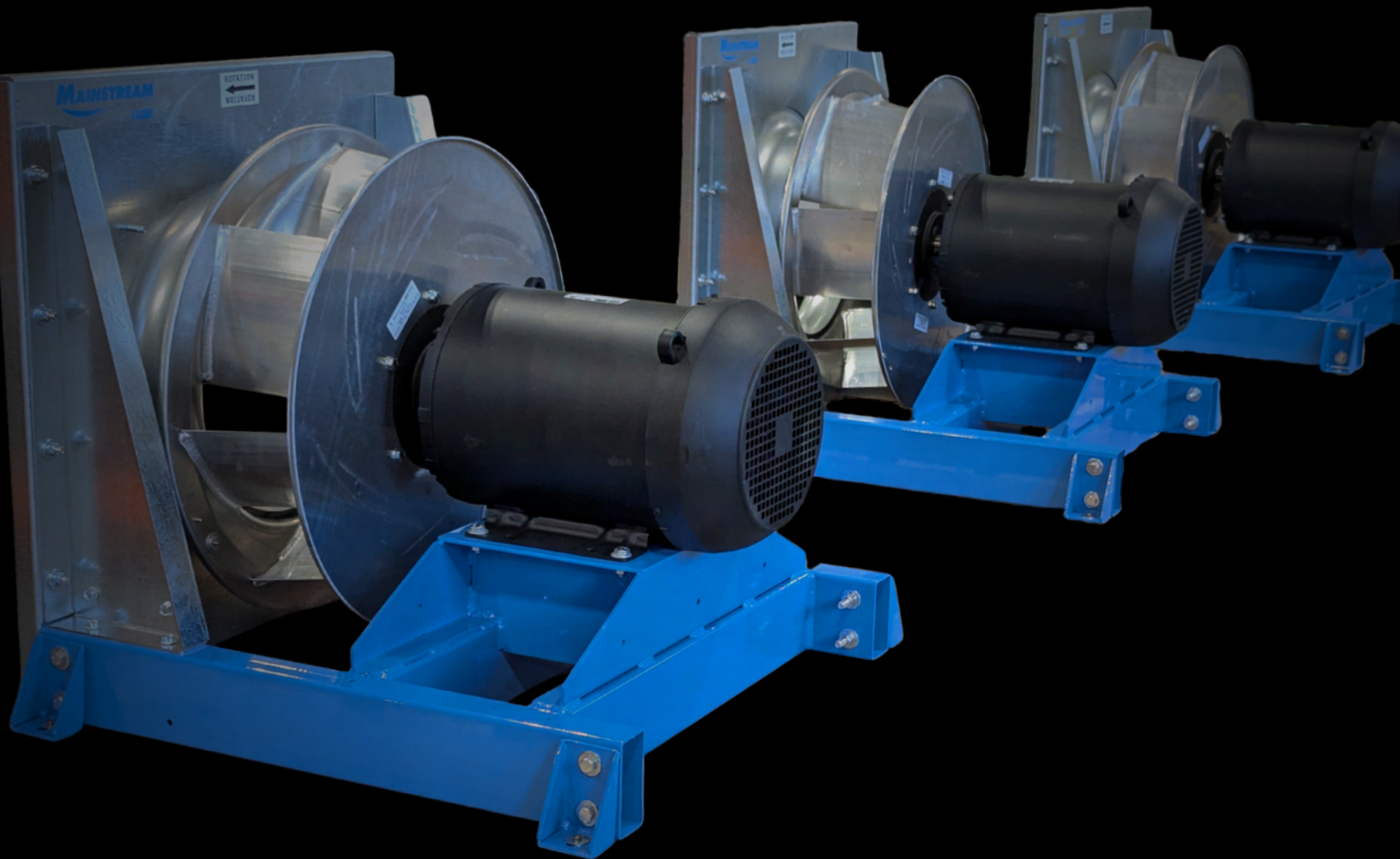




PEACE OF MIND, BUILT IN



Models BDP and BDL

DIRECT DRIVE PLENUM FANS

March 2026



www.mainstream-corp.com



info@mainstream-corp.com

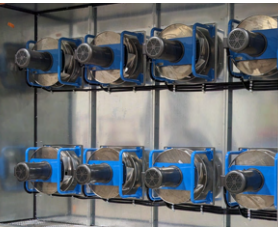
Overview

Mainstream is a U.S.-based manufacturer of commercial and industrial HVAC solutions, headquartered in Berkeley Heights, New Jersey. Founded in 1992 and family owned, we’ve spent more than three decades designing and manufacturing equipment for some of the most demanding HVAC applications in the country.

Our focus is simple: *deliver expertly engineered, heavy-duty products that perform reliably in real-world environments.*

Mainstream specializes in highly engineered projects—where space constraints, access challenges, and aging infrastructure demand something differing. We work closely with consulting engineers, contractors, and building owners to develop solutions that fit the application, the schedule, and the building.

All Mainstream products are manufactured in the United States and designed with long service life, ease of installation, and dependable performance as core requirements.



Contents

Model Number Code	2
Models & Accessories	3
Motor Options	4
Controls Solutions	5
Model BDP Data	6
Model BDL Data	18

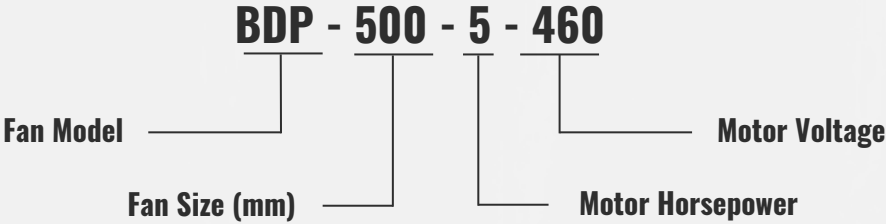


Mainstream Fluid & Air LLC certifies that the Models BDP shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



Scan the QR code to search Mainstream Fluid & Air LLC's AMCA-certified products.

Model Number Code



Fan Models

BDP

Base-Mounted, Direct Drive Plenum Fan

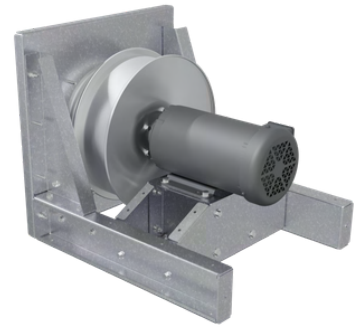
The BDP is a base-mounted direct drive plenum fan, manufactured with a welded construction and coated framework. It is ideal for heavy commercial and industrial applications. A variety of different options and accessories are available including different wheel designs, frame materials, and motor classifications.



BDL

Base-Mounted, Direct Drive Plenum Fan

The BDL is a commercial grade, base-mounted direct drive plenum fan, featuring a galvanized steel, bolted construction for high performance and economical design. A variety of different options and accessories are available including different wheel designs, frame materials, and motor classifications.



Options & Accessories

Fans are the heart of any air handling system. Their performance directly impacts comfort, energy use, reliability, and the operating cost of a building.

This is why delivering the *right* solution, not the *standard* solution, is critical.



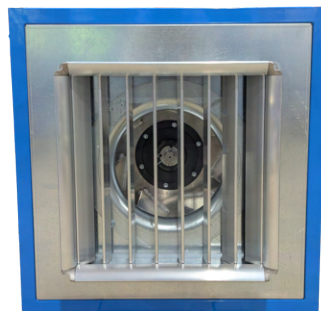
Piezo Ring

Quad-tap ring, for precise pressure measurement



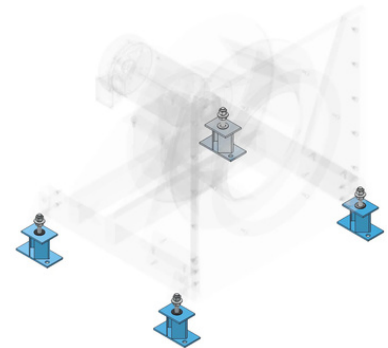
Mesh Guarding

Available on all fan models to prevent accidental contact.



Backdraft Dampers

Vertical blade, zero pressure loss dampers, for peace of mind.



Isolators

Rubber, spring and seismic isolators available.



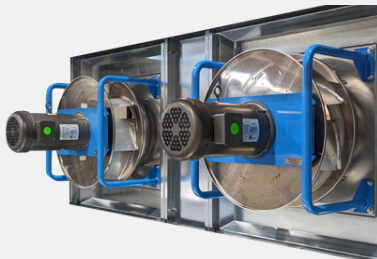
Motor Options



AC Motors

AC induction motors are the motor type most commonly used in HVAC applications. AC motors are readily available, often in stock, and the technology is proven and familiar.

- Max HP: none



PMEC Motors

PMEC motors feature permanent magnet technology, for extremely efficient operation. They are smaller and lighter than AC motors, and offer an outstanding combination of efficiency, lifespan and reliability.

- Max HP: 20 HP



ECM Motors

ECMs feature an integral VFD for simple control and high efficiency. ECMs are a great option for applications where access is very tight, and a small profile is required.

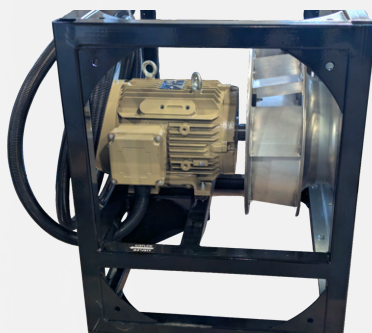
- Max HP: 15 HP

Heavy-Duty Solutions



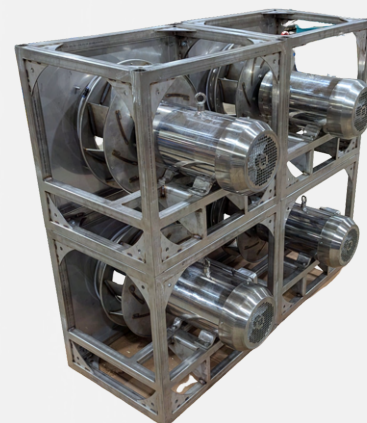
Explosion Proof Motors

For hazardous applications such as chemical plants, paint and coating facilities, or wastewater treatment plants.



Severe Duty Motors

Built to withstand harsh, industrial, and corrosive environments.



Stainless Steel Construction

For applications where corrosion, contamination, or strict hygiene requirements are critical concerns.



Control Solutions

Mainstream control panels are designed for simple operation and straightforward integration. All control panels are engineered and built-to-order, which enables significant flexibility for custom requirements and applications.

Standard Features

- **Main Disconnect:** Instantly power the entire system on or off.
- **Motor Circuit Protectors (MCPs):** Individual disconnects for each fan, simplifying maintenance.
- **Variable Frequency Drives (VFDs):** Each fan has a dedicated, preprogrammed VFD for precise motor control.
- **0–10V Speed Signal:** Synchronizes and regulates fan speeds across the array for precise speed control, either with a remote 0–10V or locally with a potentiometer.
- **Hand or Auto (HOA) Switches:** Enable and speed reference switches, offering local or remote fan control.



Premium Controls Package

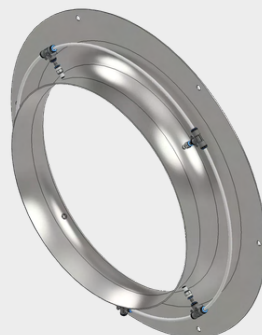
- **Touch Screen Display:** 10" display for real-time system monitoring — no BAS integration required.
- **BAS Integration:** Seamless integration for fan and panel monitoring, scheduling, trending, and alarms. System supports BACnet MS/TP, BACnet IP, or Modbus RTU protocols.
- **Airflow Monitoring with IntelliFLOW:** Total array airflow monitoring, independent of fan speed.

Options

- **Outdoor Rated:** A NEMA 3R-rated enclosure is optional for outdoor applications.
- **KAIC and SCCR Ratings:** Mainstream panels can be supplied with a 100k SCCR rating, as well as 100 kAIC fused disconnects.
- Have a custom requirement? Don't hesitate to discuss with our sales engineers. All panels are engineered and built to order, and there are few spec's we can't meet.



Color Touchscreen



Piezo Ring



BACnet Integration



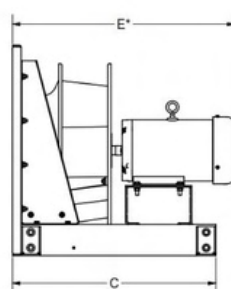
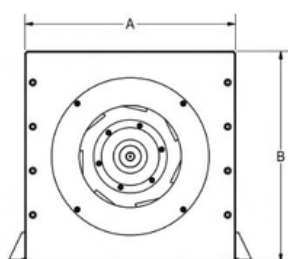
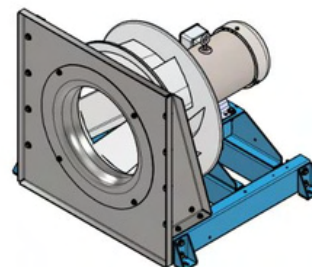
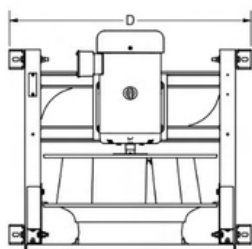
BDP

Base-Mounted, Direct Drive Plenum Fan

The BDP is a base-mounted direct drive plenum fan, ideal for heavy commercial and industrial applications, thanks to its heavy-duty construction and coated framework. A variety of different options and accessories are available including different wheel designs, frame materials, and motor classifications.



BDP Dimensions



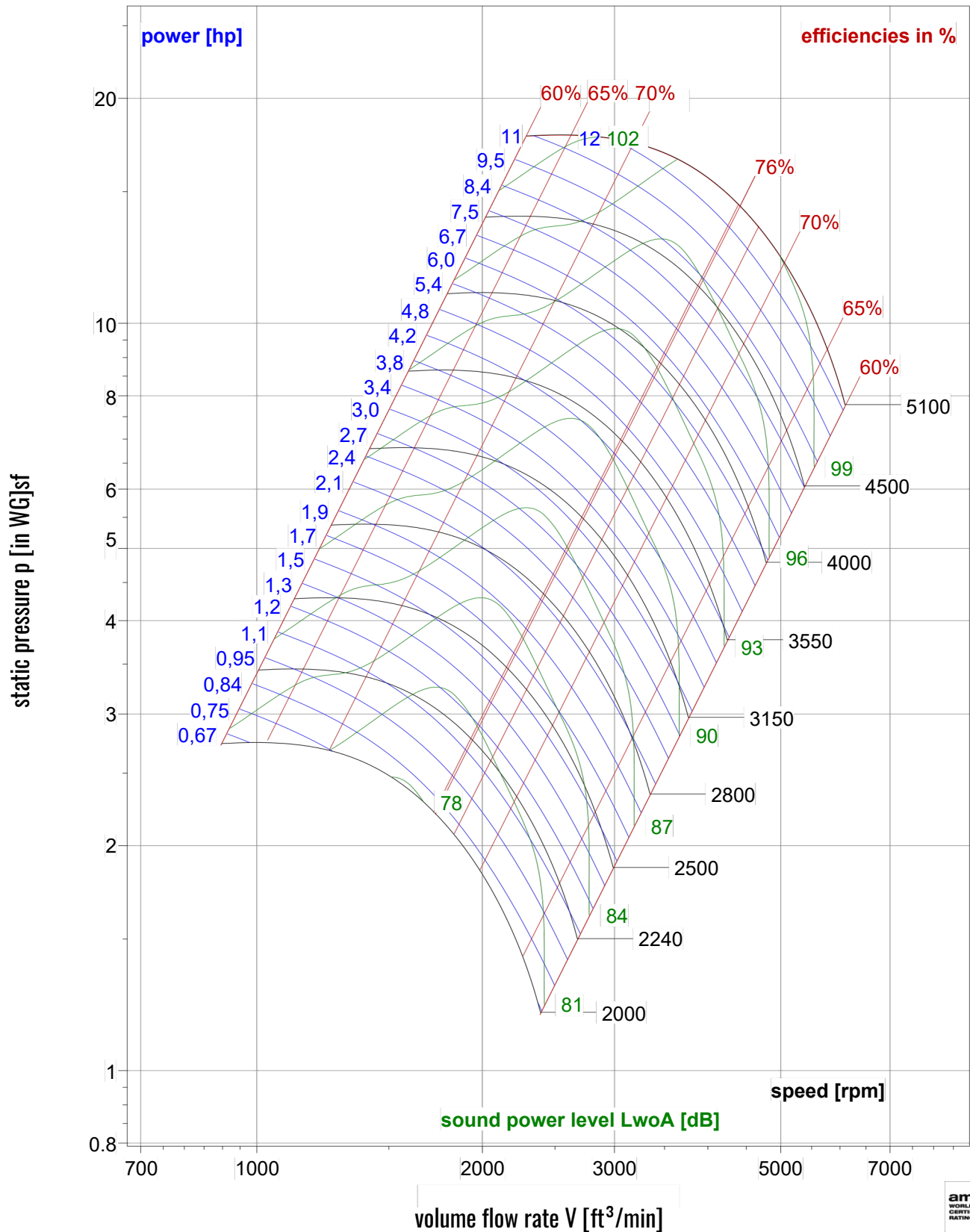
*DIMENSION E IS DEPENDENT ON SPECIFIC MOTOR AND MAY EXTEND PAST DIMENSION C

NAME	DATE	
DRAWN BY	AS	
CHECKED BY		
APPROVED BY		
NOTES		TITLE
		BDP Overall Dimensions
MATERIAL		JOB NUMBER
		SCALE 1/10 SHEET 8
		REV 3

Wheel Size	Motor Size	A	B	C	D
315	143T-145T	19	19	21.2	23
	182T-184T	-	-	-	-
	213T-215T	-	-	-	-
	254T-256T	-	-	-	-
	284T-286T	-	-	-	-
	324T-326T	-	-	-	-
	364T-365T	-	-	-	-
355	143T-145T	21	21	22.2	25
	182T-184T	-	-	23.2	-
	213T-215T	-	-	-	-
	254T-256T	-	-	-	-
	284T-286T	-	-	-	-
	324T-326T	-	-	-	-
	364T-365T	-	-	-	-
400	143T-145T	24	24	23.2	28
	182T-184T			24.2	
	213T-215T			27.2	
	254T-256T	-	-	-	-
	284T-286T	-	-	-	-
	324T-326T	-	-	-	-
	364T-365T	-	-	-	-
450	143T-145T	25	25	24.2	29
	182T-184T			25.2	
	213T-215T			28.2	
	254T-256T			32.2	
	284T-286T	-	-	-	-
	324T-326T	-	-	-	-
	364T-365T	-	-	-	-
500	143T-145T	27	27	25.2	31
	182T-184T			26.2	
	213T-215T			29.2	
	254T-256T			33.2	
	284T-286T			34.2	
	324T-326T	-	-	-	-
	364T-365T	-	-	-	-
560	143T-145T	30	30	27.2	34
	182T-184T			28.2	
	213T-215T			31.2	
	254T-256T			34.2	
	284T-286T			36.2	
	324T-326T			38.2	
	364T-365T	-	-	-	-

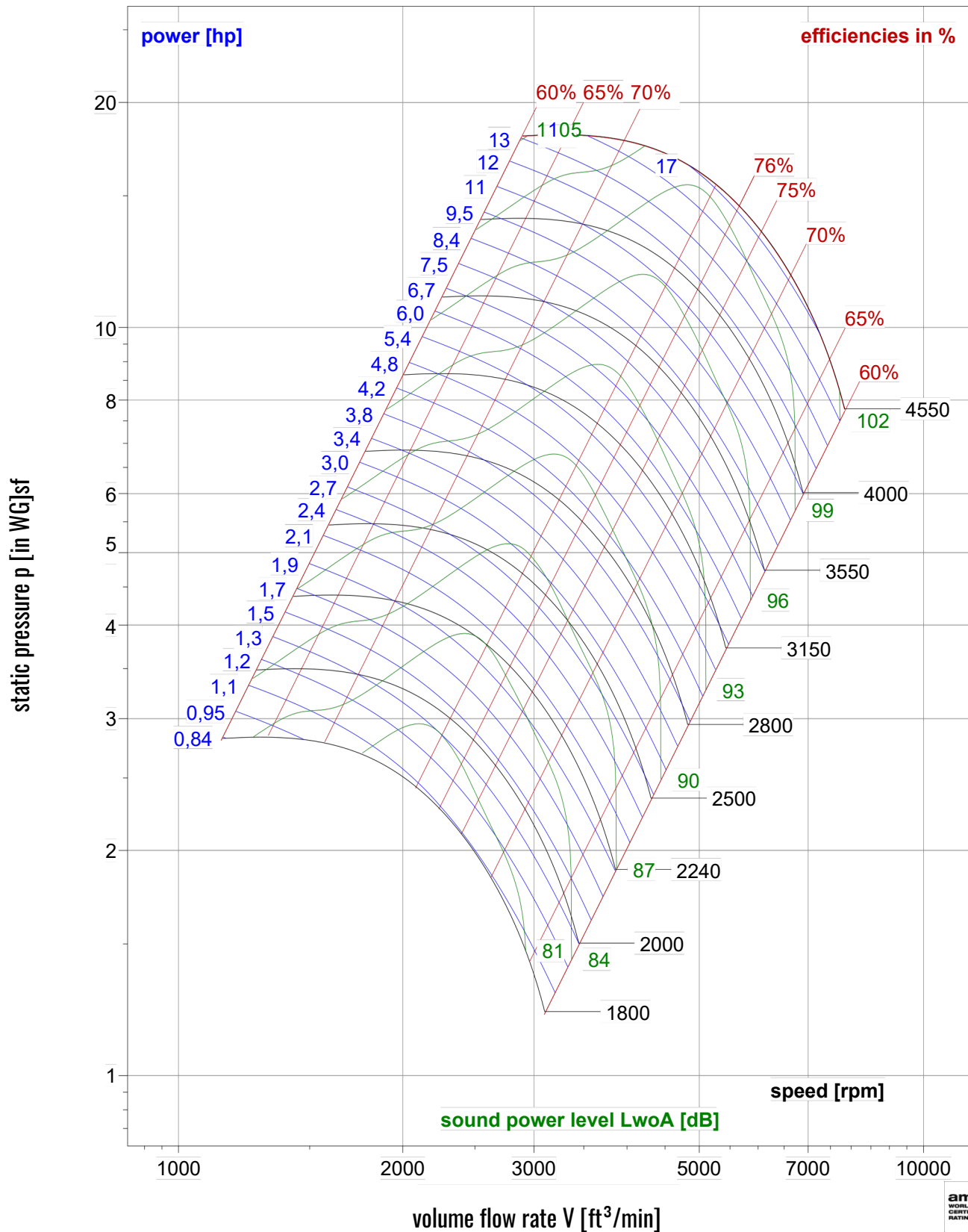
Wheel Size	Motor Size	A	B	C	D
630	143T-145T	33	33	28.2	37
	182T-184T			30.2	
	213T-215T			32.2	
	254T-256T			36.2	
	284T-286T			38.2	
	324T-326T			39.2	
	364T-365T			40.2	
710	143T-145T	37	37	30.2	41
	182T-184T			32.2	
	213T-215T			34.2	
	254T-256T			38.2	
	284T-286T			40.2	
	324T-326T			41.2	
	364T-365T			42.2	
800	143T-145T	41	41	32.2	45
	182T-184T			34.2	
	213T-215T			36.2	
	254T-256T			40.2	
	284T-286T			42.2	
	324T-326T			43.2	
	364T-365T			44.2	
900	143T-145T	45	45	35.2	49
	182T-184T			36.2	
	213T-215T			38.2	
	254T-256T			42.2	
	284T-286T			44.2	
	324T-326T			45.2	
	364T-365T			47.2	
1000	143T-145T	50	50	37.2	54
	182T-184T			38.2	
	213T-215T			41.2	
	254T-256T			44.2	
	284T-286T			46.2	
	324T-326T			48.2	
	364T-365T			49.2	





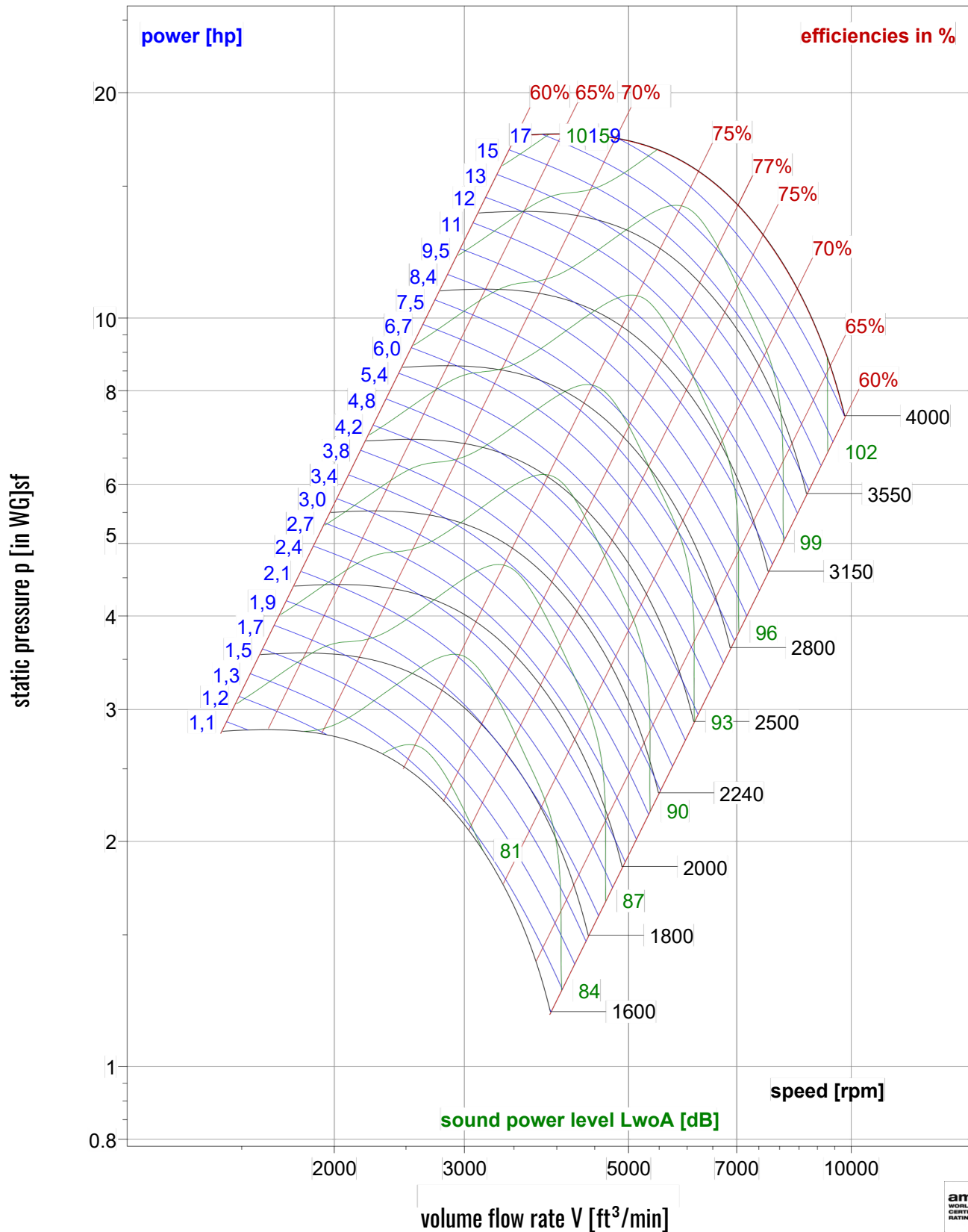
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





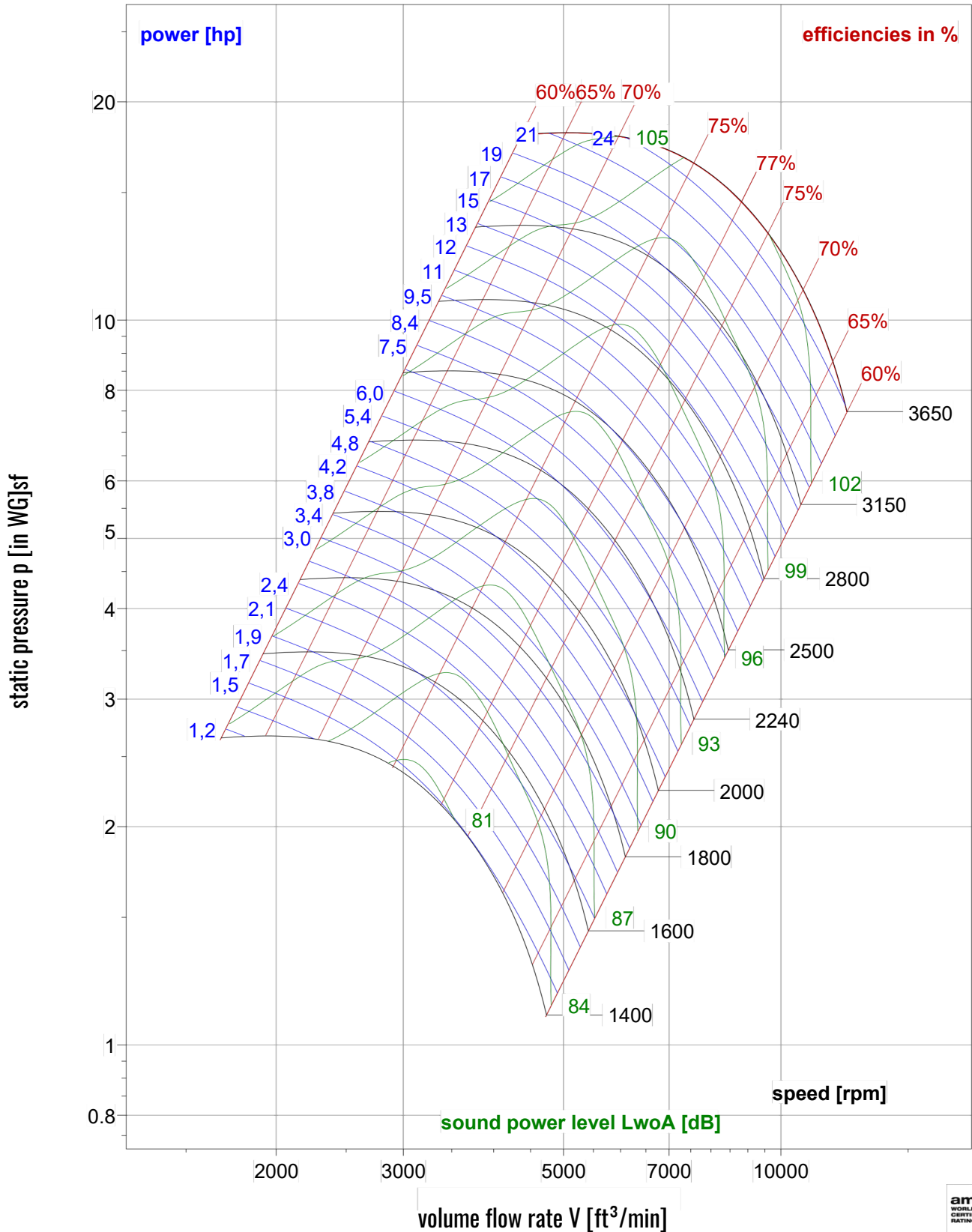
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





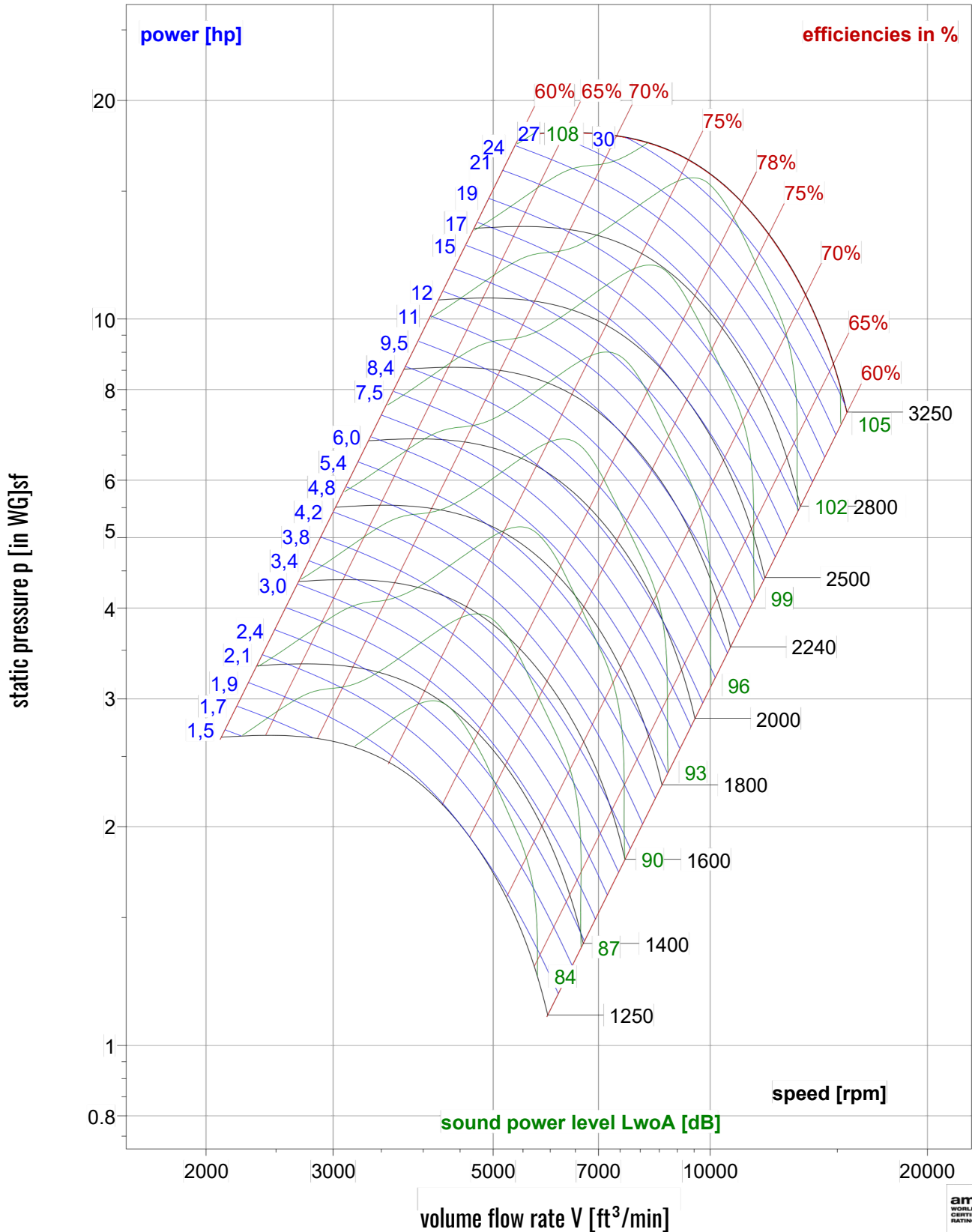
Performance certified for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





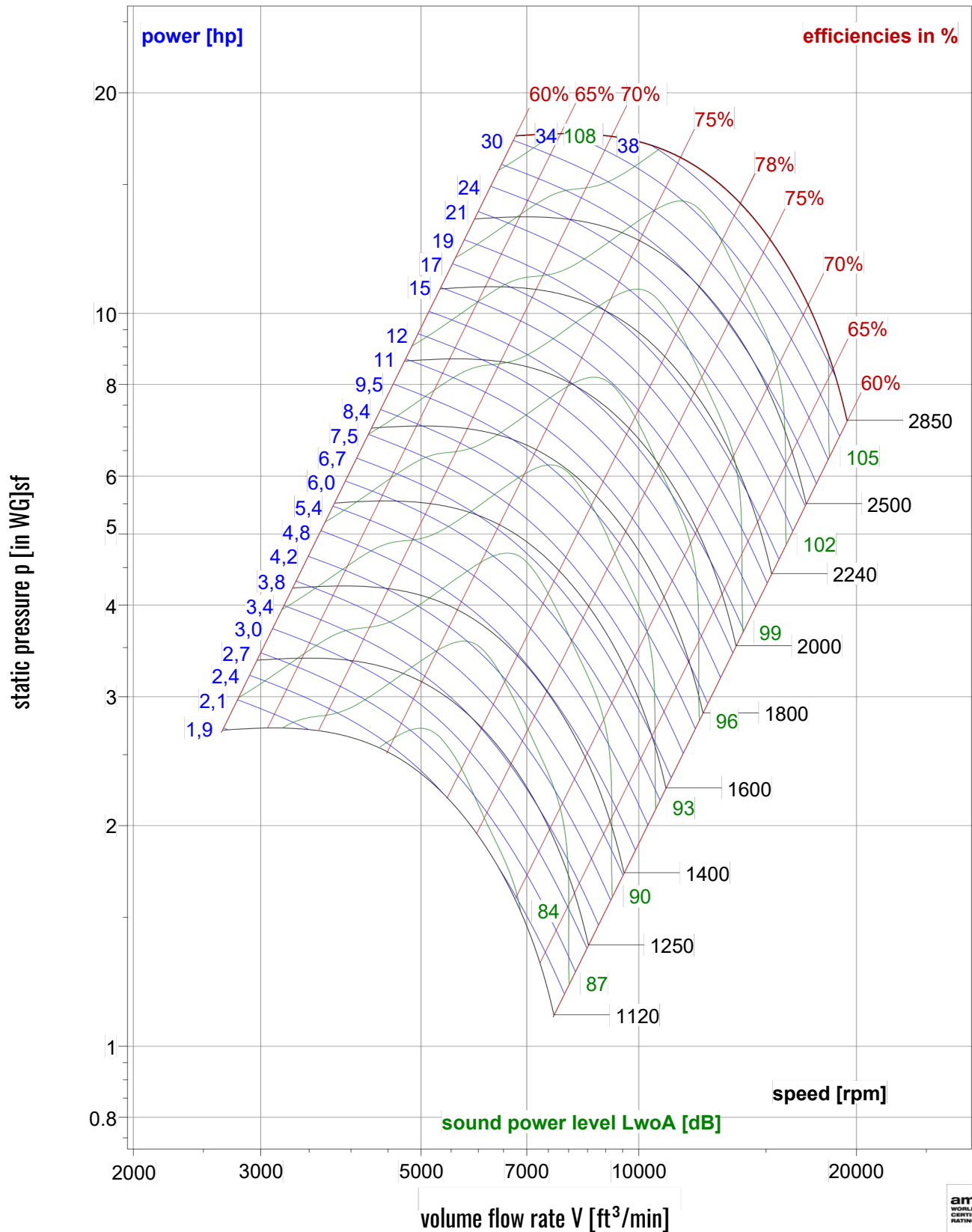
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





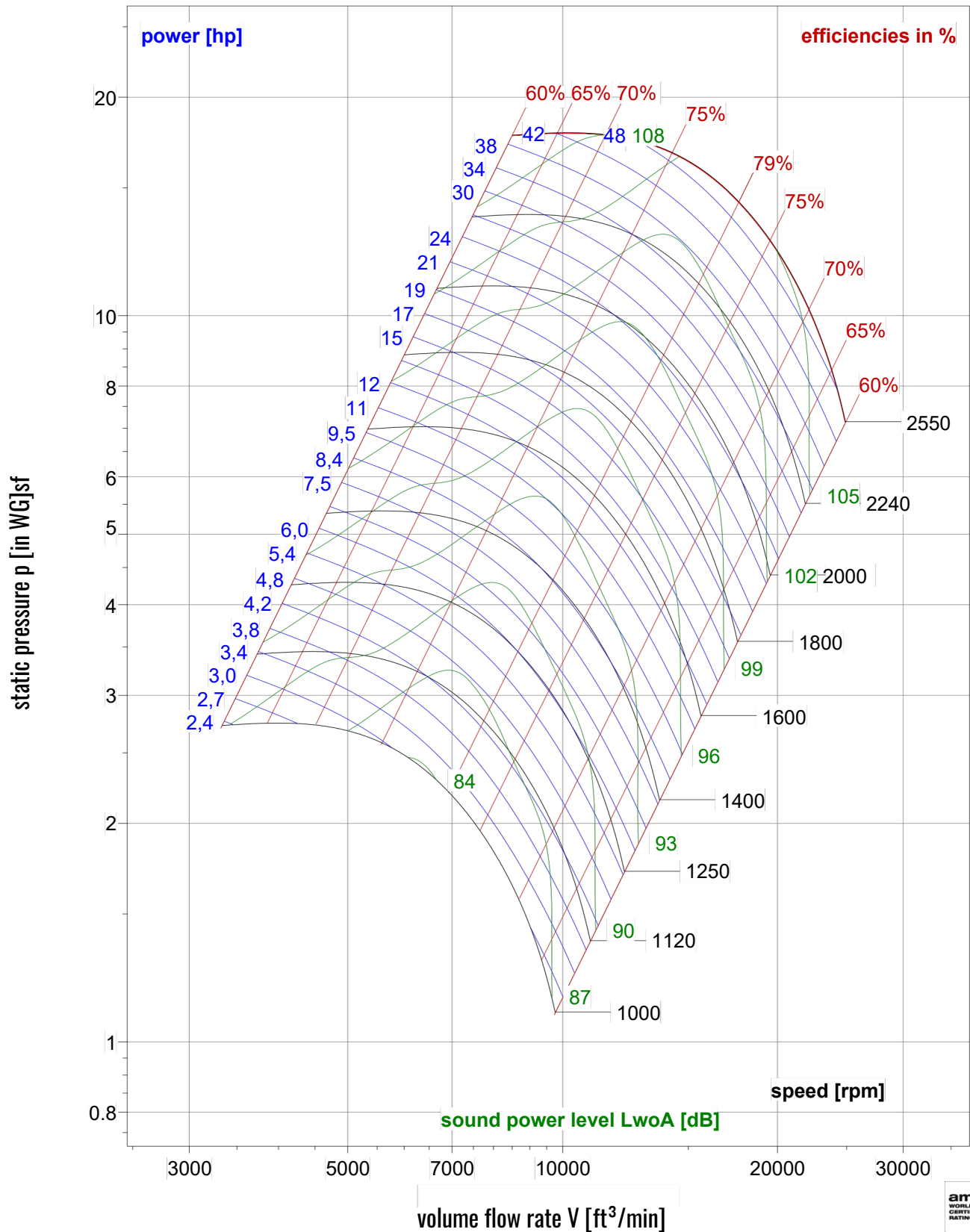
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





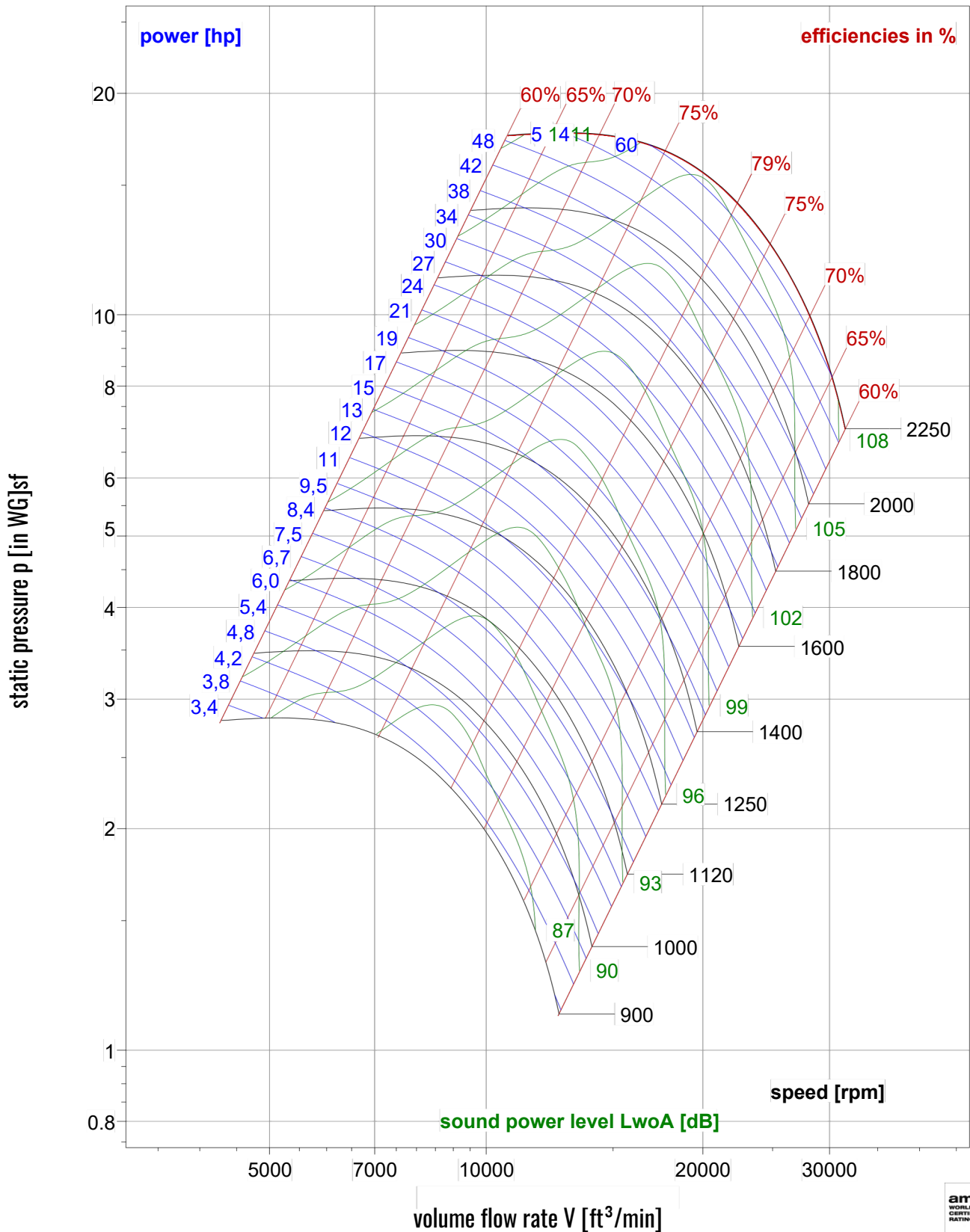
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





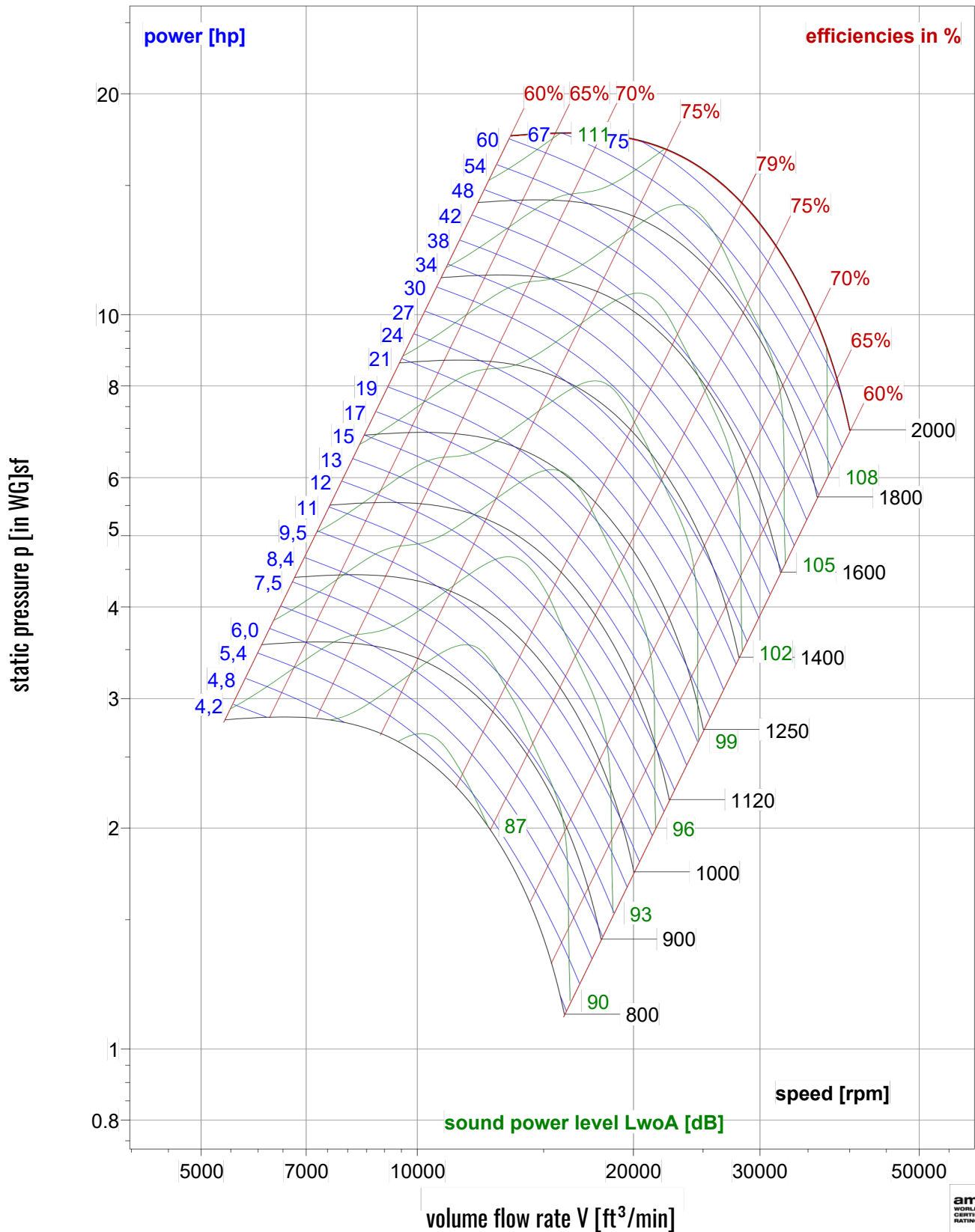
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





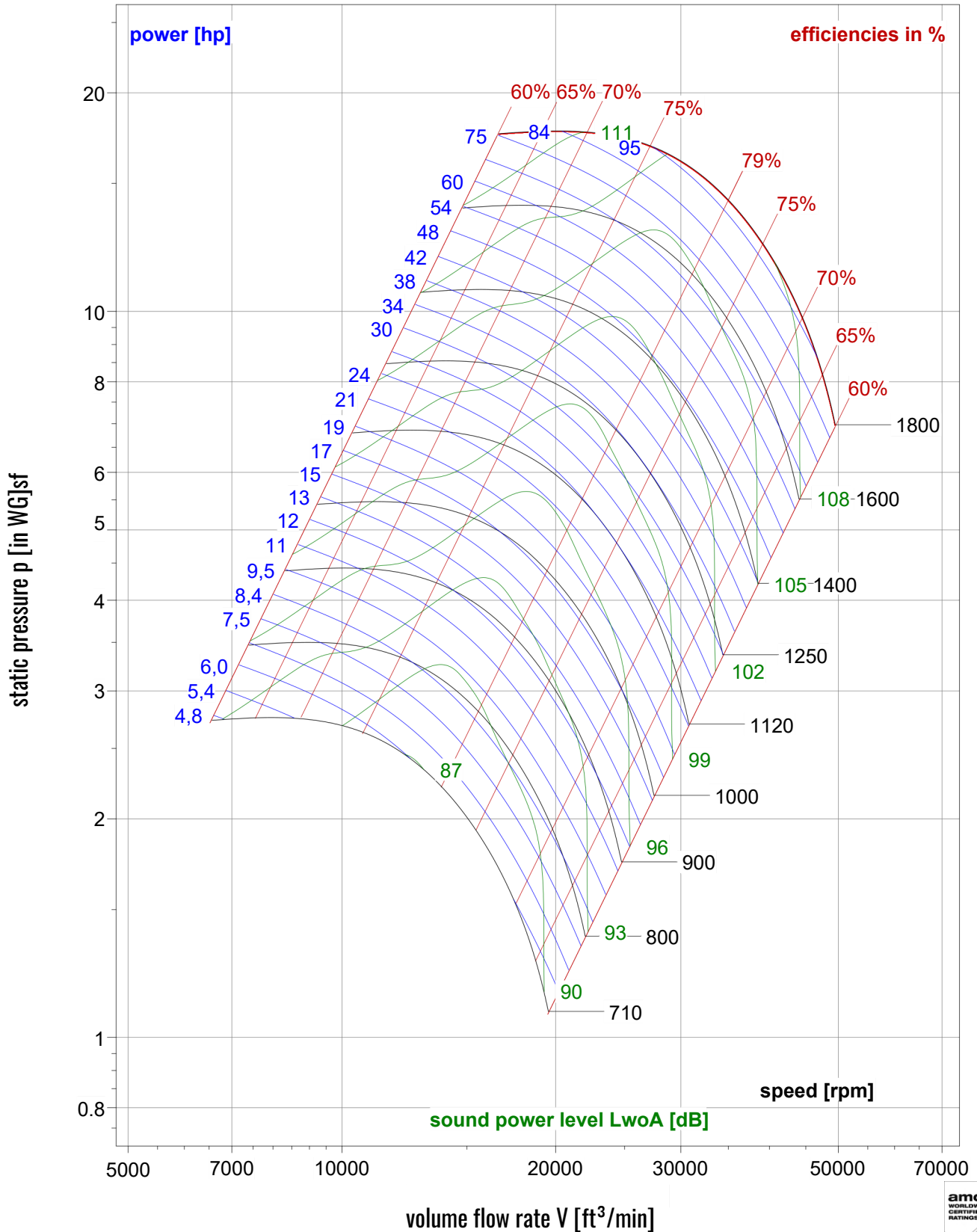
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





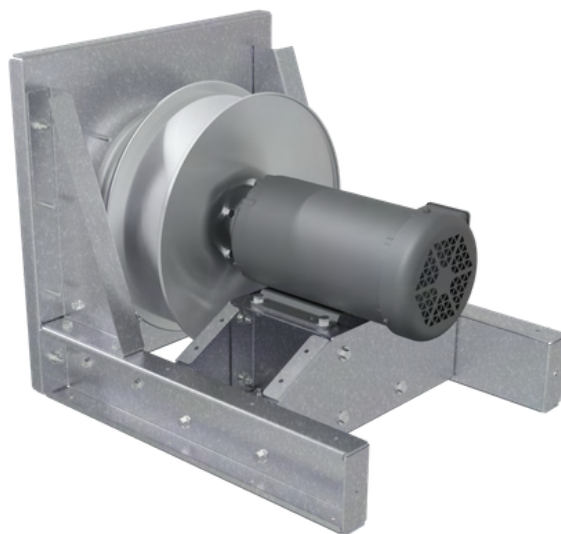
Performance certified for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.

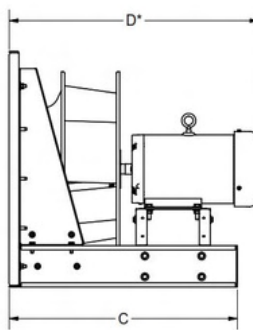
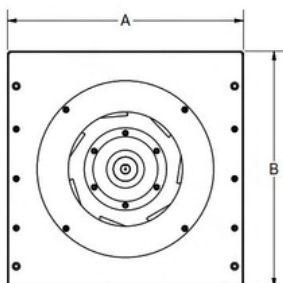
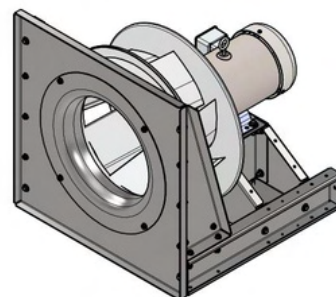
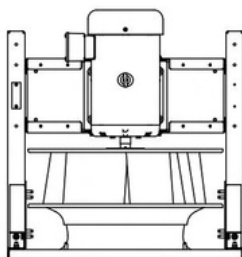


BDL

Base-Mounted, Direct Drive Plenum Fan

The BDP-L is a commercial grade, base-mounted direct drive plenum fan, featuring a galvanized steel, bolted construction for high performance and economical design. The BDP-L is well-suited for single or multi-fan applications, with or without a VFD.



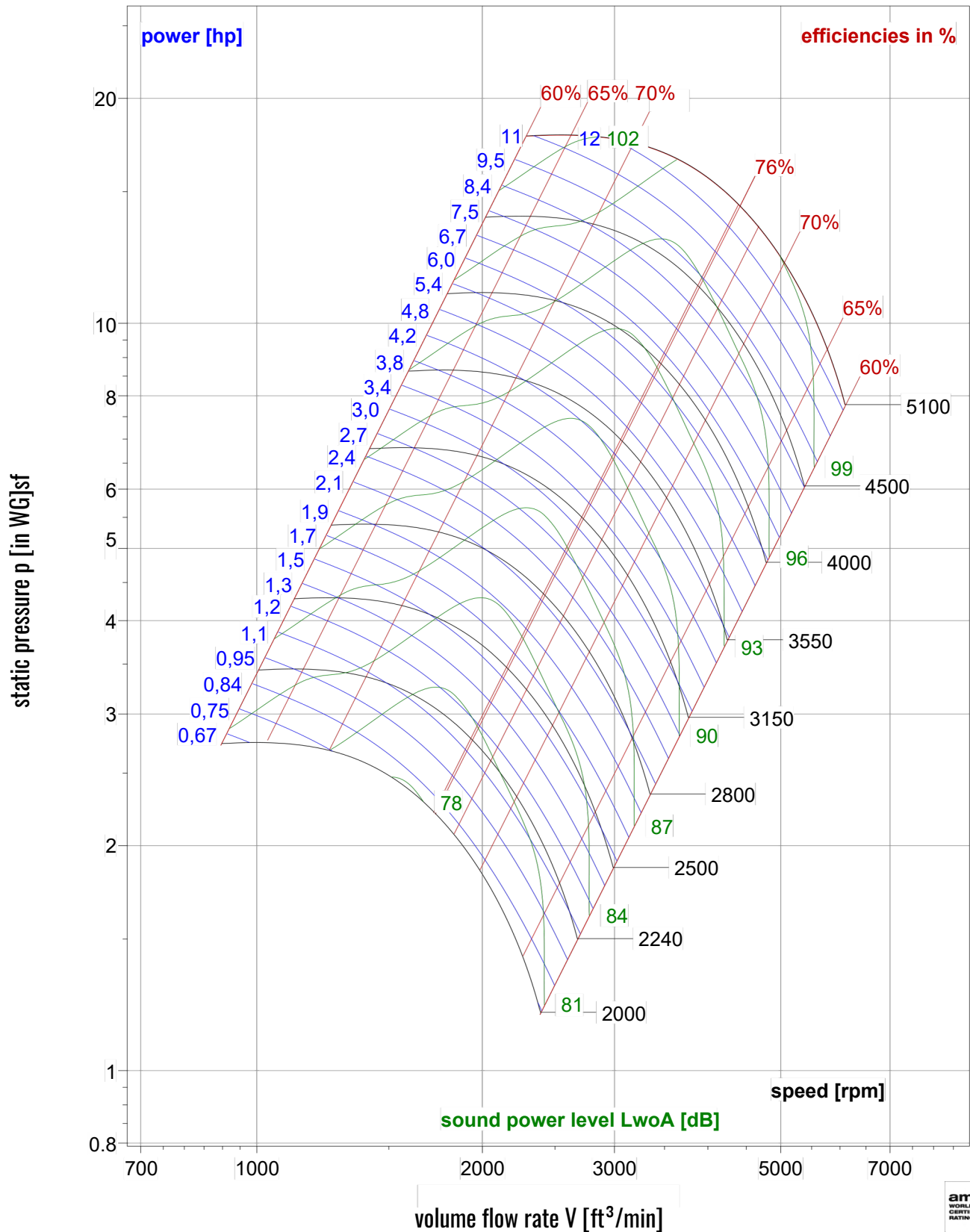


*DIMENSION D IS DEPENDENT ON SPECIFIC MOTOR AND MAY EXTEND PAST DIMENSION C

DRAWN BY	NAME	DATE	
CHECKED BY	AS	2/4/20	
APPROVED BY			
NOTES			
TITLE			BDL OVERALL DIMENSIONS
JOB NUMBER			
SCALE			1/10 SHEET B 1 OF 1
MATERIAL			QTY 1 REV 0

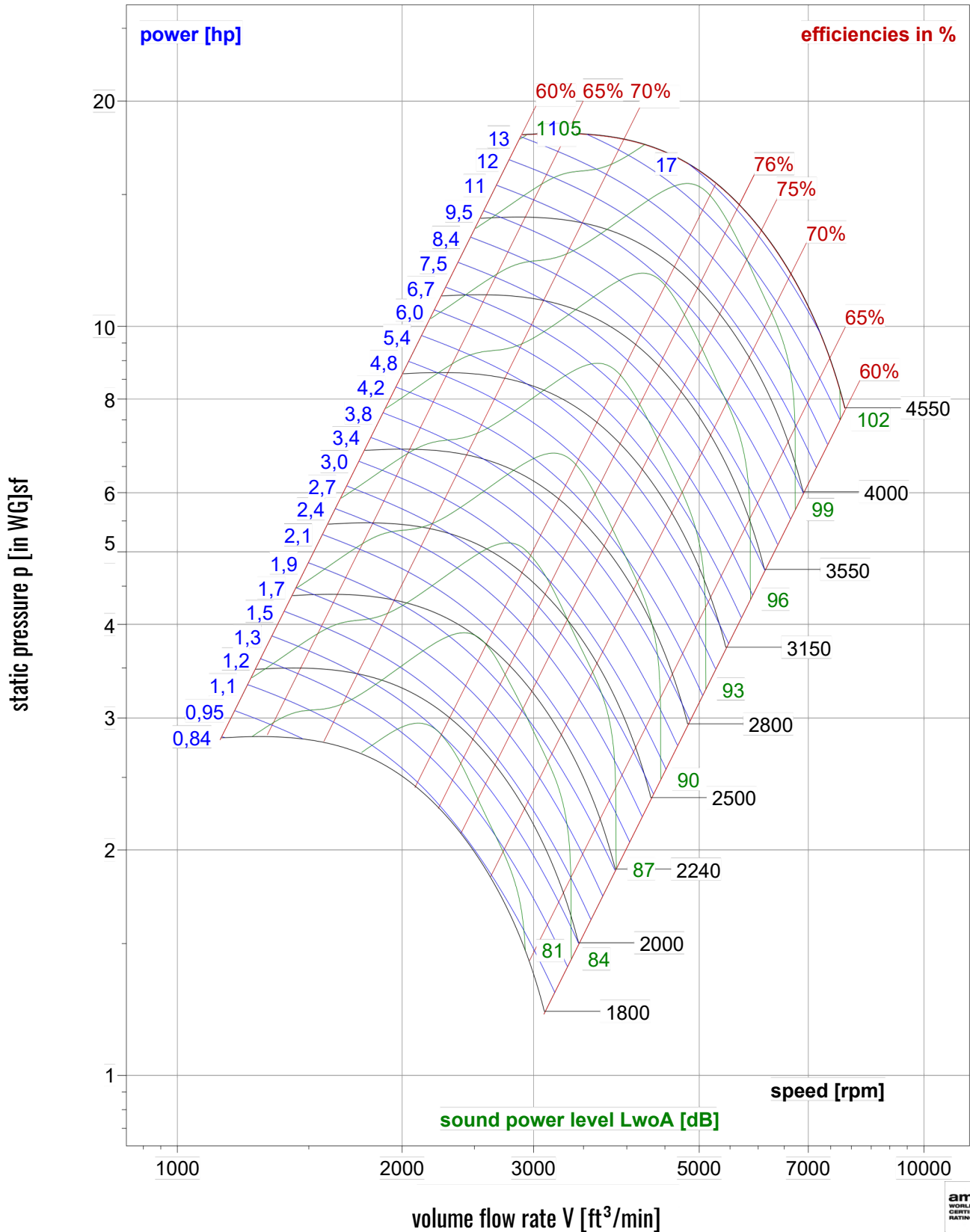
Fan Size	Motor Size	A	B	C
315	143T-145T	19	19	21.2
	182T-184T	-	-	-
	213T-215T	-	-	-
	254T-256T	-	-	-
355	143T-145T	21	21	22.2
	182T-184T			23.2
	213T-215T	-	-	-
	254T-256T	-	-	-
400	143T-145T	24	24	23.2
	182T-184T			24.2
	213T-215T	-	-	27.2
	254T-256T	-	-	-
450	143T-145T	25	25	24.2
	182T-184T			25.2
	213T-215T			28.2
	254T-256T			32.2
500	143T-145T	27	27	25.2
	182T-184T			26.2
	213T-215T			29.2
	254T-256T			33.2
560	143T-145T	30	30	27.2
	182T-184T			28.2
	213T-215T			31.2
	254T-256T			34.2

Fan Size	Motor Size	A	B	C
630	143T-145T	33	33	28.2
	182T-184T			30.2
	213T-215T			32.2
	254T-256T			36.2
710	143T-145T	37	37	30.2
	182T-184T			32.2
	213T-215T			34.2
	254T-256T			38.2
800	143T-145T	41	41	32.2
	182T-184T			34.2
	213T-215T			36.2
	254T-256T			40.2
900	143T-145T	45	45	35.2
	182T-184T			36.2
	213T-215T			38.2
	254T-256T			42.2
1000	143T-145T	50	50	37.2
	182T-184T			38.2
	213T-215T			41.2
	254T-256T			44.2



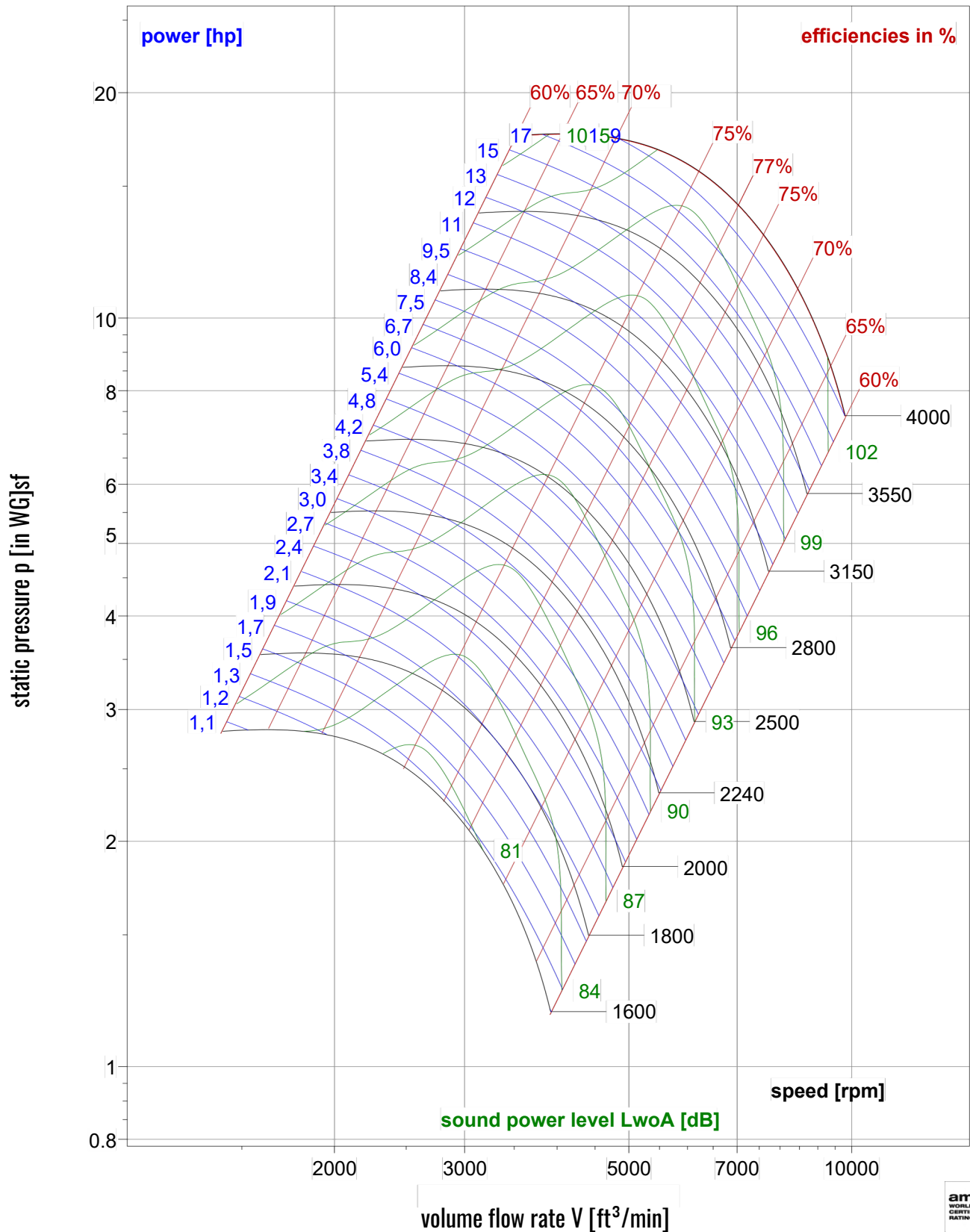
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





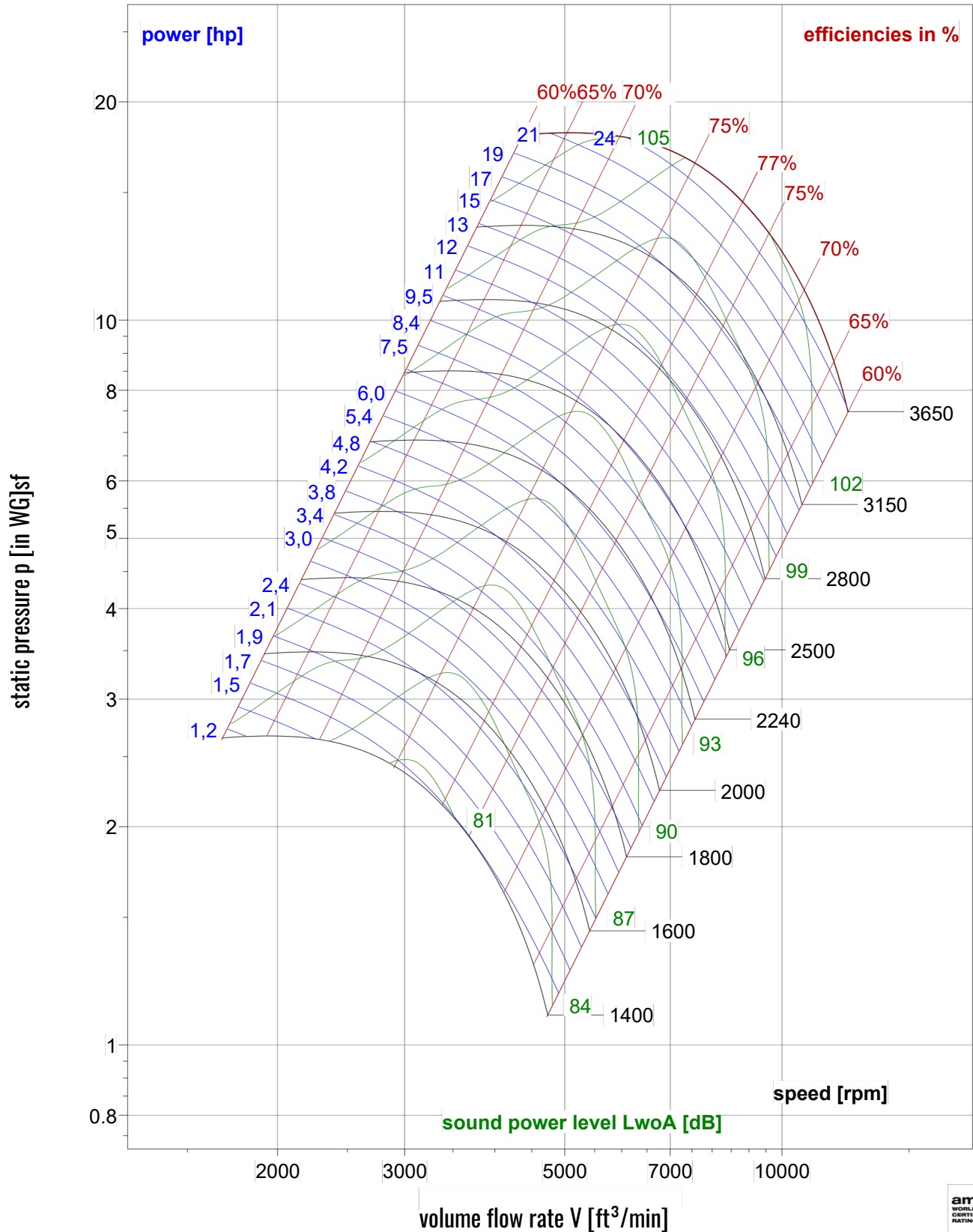
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





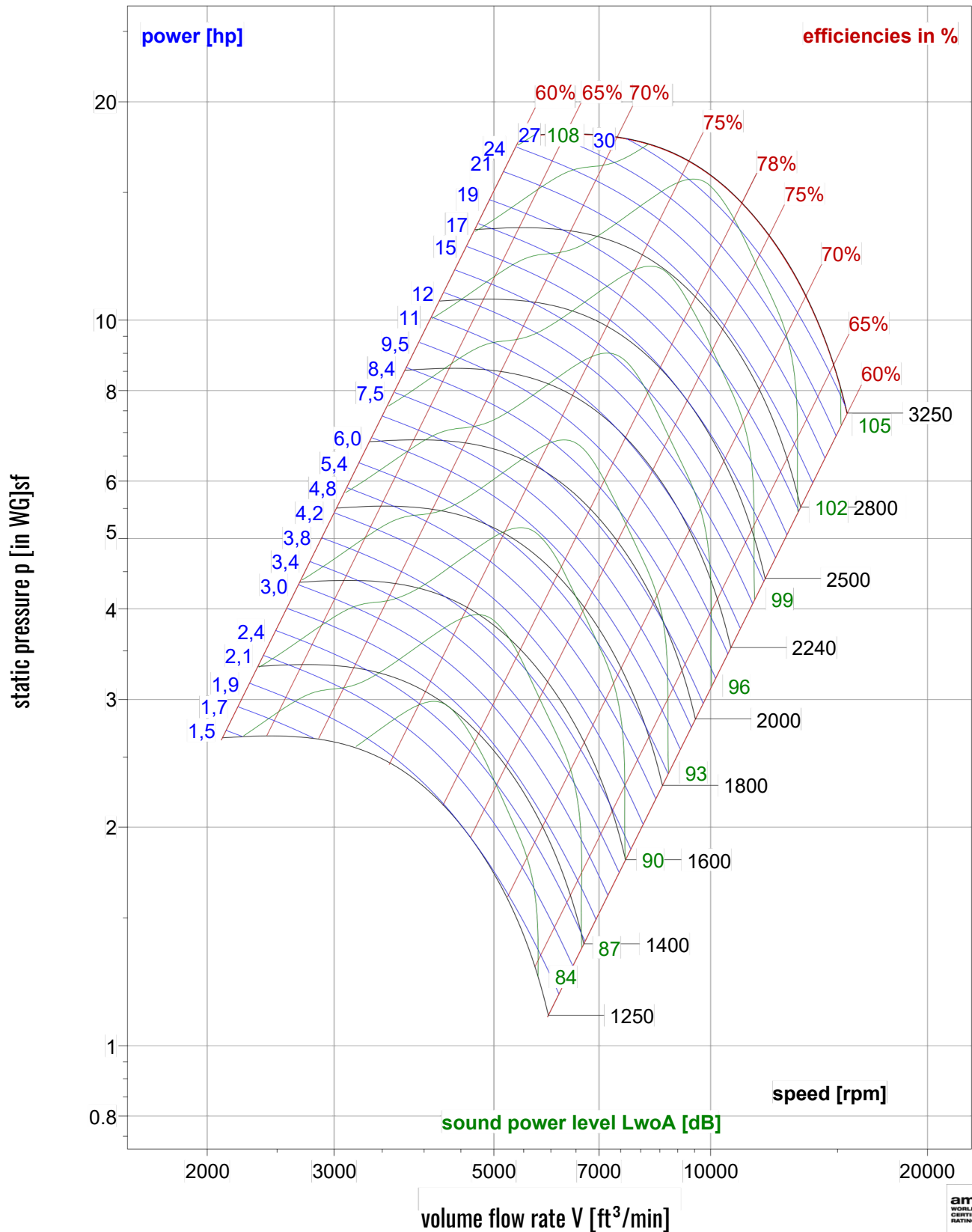
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





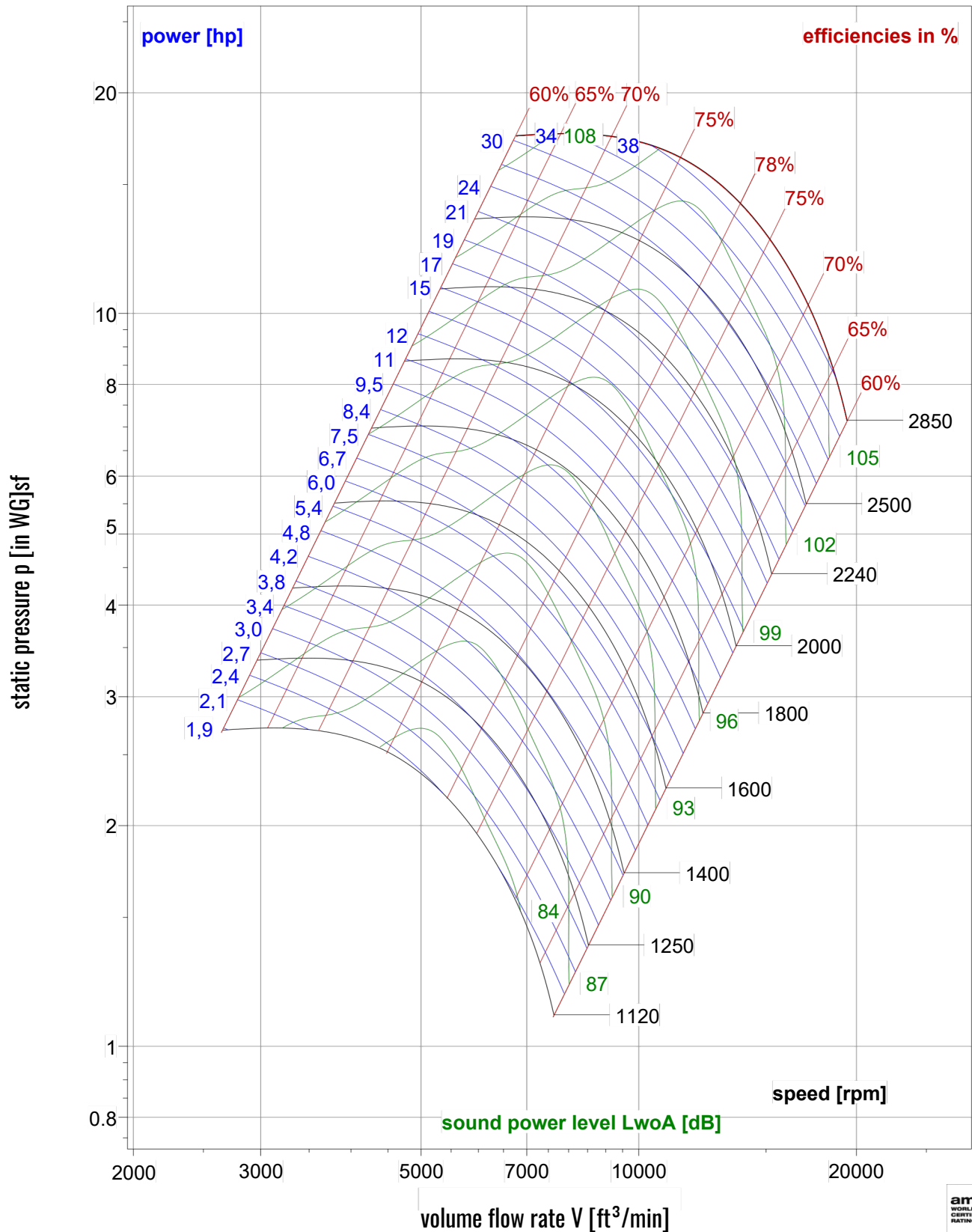
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





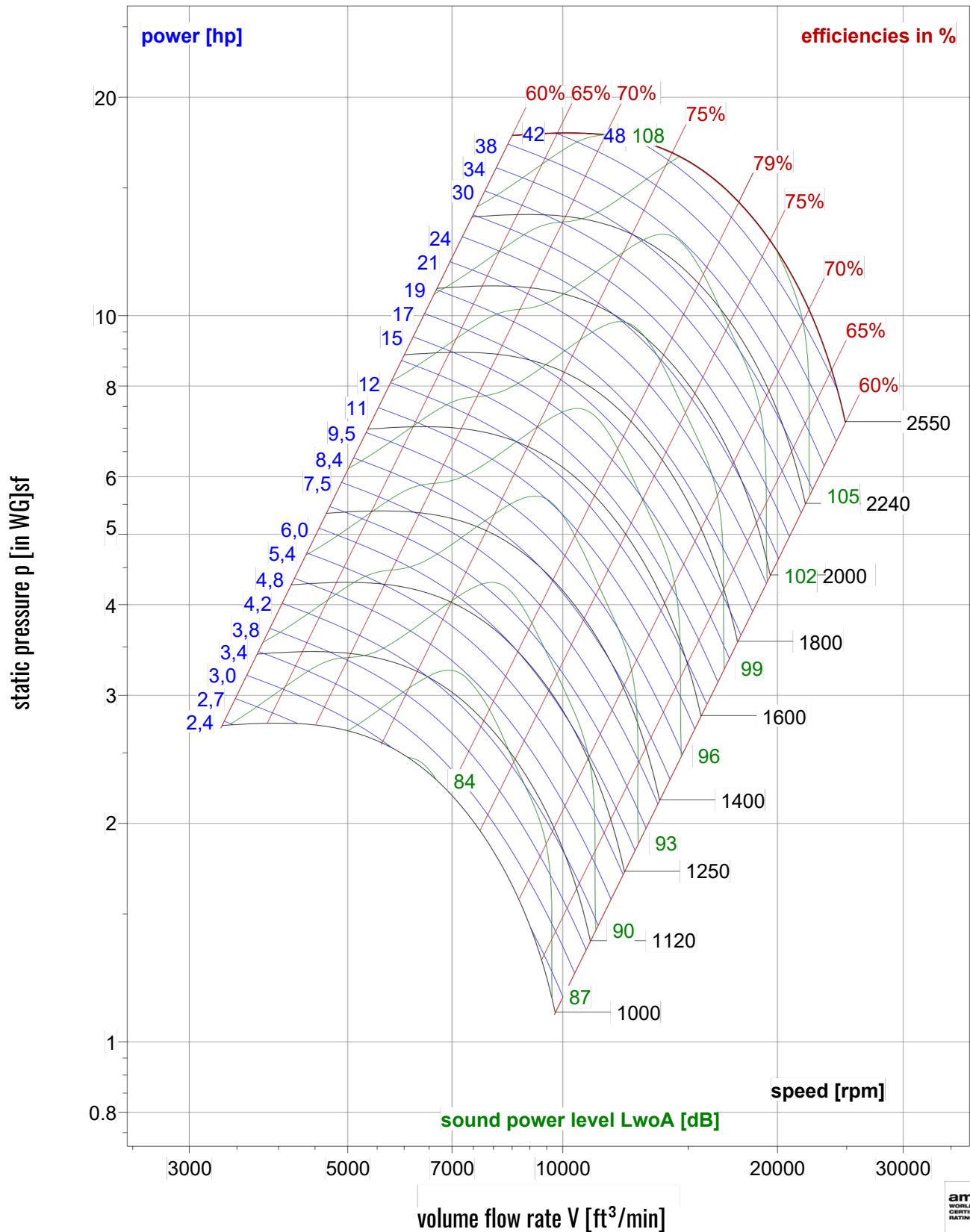
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





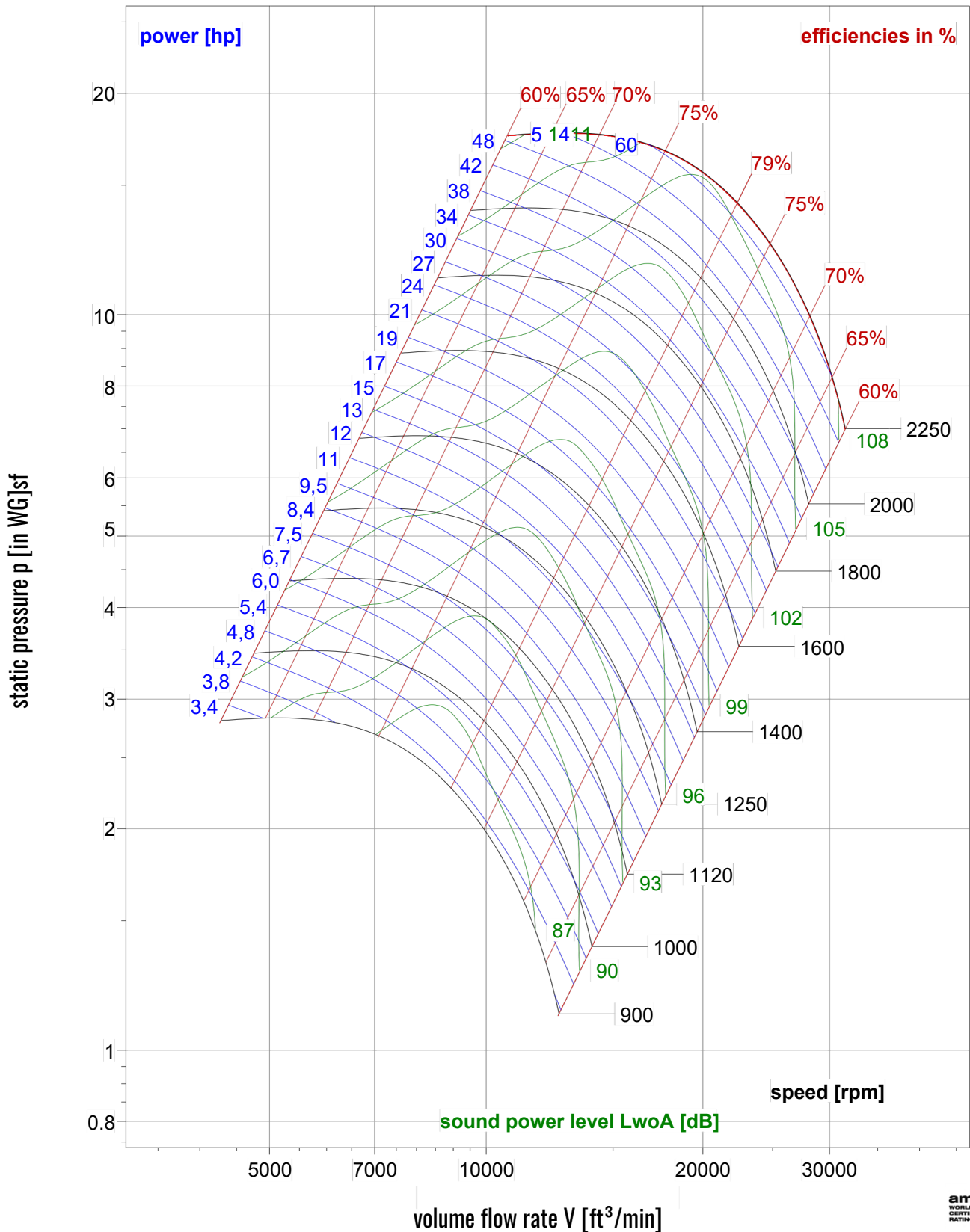
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





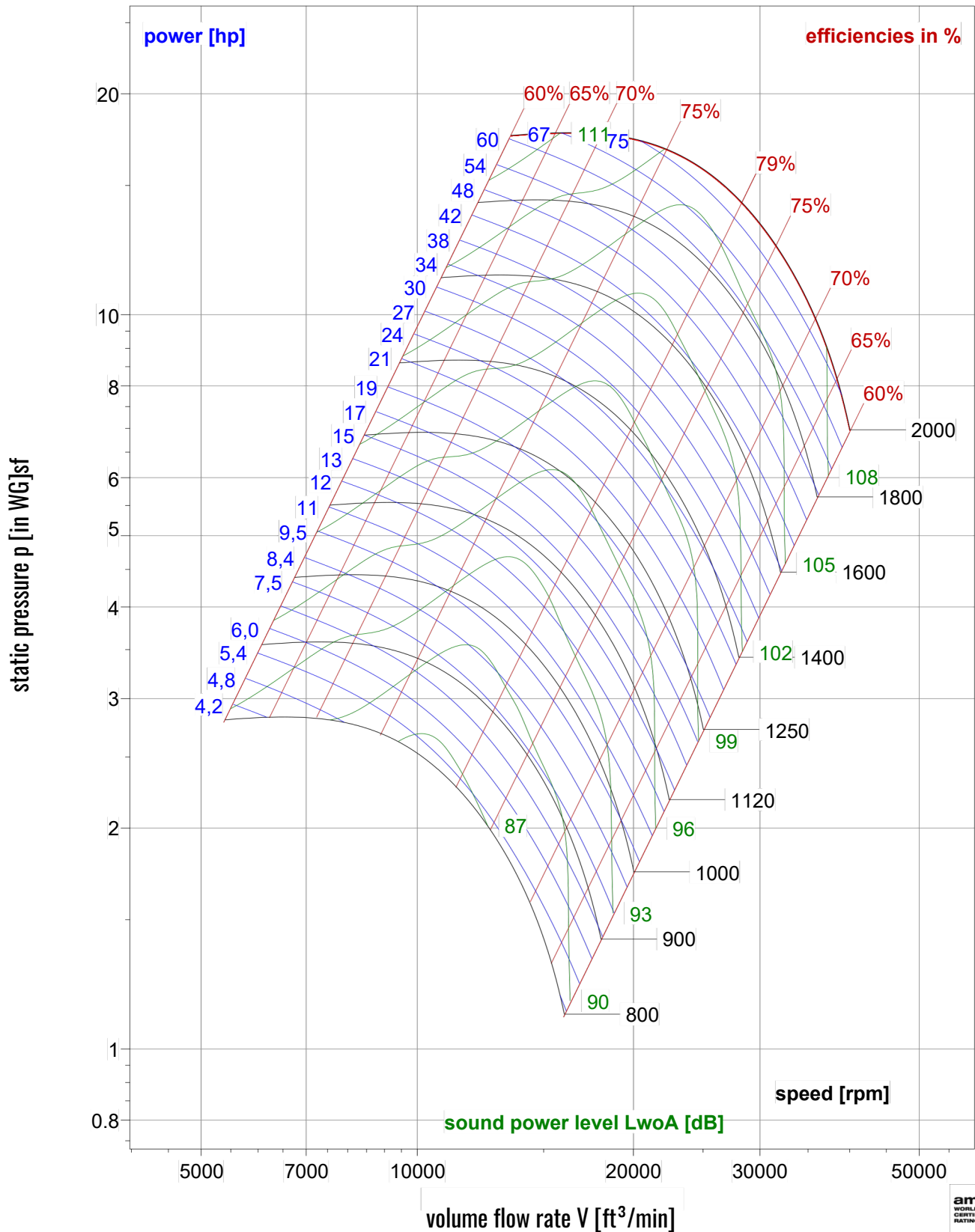
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are L_{wA} sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





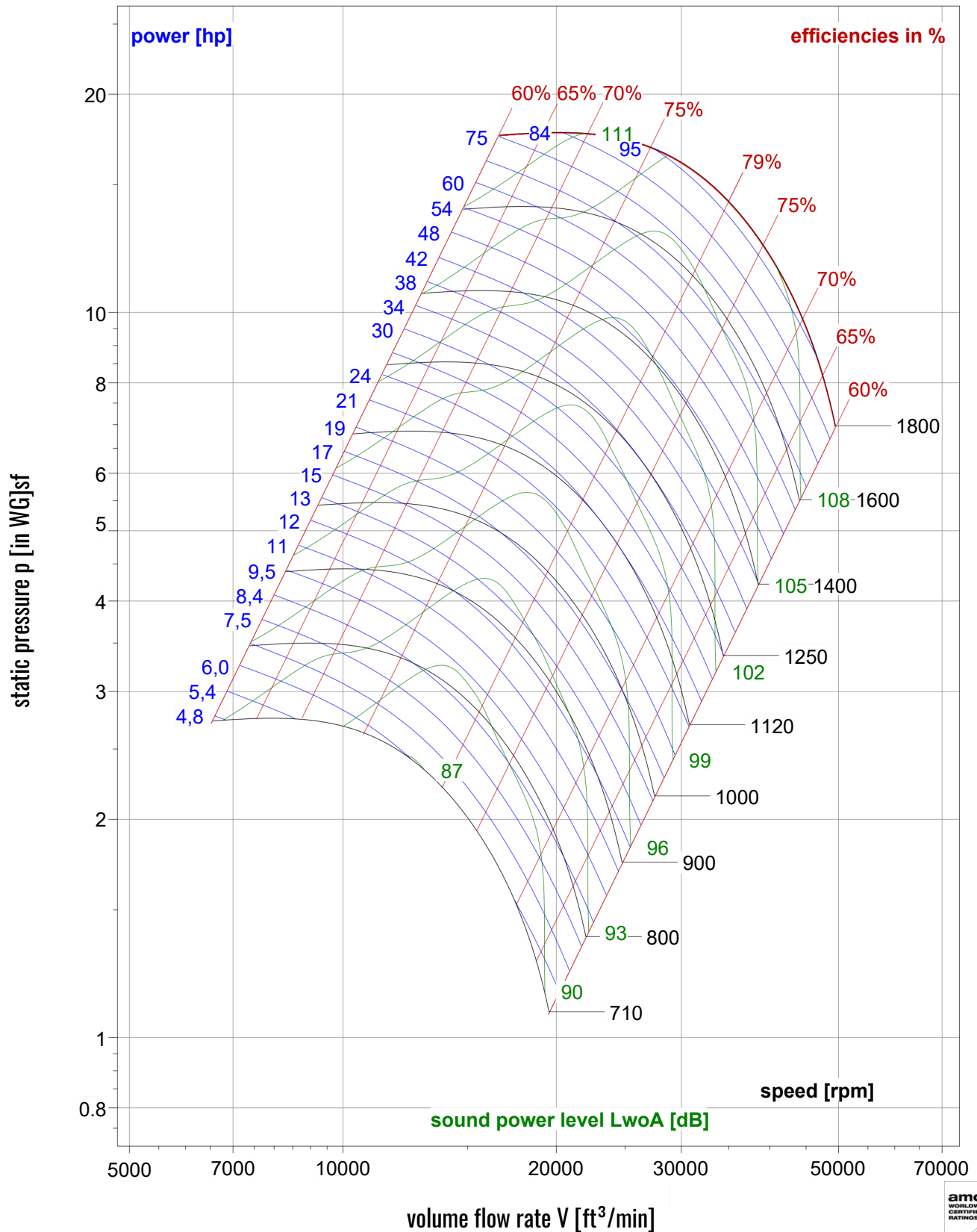
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.





Delivering innovative, custom, American-made products on fast lead times for over 30 Years

Mainstream was founded in the early 90's as a family business in New Jersey, manufacturing HVAC equipment. Over the past three decades, Mainstream has grown and evolved into one of the leading manufacturers of custom-engineered fans for commercial and industrial applications.

Let's discuss your next project.

908-931-1010

info@mainstream-corp.com

47 Russo Place, Berkeley Heights, NJ 07922



www.mainstream-corp.com



info@mainstream-corp.com