



PEACE OF MIND, BUILT IN



Models UDPT, UDP and EDP DIRECT DRIVE PLENUM FANS

January 2026



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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.



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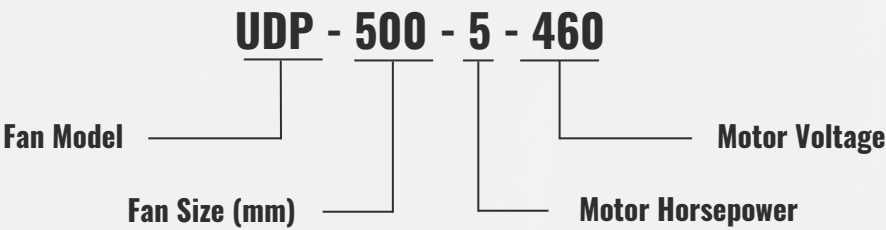


Mainstream Fluid & Air LLC certifies that the Models BDP shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



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

Model Number Code

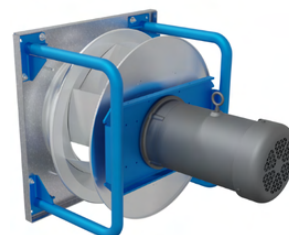


Fan Models

UDPT

Universal-Mount, Direct Drive Plenum Fan

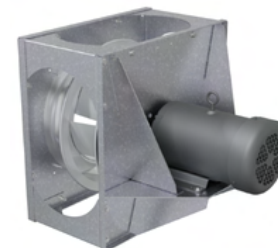
The UDPT is a universal-mount, or wall-mounted direct drive plenum fan, featuring a welded tube frame construction. The UDPT is designed for a variety of applications, include upflow and downflow arrangements.



UDP

Universal-Mount, Direct Drive Plenum Fan

The UDP is a universal-mount, or wall-mounted direct drive plenum fan, featuring a bolted, formed sheet metal construction. The UDP is designed for a variety of applications, include upflow and downflow arrangements.



EDP

ECM Plenum Fan

The EDP is a universal-mount, or wall-mounted direct drive plenum fan. The EDP is an ECM fan, meaning the VFD is integral to the motor. The EDP is designed for a variety of applications, include upflow and downflow arrangements.



Options & Accessories

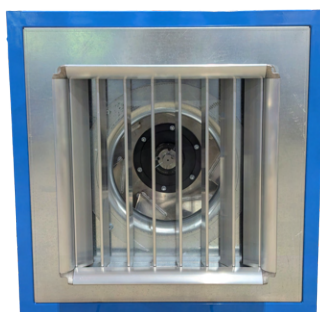
Fans are the heart of any air handling system. Their performance directly impacts comfort, energy use, reliability, and the operating cost of a building.

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



Mesh Guarding

Available on all fan models to prevent accidental contact.



Backdraft Dampers

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



Piezo Ring

Quad-tap ring, for precise pressure measurement



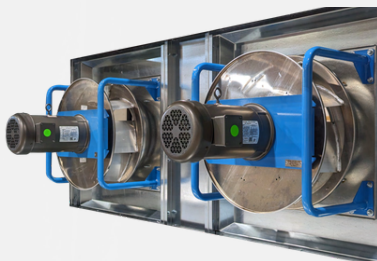
Motor Options



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.

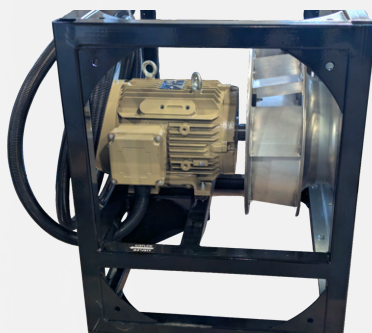
- Max HP: 15 HP

Heavy-Duty Solutions



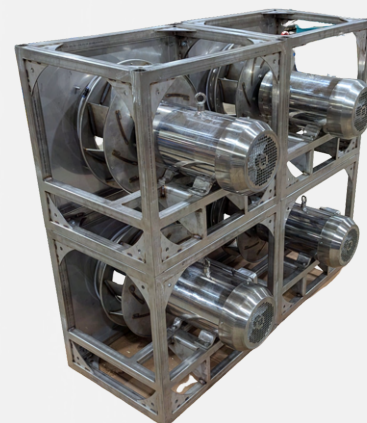
Explosion Proof Motors

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

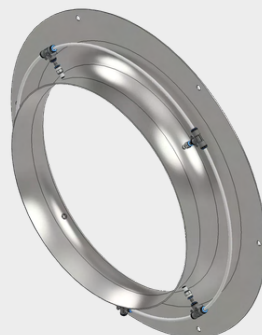
- **Touch Screen Display:** 10" display for real-time system monitoring — no BAS integration required.
- **BAS Integration:** Seamless integration for fan and panel monitoring, scheduling, trending, and alarms. System supports BACnet MS/TP, BACnet IP, or Modbus RTU protocols.
- **Airflow Monitoring with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



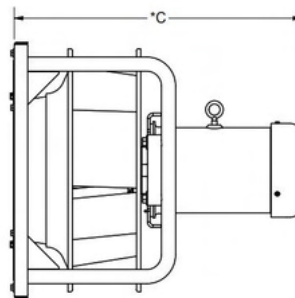
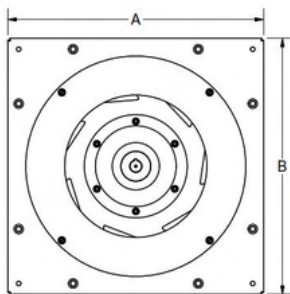
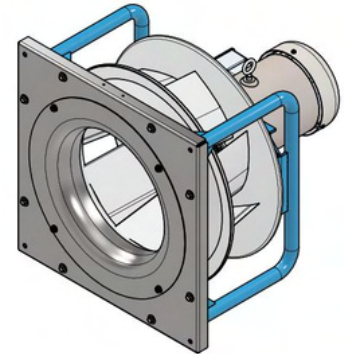
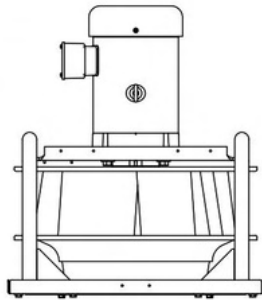
UDPT

Universal-Mount, Direct Drive Plenum Fan

The UDPT is a universal-mount, or wall-mounted direct drive plenum fan, featuring a welded tube frame construction. The UDPT is designed for a variety of applications, include upflow and downflow arrangements. A variety of different options and accessories are available including different wheel designs, frame materials, and motor classifications.



UDPT Dimensions

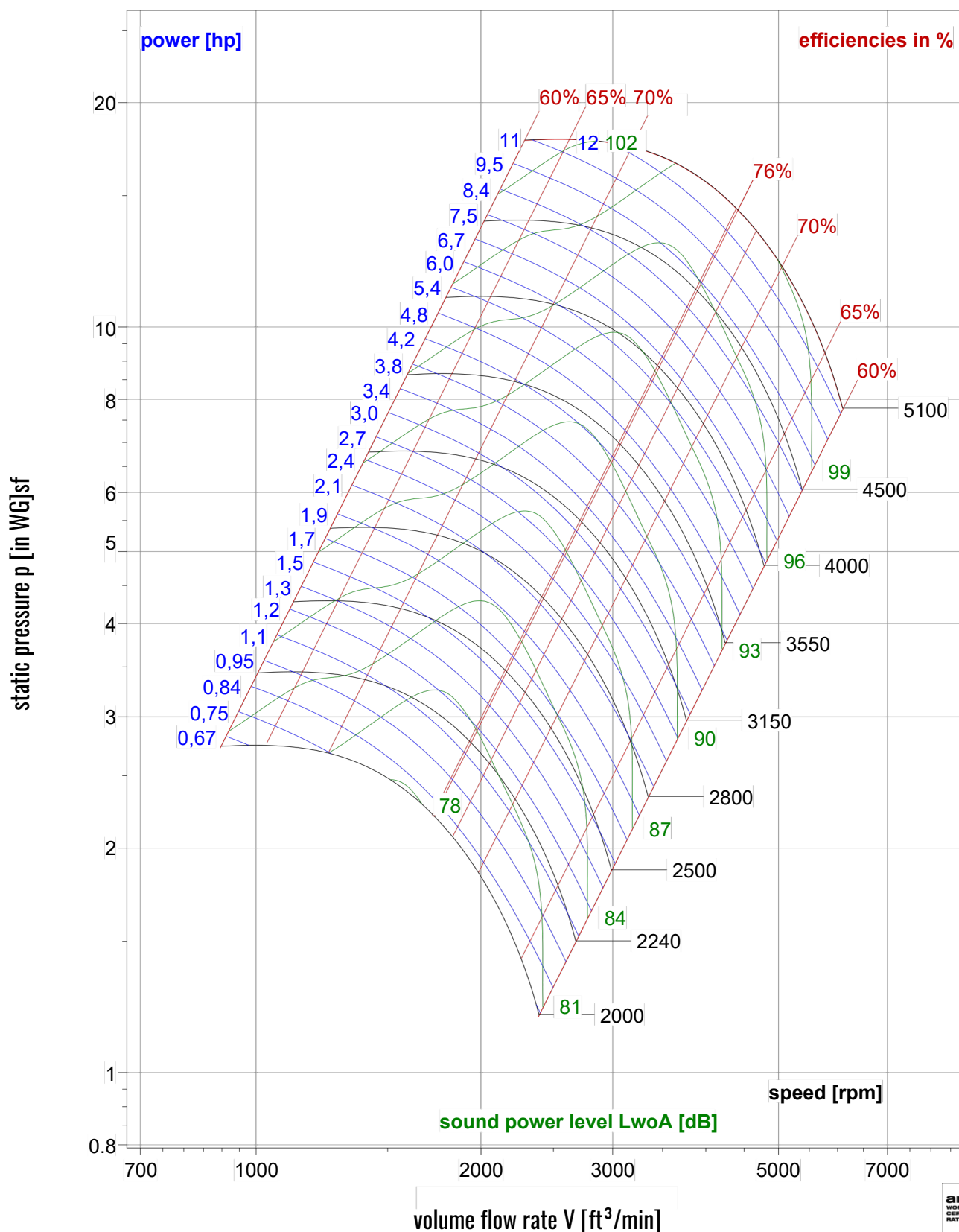


*DIMENSION C IS DEPENDENT ON SPECIFIC MOTOR

DRAWN BY	NAME	DATE	Mainstream	
CHECKED BY	AS	25/25		
APPROVED BY				
NOTES			TITLE	
			UDPT Overall Dimensions	
MATERIAL			JOB NUMBER	QTY 1
			SCALE 1 / 8	REV 0
THIS DRAWING IS PROPERTY OF MAINSTREAM PUMP AND AIR, LLC AND NOT BE REPRODUCED, COPIED, A TITLED, OR FORWARDED WITHOUT THE EXPRESS PERMISSION OF MAINSTREAM PUMP AND AIR, LLC. ANY VIOLATION WILL BE PROSECUTED TO THE FULL EXTENT OF THE LAW.				

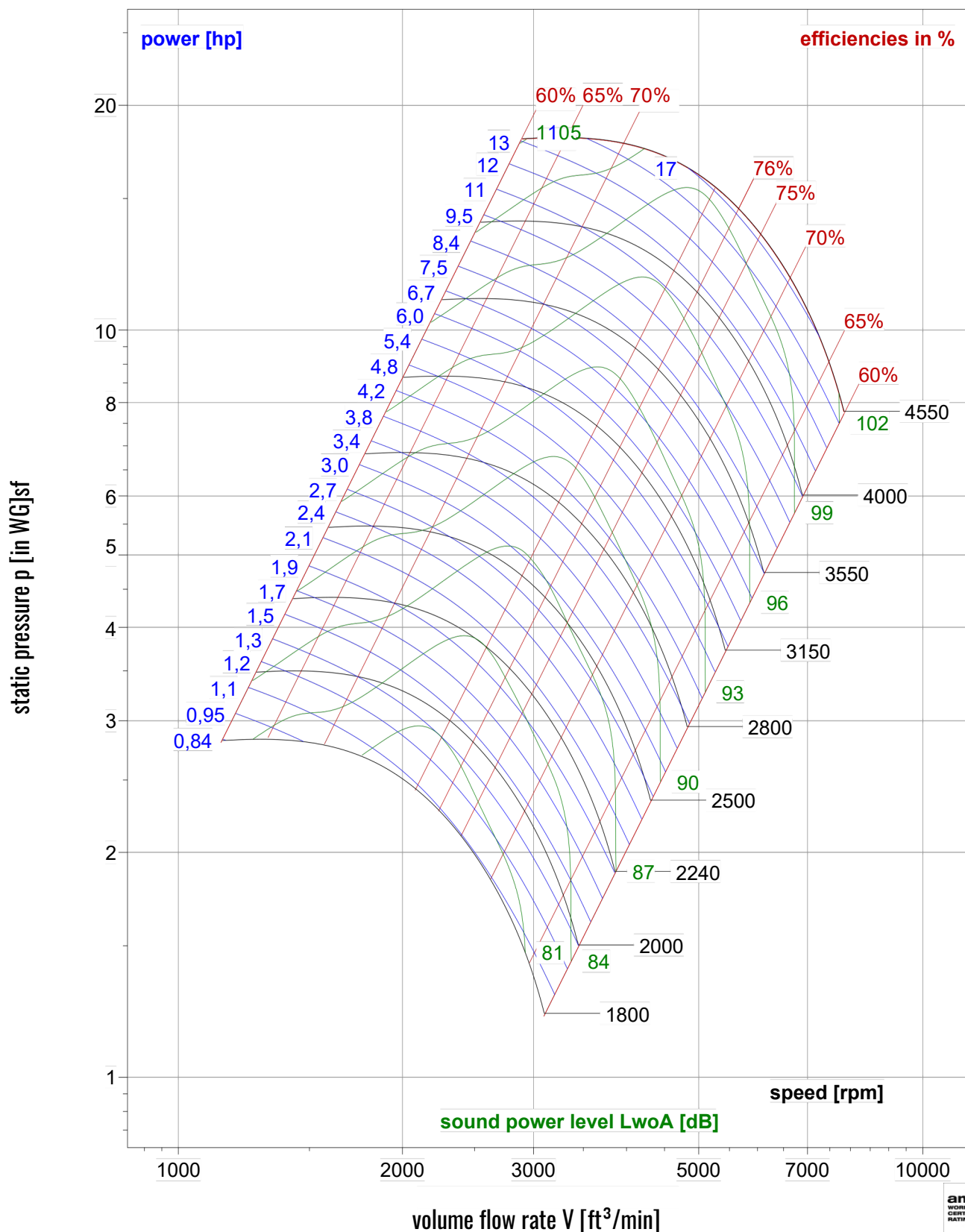
Wheel Size	Motor Size	A	B
225	143TC-145TC	14	14
250	143TC-145TC	15	15
280	143TC-145TC	16	16
315	143TC-145TC	17.75	17.75
355	143TC-145TC	18.5	18.5
	182TC-184TC		
400	143TC-145TC	20	20
	182TC-184TC		
450	143TC-145TC	22	22
	182TC-184TC		
500	143TC-145TC	23.5	23.5
	182TC-184TC		
560	182TC-184TC	26.25	26.25



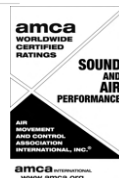


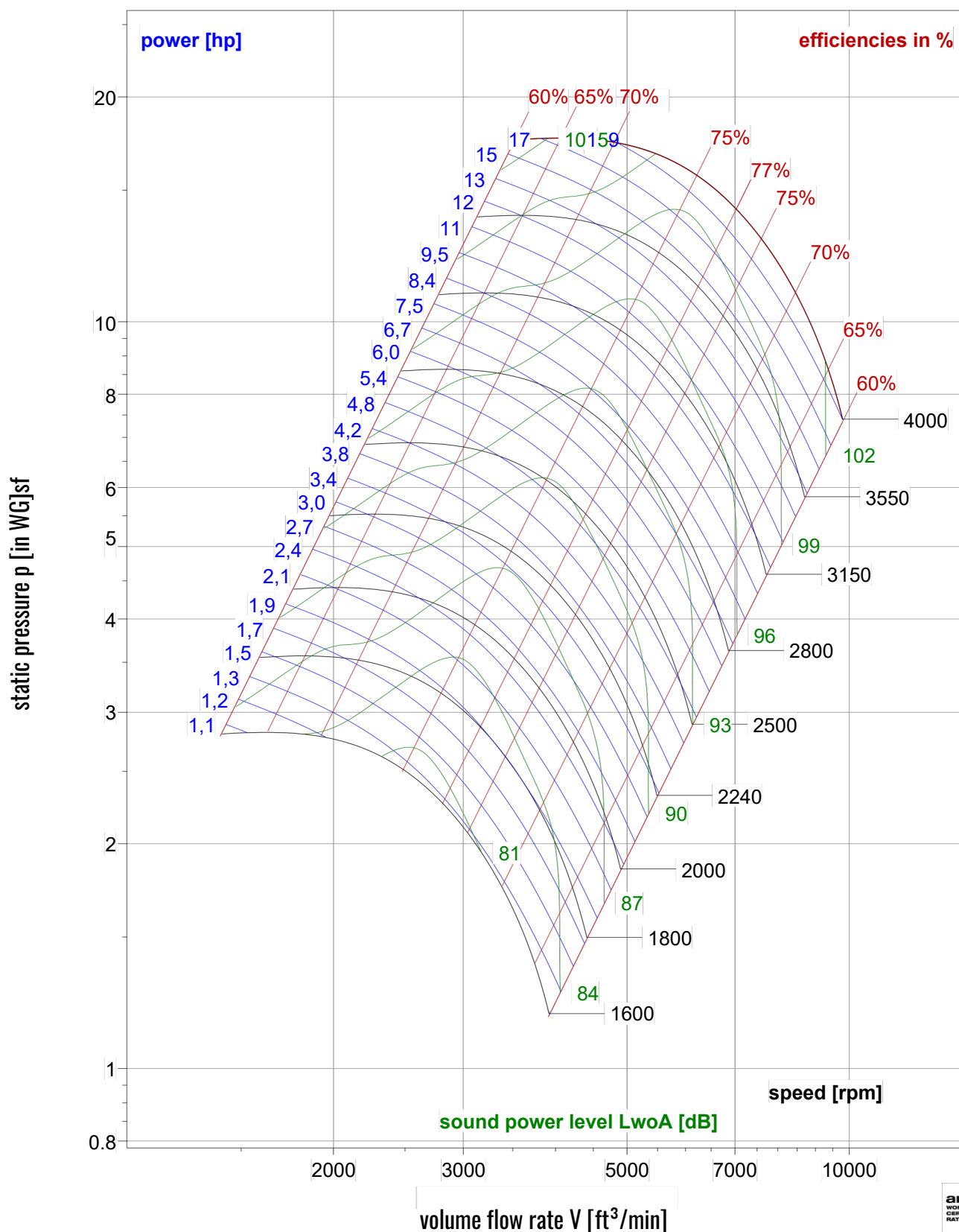
Performance certified for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are L_{woA} sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts,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



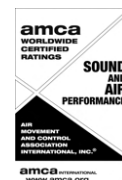


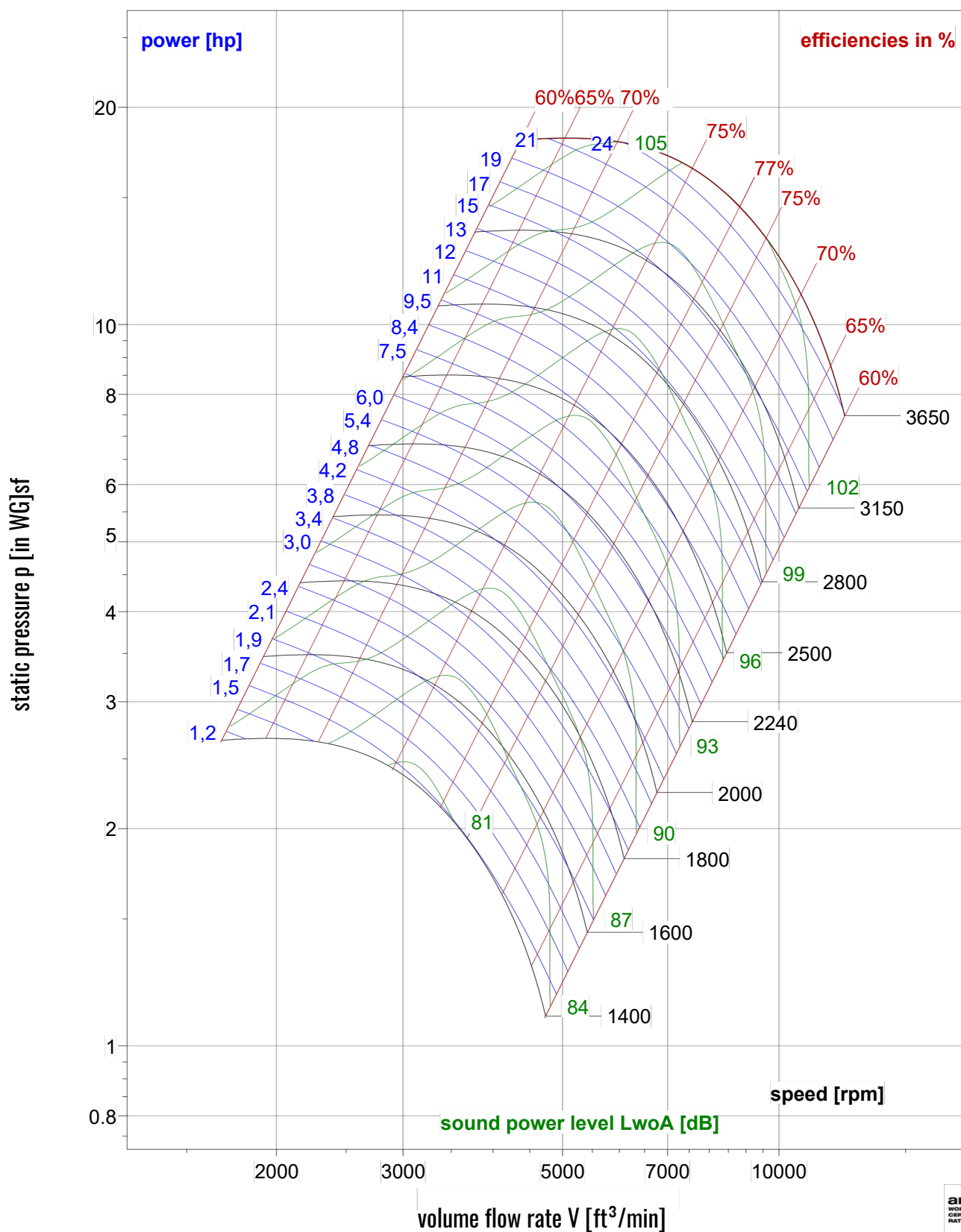
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts,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



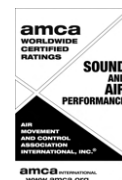


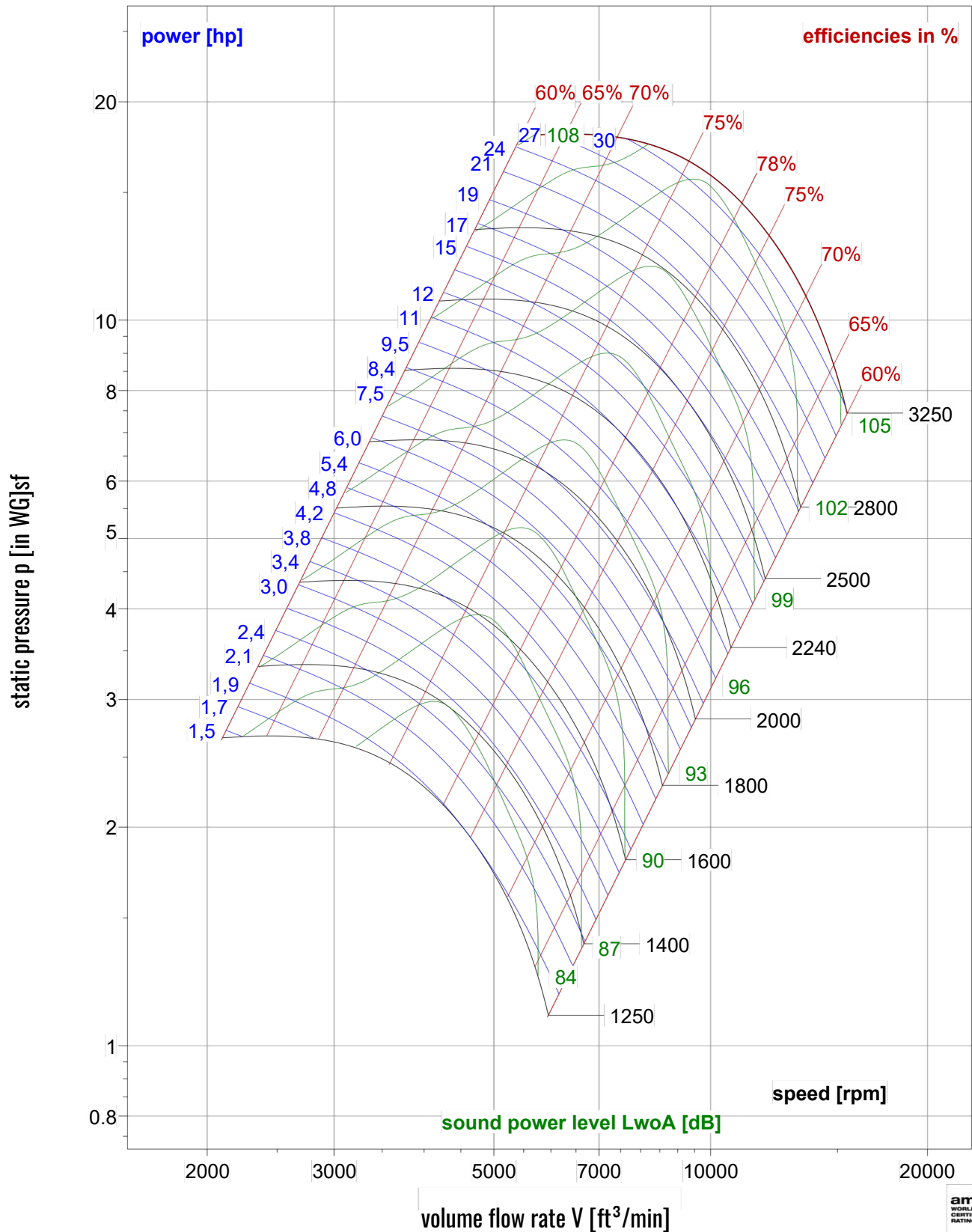
Performance certified for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts,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





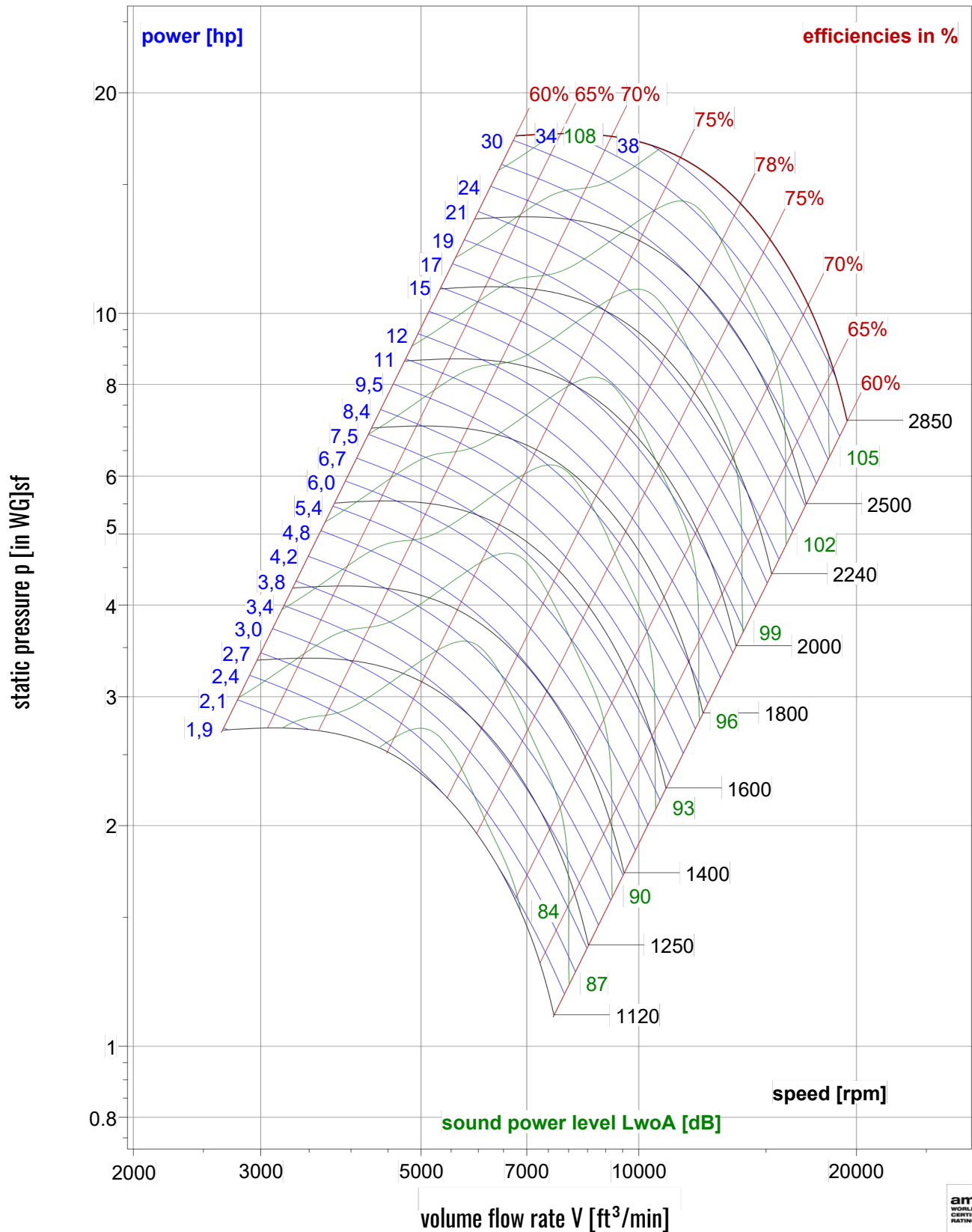
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts,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





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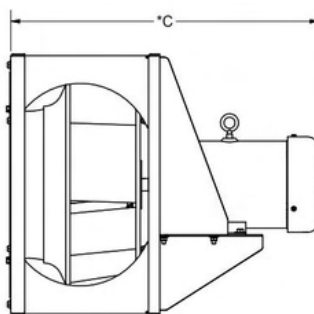
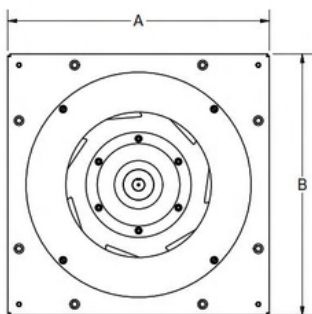
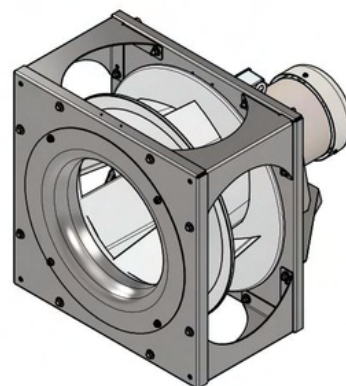
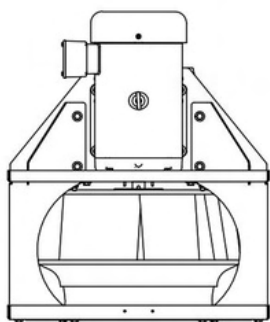
UDP

Universal-Mount, Direct Drive Plenum Fan

The UDP is a universal-mount, or wall-mounted direct drive plenum fan, featuring a bolted, formed sheet metal construction. The UDP is designed for a variety of applications, include upflow and downflow arrangements. A variety of options and accessories are available, including fan guarding, coating, and various motors.



UDP Dimensions

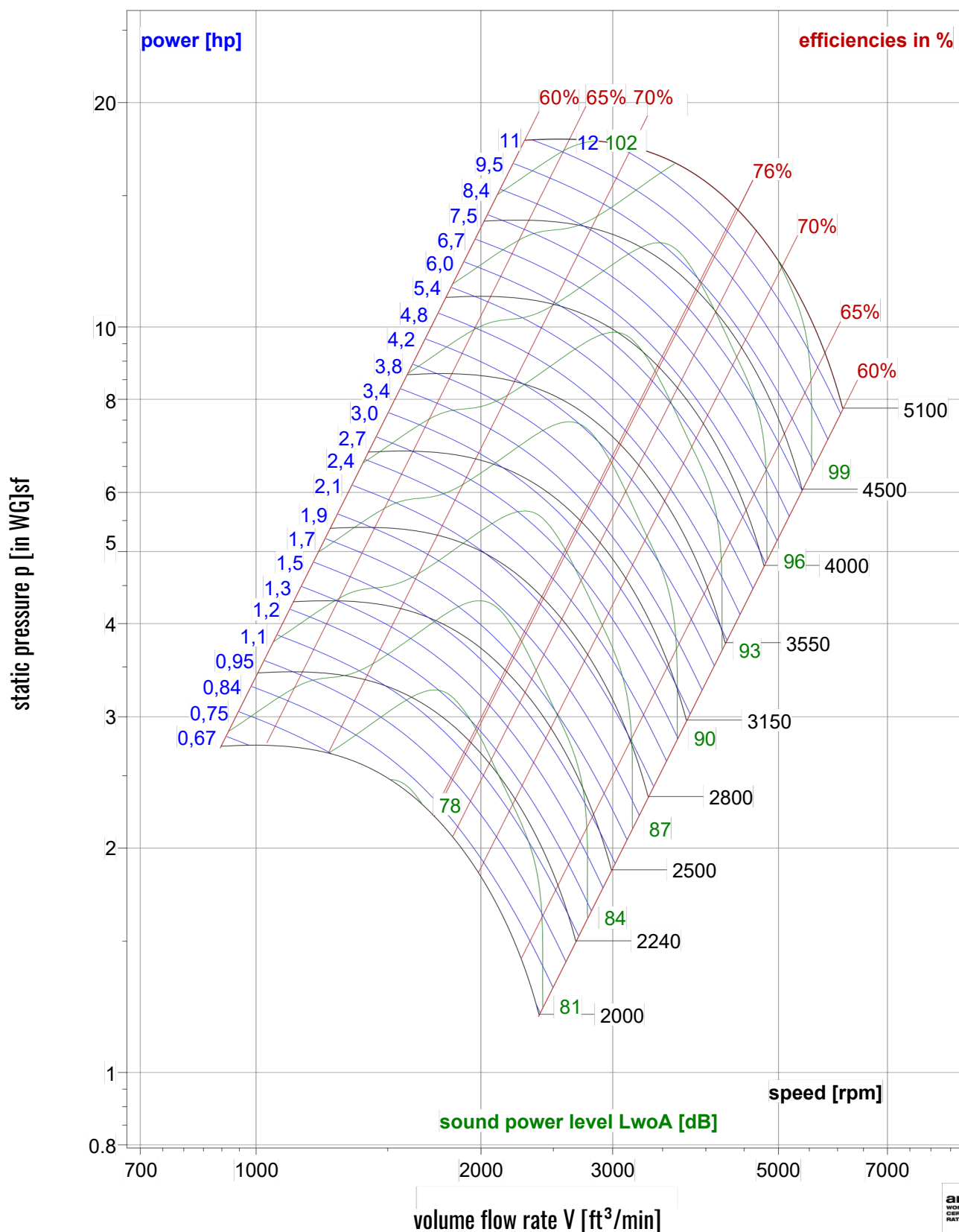


*DIMENSION C IS DEPENDENT ON SPECIFIC MOTOR

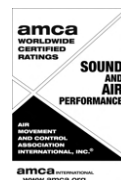
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DRAWN BY	AS	
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APPROVED BY		
NOTES		TITLE
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		JOB NUMBER
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		SHEET 8
		1 OF 1
		REV 5

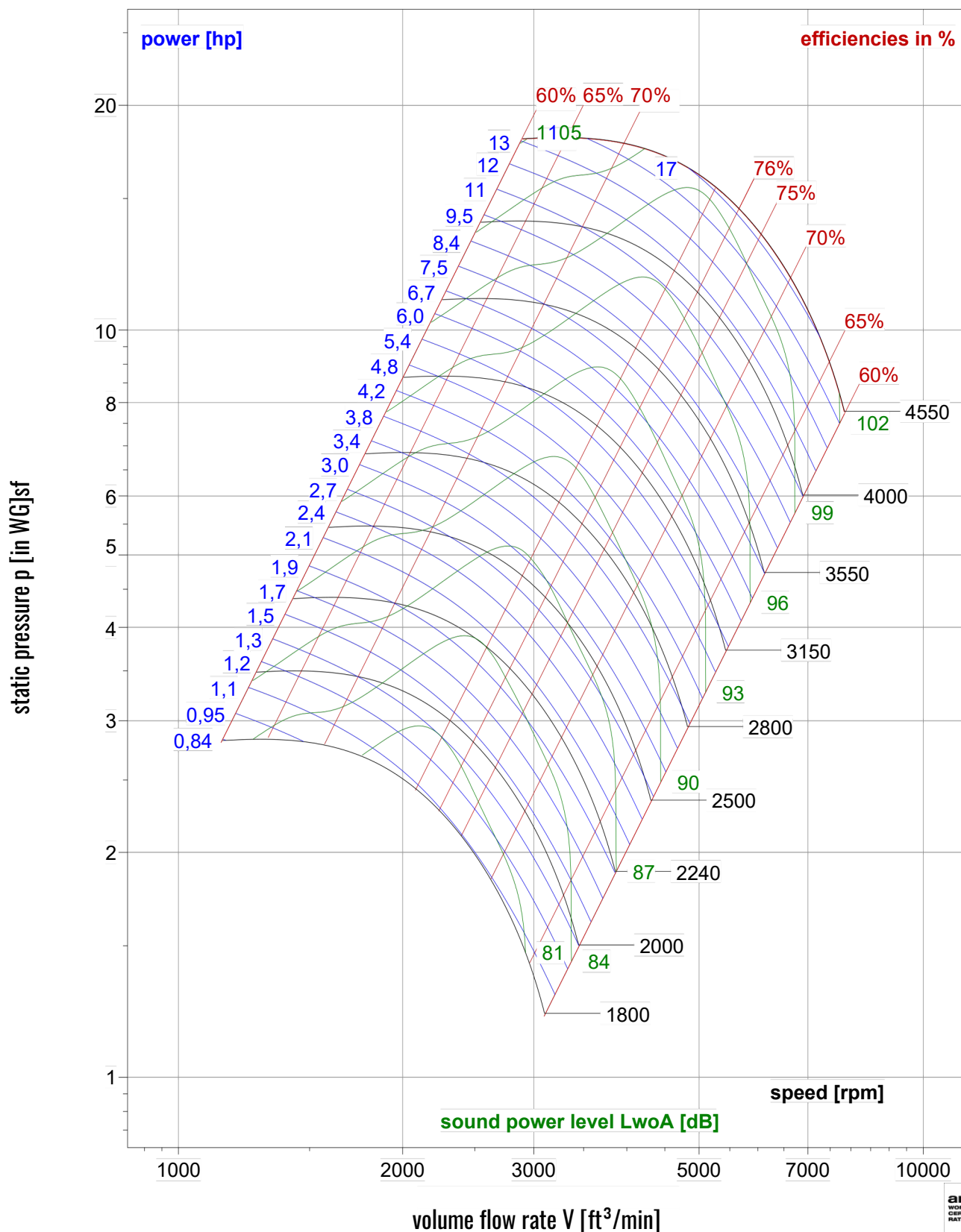
Fan Size	Motor Size	A	B
225	143T(C)-145T(C)	14	14
250	143T(C)-145T(C)	15	15
280	143T(C)-145T(C)	16	16
315	143T(C)-145T(C)	17.8	17.8
355	143T(C)-145T(C)	18.5	18.5
	182T(C)-184T(C)		
400	143T(C)-145T(C)	20	20
	182T(C)-184T(C)		
450	143T(C)-145T(C)	22	22
	182T(C)-184T(C)		
500	143T(C)-145T(C)	23.5	23.5
	182T(C)-184T(C)		
560	182T(C)-184T(C)	26.3	26.3
630	182T(C)-184T(C)	29	29





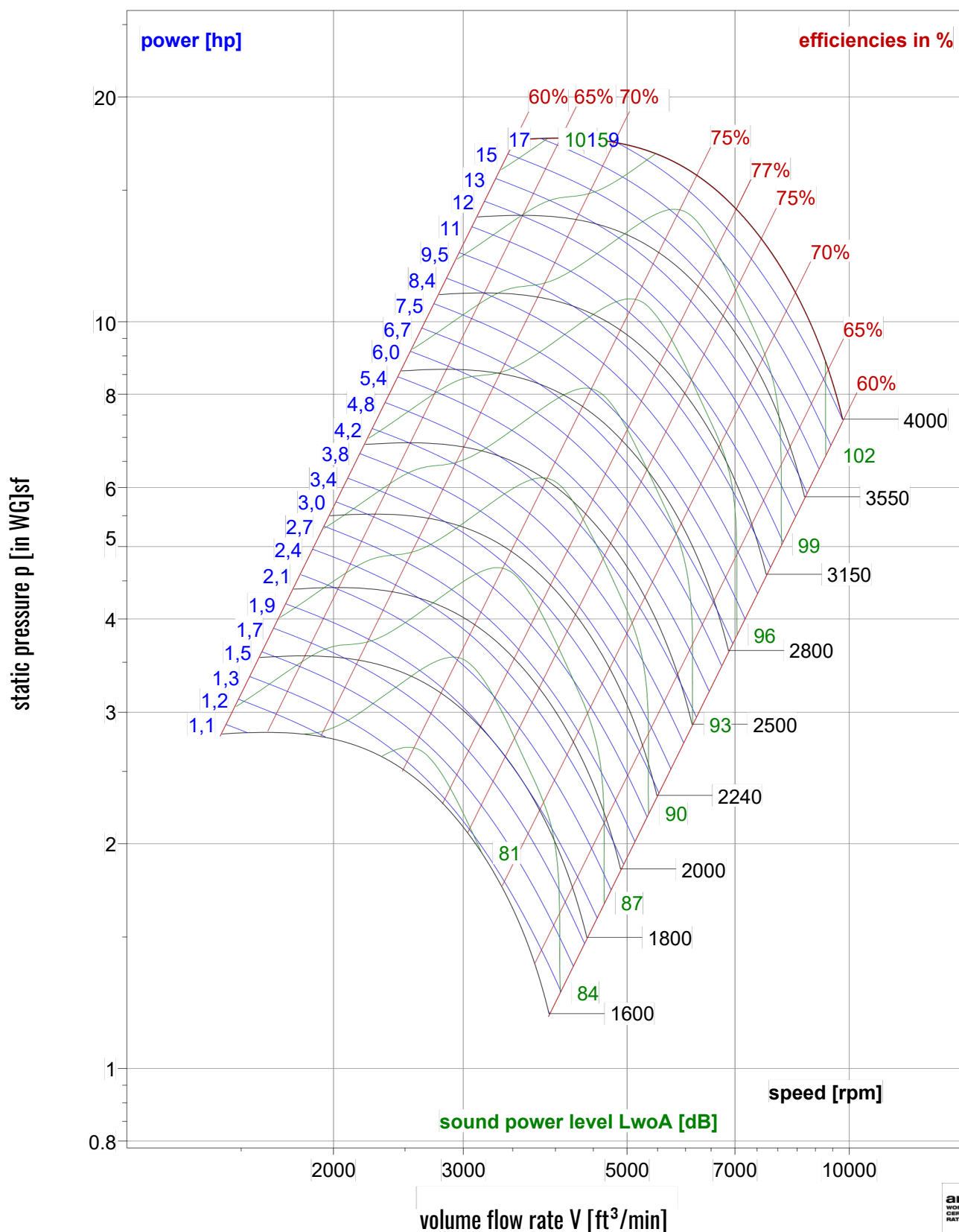
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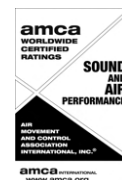


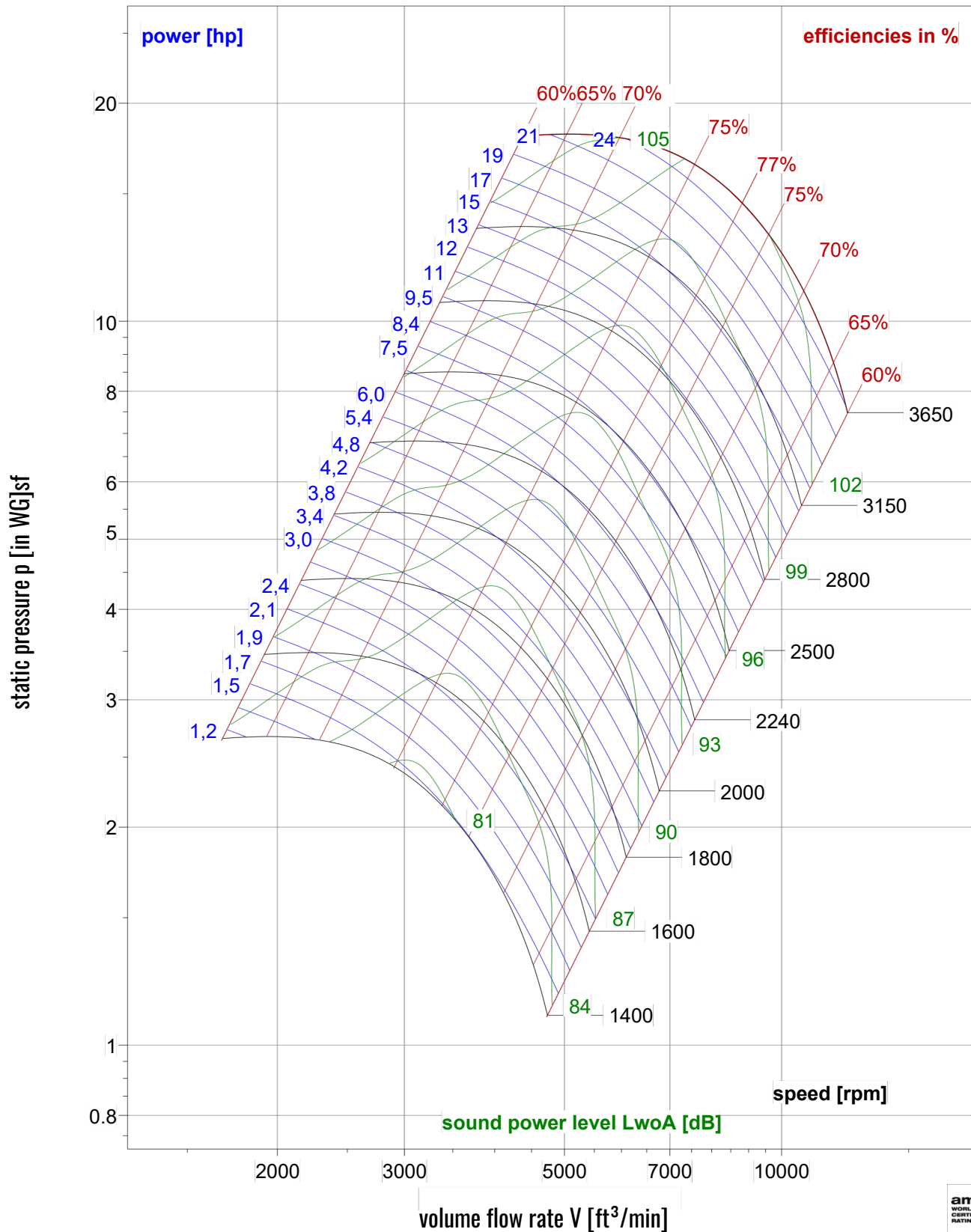
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts,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





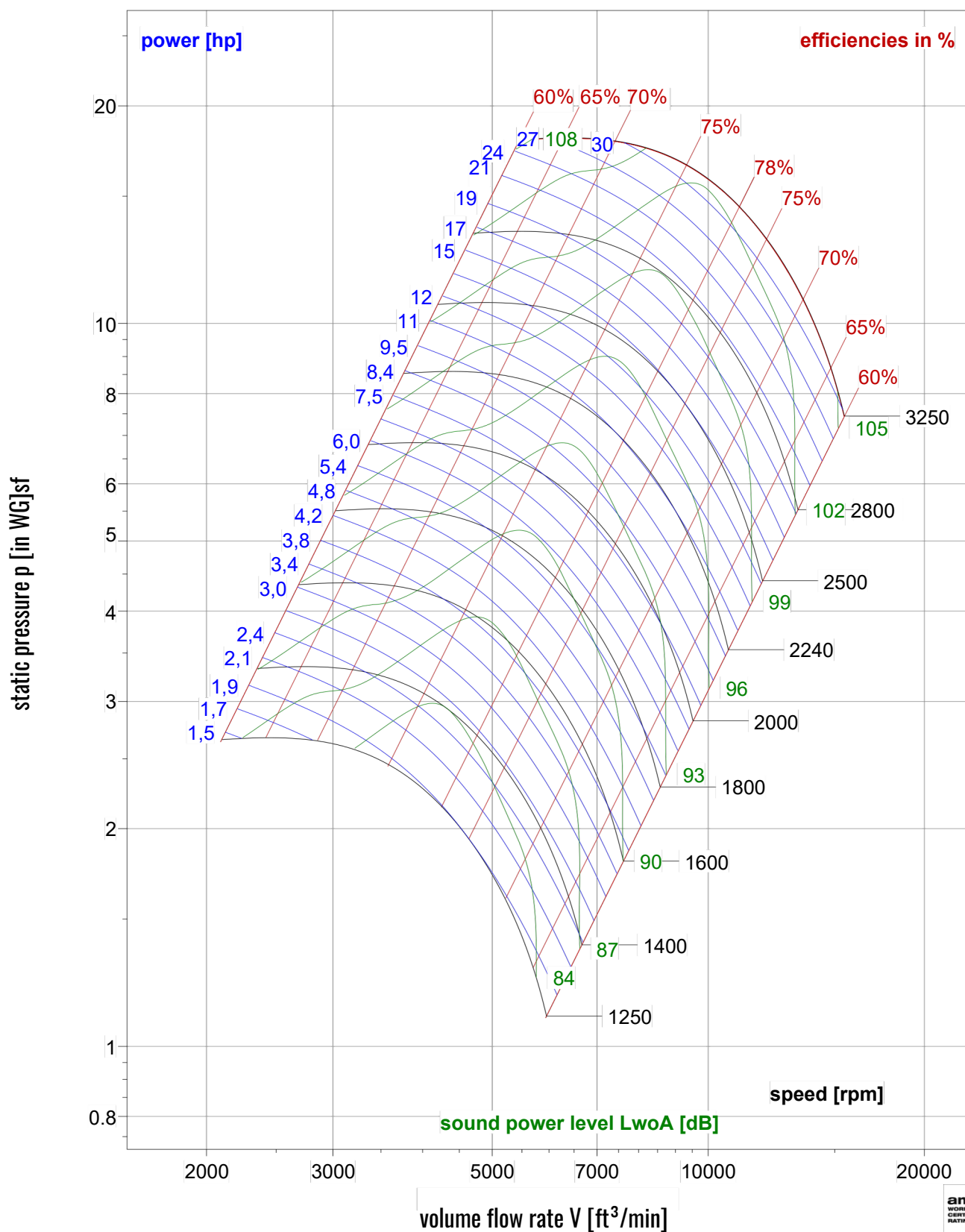
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts,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



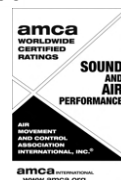


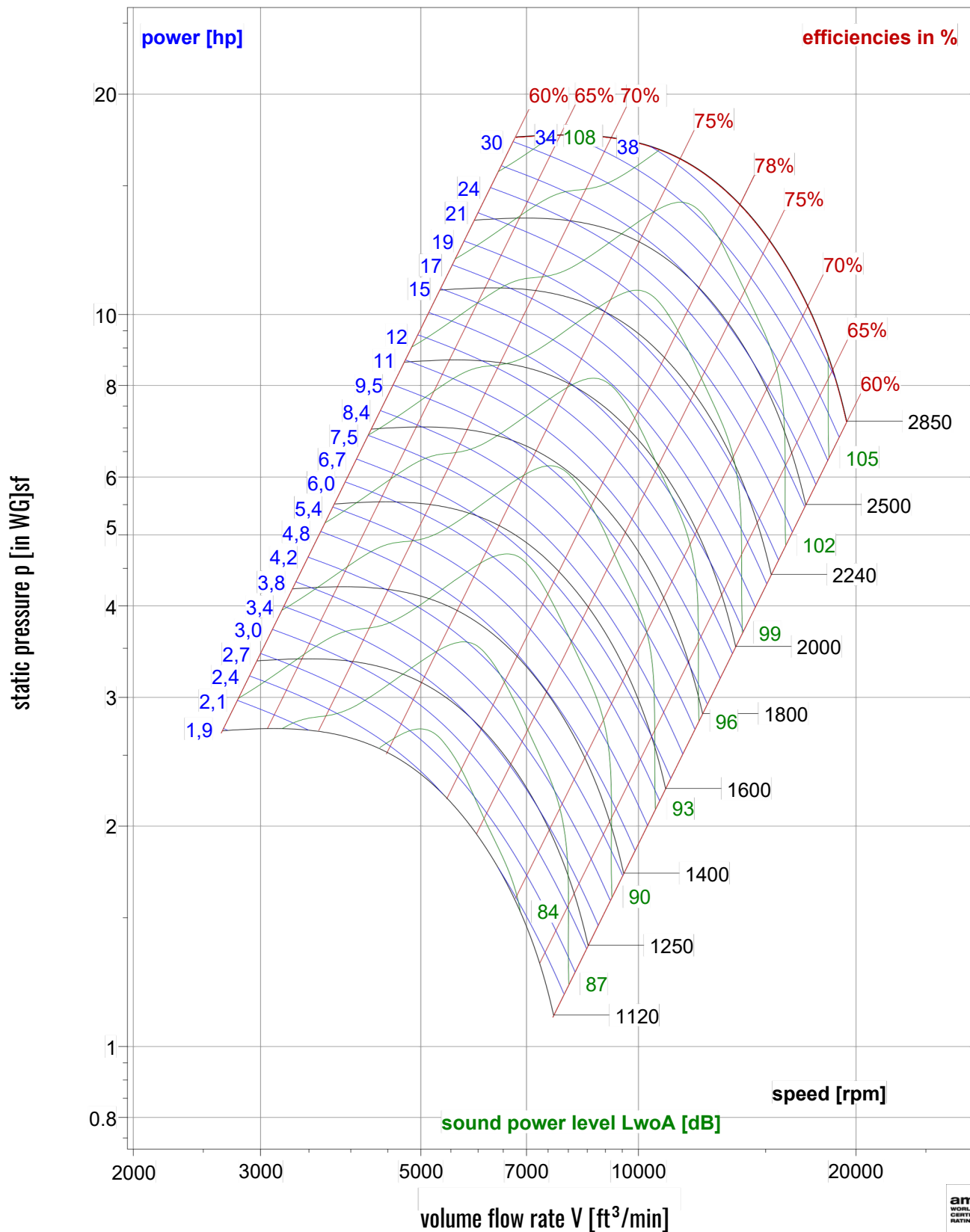
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts,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





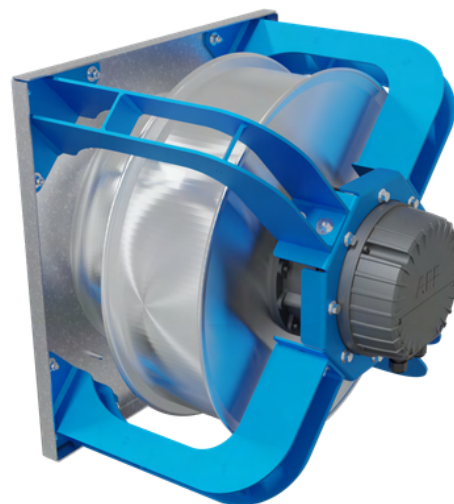
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts,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



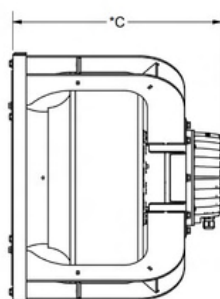
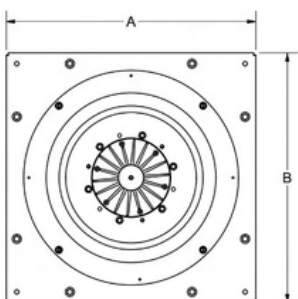
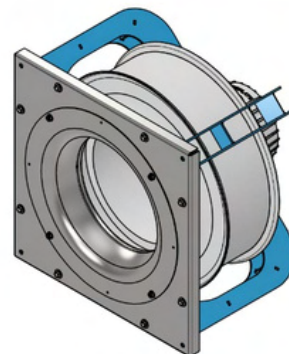
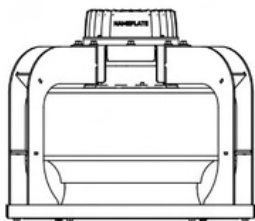
EDP

ECM Plenum Fan

The EDP is a universal-mount, or wall-mounted direct drive plenum fan. The EDP is an ECM fan, meaning the VFD is integral to the motor. The EDP is designed for a variety of applications, include upflow and downflow arrangements, and a variety of options and accessories are available.



EDP Dimensions

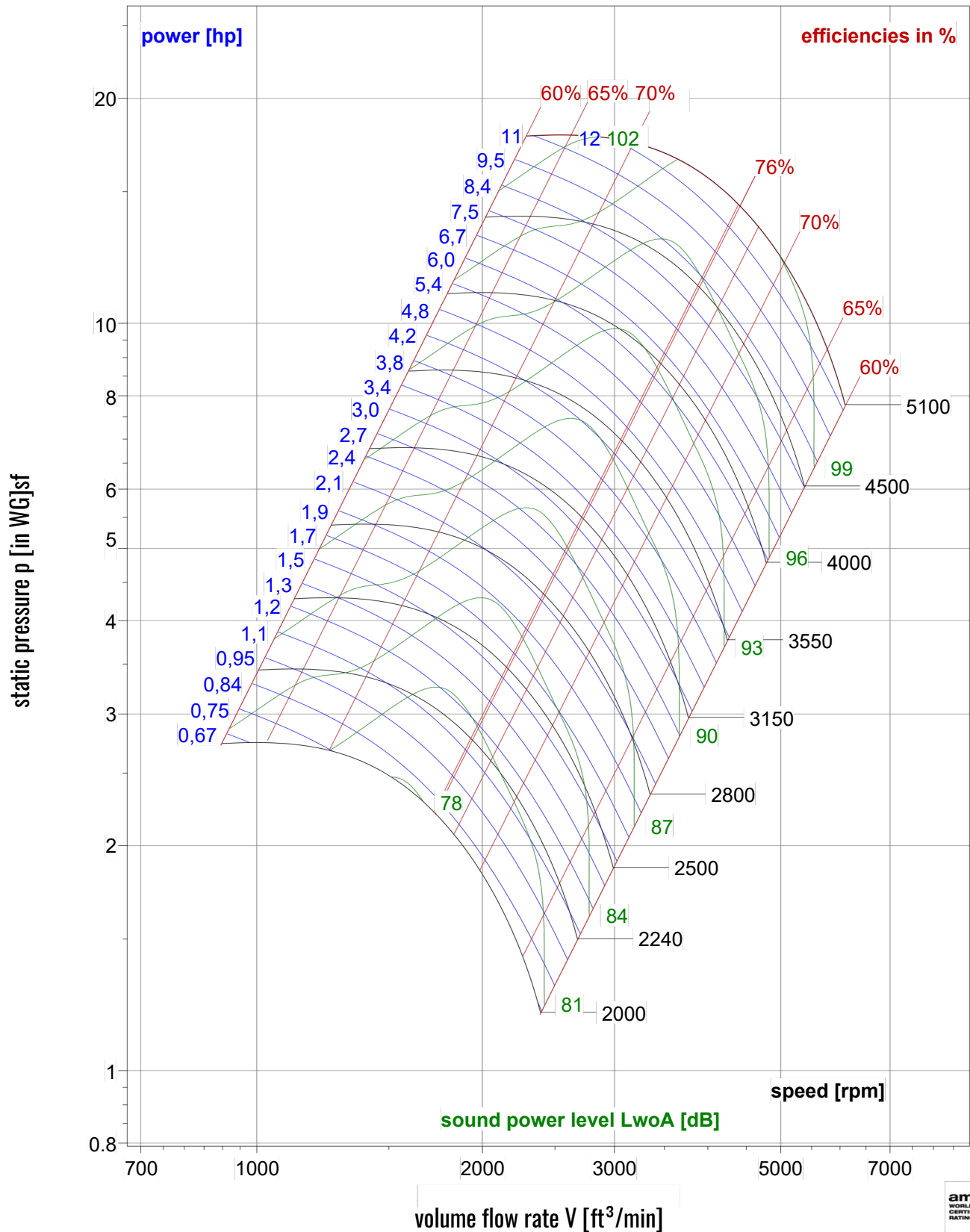


*DIMENSION C IS DEPENDENT ON SPECIFIC MOTOR

DRAWN BY	NAME	DATE	MAINSTREAM
CHECKED BY	AS	10/26	
APPROVED BY			
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MATERIAL			JOB NUMBER
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			SHEET 8
			QTY 1
			REV 5

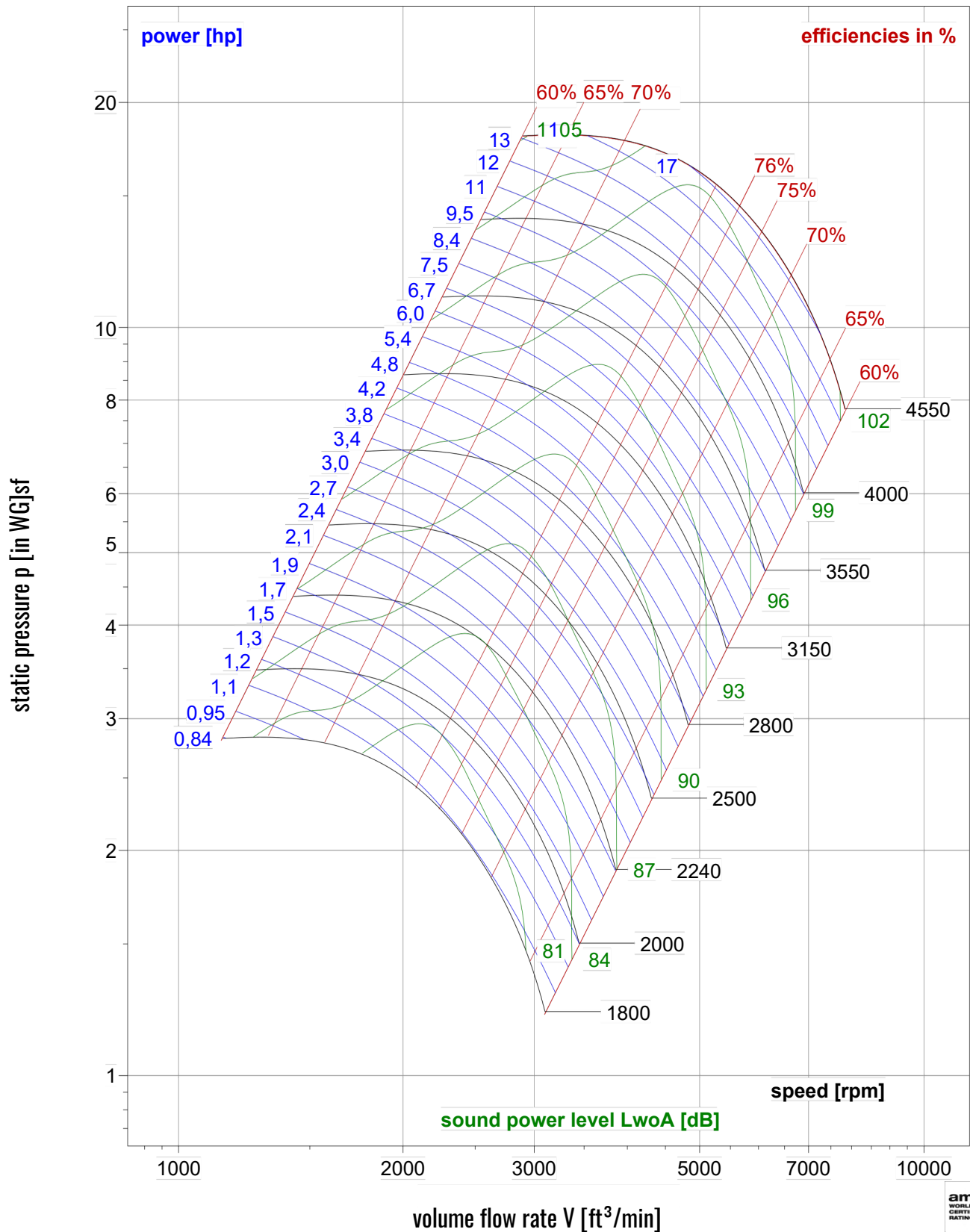
Fan Size	Motor Size	A	B	C	Frame
315	AE13	17.75	17.75	17.6	T/W
	AE15	-	-	-	-
	AE18	-	-	-	-
	AE20	-	-	-	-
355	AE13	18.5	18.5	18.6	T/W
	AE15	-	-	-	-
	AE18	-	-	-	-
	AE20	-	-	-	-
400	AE13	20	20	19.8	T/W
	AE15			19.6	T/W
	AE18	-	-	-	-
	AE20	-	-	-	-
450	AE13	22	22	20.9	T/W
	AE15			20.7	T/W
	AE18	-	-	20.6	T/W
	AE20	-	-	-	-
500	AE13	23.5	23.5	21.9	T/W
	AE15			21.7	T/W
	AE18			21.6	T/W
	AE20			21.8	W
560	AE13	26.25	26.25	23.6	T/W
	AE15			23.3	T/W
	AE18			23.2	W
	AE20			23.4	W
630	AE13	-	-	-	-
	AE15	29	29	24.8	W
	AE18			24.7	W
	AE20			24.9	W
710	AE13	-	-	-	-
	AE15	29	29	26.7	W
	AE18			26.6	W
	AE20			26.8	W





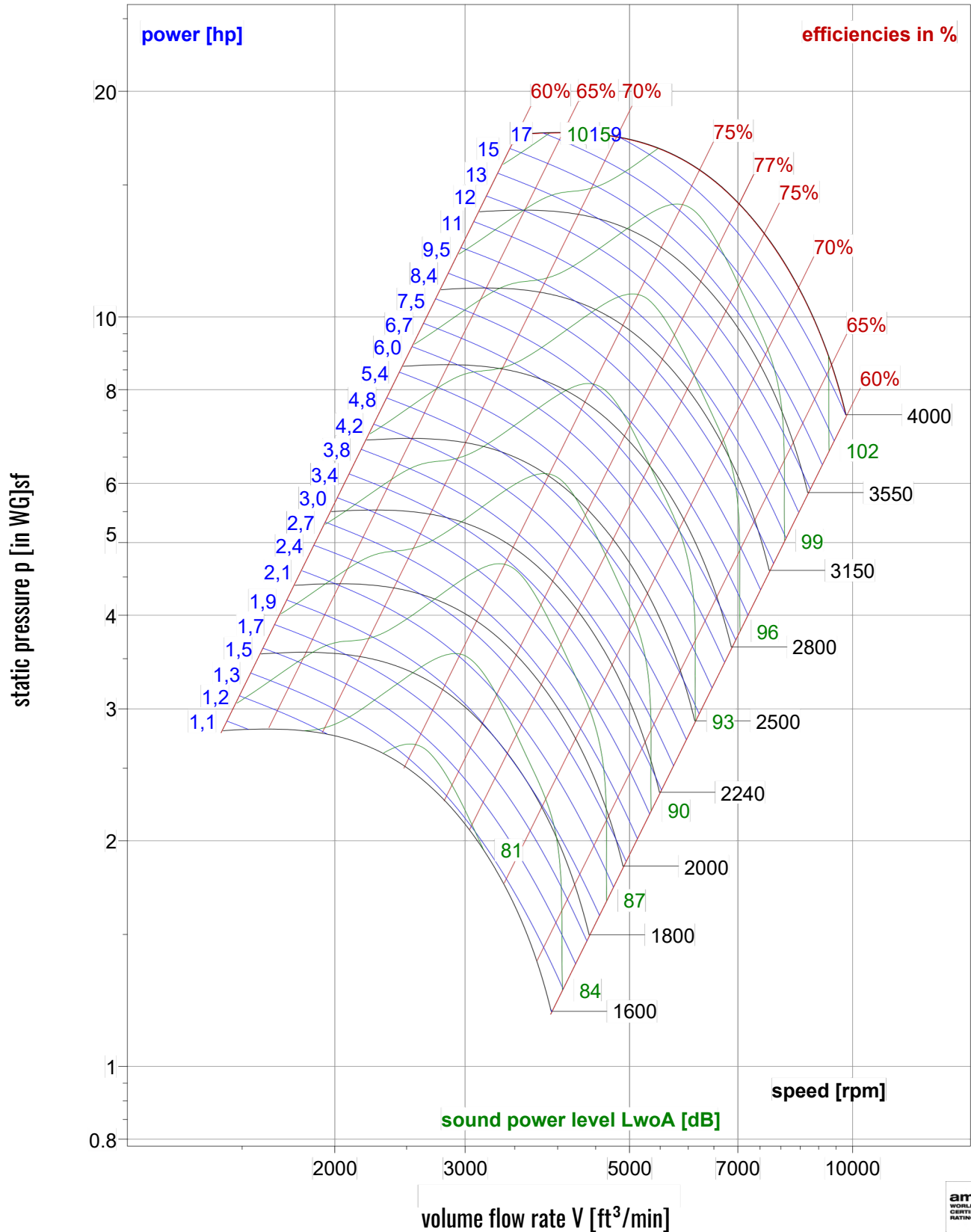
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts,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





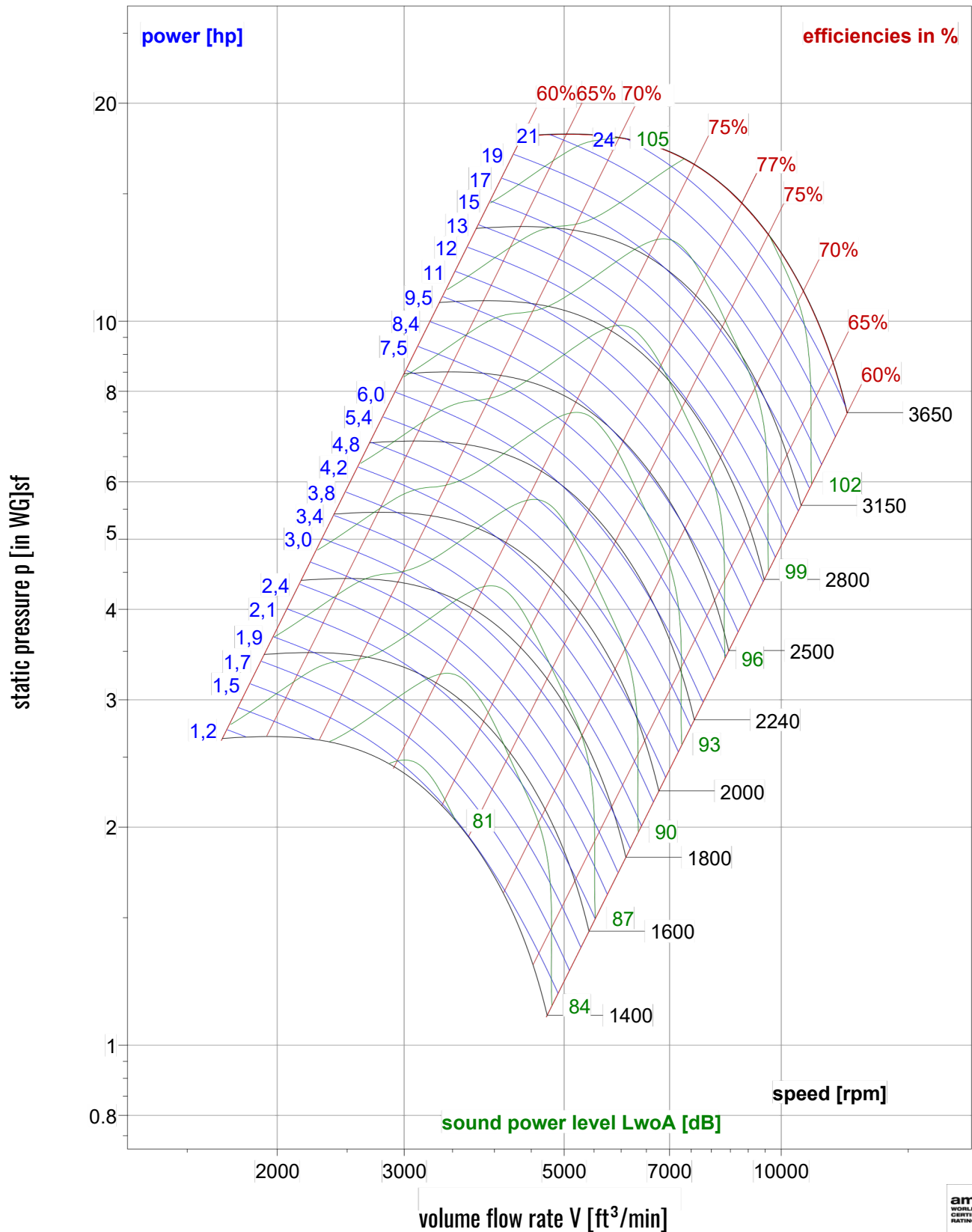
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts,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





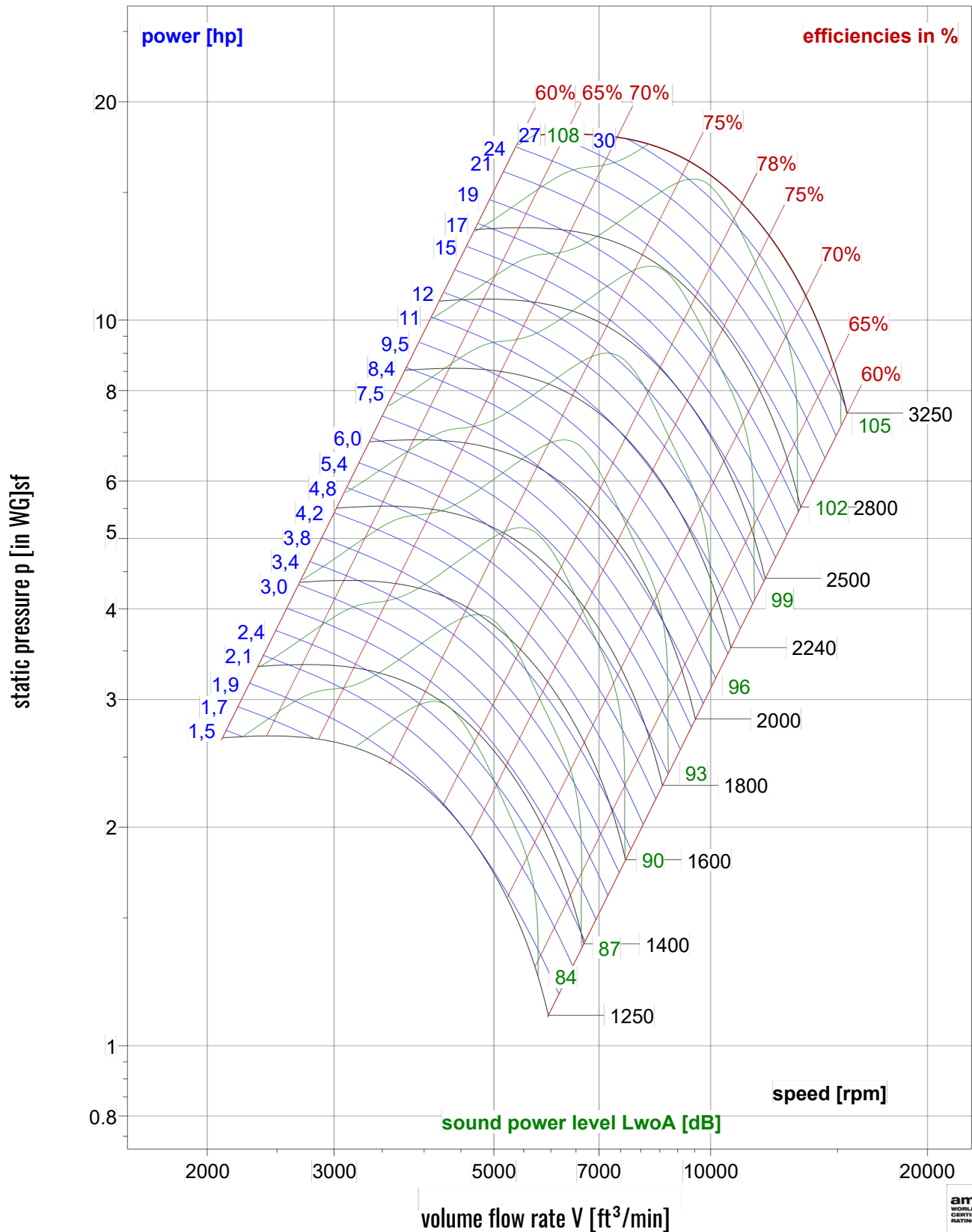
Performance certified for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts,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





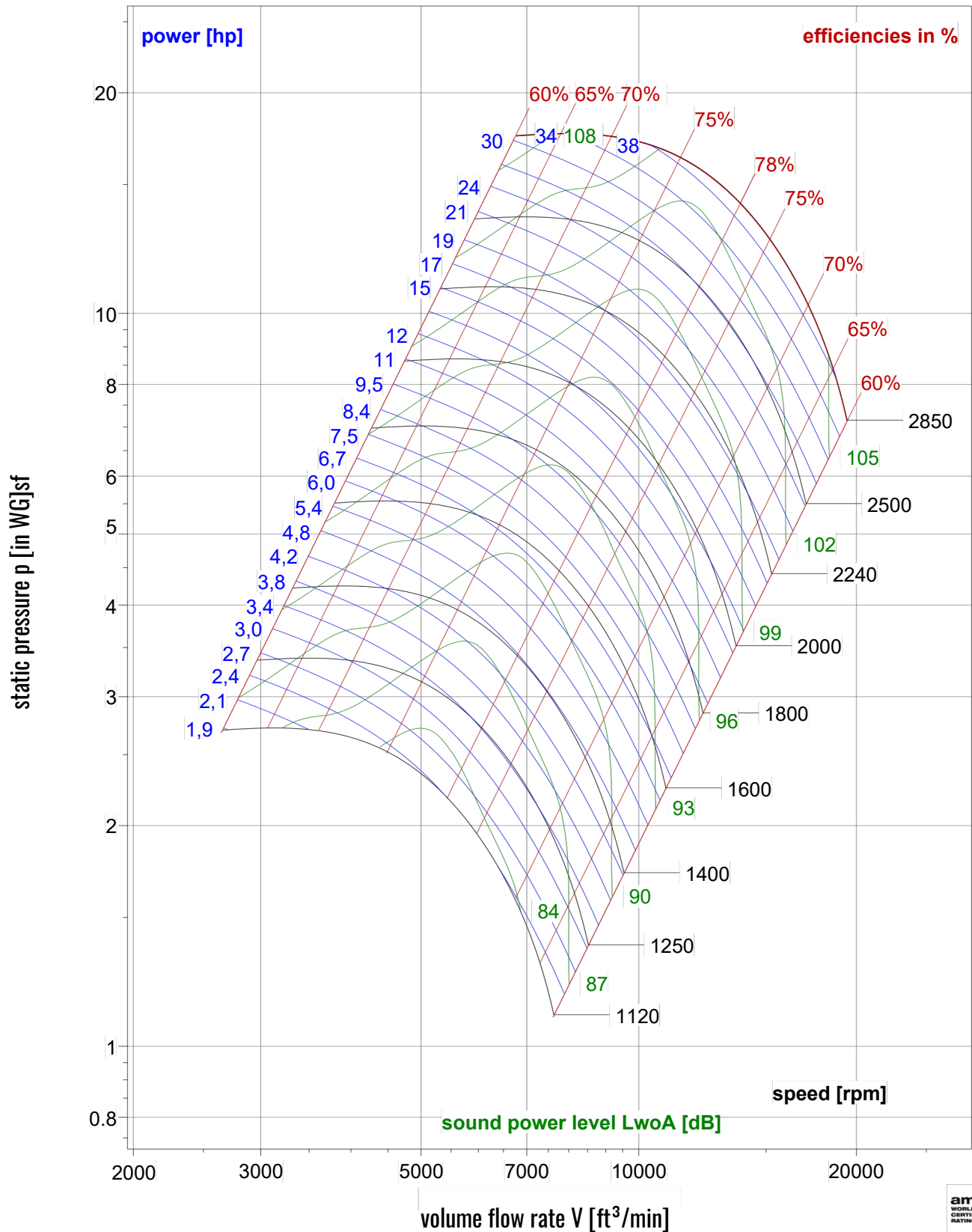
Performance certified is for installation type A: free inlet, free outlet. Power rating does not include transmission losses. Performance ratings do not include appurtenances. The sound ratings shown are LwoA sound power levels. The sound power level ratings shown are in decibels, referred to 10-12 watts,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





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