



INDUSTRIAL PROCESS AND
COMMERCIAL VENTILATION SYSTEMS

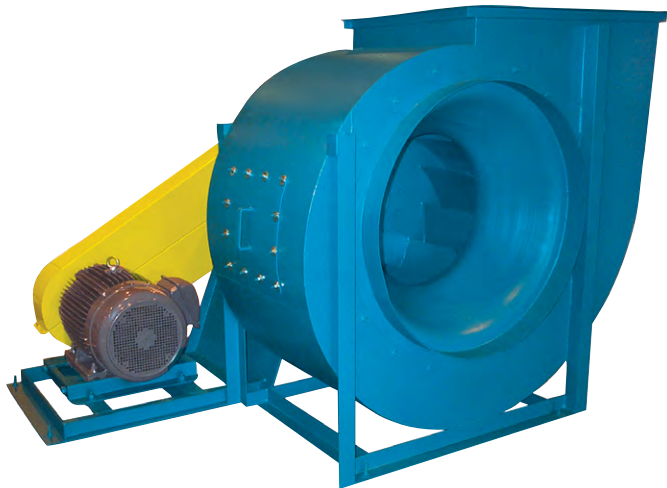
BACKWARD CURVED HIGH PRESSURE FANS

MODEL BCS



Model BCS

Backward Curved - High Pressure



Arrangement 9F

The BCS fan from Twin City Fan & Blower is a high efficiency backward curved industrial fan designed for handling relatively clean air in high pressure applications. Typical applications include combustion air, product cooling, moisture blow-off, forced draft on fluid bed boilers, and induced draft after baghouse process blowers.

Because the BCS features a wider impeller and housing, producing a high volume of air at a lower velocity, the need for an expansion easé is eliminated.

BCS fans are available with a variety of construction options and accessories, offering the versatility and flexibility required in today's industrial applications.

Sizes

419 to 2260 mm impeller diameters

Performance

Airflow to 200 m³/sec at 500 Pa

Static pressure to 9945 Pa

Airstream temperatures to 425°C

Arrangements

1, 3SI, 4, 7SI, 8, 9 and 9F

Drive Configurations

Available in both direct and belt drive configurations.

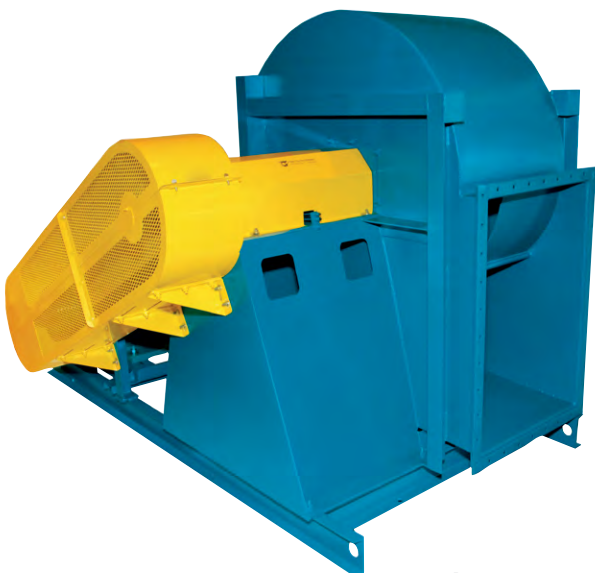
Construction

- Design 14 — for tip speeds up to 70 m/s
- Design 17 — for tip speeds up to 85 m/s
- Design 22 — for tip speeds up to 110 m/s
- Design 26 — for tip speeds up to 130 m/s

Housings

Heavy-gauge, reinforced, continuously welded housings provide strength and durability for extended service life — a necessity in all commercial and industrial installations.

Outlet flanges for duct-connection as well as rigidity are standard. Inlet collars for slip-joint connection and lifting lugs are also standard. All housings are reinforced with rigid bracing to increase structural integrity. The support angles are intermittently welded and caulked between welds to prevent bleed-through corrosion. Precisely positioned cutoff plates and aerodynamically spun inlet cones provide high efficiency and smooth airflow through the fan.



Arrangement 1
with unitary base
and belt guard

BCS Impeller

The BCS impeller features heavy-gauge steel construction and a non-overloading impeller design, suitable for applications requiring large volumes of air at moderate to high pressures.

The high efficiency impeller features backward curved blades of single thickness, continuously welded to the rim and backplate.

A conical spun shroud (rim) makes BCS fans less susceptible to the performance losses associated with poor inlet conditions.

All BCS impellers are statically and dynamically balanced to grade G6.3 per ANSI S2.19 (3.8 mm/s rms) for smooth operation prior to assembly of the fan, followed by a final balance of the entire rotating assembly.

Shaft

Shafts are AISI-1018, 1040 or 1045 hot-rolled steel accurately turned, ground, polished, and ring gauged for accuracy. Shafts are generously sized for first critical speed of at least 1.43 times the maximum speed for the class.

Bearings

Bearings are heavy-duty, grease-lubricated, anti-friction ball or roller, self-aligning, pillow block type and are selected for minimum average bearing life L10 in excess of 40,000 hours at the maximum fan RPM.

Rotation and Discharge

Both clockwise and counterclockwise rotations are available in various standard discharge positions. See drawings on pages 28-41.

Temperature Limits

Standard construction designed for temperatures up to 150°C. Optional construction available to handle up to 425°C. See page 7.

Outlet Flange

Punched outlet flange is provided as standard construction on all sizes.

Mechanical Run Test & Final Vibration Check

All fans are assembled for a mechanical run test as well as final balance prior to shipment. Vibration readings are taken on both fan bearings in the axial, horizontal, and vertical directions at the specified speed. Fans are balanced to 3.8 mm/s rms. peak or less.

Special Materials

BCS fans can be constructed of special materials such as aluminum or stainless steel.



BCS Impeller



Arrangement 1



OPTIONAL CONSTRUCTION



Fan with Split Housing

Split Housing

A flanged horizontal split housing is available on the fan's centerline. A pie-shaped split is also available for impeller removal without disturbing the ductwork.

High Temperature Construction

Airstream temperatures above 150°C require high temperature construction. See page 7 for construction requirements. Insulation pins and complete fan insulation are available.

Spark Resistant Construction

Fan applications may involve the handling of potentially explosive or flammable particles, fumes or vapour. Such applications require careful consideration by the system designer to insure the safe handling of such gases. Twin City Fan & Blower offers the following classifications of spark resistant construction per AMCA Standard 99-0401-86. It is the specifier or the user's responsibility to specify the type of spark resistant construction with full recognition of the potential hazards and the degree of protection required.

Type A: All parts of the fan in contact with the air or gas being handled shall be made of nonferrous material — usually aluminum and limited to 120°C.

Type B: The fan shall have a nonferrous impeller or impeller and nonferrous ring about the opening through which the shaft passes — usually aluminum impeller and anti-spark track and limited to 120°C.

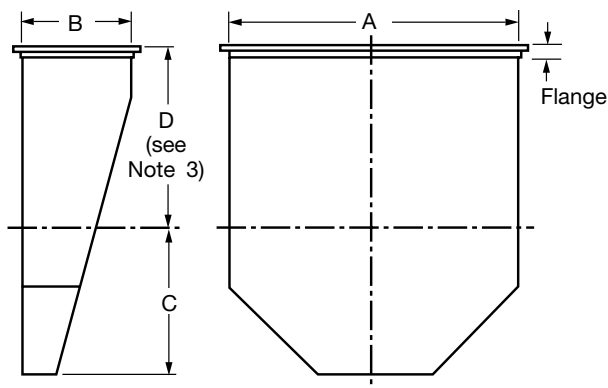
Type C: The fan shall be so constructed that a shift of the impeller or impeller or shaft will not permit two ferrous parts of the fan to rub or strike. This is accomplished with an aluminum inlet cone and anti-spark track. This construction is limited to 260°C Construction to 425°C is available using a steel inlet cone with copper/bronze lining.

Notes:

1. Bearings shall be placed outside the airstream. Therefore, do not use Arrangement 3 or 7.
2. The user shall electrically earth all fan parts.

Refer to AMCA Standard 99-0401-86 for full details.

INLET BOXES



Typical Detached Inlet Box Dimensions

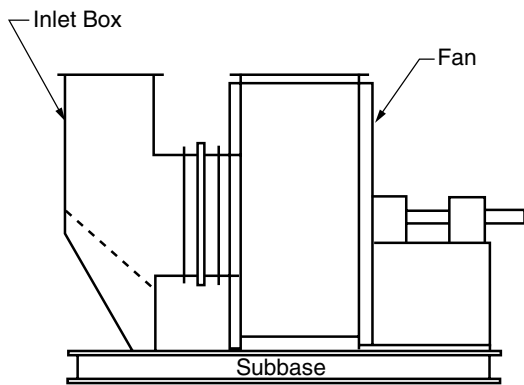
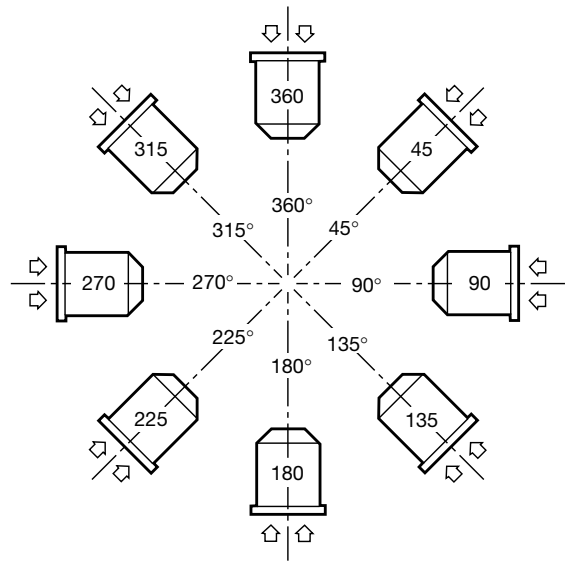
FAN SIZE	A	B	C MAX.	D MAX.	INLET AREA (m ²)	F MAX.
165	229	692	53	281	0.158	32
182	254	762	54	308	0.194	38
200	279	838	54	333	0.234	38
222	311	933	81	360	0.290	51
245	343	1029	81	398	0.353	51
270	375	1130	81	424	0.42	64
300	419	1257	106	462	0.53	64
330	464	1384	108	502	0.64	64
365	508	1530	108	552	0.78	64
402	565	1613	133	603	0.96	64
445	622	1867	159	654	1.16	64
490	686	2057	159	718	1.41	64
542	762	2273	159	794	1.73	64
600	838	2515	159	870	2.11	64
660	927	2769	159	946	2.57	64
730	1016	3061	159	1035	3.11	64
807	1130	3404	159	1137	3.85	64
890	1245	3734	159	1251	4.65	64

Dimensions are not to be used for construction.
Dimensions are in inches unless otherwise noted.

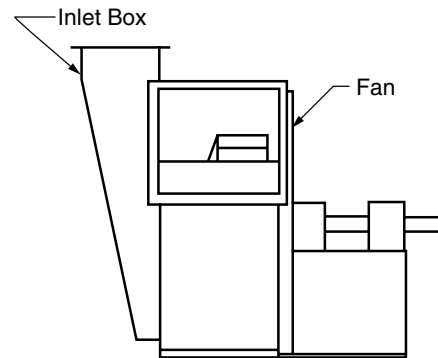
INLET BOX POSITION NO.	POSITION OF INLET BOXES
45	Angular Down Intake
90	Horizontal Right Intake
135	Angular Up Intake
180	Bottom Up Intake
225	Angular Up Intake
270	Horizontal Left Intake
315	Angular Down Intake
360	Top Down Intake

NOTES:

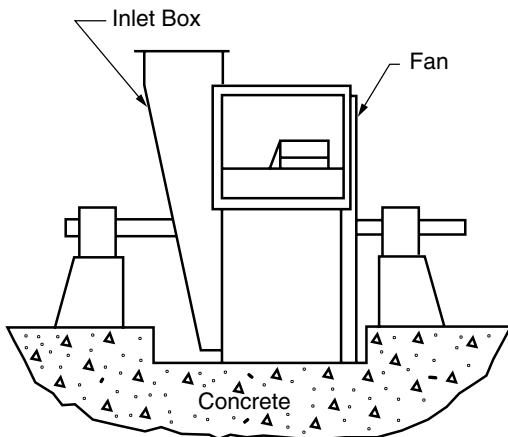
1. Reference line is the top vertical axis through center of fan shaft.
2. Position of inlet box and air entry to inlet box is determined from drive side of fan.
3. Position on inlet box is designated in degrees clockwise from top vertical axis as shown.
4. Positions 135° to 225° in some cases interfere seriously with floor structure.



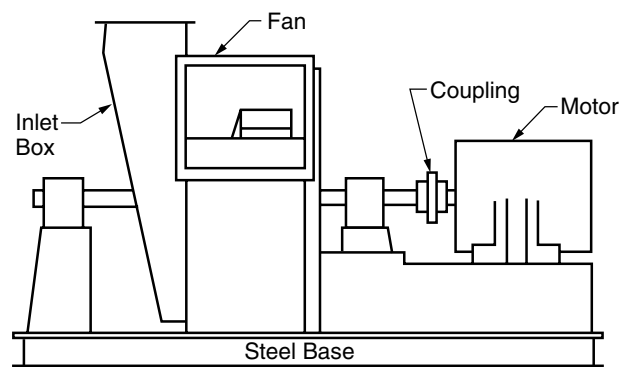
Arr. 1 Fan With Detached Inlet Box Can Be Supplied in Arr. 8



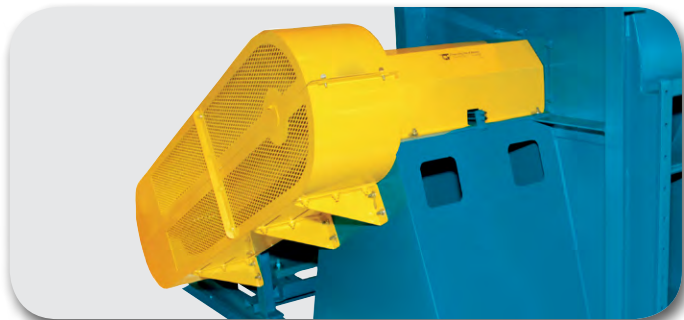
Arr. 1 Fan With Attached or Integral Inlet Box Can Be Supplied in Arr. 8



Arr. 3SI Fan With Integral Inlet Box, Centrally Supported Impeller, Independent Bearing Pedestal To Be Installed on Concrete Pedestals



Arr. 7SI Fan Similar to Arr. 3SI Except Bearing Pedestal & Motor Installed On Steel Common Base



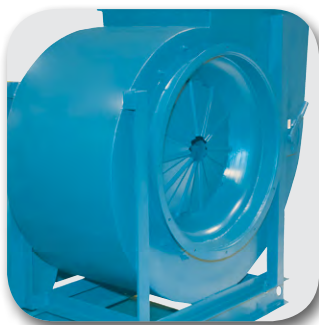
Belt & Shaft Guard



Quick-Open Access Door

Bolted Access Door

Raised Bolted Access Door



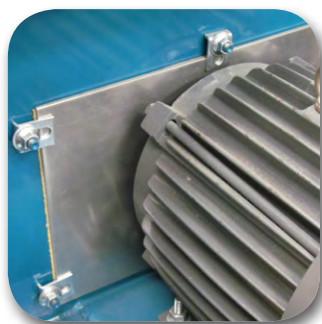
Nested Inlet Vanes



External Inlet Vanes



Safety Screen



Shaft Seal

Inlet Box

An inlet box is designed to minimize pressure drop and is recommended for applications where uniform flow is difficult to obtain due to limited space. Inlet boxes can be designed to be either detachable or integral to the fan.

Inlet Box Damper

The inlet box damper pre-spins the air in the direction of impeller rotation, resulting in a savings in consumed power at reduced loads.

Outlet Dampers

Double surface aerofoil blades are available in either parallel or opposed blade design.

Fan Guards

Shaft, bearing, and belt guards are available in OSHA type designs.

Access Door

Bolted, quick-opening, and raised bolted access doors are available for impeller inspection or maintenance.

Variable Inlet Vanes

Variable inlet vanes are available to provide economical, stable, and efficient air volume control for manual or motorized operation. Nested inlet vanes are available for Design 17 and are suitable for temperatures to 150°C. External inlet vanes are available for Design 22 and 26 and are suitable for temperatures to 150°C. Construction to 315°C is available for both.

Shaft Seals

A variety of shaft seals are available to prevent contaminants in the airstream from passing through the shaft hole in the fan housing. The shaft seal is provided as standard on all fans with applications over 150°C and fans with split housings. Although shaft seals minimize air leakage, they are not an air-tight design.

Drain

All fans are constructed with a drain hole in the bottom of the housing. A threaded pipe coupling is welded to the lowest point in the housing scroll to permit wash water or condensation to drain from the fan.

Flanged Inlet

A punched inlet flange is available for duct mounting.

Temperature and Vibration Detectors

Thermocouples or RTDs are available to install on the bearings. A variety of vibration switches are available.

Vibration Isolation Bases

Structural angle, structural channel, inertia bases, and unitary bases are available with or without spring isolators.

Screens

Safety screens are available for mounting in the fan inlet or outlet in non-ducted applications.

AIRSTREAM TEMPERATURE (°C)	IMPELLER MATERIAL STANDARD STEEL	
	DES. 17	DES. 14, 22, 26
20	1.00	1.00
90	0.99	0.97
120	0.98	0.96
150	0.98	0.95
175	0.97	0.94
205	0.96	0.93
230	0.94	0.92
260	0.93	0.92
290	0.92	0.91
315	0.90	0.90
345	0.89	0.89
370	0.88	0.87
400	0.87	0.86
425	0.84	0.84
Above 425	Consult Factory	



High Temperature Derating Factors

When elevated temperatures are encountered, maximum RPM allowable must be derated according to the table on the left. For stainless steel derates, contact the factory.

TEMPERATURE (°C)	TYPE OF BEARING	LUBRICATION	OTHER REQUIREMENTS	AVAILABLE ARRANGEMENTS
-30° to 150°	Ball or Roller	Grease	Standard Fan	1, 8, 9, 9F
151° to 260°	Ball or Roller	High Temp. Grease	Shaft Cooler, Shaft Seal Expansion & Non-Expansion Bearings	1, 8, 9, 9F
261° to 315°	Ball or Roller	High Temp. Grease	Same as 151° to 260° With Additional of High Temp Aluminum Paint	1, 8, 9, 9F
316° to 425°	Ball or Roller	High Temp. Grease	Same as 261° to 315° With Modification of Bearing Pedestal	1, 8, 9F

High Temperature Construction Requirements

The BCS product line is perfectly suited for high temperature airstream applications. The chart on the left refers to fans of carbon steel construction. When aluminum (spark resistant) or stainless steel construction is required, additional fan modifications may be required. Contact factory in these cases.

Performance Correction For Temperature & Altitude

The performance curves in this catalogue are based on fans handling standard air at a density of 1.2 kg/m³. This is equivalent to air at 21°C at sea level (101.325 kPa barometric pressure). Thus, when specified performance is at a density different than

standard, it must be converted to the equivalent standard conditions before entering the performance curves. The equivalent standard conditions can be calculated by using the Temperature and Altitude Density Ratios shown below.

Temperature and Altitude Density Ratios

AIR TEMP °C	ALTITUDE IN METRES ABOVE SEA LEVEL											
	0	300	600	900	1200	1500	1750	2000	2400	2800	3500	4500
	BAROMETRIC PRESSURE IN kPa											
	101.32	97.77	94.32	90.97	87.71	84.55	81.99	79.49	75.62	71.91	65.76	57.73
-40	1.258	1.214	1.171	1.129	1.089	1.050	1.018	0.987	0.939	0.893	0.816	0.717
-20	1.158	1.117	1.078	1.040	1.002	0.966	0.937	0.909	0.864	0.822	0.752	0.660
10	1.035	0.999	0.963	0.929	0.896	0.864	0.838	0.812	0.772	0.735	0.672	0.590
20	1.000	0.965	0.931	0.898	0.866	0.835	0.809	0.785	0.746	0.710	0.649	0.570
40	0.936	0.903	0.871	0.840	0.810	0.781	0.757	0.734	0.699	0.664	0.608	0.533
65	0.867	0.837	0.807	0.778	0.751	0.724	0.702	0.680	0.647	0.615	0.563	0.494
100	0.786	0.758	0.732	0.706	0.680	0.656	0.636	0.617	0.587	0.558	0.510	0.448
125	0.736	0.710	0.685	0.661	0.637	0.614	0.596	0.577	0.549	0.522	0.478	0.419
150	0.693	0.669	0.645	0.622	0.600	0.578	0.561	0.544	0.517	0.492	0.450	0.395
175	0.654	0.631	0.609	0.587	0.566	0.546	0.529	0.513	0.488	0.464	0.424	0.373
200	0.619	0.597	0.576	0.556	0.536	0.517	0.501	0.486	0.462	0.439	0.402	0.353
225	0.588	0.567	0.547	0.528	0.509	0.491	0.476	0.461	0.439	0.417	0.382	0.335
250	0.560	0.540	0.521	0.503	0.485	0.467	0.453	0.439	0.418	0.397	0.363	0.319
275	0.535	0.516	0.498	0.480	0.463	0.446	0.433	0.420	0.399	0.380	0.347	0.305
300	0.511	0.493	0.476	0.459	0.442	0.426	0.414	0.401	0.381	0.363	0.332	0.291
350	0.470	0.454	0.438	0.422	0.407	0.392	0.380	0.369	0.351	0.334	0.305	0.268
375	0.452	0.436	0.421	0.406	0.391	0.377	0.366	0.355	0.337	0.321	0.293	0.258
400	0.435	0.420	0.405	0.391	0.377	0.363	0.352	0.341	0.325	0.309	0.282	0.248
425	0.420	0.405	0.391	0.377	0.364	0.350	0.340	0.330	0.313	0.298	0.273	0.239
450	0.405	0.391	0.377	0.364	0.351	0.338	0.328	0.318	0.302	0.287	0.263	0.231
500	0.379	0.366	0.353	0.340	0.328	0.316	0.307	0.297	0.283	0.269	0.246	0.216
550	0.356	0.344	0.331	0.320	0.308	0.297	0.288	0.279	0.266	0.253	0.231	0.203
600	0.336	0.324	0.313	0.302	0.291	0.280	0.272	0.264	0.251	0.238	0.218	0.191

Maximum RPM, Impeller Weights & WR²

FAN SIZE	DESIGN 14			DESIGN 17			DESIGN 22			DESIGN 26		
	MAX. RPM	WEIGHT (kg)	WR ² (kg-m ²)	MAX. RPM	WEIGHT (kg)	WR ² (kg-m ²)	MAX. RPM	WEIGHT (kg)	WR ² (kg-m ²)	MAX. RPM	WEIGHT (kg)	WR ² (kg-m ²)
165	3241	14.1	0.34	4399 *	19.1	0.51	—	—	—	—	—	—
182	2931	18.6	0.51	3977	31.8	0.88	—	—	—	—	—	—
200	2674	24.0	0.84	3629	39.0	1.35	—	—	—	—	—	—
222	2404	37.2	1.5	3262	52.6	2.2	3777	57.2	2.5	—	—	—
245	2183	44.0	2.2	2963	63.5	3.2	3560	69.4	3.6	—	—	—
270	1981	48.1	3.5	2688	67.6	4.2	3112	73.5	4.7	3300	75.7	6.2
300	1783	59.4	5.4	2419	73.0	5.4	2801	78.5	6.2	3300	88.0	7.2
330	1621	84.4	9.2	2199	91.2	8.4	2546	93.9	9.0	3009	104	10
365	1467	102	12	1988	108	12	2302	133	16	2720	124	15
402	1329	120	18	1803	144	22	2088	158	25	2467	156	24
445	1202	187	33	1631	207	34	1888	223	38	2231	224	38
490	1092	218	48	1481	278	59	1780	311	69	2027	318	70
542	986	284	76	1338	381	101	1549	407	111	1831	417	113
600	892	338	112	1082	430	140	1401	446	147	1655	598	205
660	810	465	171	984	629	240	1273	594	222	1504	724	288
730	735	546	252	890	768	369	1180	702	328	1360	920	454
807	663	677	394	804	914	547	1041	904	528	1230	1184	721
890	602	895	598	730	1085	803	944	1261	929	1116	1740	1305

* Maximum operating speed is limited to 4000 RPM. RPM listed above 4000 is for derating due to elevated temperatures.

Shaft & Bearings Data

FAN SIZE	DESIGN BCS	ARRANGEMENT 1, 9 & 9F			ARRANGEMENT 8	
		MAX. MTR. Kw	SHAFT DIA.	BRGS.	SHAFT DIA.	BRGS.
165	14	7.5	30	SDB	25	SDB-C
	17	11	42	HDB	30	SDB-C
182	14	7.5	38	HDB	25	SDB-C
	17	18.5	42	RB-C	38	SDB-C
200	14	11	38	HDB	25	SDB-C
	17	22	50	RB-C	46	SDB-C
222	14	11	42	HDB	30	SDB-C
	17	30	50	RB-C	50	SDB-C
	22	45	65	RB-C	46	SDB-C
245	14	11	50	HDB	30	HDB-C
	17	37	55	RB-C	55	HDB-C
	22	55	65	RB-C	55	HDB-C
270	14	18.5	50	HDB	38	SDB-C
	17	55	55	RB-C	55	HDB-C
	22	45	65	RB-C	55	SDB-C
	26	55	75	SRB	55	HDB-C
300	14	22	55	HDB	38	HDB
	17	55	65	RB-C	65	HDB-C
	22	55	70	RB-C	55	SDB-C
	26	110	75	SRB	65	HDB-C
330	14	30	55	HSB	42	HDB
	17	55	65	RB-C	65	HDB-C
	22	110	75	RB-C	65	HDB-C
	26	110	75	SRB	65	RB-C
365	14	37	65	HDB	42	RB
	17	90	70	RB-C	50	RB
	22	110	75	RB-C	65	RB-C
	26	185	90	SRB	70	RB-C
402	14	45	65	RB	50	RB
	17	110	75	RB-C	55	RB
	22	150	90	RB-C	65	RB-C
	26	260	100	SRB	75	RB-C

FAN SIZE	DESIGN BCS	ARRANGEMENT 1, 9 & 9F			ARRANGEMENT 8	
		MAX. MTR. Kw	SHAFT DIA.	BRGS.	SHAFT DIA.	BRGS.
445	14	55	70	RB	55	RB
	17	150	90	RB-C	75	HDB
	22	220	100	RB-C	75	RB-C
	26	260	100	SRB	75	RB-C
490	14	75	75	RB	55	RB
	17	185	100	RB-C	70	RB-C
	22	260	100	RB-C	75	RB-C
	26	300	115	SRB	90	RB-C
542	14	90	90	RB	70	RB
	17	220	100	RB-C	75	RB-C
	22	300	115	RB-C	90	RB-C
	26	370	125	SRB	90	RB-C
600	14	90	90	RB	70	RB
	17	185	100	RB-C	75	RB
	22	370	125	SRB	90	RB-C
	26	370	125	SRB	100	RB-C
660	14	110	100	RB	90	RB
	17	220	100	RB-C	90	RB
	22	370	125	SRB	100	RB-C
	26	370	125	SRB	125	RB-C
730	14	150	100	RB	90	RB
	17	260	115	RB-C	100	RB
	22	370	125	SRB	115	RB-C
	26	370	Enquire	SRB	125	RB-C
807	14	185	115	SRB	100	RB
	17	330	125	SRB	115	RB
	22	370	125	SRB	115	RB
	26	370	Enquire	SRB	Enquire	SRB
890	14	220	125	SRB	115	RB
	17	370	125	SRB	125	RB
	22	370	125	SRB	125	RB-C
	26	370	Enquire	SRB	Enquire	HSRB

BEARING CODES:

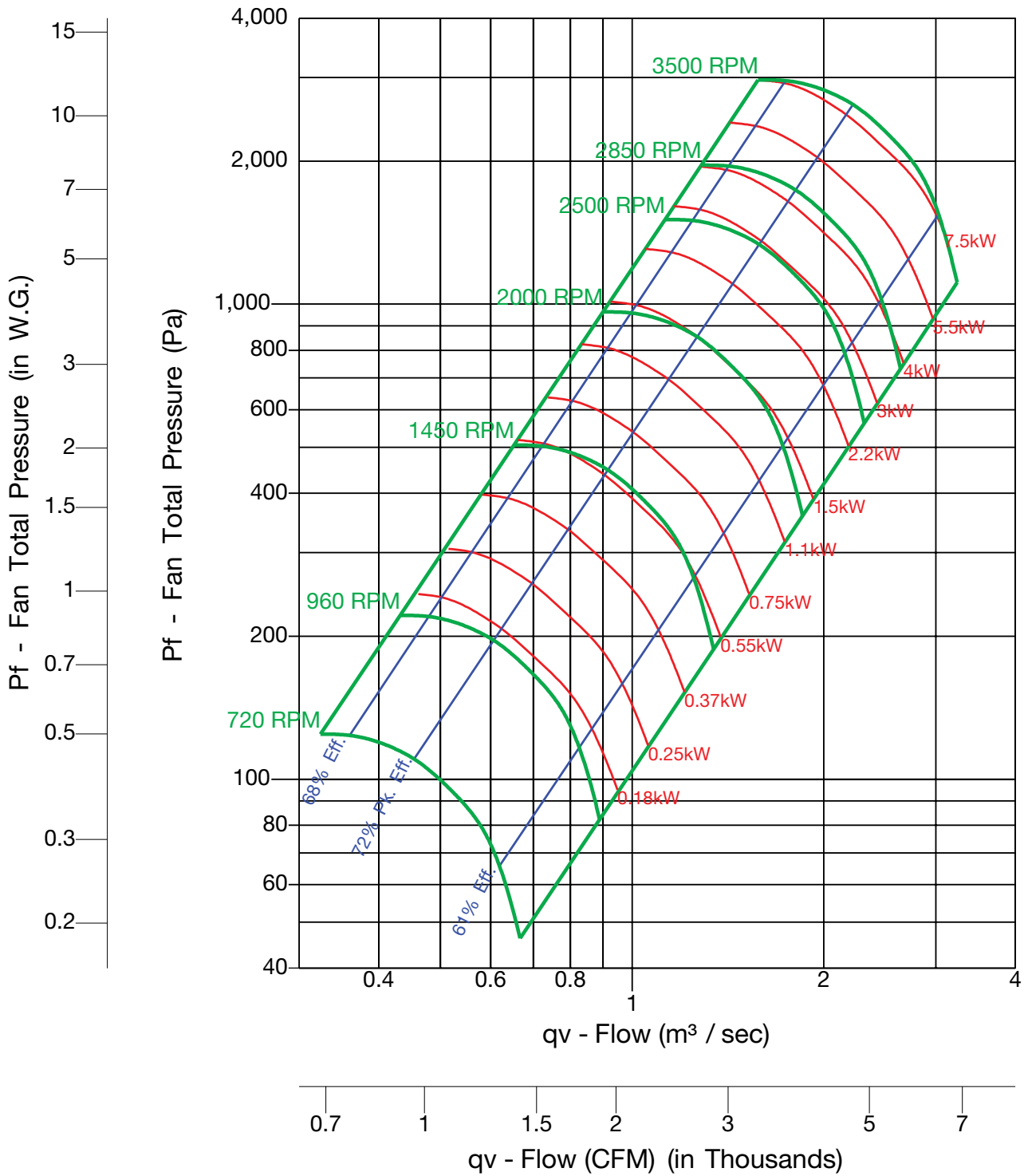
- SDB = Standard Duty Ball Bearing
- HDB = Heavy Duty Ball Bearing
- RB = Roller Bearing
- RB-C = Concentric Roller Bearing
- SRB = Roller Bearing with Split Pillow Block Housing
- HSRB = High-Speed Roller Bearing with Split Pillow Block Housing

Bare Fan Weights (kg)

FAN SIZE	DESIGN 14				DESIGN 17				DESIGN 22				DESIGN 26	
	ARR. 1	ARR. 8	ARR. 9	ARR. 9F	ARR. 1	ARR. 8	ARR. 9	ARR. 9F	ARR. 1	ARR. 8	ARR. 9	ARR. 9F	ARR. 1	ARR. 8
165	122.7	138.6	145.5	—	150	156.4	190.9	—	—	—	—	—	—	—
182	145.5	164.1	172.7	—	177.3	195.9	227.3	—	—	—	—	—	—	—
200	159.1	183.6	186.4	—	209.1	267.3	268.2	—	—	—	—	—	—	—
222	209.1	237.7	227.3	—	254.5	285.5	309.1	—	318.2	419.1	404.5	405.9	—	—
245	240.9	293.2	263.6	—	322.7	400	381.8	—	350	505.9	427.3	428.6	—	—
270	—	—	—	—	357	465	375	393	493	641	518	543	583	758
300	—	—	—	—	446	580	469	491	511	665	537	563	692	900
330	—	—	—	—	541	703	568	595	691	898	725	760	883	1148
365	495	642	520	544	650	845	682	715	859	1116	901	945	1064	1383
402	639	830	671	703	823	1070	864	905	1085	1410	1139	1193	1380	1793
445	755	978	792	829	1009	1311	1059	1110	1419	1845	1490	1561	1691	2198
490	882	1143	925	969	1278	1661	1342	1406	1695	2204	1780	1865	2077	2700
542	1294	1670	1357	1420	1685	2191	1770	1854	2160	2808	2268	2376	2561	3330
600	1519	1960	1592	1666	2027	2635	2129	2230	2580	3354	2709	2838	3075	3998
660	1934	2508	2030	2125	2517	3272	2643	2769	3120	4056	3276	3432	3605	4685
730	2361	3061	2478	2595	3182	4137	3341	3500	3681	4785	3865	4049	4365	5675
807	2393	3107	2512	—	3972	5164	4171	4370	4606	5988	4837	5067	5399	7019
890	3301	4282	3465	—	4697	6106	4932	5167	5621	7307	5902	6183	6868	8929



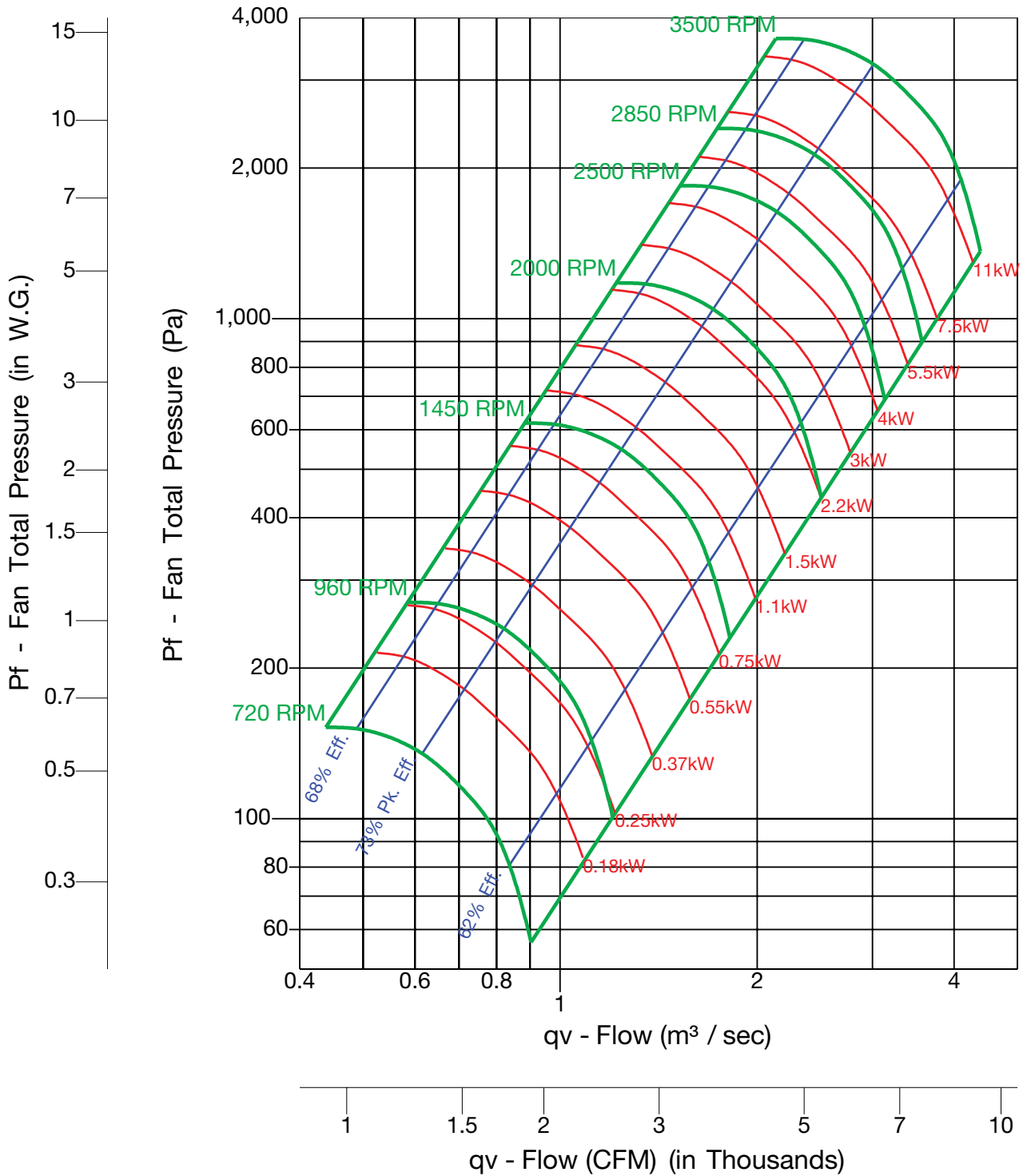
BCS 165



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 LwIA 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.

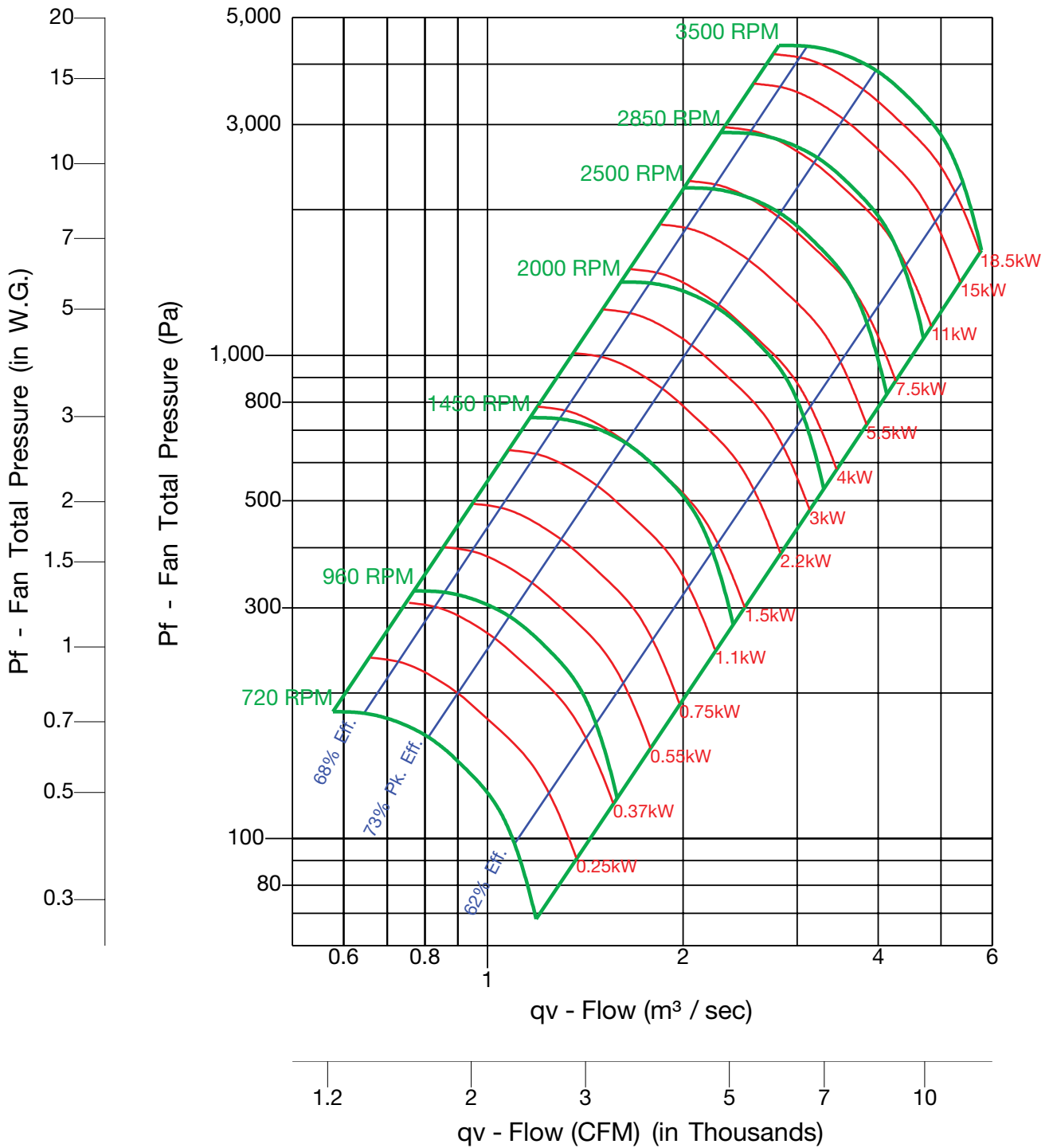
BCS 182



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 LwIA 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.

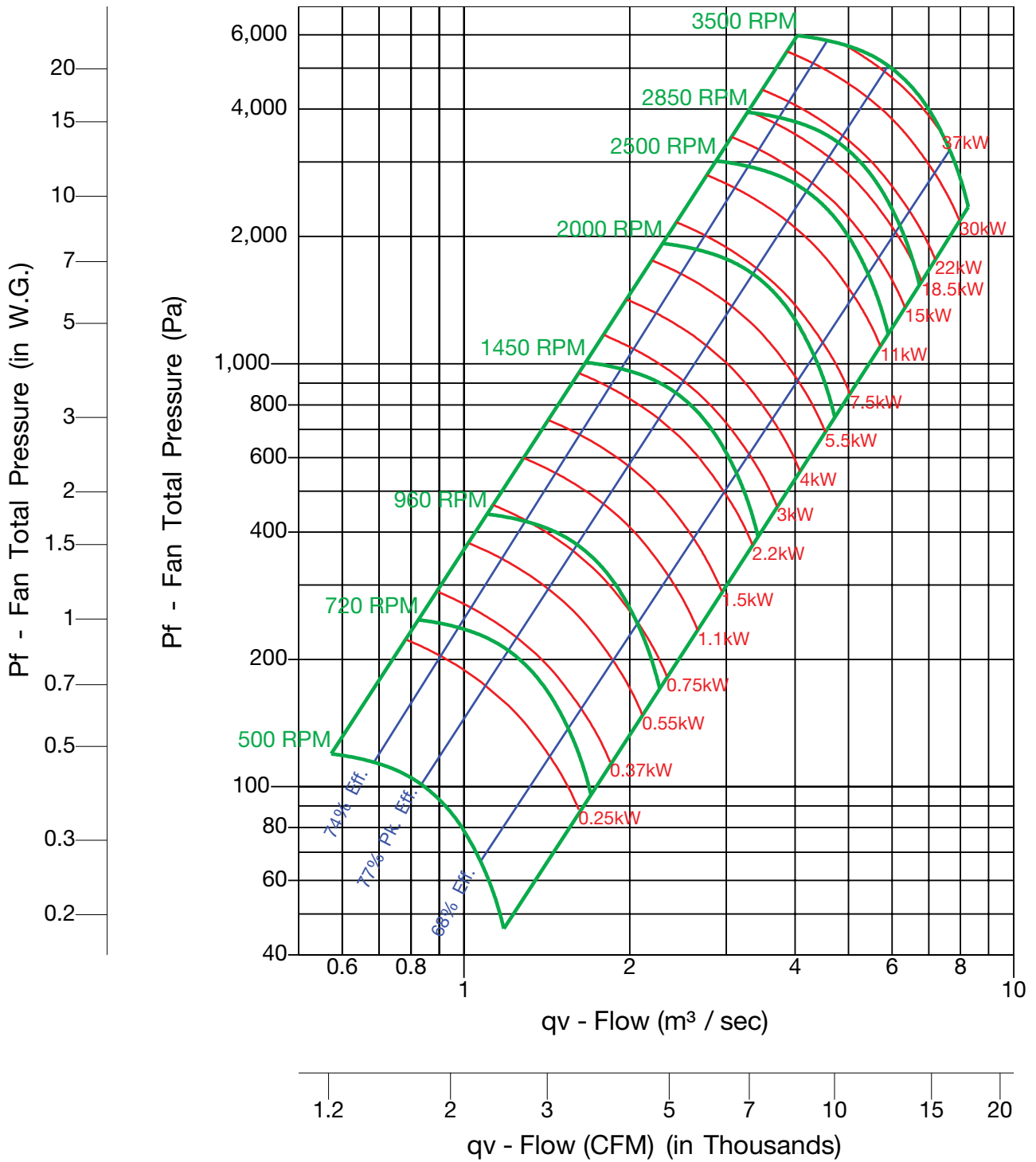
BCS 200



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.

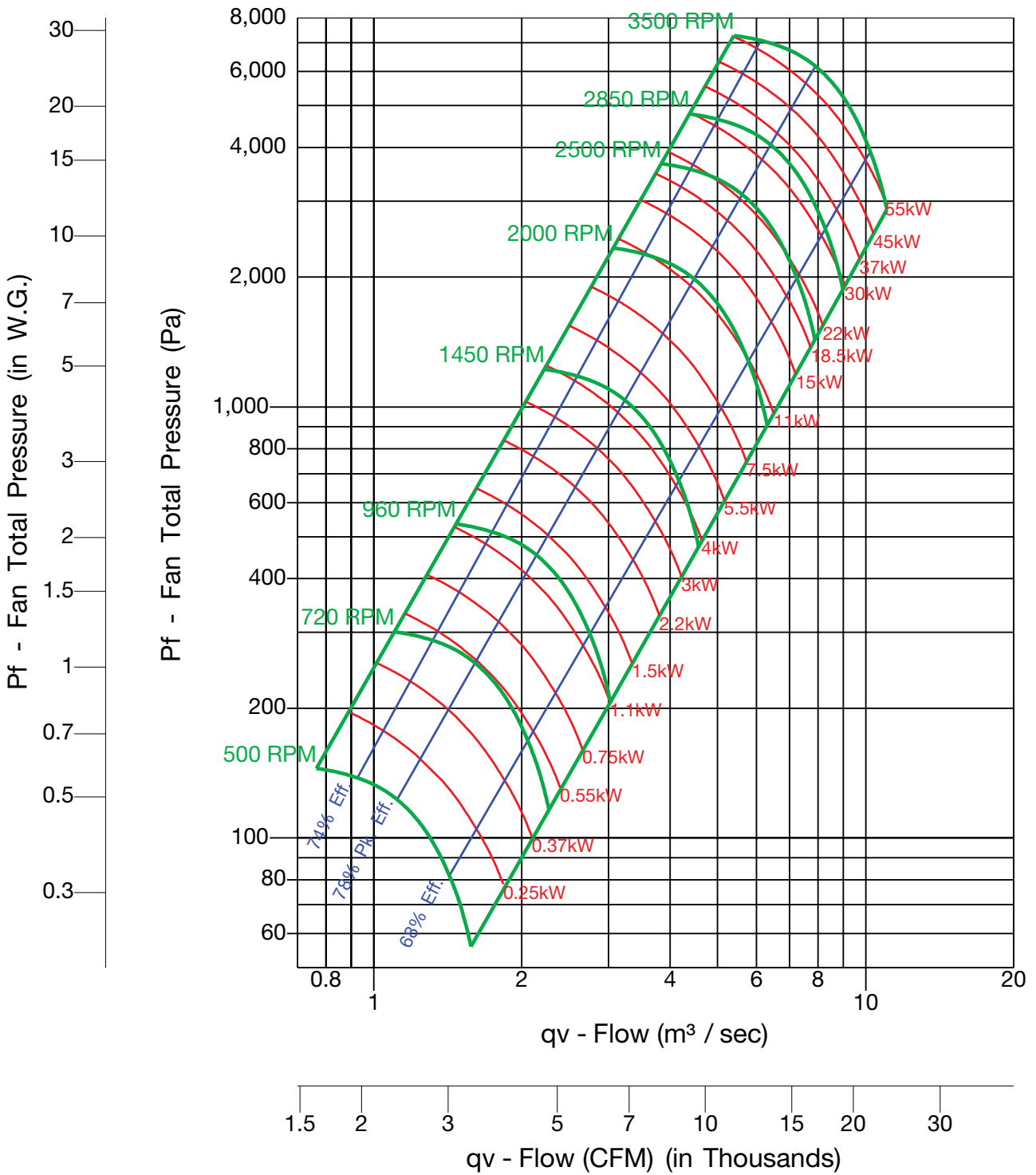
BCS 222



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 LwIA 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.

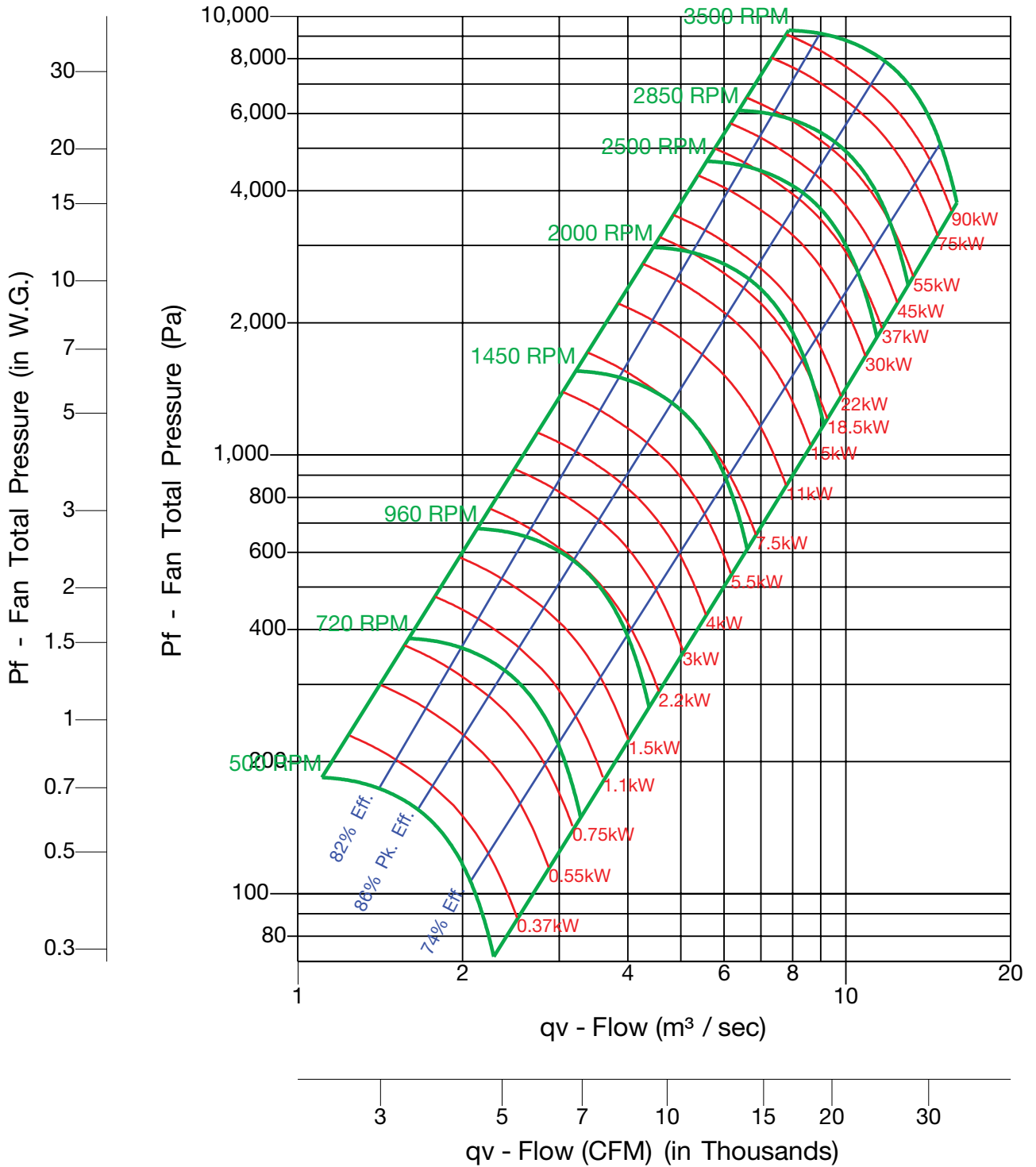
BCS 245



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 LwIA 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.

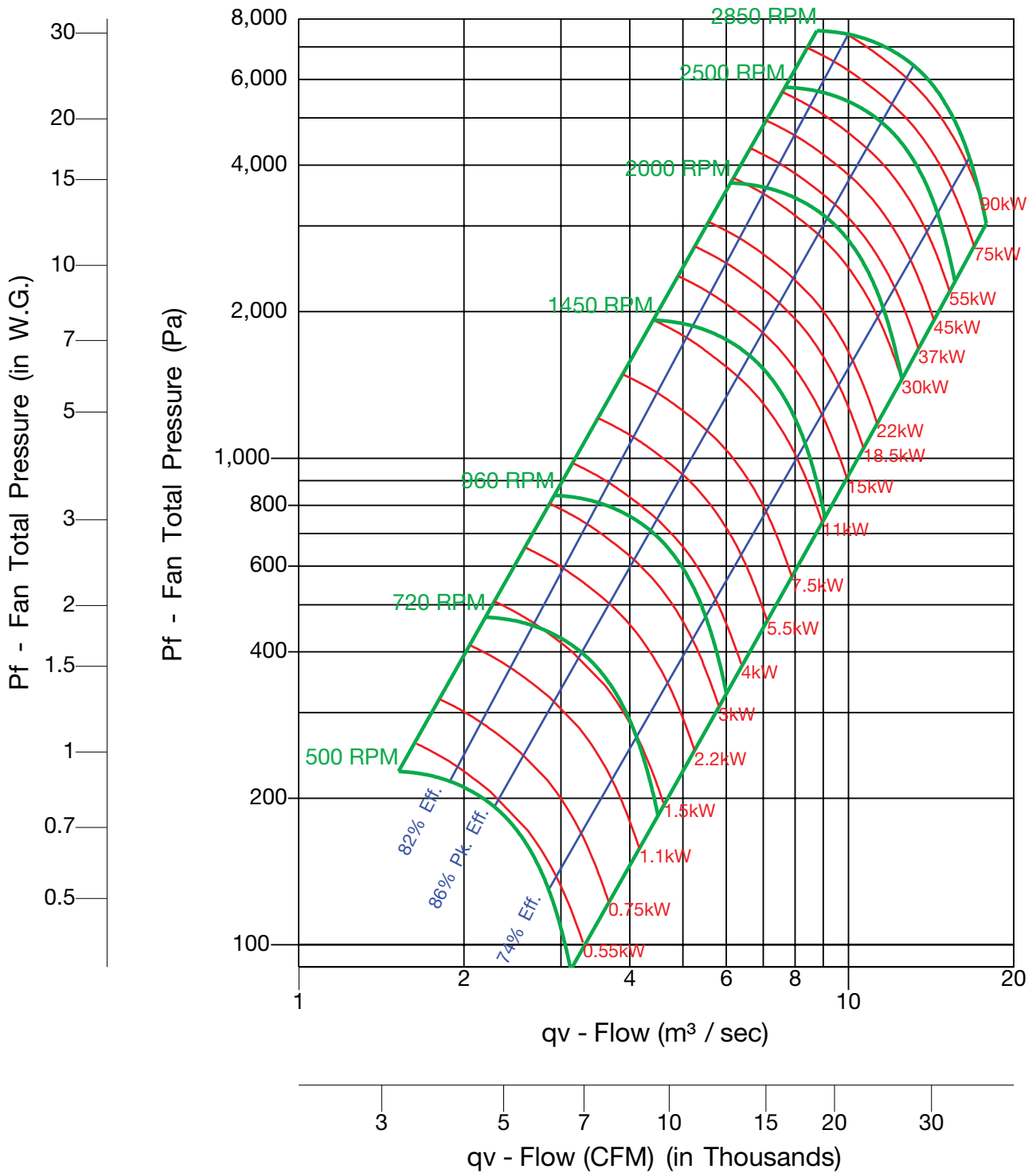
BCS 270



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 LwIA 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.

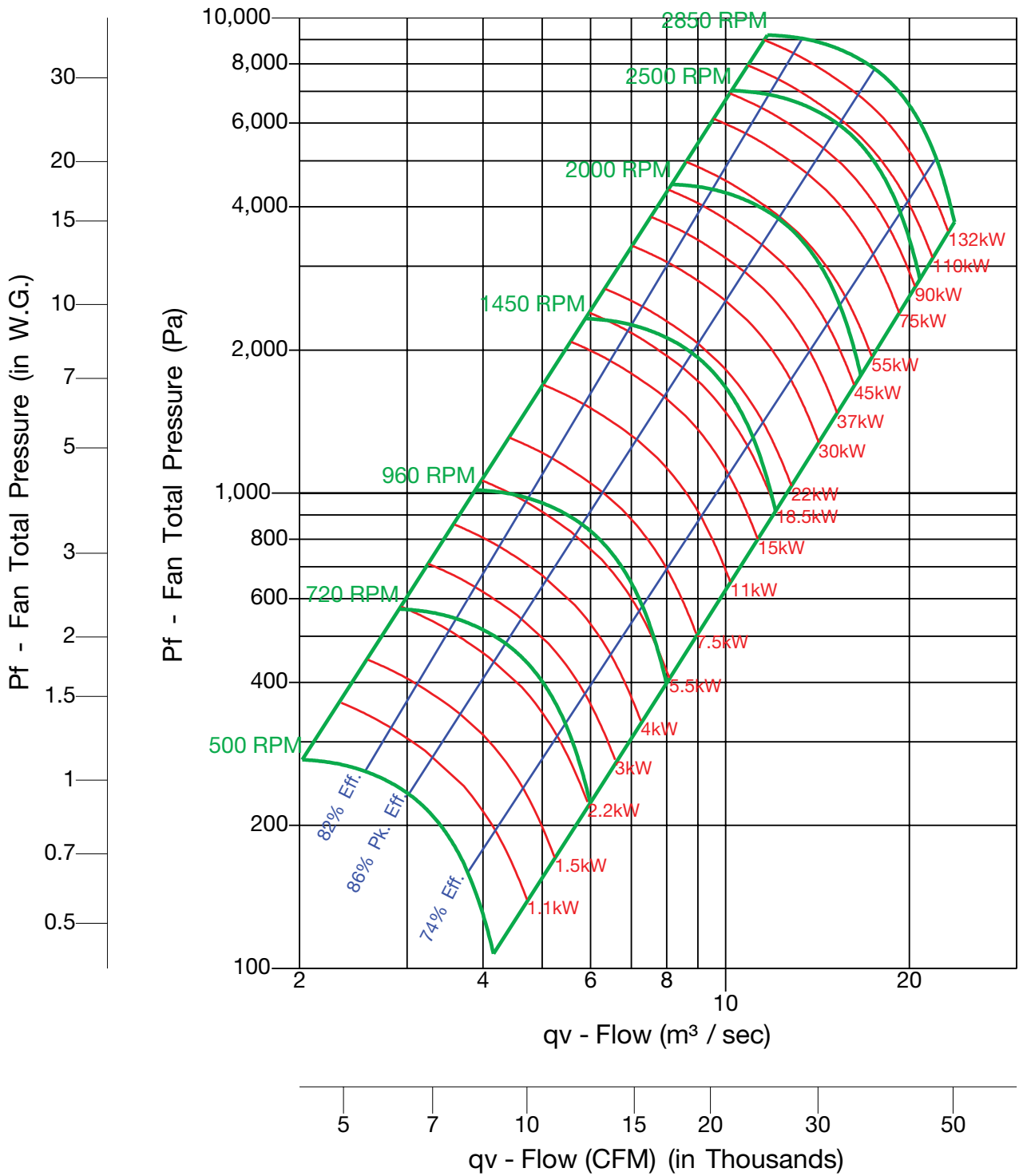
BCS 300



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.

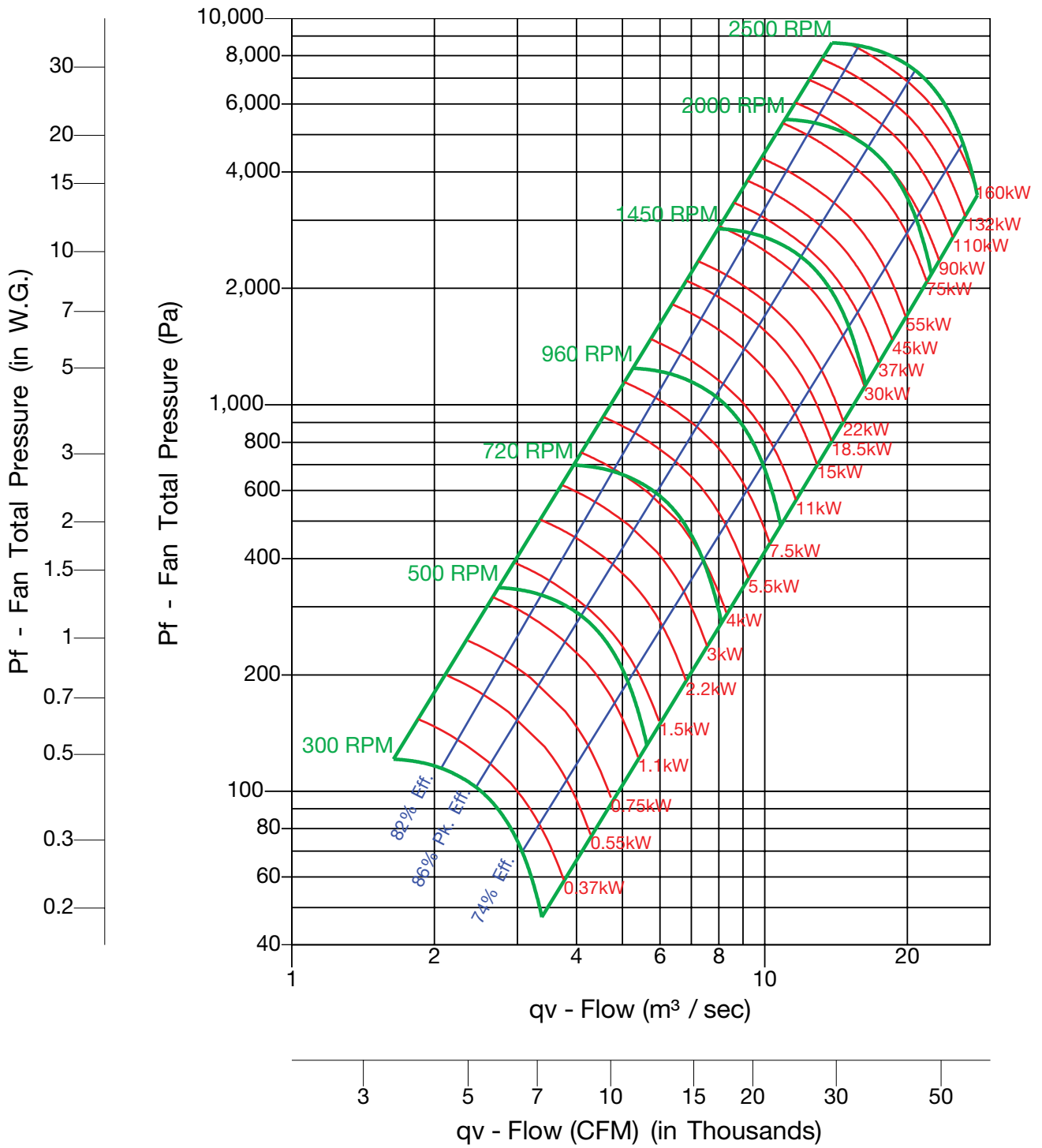
BCS 330



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.

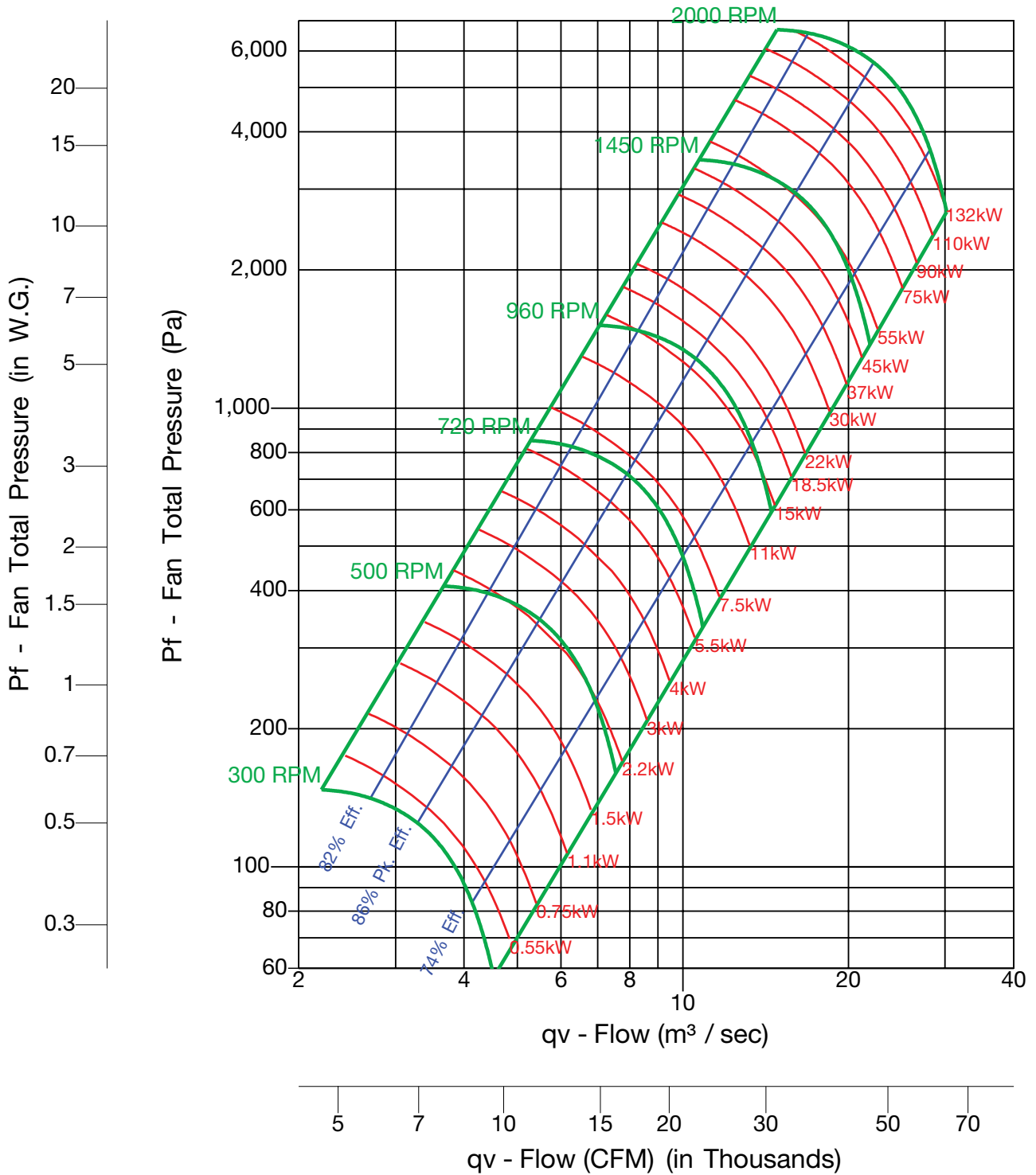
BCS 365



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.

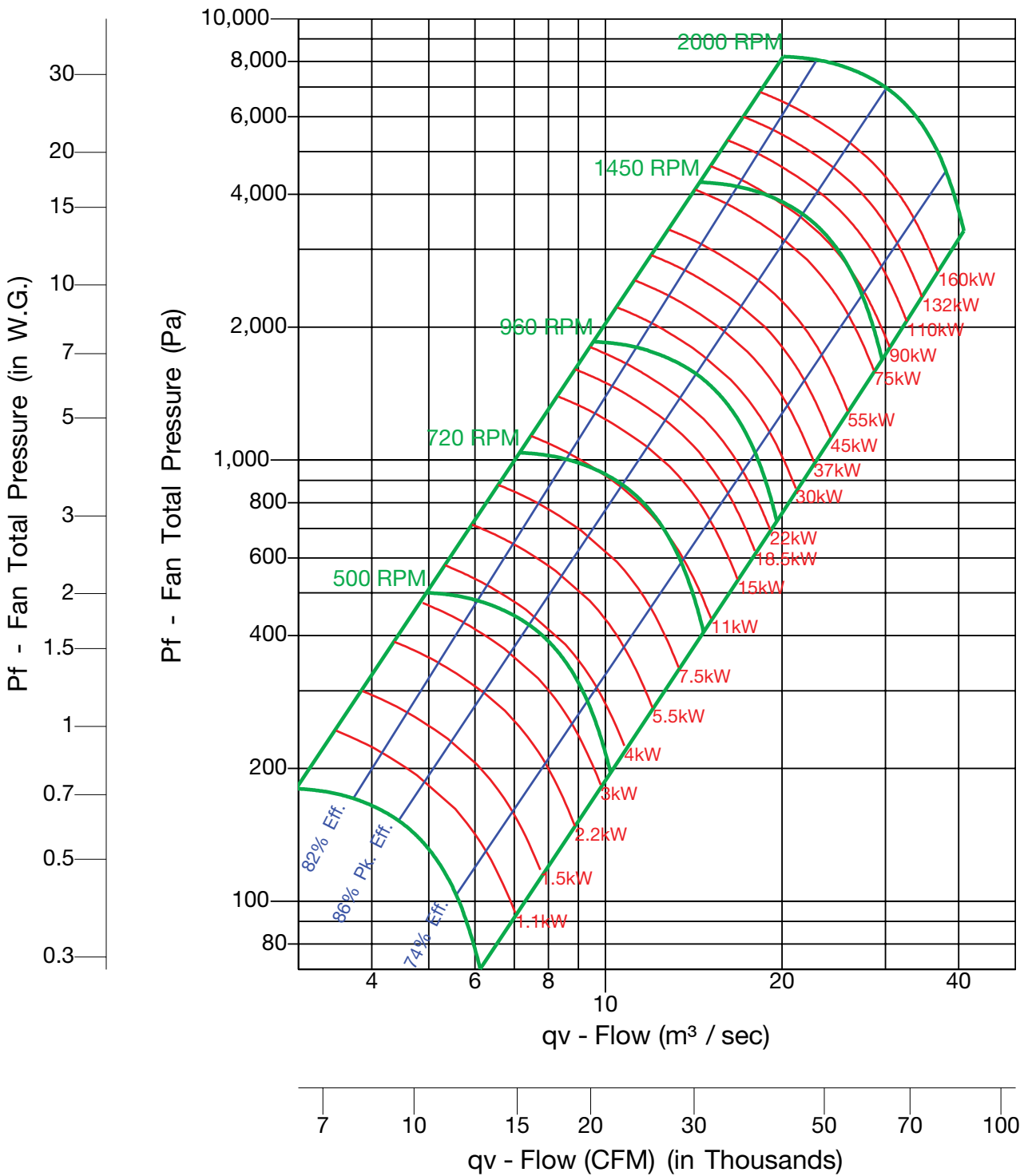
BCS 402



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 LwIA 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.

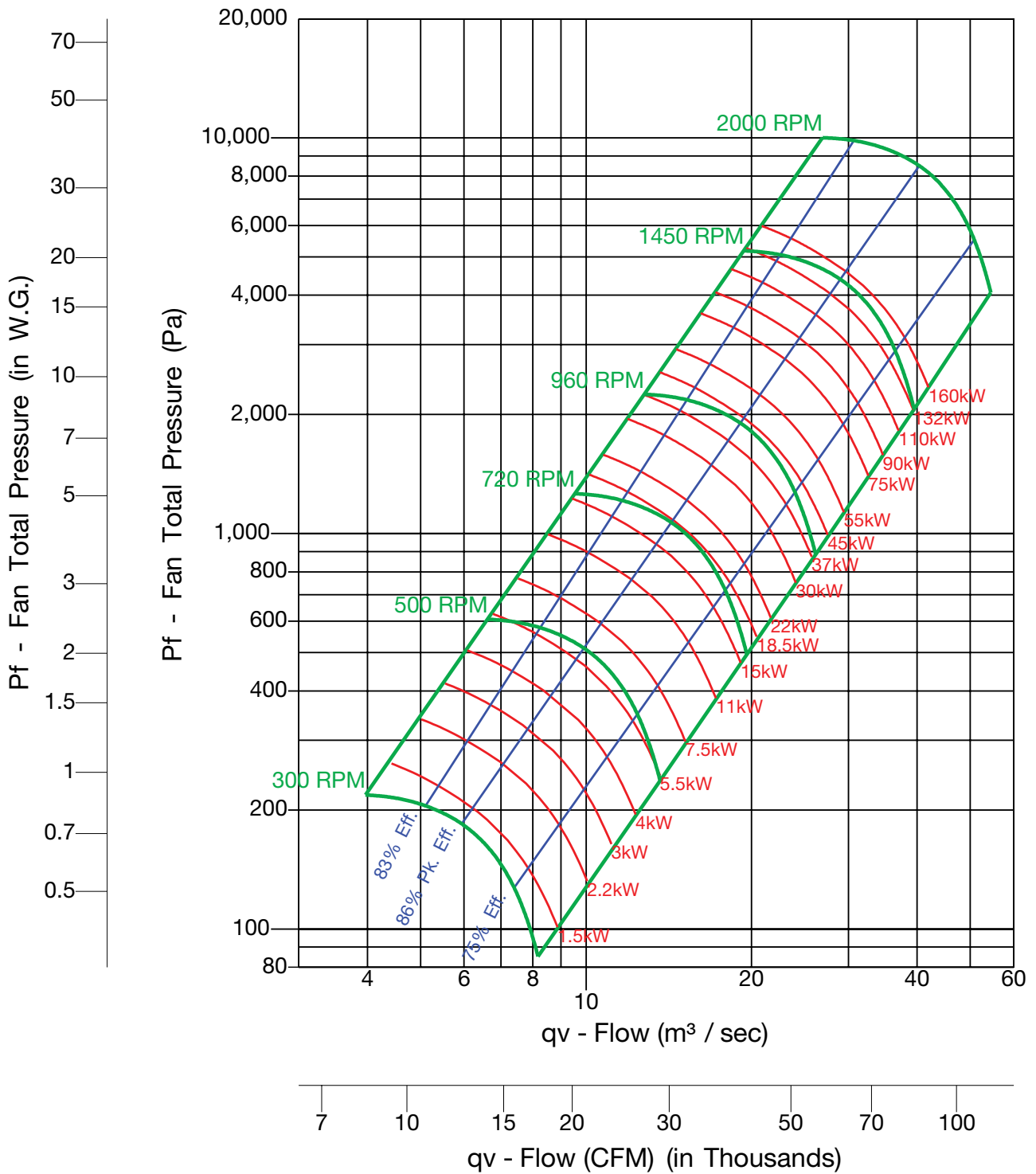
BCS 445



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.

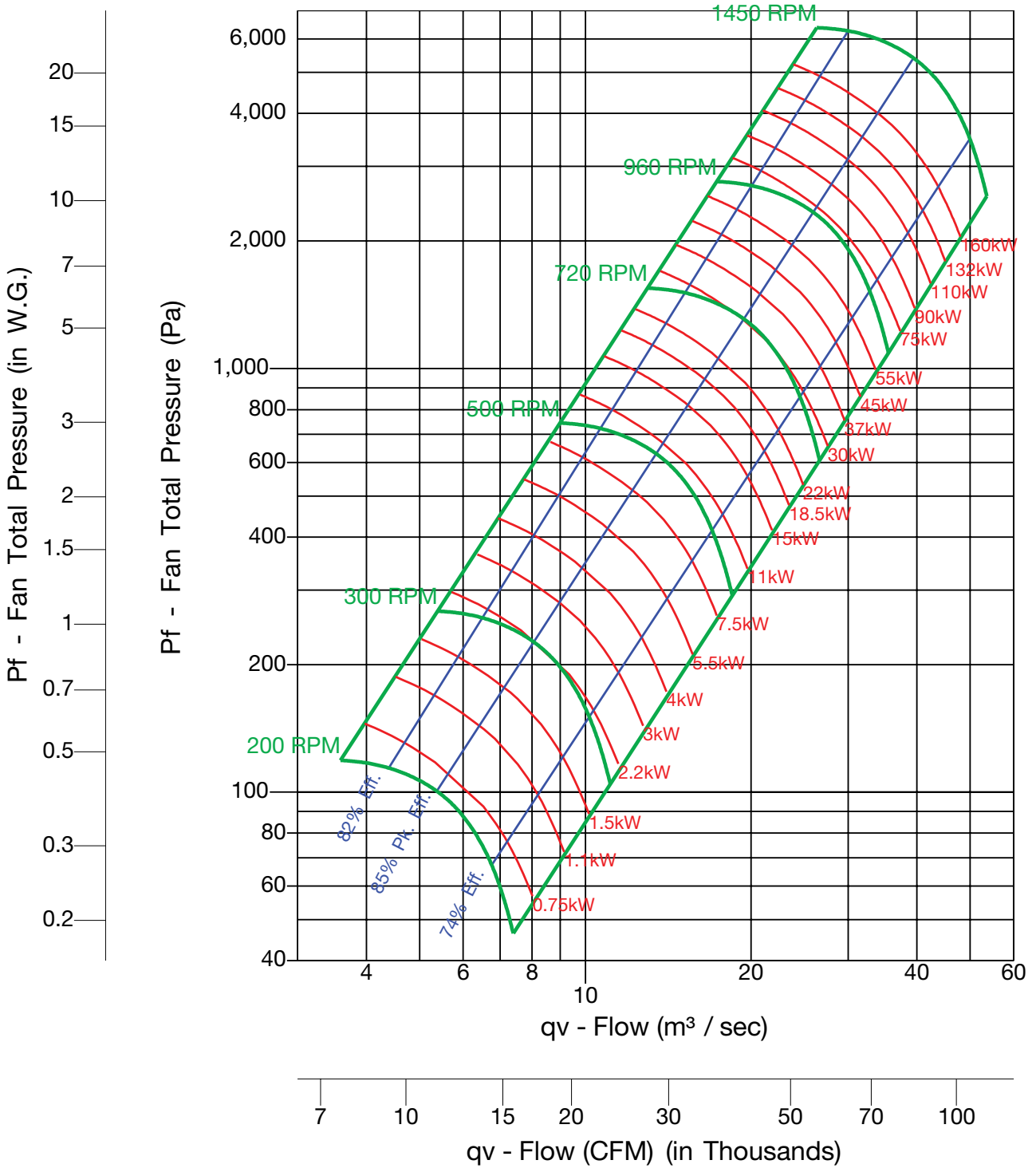
BCS 490



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.

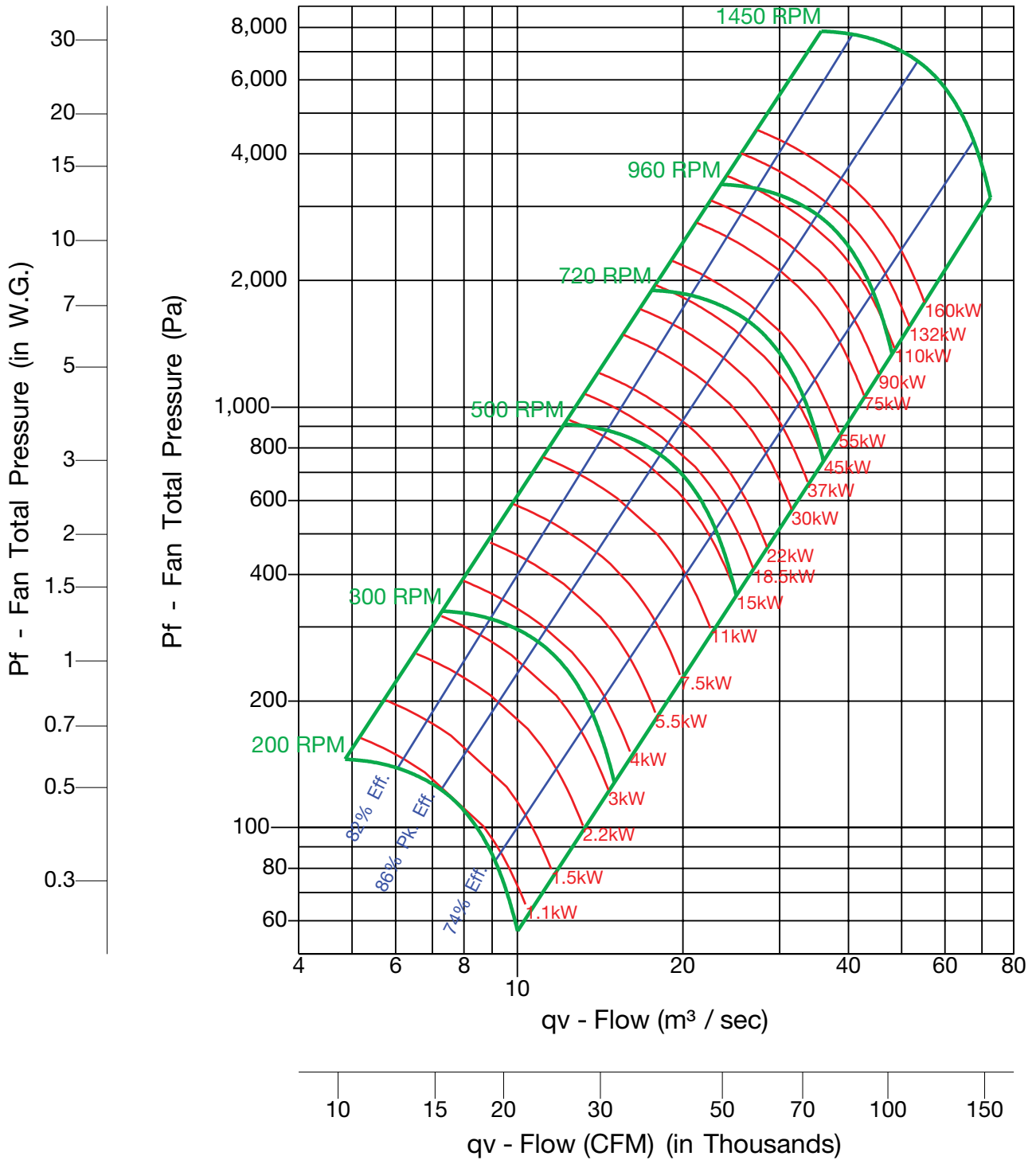
BCS 542



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.

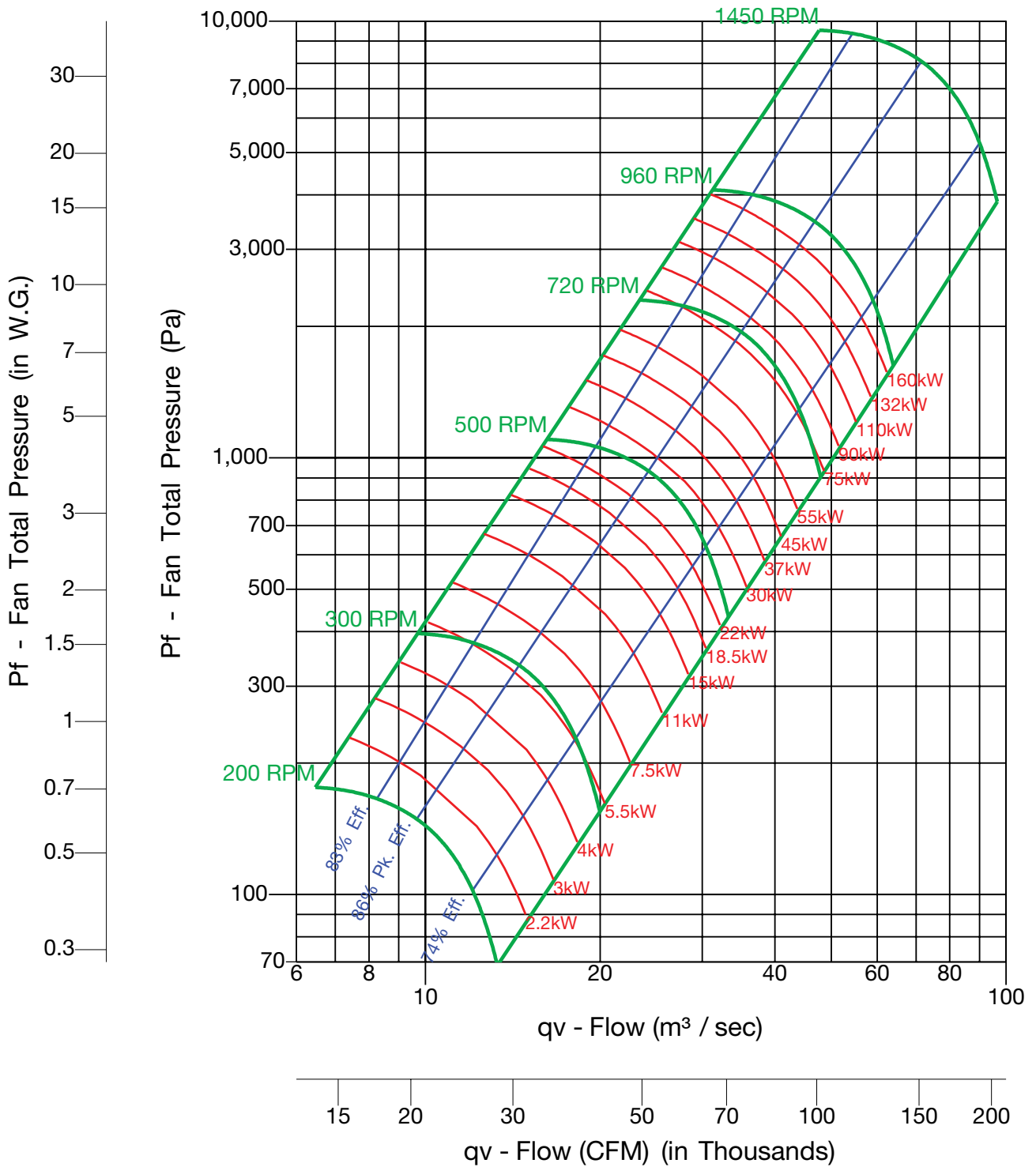
BCS 600



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 LwIA 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.

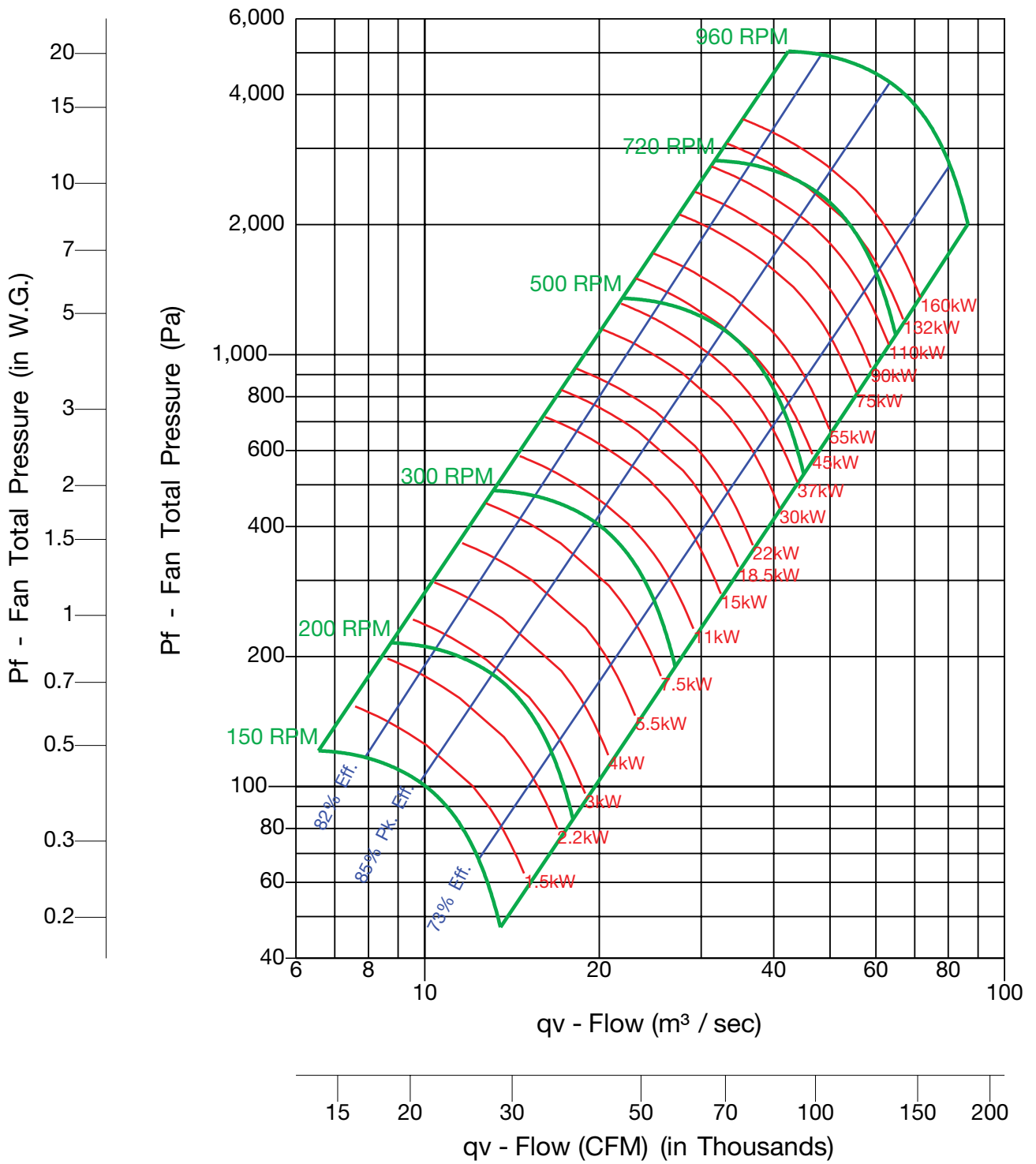
BCS 660



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.

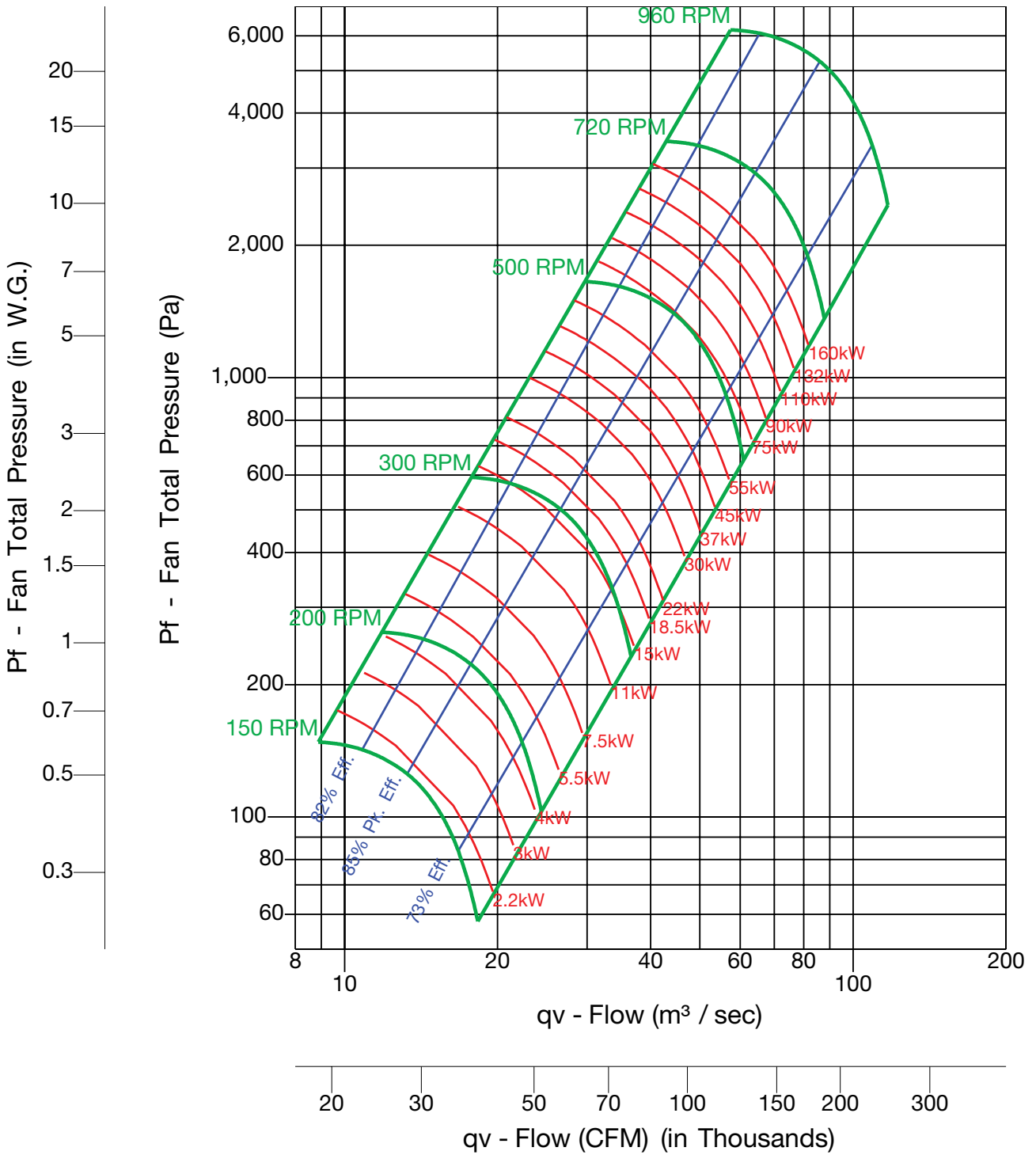
BCS 730



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.

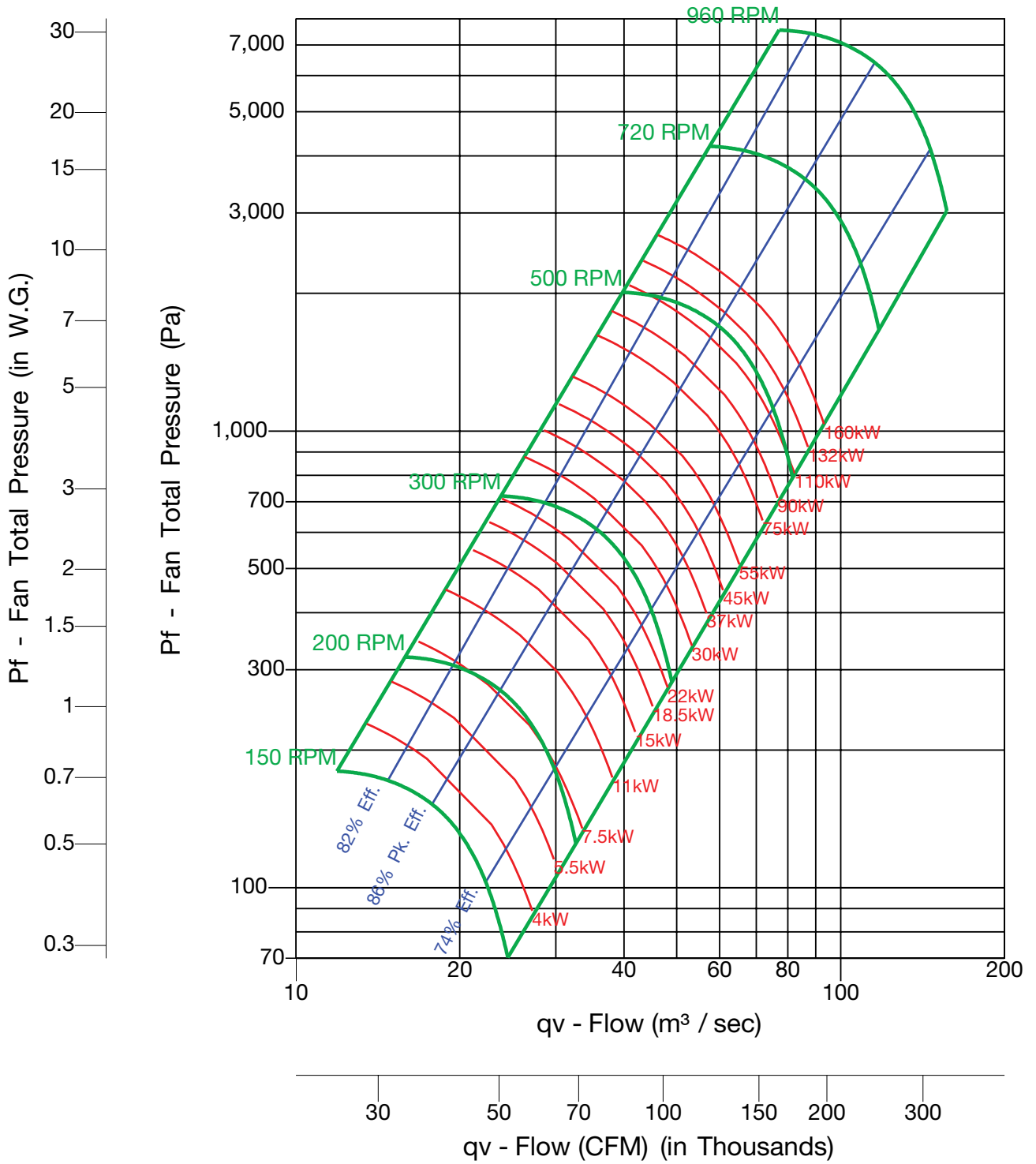
BCS 807



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.

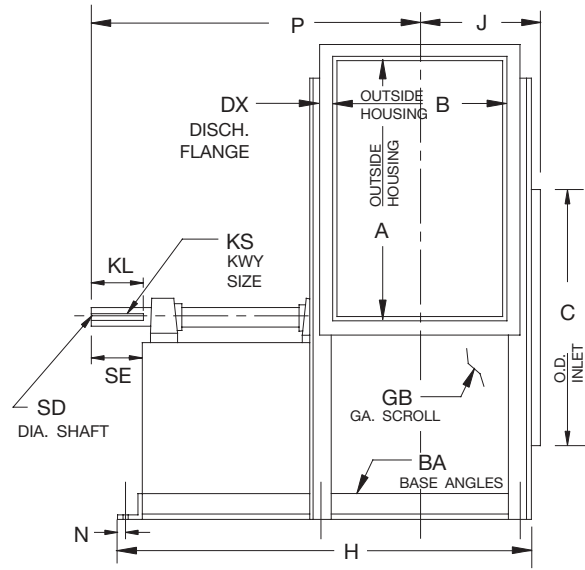
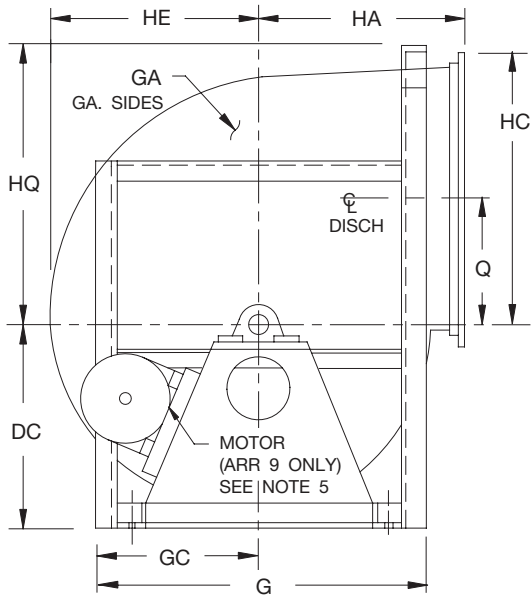
BCS 890



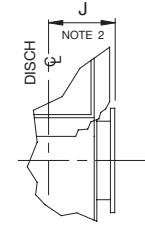
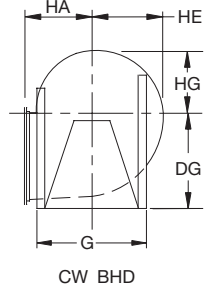
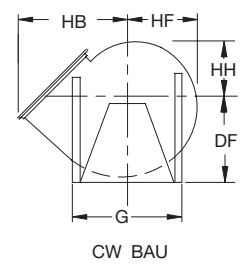
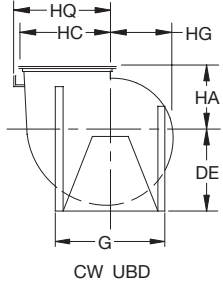
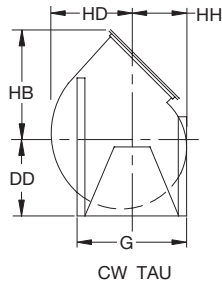
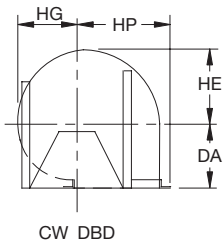
Notes:

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).
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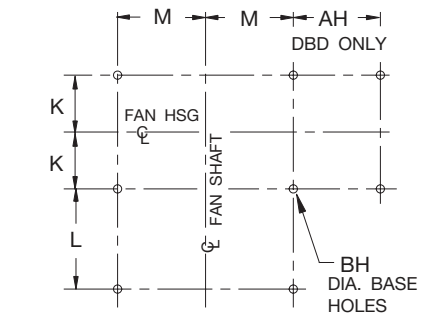
Arrangements 1 & 9, Class 14



CW THD



WITH OPTIONAL FLANGED INLET



FOUNDATION PLAN (FOR DBD SEE NOTE 1) MOTOR LOCATION 'L' (LEFT) SHOWN

SIZE	A	AH	B	BA	BH	C	DA		DC		DD		DE		DF	
							ARR 1	ARR 9	ARR 1	ARR 9	ARR 1	ARR 9	ARR 1	ARR 9	ARR 1	ARR 9
							SEE NOTE 4									
165	443	248	335	38 x 50	11	451	334	508	343	508	368	508	387	508	413	508
182	492	275	370	38 x 50	11	495	368	584	375	584	400	584	425	584	451	584
200	538	295	405	38 x 50	14	543	402	584	413	584	438	584	464	584	489	584
222	598	327	449	50 x 50	14	603	449	584	457	584	489	584	521	584	559	584
245	659	359	494	50 x 50	14	662	495	584	508	584	540	584	572	584	610	584
270	727	395	543	50 x 50	14	724	545	660	559	660	597	660	629	660	667	660
300	808	438	605	65 x 65	14	803	679	679	679	679	679	679	724	724	762	762
330	892	484	662	65 x 65	14	883	762	762	762	762	762	762	787	787	832	832
365	983	537	734	65 x 65	14	978	737	737	749	749	800	800	851	851	902	902
402	1083	592	808	75 x 75	21	1078	813	813	838	838	895	895	940	940	1003	1003
445	1197	656	894	75 x 75	21	1191	899	899	902	902	978	978	1016	1016	1099	1099
490	1319	715	981	75 x 75	21	1311	991	991	991	991	1073	1073	1118	1118	1207	1207
542	1457	808	1089	75 x 100	21	1451	1094	1094	1105	1105	1181	1181	1245	1245	1327	1327
600	1613	887	1202	75 x 100	21	1604	1211	1211	1219	1219	1302	1302	1372	1372	1461	1461
660	1770	994	1326	90 x 125	21	1762	1332	1332	1334	1334	1416	1416	1499	1499	1600	1600
730	1962	1083	1462	90 x 125	21	1949	1473	1473	1448	1448	1568	1568	1638	1638	1765	1765
807	2170	1195	1616	90 x 125	21	2156	1630	1630	1600	1600	1715	1715	1829	1829	1943	1943
890	2391	1276	1781	90 x 125	21	2372	1778	1778	1759	1759	1873	1873	1988	1988	2159	2159

SIZE	DG		DX	FR ARR 9	G	GA	GB	GC	H		HA	HB	HC	HD	HE	HF	HG
	ARR 1	ARR 9							ARR 1	ARR 9							
165	495	508	25 x 25	132M	616	2	2	308	743	930	334	565	467	383	359	338	318
182	559	584	32 x 32	160M	660	2.5	2	330	803	1076	368	630	522	424	399	375	351
200	610	584	32 x 32	160M	711	2.5	2	356	864	1111	402	686	568	467	440	413	386
222	673	648	32 x 32	160L	794	2.5	2	397	972	1149	449	762	629	519	484	456	427
245	730	711	32 x 32	160L	851	2.5	2	425	1054	1194	495	838	689	568	533	502	470
270	800	775	38 x 38	180M	914	2.5	2	457	1153	1314	545	926	764	627	589	554	519
300	902	902	38 x 38	180L	1041	3	2.5	521	1416	1416	605	1024	845	697	654	616	578
330	991	991	38 x 38	200M	1118	3	2.5	559	1540	1540	667	1129	929	765	721	678	635
365	1041	1041	38 x 38	200M	1219	3	2.5	610	1610	1610	737	1242	1019	851	800	753	705
402	1156	1156	38 x 38	200L	1334	3	2.5	667	1724	1724	813	1367	1119	940	881	829	776
445	1270	1270	38 x 38	225S	1435	3	2.5	718	1851	1851	899	1508	1233	1038	972	914	857
490	1391	1391	50 x 50	225S	1562	3	2.5	781	1946	1946	991	1669	1369	1140	1072	1008	945
542	1530	1530	50 x 50	250M	1702	3	2.5	851	2223	2223	1094	1838	1506	1264	1186	1116	1046
600	1683	1683	50 x 50	250M	1854	3	2.5	927	2330	2330	1211	2032	1662	1397	1313	1235	1157
660	1861	1861	65 x 65	250M	2032	3	2.5	1016	2572	2572	1332	2237	1832	1534	1443	1356	1268
730	2051	2051	65 x 65	250M	2235	3	3	1118	2785	2785	1473	2472	2023	1700	1597	1502	1407
807	2261	2261	65 x 65	250M	2426	3	3	1213	3013	3013	1630	2731	2230	1880	1765	1661	1556
890	2483	2483	65 x 65	250M	2705	5	3	1353	3255	3255	1778	2991	2451	2072	1946	1830	1715

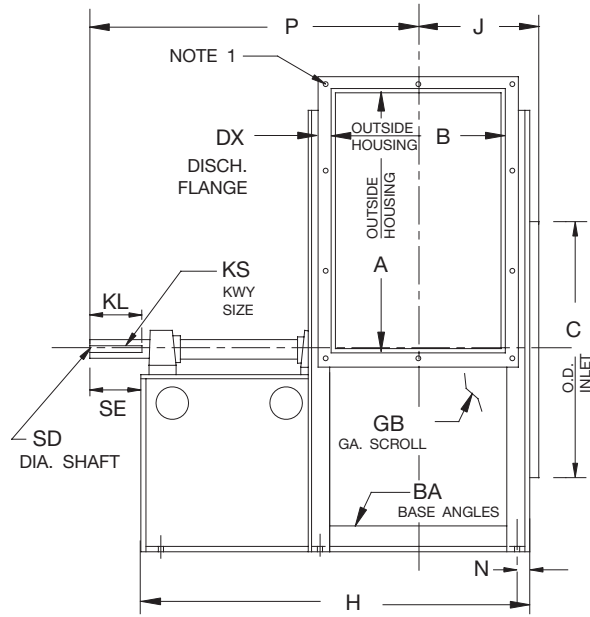
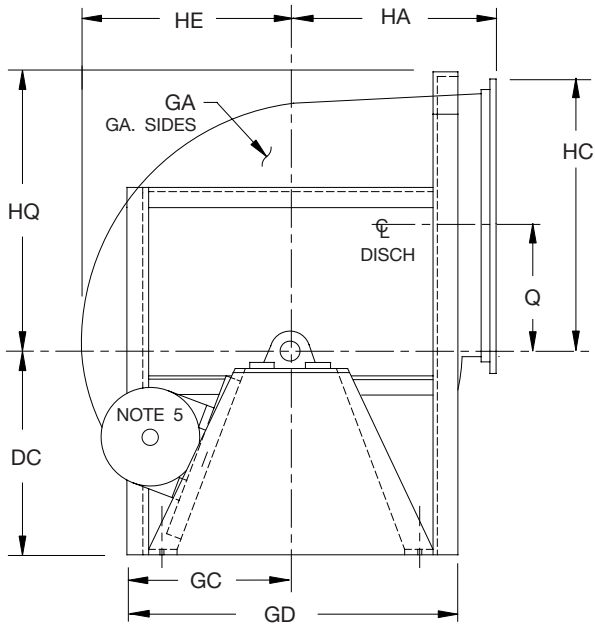
SIZE	HH	HP	HQ	J	K	KL	KS	L		M	N	P		Q	SD	SE
								ARR 1	ARR 9			ARR 1	ARR 9			
165	297	492	-	226	191	76	8 x 7	318	505	222	22	568	756	221	30	95
182	327	541	-	245	208	89	10 x 8	343	616	245	22	624	897	245	38	108
200	359	588	-	260	226	89	10 x 8	368	616	270	22	667	914	268	38	108
222	399	648	-	305	254	102	14 x 9	419	597	298	22	765	943	298	46	121
245	438	708	-	327	276	114	14 x 9	457	597	327	22	838	978	329	50	133
270	484	776	-	351	300	114	14 x 9	508	670	359	22	913	1075	362	50	133
300	540	870	-	394	338	127	16 x 10	683	683	403	29	1132	1132	402	55	146
330	592	954	-	422	367	127	16 x 10	749	749	441	29	1227	1227	445	55	146
365	657	1045	-	457	402	127	18 x 11	749	749	480	29	1262	1262	489	65	146
402	724	1157	-	508	446	127	18 x 11	762	762	530	35	1313	1313	540	65	146
445	800	1272	-	551	489	140	20 x 12	803	803	581	35	1410	1410	597	70	159
490	881	1394	-	594	532	140	20 x 12	813	813	645	35	1462	1462	657	75	159
542	976	1557	1518	673	598	152	25 x 14	930	930	702	48	1646	1646	727	90	171
600	1080	1713	1670	730	656	152	25 x 14	924	924	778	48	1697	1697	805	90	171
660	1181	1896	1835	818	730	178	28 x 16	991	991	842	60	1851	1851	883	100	197
730	1311	2086	2026	887	799	191	28 x 16	1067	1067	943	60	2008	2008	978	100	210
807	1451	2294	2229	960	875	203	32 x 18	1143	1143	1038	60	2180	2180	1083	115	229
890	1599	2515	2451	1043	957	203	32 x 18	1219	1219	1178	60	2338	2338	1192	125	229

AC17014D

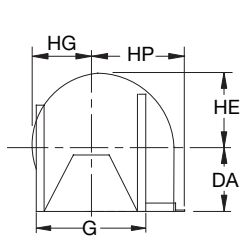
NOTES:

1. Punched outlet flanges are included on all discharges per AC14987, or for 'DBD' AC14868.
2. Optional punched inlet per AS363.
3. 'CW' rotation is shown. 'CCW' rotation is similar but opposite.
4. For fans with inlet box at 90° or 270° use 'BAU' discharge dimension 'DF' for centerline height.
5. 'FR' equals maximum motor frame.

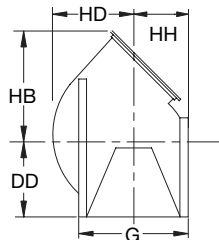
Arrangements 1 & 9, Class 17



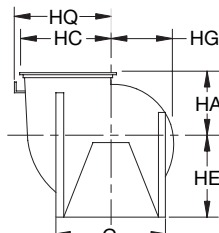
CW THD



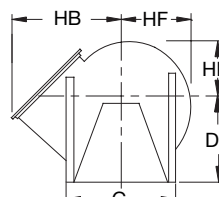
CW DBD



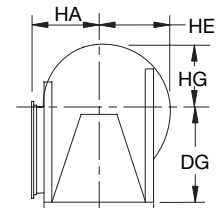
CW TAU



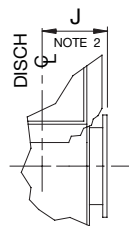
CW UBD



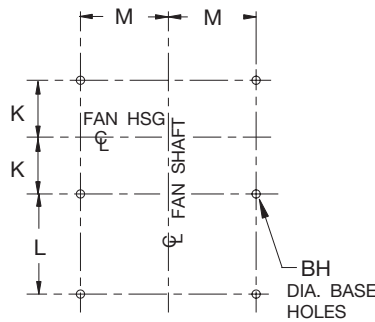
CW BAU



CW BHD



WITH OPTIONAL FLANGED INLET



FOUNDATION PLAN
(FOR DBD SEE NOTE 1)

SIZE	A	B	BA	BH	C	DA		DC		DD		DE		DF		DG	
						ARR 1	ARR 9	ARR 1	ARR 9	ARR 1	ARR 9	ARR 1	ARR 9	ARR 1	ARR 9	ARR 1	ARR 9
						SEE NOTE 4 FOR ARRANGEMENT 1											
165	446	338	38 x 50	11	451	334	603	343	603	368	603	387	603	413	603	495	603
182	495	372	50 x 50	14	495	368	667	375	667	400	667	425	667	451	667	559	667
200	541	406	50 x 50	14	543	402	749	413	749	438	749	464	749	489	749	610	749
222	602	451	65 x 65	14	603	449	762	457	762	489	762	521	762	559	762	673	762
245	665	499	65 x 65	14	662	495	768	508	768	540	768	572	768	610	768	730	768
270	734	548	65 x 65	14	724	545	838	559	838	597	838	629	838	667	838	800	838
300	813	608	75 x 75	21	803	605	851	622	851	660	851	699	851	749	851	883	883
330	897	665	75 x 75	21	883	667	959	686	959	724	959	762	959	819	959	959	959
365	988	737	75 x 75	21	978	737	959	749	959	800	959	851	959	902	959	1054	1054
402	1087	811	75 x 100	21	1078	813	1022	838	1022	895	1022	940	1022	1003	1022	1156	1156
445	1202	897	75 x 100	21	1191	899	1041	902	1041	978	1041	1016	1041	1099	1099	1270	1270
490	1324	984	75 x 100	21	1311	991	1041	991	1041	1073	1073	1118	1118	1207	1207	1391	1391
542	1462	1092	90 x 125	21	1451	1094	1094	1105	1105	1181	1181	1245	1245	1327	1327	1543	1543
600	1618	1205	90 x 125	21	1604	1211	1211	1219	1219	1302	1302	1372	1372	1461	1461	1695	1695
660	1775	1329	100 x 150	21	1762	1332	1332	1334	1334	1416	1416	1499	1499	1600	1600	1873	1873
730	1965	1465	100 x 150	21	1949	1473	1473	1448	1448	1568	1568	1638	1638	1765	1765	2064	2064
807	2173	1619	100 x 150	21	2156	1630	1630	1600	1600	1715	1715	1829	1829	1943	1943	2273	2273
890	2394	1781	100 x 150	21	2372	1778	1778	1759	1759	1873	1873	1988	1988	2159	2159	2496	2496

SIZE	DX	FR ARR 9	G	GA	GB	GC	GD	H		HA	HB	HC	HD	HE	HF	HG	HH	HP
								ARR 1	ARR 9									
165	32 x 32	160L	616	3	3	308	588	708	1045	334	572	475	384	360	340	319	298	494
182	32 x 32	180L	686	3	3	343	686	765	1134	368	630	524	425	400	376	353	329	543
200	32 x 32	200L	737	3	3	368	737	826	1207	402	687	570	467	441	414	387	360	589
222	32 x 32	200L	819	3	3	410	819	946	1276	449	764	630	521	486	457	429	400	662
245	38 x 38	200L	876	5	5	438	876	1032	1324	495	845	699	572	537	505	473	441	724
270	38 x 38	225M	940	5	5	470	940	1134	1403	545	927	767	630	592	557	522	487	792
300	38 x 38	225M	1067	5	5	533	1067	1257	1489	605	1026	846	699	656	617	579	541	884
330	38 x 38	250M	1143	5	5	572	1143	1365	1718	667	1129	930	767	722	679	637	594	969
365	38 x 38	250M	1245	5	5	622	1245	1473	1788	737	1243	1021	854	802	754	706	659	1059
402	50 x 50	250M	1334	5	5	667	1334	1626	2061	813	1376	1134	941	883	830	778	725	1184
445	50 x 50	250M	1435	5	5	718	1435	1788	2146	899	1518	1248	1041	973	916	859	802	1299
490	50 x 50	250M	1562	5	5	781	1562	1924	2232	991	1669	1370	1141	1073	1010	946	883	1421
542	65 x 65	250M	1702	5	5	851	1702	2083	2381	1094	1849	1521	1267	1187	1118	1048	978	1584
600	65 x 65	250M	1880	5	5	940	1880	2273	2496	1211	2042	1676	1399	1314	1237	1159	1081	1740
660	65 x 65	250M	2032	5	5	1016	2032	2499	2670	1332	2239	1834	1537	1445	1357	1270	1183	1923
730	65 x 65	250M	2235	5	5	1118	2235	2711	2807	1473	2473	2024	1702	1599	1503	1408	1313	2113
807	65 x 65	250M	2451	5	5	1226	2451	2940	2959	1630	2731	2232	1883	1767	1662	1557	1453	2321
890	65 x 65	250M	2731	5	5	1365	2731	3178	3121	1778	2991	2453	2073	1948	1832	1716	1600	2542

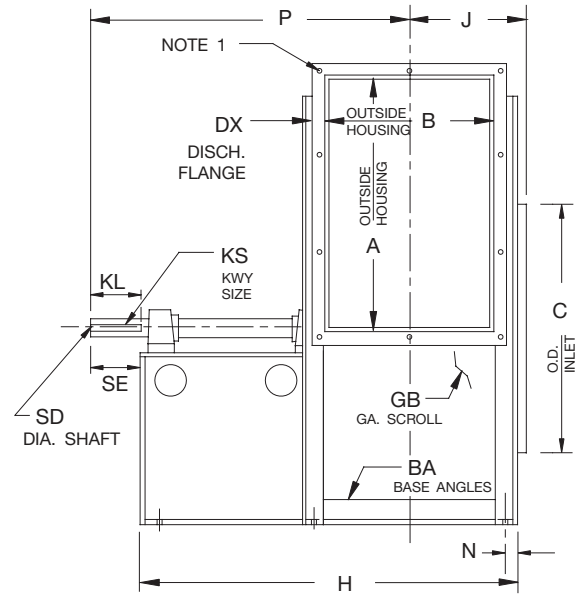
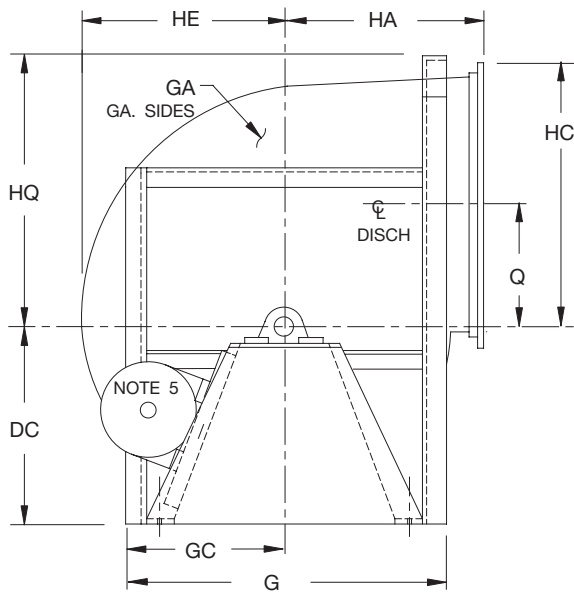
SIZE	HQ	J	K	KL		KS	L		M	N	P		Q	SD	SE	
				ARR 1	ARR 9		ARR 1	ARR 9			ARR 1	ARR 9			ARR 1	ARR 9
165	-	246	198	89	108	14 x 9	241	578	222	22	589	945	221	46	102	121
182	-	262	214	114	127	14 x 9	267	635	245	22	656	1037	245	46	127	140
200	-	279	232	114	152	14 x 9	292	673	270	22	699	1124	268	50	127	171
222	-	314	260	127	152	14 x 9	349	679	292	29	797	1159	298	50	140	171
245	-	338	284	152	152	16 x 10	387	679	321	29	884	1183	329	55	165	171
270	-	363	310	152	165	16 x 10	438	708	353	29	960	1243	362	55	165	178
300	-	406	346	178	165	18 x 11	483	715	397	35	1073	1286	402	65	197	178
330	-	435	375	178	191	18 x 11	533	886	435	35	1153	1511	445	65	197	203
365	-	470	410	178	191	20 x 12	572	886	473	35	1226	1546	489	70	197	203
402	-	533	461	203	191	20 x 12	610	1045	518	48	1340	1756	540	75	222	203
445	-	576	503	203	191	25 x 14	686	1045	568	48	1465	1799	597	90	229	203
490	-	619	546	229	191	28 x 16	737	1045	632	48	1584	1842	657	100	254	203
542	1518	699	613	229	191	28 x 16	749	1048	689	60	1664	1911	727	100	254	203
600	1683	756	670	241	191	28 x 16	826	1048	765	60	1810	1969	805	100	267	203
660	1838	843	744	254	191	28 x 16	889	1060	829	73	1961	2056	883	100	279	203
730	2026	911	813	267	191	32 x 18	965	1060	930	73	2118	2124	978	115	292	203
807	2245	988	889	267	191	32 x 18	1041	1060	1026	73	2270	2200	1083	125	292	203
890	2464	1068	970	279	191	32 x 18	1118	1060	1165	73	2440	2281	1192	125	305	203

BC14952E - ARR. 1
BC14955D - ARR. 9

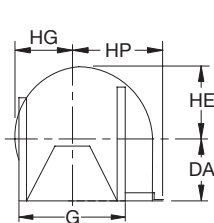
NOTES:

1. Punched outlet flanges are included on all discharges per AC14987, or for 'DBD' AC14868.
2. Optional punched inlet per AS363.
3. 'CW' rotation is shown. 'CCW' rotation is similar but opposite.
4. For fans with inlet box at 90° or 270° use 'BAU' discharge dimension 'DF' for centerline height.
5. 'FR' equals maximum motor frame.

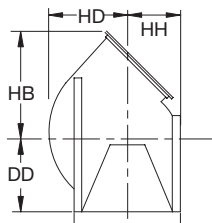
Arrangements 1 (Sizes 222-890) & 9 (Sizes 222-542), Class 22



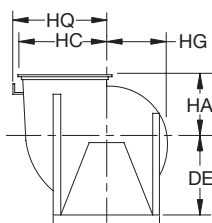
CW THD



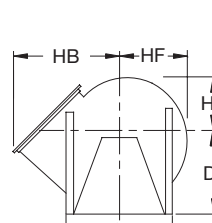
CW DBD



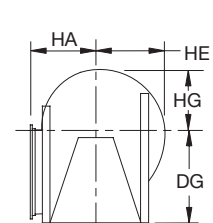
CW TAU



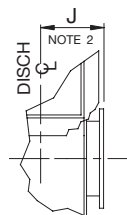
CW UBD



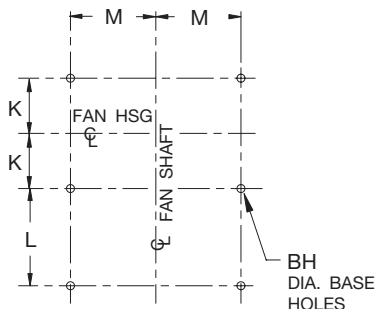
CW BAU



CW BHD



WITH OPTIONAL FLANGED INLET



FOUNDATION PLAN
(FOR DBD SEE NOTE 1)

SIZE	A	B	BA	BH	C	DA		DC		DD		DE		DF		DG	
						ARR 1	ARR 9	ARR 1	ARR 9	ARR 1	ARR 9	ARR 1	ARR 9	ARR 1	ARR 9	ARR 1	ARR 9
						SEE NOTE 4											
222	605	454	75 x 75	14	603	449	857	457	857	489	857	521	857	559	857	673	857
245	665	499	75 x 75	14	662	495	864	508	864	540	864	572	864	610	864	730	864
270	734	548	75 x 75	14	724	545	864	559	864	597	864	629	864	667	864	800	864
300	813	608	75 x 100	21	803	605	883	622	883	660	883	699	883	749	883	883	883
330	900	668	75 x 100	21	883	667	959	686	959	724	959	762	959	819	959	959	959
365	991	740	75 x 100	21	978	737	1041	749	1041	800	1041	851	1041	902	1041	1054	1054
402	1091	814	90 x 125	21	1078	813	1054	838	1054	895	1054	940	1054	1003	1054	1168	1168
445	1205	900	100 x 150	21	1191	899	1080	902	1080	978	1080	1016	1080	1099	1099	1283	1283
490	1327	988	100 x 150	21	1311	991	1080	991	1080	1073	1080	1118	1118	1207	1207	1416	1403
542	1465	1096	100 x 150	21	1451	1094	1105	1105	1105	1181	1181	1245	1245	1327	1327	1556	1556
600	1621	1208	100 x 150	21	1604	1211	-	1219	-	1302	-	1372	-	1461	-	1708	-
660	1778	1332	100 x 150	21	1762	1332	-	1334	-	1416	-	1499	-	1600	-	1873	-
730	1969	1468	100 x 150	21	1949	1473	-	1448	-	1568	-	1638	-	1765	-	2064	-
807	2177	1623	100 x 150	21	2156	1630	-	1600	-	1715	-	1829	-	1943	-	2273	-
890	2397	1784	100 x 150	21	2372	1778	-	1759	-	1873	-	1988	-	2159	-	2496	-

SIZE	DX	FR ARR 9	G	GA	GB	GC	H		HA	HB	HC	HD	HE	HF	HG	HH	HP	HQ
							ARR 1	ARR 9										
							222	50 x 50										
245	50 x 50	225M	876	5	5	438	1057	1372	495	852	711	572	537	505	473	441	737	-
270	50 x 50	225M	965	5	5	483	1159	1422	545	937	780	630	592	557	522	487	805	-
300	50 x 50	225M	1067	5	5	533	1308	1534	605	1035	859	699	656	617	579	541	910	-
330	50 x 50	250M	1143	6	6	572	1419	1762	667	1140	945	768	724	681	638	595	995	-
365	50 x 50	250M	1245	6	6	622	1527	1988	737	1252	1035	856	803	756	708	660	1086	-
402	50 x 50	250M	1334	6	6	667	1680	2115	813	1378	1135	943	884	832	780	727	1211	-
445	50 x 50	250M	1461	6	6	730	1892	2242	899	1519	1249	1043	975	918	861	803	1351	-
490	50 x 50	250M	1588	6	6	794	2029	2327	991	1670	1372	1143	1075	1011	948	884	1473	-
542	65 x 65	250M	1727	6	6	864	2137	2435	1094	1849	1522	1268	1189	1119	1049	979	1611	1534
600	65 x 65	-	1880	6	6	940	2327	-	1211	2043	1678	1400	1316	1238	1161	1083	1767	1686
660	65 x 65	-	2057	6	6	1029	2502	-	1332	2240	1835	1538	1446	1359	1272	1184	1924	1854
730	65 x 65	-	2261	6	6	1130	2715	-	1473	2473	2026	1703	1600	1505	1410	1314	2115	2042
807	65 x 65	-	2451	6	6	1226	2943	-	1630	2732	2234	1884	1769	1664	1559	1454	2323	2248
890	65 x 65	-	2731	6	6	1365	3181	-	1778	2992	2454	2075	1949	1834	1718	1602	2543	2467

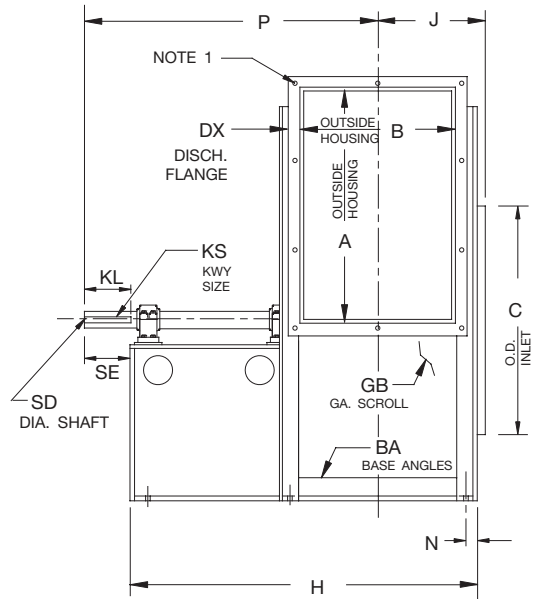
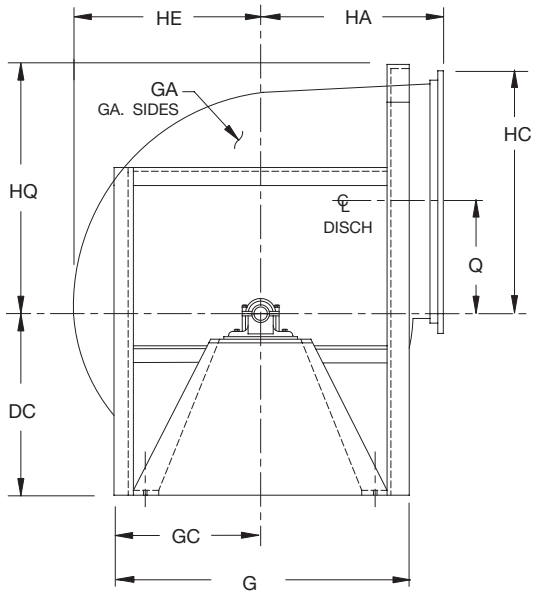
SIZE	J	K	KL		KS	L		M	N	P		Q	SD	SE	
			ARR 1	ARR 9		ARR 1	ARR 9			ARR 1	ARR 9			ARR 1	ARR 9
			222	329		268	152			178	18 x 11			356	715
245	351	291	165	178	18 x 11	394	708	314	35	916	1249	329	65	184	203
270	376	316	191	165	18 x 11	445	708	346	35	1018	1249	362	65	210	178
300	432	359	203	165	20 x 12	495	721	384	48	1124	1305	402	70	222	178
330	462	389	229	191	20 x 12	546	889	422	48	1230	1529	445	75	248	203
365	497	424	229	191	20 x 12	584	1045	473	48	1310	1719	489	75	254	203
402	560	475	254	191	25 x 14	622	1057	505	60	1424	1783	540	90	279	203
445	629	530	254	191	28 x 16	711	1060	543	73	1568	1842	597	100	279	203
490	672	573	279	191	28 x 16	762	1060	607	73	1688	1884	657	100	305	203
542	725	627	279	191	32 x 18	762	1060	676	73	1741	1938	727	115	305	203
600	783	684	305	-	32 x 18	838	-	753	73	1900	-	805	125	330	-
660	845	746	305	-	32 x 18	889	-	829	73	2013	-	883	125	330	-
730	913	814	343	-	32 x 18	965	-	930	73	2196	-	978	125	368	-
807	989	891	343	-	32 x 18	1041	-	1026	73	2348	-	1083	125	368	-
890	1070	972	356	-	32 x 18	1118	-	1165	73	2518	-	1192	125	381	-

BC14953D - ARR. 1
BC14956D - ARR. 9

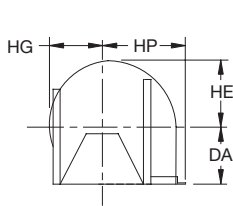
NOTES:

1. Punched outlet flanges are included on all discharges per AC14988, or for 'DBD' AC14869.
2. Optional punched inlet per AS363.
3. 'CW' rotation is shown. 'CCW' rotation is similar but opposite.
4. For fans with inlet box at 90° or 270° use 'BAU' discharge dimension 'DF' for centerline height.
5. 'FR' equals maximum motor frame.

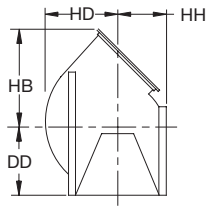
Arrangement 1, Class 26



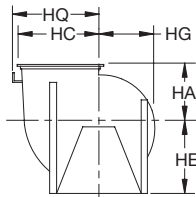
CW THD



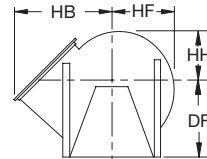
CW DBD



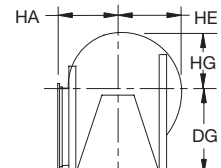
CW TAU



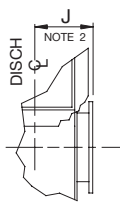
CW UBD



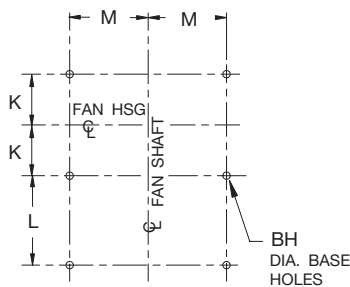
CW BAU



CW BHD



WITH OPTIONAL FLANGED INLET



FOUNDATION PLAN
(FOR DBD SEE NOTE 1)

SIZE	A	B	BA	BH	C	DA	DC	DD	DE	DF	DG	DX	G	GA
						SEE NOTE 4								
270	734	548	75 x 75	14	724	545	559	597	629	667	800	50 x 50	965	5
300	813	608	75 x 100	21	803	605	622	660	699	749	883	50 x 50	1067	5
330	900	668	75 x 100	21	883	667	686	724	762	819	959	50 x 50	1143	6
365	991	740	75 x 100	21	978	737	749	800	851	902	1054	50 x 50	1245	6
402	1091	814	90 x 125	21	1078	813	838	895	940	1003	1168	50 x 50	1359	6
445	1205	900	100 x 150	21	1191	899	902	978	1016	1099	1283	50 x 50	1486	6
490	1327	988	100 x 150	21	1311	991	991	1073	1118	1207	1416	50 x 50	1613	6
542	1465	1096	100 x 150	21	1451	1094	1105	1181	1245	1327	1556	65 x 65	1753	6
600	1621	1208	100 x 150	21	1604	1211	1219	1302	1372	1461	1708	65 x 65	1905	6
660	1778	1332	100 x 150	21	1762	1332	1334	1416	1499	1600	1873	65 x 65	2057	6
730	1969	1468	100 x 150	21	1949	1473	1448	1568	1638	1765	2064	65 x 65	2261	6
807	2177	1623	100 x 150	21	2156	1630	1600	1715	1829	1943	2273	65 x 65	2451	6
890	2397	1784	100 x 150	21	2372	1778	1759	1873	1988	2159	2496	65 x 65	2731	6

SIZE	GB	GC	H	HA	HB	HC	HD	HE	HF	HG	HH	HP	HQ	J	K	KL
270	5	483	1159	545	937	780	630	592	557	522	487	805	-	376	316	191
300	5	533	1308	605	1035	859	699	656	617	579	541	910	-	432	359	203
330	6	572	1419	667	1140	945	768	724	681	638	595	995	-	462	389	229
365	6	622	1527	737	1252	1035	856	803	756	708	660	1086	-	497	424	229
402	6	679	1680	813	1378	1135	943	884	832	780	727	1211	-	560	475	254
445	6	743	1892	899	1519	1249	1043	975	918	861	803	1351	-	629	530	254
490	6	806	2029	991	1670	1372	1143	1075	1011	948	884	1473	-	672	573	279
542	6	876	2137	1094	1849	1522	1268	1189	1119	1049	979	1611	1534	725	627	279
600	6	953	2327	1211	2043	1678	1400	1316	1238	1161	1083	1767	1686	783	684	305
660	6	1029	2502	1332	2240	1835	1538	1446	1359	1272	1184	1924	1854	845	746	305
730	6	1130	2715	1473	2473	2026	1703	1600	1505	1410	1314	2115	2042	913	814	343
807	6	1226	2943	1630	2732	2234	1884	1769	1664	1559	1454	2323	2248	989	891	343
890	6	1365	3181	1778	2992	2454	2075	1949	1834	1718	1602	2543	2467	1070	972	356

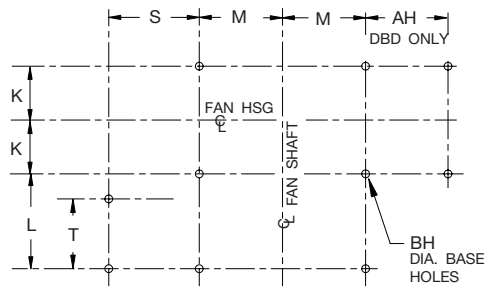
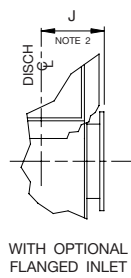
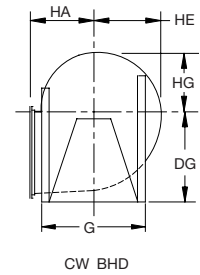
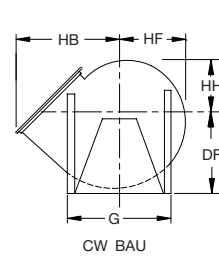
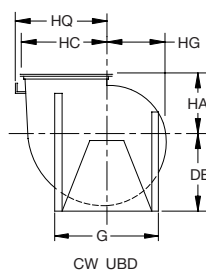
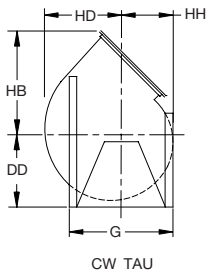
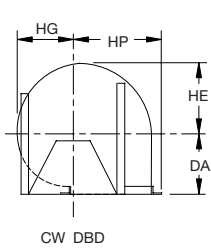
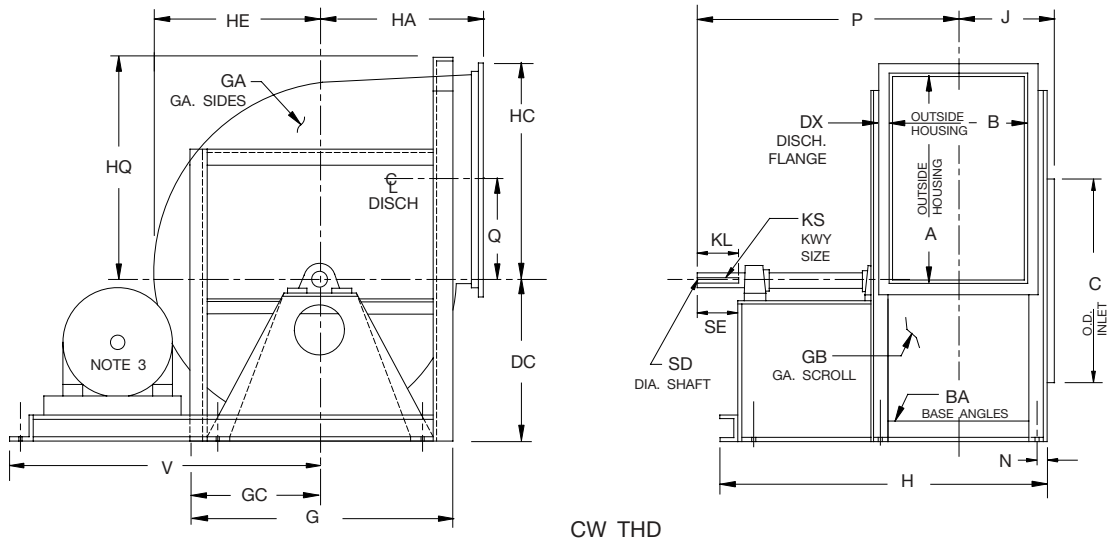
SIZE	KS	L	M	N	P	Q	SD	SE
270	20 x 12	445	346	35	1018	362	75	210
300	20 x 12	495	384	48	1124	402	75	222
330	20 x 12	546	422	48	1230	445	75	248
365	25 x 14	584	473	48	1310	489	90	254
402	28 x 16	622	505	60	1424	540	100	279
445	28 x 16	711	543	73	1568	597	100	279
490	32 x 18	762	607	73	1688	657	115	305
542	32 x 18	762	676	73	1741	727	125	305
600	32 x 18	838	753	73	1900	805	125	330
660	32 x 18	889	829	73	2013	883	125	330
730	Enquire	965	930	73	2196	978	Enquire	368
807	Enquire	1041	1026	73	2348	1083	Enquire	368
890	Enquire	1118	1165	73	2518	1192	Enquire	381

BC14954C

NOTES:

1. Punched outlet flanges are included on all discharges per AC14988, or for 'DBD' AC14869.
2. Optional punched inlet per AS363.
3. 'CW' rotation is shown. 'CCW' rotation is similar but opposite.
4. For fans with inlet box at 90° or 270° use 'BAU' discharge dimension 'DF' for centerline height.

Arrangements 9F, Class 14



SIZE	A	AH	B	BA	BH	C	DA	DC	DD	DE	DF	DG	DX	FR	G	GA
165	443	248	335	38 x 50	11	451	334	343	368	387	413	495	25 x 25	132M	616	2
182	492	275	370	38 x 50	11	495	368	375	400	425	451	546	32 x 32	160L	660	2.5
200	538	295	405	38 x 50	14	543	402	413	438	464	489	597	32 x 32	160L	711	2.5
222	598	327	449	50 x 50	14	603	449	457	489	521	559	660	32 x 32	160L	794	2.5
245	659	359	494	50 x 50	14	662	495	508	540	572	610	718	32 x 32	180L	851	2.5
270	727	395	543	50 x 50	14	724	545	559	597	629	667	787	38 x 38	180L	914	2.5
300	808	438	605	65 x 65	14	803	605	622	660	699	749	870	38 x 38	180L	1041	3
330	892	484	662	65 x 65	14	883	667	686	724	762	819	946	38 x 38	200L	1118	3
365	983	537	734	65 x 65	14	978	737	749	800	851	902	1041	38 x 38	200L	1219	3
402	1083	592	808	75 x 75	21	1078	813	838	895	940	1003	1156	38 x 38	225M	1334	3
445	1197	656	894	75 x 75	21	1191	899	902	978	1016	1099	1270	38 x 38	225M	1435	3
490	1319	715	981	75 x 75	21	1311	991	991	1073	1118	1207	1391	50 x 50	250M	1562	3
542	1457	808	1089	75 x 100	21	1451	1094	1105	1181	1245	1327	1530	50 x 50	250M	1702	3
600	1613	887	1202	75 x 100	21	1604	1211	1219	1302	1372	1461	1683	50 x 50	280M	1854	3
660	1770	994	1326	90 x 125	21	1762	1332	1334	1416	1499	1600	1861	65 x 65	280M	2032	3
730	1962	1083	1462	90 x 125	21	1949	1473	1448	1568	1638	1765	2051	65 x 65	280M	2235	3

SIZE	GB	GC	H	HA	HB	HC	HD	HE	HF	HG	HH	HP	HQ	J	K	KL	KS
165	2	308	940	334	565	467	383	359	338	318	297	492	-	226	191	76	8 x 7
182	2	330	1115	368	630	522	424	399	375	351	327	541	-	245	208	89	10 x 8
200	2	356	1149	402	686	568	467	440	413	386	359	588	-	260	226	89	10 x 8
222	2	397	1194	449	762	629	519	484	456	427	399	648	-	305	254	102	14 x 9
245	2	425	1302	495	838	689	568	533	502	470	438	708	-	327	276	114	14 x 9
270	2	457	1350	545	926	764	627	589	554	519	484	776	-	351	300	114	14 x 9
300	2	521	1438	605	1024	845	697	654	616	578	540	870	-	394	338	127	16 x 10
330	2.5	559	1532	667	1129	929	765	721	678	635	592	954	-	422	367	127	16 x 10
365	2.5	610	1602	737	1242	1019	851	800	753	705	657	1045	-	457	402	127	18 x 11
402	2.5	667	1748	813	1367	1119	940	881	829	776	724	1157	-	508	446	127	18 x 11
445	2.5	718	1834	899	1508	1233	1038	972	914	857	800	1272	-	551	489	140	20 x 12
490	2.5	781	2062	991	1669	1369	1140	1072	1008	945	881	1394	-	594	532	140	20 x 12
542	2.5	851	2221	1094	1838	1506	1264	1186	1116	1046	976	1557	1518	673	598	152	25 x 14
600	2.5	927	2500	1211	2032	1662	1397	1313	1235	1157	1080	1713	1670	730	656	152	25 x 14
660	2.5	1016	2675	1332	2237	1832	1534	1443	1356	1268	1181	1896	1835	818	730	178	28 x 16
730	3	1118	2812	1473	2472	2023	1700	1597	1502	1407	1311	2086	2026	887	799	191	28 x 16

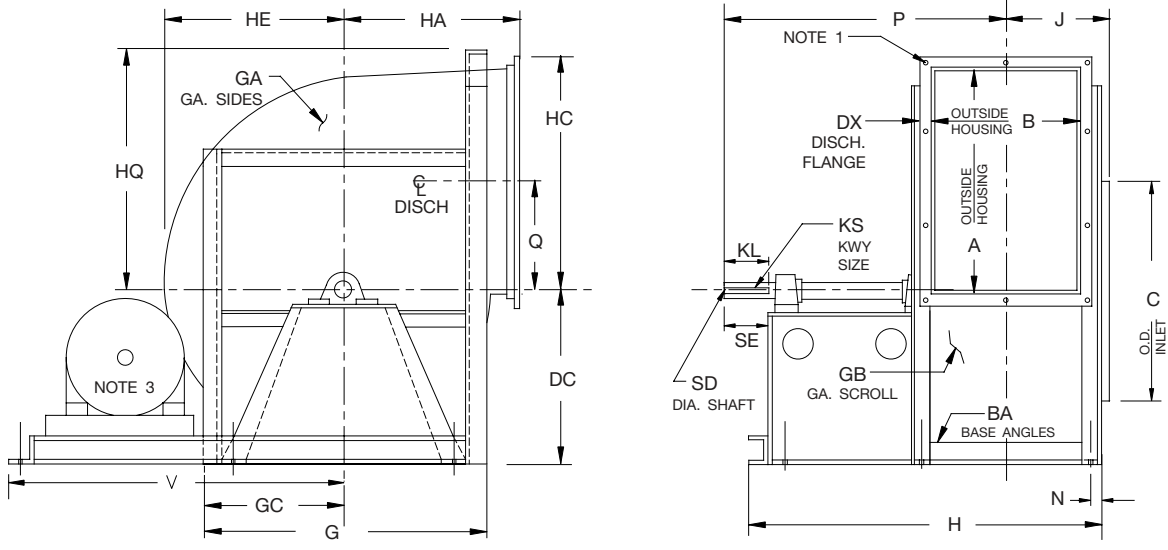
SIZE	L	M	N	P	Q	S	SD	SE	T	V
165	425	222	22	765	221	607	30	95	381	851
182	552	245	22	922	245	705	38	108	502	978
200	552	270	22	940	268	705	38	108	502	1003
222	552	298	22	975	298	705	46	121	502	1032
245	616	327	22	1073	329	768	50	133	565	1124
270	616	359	22	1097	362	768	50	133	565	1156
300	622	403	29	1154	402	775	55	146	565	1207
330	686	441	29	1246	445	873	55	146	622	1350
365	686	480	29	1281	489	873	65	146	622	1388
402	737	530	35	1376	540	988	65	146	667	1553
445	737	581	35	1432	597	988	70	159	667	1604
490	876	645	35	1614	657	1130	75	159	806	1810
542	889	702	48	1707	727	1143	90	171	806	1880
600	1054	778	48	1929	805	1232	90	171	972	2045
660	1067	842	60	2042	883	1232	100	197	972	2108
730	1067	943	60	2122	978	1232	100	210	972	2210

AC17015C

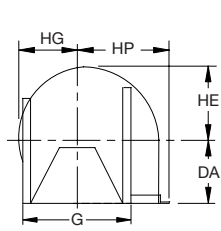
NOTES:

1. Punched outlet flanges are included on all discharges per AC14986, or for 'DBD' AC17016.
2. Optional punched inlet per AS363.
3. 'FR' equals maximum motor frame.

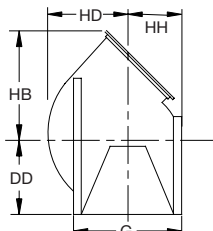
Arrangement 9F, Class 17



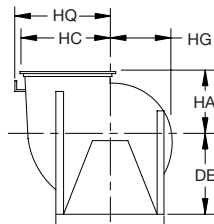
CW THD



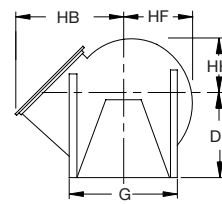
CW DBD



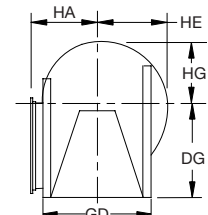
CW TAU



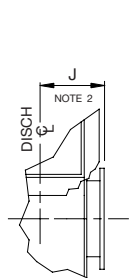
CW UBD



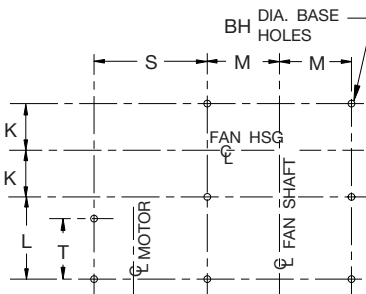
CW BAU



CW BHD



WITH OPTIONAL FLANGED INLET



FOUNDATION PLAN
(FOR DBD SEE NOTE 1)
MOTOR LOCATION 'L' (LEFT) SHOWN

SIZE	A	B	BA	BH	C	DA	DC	DD	DE	DF	DG	DX	FR	G
165	446	338	38 x 50	11	451	334	343	368	387	413	495	32 x 32	160L	616
182	495	372	50 x 50	14	495	368	375	400	425	451	559	32 x 32	180L	686
200	541	406	50 x 50	14	543	402	413	438	464	489	610	32 x 32	200L	737
222	602	451	65 x 65	14	603	449	457	489	521	559	673	32 x 32	200L	819
245	665	499	65 x 65	14	662	495	508	540	572	610	730	38 x 38	200L	876
270	734	548	65 x 65	14	724	545	559	597	629	667	800	38 x 38	225M	940
300	813	608	75 x 75	21	803	605	622	660	699	749	883	38 x 38	225M	1067
330	897	665	75 x 75	21	883	667	686	724	762	819	959	38 x 38	225M	1143
365	988	737	75 x 75	21	978	737	749	800	851	902	1054	38 x 38	250M	1245
402	1087	811	75 x 100	21	1078	813	838	895	940	1003	1156	50 x 50	280M	1334
445	1202	897	75 x 100	21	1191	899	902	978	1016	1099	1270	50 x 50	280M	1435
490	1324	984	75 x 100	21	1311	991	991	1073	1118	1207	1391	50 x 50	280M	1562
542	1462	1092	90 x 125	21	1451	1094	1105	1181	1245	1327	1543	65 x 65	280M	1702
600	1618	1205	90 x 125	21	1604	1211	1219	1302	1372	1461	1695	65 x 65	280M	1880
660	1775	1329	100 x 150	21	1762	1332	1334	1416	1499	1600	1873	65 x 65	280M	2032
730	1965	1465	100 x 150	21	1949	1473	1448	1568	1638	1765	2064	65 x 65	280M	2235
807	2173	1619	100 x 150	21	2156	1630	1600	1715	1829	1943	2273	65 x 65	280M	2451
890	2394	1781	100 x 150	21	2372	1778	1759	1873	1988	2159	2496	65 x 65	280M	2731

SIZE	GA	GB	GC	GD	H	HA	HB	HC	HD	HE	HF	HG	HH	HP	HQ
165	3	3	308	588	1108	334	572	475	384	360	340	319	298	494	-
182	3	3	343	686	1197	368	630	524	425	400	376	353	329	543	-
200	3	3	368	737	1243	402	687	570	467	441	414	387	360	589	-
222	3	3	410	819	1313	449	764	630	521	486	457	429	400	662	-
245	5	5	438	876	1360	495	845	699	572	537	505	473	441	724	-
270	5	5	470	940	1440	545	927	767	630	592	557	522	487	792	-
300	5	5	533	1067	1526	605	1026	846	699	656	617	579	541	884	-
330	5	5	572	1143	1583	667	1129	930	767	722	679	637	594	969	-
365	5	5	622	1245	1827	737	1243	1021	854	802	754	706	659	1059	-
402	5	5	667	1334	2100	813	1376	1134	941	883	830	778	725	1184	-
445	5	5	718	1435	2186	899	1518	1248	1041	973	916	859	802	1299	-
490	5	5	781	1562	2272	991	1669	1370	1141	1073	1010	946	883	1421	-
542	5	5	851	1702	2421	1094	1849	1521	1267	1187	1118	1048	978	1584	1518
600	5	5	940	1880	2535	1211	2042	1676	1399	1314	1237	1159	1081	1740	1683
660	5	5	1016	2032	2710	1332	2239	1834	1537	1445	1357	1270	1183	1923	1838
730	5	5	1118	2235	2846	1473	2473	2024	1702	1599	1503	1408	1313	2113	2026
807	5	5	1226	2451	2999	1630	2731	2232	1883	1767	1662	1557	1453	2321	2245
890	5	5	1365	2731	3161	1778	2991	2453	2073	1948	1832	1716	1600	2542	2464

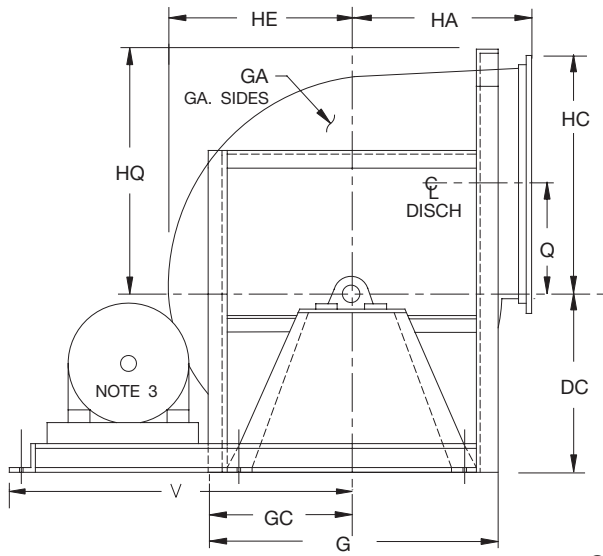
SIZE	J	K	KL	KS	L	M	N	P	Q	S	SD	SE	T	V
165	246	198	108	14 x 9	578	222	22	945	221	734	46	121	527	984
182	262	214	127	14 x 9	635	245	22	1037	245	768	46	140	584	1041
200	279	232	152	14 x 9	673	270	22	1124	268	883	50	171	616	1187
222	314	260	152	14 x 9	679	292	29	1159	298	889	50	171	616	1216
245	338	284	152	16 x 10	679	321	29	1183	329	889	55	171	616	1245
270	363	310	178	16 x 10	708	353	29	1262	362	994	55	197	645	1381
300	406	346	171	18 x 11	715	397	35	1305	402	1000	65	197	645	1432
330	435	375	171	18 x 11	715	435	35	1334	445	1000	65	197	645	1470
365	470	410	203	20 x 12	886	473	35	1572	489	1130	70	229	816	1638
402	533	461	222	20 x 12	1045	518	48	1807	540	1232	75	254	962	1784
445	576	503	222	25 x 14	1045	568	48	1849	597	1232	90	254	962	1835
490	619	546	222	28 x 16	1045	632	48	1892	657	1232	100	254	962	1899
542	699	613	229	28 x 16	1048	689	60	1975	727	1232	100	267	953	1956
600	756	670	229	28 x 16	1048	765	60	2032	805	1232	100	267	953	2032
660	843	744	229	28 x 16	1060	829	73	2119	883	1232	100	267	953	2096
730	911	813	229	32 x 18	1060	930	73	2188	978	1232	115	267	953	2197
807	988	889	229	32 x 18	1060	1026	73	2264	1083	1232	125	267	953	2292
890	1068	970	229	32 x 18	1060	1165	73	2345	1192	1232	125	267	953	2432

BC14957F

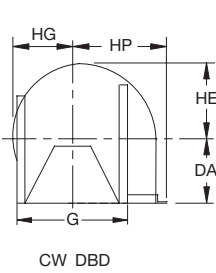
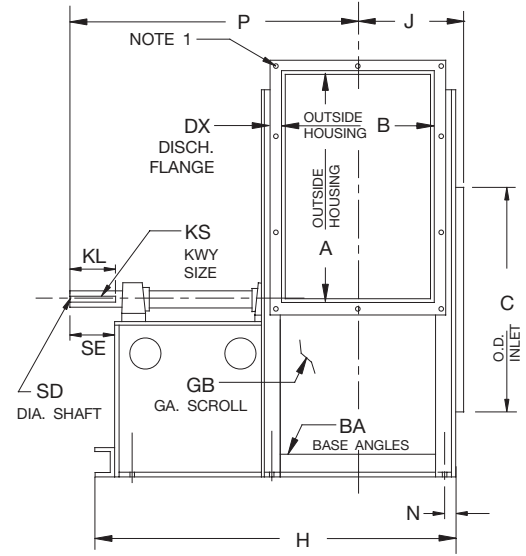
NOTES:

1. Punched outlet flanges are included on all discharges per AC14987, or for 'DBD' AC14924.
2. Optional punched inlet per AS363.
3. 'FR' equals maximum motor frame.

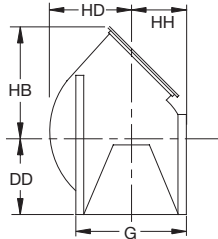
Arrangement 9F, Class 22



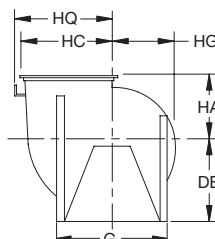
CW THD



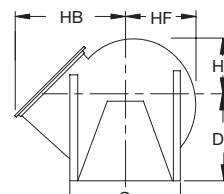
CW DBD



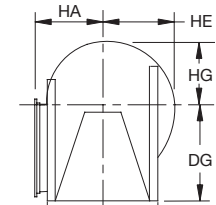
CW TAU



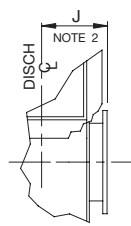
CW UBD



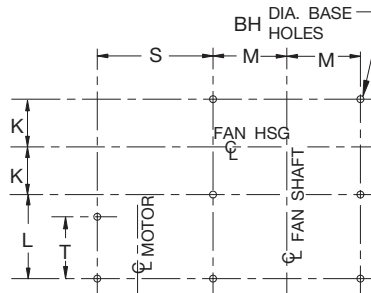
CW BAU



CW BHD



WITH OPTIONAL FLANGED INLET



FOUNDATION PLAN
(FOR DBD SEE NOTE 1)
MOTOR LOCATION 'L' (LEFT) SHOWN

SIZE	A	B	BA	BH	C	DA	DC	DD	DE	DF	DG	DX	FR	G
222	605	454	75 x 75	14	603	449	457	489	521	559	673	50 x 50	225M	819
245	665	499	75 x 75	14	662	495	508	540	572	610	730	50 x 50	225M	876
270	734	548	75 x 75	14	724	545	559	597	629	667	800	50 x 50	225M	965
300	813	608	75 x 100	21	803	605	622	660	699	749	883	50 x 50	225M	1067
330	900	668	75 x 100	21	883	667	686	724	762	819	959	50 x 50	250M	1143
365	991	740	75 x 100	21	978	737	749	800	851	902	1054	50 x 50	280M	1245
402	1091	814	90 x 125	21	1078	813	838	895	940	1003	1168	50 x 50	280M	1334
445	1205	900	100 x150	21	1191	899	902	978	1016	1099	1283	50 x 50	280M	1461
490	1327	988	100 x150	21	1311	991	991	1073	1118	1207	1403	50 x 50	280M	1588
542	1465	1096	100 x150	21	1451	1094	1105	1181	1245	1327	1556	65 x 65	280M	1727

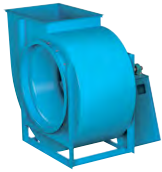
SIZE	GA	GB	GC	H	HA	HB	HC	HD	HE	HF	HG	HH	HP	HQ
222	5	5	410	1370	449	778	651	522	487	459	430	402	676	-
245	5	5	438	1408	495	852	711	572	537	505	473	441	737	-
270	5	5	483	1459	545	937	780	630	592	557	522	487	805	-
300	5	5	533	1570	605	1035	859	699	656	617	579	541	910	-
330	6	6	572	1802	667	1140	945	768	724	681	638	595	995	-
365	6	6	622	2027	737	1252	1035	856	803	756	708	660	1086	-
402	6	6	667	2154	813	1378	1135	943	884	832	780	727	1211	-
445	6	6	730	2281	899	1519	1249	1043	975	918	861	803	1351	-
490	6	6	794	2367	991	1670	1372	1143	1075	1011	948	884	1473	-
542	6	6	864	2475	1094	1849	1522	1268	1189	1119	1049	979	1611	1534

SIZE	J	K	KL	KS	L	M	N	P	Q	S	SD	SE	T	V
222	329	268	178	18 x 11	715	286	35	1227	298	1000	65	197	645	1321
245	351	291	178	18 x 11	708	314	35	1249	329	1000	65	203	638	1350
270	376	316	178	18 x 11	708	346	35	1275	362	1000	65	203	638	1381
300	432	359	178	20 x 12	721	384	48	1330	402	1013	70	203	638	1432
330	462	389	210	20 x 12	889	422	48	1567	445	1143	75	241	806	1600
365	497	424	222	20 x 12	1045	473	48	1770	489	1232	75	254	962	1740
402	560	475	222	25 x 14	1057	505	60	1834	540	1232	90	254	962	1772
445	629	530	229	28 x 16	1060	543	73	1905	597	1232	100	267	953	1810
490	672	573	229	28 x 16	1060	607	73	1948	657	1232	100	267	953	1873
542	725	627	229	32 x 18	1060	676	73	2002	727	1232	115	267	953	1943

BC14958D

NOTES:

1. Punched outlet flanges are included on all discharges per AC14988, or for 'DBD' AC14925.
2. Optional punched inlet per AS363.
3. 'FR' equals maximum motor frame.



Model BCS

Fans shall be Model BCS, Backward Curved High Pressure Blowers, as manufactured by Twin City Fan & Blower.

PERFORMANCE — Fans shall be tested in accordance with ANSI/AMCA Standard 210 (air performance) and 300 (sound performance) in an AMCA accredited laboratory.

Fans shall have a sharply rising pressure characteristic extending through the operating range and continuing to rise beyond the peak efficiency to ensure quiet and stable operation. Fans shall have a non-overloading design with self-limiting horsepower characteristics and shall reach a peak in the normal selection area.

CONSTRUCTION — Fan housings and bearing pedestals shall be of heavy-gauge, continuously welded construction. Housings with partially welded construction are not acceptable. Housings shall be suitably braced to prevent vibration or pulsation. Discharge flanges shall be provided for rigidity and duct connection. Discharge flanges are punched as standard. All units are furnished with lifting lugs.

IMPELLER — BCS backward curved impellers shall be single thickness, designed for maximum efficiency and quiet operation, and shall be continuously welded to the rim and back plate. Partial welding is not acceptable on backward curved blades. All impellers shall be statically and dynamically balanced.

SHAFT — Shafts shall be AISI 1018, 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.

DRIVE — Motor sheaves shall be cast iron, variable pitch on applications 20 HP and smaller, and fixed pitch on 25 HP and larger. Drives and belts shall be located external to the fan casing and rated for 150% of the required motor HP.

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 access doors, drains, inlet and outlet flanges, belt guards, shaft and bearing guards, outlet screens, outlet dampers, inlet vanes, spark resistant construction, split housings, high temperature construction, shaft seals, inlet boxes, and shaft coolers 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 at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.



BC-SW — Backward Inclined Fans

- 311 mm to 2496 mm impeller diameters
- Airflow to 130 m³/sec
- Static pressure to 5000 Pa
- Airstream temperatures to 427°C
- Arrangements 1, 3, 3F, SI, 4, 7SI, 8, 9, 9F and 10
- Belt and direct drive configurations

See Catalogue M300 for more information.



BAE-SW — Airfoil Fans

- 311 mm to 2496 mm impeller diameters
- Airflow to 130 m³/sec
- Static pressure to 5000 Pa
- Airstream temperatures to 427°C
- Arrangements 1, 3, 3F, 3SI, 4, 7SI, 8, 9, 9F and 10
- Belt and direct drive configurations

See Catalogue M370 for more information.



BCSF — Backward Curved High Pressure Composite Fans

- 419 mm to 1524 mm impeller diameters
- Airflow to 70 m³/sec
- Static pressure to 8450 Pa
- Airstream temperature to 93° C
- Arrangements 1, 8, 9, 9F and 10
- Belt and direct drive configurations

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



TWIN CITY FAN & BLOWER
WWW.TCF.COM

5959 TRENTON LANE N | MINNEAPOLIS, MN 55442 | PHONE: 763-551-7600 | FAX: 763-551-7601

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