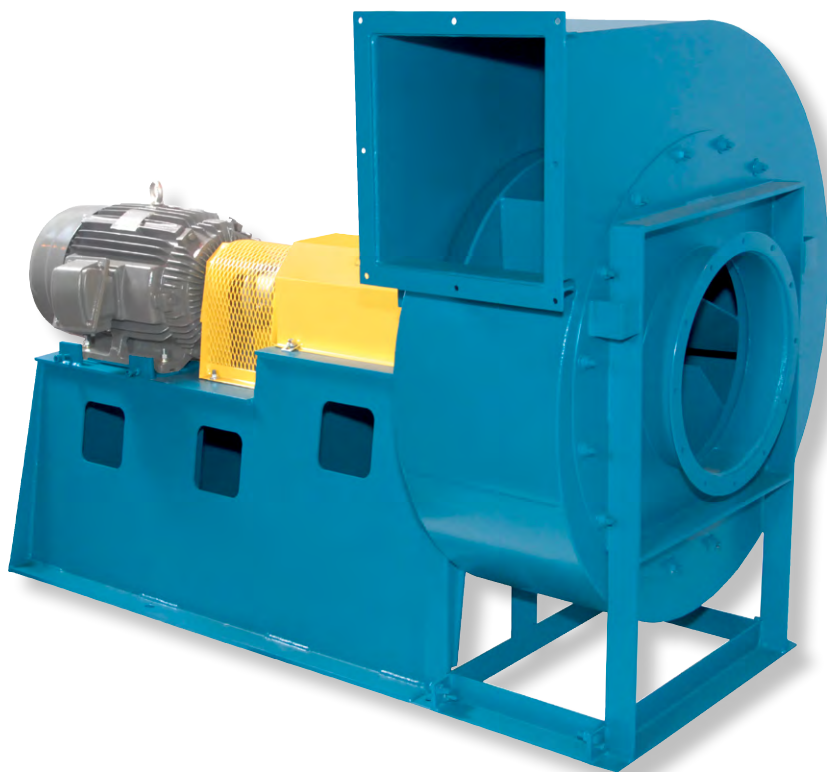




INDUSTRIAL PROCESS AND
COMMERCIAL VENTILATION SYSTEMS

INDUSTRIAL FANS

RBO | RBR | RBA | RBW | RBP



Models - Class 22 & 32

RBO | RBR | RBA | RBW | RBP



RBO
Arrangement 8



Twin City Fan & Blower certifies that the Series 900 Model RBO/RBR/RBA/RBW fans 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 comply with the requirements of the AMCA Certified Ratings Program.

The Series 900 Industrial Fans manufactured by Twin City Fan & Blower are well suited for installations involving exhaust, material conveying, pollution control, air circulation, and a variety of other industrial applications.

The typical performance characteristics for different impellers offered in Series 900 fans are illustrated on page 3. It should be noted that all impellers essentially have overloading characteristic type brake horsepower curves; however, type RBA impellers have this to a lesser degree than other types.

While the general pressure characteristic curve is similar for all Series 900 impellers, the RBA type impeller is considerably more efficient than other Series 900 impellers. Therefore, the RBA impeller is the first choice where brake horsepower savings are important, but the RBA impeller is limited to handling relatively clean air or gases.

Efficiency is critical in most applications, and it is important that the fan size is selected so that it will operate at or near its maximum efficiency point. This is particularly important with the units that have lower efficiency in general, such as the RBO and RBW impellers.

Twin City Fan & Blower offers a complete series of impellers to meet the needs of most industrial process and material handling applications. Each impeller is statically and dynamically balanced on electronic equipment prior to being assembled in the fan. In addition, each unit is run at or near operating speed after assembly and the balance is fine-tuned as a complete assembly.

RB Series Availability

SIZE	IMPELLER TYPE	ROTATABLE HOUSING DISCHARGE	REVERSIBLE ROTATION	CLASS 22 ARRANGEMENTS	CLASS 32 ARRANGEMENTS
905	RBO	YES	YES	1,8,9A,9B,10	—
907-909	RBO	YES	YES	1,4,8,9A,9B,9F,10	—
	RBA, RBW	YES	NO	1,4,8,9A,9B,9F,10	—
911-921	RBO	YES	YES	1,4,8,9A,9B,9F,10	1,4,8,9,9F
	RBA, RBW	YES	NO	1,4,8,9A,9B,9F,10	1,4,8,9,9F
	RBP	YES	NO	—	1,9,9F
923-926	RBO*, RBA, RBW	NO	NO	1,8,9A,9B,9F,10	1,8,9,9F
	RBP	NO	NO	—	1,9,9F
929	RBO*, RBA, RBW	NO	NO	1,8,9A,9B,9F	1,8,9,9F
933-949	RBO*, RBA, RBW	NO	NO	1,8,9,9F	1,8,9,9F
954-960	RBO, RBA, RBW	NO	NO	1,8,9,9F	—

* Note: RBR is standard on size 926 and larger Class 32 fans.

Series 900 fan housings are constructed in all usual arrangements and conform to AMCA Standard 2404-72 (Drive Arrangements for Centrifugal Fans). The fan sizes and impeller diameters conform to AMCA Standard 2402-66 (Sizes for Industrial Centrifugal Fans).

AMCA does not have a standard for industrial fans designating class of operation. Twin City Fan & Blower offers three basic categories, based on performance, of industrial

fans. Two of the categories are shown in this catalogue:

1. Class 22 – suitable for applications involving performance to approximately 5470 Pa; and
2. Class 32 – for performance to 7950 Pa.

A separate supplemental catalogue (Catalogue 911) shows the third category: Class 45 – high pressure fans capable of reaching performance of approximately 11190 Pa.

IMPELLER TYPES

RBO Industrial Radial Paddle Impeller: The open type radial paddle impeller design is extremely rugged using heavy-gauge steel components which are jig assembled for accuracy and consistency. All impellers are welded with care to insure the maximum in strength and reliability. RBO impellers are suitable for general handling of coarse, sticky, heavy, and/or abrasive materials.

RBR Industrial Radial Paddle Impeller: The RBR impeller is similar to the RBO, with the addition of end rings. RBR construction is standard on size 926 and larger Class 32 fans. RBR impellers are suitable for general handling of coarse, sticky, heavy, and/or abrasive materials.

RBW Industrial Radial Backplate Wool Impeller: The RBW impeller is constructed to prevent paper shred-dings, threads from buffing system exhaust, and other similar matter from hanging up on and wrapping around the spiders and blades. Applications include long, stringy or fibrous materials.

RBA Industrial Radial Air Handling Impeller: The RBA impeller is a more efficient type of impeller and is used when handling relatively clean air, fumes, vapor exhaust, and air with a light contaminant. The impeller is constructed with heavy-gauge blades welded to both backplate and front ring.

RBP Industrial Radial Paper Handling Impeller: This modified RBW impeller features trapezoidal gussets for the extra rugged construction necessary when handling corrugated paper trims, fibrous material, metal trim, and other high impact loading material. A paper deflector cone over the face of the hub helps prevent wrapping of paper around the hub or leading edge of the blades.

All RBP fans are supplied with bearing stop blocks and a relieved inlet transition. The relieved inlet transition smooths the flow of paper trim and similar material through the fan. Breaker tabs are offered as an option on the relieved inlet transition to assist in the breakup of material. Due to the nature of the applications, RBP Class 32 construction is limited to 5470 Pa and RBP Class 45 construction is limited to 7950 Pa. Use RBW performance curves for RBP fans. The RBP fan is not AMCA licensed.



RBO / RBR



RBA



RBW

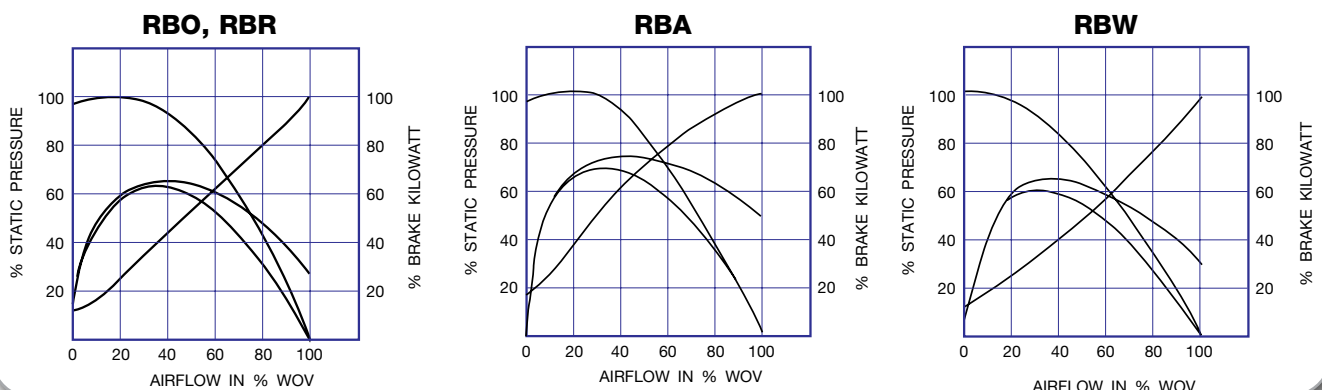


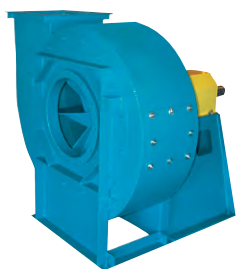
RBP

Rotatable and Reversible Configuration

The table on page 2 identifies fans that are rotatable or reversible. A fan available in a rotatable configuration indicates that the fan can be rotated in the field to any of the standard discharge locations. A fan available in a reversible configuration indicates that the impeller rotation can be changed in the field from a clockwise to a counterclockwise direction or vice versa. This is possible only on rotatable housings and requires the impeller housing to be removed and reversed. Consult the factory before reversing a fan. See the chart on page 5 for specific configurations and their designations.

Typical Performance Characteristic Curves for Industrial Impellers





Arrangement 1

Arrangement 1 fans are available in either direct drive (see Arrangement 8 below), or belt driven installations. The belt driven configuration allows the motor to be mounted in any of the four standard motor positions shown on page 5. The choice of a belt driven installation provides greater performance flexibility with the use of belts and sheaves of differing sizes.

Arrangement 8

Arrangement 8 fans use a fan shaft and motor direct coupled via a flexible coupling. The integral motor subbase is fabricated of heavy gauge steel and securely reinforced for rigidity. Twin City Fan & Blower can supply impellers in a variety of diameters and differing widths to give the greatest efficiency for any given application. If desired, an Arrangement 1 fan can be set up for direct drive. This requires a concrete motor pedestal to be built in the field.

Arrangement 9

Arrangement 9 fans include a motor slide base mounted on the side of the motor pedestal. The motor and drive can be installed at the factory or field installed. Class 22 fans up to size 929 are offered in Arrangements 9A (shorter pedestal for small motors) and 9B (longer pedestals for larger motors). Maximum motor frame sizes for Arrangement 9A and 9B are listed in the table on page 5.

Unless otherwise specified, the motor will be installed on the left (L) side of the pedestal on CW fans and on the right (R) side on CCW fans.

Arrangement 9F

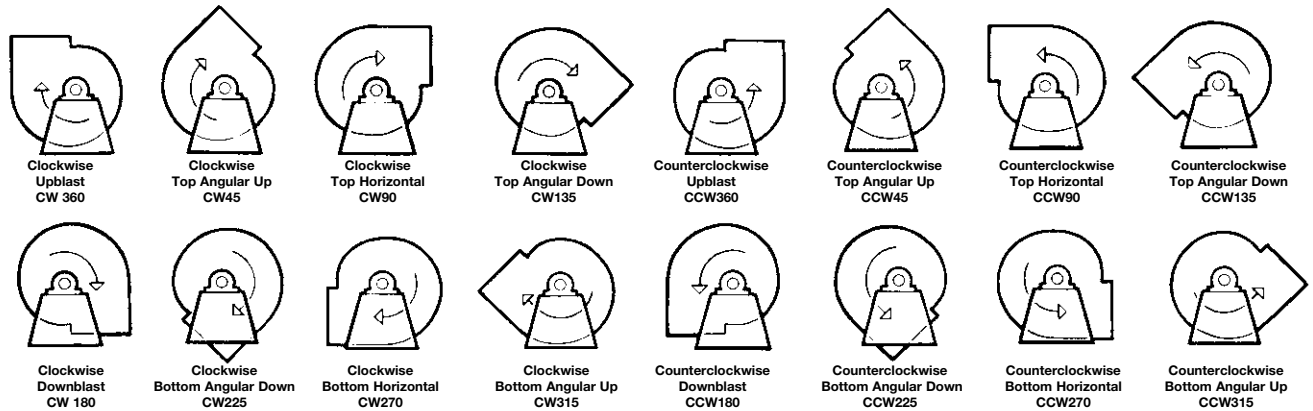
Arrangement 9F (floor mount) fans are recommended when a packaged unit is desired, but required motors are too large to be mounted on the side of the bearing pedestal. In this arrangement, the base is extended to facilitate motor mounting in a horizontal position similar to an Arrangement 1 fan. This arrangement is preferred over Arrangement 9 when larger kilowatt motors are being employed.

Unless otherwise specified, the motor will be installed on the left (L) side of the pedestal on CW fans and on the right (R) side on CCW fans. Arrangement 9F requires a separate subbase when vibration isolation is required.

Arrangement 10

Arrangement 10 fans are suitable for roof or outdoor installations. A weather cover, as shown, provides complete weather protection for motor, shaft, bearings, and drives. This arrangement is limited to Class 22, sizes 905 through 919. Maximum motor sizes allowable in this arrangement are listed in the table on page 5. Larger fan sizes in this arrangement, or larger motor sizes for smaller fans, may be available on special request from the factory. All usual accessories are available in this arrangement.

Designations for Rotation and Discharge



Direction of rotation is determined from the drive side of the fan.

On single inlet fans, the drive side is always considered the side opposite the fan inlet.

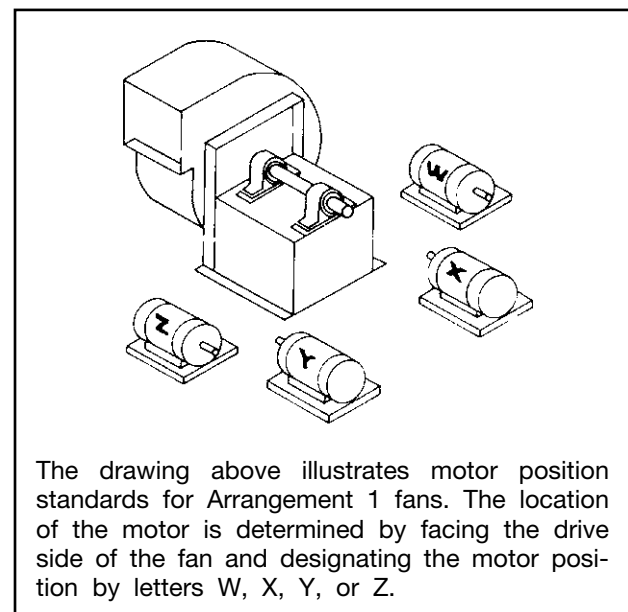
Direction of discharge is determined in accordance with the diagrams shown above. Angle of discharge references the horizontal axis of the fan, and is designated in degrees above or below that reference axis.

On fans inverted for ceiling suspension or side-wall mounting, the direction of rotation and discharge is determined when the fan is resting on the floor.

Maximum Motor Frame Size

SIZE	CLASS 22					CLASS 32	
	9A	9B	9	9F	10	9	9F
905	—	—	—	—	90L	—	—
907	112M	132M	—	132M	112M	—	—
909	112M	160L	—	160L	132M	—	—
911	132M	160L	—	180M	160L	160L	180L
913	132M	180L	—	200M	160L	180L	200L
915	160L	180L	—	200M	180L	180L	200L
917	160L	200L	—	200L	180L	200L	225M
919	180L	225M	—	225M	200L	225M	250M
921	200L	225M	—	225M	—	225M	250M
923	200L	225M	—	225M	—	225M	280M
926	225M	250M	—	250M	—	250M	280M
929	225M	250M	—	280S	—	250M	280M
933	—	—	250M	280M	—	250M	280M
937	—	—	250M	280M	—	250M	280M
941	—	—	250M	280M	—	250M	280M
945	—	—	250M	280M	—	250M	280M
949	—	—	250M	280M	—	250M	280M
954	—	—	250M	280M	—	—	—
960	—	—	250M	280M	—	—	—

Motor Positions



The drawing above illustrates motor position standards for Arrangement 1 fans. The location of the motor is determined by facing the drive side of the fan and designating the motor position by letters W, X, Y, or Z.

ACCESSORIES



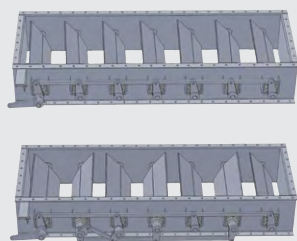
**Quick-Open
Access Door**



**Bolted
Access Door**



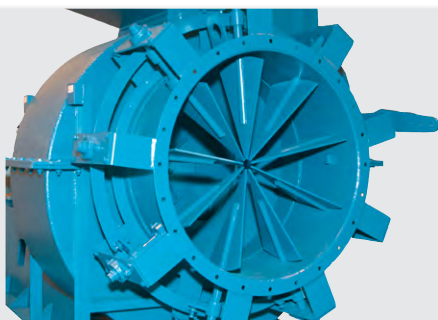
**Raised Bolted
Access Door**



Outlet Dampers



Inlet Bell



External Inlet Vanes

Access Doors

Bolted and quick-opening access doors are available for easy access to the fan interior for inspection or cleaning. All access doors are gasketed and are constructed with either evenly-spaced studs or heavy duty hinges and handle-type nuts which require no tools to open. Raised bolted access doors are available for use where insulation is being applied to the outside of the fan.

Inlet Bell

On installations with an open inlet (no ductwork at the inlet of the fan), a streamlining inlet bell is required to achieve the catalogue performance.

Outlet Dampers

Due to the performance characteristics of industrial fans, a damper on the outlet of the fan is a very efficient way to control volume.

An outlet damper can be used to reduce the power consumption of a fan operating at high temperatures or a fan operating in low density gas streams. During a cold startup, the outlet damper begins in a closed position and is opened gradually as the fan reaches operating temperature. This allows for the use of a smaller motor sufficient to handle the duty at higher temperatures.

Twin City Fan & Blower offers two basic styles of outlet dampers: Type 1 is made of single surface blades suitable for clean air applications, pressures to 620 Pa and temperatures to 148°C; Type 2 has double surface airfoil blades for abrasive type applications, pressures to 995 Pa and temperatures to 426°C. Both types of dampers are available with opposed or parallel blades and can be manually operated or set up for automatic operation.

Inlet Vanes

For reduced flow situations with relatively clean air, inlet vane type dampers are available to maintain fan efficiency. The inlet vanes are external type attached to the inlet of the fan. Standard construction inlet vanes are suitable in applications up to 148°C. High temperature inlet vanes are also available for temperatures up to 315°C.

Inlet Boxes

An inlet box is designed to minimize pressure drop and airflow losses. Inlet boxes are recommended for applications where uniform flow is difficult to obtain due to limited space or where the air must enter the fan at an angle. Inlet boxes can be either detachable or integral to the fan. This option is available with an inlet box damper to provide increased airflow control.

Drains

A pipe coupling can be welded to the lowest point in the housing scroll to allow wash water or condensation to drain.

Shaft Coolers

Where high temperatures are encountered, the aluminum shaft cooler is recommended for dissipating heat and protecting bearings from the high temperature atmosphere.

Shaft Seals

The standard shaft seal is a non-asbestos type, sandwiched between two plates and the fan housing, providing a seal for most materials being handled. A variety of special seals, including mechanical type stuffing boxes, is available for gas-tight applications requiring more positive protection.

Spark Resistant Construction

Three fan constructions are available for spark resistance. The materials used in the construction of these fans minimize the potential of sparks being generated by striking or rubbing components within the airstream.

Type A – All parts of the fan in contact with the air or gas being handled are made of nonferrous material. (Aluminum impeller construction is limited to 120°C.)

Type B – The fan has an entirely nonferrous impeller and nonferrous ring around the opening through which the shaft passes. (Aluminum impeller construction is limited to 120°C.)

Type C – The fan is constructed so that a shift of the impeller or shaft will not permit two ferrous parts of the fan to rub or strike. In applications where aluminum is not suitable, impellers constructed of Monel can be furnished for temperatures up to 538°C.

Notes: 1. The user must electrically ground the fan.
2. Standard spark resistant alloy is aluminum.
3. Bearings must not be placed in the air or gas stream.



Inlet Box



Drain



Shaft Seal & Shaft Cooler

Other Accessories

A large number of other appurtenances and accessories is available from Twin City Fan & Blower, including:

- Belt guards – standard and OSHA type
- Split housings
- Shaft and bearing guards
- Couplings and coupling guards
- Impeller liners
- Scroll liners
- Weather covers
- Inlet and outlet screen
- Special material construction (stainless steel, Monel, etc.)
- Special coatings and finishes
- Insulation pins
- Abrasion resistant construction
- Common bases with and without isolation
- Breaker tabs are offered on Series 900 RBP fans as an option on the relieved inlet transition. These tabs assist in the breakup of material as it enters the fan.

High Temperature Construction Requirements

TEMPERATURE (°C)	TYPE OF BEARING	LUBRICATION	OTHER REQUIREMENTS	AVAILABLE ARRANGEMENTS
-29° to 149°	Ball or Roller	Grease	Standard Fan	Arr. 1, 4, 8, 9 & 10; Arr. 4 limited to 82°C
149° to 260°	Ball or Roller	High Temp. Grease	Shaft Cooler, Shaft Seal Expansion & Non-Expansion Bearings	Arr. 1, 8, 9 and 10*
260° to 427°	Ball or Roller	High Temp. Grease	High Temp. Aluminum Paint, Shaft Cooler, Shaft Seal, Expansion and Non-Expansion Bearings	Arr. 1, 8, 9 & 10*; (Arr. 9 & 10 limited to 316°C unless fan is insulated.)
427° to 538°	Ball or Roller	High Temp. Grease	Consult Factory	

*Arrangement 10 includes insulated pedestal

Derating Factors for High Temperature

TEMP. (°C)	DERATING FACTOR			
	RBO (22, 32); RBA (22); RBW (22, 32)		RBA (32); RBP (32)	
	STD STEEL	STAINLESS	50 KSI	STAINLESS
21	1.000	0.970	1.000	0.786
93	0.990	0.890	0.990	0.747
149	0.975	0.840	0.975	0.720
204	0.955	0.810	0.957	0.690
260	0.930	0.770	0.931	0.661
316	0.900	0.760	0.904	0.636
371	0.800	0.740	0.880	0.611
427	0.600	0.720	0.837	0.593
482	—	0.710	—	0.576
538	—	0.680	—	0.550

When elevated temperatures are encountered, maximum RPM allowable as shown below must be derated according to the values given in the table. Standard steel construction is suitable for use in gas temperatures up to 426°C. Aluminum impellers are suitable for temperatures up to 120°C only. For higher maximum RPM or elevated temperatures consult factory.

Maximum RPM, Impeller Weights, & WR² (Moment of Inertia)

FAN SIZE	MODEL RBO/RBR						MODEL RBW						MODEL RBA					
	IMPELLER WT. (kg)		WR ² (kg-m ²)		MAX. RPM		IMPELLER WT. (kg)		WR ² (kg-m ²)		MAX. RPM		IMPELLER WT. (kg)		WR ² (kg-m ²)		MAX. RPM	
	CL 22	CL 32	CL 22	CL 32	CL 22	CL 32	CL 22	CL 32	CL 22	CL 32	CL 22	CL 32	CL 22	CL 32	CL 22	CL 32	CL 22	CL 32
905	3.6	—	0.02	—	5500	—	—	—	—	—	—	—	—	—	—	—	—	—
907	6.0	—	0.06	—	5296	—	8.2	—	0.10	—	5457	—	6.4	—	0.08	—	5273	—
909	7.5	—	0.10	—	4156	—	13.6	—	0.26	—	4192	—	11.8	—	0.29	—	4134	—
911	19.9	20	0.37	0.37	3283	3844	29.0	31.3	0.88	0.92	3495	4016	20.9	22.7	0.71	0.71	3373	4000
913	23.4	23	0.58	0.58	2822	3378	39.5	42.2	1.64	1.76	2922	3373	30.8	31.8	1.43	1.43	2812	3337
915	37.0	48	1.35	1.61	2485	2923	61.2	66.2	3.40	3.70	2531	2921	47.2	48.5	2.94	2.98	2521	2910
917	56.7	57	2.63	2.64	2191	2577	78.5	85.3	5.59	6.05	2232	2576	49.9	69.9	4.03	5.5	2147	2566
919	70.3	75	4.03	4.17	1951	2315	103	111	9.07	9.79	2004	2313	75.3	87	7.48	8.48	1928	2304
921	91.6	92	7.01	7.01	1778	2092	138	150	14.9	16.2	1791	2091	102	115	12.2	13.7	1733	2083
923	101	116	9.03	9.74	1623	1910	170	184	22.1	23.9	1635	1912	122	153	17.6	22.3	1581	1905
926	121	194	19.4	31.1	1439	1693	209	227	34.5	37.5	1449	1696	155	197	28.6	36.8	1402	1689
929	151	250	30.2	50.2	1286	1513	266	289	54.9	59.7	1295	1515	220	246	50.4	57.4	1253	1509
933	231	356	60.2	92.7	1129	1329	454	493	122	132	1137	1330	323	385	95.8	115	1100	1325
937	281	446	91.8	146	1009	1187	568	618	191	208	1015	1188	436	481	162	181	983	1184
941	361	551	144	220	911	1072	701	757	288	313	917	1024	534	598	243	275	888	1070
945	550	778	265	375	837	976	836	911	415	452	835	978	816	742	458	410	809	974
949	643	929	368	531	757	896	1014	1103	597	650	767	900	959	994	627	654	743	894
954	1249	—	—	865	—	692	—	1218	—	868	—	696	—	1170	—	924	—	674
960	1522	—	—	1303	—	622	—	1534	—	1351	—	627	—	1570	—	1530	—	607

Bare Fan Weights (lb)

FAN SIZE	ARRANGEMENTS										
	CLASS 22							CLASS 32			
	1	4	8	9	9A, 9B	9F	10	1	4	8	9, 9F
905	45	—	59	—	49	—	49	—	—	—	—
907	60	57	78	—	83	83	83	—	—	—	—
909	79	75	103	—	111	111	111	—	—	—	—
911	151	143	196	—	192	192	192	172	163	224	223
913	191	181	248	—	239	239	239	227	216	295	298
915	278	264	361	—	323	323	323	325	308	422	381
917	339	322	440	—	390	390	390	397	377	517	460
919	428	406	556	—	493	493	493	501	476	651	596
921	738	701	959	—	792	792	792	788	748	1024	887
923	887	—	1153	—	947	947	947	1031	—	1340	1168
926	1114	—	1448	—	1183	1183	1183	1258	—	1635	1396
929	1353	—	1759	—	1425	1425	1425	1634	—	2124	1797
933	1558	—	2026	1593	—	1593	—	1876	—	2439	1986
937	1965	—	2555	2013	—	2013	—	2367	—	3078	2490
941	2496	—	3245	2640	—	2640	—	2871	—	3733	3045
945	3065	—	3985	3215	—	3215	—	3527	—	4585	3704
949	4051	—	5267	4369	—	4369	—	4164	—	5413	4355
954	5368	—	—	5746	—	5746	—	—	—	—	—
960	6545	—	—	6974	—	6974	—	—	—	—	—

NOTE: Weights are less motor, drives and accessories

Material Specifications

FAN SIZE	HOUSING CLASS 22			HOUSING CLASS 32			RBO/RBR IMPELLER (NOTE 2)				RBW IMPELLER (NOTE 2)			RBA IMPELLER (NOTE 2)				SHAFT DIAMTR		BRG. CODE (NOTE 1)	
	Sides	Side Plates	Scroll	Sides	Side Plates	Scroll	CL 22 Blade	R Rim	CL 32 Blade	R Rim	Back Plate	CL 22 Blade	CL 32 Blade	Back Plate	Impeller Cone	CL 22 Blade	CL 32 Blade	CL 22	CL 32	CL 22	CL 32
905	2.5	3	2.5	—	—	—	3	—	—	—	—	—	—	—	—	—	—	25	—	HDB	—
907	2.5	3	2.5	—	—	—	3	—	—	—	6	5	—	5	3	2.5	—	35	—	HDB	—
909	2.5	3	2.5	—	—	—	3	—	—	—	6	5	—	5	3	3	—	35	—	HDB	—
911	3	3	3	5	5	5	5	—	5	—	6	6	6	6	3	5	5	40	50	HDB	RB
913	3	3	3	5	5	5	5	—	6	—	6	6	6	6	5	5	5	40	50	HDB	RB
915	3	3	3	5	5	5	6	—	6	—	8	8	8	8	5	5	5	55	60	HDB	RB
917	3	3	3	5	5	5	6	—	6	—	8	8	8	8	5	5	6	55	60	HDB	RB
919	3	3	3	5	5	5	8	—	8	—	8	8	8	8	5	5	6	55	75	RB	RB
921	3	5	3	5	5	5	8	—	8	—	10	10	10	10	5	5	6	60	75	RB	RB
923	5	5	5	6	6	5	8	—	8	—	10	10	10	10	5	5	8	60	90	RB	RB
926	5	5	5	6	6	6	8	—	8	6	10	10	10	10	5	5	8	75	90	RB	RB
929	5	5	5	6	6	6	8	—	8	6	10	10	10	10	5	6	8	90	100	RB	RB
933	5	6	5	6	6	6	10	—	10	6	12	12	12	12	5	6	8	90	100	RB	RB
937	6	6	5	6	6	6	10	—	10	6	12	12	12	12	5	8	10	90	125	RB	SRB
941	6	6	5	6	6	6	10	—	10	6	12	12	12	12	5	8	10	100	125	SRB	SRB
945	6	6	5	6	6	6	12	—	12	6	12	12	—	16	6	10	10	100	125	SRB	SRB
949	6	6	6	6	6	6	12	—	12	6	12	12	—	16	6	10	10	115	140	SRB	SRB
954	8	8	8	—	—	—	20	—	—	—	12	12	—	16	6	10	—	140	—	SRB	—
960	8	8	8	—	—	—	20	—	—	—	12	12	—	20	6	10	—	150	—	SRB	—

NOTES:

Dimensions are in mm unless otherwise noted.

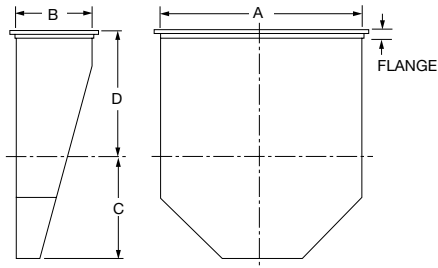
1. BEARINGS CODES:

- SDB — Standard-Duty Ball such as Dodge SCAH
HDB — Heavy-Duty Ball such as Dodge SCMAH or Sealmaster MP Series
RB — Roller Bearing such as Dodge S2000 or SKF SYR Series
SRB — Split Roller Ball such as SKF SAF225 or Linkbelt PLB6800 Series

2. Gauges listed are for standard steel impeller; steel alloy will vary with size and class.

3. Bearing selection is made on the basis of L-10 bearing life to be in no case less than 40,000 hours minimum or L-50 life of 200,000 hours.

Typical Inlet Box Dimensions

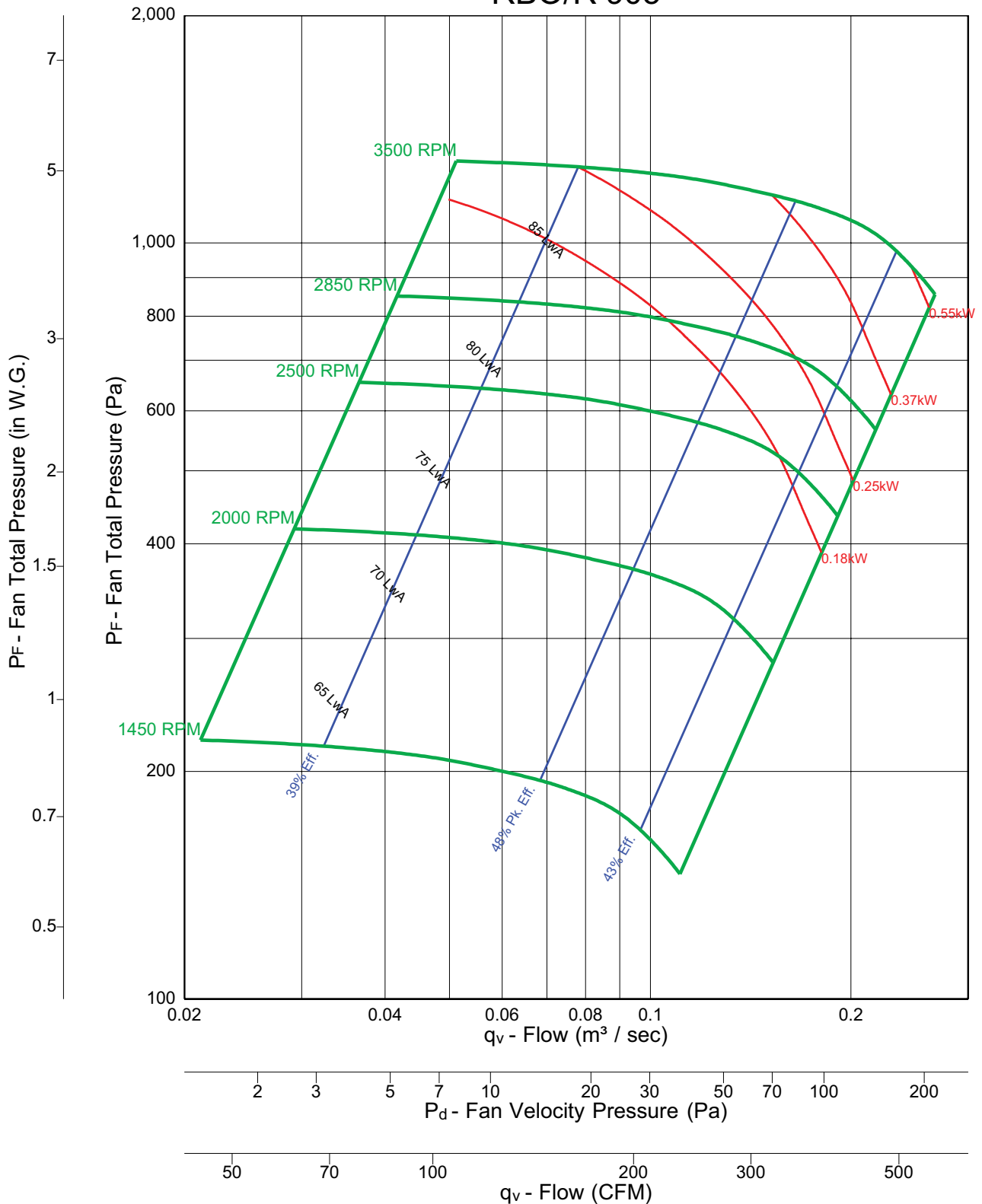


FAN SIZE	A	B	C		D	E	INLET AREA (M ²)	F
			CL 22	CL 32				
907	324	105	41	—	203	305	0.03	38 x 38
909	416	137	41	—	229	330	0.06	38 x 38
911	505	165	54	56	254	356	0.08	38 x 38
913	597	197	54	56	279	381	0.12	38 x 38
915	686	222	67	68	305	406	0.15	38 x 38
917	772	251	67	68	330	432	0.19	38 x 38
919	867	283	67	68	356	457	0.25	51 x 51
921	959	311	80	81	381	483	0.3	51 x 51
923	1051	340	81	83	406	508	0.36	51 x 51
926	1181	384	81	83	445	546	0.45	64 x 64
929	1321	429	81	83	483	584	0.57	64 x 64
933	1499	486	106	108	533	635	0.73	64 x 64
937	1689	546	108	108	584	686	0.92	64 x 64
941	1867	607	133	133	635	737	1.13	64 x 64
945	2048	673	159	159	686	787	1.38	64 x 64
949	2226	730	159	159	737	838	1.63	89 x 89
954	2457	806	160	—	813	914	1.98	89 x 89
960	2727	895	160	—	889	991	2.44	89 x 89

Dimensions are in millimeters unless otherwise noted.



RBO/R 905



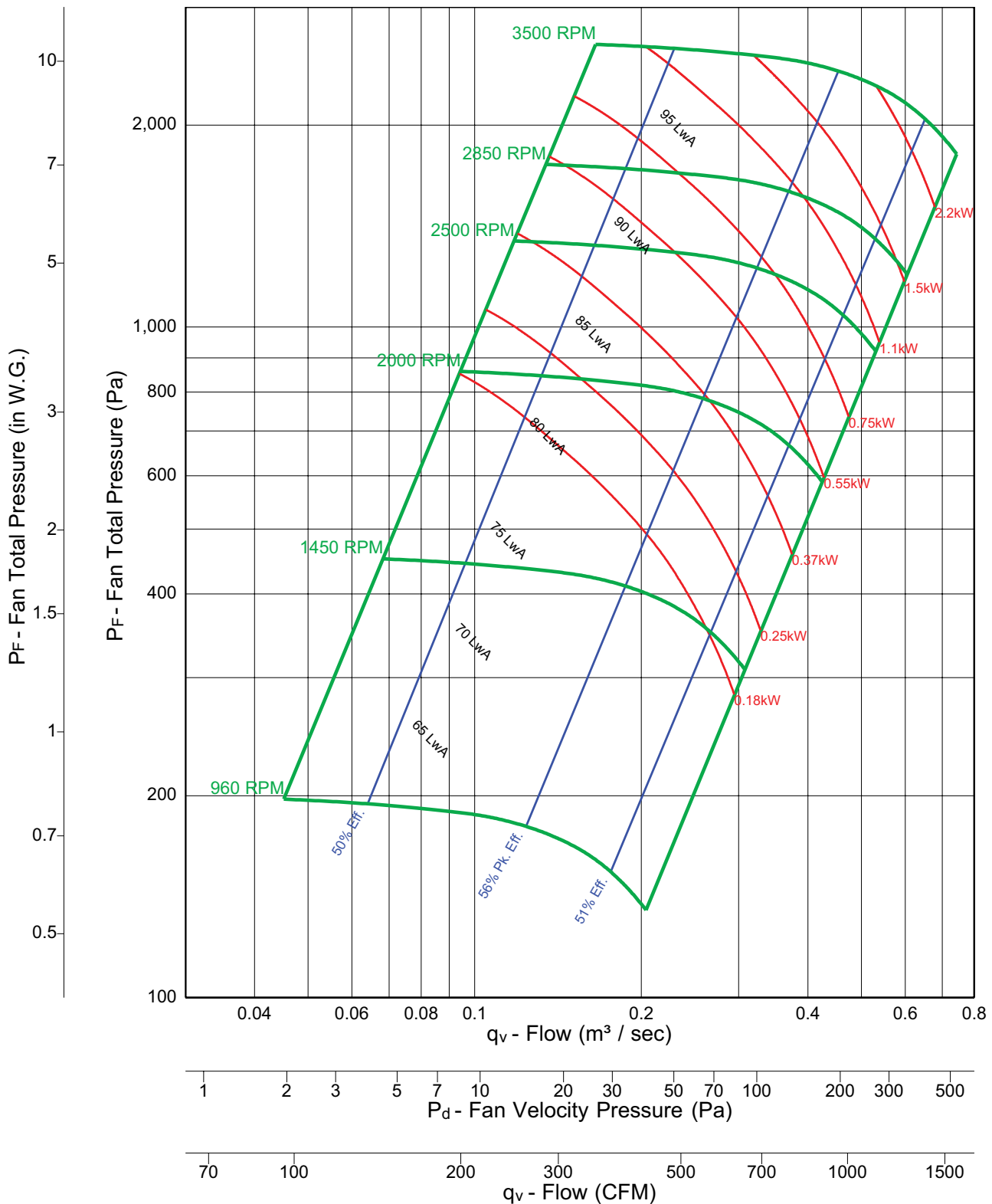
Fan Efficiency Grade = FEG 63



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 907



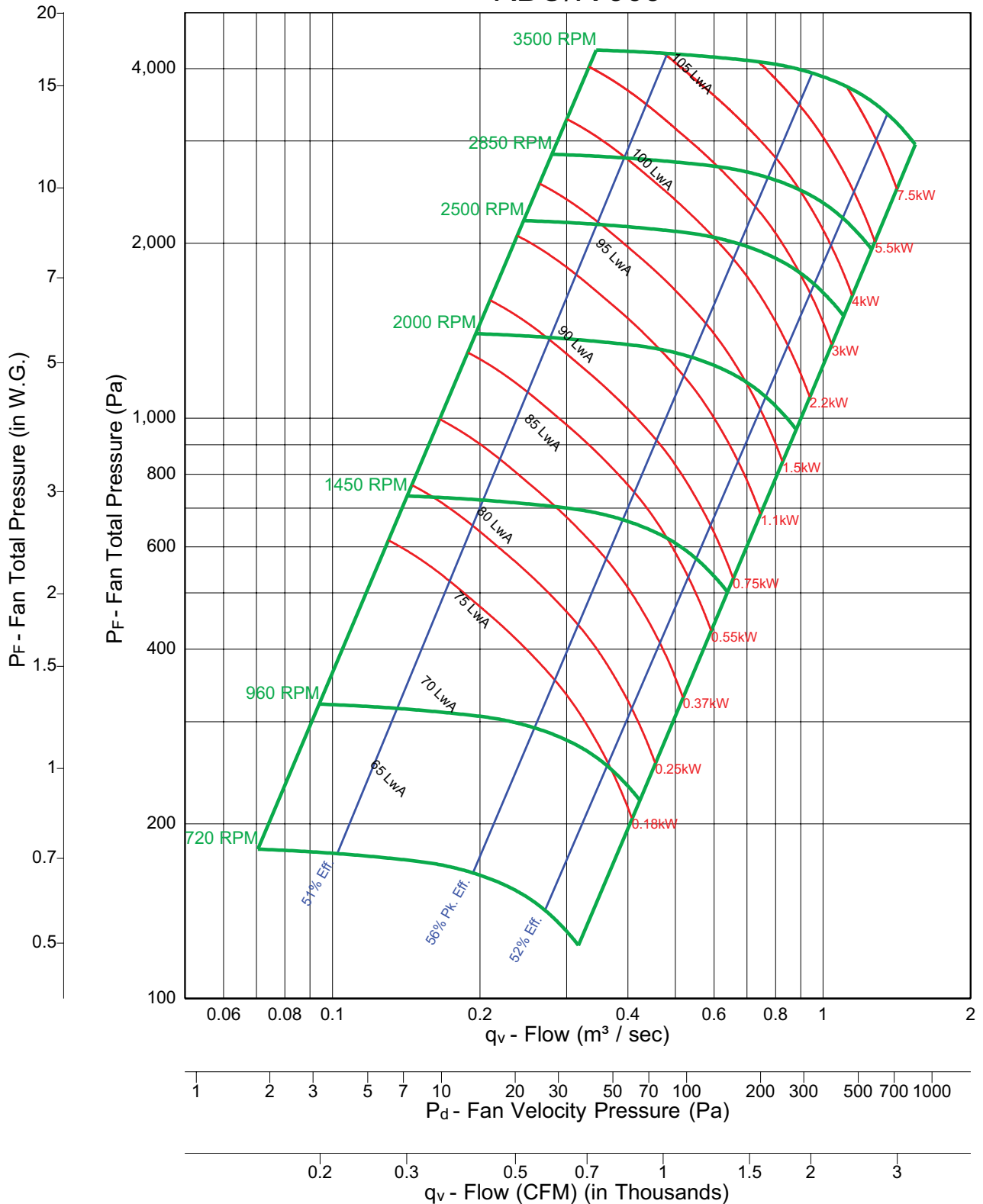
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 909



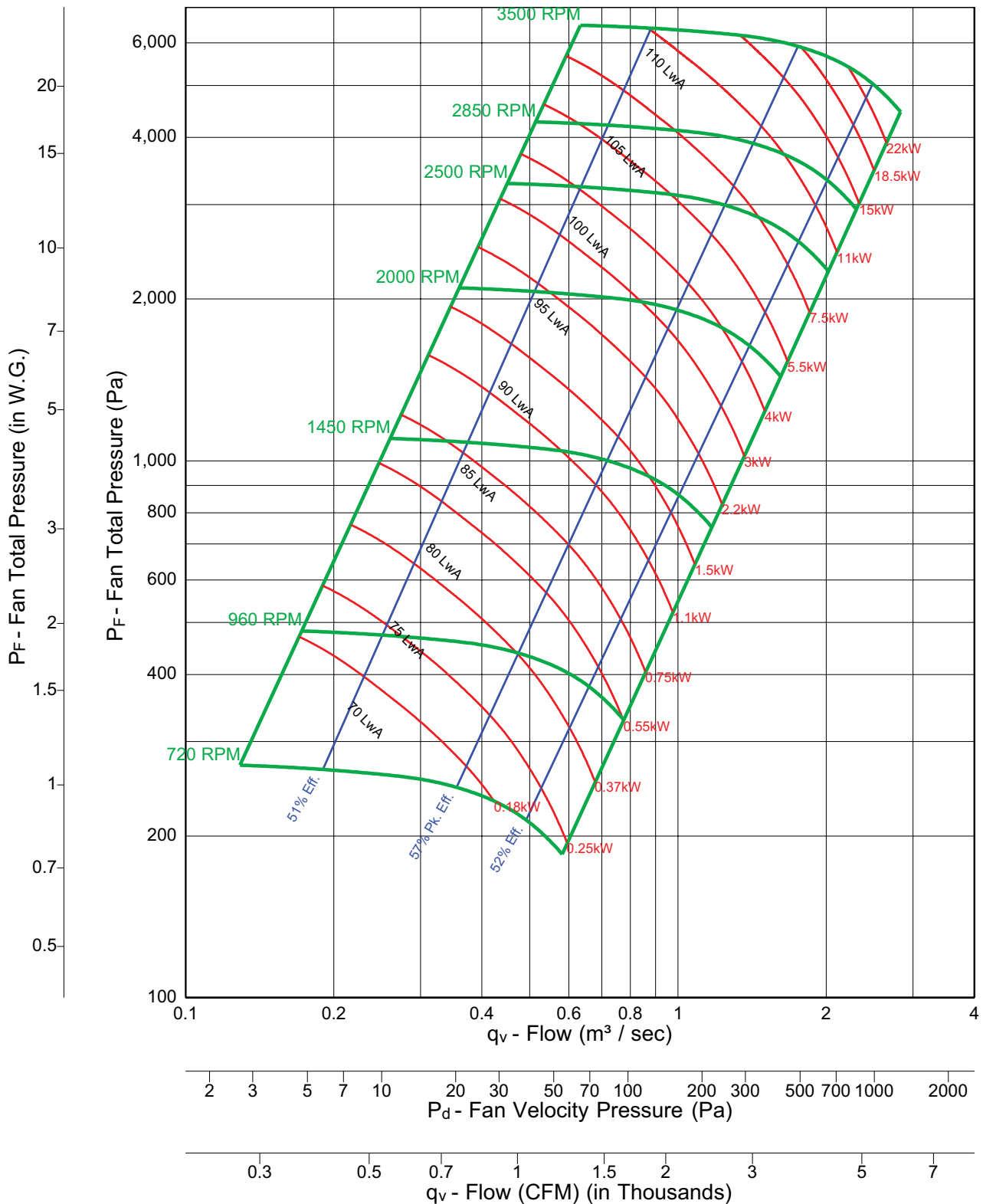
Fan Efficiency Grade = FEG 63



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 911



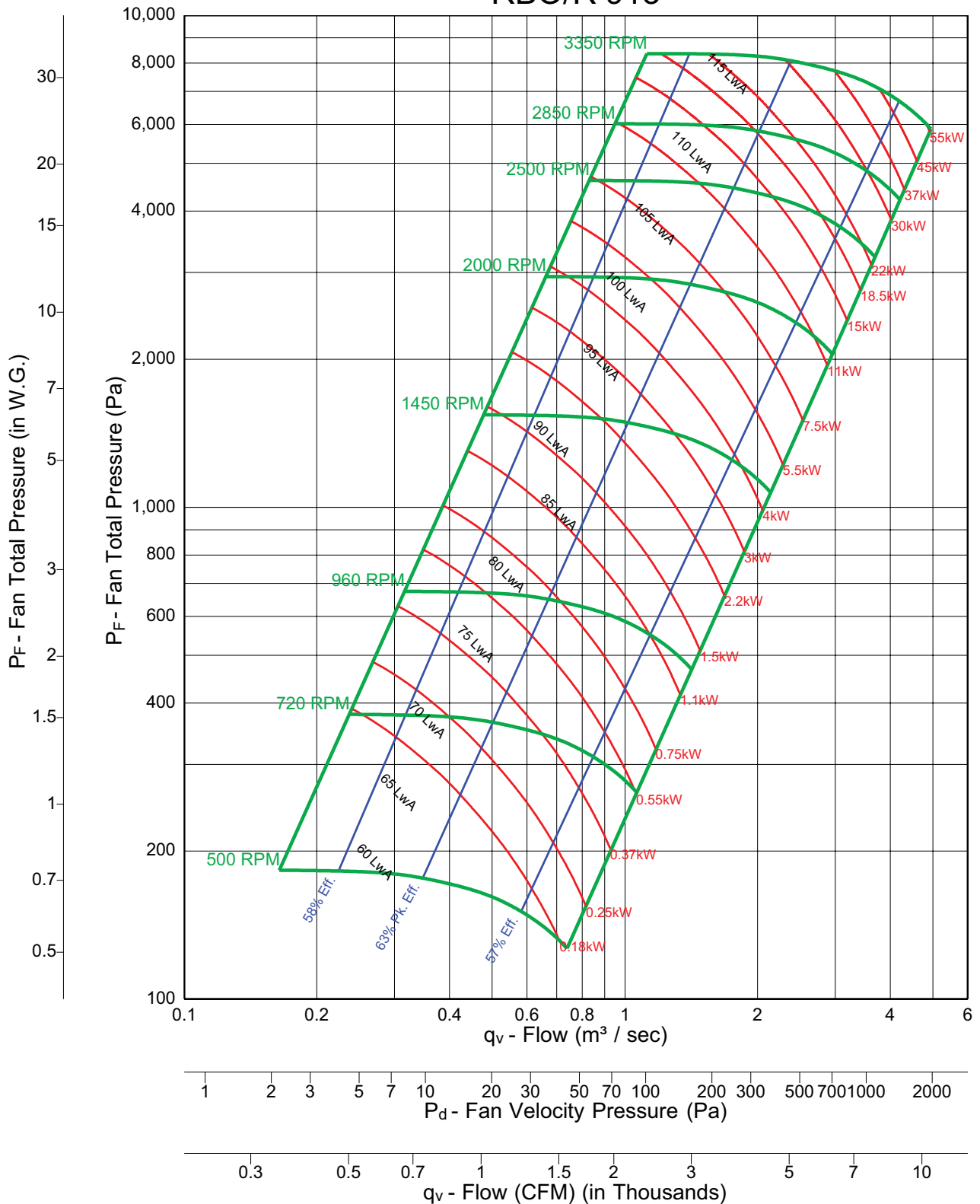
Fan Efficiency Grade = FEG 60



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 913



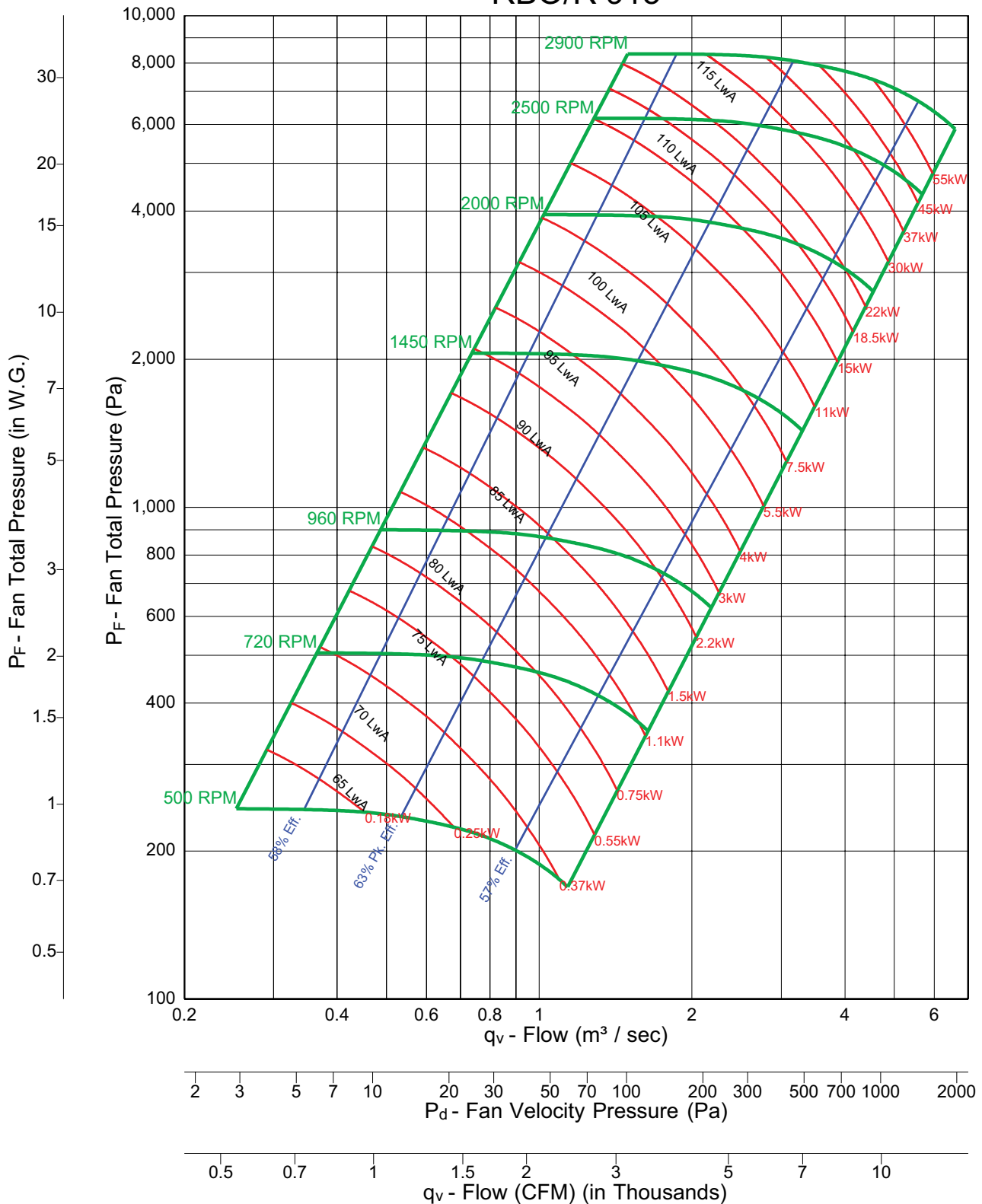
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 915



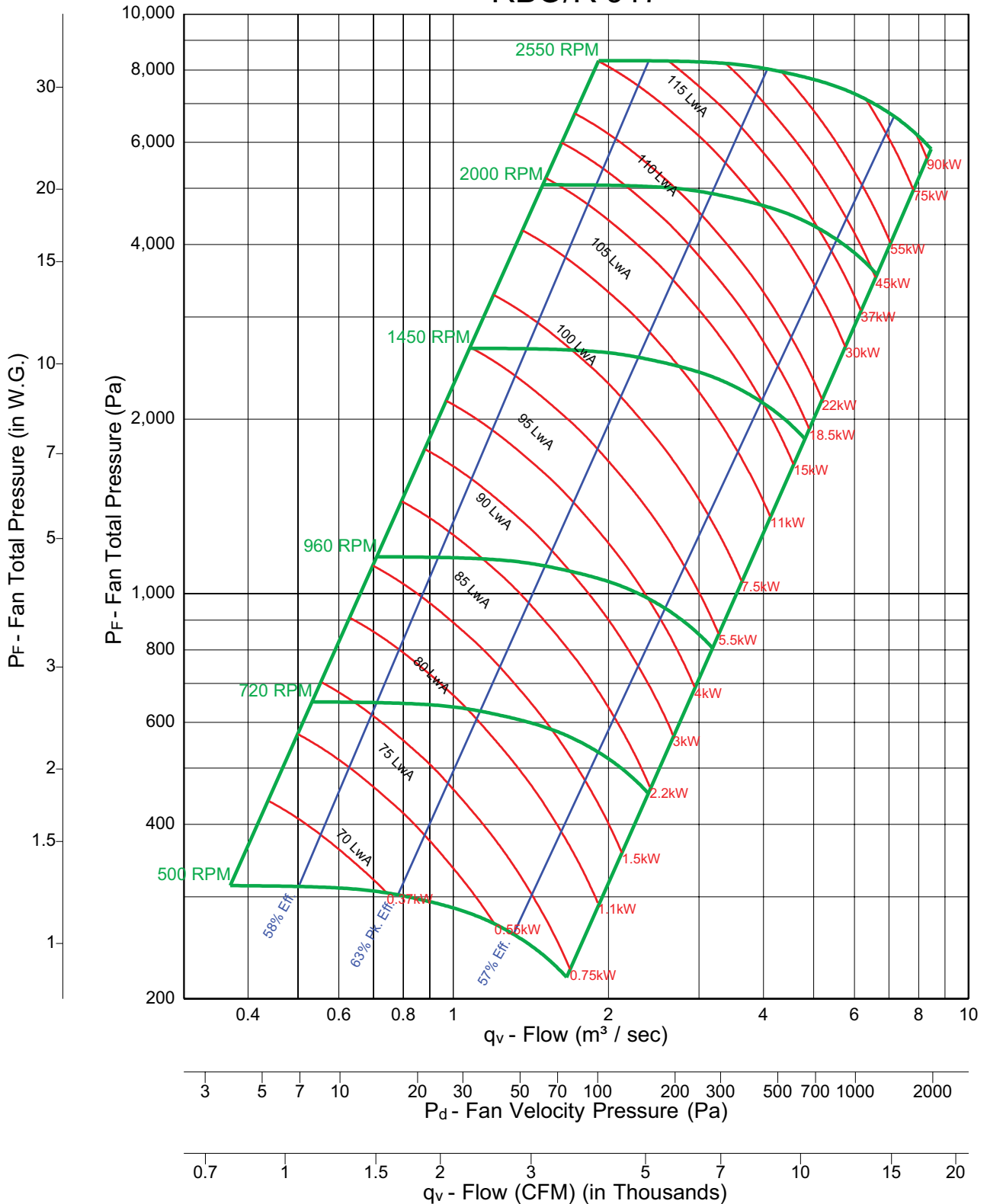
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 917



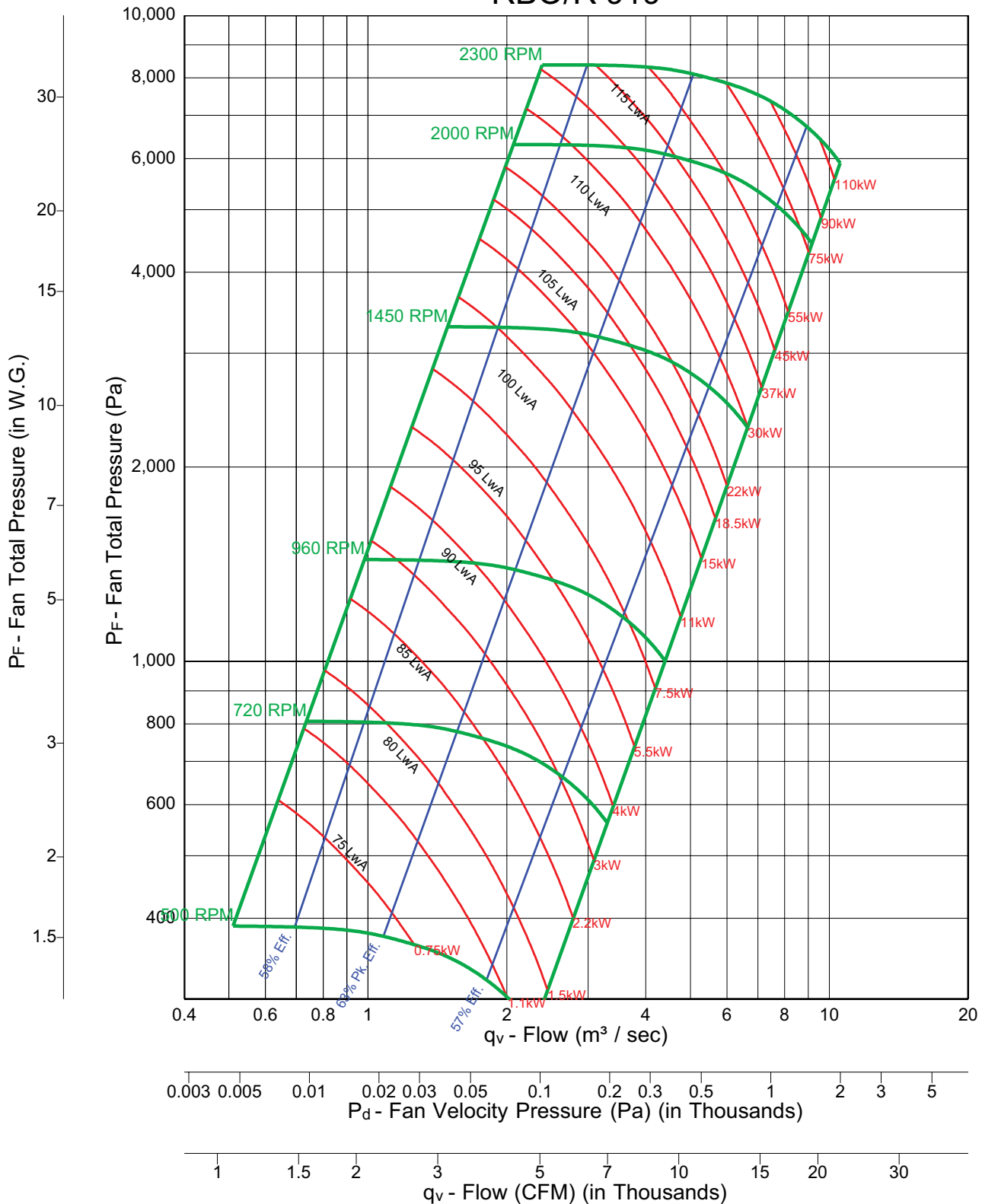
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 919



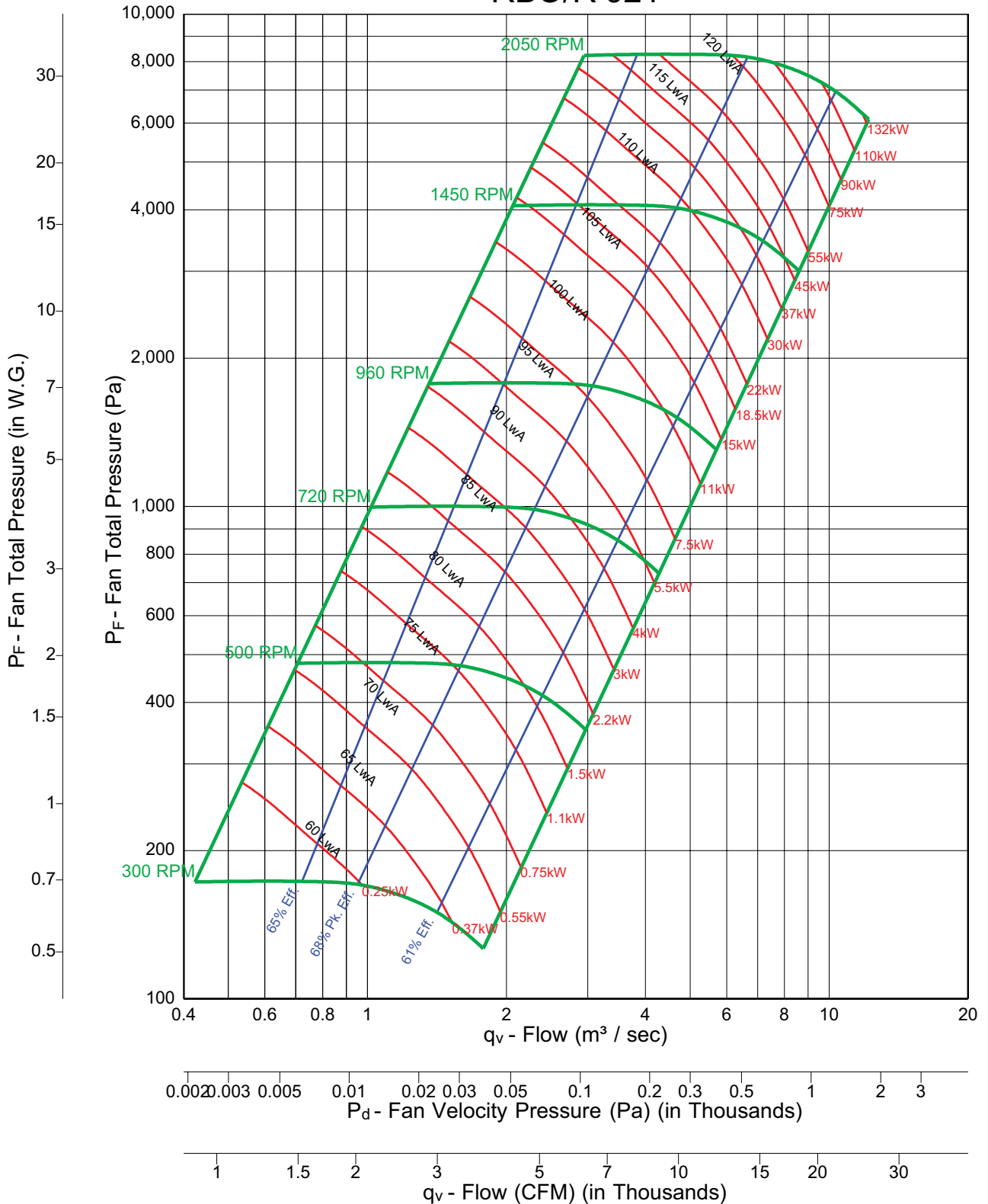
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 921



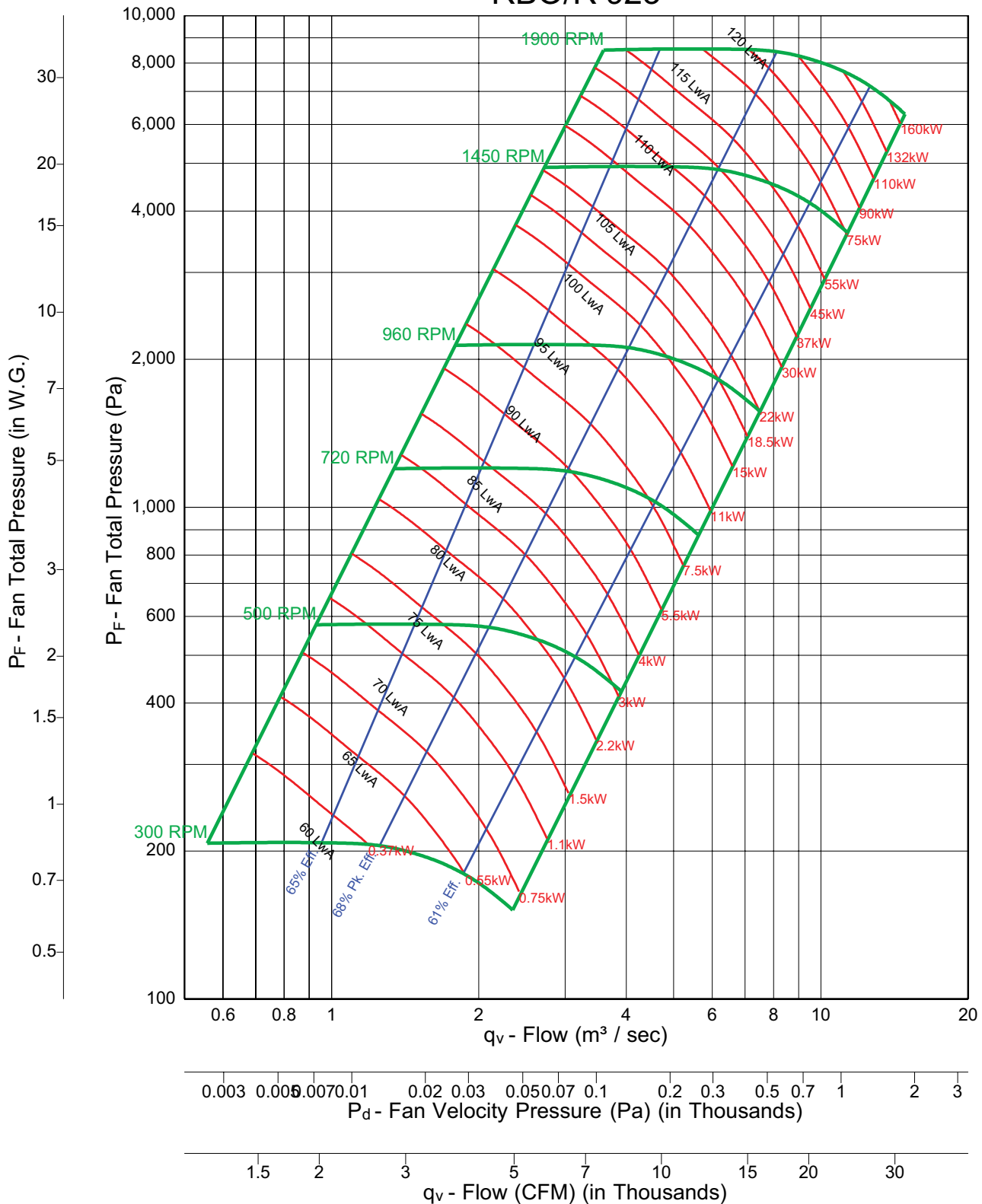
Fan Efficiency Grade = FEG 71



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 923



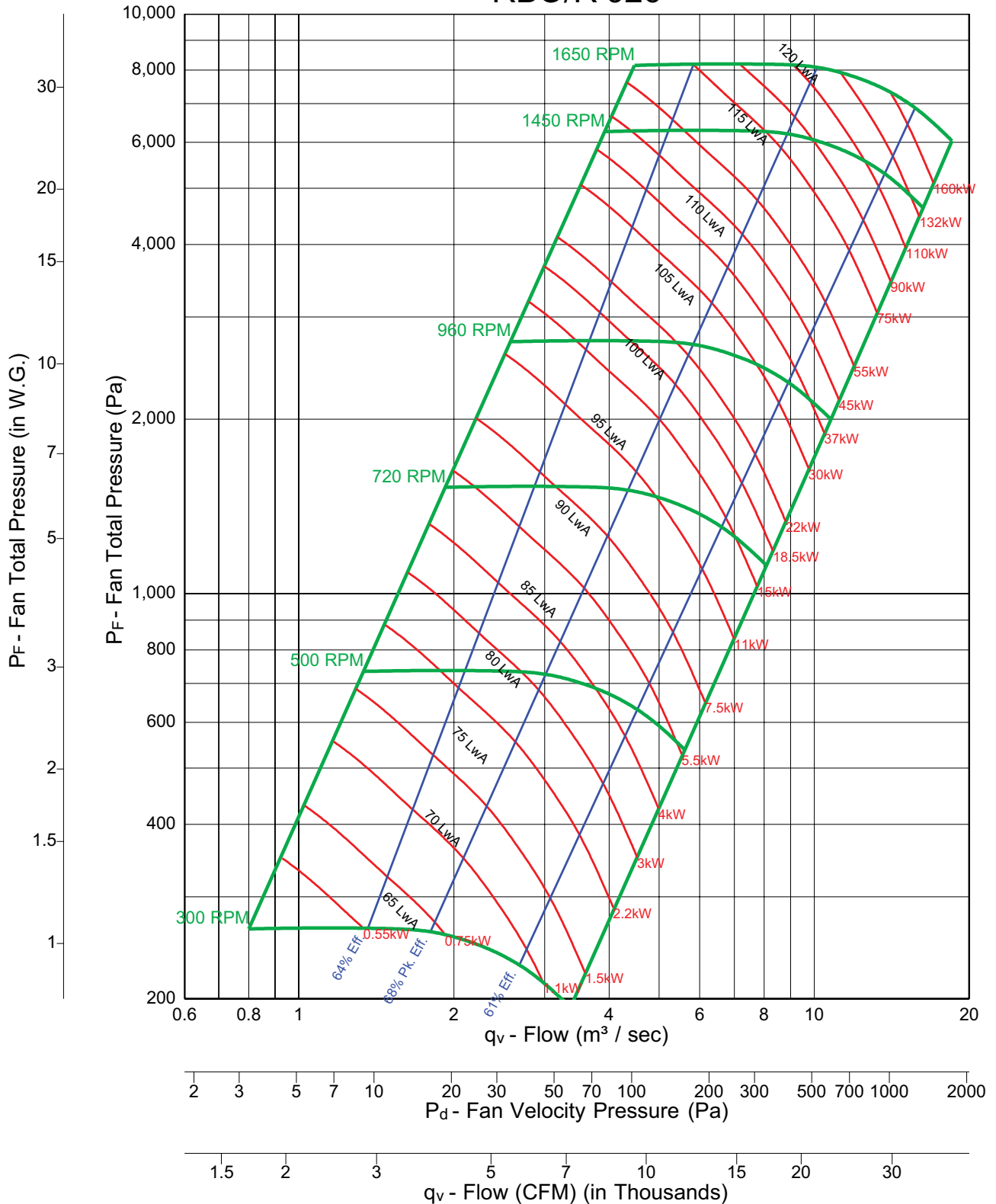
Fan Efficiency Grade = FEG 71



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 926



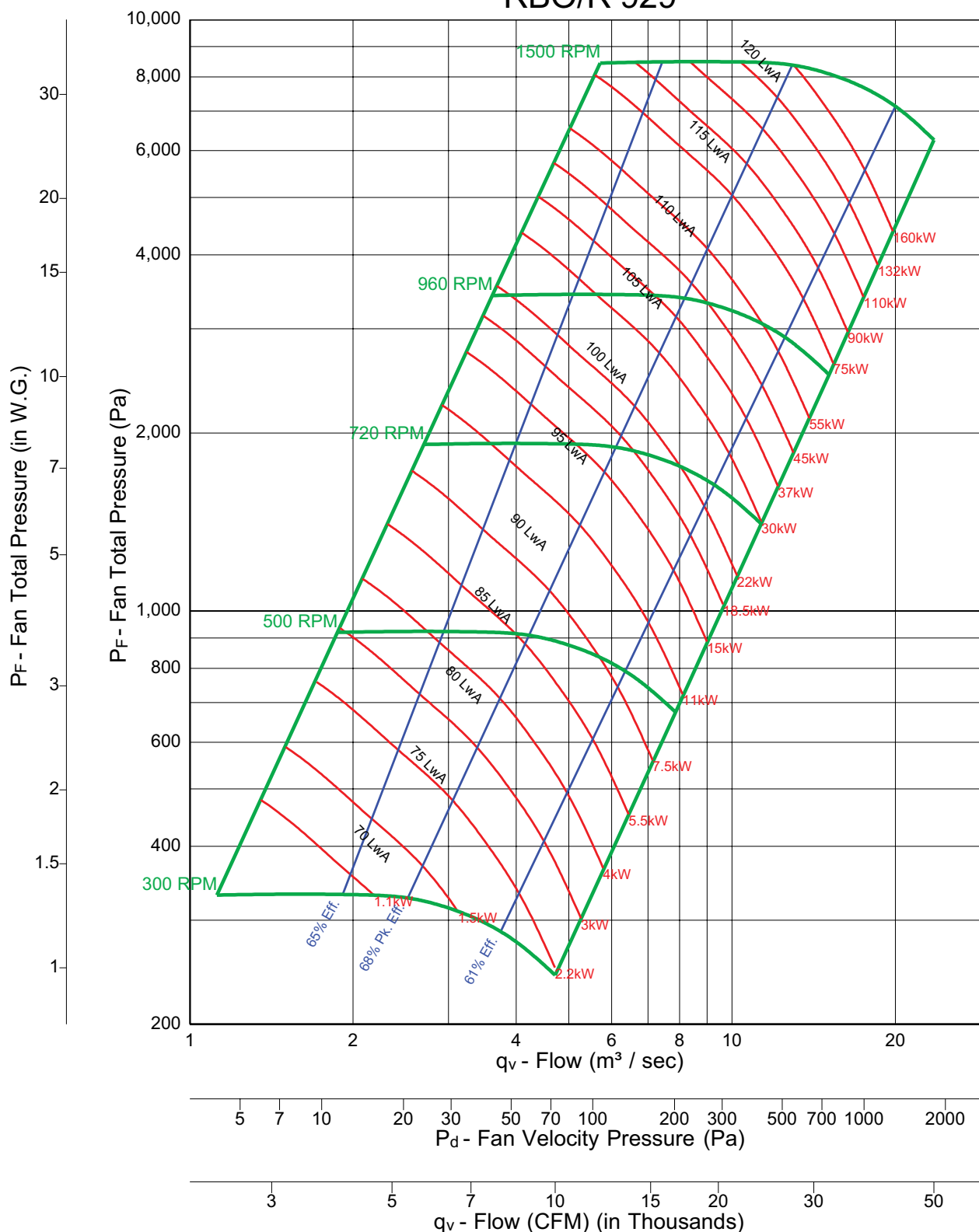
Fan Efficiency Grade = FEG 71



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 929



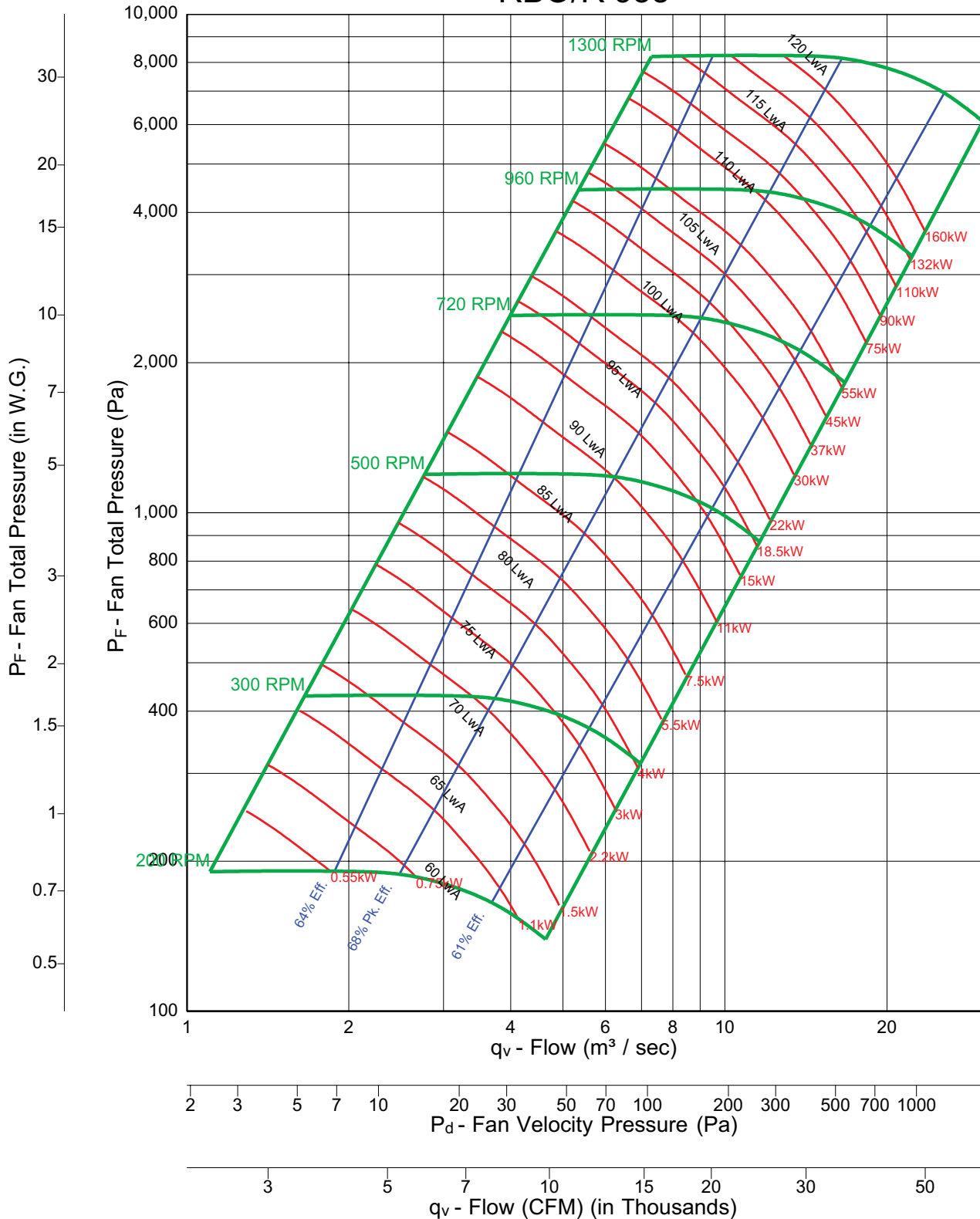
Fan Efficiency Grade = FEG 71



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 933



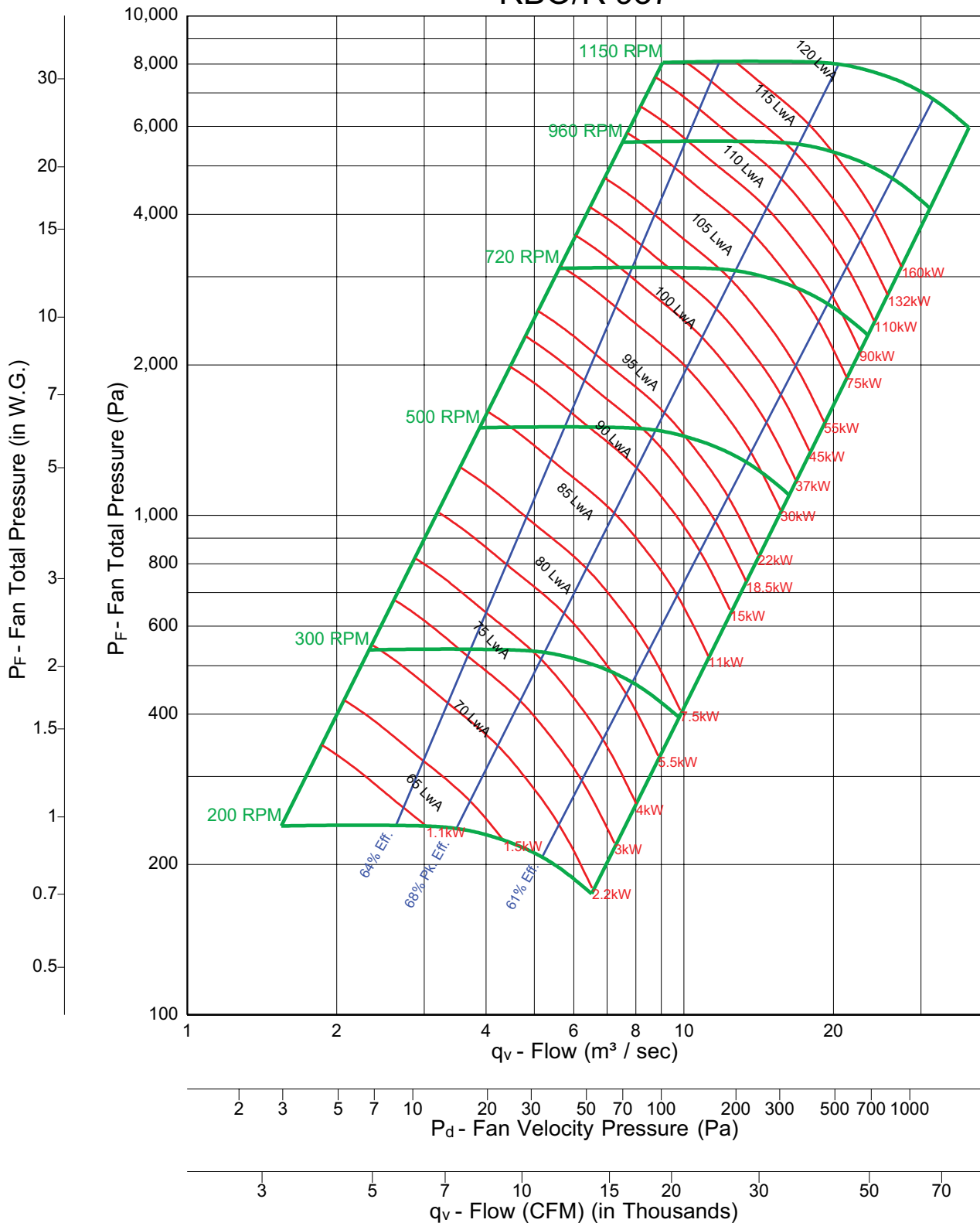
Fan Efficiency Grade = FEG 71



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 937



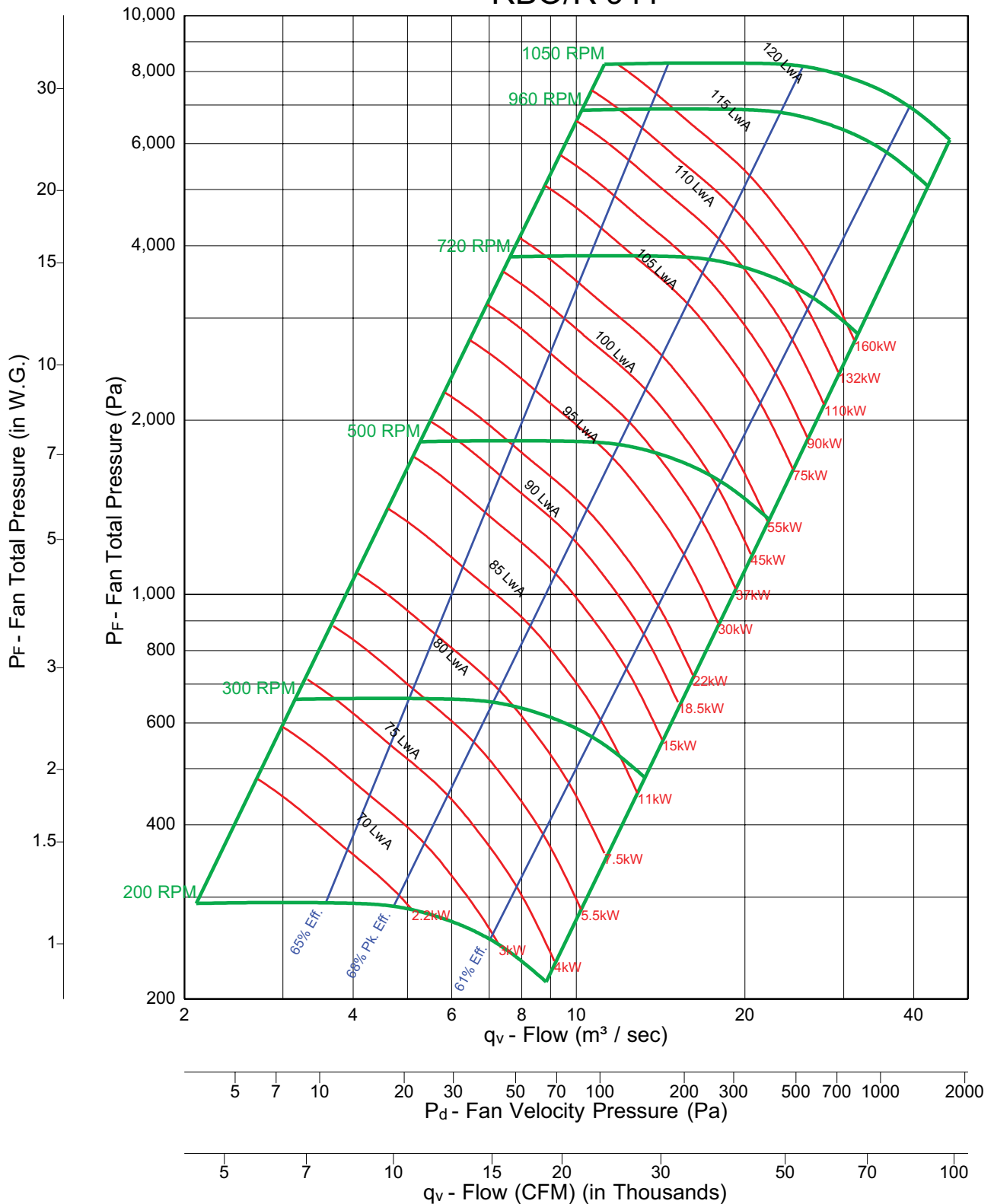
Fan Efficiency Grade = FEG 71



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 941



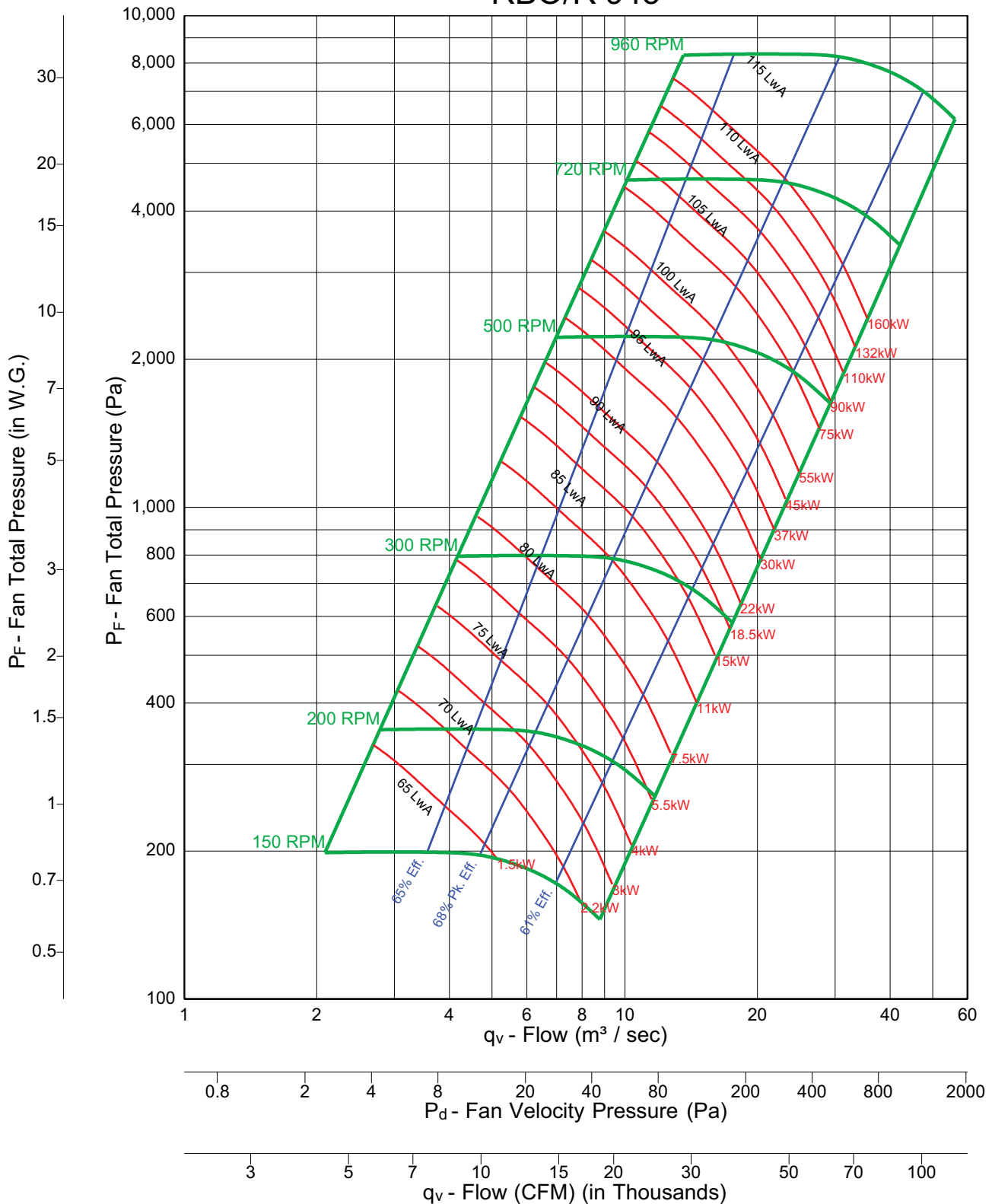
Fan Efficiency Grade = FEG 71



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 945



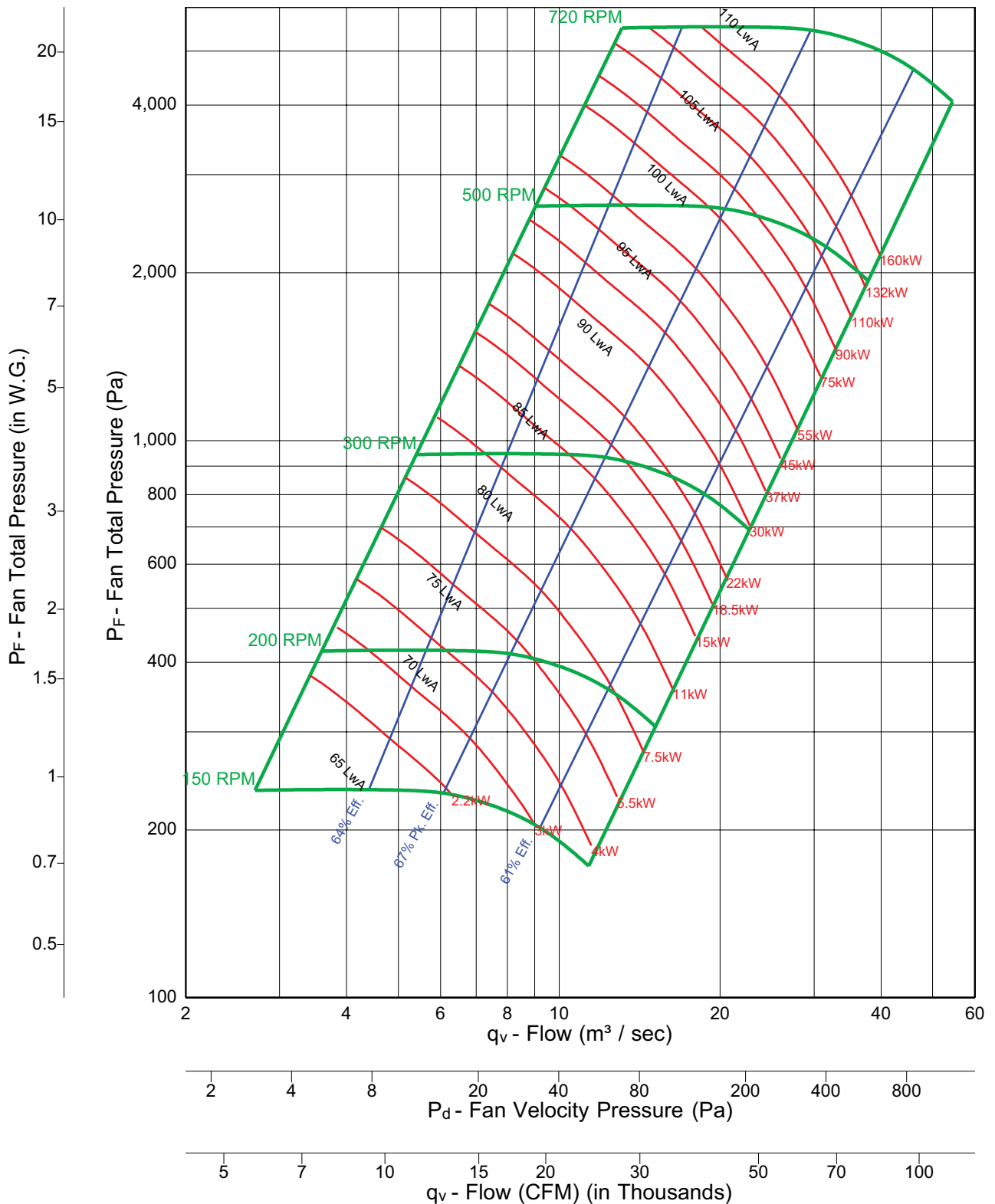
Fan Efficiency Grade = FEG 71



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 949



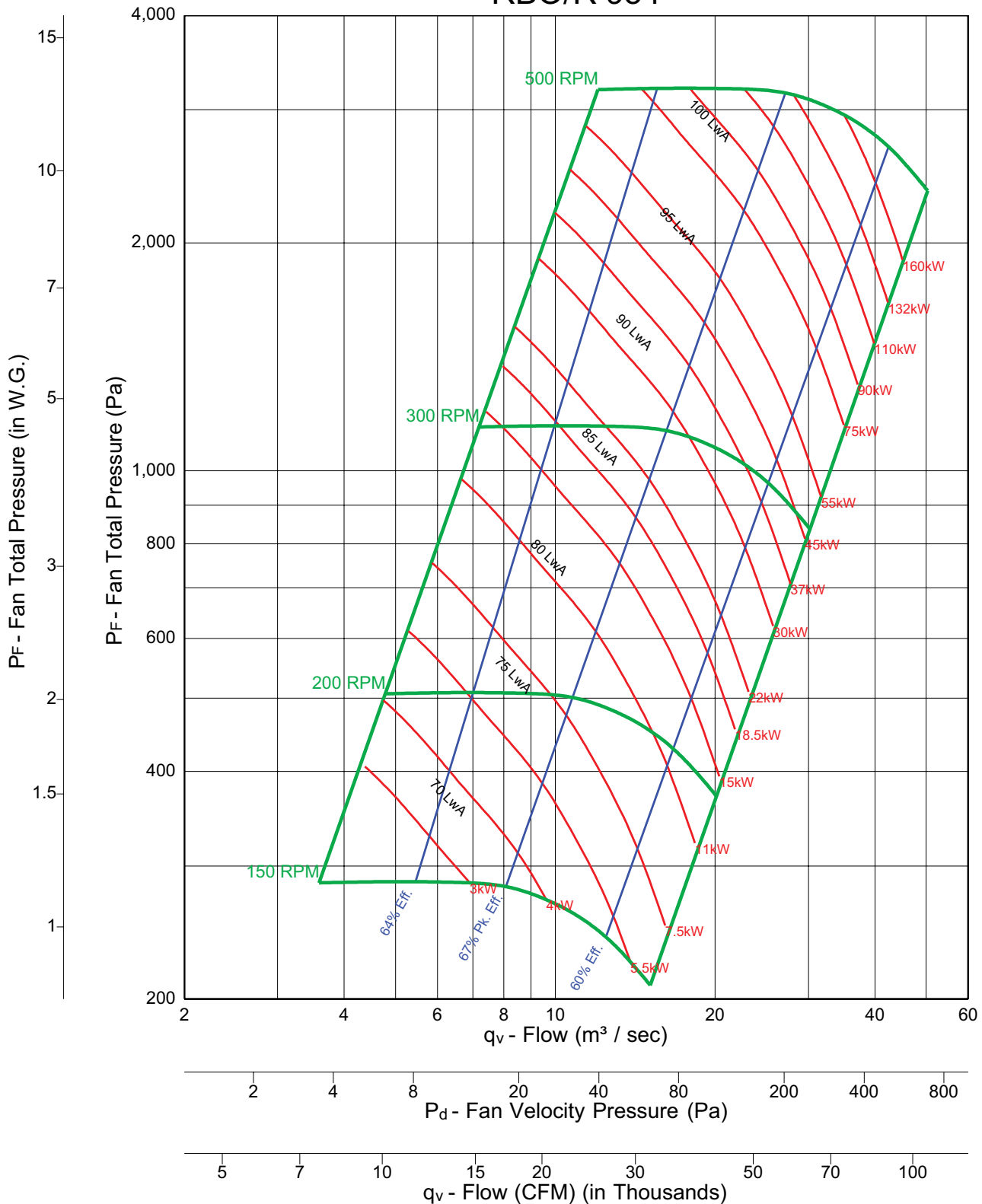
Fan Efficiency Grade = FEG 71



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 954



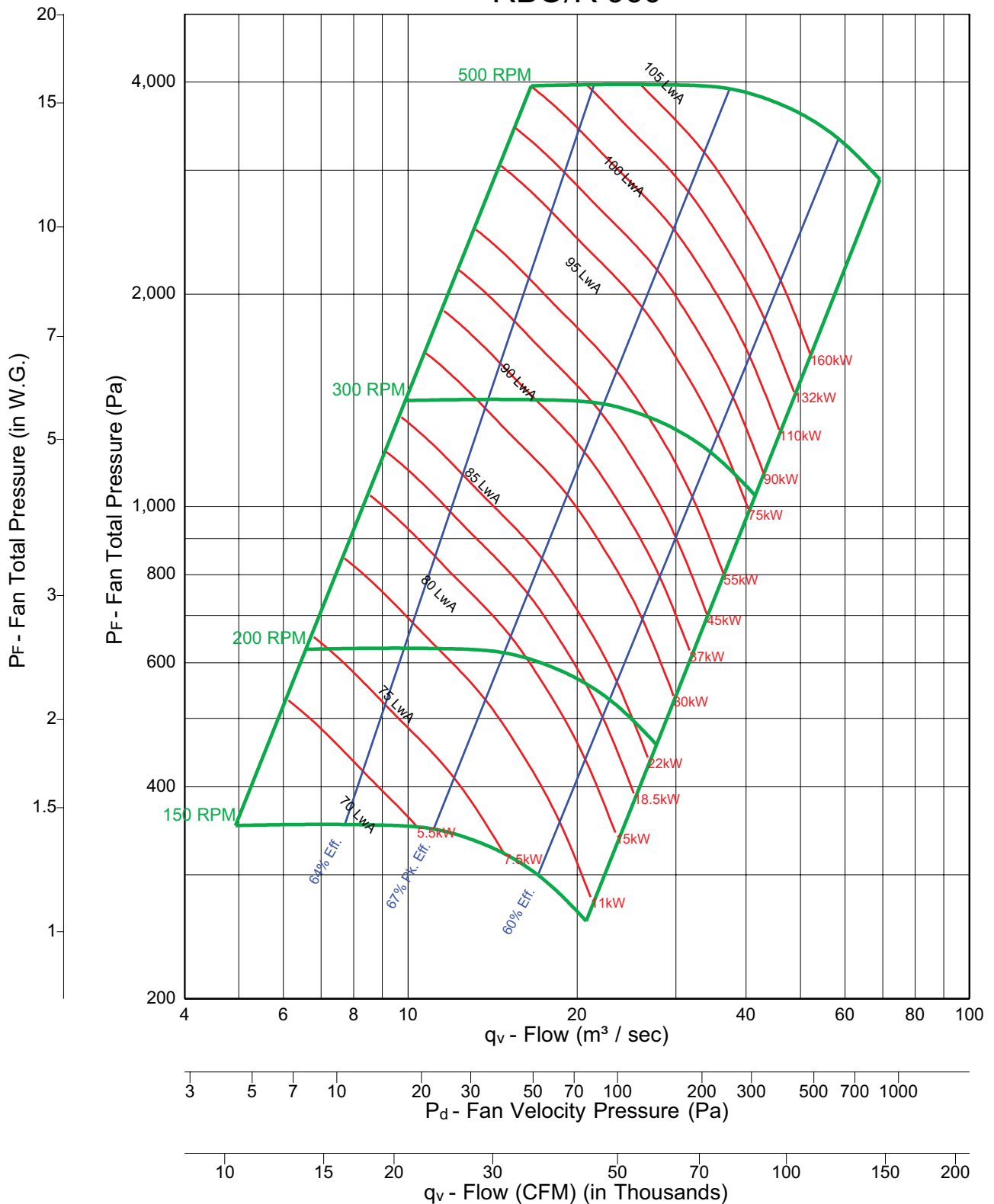
Fan Efficiency Grade = FEG 71



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBO/R 960



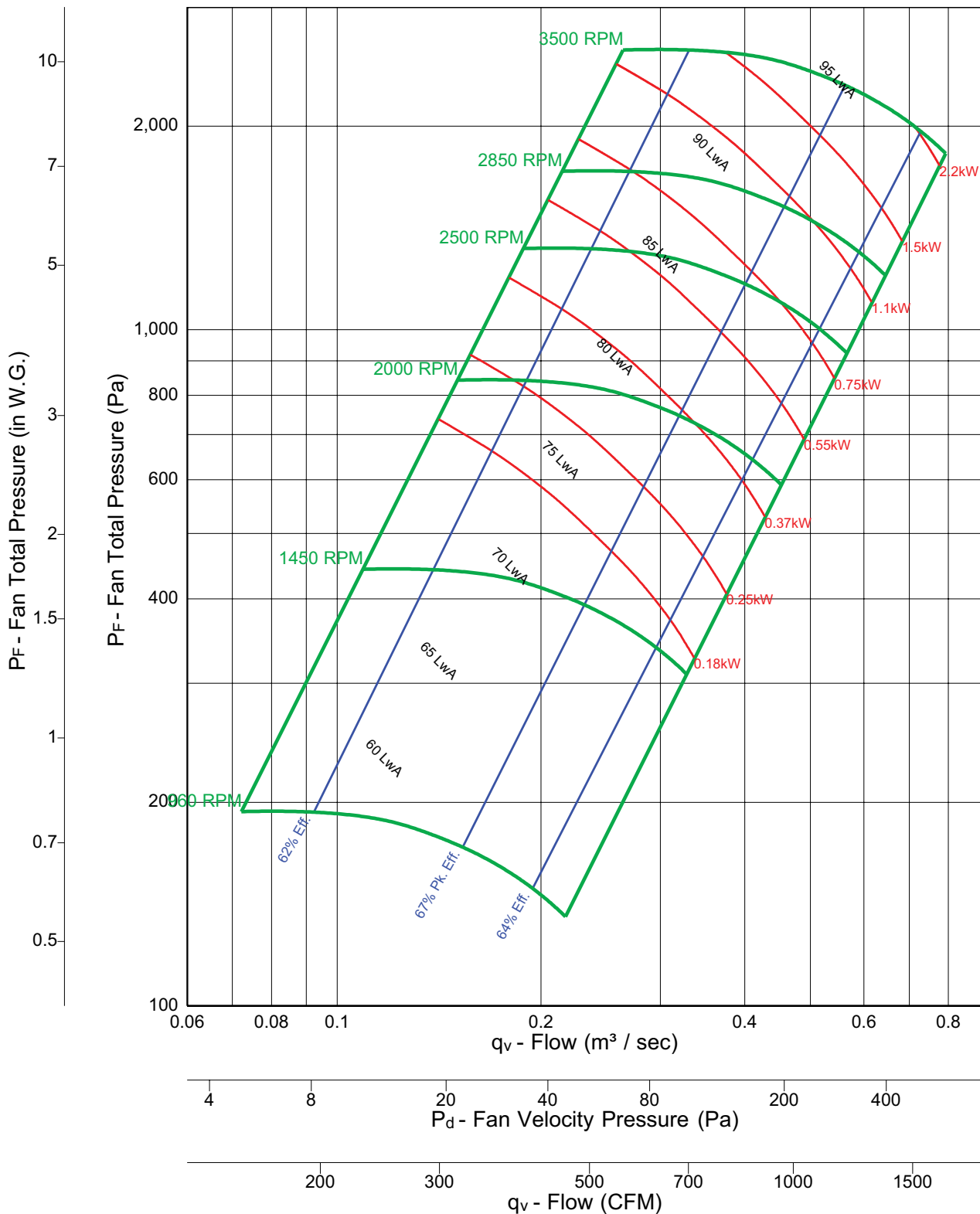
Fan Efficiency Grade = FEG 71



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 907



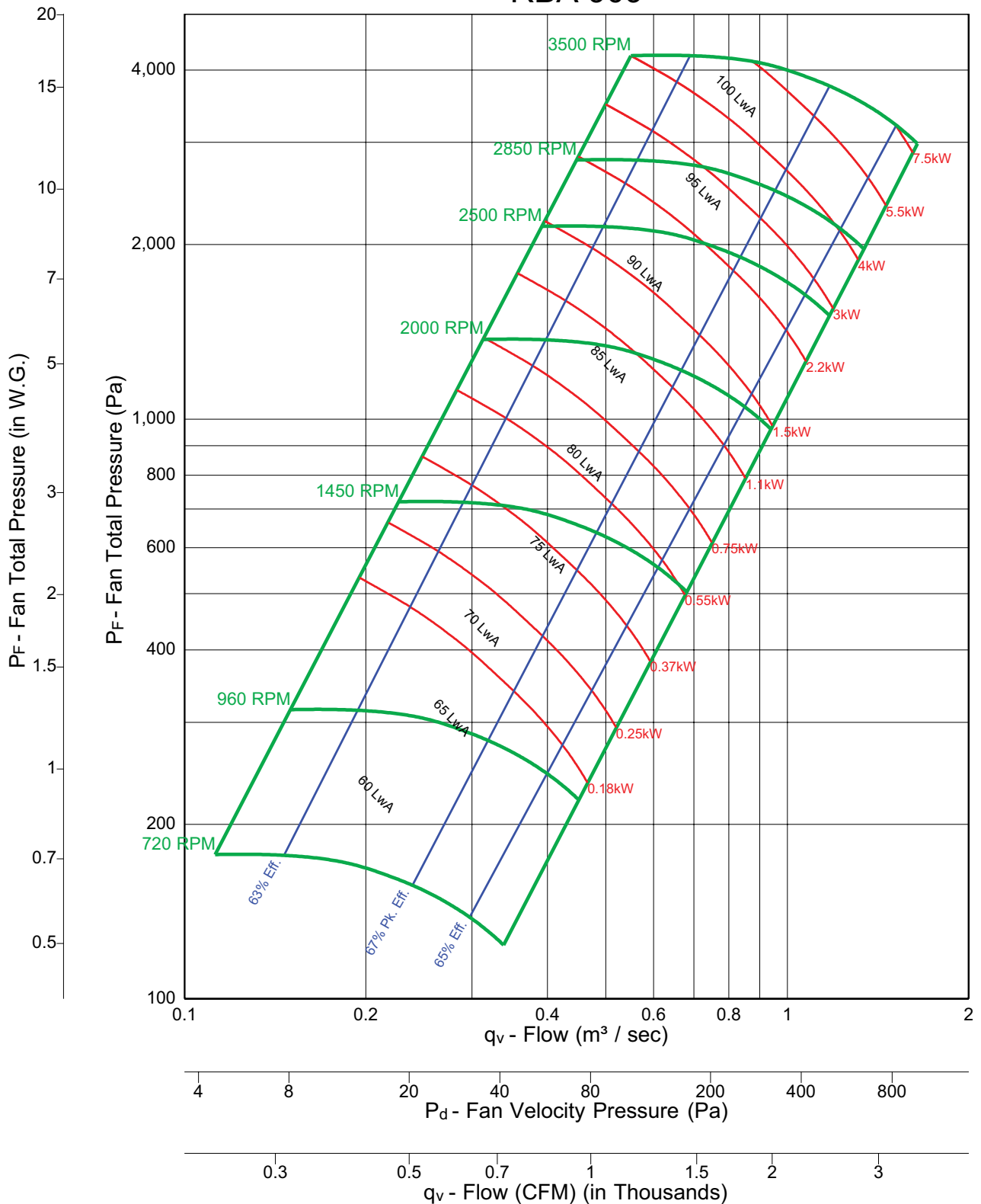
Fan Efficiency Grade = FEG 80



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 909



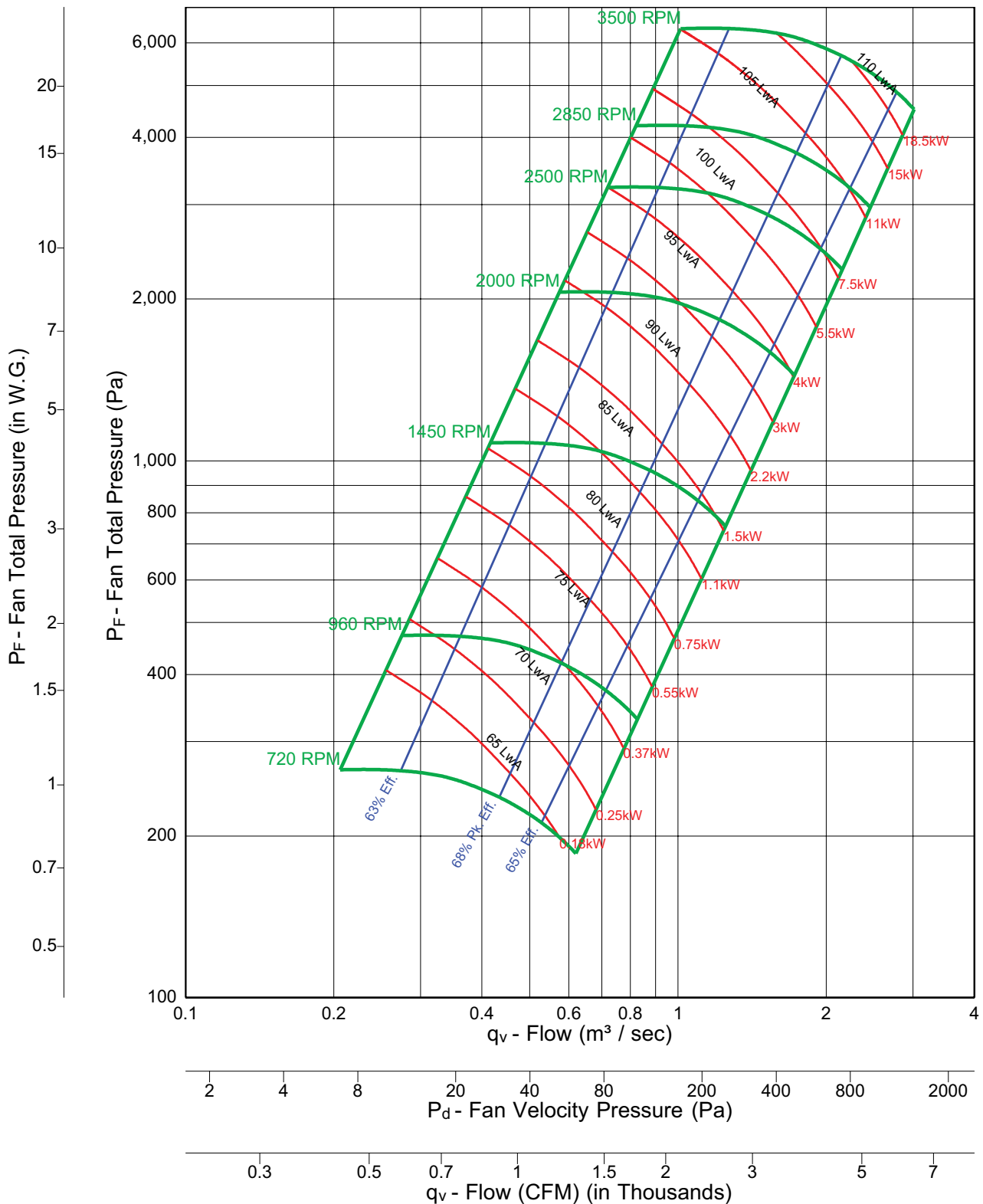
Fan Efficiency Grade = FEG 75



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 911



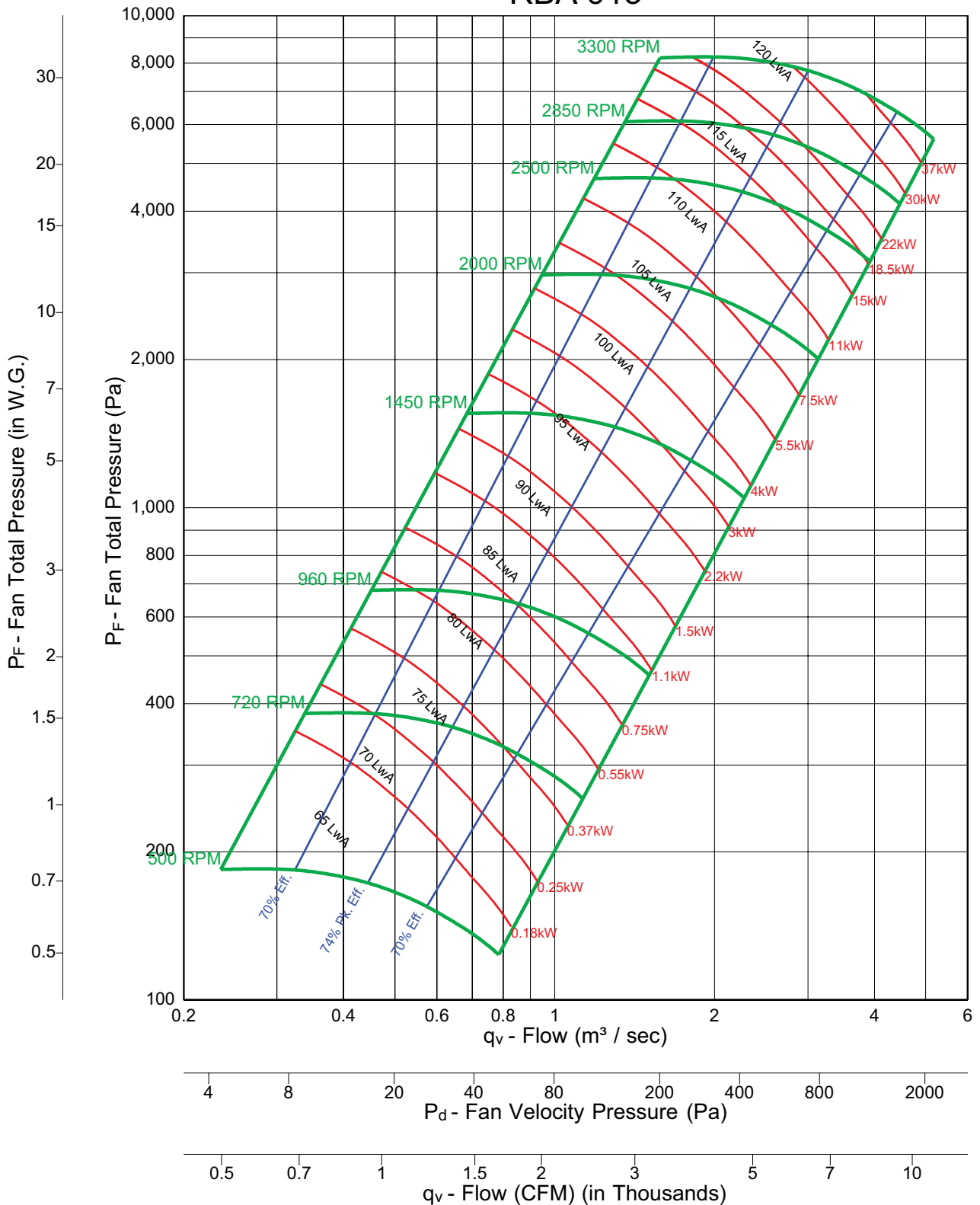
Fan Efficiency Grade = FEG 71



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 913



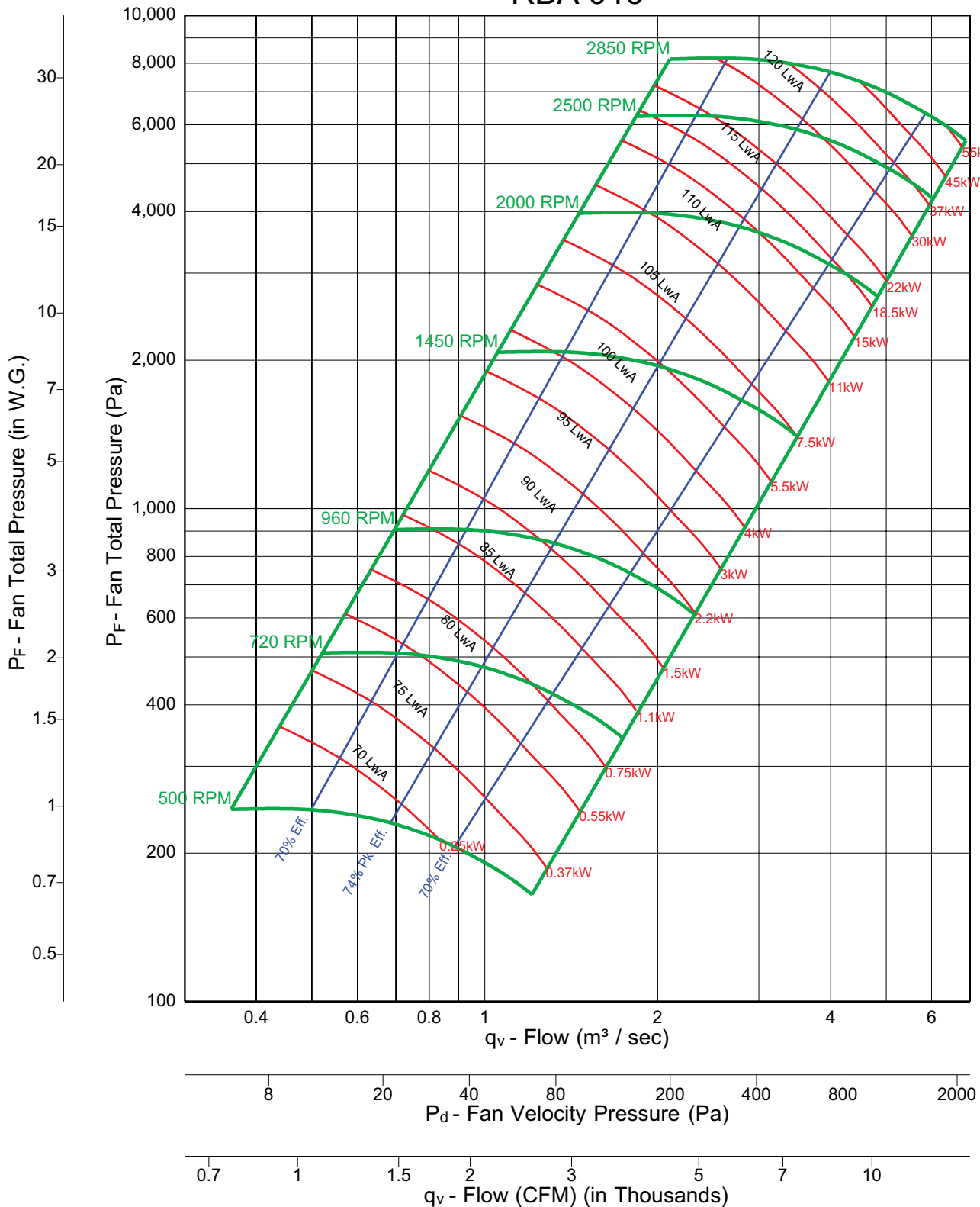
Fan Efficiency Grade = FEG 80



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 915



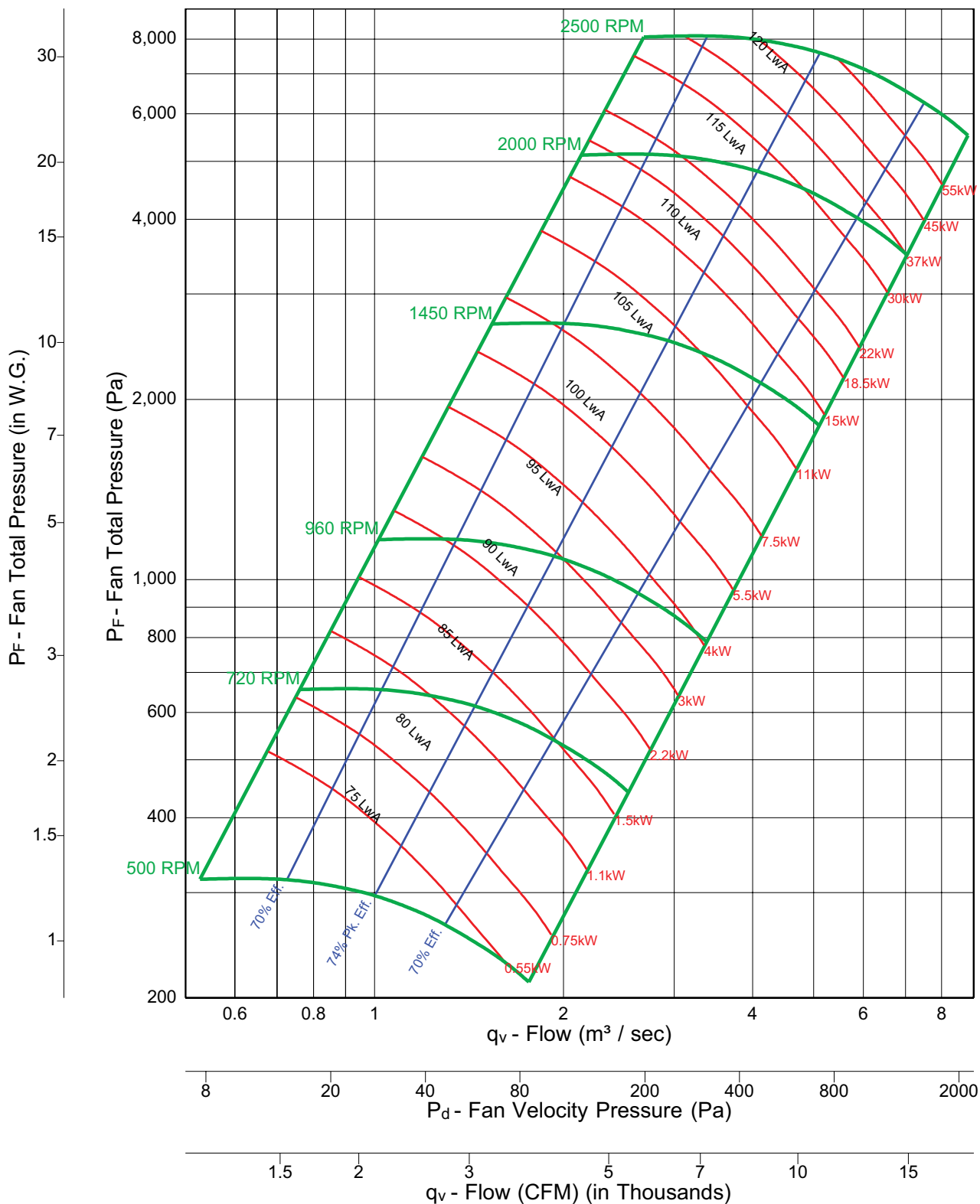
Fan Efficiency Grade = FEG 75



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 917



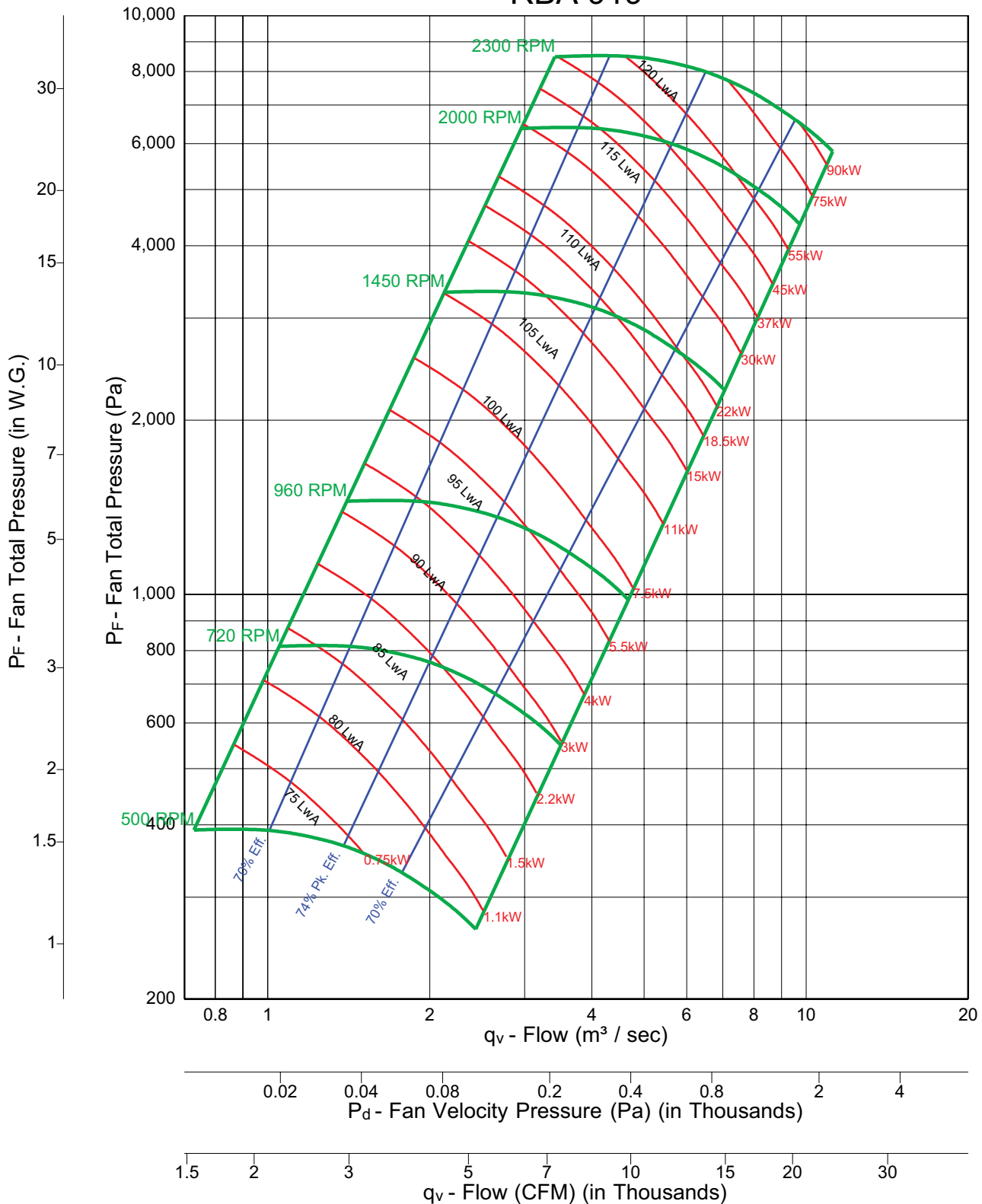
Fan Efficiency Grade = FEG 80



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 919



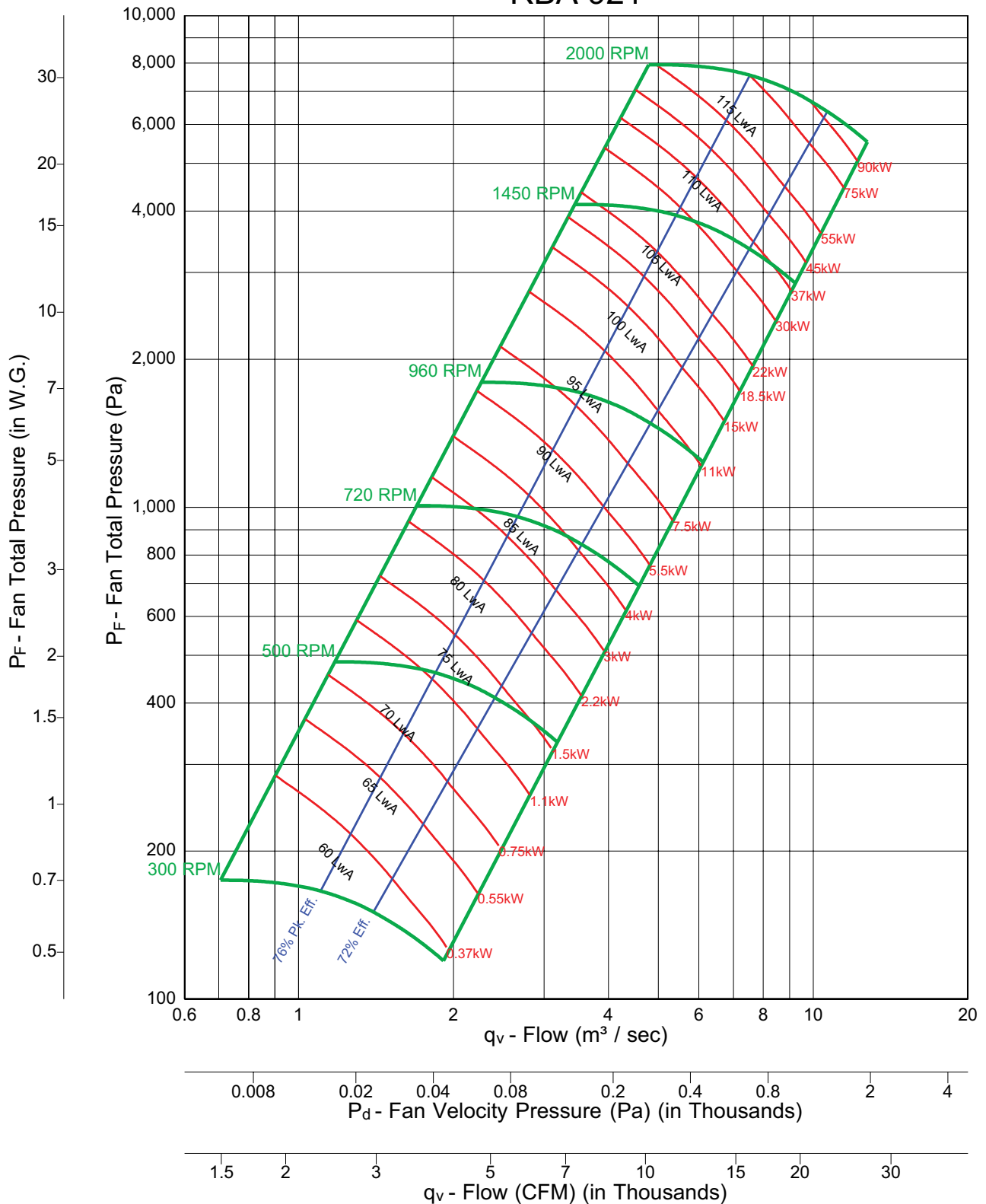
Fan Efficiency Grade = FEG 75



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 921



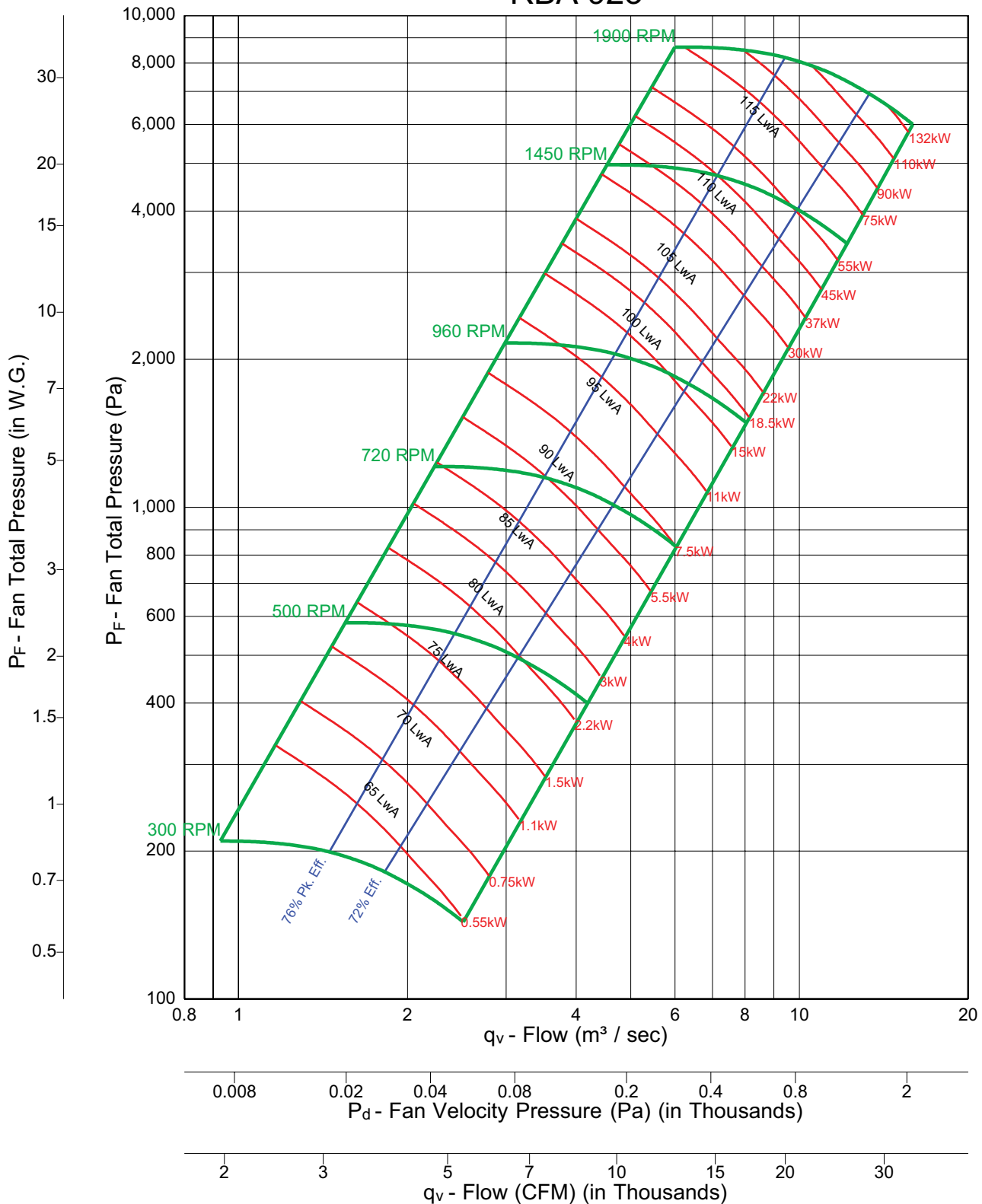
Fan Efficiency Grade = FEG 80



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 923



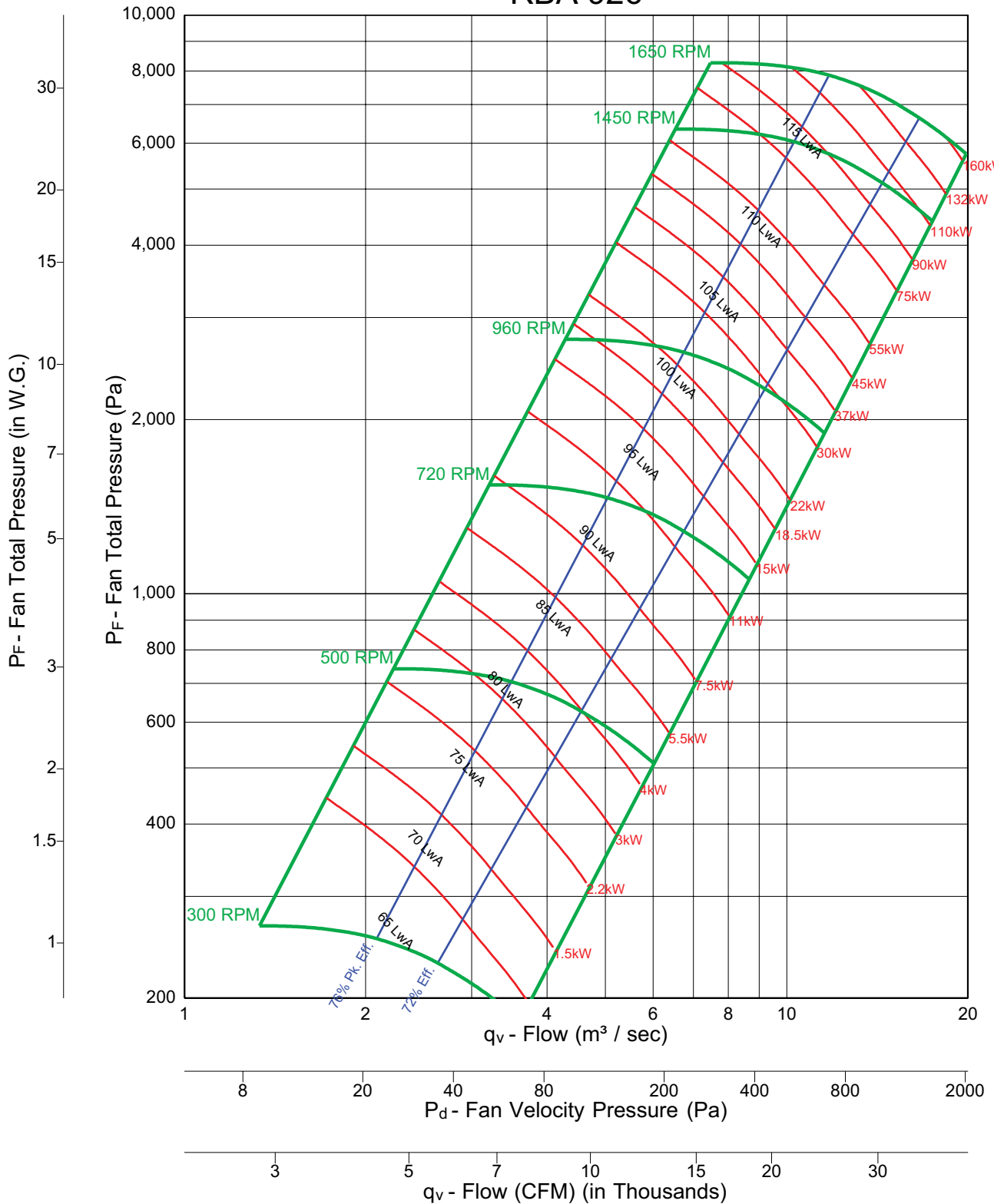
Fan Efficiency Grade = FEG 80



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 926



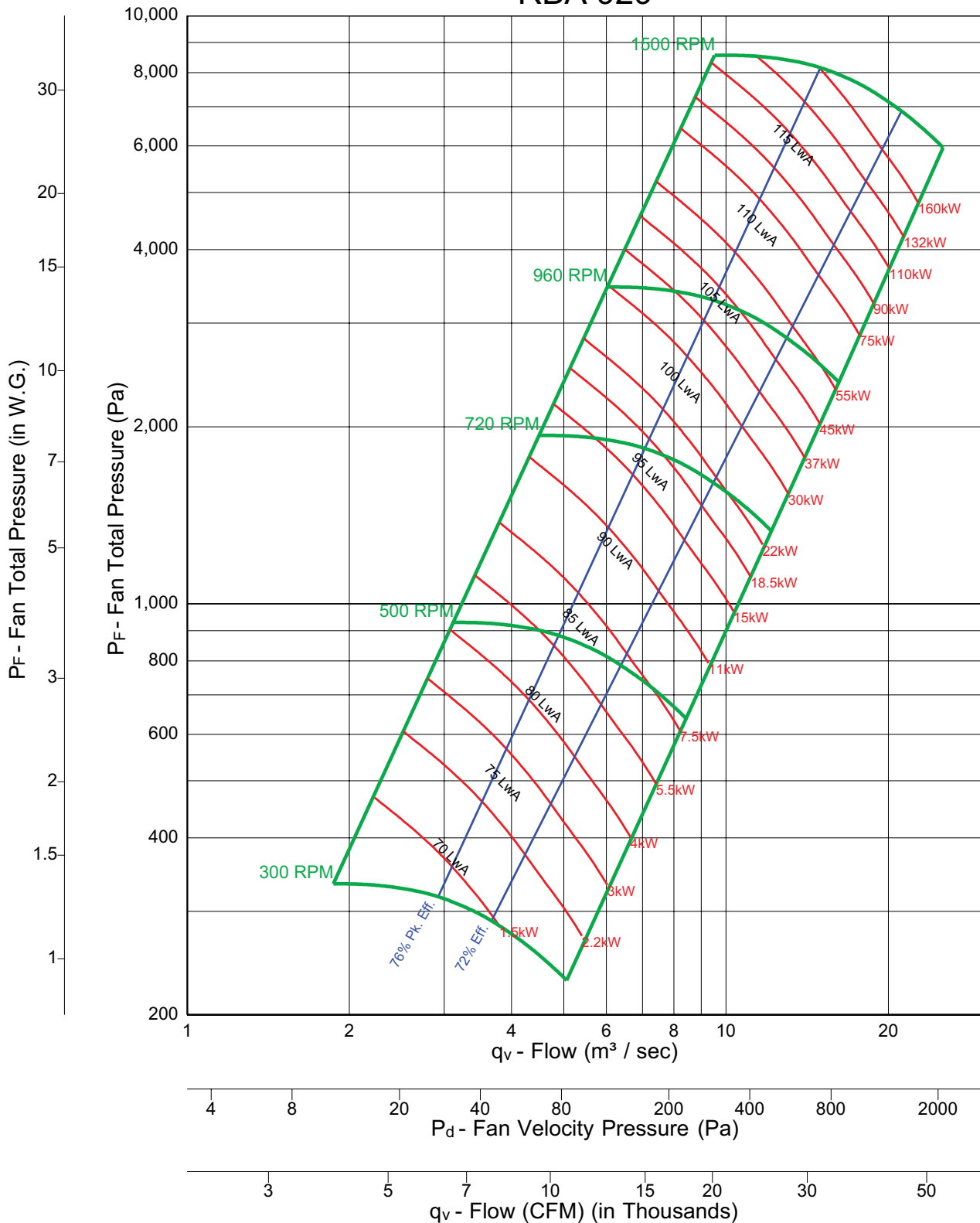
Fan Efficiency Grade = FEG 80



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 929



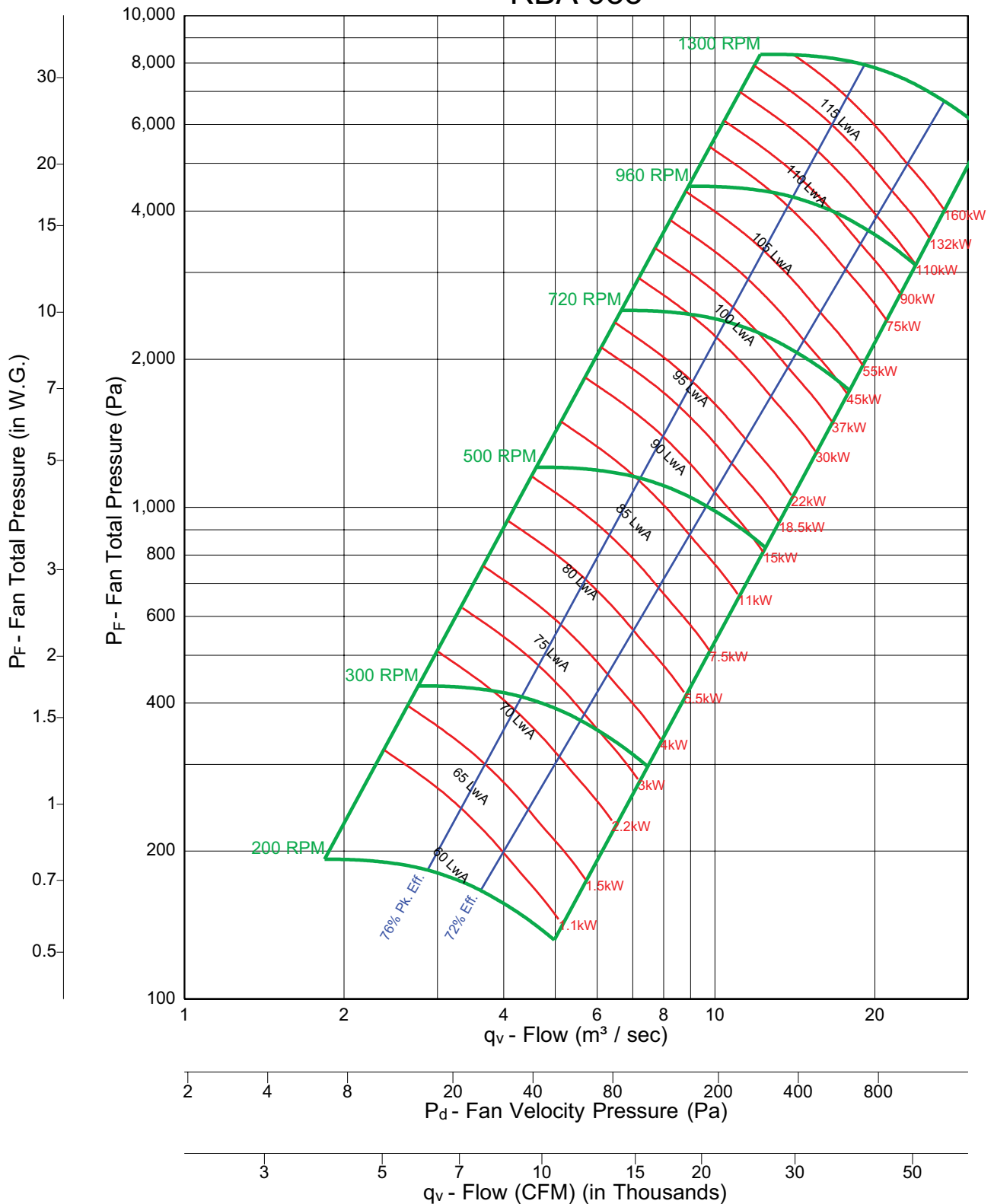
Fan Efficiency Grade = FEG 80



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 933



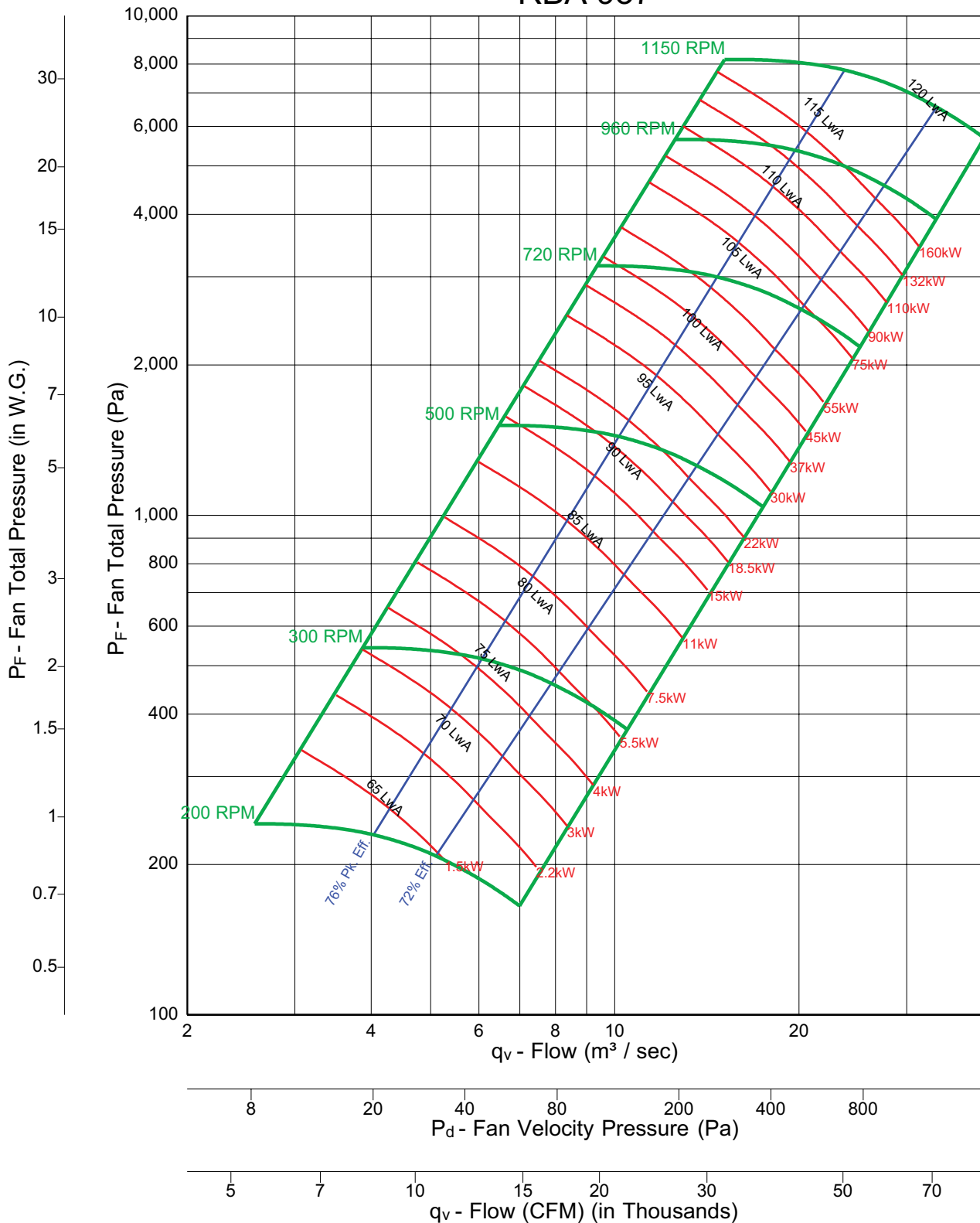
Fan Efficiency Grade = FEG 80



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 937



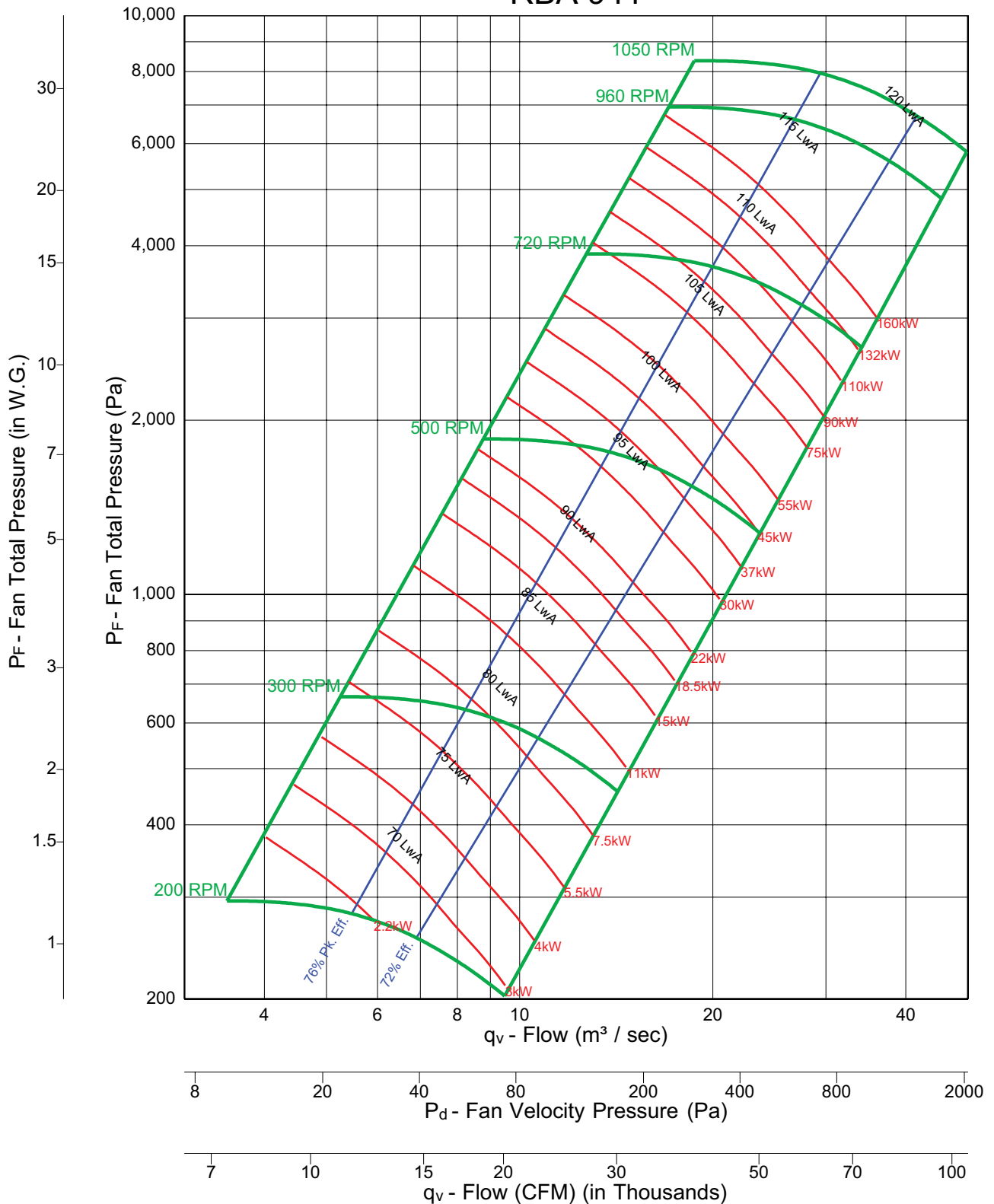
Fan Efficiency Grade = FEG 80



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 941



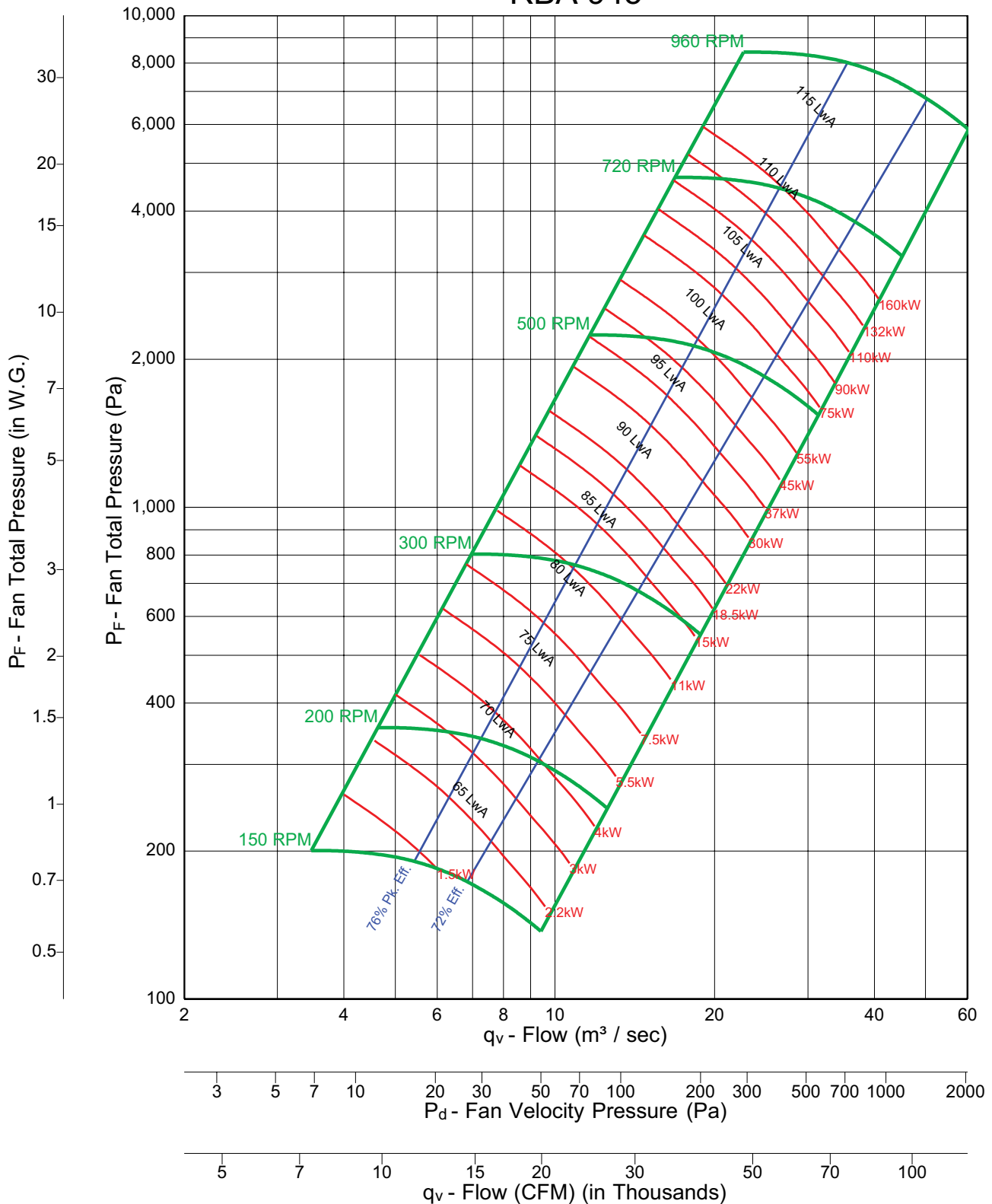
Fan Efficiency Grade = FEG 80



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 945



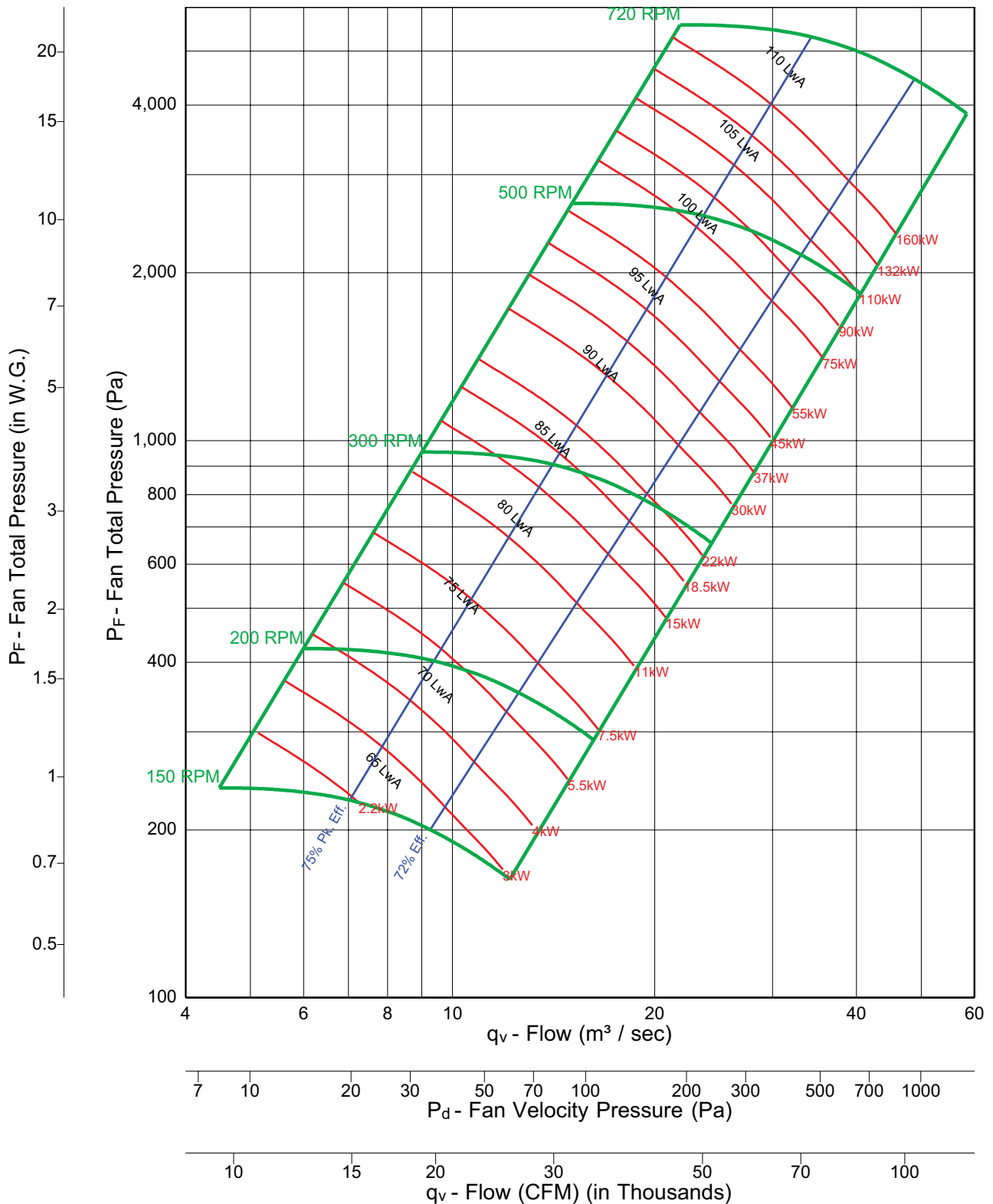
Fan Efficiency Grade = FEG 80



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 949



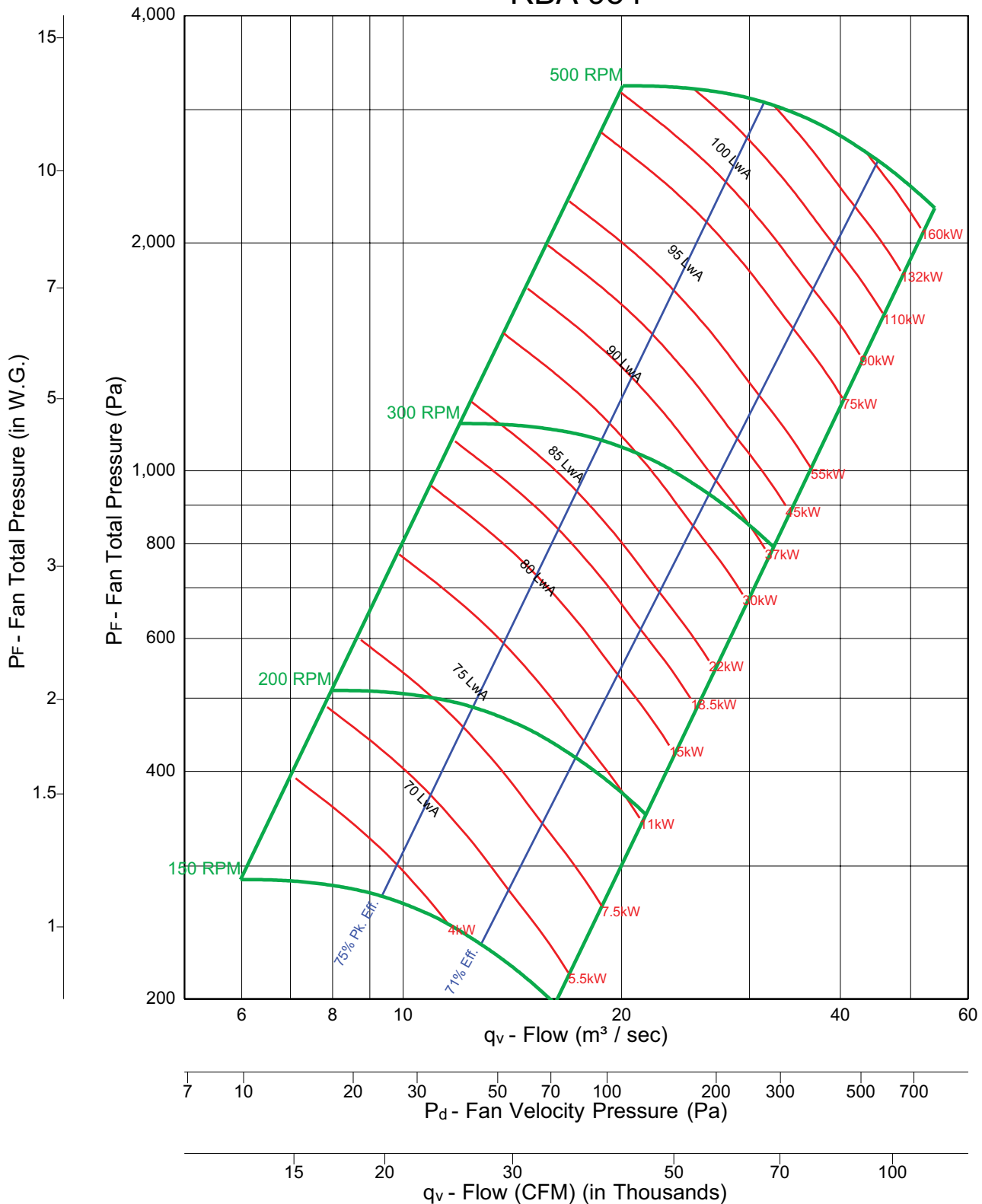
Fan Efficiency Grade = FEG 80



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 954



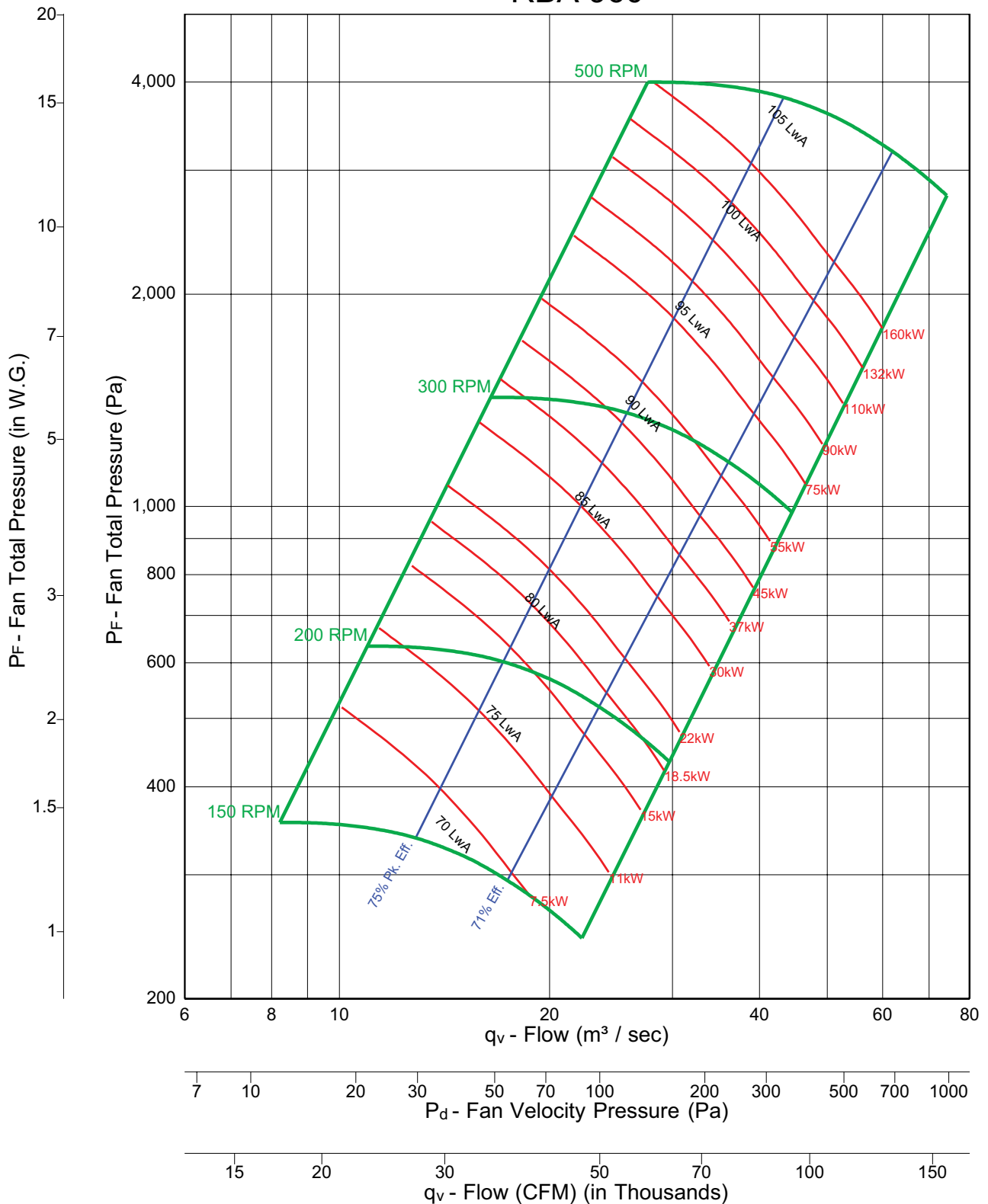
Fan Efficiency Grade = FEG 80



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBA 960



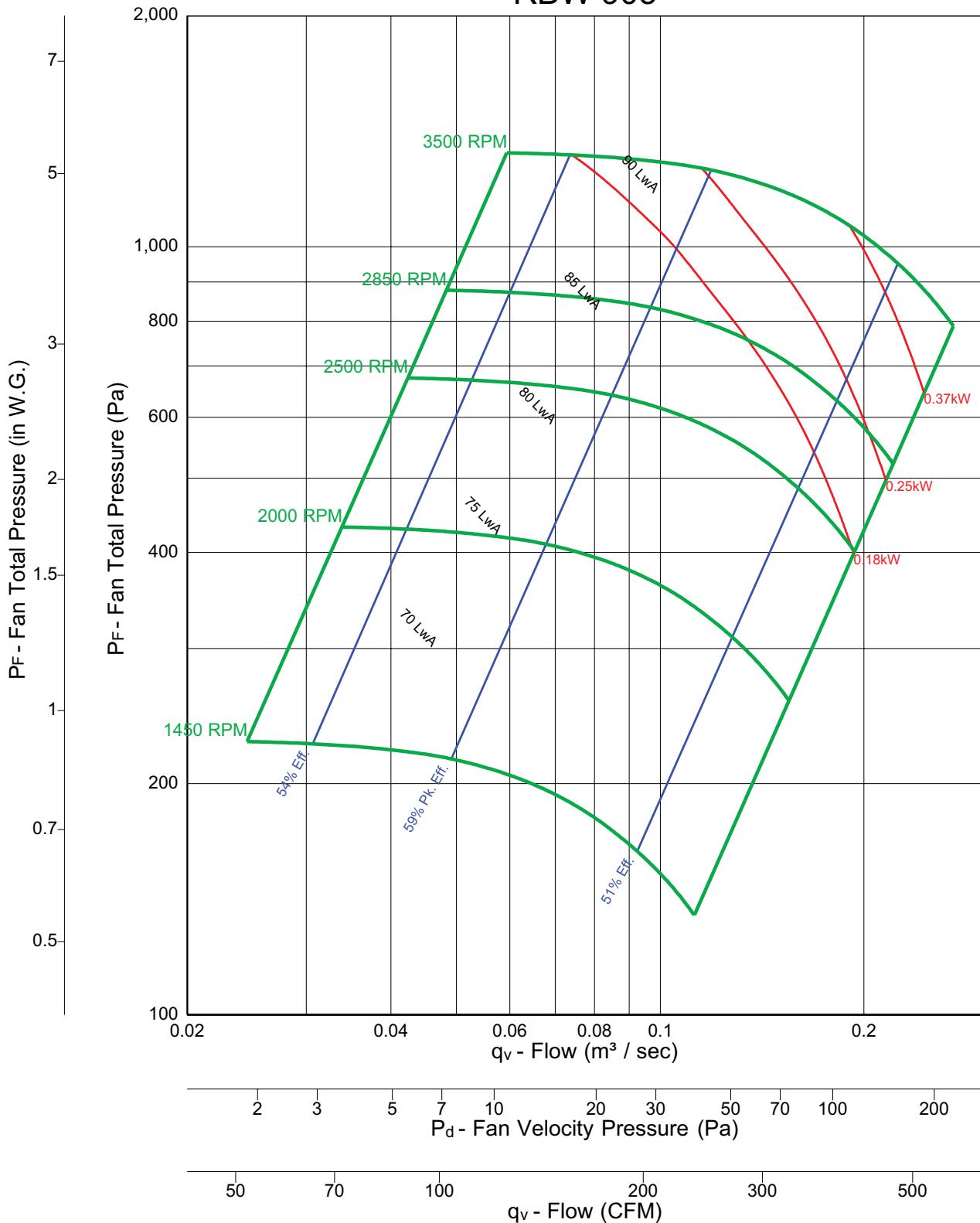
Fan Efficiency Grade = FEG 80



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 905



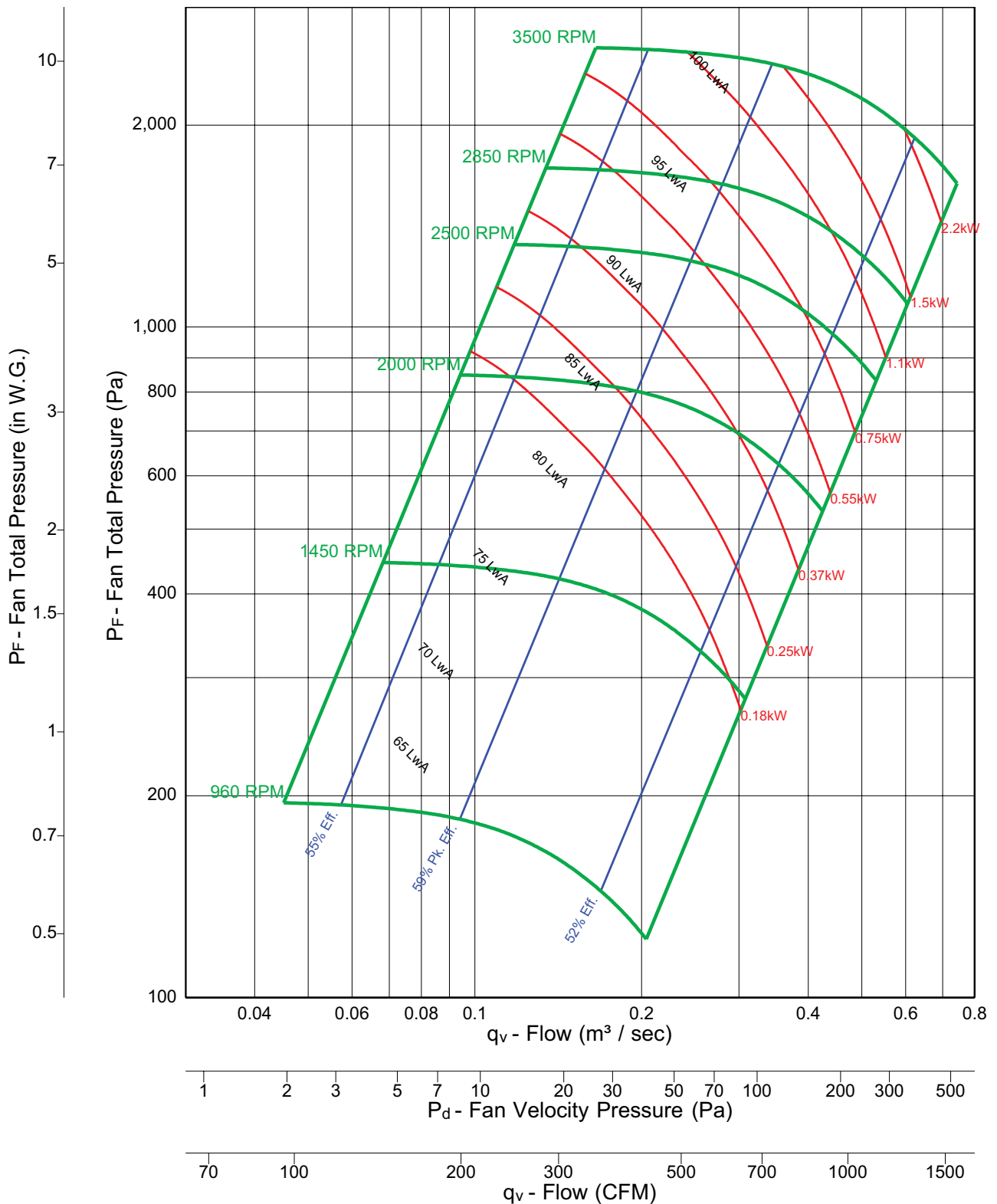
Fan Efficiency Grade = FEG ??



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 907



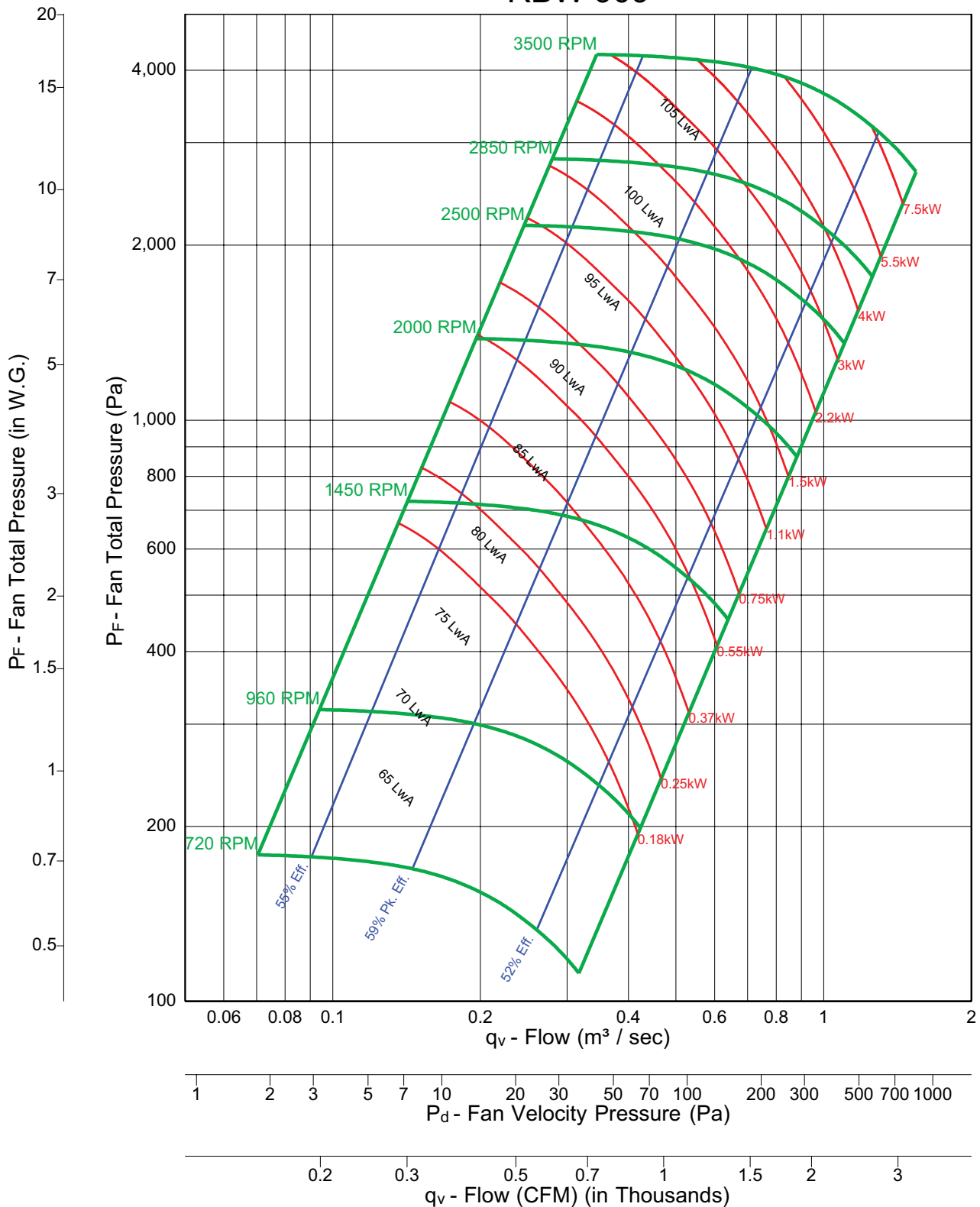
Fan Efficiency Grade = FEG 71



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 909



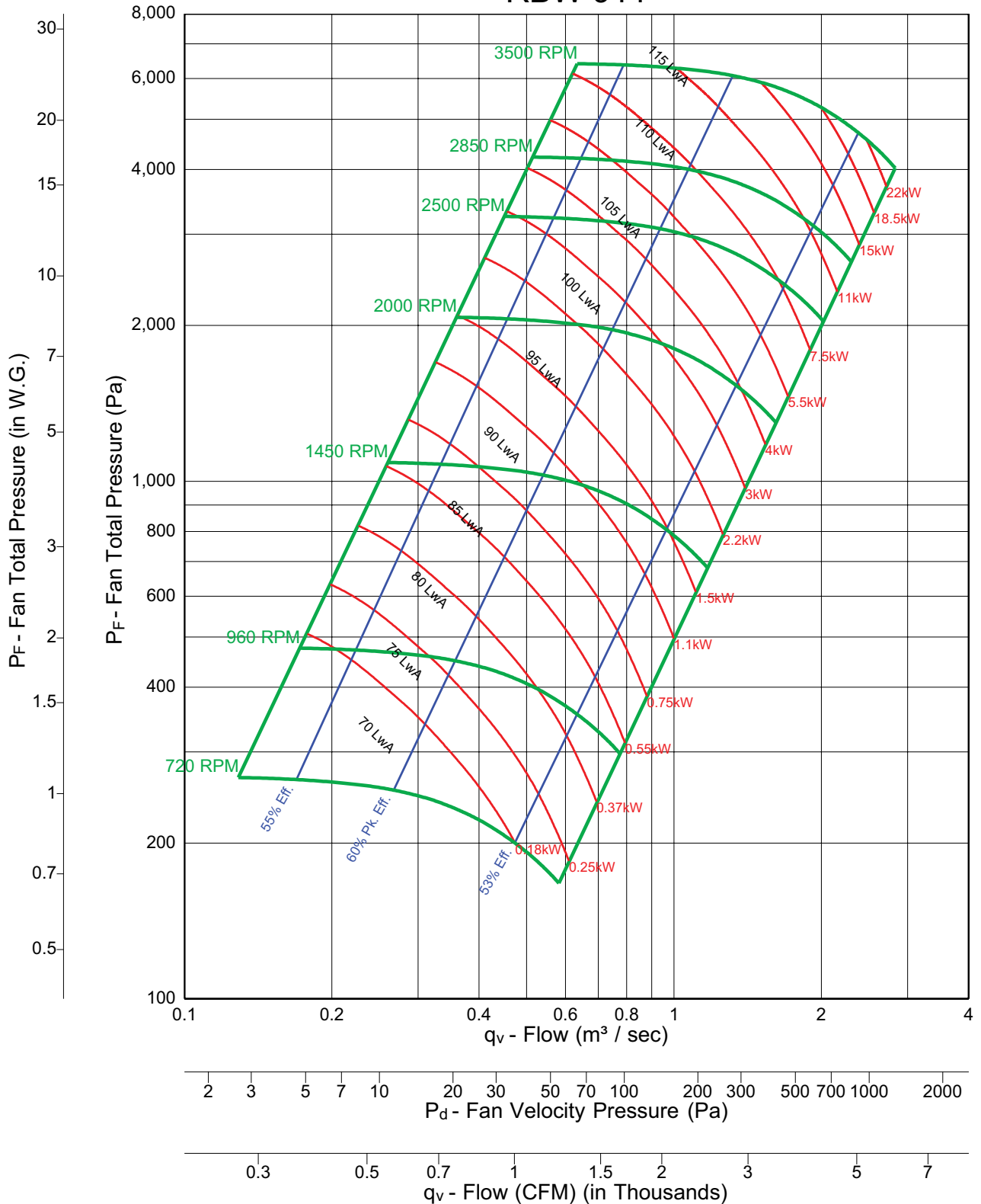
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 911



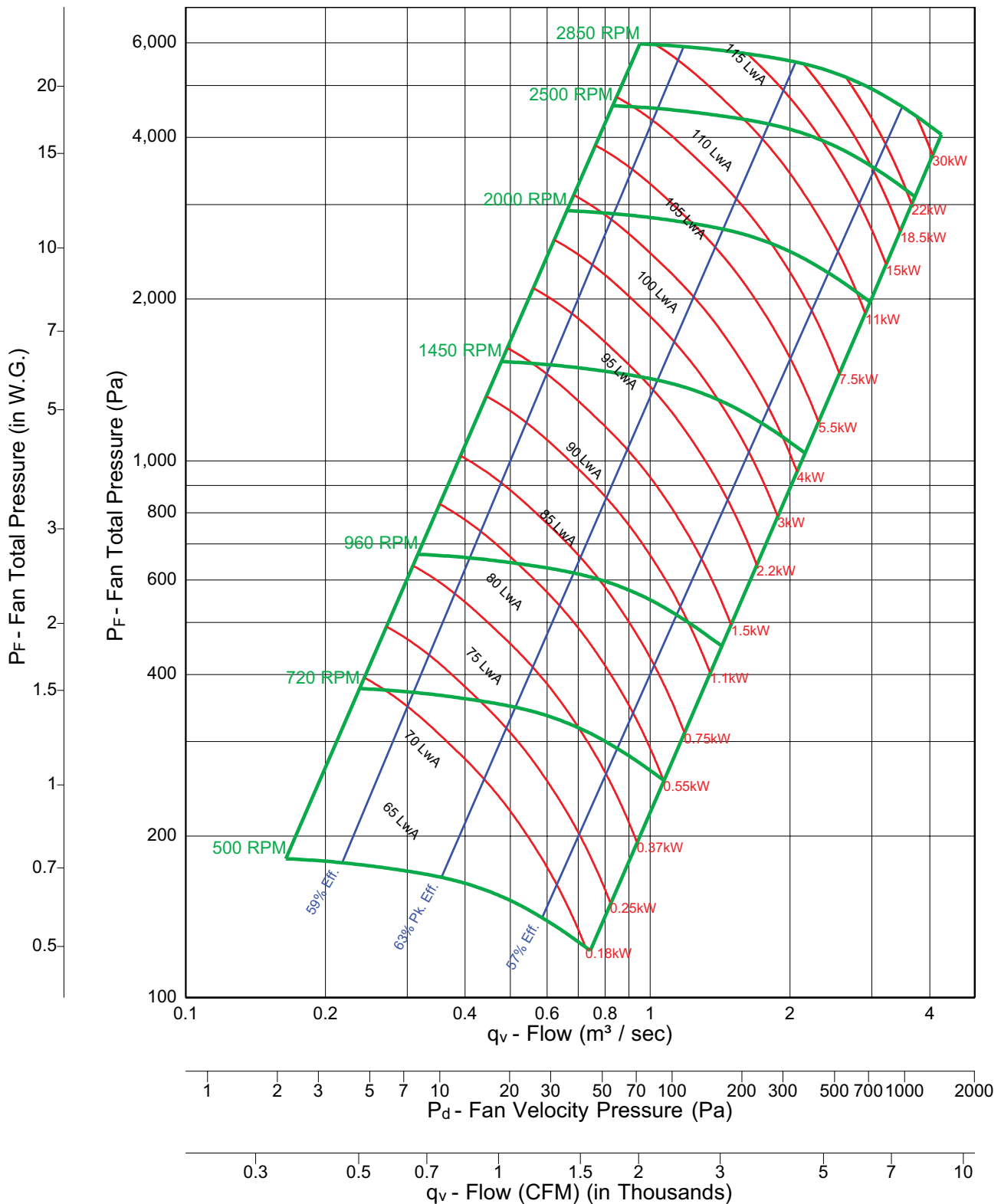
Fan Efficiency Grade = FEG 63



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 913



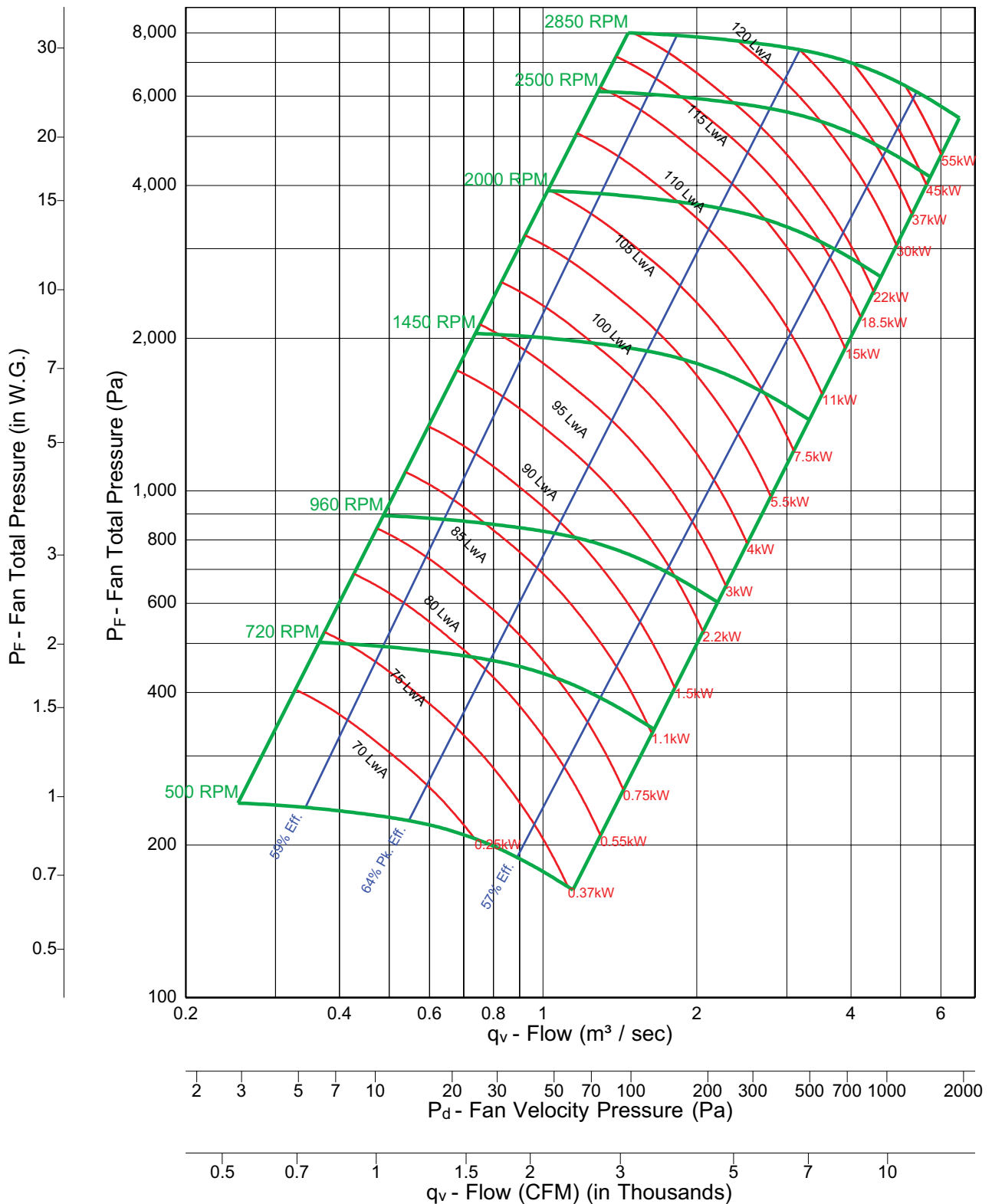
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 915



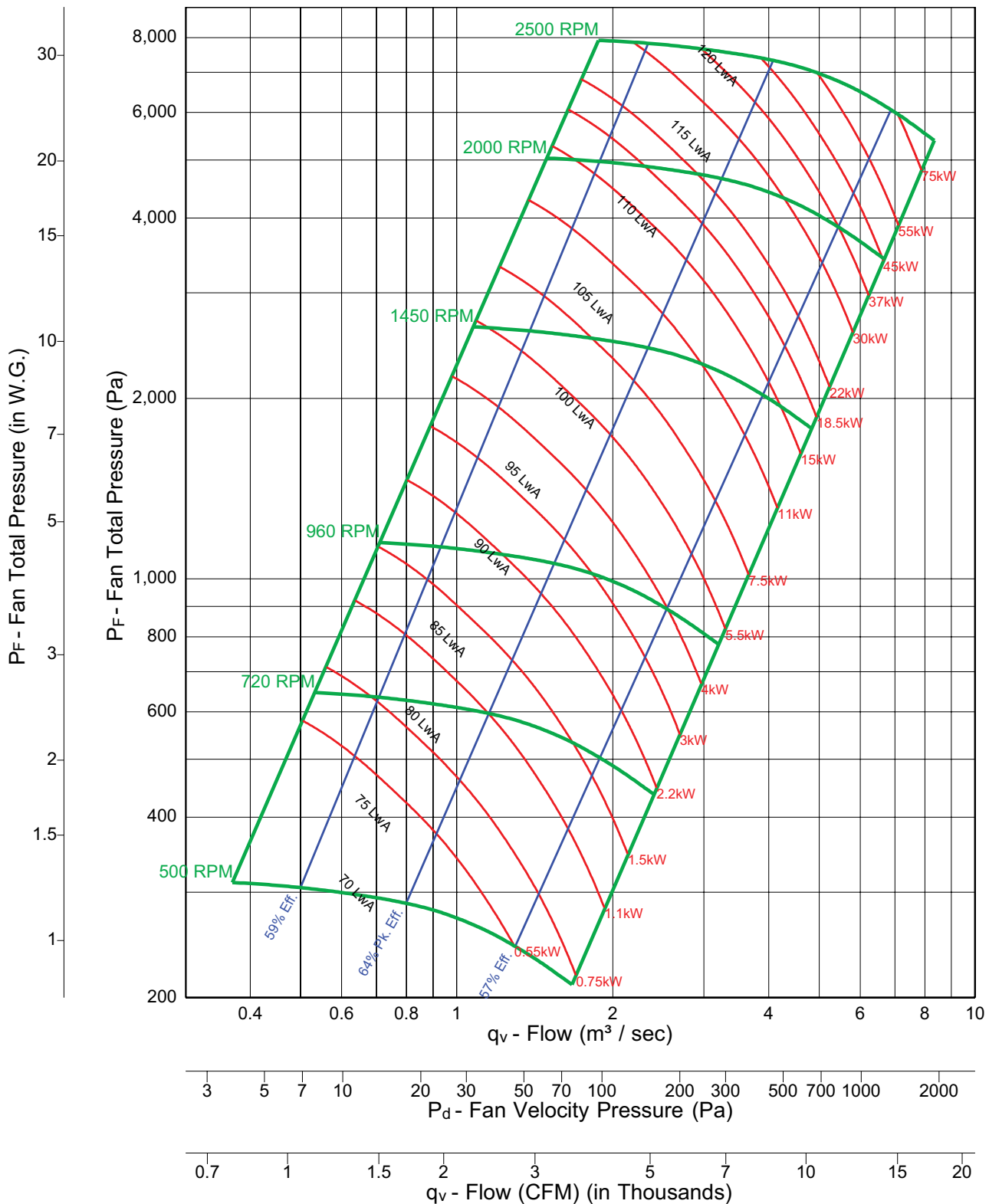
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 917



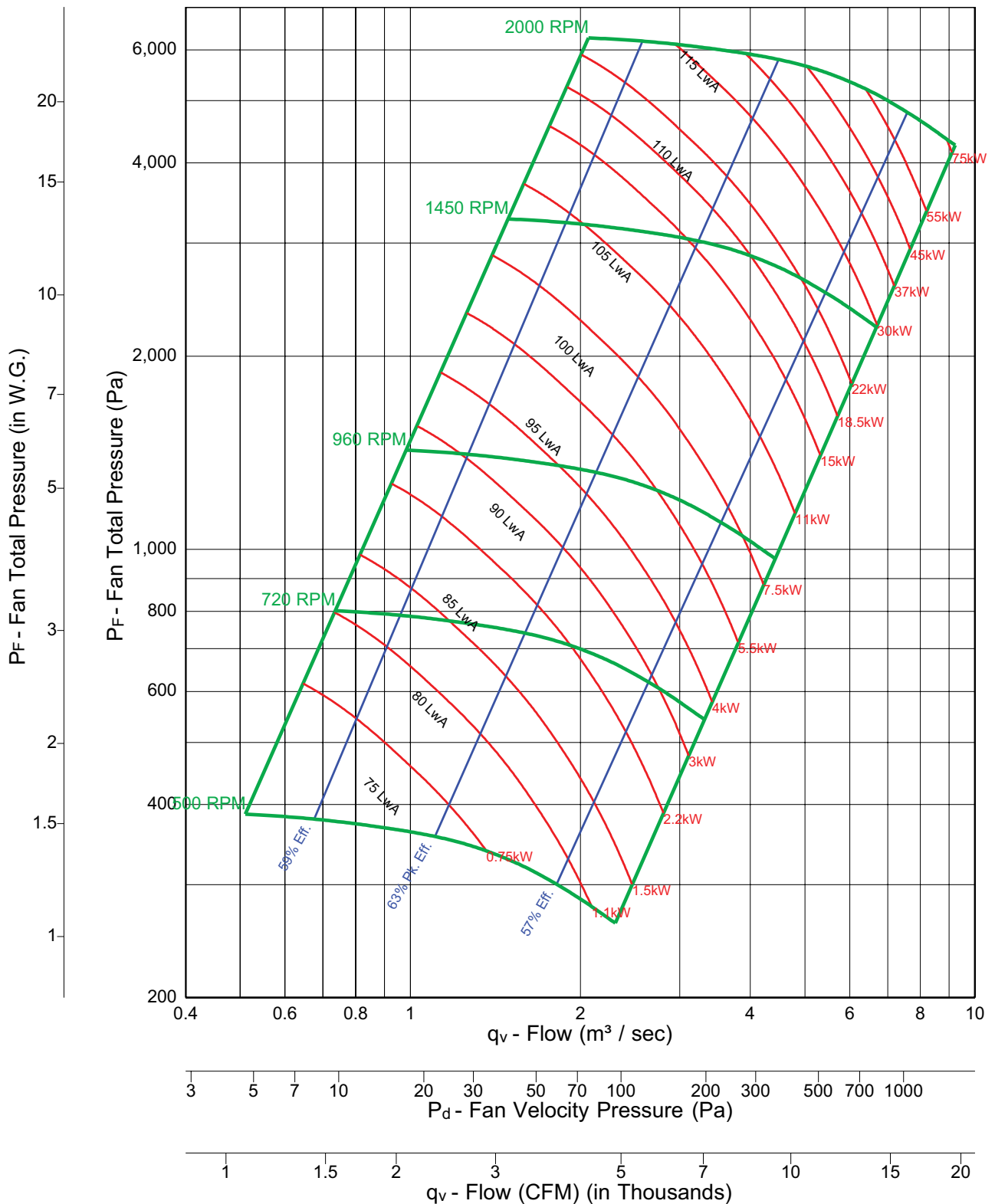
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 919



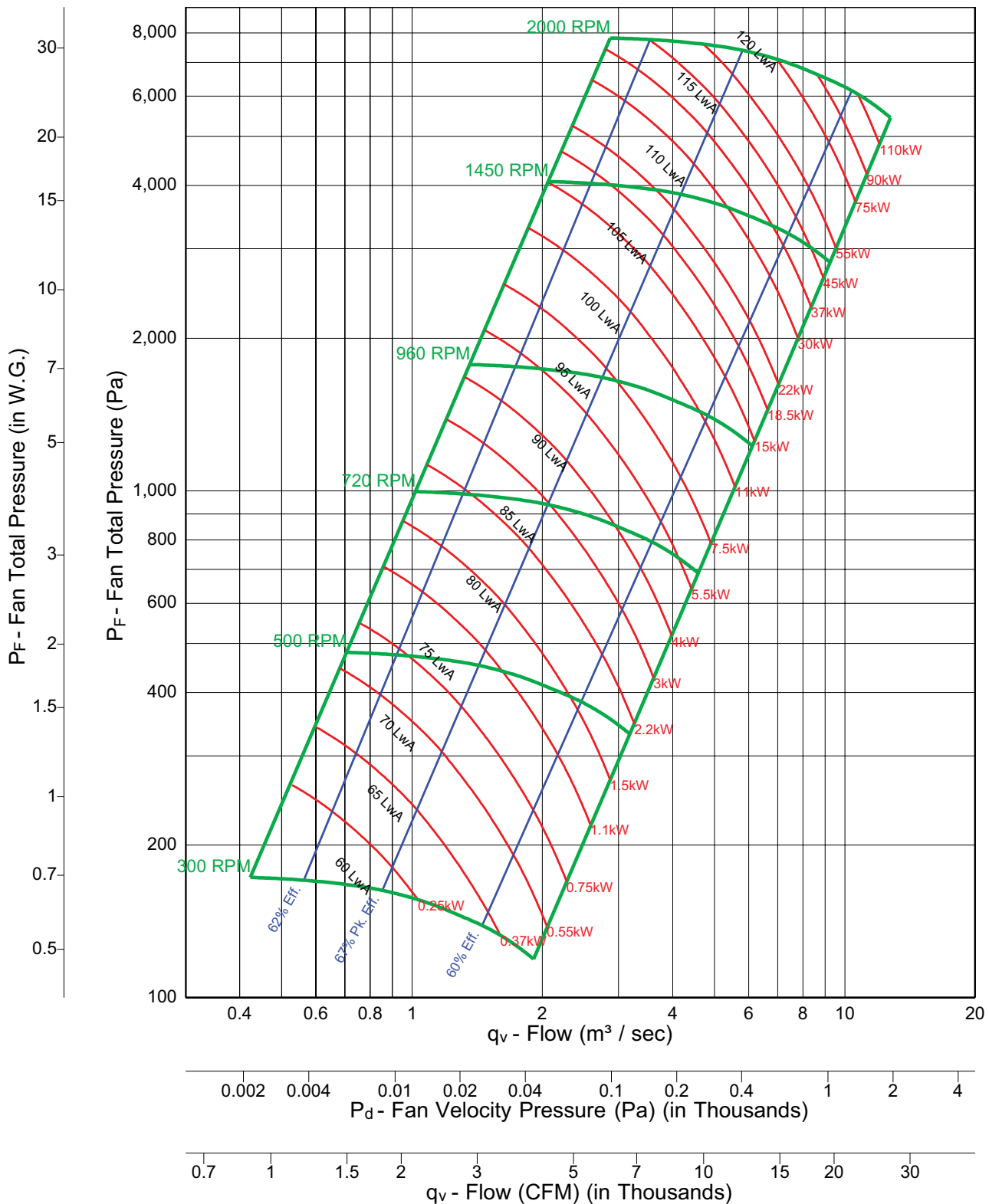
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 921



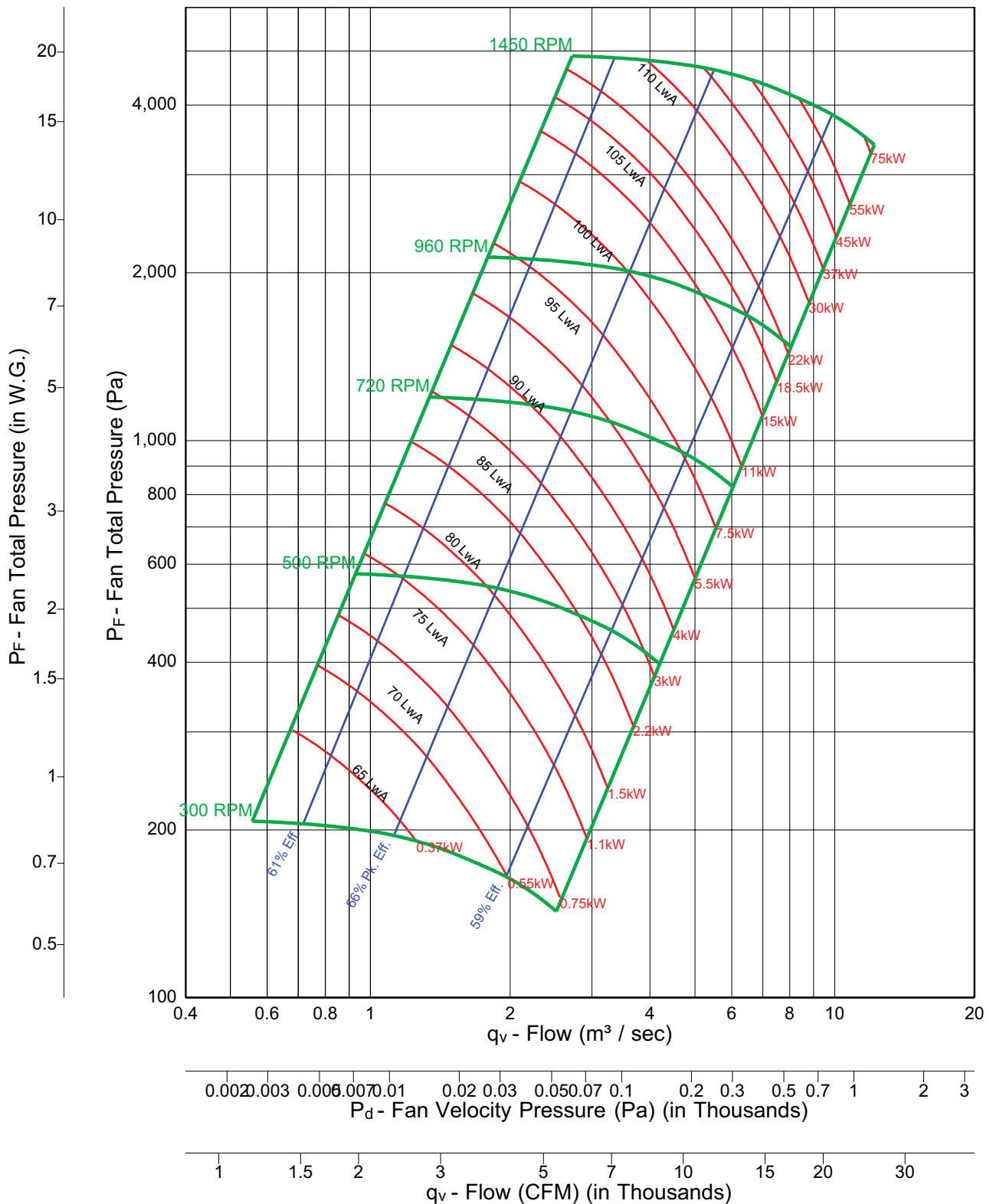
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 923



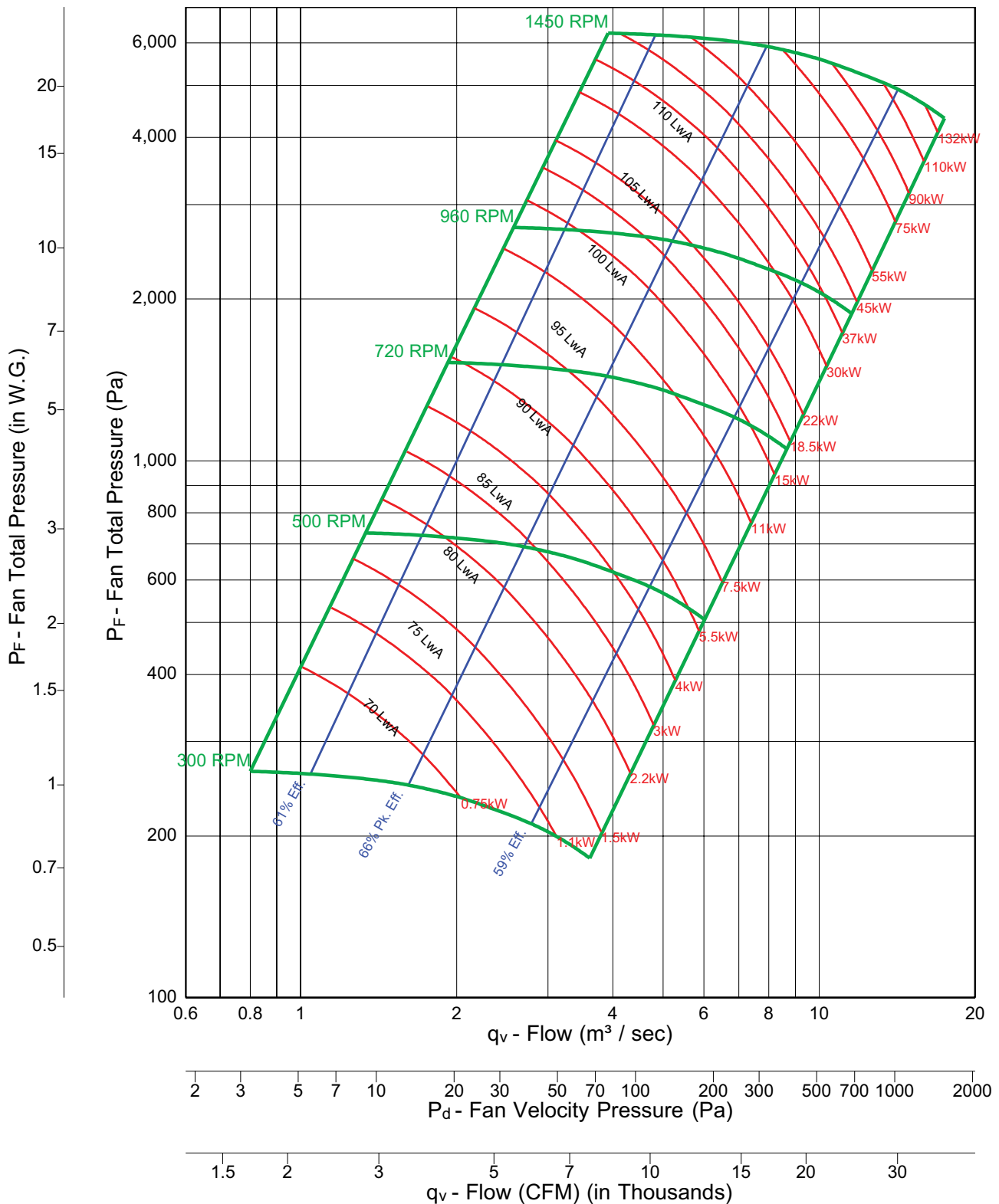
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 926



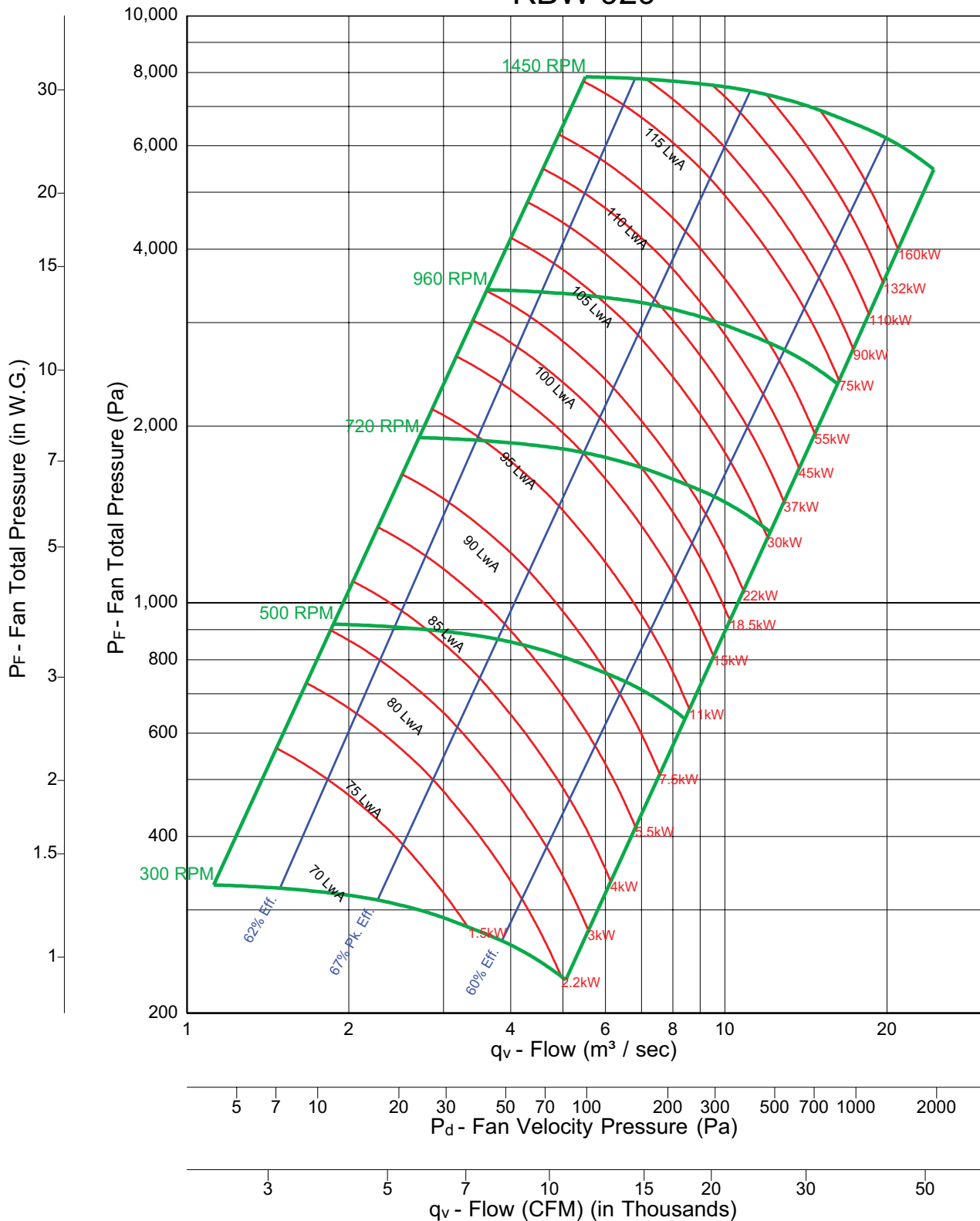
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 929



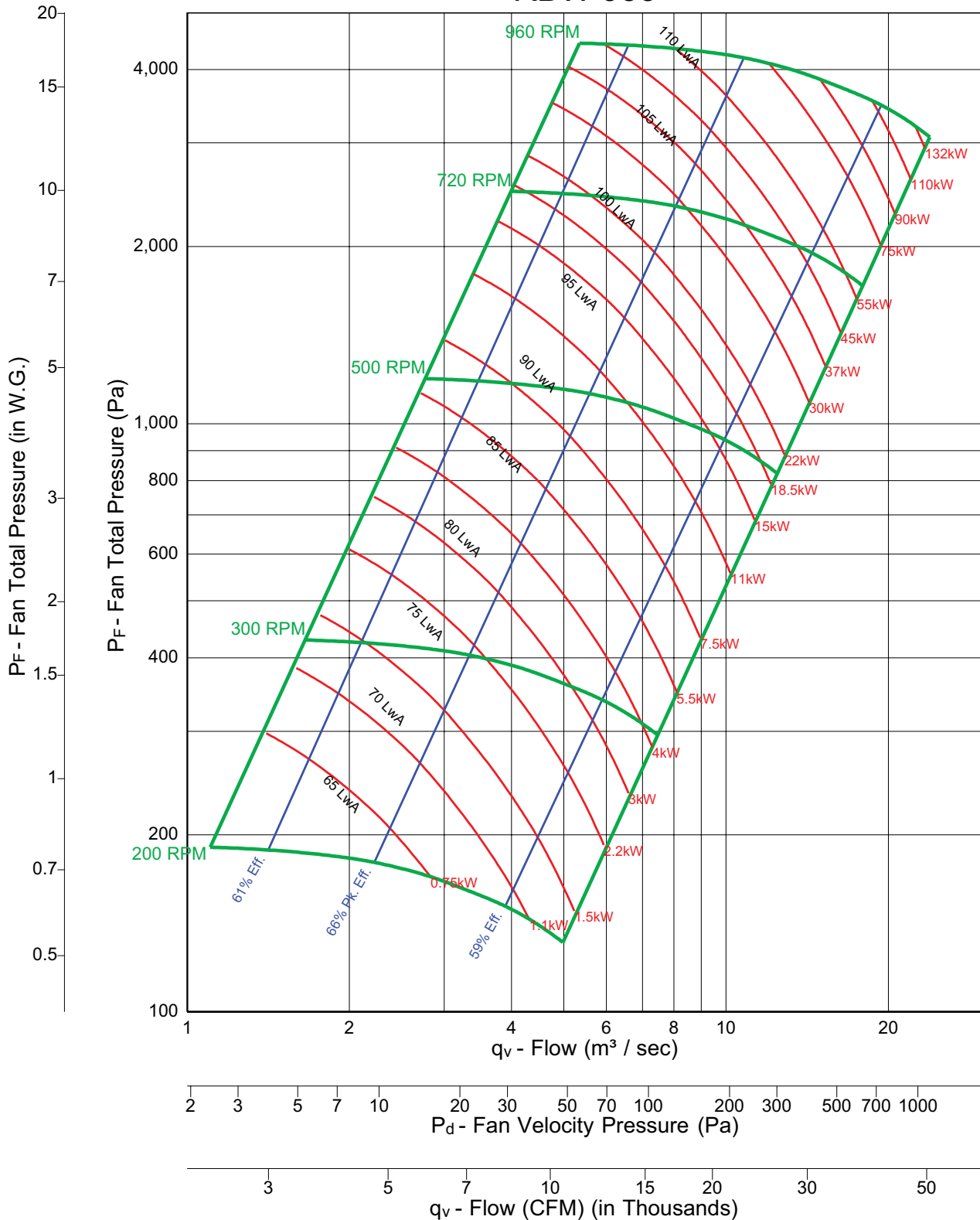
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 933



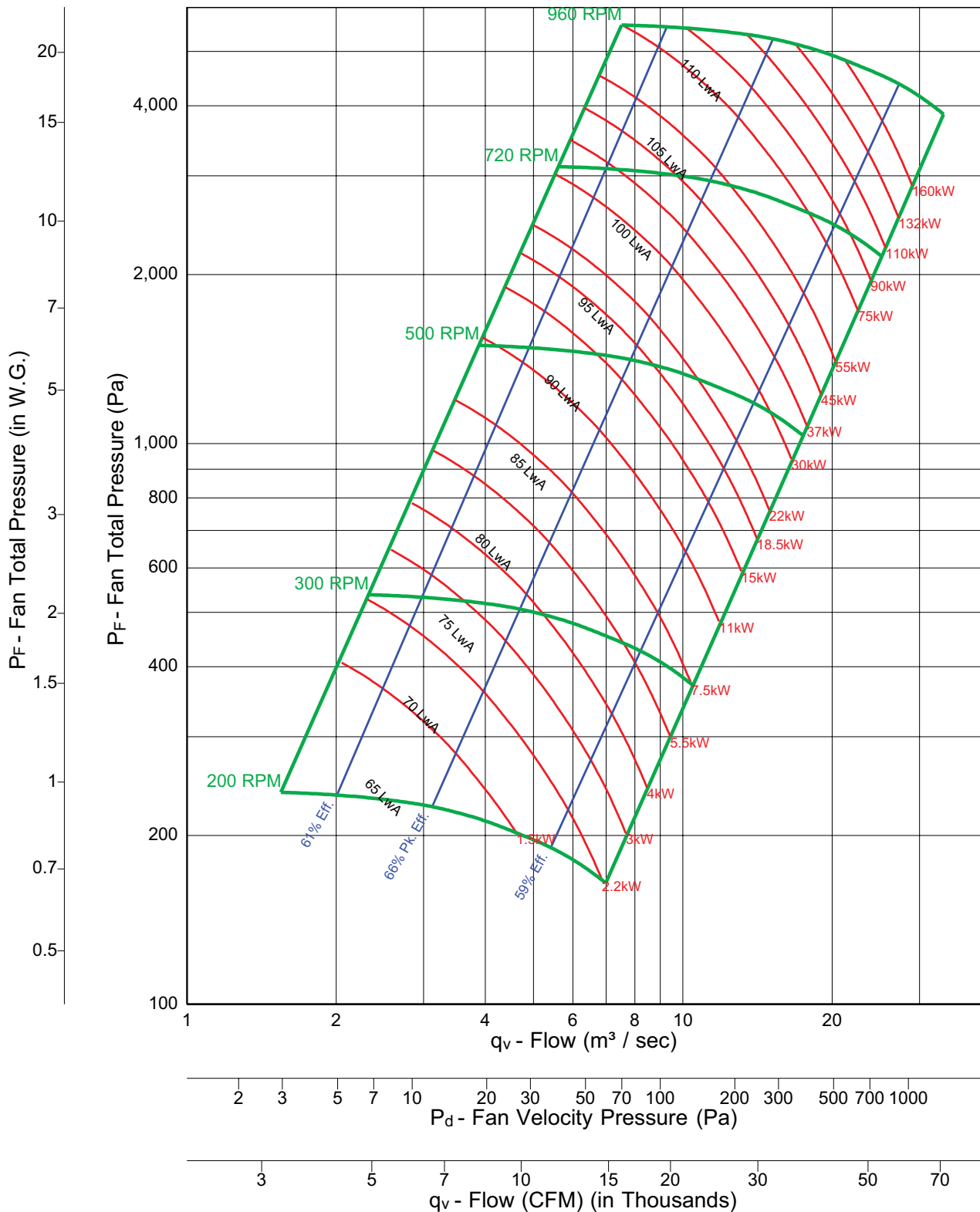
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 937



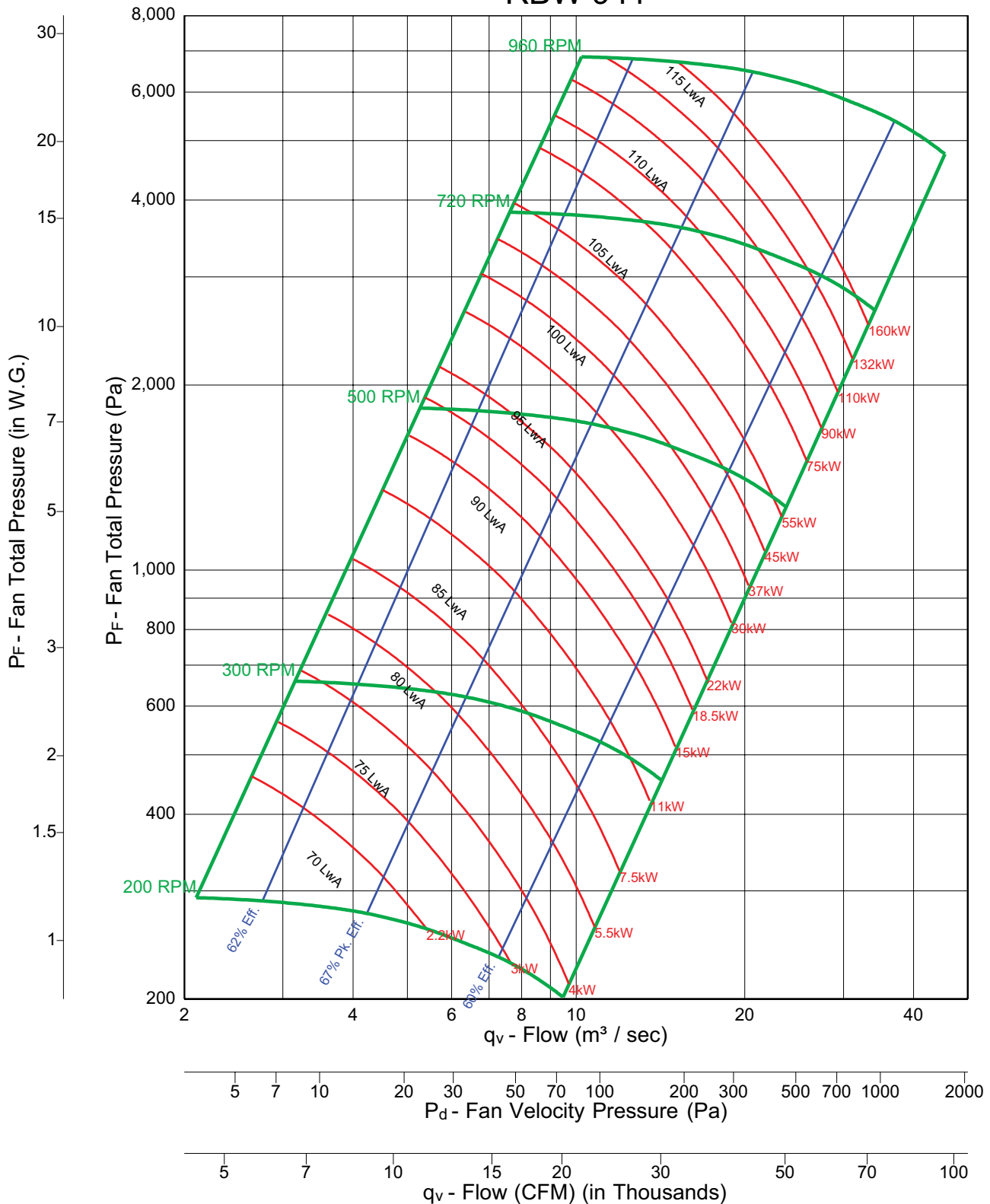
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 941



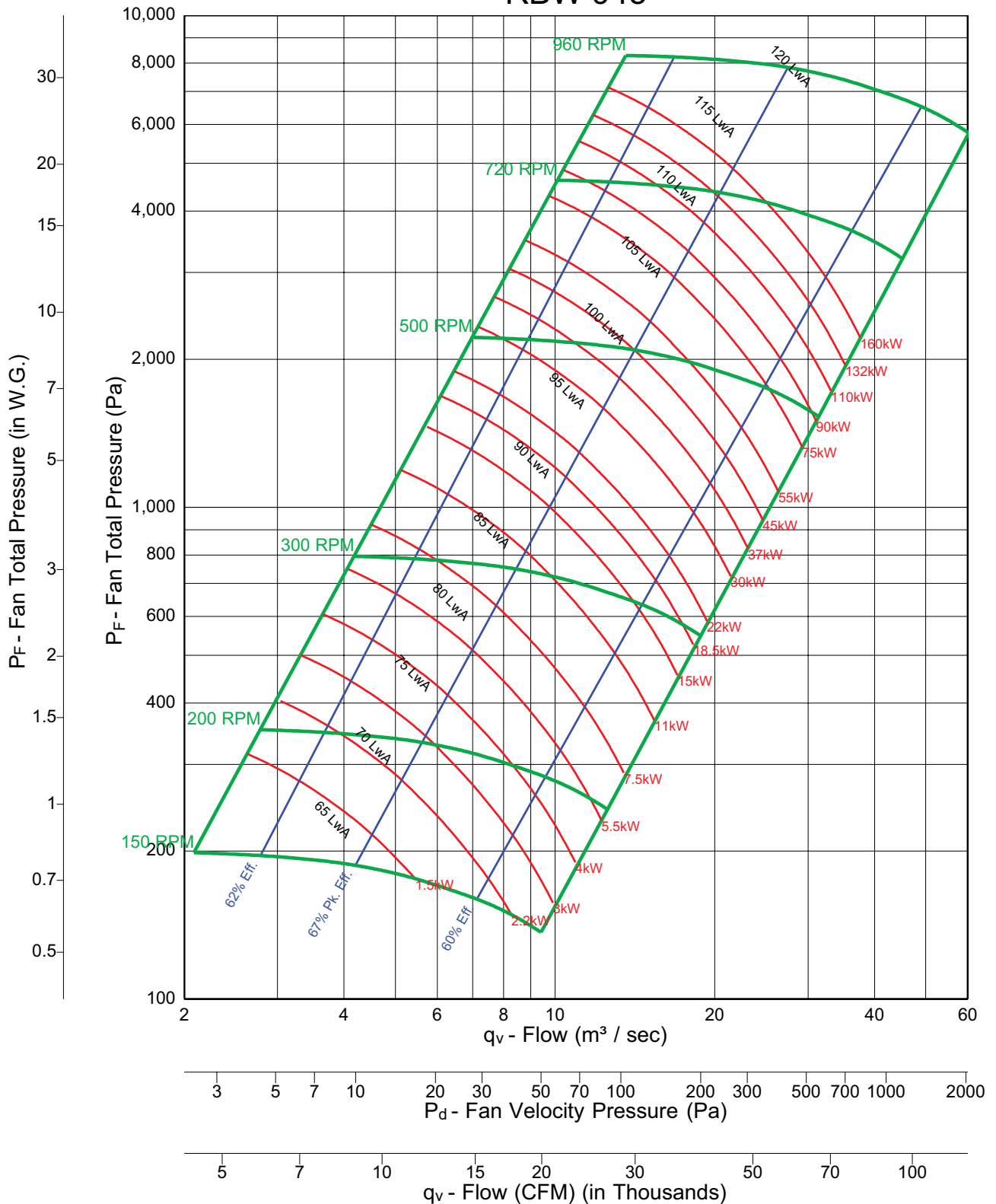
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 945



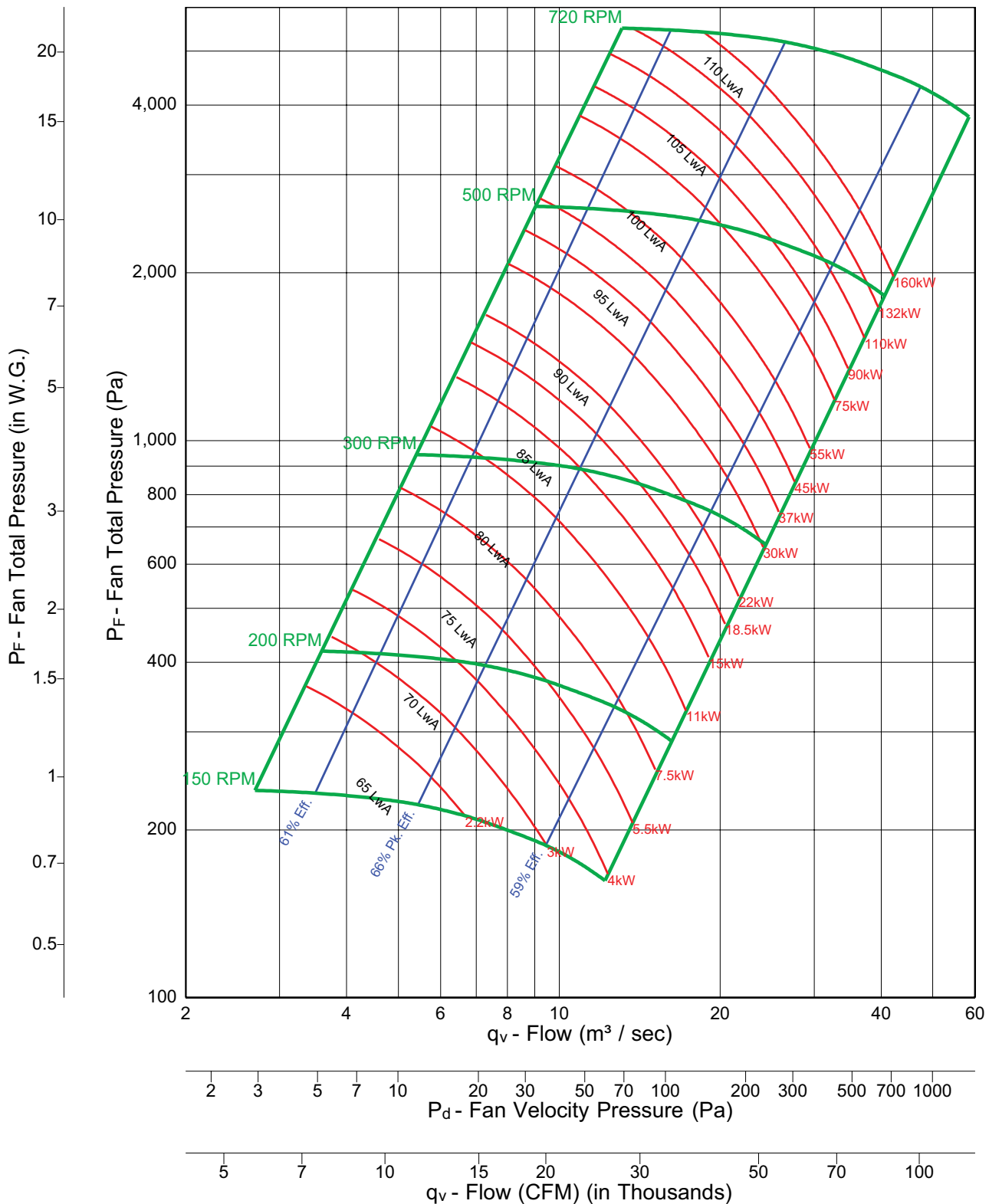
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 949



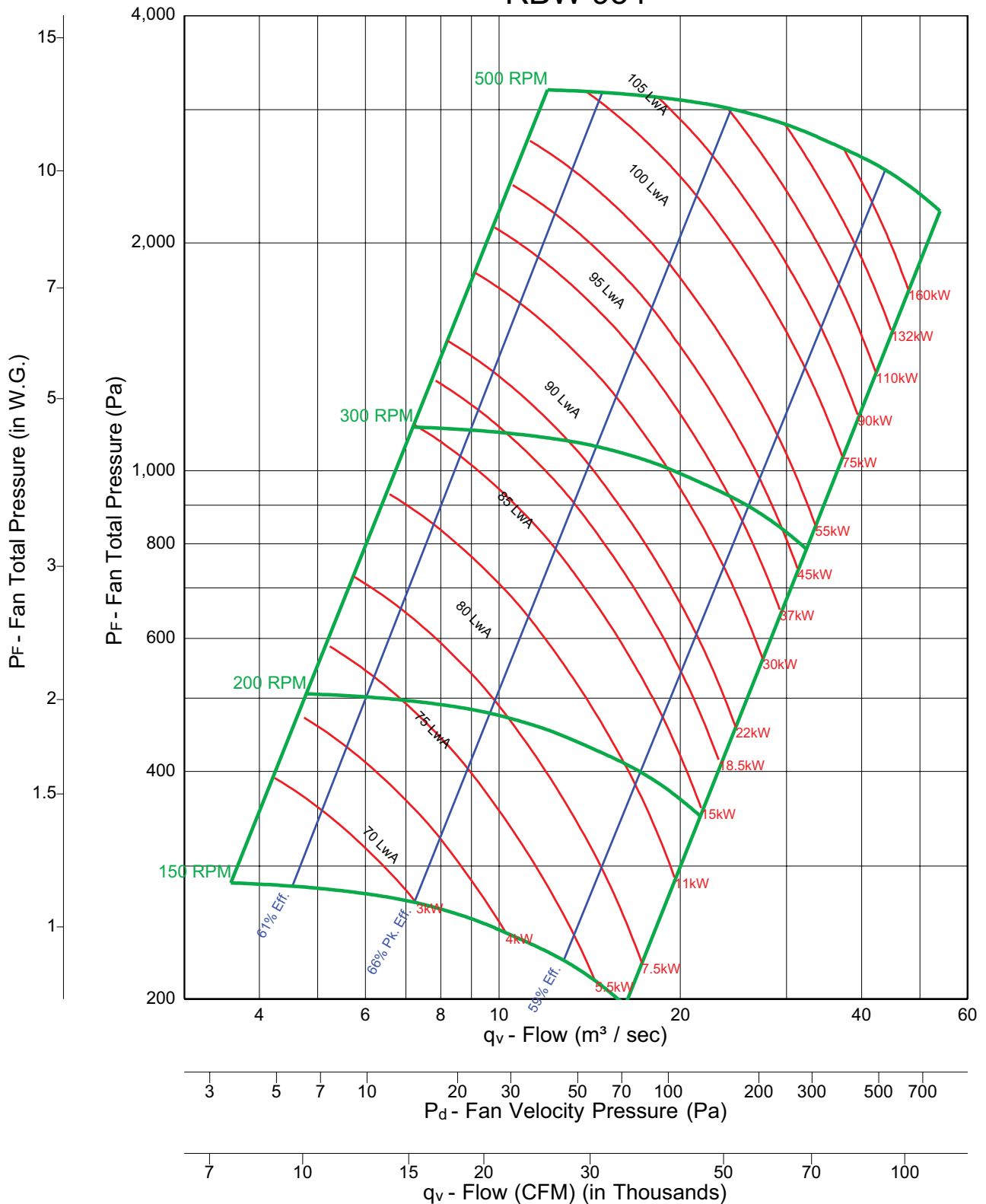
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 954



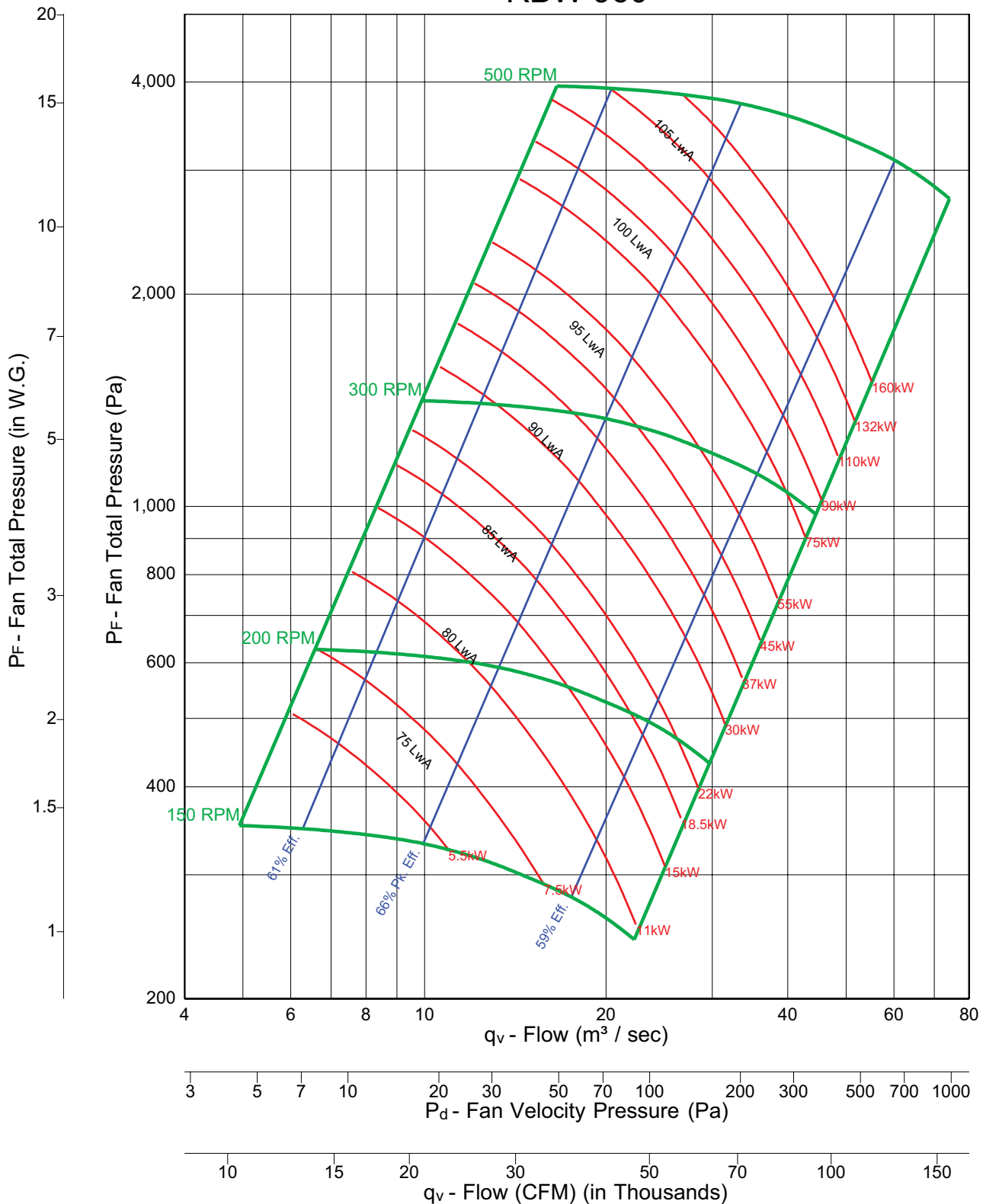
Fan Efficiency Grade = FEG 67



Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

RBW 960



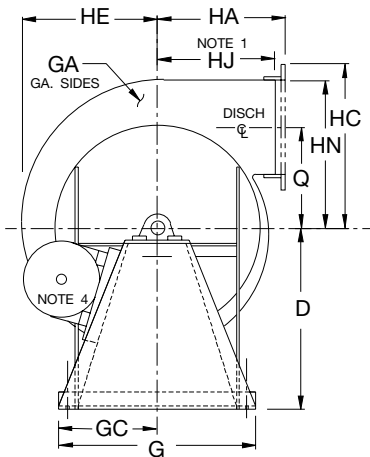
Fan Efficiency Grade = FEG 67



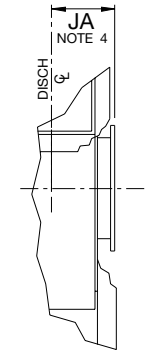
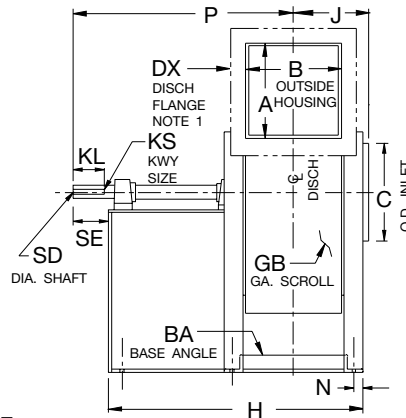
Notes:

1. Performance certified is for Installation Type B & D: Free or ducted inlet, ducted outlet.
2. Power rating (kW) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound power level ratings shown are in decibels, referred to 10 E-12 watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwA sound power levels for Installation Type B: Free inlet, ducted outlet.
6. Ratings do not include the effects of duct end correction.
7. The A-weighted sound ratings shown have been calculated per AMCA Standard 301.

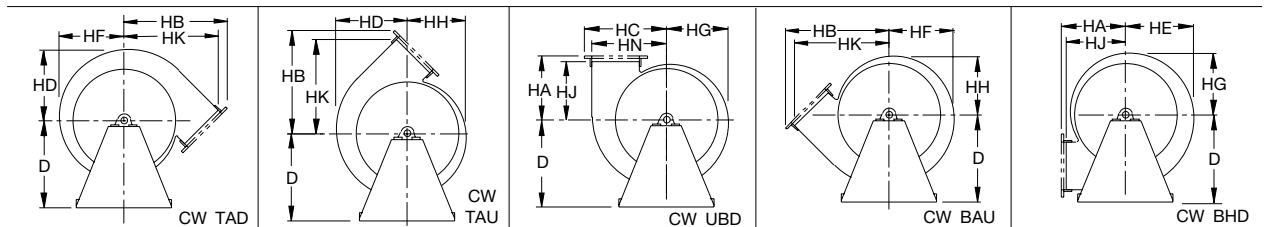
RBO, RBA, & RBW, Arr. 9A & 9B, Class 22



CW THD
ROTATABLE

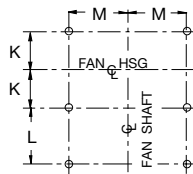


WITH OPTIONAL
FLANGED INLET



FOUNDATION
PLAN

SIX 'BH' DIA.
BASE HOLES



NOTES:

1. Outlet flanges are optional. Flanges are punched per drawing AC15146.
2. CW rotation is shown. CCW rotation is similar but opposite.
3. For 'DBD' (downblast) see drawing AC15071.
4. Motor location is 'left' for 'CW' rotation and 'right' for 'CCW' rotation. Dimension 'FR' is Max. Motor Frame.
5. Optional flanged inlet per drawing AC15143.

FAN SIZE	A	B	BA	BH	C	D		DX	FR		G	GA	GB	GC
						9A	9B		9A	9B				
907	173	154	38 x 38	11	178	470	546	32	112M	132M	362	2.5	2.5	181
909	219	195	38 x 38	11	229	470	622	32	112M	160L	451	2.5	2.5	226
911	268	240	51 x 51	14	279	546	635	38	132M	160L	514	3	3	257
913	316	283	51 x 51	14	330	552	705	38	132M	180L	591	3	3	295
915	363	325	64 x 64	14	381	641	718	38	160L	180L	667	3	3	334
917	413	368	64 x 64	14	432	718	813	38	160L	200L	749	3	3	375
919	459	410	64 x 64	14	483	794	902	51	180L	225M	794	3	3	397

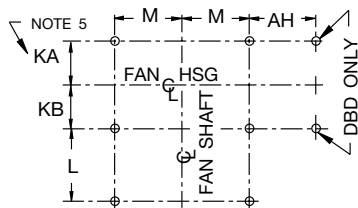
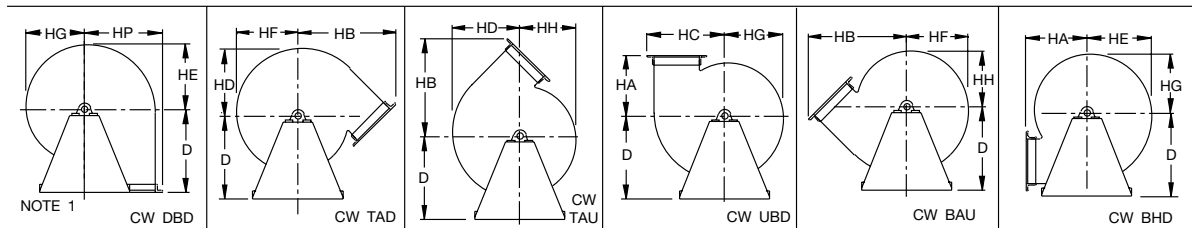
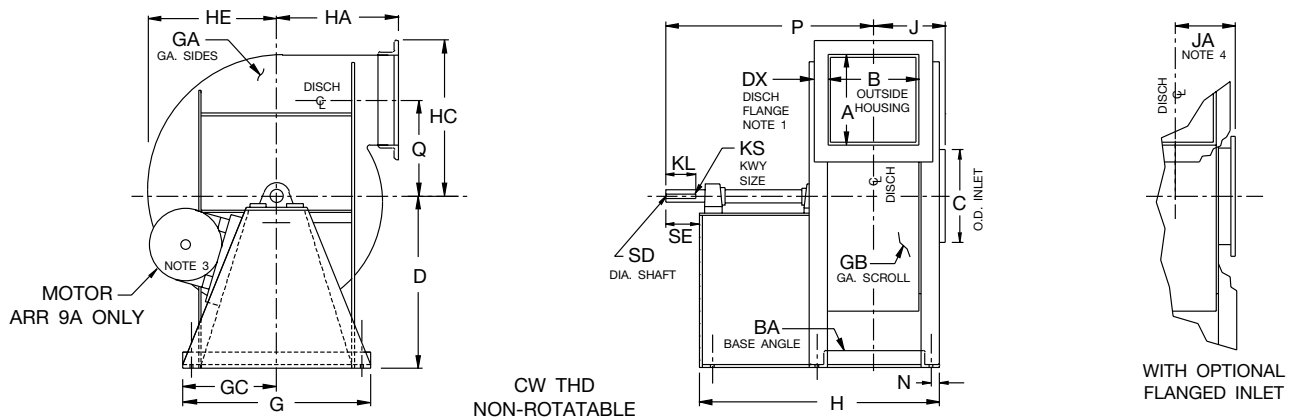
FAN SIZE	H		HA	HB	HC	HD	HE	HF	HG	HH	HJ	HK	HN	J	JA
	9A	9B													
907	630	722	224	372	300	257	246	235	224	213	211	340	268	119	145
909	672	887	283	465	375	329	314	300	286	272	270	433	343	140	165
911	833	957	343	565	456	400	383	365	348	330	330	530	418	175	213
913	876	1060	403	662	532	473	452	432	411	391	391	626	494	195	233
915	1068	1129	464	757	607	545	521	497	473	449	451	721	568	230	256
917	1111	1235	524	854	683	617	591	564	537	510	511	818	645	251	276
919	1213	1314	583	956	768	687	657	627	597	567	570	911	718	272	297

FAN SIZE	K	KL	KS	L		M	N	P		Q	SD	SE	IMPELLER DIAMETER
				9A	9B			9A	9B				
907	103	114	10 x 5	386	478	162	16	632	724	183	35	121	311
909	124	127	10 x 5	386	602	207	16	672	887	233	35	140	397
911	152	127	10 x 5	478	602	232	22	799	922	284	40	140	486
913	173	140	10 x 5	480	664	270	22	833	1018	337	40	152	575
915	202	140	13 x 6	602	662	302	29	991	1051	387	55	152	664
917	222	152	13 x 6	603	727	343	29	1038	1162	438	55	178	753
919	243	178	13 x 6	664	765	365	29	1132	1233	489	55	191	838

AC15074

Dimensions are not to be used for construction. Dimensions are in millimeters unless otherwise noted. Certified drawings are available upon request.

RBO, RBA, & RBW, Arr.1 & 9A, Class 22



SIX 'BH' DIA. BASE HOLES
(EIGHT HOLES ON 'DBD')
FOUNDATION PLAN

NOTES:

1. Outlet flanges punched per drawing AC15146 except 'DBD' is punched per foundation plan. 'DBD' "punched" outlet is per drawing AC15392.
2. CW rotation is shown. CCW rotation is similar but opposite.
3. Arrangement 9 motor location is 'left' for 'CW' rotation and 'right' for 'CCW' rotation. Dimension 'FR' is Max. Motor Frame on Arr. 9A.
4. Optional flanged inlet per drawing AC15143.
5. Use dimension 'KB' for 'DBD'.

FAN SIZE	A	AH	B	BA	BH	C	D	DX	FR (9A)	G	GA	GB
921	508	400	452	76 x 76	21	533	876	51	200L	946	3	3
923	559	440	499	76 x 76	21	584	953	51	200L	1022	5	5
926	630	492	562	76 x 76	21	660	1060	64	225M	1137	5	5
929	703	548	626	76 x 76	21	737	1181	64	225M	1264	5	5

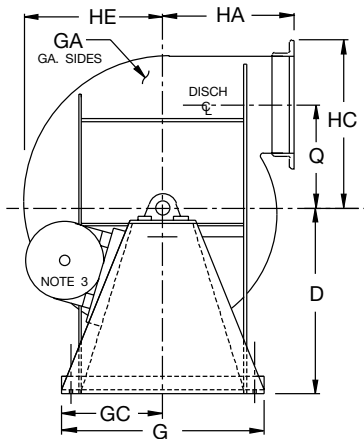
FAN SIZE	GC	H	HA	HB	HC	HD	HE	HF	HG	HH	HP	J	JA
921	473	1343	597	1021	845	759	724	689	654	619	870	308	334
923	511	1389	673	1129	922	833	794	756	716	678	948	330	356
926	568	1491	737	1261	1045	938	895	852	810	767	1057	362	387
929	632	1554	806	1394	1164	1051	1003	954	907	857	1176	394	419

FAN SIZE	KA	KB	KL	KS	L	M	N	P	Q	SD	SE	IMPELLER DIAMETER
921	273	268	178	16 x 8	725	435	35	1238	540	60	203	927
923	295	291	178	16 x 8	727	473	35	1262	592	60	203	1016
926	327	322	203	19 x 10	765	530	35	1357	667	75	229	1146
929	359	354	203	22 x 11	765	594	35	1402	749	80	241	1283

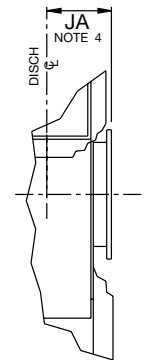
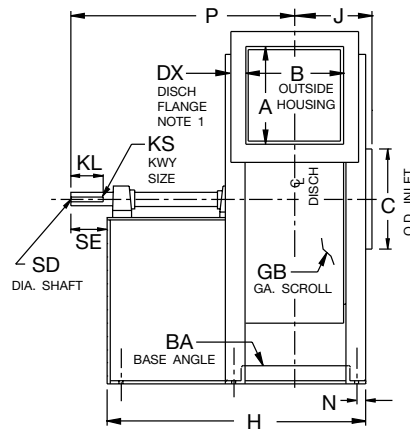
AC15063

Dimensions are not to be used for construction. Dimensions are in millimeters unless otherwise noted. Certified drawings are available upon request.

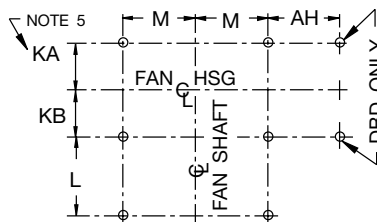
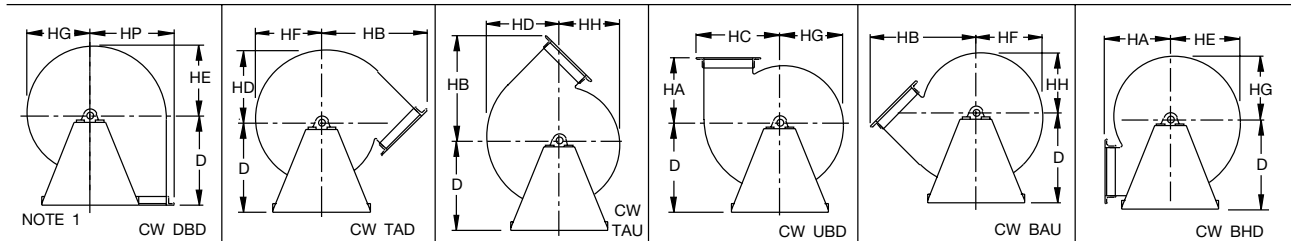
RBO, RBA, & RBW, Arr. 9B, Class 22



CW THD
NON-ROTATABLE



WITH OPTIONAL
FLANGED INLET



SIX 'BH' DIA. BASE HOLES
(EIGHT HOLES ON 'DBD')
FOUNDATION PLAN

NOTES:

1. Outlet flanges punched per drawing AC15146 except angles on 'DBD' punched per foundation plan.
2. CW rotation is shown. CCW rotation is similar but opposite.
3. Motor location is 'left' for 'CW' rotation and 'right' for 'CCW' rotation. Dimension 'FR' is Max. Motor Frame on Arr. 9B.
4. Optional flanged inlet per drawing AC15143.
5. Use dimension 'KB' for 'DBD'.

FAN SIZE	A	AH	B	BA	BH	C	D	DX	FR (9B)	G	GA	GB
921	508	400	452	76 x 76	21	533	1048	51	225M	946	3	3
923	559	440	499	76 x 76	21	584	1048	51	225M	1022	5	5
926	630	492	562	76 x 76	21	660	1060	64	250M	1137	5	5
929	703	548	626	76 x 76	21	737	1181	64	250M	1264	5	5

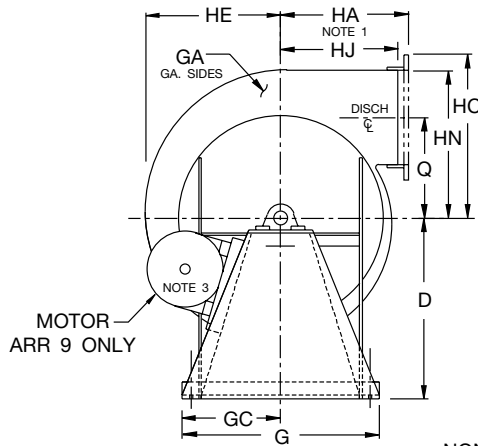
FAN SIZE	GC	H	HA	HB	HC	HD	HE	HF	HG	HH	HP	J	JA
921	473	1381	597	1021	845	759	724	689	654	619	870	308	334
923	511.00	1427	673	1129	922	833	794	756	716	678	948	330	356
926	568	1618	737	1261	1045	938	895	852	810	767	1057	362	387
929	632	1681	806	1394	1164	1051	1003	954	907	857	1176	394	419

FAN SIZE	KA	KB	KL	KS	L	M	N	P	Q	SD	SE	IMPELLER DIAMETER
921	273	268	178	16 x 8	764	435	35	1276	540	60	203	927
923	295	291	178	16 x 8	765	473	35	1300	592	60	203	1016
926	327	322	203	19 x 10	892	530	35	1484	667	75	229	1146
929	359	354	203	22 x 11	892	594	35	1529	749	80	241	1283

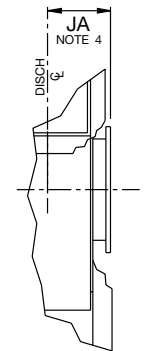
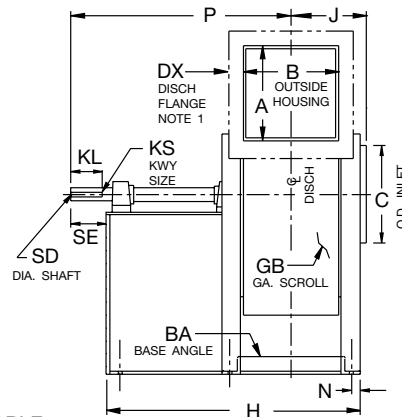
AC15075A

Dimensions are not to be used for construction. Dimensions are in millimeters unless otherwise noted. Certified drawings are available upon request.

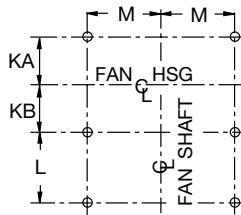
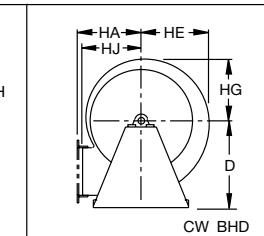
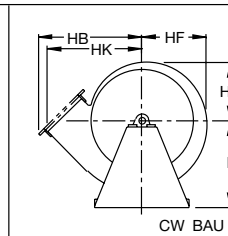
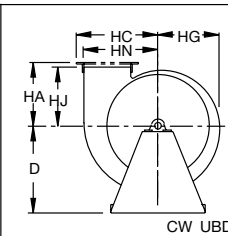
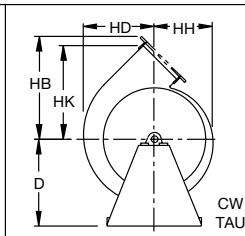
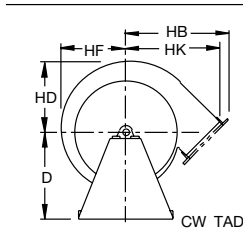
RBO, RBA, & RBW, Arr. 1 & 9, Class 32



CW THD
NON-ROTATABLE



WITH OPTIONAL
FLANGED INLET



SIX 'BH' DIA. BASE HOLES
(EIGHT HOLES ON 'DBD')
FOUNDATION PLAN

NOTES:

- Outlet flanges are optional. Flanges are punched per drawing AC15147.
- CW rotation is shown. CCW rotation is similar but opposite.
- Arr. 9 motor location is 'left' for 'CW' rotation and 'right' for 'CCW' rotation. Dimension 'FR' is Max. Motor Frame on Arr. 9.
- Optional flanged inlet per drawing AC15143.
- For 'DBD' (downblast) see drawing AC15072.

FAN SIZE	A	B	BA	BH	C	D		DX	FR (ARR. 9)	G	GA	GB	GC
						ARR. 1	ARR. 9						
911	272	243	51 x 51	14	279	476	705	38	160L	514	5	5	257
913	319	286	51 x 51	14	330	552	813	38	180L	591	5	5	295
915	367	329	64 x 64	14	381	641	813	38	180L	667	5	5	334
917	416	372	64 x 64	21	432	718	914	38	200L	749	5	5	375
919	462	413	64 x 64	21	483	794	1048	51	225M	794	5	5	397

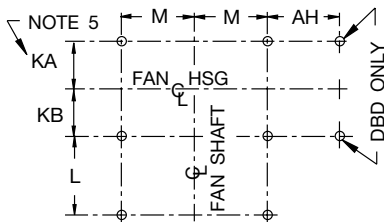
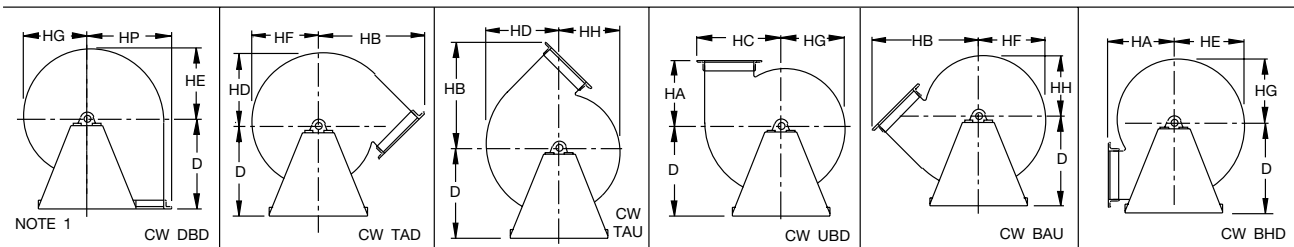
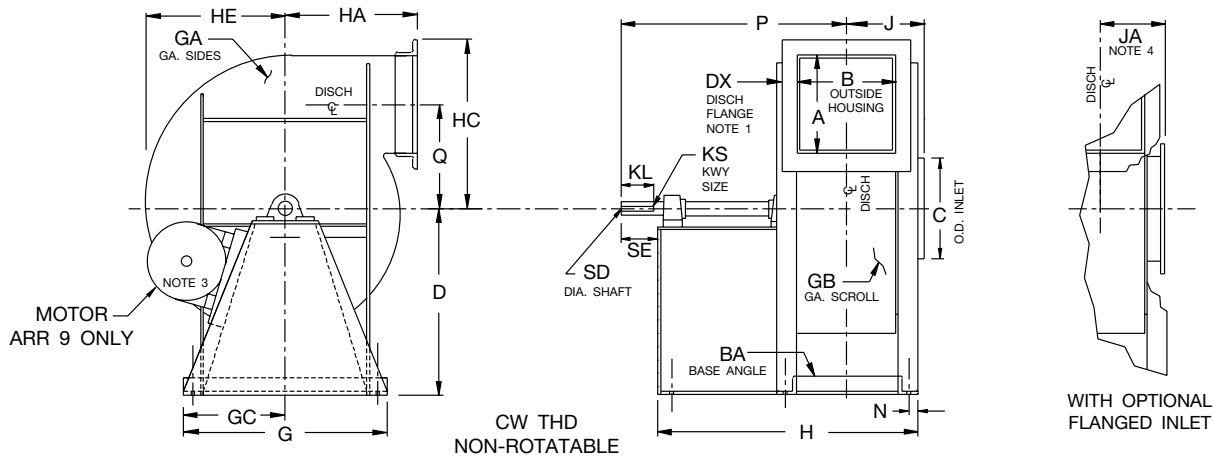
FAN SIZE	H		HA	HB	HC	HD	HE	HF	HG	HH	HJ	HK	HN	J	JA
	ARR. 1	ARR. 9													
911	722	1024	343	567	457	402	384	367	349	332	330	530	419	178	216
913	797	1111	403	664	533	475	454	433	413	392	391	627	495	198	236
915	973	1199	464	759	608	546	522	499	475	451	451	722	570	233	259
917	1067	1280	524	856	684	619	592	565	538	511	511	819	646	254	279
919	1172	1461	583	957	770	689	659	629	598	568	570	913	719	275	300

FAN SIZE	K	KL	KS	L		M	N	P		Q	SD	SE	IMPELLER DIAMETER
				ARR. 1	ARR. 9			ARR. 1	ARR. 9				
911	156	137	13 x 6	360	662	232	22	697	998	284	50	152	486
913	176	152	13 x 6	394	708	270	22	770	1084	337	50	171	575
915	205	152	16 x 8	500	725	302	29	911	1137	387	60	171	664
917	226	168	16 x 8	552	765	343	29	1007	1219	438	60	194	753
919	246	203	19 x 10	616	905	365	29	1129	1418	489	75	232	838

AC15065

Dimensions are not to be used for construction. Dimensions are in millimeters unless otherwise noted. Certified drawings are available upon request.

RBA, RBO, RBP, & RBW, Arr. 1 & 9, Class 32



SIX 'BH' DIA. BASE HOLES
(EIGHT HOLES ON 'DBD')
FOUNDATION PLAN

NOTES:

1. Outlet flanges punched per drawing AC15147 except 'DBD' is punched per foundation plan. 'DBD' "punched" outlet is per drawing AC15393.
2. CW rotation is shown. CCW rotation is similar but opposite.
3. Arr. 9 motor location is 'left' for 'CW' rotation and 'right' for 'CCW' rotation. Dimension 'FR' is Max. Motor Frame on Arr. 9.
4. Optional flanged inlet per drawing AC15143.
5. Use dimension 'KB' for 'DBD'.

FAN SIZE	A	AH	B	BA	BH	C	D		DX	FR (ARR. 9)	G	GA	GB
							ARR. 1	ARR. 9					
921	511	402	456	76 x 76	21	533	876	1048	51	225M	946	5	5
923	559	440	502	76 x 76	21	584	953	1048	51	225M	1022	6	5
926	633	494	565	76 x 76	21	660	1060	1060	64	250M	1137	6	6
929	706	549	629	76 x 76	21	737	1181	1181	64	250M	1264	6	6

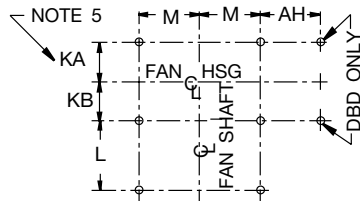
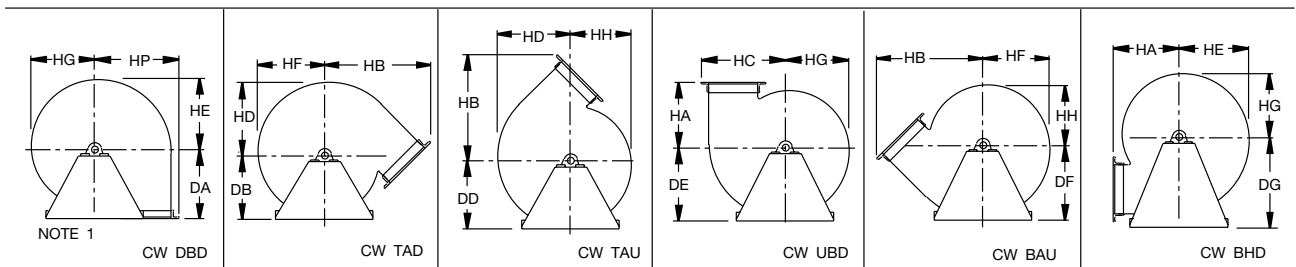
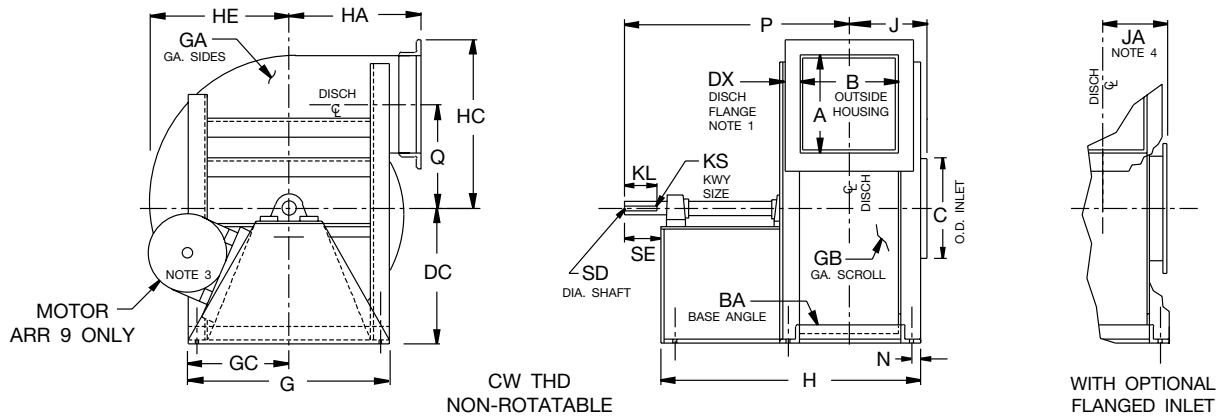
FAN SIZE	GC	H		HA	HB	HC	HD	HE	HF	HG	HH	HP	J	JA	KA
		ARR. 1	ARR. 9												
921	473	1261	1524	597	1021	846	760	725	691	656	621	871	310	335	275
923	511	1346	1572	673	1129	922	833	794	756	716	678	948	334	359	298
926	568	1435	1635	737	1262	1046	940	897	854	811	768	1059	365	391	330
929	632	1524	1699	806	1395	1165	1053	1005	956	908	859	1178	397	422	362

FAN SIZE	K	KL	KS	L		M	N	P		Q	SD	SE	IMPELLER DIAMETER
				ARR. 1	ARR. 9			ARR. 1	ARR. 9				
921	270	203	19 x 10	640	903	435	35	1183	1446	540	75	232	927
923	292	203	22 x 11	679	905	473	35	1248	1473	592	90	235	1016
926	324	203	22 x 11	705	905	530	35	1305	1505	665	90	235	1146
929	356	203	25 x 13	730	905	594	35	1365	1540	749	100	238	1283

AC15066

Dimensions are not to be used for construction. Dimensions are in millimeters unless otherwise noted. Certified drawings are available upon request.

RBA, RBR, & RBW, Arr. 1 & 9, Class 32



SIX 'BH' DIA. BASE HOLES
(EIGHT HOLES ON 'DBD')
FOUNDATION PLAN

NOTES:

1. Outlet flanges punched per drawing AC15147 except 'DBD' is punched per foundation plan. 'DBD' "punched" outlet is per drawing AC15393.
2. CW rotation is shown. CCW rotation is similar but opposite.
3. Arr. 9 motor location is 'left' for 'CW' rotation and 'right' for 'CCW' rotation. Dimension 'FR' is Max. Motor Frame on Arr. 9
4. Optional flanged inlet per drawing AC15143.
5. Use dimension 'KB' for 'DBD'.

FAN SIZE	A	AH	B	BA	BH	C	DA	DB	DC	DD	DE	DF	DG	DX
933	803	659	715	76 x 102	21	838	1092	1092	1092	1143	1194	1257	1334	64
937	897	732	800	76 x 102	21	940	1216	1216	1216	1283	1346	1416	1486	64
941	992	830	884	89 x 127	21	1041	1340	1340	1340	1403	1480	1549	1632	64
945	1089	903	970	102 x 152	21	1143	1499	1499	1499	1575	1651	1727	1829	76
949	1184	886	1054	102 x 152	21	1245	1626	1626	1626	1702	1772	1880	2032	76

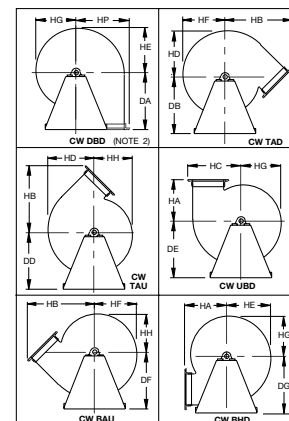
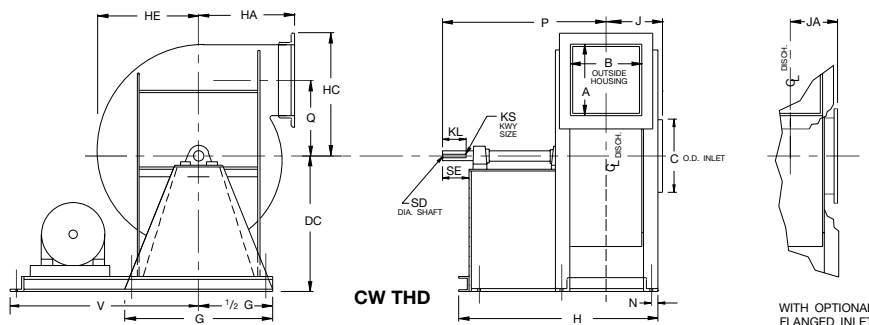
FAN SIZE	FR (ARR. 9)	G	GA	GB	H	HA	HB	HC	HD	HE	HF	HG	HH	HP
933	250M	1372	6	6	1822	927	1588	1316	1197	1141	1086	1030	975	1354
937	250M	1524	6	6	1908	1035	1769	1465	1340	1278	1216	1154	1092	1503
941	250M	1664	6	6	2045	1232	2013	1614	1483	1415	1346	1278	1210	1678
945	250M	1854	6	6	2181	1265	2151	1776	1626	1551	1477	1402	1327	1853
949	250M	2197	6	6	2264	1378	2340	1930	1772	1691	1608	1527	1445	2007

FAN SIZE	J	JA	KA	KB	KS	L	M	N	P	Q	SD	SE	IMPELLER DIAMETER
933	465	490	418	411	25 x 13	892	648	48	1595	851	100	238	1461
937	508	533	461	454	32 x 16	892	724	48	1642	954	125	241	1635
941	578	603	516	510	32 x 16	892	787	60	1710	1056	125	241	1810
945	646	672	572	565	32 x 16	892	876	73	1778	1157	125	241	1988
949	687	713	613	607	32 x 16	892	1048	73	1819	1262	140	241	2165

AC15067A

Dimensions are not to be used for construction. Dimensions are in millimeters unless otherwise noted. Certified drawings are available upon request.

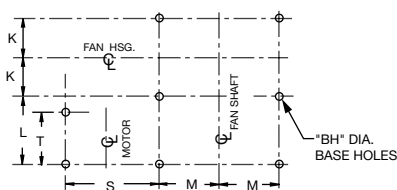
Arr. 9F, Class 32



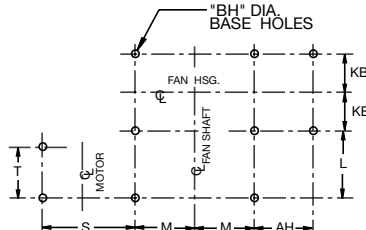
NOTES:

1. Clockwise (CW) rotation shown. Counterclockwise (CCW) rotation is similar but opposite.
2. Sizes 911 through 919 are rotatable. Sizes 921 through 949 are non-rotatable.
3. Optional flanged inlet is shown. See page 38 for dimensional data.
4. Punched outlet flange is optional on sizes 911 through 919 and standard on sizes 921 through 949. See page 38 for dimensional data.
5. Standard Arr. 9F motor location is on the left for CW rotation units, and on the right for CCW rotation units (unless otherwise specified.)
6. Use dimension KB in place of KA for DBD.

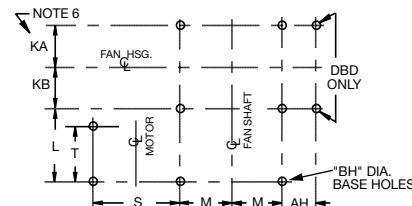
**SIZES 911 - 919
(ALL DISCHARGES EXCEPT DBD)**



**SIZES 911 - 919
(DBD ONLY)**



**SIZES 921 - 949
(ALL DISCHARGES)**



FAN SIZE	A	AH	B	BH	C	DA	DB	DC	DD	DE	DF	DG	G	H		HA
														DBD	OTHERS	
911	272	216	243	14	279	476	476	476	476	476	476	476	514	979	989	343
913	319	254	286	14	330	552	552	552	552	552	552	552	591	1084	1094	403
915	367	303	329	14	381	641	641	641	641	641	641	641	667	1154	1164	464
917	416	338	372	21	432	718	718	718	718	718	718	718	749	1237	1246	524
919	462	389	413	21	483	794	794	794	794	794	794	794	794	1462	1472	583
921	511	402	456	21	533	876	876	876	876	876	876	876	946	1537	1537	597
923	559	440	502	21	584	953	953	953	953	953	953	953	1022	1726	1726	673
926	633	494	565	21	660	1060	1060	1060	1060	1060	1060	1060	1137	1789	1789	737
929	706	549	629	21	737	1181	1181	1181	1181	1181	1181	1181	1264	1853	1853	806
933	803	659	715	21	838	1092	1092	1092	1143	1194	1257	1334	1372	1989	1989	927
937	897	732	800	21	940	1216	1216	1216	1283	1346	1416	1486	1524	2075	2075	1035
941	992	830	884	21	1041	1340	1340	1340	1403	1480	1549	1632	1664	2297	2297	1232
945	1089	903	970	21	1143	1499	1499	1499	1575	1651	1727	1829	1854	2408	2408	1265
949	1184	886	1054	21	1245	1626	1626	1626	1702	1772	1880	2032	2197	2491	2491	1378

FAN SIZE	HB	HC	HD	HE	HF	HG	HH	HP	J	JA	K	KA	KB	KL	KS
911	567	457	402	384	367	349	332	470	178	216	156	—	—	137	13 x 6
913	664	533	475	454	433	413	392	546	198	236	176	—	—	152	13 x 6
915	759	608	546	522	499	475	451	633	233	259	205	—	—	152	16 x 8
917	856	684	619	592	565	538	511	710	254	279	226	—	—	168	16 x 8
919	957	770	689	659	629	598	568	783	275	300	246	—	—	203	19 x 10
921	1021	846	760	725	691	656	621	871	310	335	—	275	270	203	19 x 10
923	1129	922	833	794	756	716	678	948	334	359	—	298	292	235	22 x 11
926	1261	1046	940	897	854	811	768	1059	365	391	—	330	324	235	22 x 11
929	1394	1165	1053	1005	956	908	859	1178	397	422	—	362	356	235	25 x 13
933	1586	1316	1197	1141	1086	1030	975	1354	465	490	—	418	411	235	25 x 13
937	1769	1465	1340	1278	1216	1154	1092	1503	508	533	—	461	454	235	32 x 16
941	2013	1614	1483	1415	1346	1276	1210	1678	578	603	—	516	510	235	32 x 16
945	2153	1778	1626	1551	1477	1402	1327	1854	646	672	—	572	565	235	32 x 16
949	2340	1930	1772	1691	1608	1527	1445	2007	687	713	—	613	607	235	32 x 16

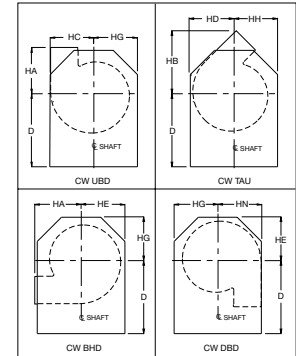
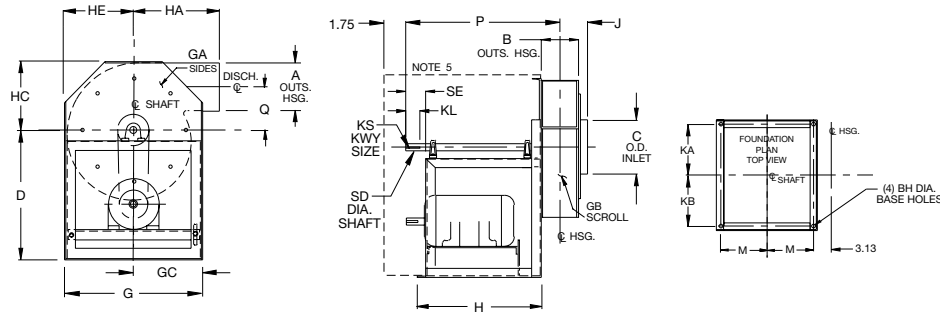
FAN SIZE	L		M	N	P		Q	S	SD	SE	T		V		MAX. MOTOR FRAME SIZE
	DBD	OTHERS			DBD	OTHERS					DBD	OTHERS	DBD	OTHERS	
911	591	594	232	22	926	930	284	775	49	152	533	537	1041	1041	180L
913	654	654	270	22	1026	1030	337	883	49	171	597	597	1187	1187	200L
915	654	654	302	29	1060	1065	387	889	62	171	591	591	1226	1226	200L
917	695	695	343	29	1145	1149	438	994	62	194	632	632	1372	1372	225M
919	876	876	365	29	1384	1389	489	1124	75	232	813	813	1524	1524	250M
921	876	876	435	35	1419	1419	540	1130	75	232	806	806	1600	1600	250M
923	1019	1019	473	35	1619	1619	592	1219	87	267	949	949	1727	1727	280M
926	1019	1019	530	35	1651	1651	667	1219	87	267	949	949	1784	1784	280M
929	1019	1019	594	35	1686	1686	749	1219	100	270	949	949	1848	1848	280M
933	1019	1019	648	48	1754	1754	851	1219	100	270	937	937	1902	1902	280M
937	1019	1019	724	48	1800	1800	954	1219	125	273	937	937	1978	1978	280M
941	1105	1105	787	60	1954	1954	1056	1226	125	273	1010	1010	2048	2048	280M
945	1080	1080	876	73	1997	1997	1156	1232	125	273	972	972	2143	2143	280M
949	1080	1080	1048	73	2038	2038	1261	1232	138	273	972	972	2315	2315	280M

AC15072F AC15136A AC15137A AC15138B

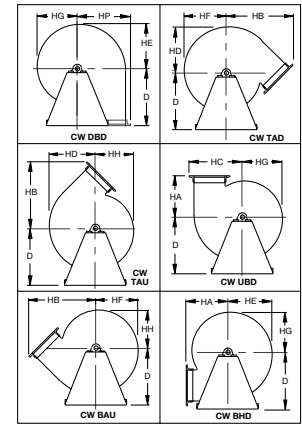
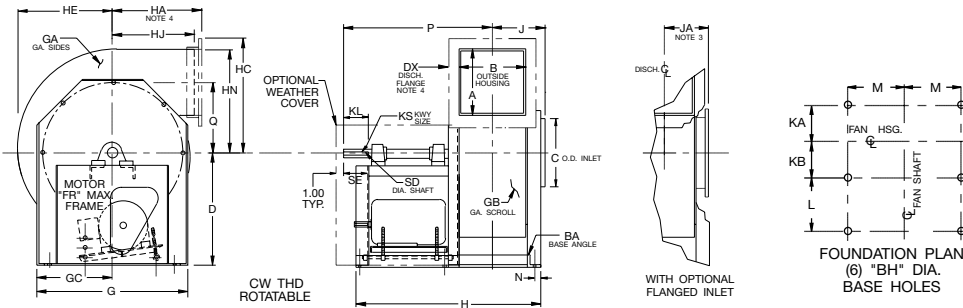
Dimensions are not to be used for construction. Dimensions are in millimeters unless otherwise noted. Certified drawings are available upon request.

Arrangement 10

Size 905



Sizes 907 - 919



NOTES:

1. Clockwise (CW) rotation shown, counterclockwise (CCW) rotation is similar but opposite.
2. All sizes are rotatable.
3. Optional flanged inlet shown on sizes 907 through 919. An optional flanged inlet is available on all Arrangement 10 sizes, including size 905. See page 38 for dimensional data.
4. Punched outlet flange is optional on all sizes. See page 38 for dimensional data.
5. Weather cover is optional.
6. All Arrangement 10 fans are available as Class 22 only.

FAN SIZE	A	B	BH	C	D	G	GC	H	HA	HB	HC	HD	HE	HF	HG	HH
905	124	114	11	127	368	406	203	340	229	298	203	203	203	—	203	203
907	173	154	11	178	448	406	203	727	243	384	300	257	246	235	224	213
909	219	195	11	229	492	483	241	813	283	465	375	329	314	300	286	272
911	268	240	14	279	556	635	318	991	362	578	456	400	383	365	348	330
913	316	283	14	337	648	692	346	1034	403	662	532	473	452	432	411	391
915	363	325	14	387	775	838	419	1146	464	757	607	546	521	497	473	449
917	413	368	14	438	699	918	459	1189	524	854	683	617	591	564	537	510
919	459	410	14	489	762	988	494	1319	583	956	768	687	657	627	597	567

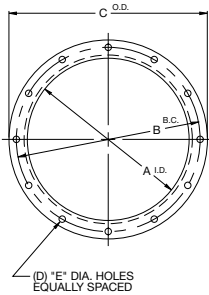
FAN SIZE	HN	J	JA	KA	KB	KL	KS	L	M	N	P	Q	SD	SE	MAX. MTR.
905	203	99	—	171	171	51	6 x 3	—	152	—	435	130	25	70	90L
907	268	119	145	103	125	51	10 x 5	470	186	16	630	183	35	70	112M
909	343	140	165	124	146	67	10 x 5	514	224	16	713	233	35	86	132M
911	418	175	213	152	171	83	10 x 5	629	276	22	870	284	40	102	160L
913	494	195	233	173	208	83	10 x 5	607	283	22	892	337	40	102	160L
915	568	230	256	202	230	92	13 x 6	664	308	29	988	387	55	118	180L
917	645	251	276	222	265	92	13 x 6	645	314	29	1011	438	55	118	180L
919	718	272	297	243	286	114	13 x 6	734	359	29	1137	489	55	133	200L

AC10726D

Dimensions are not to be used for construction. Dimensions are in millimeters unless otherwise noted. Certified drawings are available upon request.

Inlet & Outlet Flanges

Inlet Flange

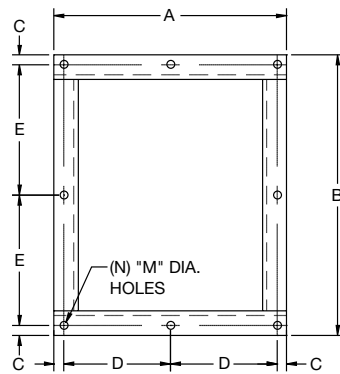


FAN SIZE	A	B	C	D	E
905	129	160	179	6	7
907	181	216	238	6	10
909	232	270	295	6	11
911	283	324	353	6	11
913	334	376	408	12	11
915	384	427	459	12	11
917	435	478	513	12	11
919	486	529	564	12	11
921	537	579	614	16	14
923	588	630	665	16	14

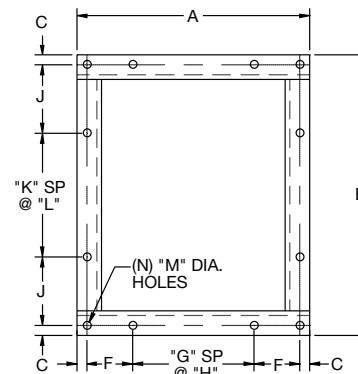
FAN SIZE	A	B	C	D	E
926	664	724	765	16	14
929	740	800	842	16	14
933	842	902	943	24	14
937	943	1003	1045	24	14
941	1045	1105	1146	32	14
945	1146	1207	1248	32	14
949	1248	1308	1350	32	14
954	1388	1457	1515	32	21
960	1540	1610	1667	32	21

AC15143B

Outlet Flange



SIZES 905 – 917



SIZES 919 – 960

Class 22

FAN SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	ANGLE SIZE
905	178	187	13	—	—	—	—	—	—	—	—	10	4	32 x 32
907	217	236	13	—	—	—	—	—	—	—	—	10	4	32 x 32
909	259	283	13	117	129	—	—	—	—	—	—	10	8	32 x 32
911	316	344	16	142	156	—	—	—	—	—	—	11	8	38 x 38
913	359	392	16	164	180	—	—	—	—	—	—	11	8	38 x 38
915	402	440	16	185	204	—	—	—	—	—	—	11	8	38 x 38
917	445	489	16	207	229	—	—	—	—	—	—	11	8	38 x 38
919	511	560	22	—	—	156	1	156	169	1	178	14	12	51 x 51
921	554	610	22	—	—	170	1	170	189	1	187	14	12	51 x 51
923	600	660	22	—	—	186	1	184	205	1	207	14	12	51 x 51
926	689	757	29	—	—	211	1	210	176	2	175	14	14	64 x 64
929	753	830	29	—	—	232	1	232	193	2	194	14	14	64 x 64
933	838	927	29	—	—	195	2	195	219	2	216	14	16	64 x 64
937	927	1021	29	—	—	217	2	217	241	2	241	14	16	64 x 64
941	1011	1116	29	—	—	239	2	238	282	2	248	14	16	64 x 64
945	1122	1238	35	—	—	212	3	210	260	3	216	14	20	76 x 76
949	1207	1337	35	—	—	226	3	229	272	3	241	14	20	76 x 76
954	1308	1451	35	—	—	248	3	248	233	4	229	14	22	76 x 76
960	1441	1600	35	—	—	276	3	273	257	4	254	14	22	76 x 76

AC15146C

Class 32

FAN SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	ANGLE SIZE
911	319	348	16	144	158	—	—	—	—	—	—	11	8	38 x 38
913	362	395	16	165	182	—	—	—	—	—	—	11	8	38 x 38
915	405	443	16	186	205	—	—	—	—	—	—	11	8	38 x 38
917	448	492	16	208	230	—	—	—	—	—	—	11	8	38 x 38
919	514	564	22	—	—	157	1	156	169	1	181	14	12	51 x 51
921	557	613	22	—	—	171	1	171	189	1	191	14	12	51 x 51
923	603	660	22	—	—	186	1	187	205	1	207	14	12	51 x 51
926	692	760	29	—	—	211	1	213	176	2	176	14	14	64 x 64
929	756	833	29	—	—	232	1	235	195	2	194	14	14	64 x 64
933	842	930	29	—	—	195	2	197	219	2	217	14	16	64 x 64
937	927	1024	29	—	—	217	2	217	242	2	241	14	16	64 x 64
941	1011	1119	29	—	—	236	2	241	283	2	248	14	16	64 x 64
945	1122	1241	35	—	—	210	3	211	252	3	222	14	20	76 x 76
949	1207	1337	35	—	—	225	3	229	252	3	254	14	20	76 x 76

AC15147

Dimensions are not to be used for construction. Dimensions are in millimeters unless otherwise noted. Certified drawings are available upon request.



Models

RBO | RBR | RBA | RBW | RBP

Fans shall be Model RBO/RBR/RBW/RBA/RBP Industrial Fans, as manufactured by Twin City Fan & Blower, Minneapolis, Minnesota.

PERFORMANCE — Fans shall be tested in accordance with AMCA 210 test code for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels.

RBO, RBR, RBW and RBA fans shall be licensed to bear the AMCA certified ratings seal for air and fan efficiency grade (FEG).

HOUSING — Housings shall be continuously welded heavy gauge steel, suitably braced to prevent pulsation. Housings with lock seams or partially welded construction are not acceptable. Class 22 housings shall be constructed of a minimum 3 mm through 8 mm steel. Class 32 housings shall be constructed of at least 5 mm through 8 mm steel. Units having impeller diameters of 838 mm (size 919) and smaller shall be built with adjustable discharge housings which can be field rotated to any of the eight standard positions. Fans with impeller diameters larger than 838 mm shall be built with a fixed discharge housing and have a flanged type discharge to provide unit rigidity.

IMPELLER — All class 22 fan impellers shall be constructed of a minimum 3 mm through 19 mm thick steel. Class 32 fan impellers shall be constructed of a minimum 5 mm through 19 mm steel. The spider hubs for RBO impellers shall be fabricated steel or cast steel material. All industrial fan impellers shall be continuously welded.

SHAFT — Shafts shall be AISI 1040 or 1045 hot rolled steel, accurately turned, ground, polished, and ring gauged for accuracy. Shafts shall be sized for the first critical speed of at least 1.43 times the maximum speed.

BEARINGS — Bearings shall be heavy duty, grease lubricated, anti-friction ball or roller, self-aligning, pillow block type and selected for a minimum average bearing life (AFBMA L-50) in excess of 200,000 hours at the maximum fan RPM.

V-BELT DRIVE — Fan and motor sheaves shall be cast iron fixed pitched drives for service over 7.5 kW. Small drives may use variable pitch cast iron motor sheaves. The minimum belt service factor is 120% for drives through 18.5 kW and 150% over 18.5 kW.

FINISH AND COATING — The entire fan assembly, excluding the shaft, shall be thoroughly degreased and deburred before application of a rust-preventative primer. After the fan is completely assembled, a finish coat of paint shall be applied to the entire assembly. The fan shaft shall be coated with a petroleum-based rust protectant. Aluminum components shall be unpainted.

ACCESSORIES — When specified, accessories such as inlet vanes, outlet dampers, companion inlet and outlet flanges, inlet bells, inlet boxes, shaft guards, and impeller and scroll liners shall be provided by Twin City Fan & Blower to maintain one source responsibility.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at the specified operating speed or maximum RPM allowed for the particular construction type. Each impeller shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical, and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its fans for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.

INDUSTRIAL PROCESS AND COMMERCIAL VENTILATION SYSTEMS

CENTRIFUGAL FANS | UTILITY SETS | PLENUM & PLUG FANS | INLINE CENTRIFUGAL FANS
MIXED FLOW FANS | TUBEAXIAL & VANEAXIAL FANS | PROPELLER WALL FANS | PROPELLER ROOF VENTILATORS
CENTRIFUGAL ROOF & WALL EXHAUSTERS | CEILING VENTILATORS | GRAVITY VENTILATORS | DUCT BLOWERS
RADIAL BLADED FANS | RADIAL TIP FANS | HIGH EFFICIENCY INDUSTRIAL FANS | PRESSURE BLOWERS
LABORATORY EXHAUST FANS | FILTERED SUPPLY FANS | MANCOOLERS | FIBERGLASS FANS | CUSTOM FANS



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