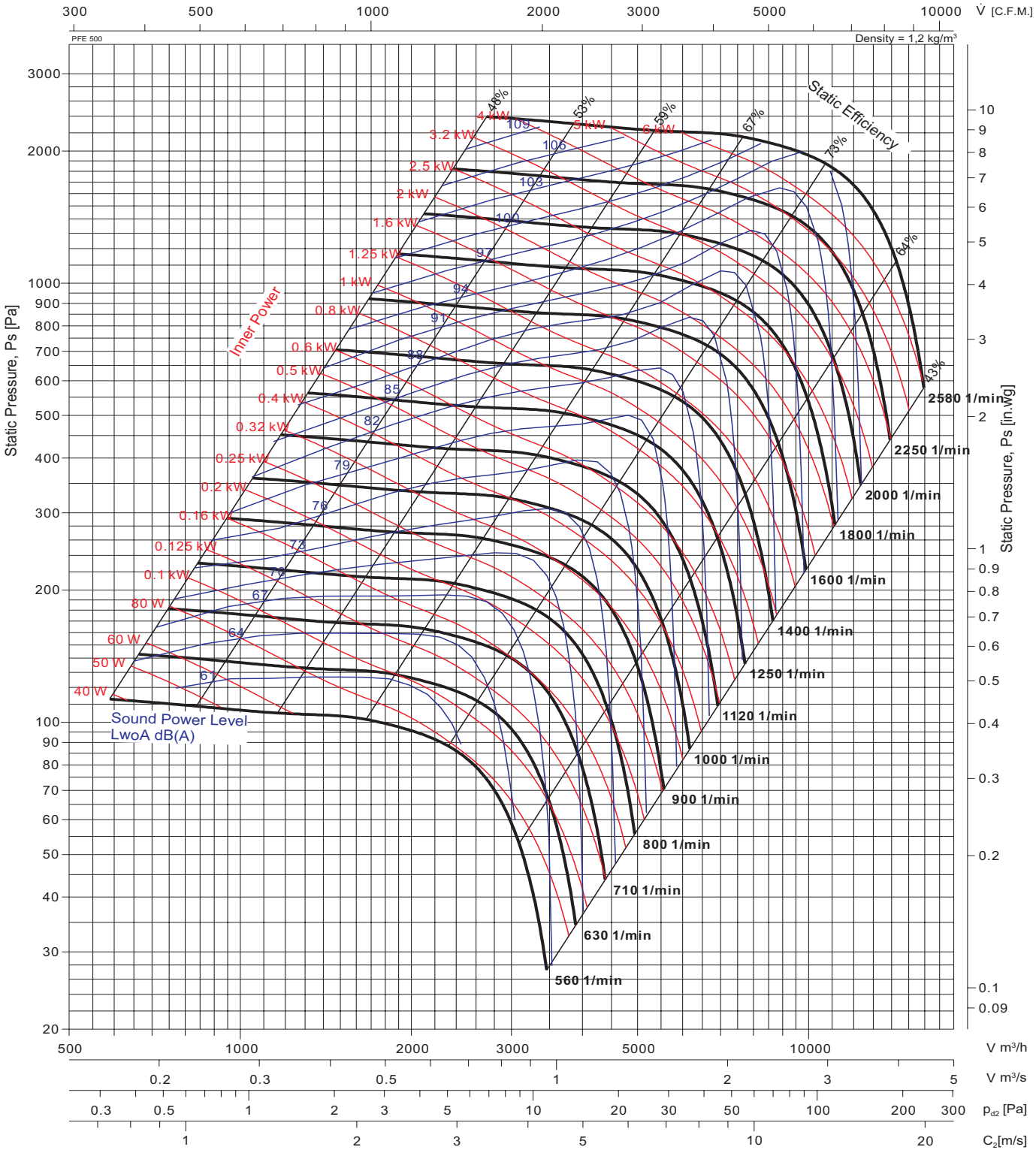
N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
2 Pole	-14	-14	-8	-8	-7	-6	-9	-15
4 Pole	-14	-8	-8	-7	-6	-9	-15	-22
6 Pole	-11	-8	-7	-6	-7	-12	-19	-26

Cert.No.:
TI26ATEX 16862X

Air and sound Perforamnce testing was according to AMCA 210 and AMCA 300 with one side open in an accredited laboratory by AMCA; The A-weighted sound ratings shown have been calculated per AMCA International Standard 301nances.



WMF 500 Ex



Relative frequency spectrum in ΔdB/Okt

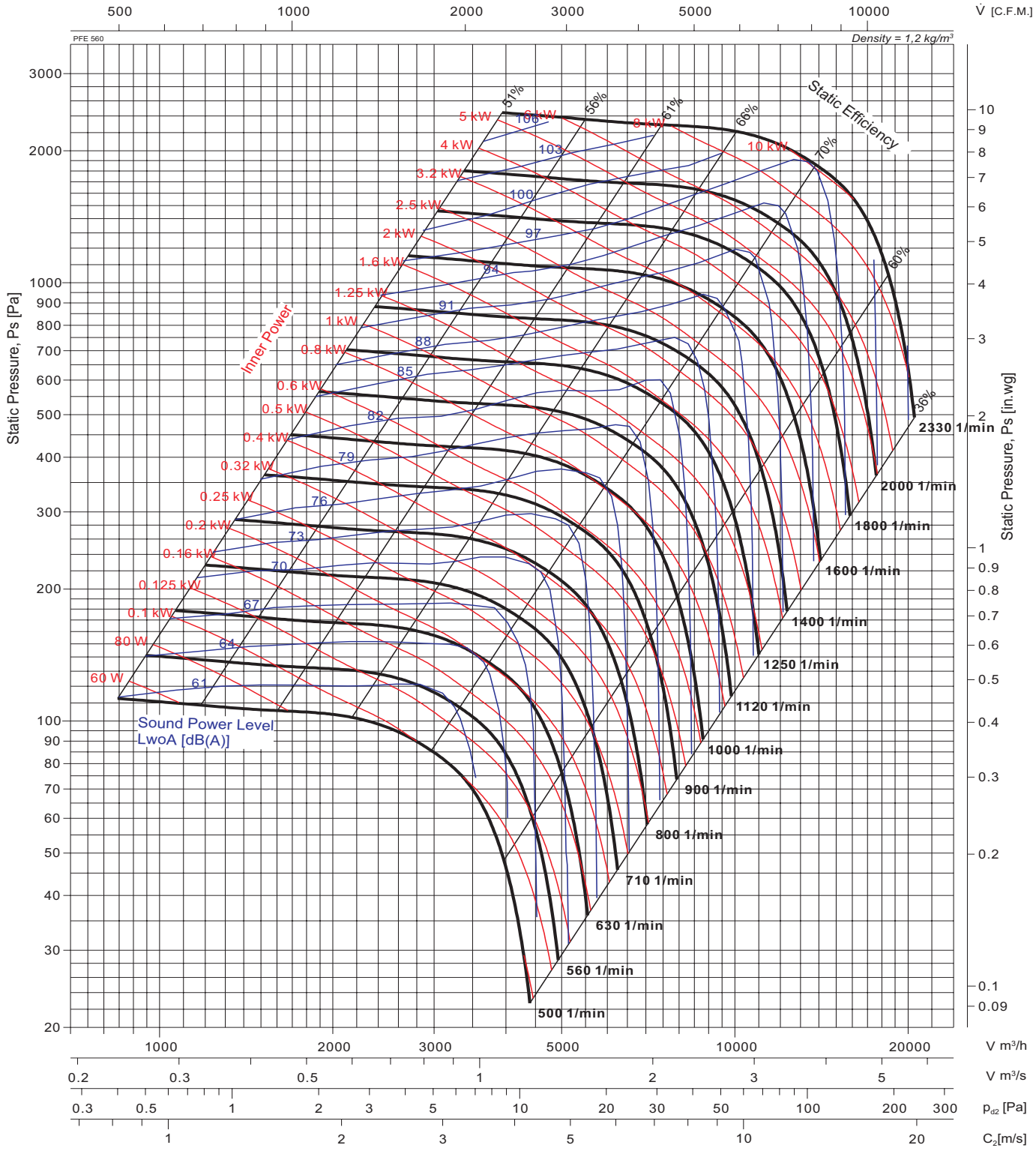
N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
4 Pole	-13	-8	-8	-7	-6	-9	-15	-23
6 Pole	-10	-7	-7	-6	-7	-12	-20	-26

Cert.No.:
TI26ATEX 16862X

Air and sound Perforamnce testing was according to AMCA 210 and AMCA 300 with one side open in an accredited laboratory by AMCA; The A-weighted sound ratings shown have been calculated per AMCA International Standard 301nances.



WMF 560 Ex



Relative frequency spectrum in ΔdB/Okt

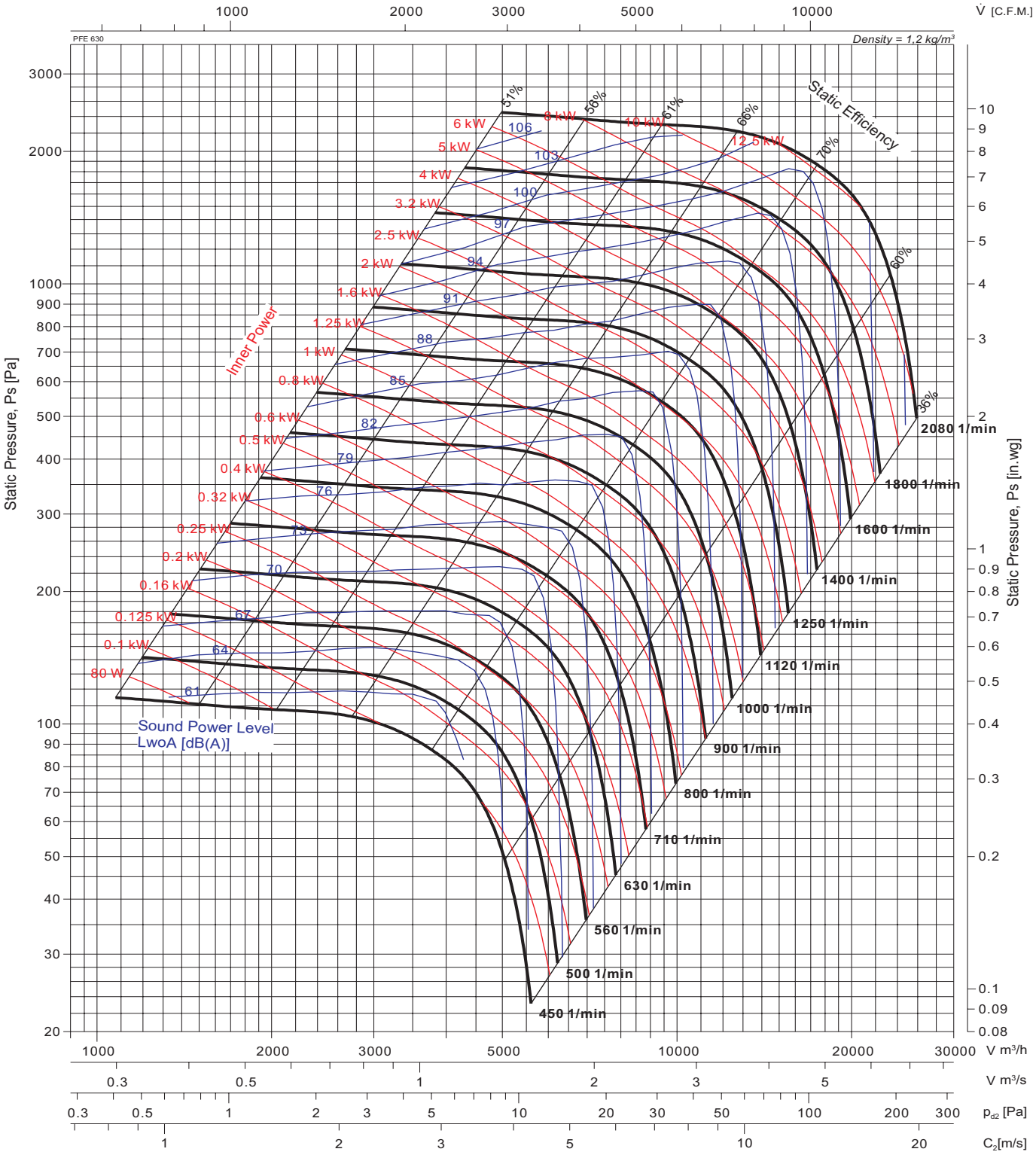
N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
4 Pole	-13	-8	-7	-7	-6	-9	-16	-23
6 Pole	-10	-7	-7	-6	-7	-12	-20	-27

Cert.No.:
TI26ATEX 16862X

Air and sound Perforamnce testing was according to AMCA 210 and AMCA 300 with one side open in an accredited laboratory by AMCA; The A-weighted sound ratings shown have been calculated per AMCA International Standard 301nances.



WMF 630 Ex



Relative frequency spectrum in ΔdB/Okt

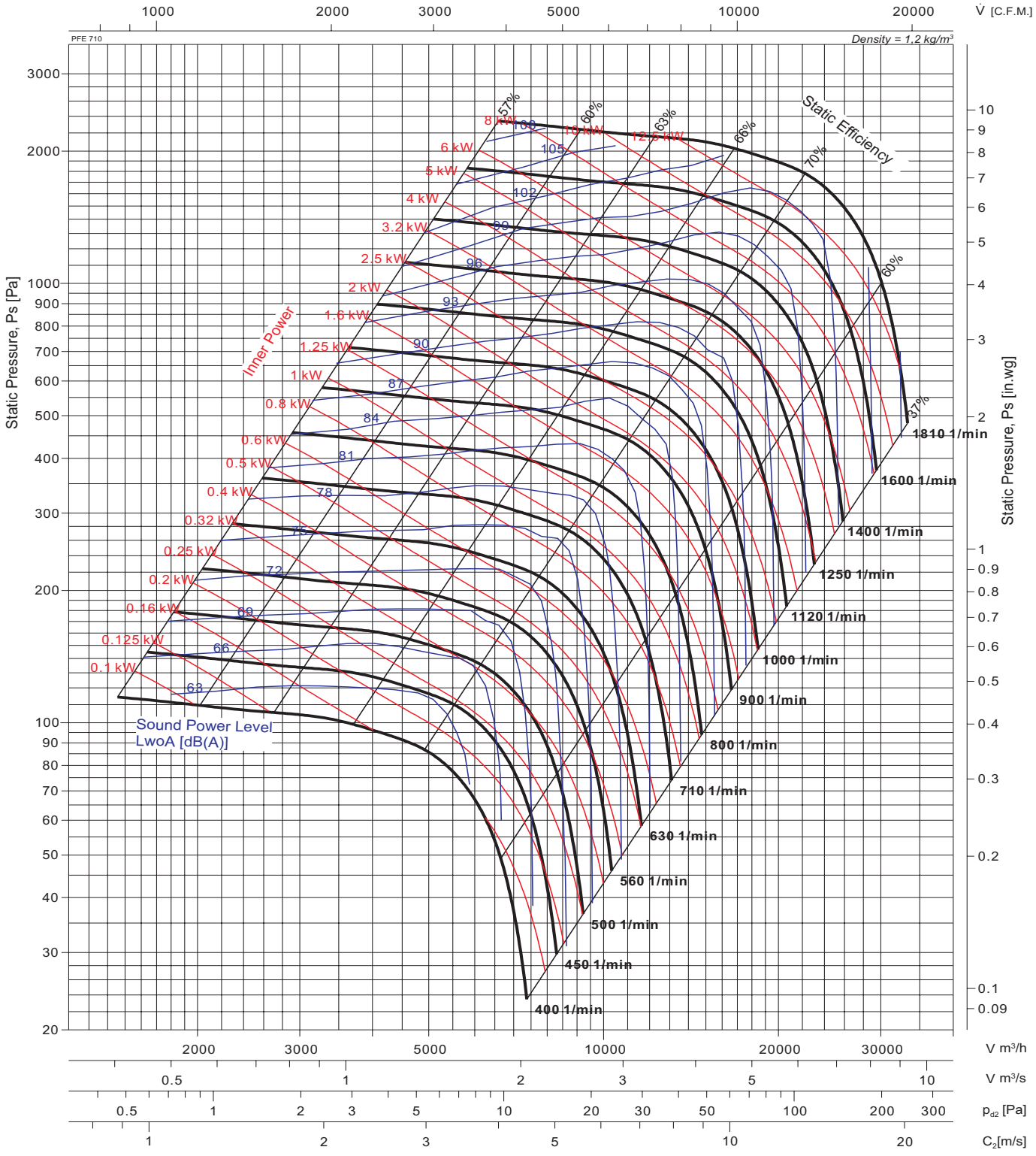
N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
4 Pole	-12	-8	-7	-7	-6	-9	-16	-23
6 Pole	-9	-7	-7	-6	-7	-13	-20	-27
8 Pole	-8	-7	-7	-6	-9	-16	-23	-30

Cert.No.:
TI26ATEX 16862X

Air and sound Perforamnce testing was according to AMCA 210 and AMCA 300 with one side open in an accredited laboratory by AMCA; The A-weighted sound ratings shown have been calculated per AMCA International Standard 301nances.



WMF 710 Ex



Relative frequency spectrum in ΔdB/Okt

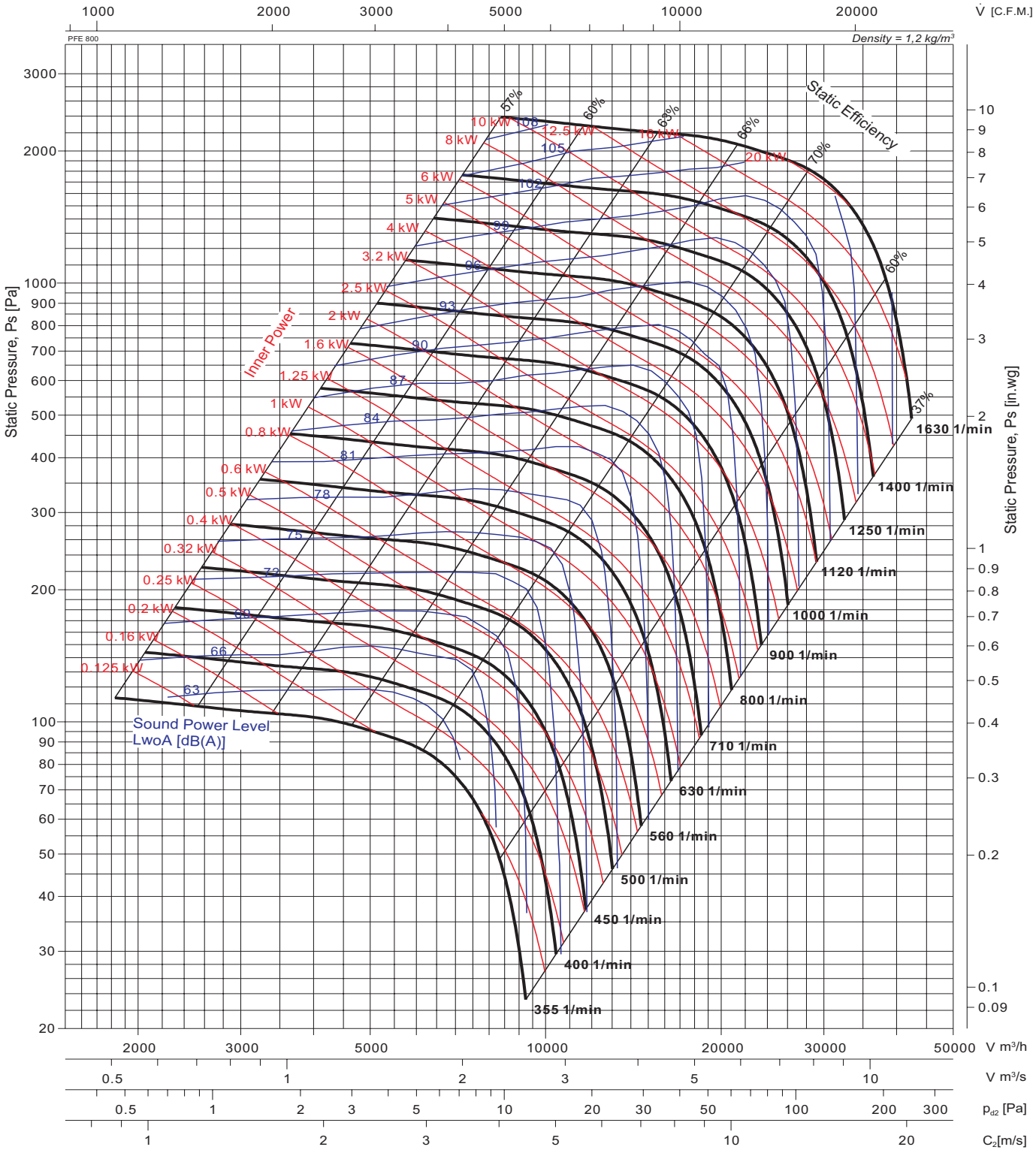
N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
4 Pole	-12	-13	-8	-6	-7	-8	-12	-20
6 Pole	-13	-8	-6	-6	-7	-10	-17	-25
8 Pole	-13	-7	-5	-6	-7	-12	-20	-28

Cert.No.:
TI26ATEX 16862X

Air and sound Performamnce testing was according to AMCA 210 and AMCA 300 with one side open in an accredited laboratory by AMCA; The A-weighted sound ratings shown have been calculated per AMCA International Standard 301nances.



WMF 800 Ex



Relative frequency spectrum in ΔdB/Okt

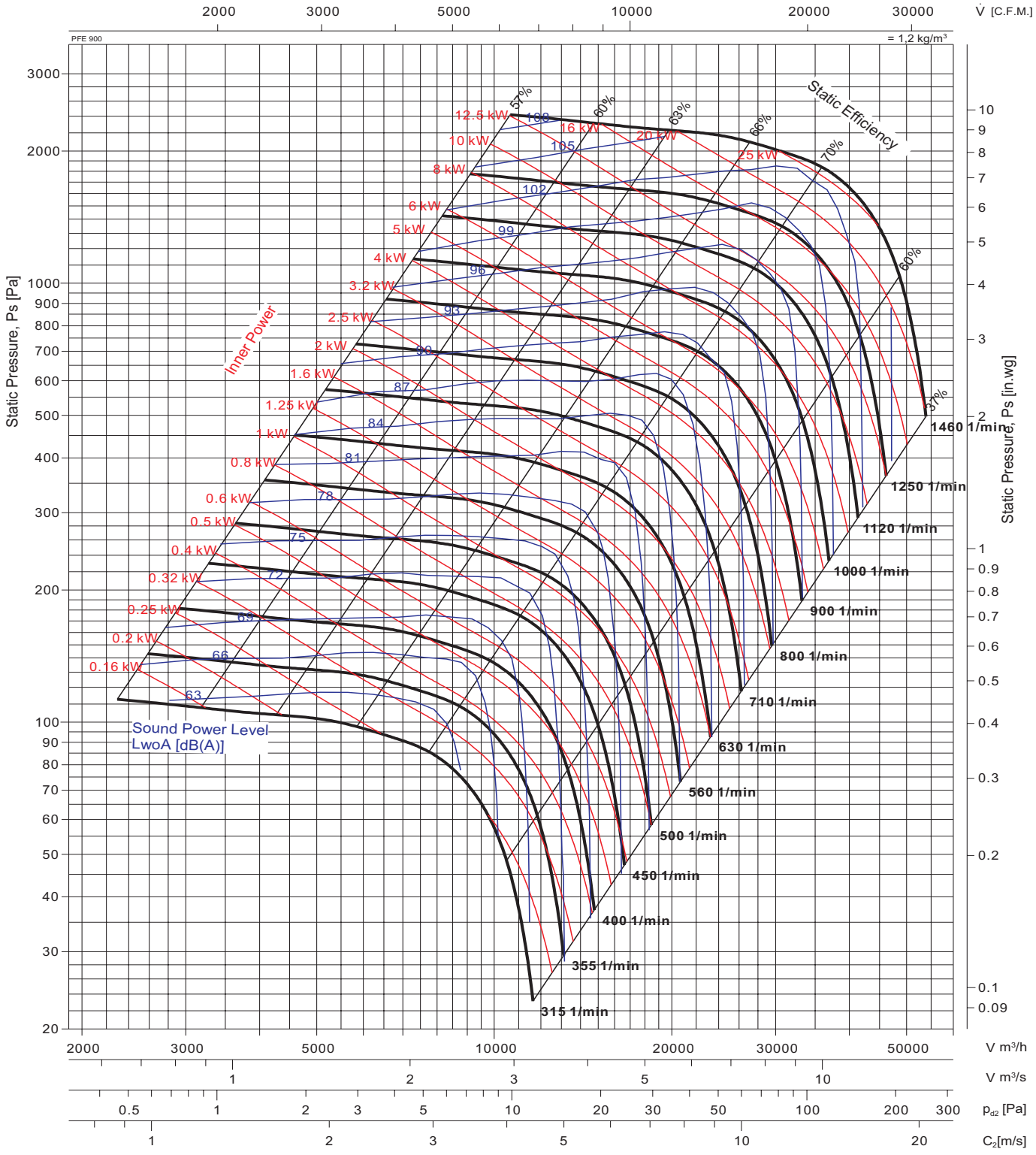
N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
4 Pole	-11	-12	-8	-6	-7	-8	-13	-21
6 Pole	-13	-8	-6	-6	-7	-10	-17	-26
8 Pole	-12	-7	-5	-7	-7	-12	-20	-28

Cert.No.:
TI26ATEX 16862X

Air and sound Perforamnce testing was according to AMCA 210 and AMCA 300 with one side open in an accredited laboratory by AMCA; The A-weighted sound ratings shown have been calculated per AMCA International Standard 301nances.



WMF 900 Ex



Relative frequency spectrum in ΔdB/Okt

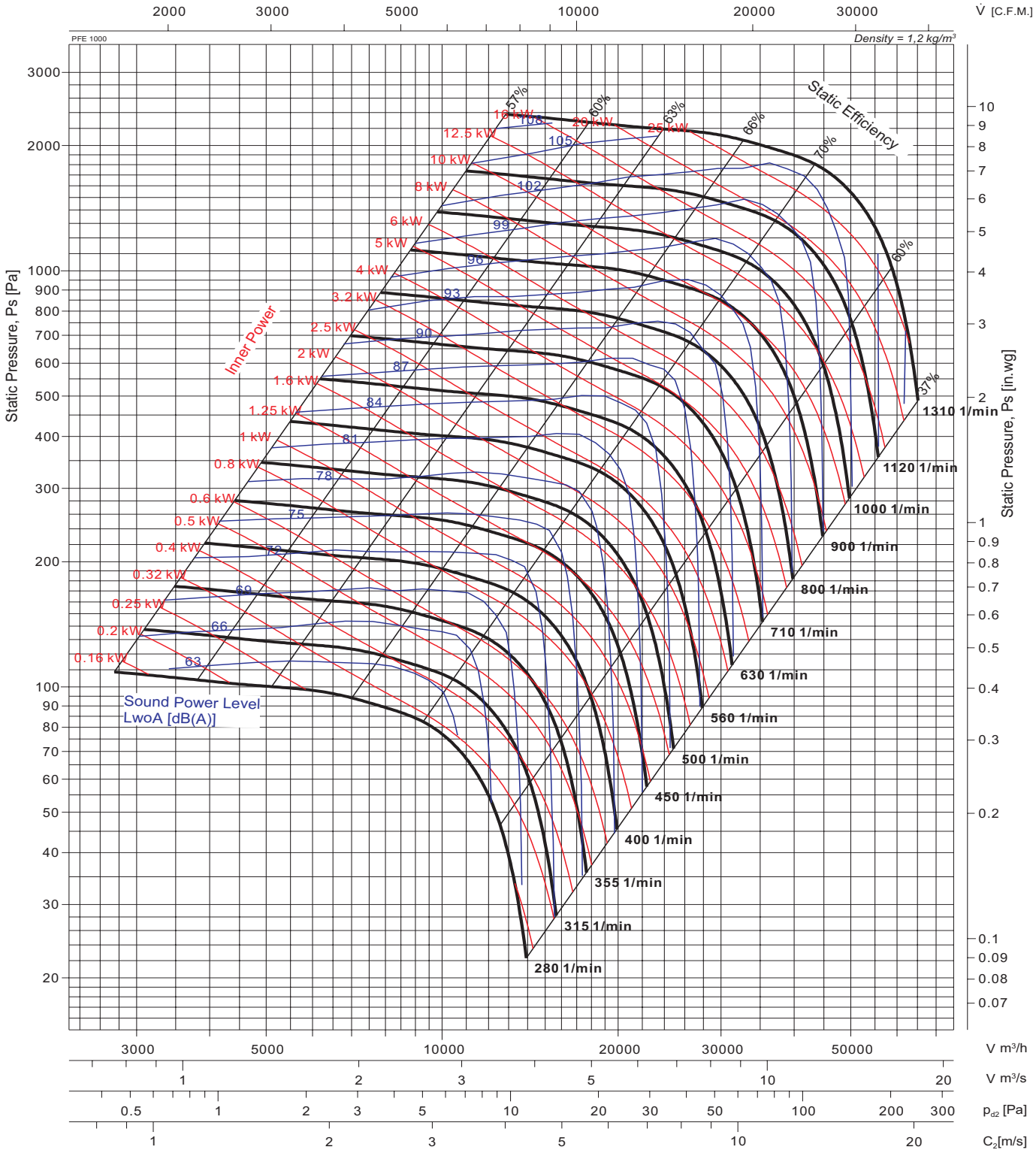
N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
4 Pole	-10	-6	-7	-7	-8	-13	-18	-25
6 Pole	-7	-6	-7	-7	-10	-15	-22	-30
8 Pole	-5	-7	-6	-8	-12	-18	-25	-32

Cert.No.:
TI26ATEX 16862X

Air and sound Performamnce testing was according to AMCA 210 and AMCA 300 with one side open in an accredited laboratory by AMCA; The A-weighted sound ratings shown have been calculated per AMCA International Standard 301nances.



WMF 1000 Ex



Relative frequency spectrum in ΔdB/Okt

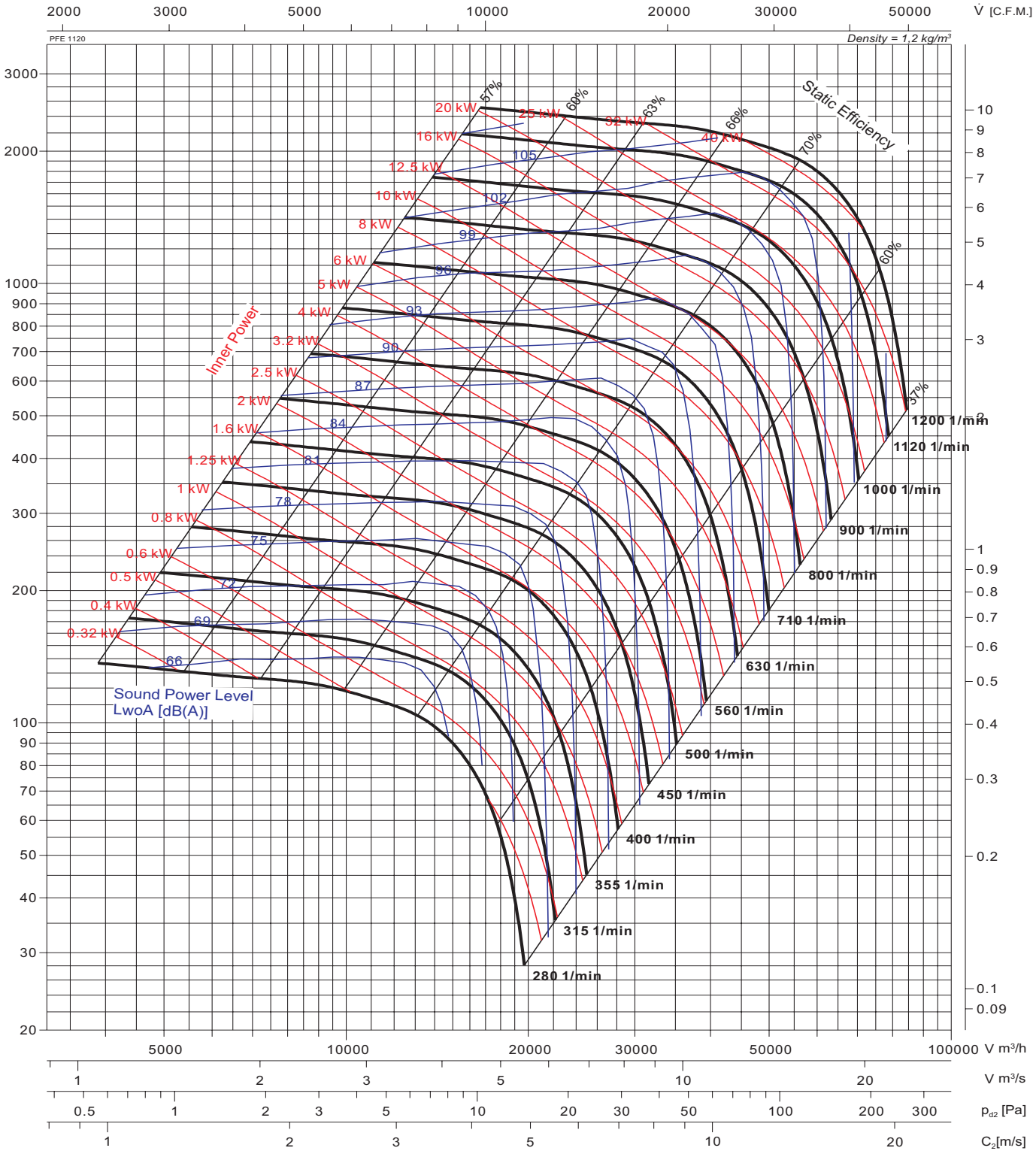
N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
4 Pole	-10	-12	-8	-6	-7	-8	-13	-21
6 Pole	-12	-7	-6	-7	-8	-10	-17	-26
8 Pole	-11	-7	-6	-7	-8	-13	-20	-29

Cert.No.:
TI26ATEX 16862X

Air and sound Perforamnce testing was according to AMCA 210 and AMCA 300 with one side open in an accredited laboratory by AMCA; The A-weighted sound ratings shown have been calculated per AMCA International Standard 301nances.



WMF 1120 Ex



Relative frequency spectrum in ΔdB/Okt

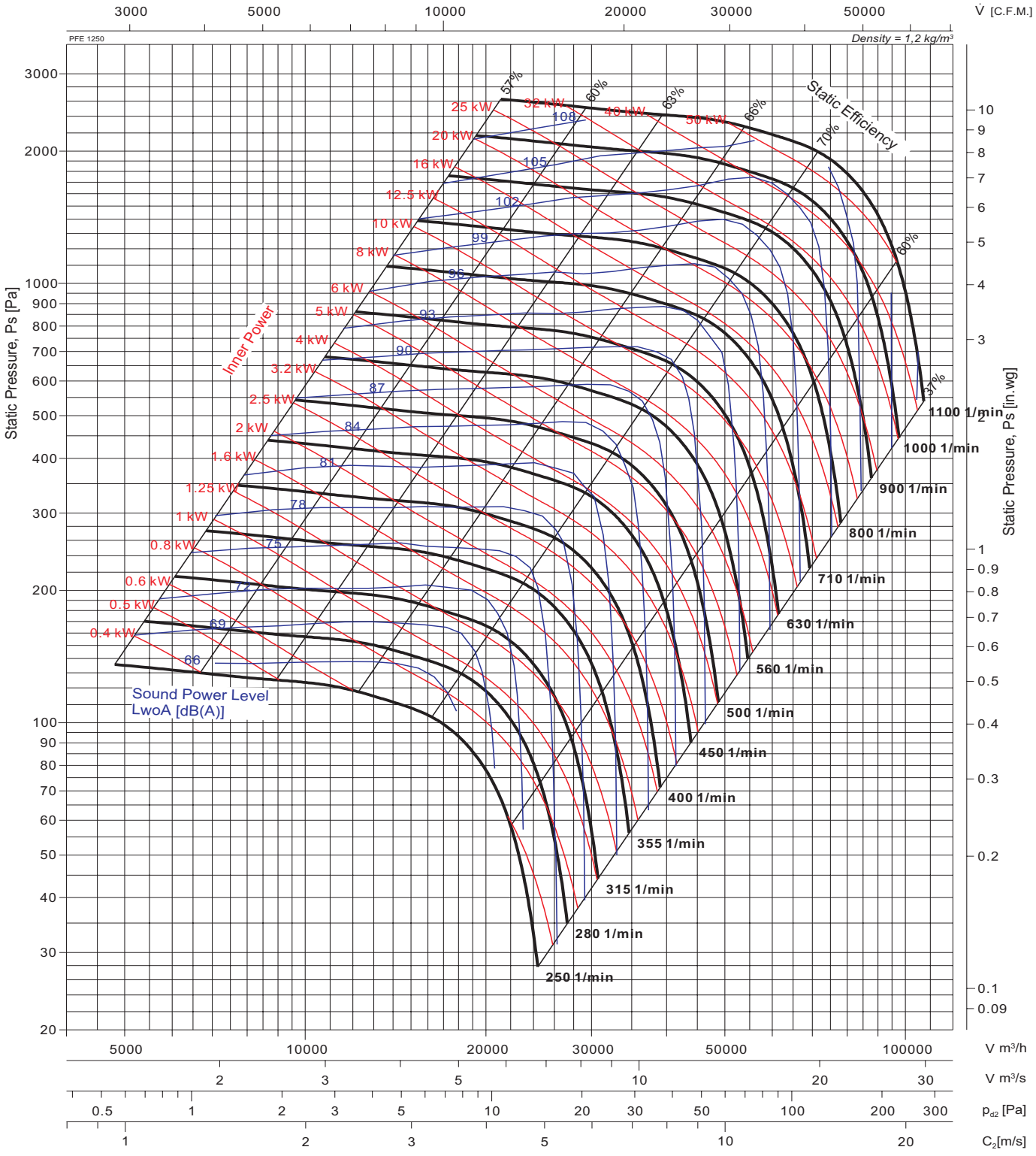
N [1/min]	Octave b. midfreq. [Hz]							
RPM	63	125	250	500	1K	2K	4K	8K
6 Pole	-12	-7	-6	-7	-8	-10	-17	-26
8 Pole	-11	-7	-6	-7	-8	-13	-20	-29

Cert.No.:
TI26ATEX 16862X

Air and sound Perforamnce testing was according to AMCA 210 and AMCA 300 with one side open in an accredited laboratory by AMCA; The A-weighted sound ratings shown have been calculated per AMCA International Standard 301nances.



WMF 1250 Ex

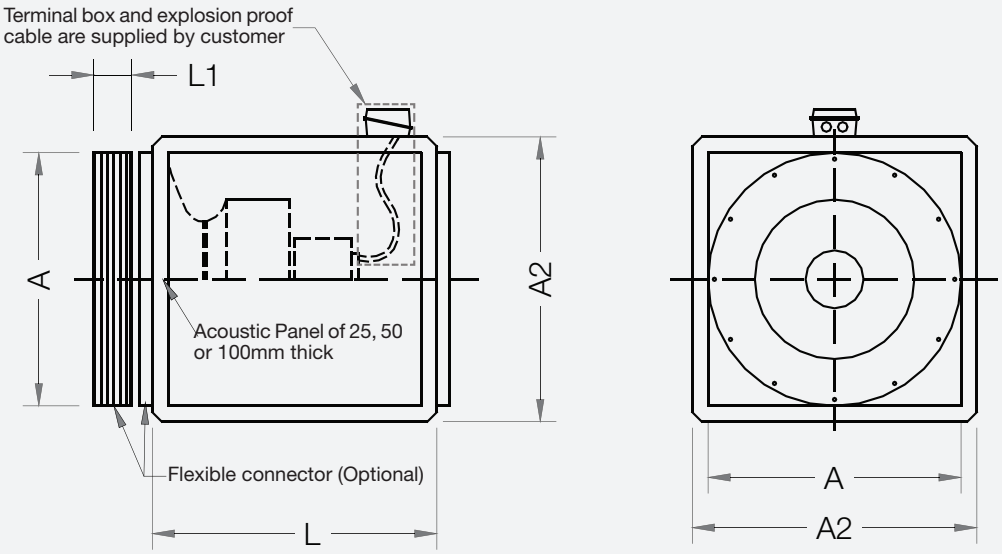


Relative frequency spectrum in ΔdB/Okt

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

Cert.No.:
TI26ATEX 16862X

Air and sound Perforamnce testing was according to AMCA 210 and AMCA 300 with one side open in an accredited laboratory by AMCA; The A-weighted sound ratings shown have been calculated per AMCA International Standard 301nances.



Model	A	A2			L			L1	Weight
Size	-	S / S1*	S / S2*	S / S3*	S / S1*	S / S2*	S / S3*	-	S2 w/o
-	-	PF25	PF50	PF100	PF25	PF50	PF100	-	Motor
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]
250	450	500	550	-	450	500	-	140	30
280	500	550	600	-	500	550	-	140	34
315	550	600	650	-	550	600	-	140	37
355	600	650	700	-	600	650	-	140	41
400	650	700	750	-	650	700	-	140	45
450	700	750	800	-	700	750	-	140	64
500	800	850	900	-	800	850	-	140	81
560	850	900	950	-	850	900	-	140	99
630	900	950	1000	-	900	950	-	140	118
710	1000	1050	1100	1200	1000	1050	1050	140	182
800	1100	-	1200	1300	-	1150	1150	140	210
900	1250	-	1350	1450	-	1300	1300	140	242
1000	1350	-	1450	1550	-	1400	1400	140	278
1120	1550	-	1650	1750	-	1750	1750	140	460
1250	1700	-	1800	1900	-	2000	2000	140	605

Nb:* S = Single skinned, S1 = 25mm Double skinned; S2 = 50mm Double skinned, S3 = 100mm Double skinned.

Certified according to Directive 2014/34/EU as well as EN 60079-0, EN 1127-1 and 13463-1; Applicable in categorie 2, zone 1 and 2; Ex e increased safety respectively and Ex d = flameproof enclosure; The fans are applicable for group IIA, IIB and IIC and also additional usable for hydrogen; Motor protection by cold conductor. Only certified when connected with a motor protection device.

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

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