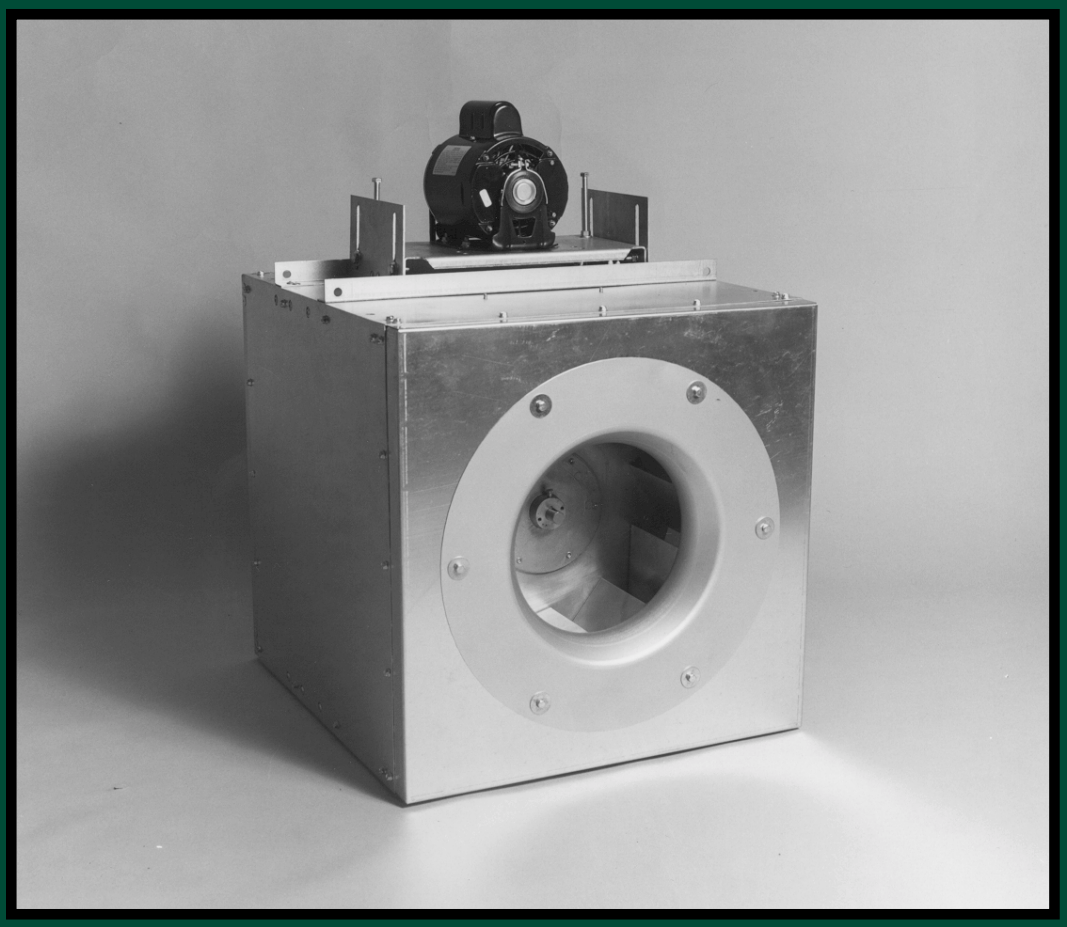
ILG
INDUSTRIES

AMERICAN COOLAIR CORPORATION



Square In-Line Centrifugal Fans

TYPE SQBA - BELT DRIVE
TYPE SQDA - DIRECT DRIVE

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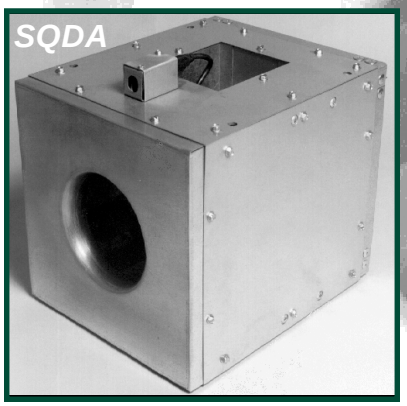
BELT DRIVE

Sizes 06 to 36
Flow rates from
115 to 24,191 CFM
and 3" Static Pressure

SQBA

DIRECT DRIVE



Sizes 06 to 18
Flow rates from
122 to 4,014 CFM
and 2" Static Pressure

SQDA

STANDARD FEATURES

SQBA AND SQDA UNITS

Rigid internal cross bracing system properly supports drive.

Out-of-airstream open drip-proof motors are isolated for protection from exhaust airstream.

Three side panels are removable for total access to internal components.

Aluminum centrifugal wheel is a non-overloading, backward-inclined design and is computer balanced.

Overlapping wheel and deep-spun venturi minimize noise and air turbulence, increasing efficiency.

Permanently affixed wheel balance weights assure vibration-free operation.

Galvanized outer skin protects against corrosion and matches common duct material.

AMCA Seal assures certified rating of air and sound performance.

UL Listed for Standard 705.

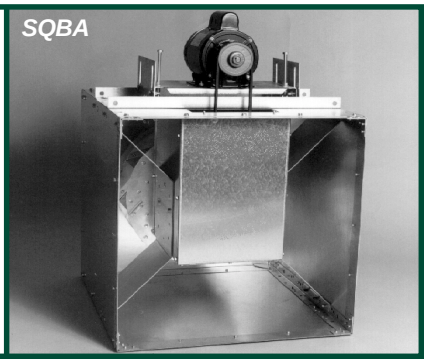
SQBA

Safety disconnect switch is an available option.

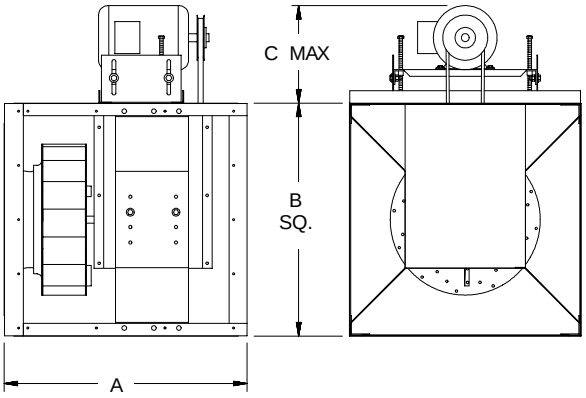
Belt drive with adjustable motor pulley for flexibility to match operating requirements.

Heavy duty pillow-block ball bearings with cast iron housing are self-aligning and relubricable.

Adjustable motor base facilitates maintenance of belt tension.



SQBA Dimensions



SIZE	A	B	C
06-10	17	14	10 3/4
12	25 3/4	18	16 5/8
13	26 3/8	20	16 5/8
15	27 7/8	23	16 5/8
16	27 3/8	25 1/2	16 5/8
18	27 1/4	28 1/2	16 5/8
20	28 3/4	30 1/2	16 5/8
24	36 5/8	36 1/2	16 3/4
30	39 1/4	45 1/2	17 5/8
36	42 5/8	56	17 5/8

Dimensions in inches

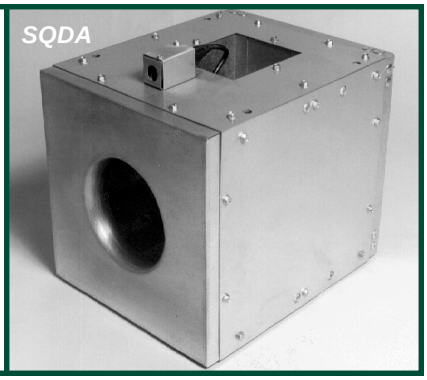
SQDA

Disconnect device with factory mounted and wired junction box is standard.

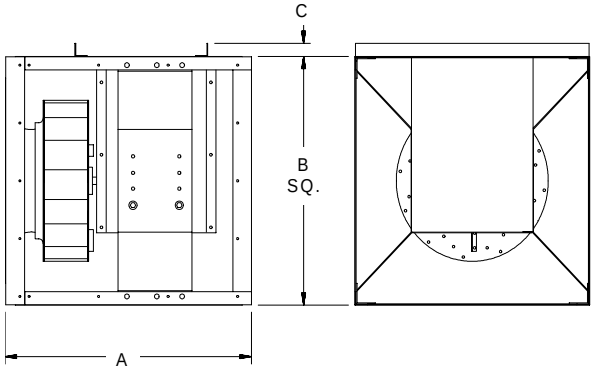
Direct-drive assembly reduces maintenance and operating costs.

Variable speed control is available on some models.

Drive compartment isolates motor from airstream.



SQDA Dimensions



SIZE	A	B	C
06-10	17	14	--
12	25 3/4	18	1 3/8
13	26 3/8	20	1 3/8
15	27 7/8	23	1 3/8
16	27 3/8	25 1/2	1 3/8
18	27 1/4	28 1/2	1 3/8

Dimensions in inches

SQBA
Belt Drive Square In-Line Fans

Applications

The SQBA units are quiet, dependable in-line centrifugal fans recommended for a wide range of general exhaust applications where low, medium and high ranges of air volume and pressure are specified, in both ducted and non-ducted ventilation systems. Applications include virtually all types of light manufacturing, commercial and institutional buildings such as shopping centers, hospitals, schools, hotels, office and apartment buildings, warehouses, airports, bus terminals and many others.

Designed for easy positioning and quick installation, the versatile Square In-Line can be located inside equipment rooms, in ceiling spaces or as parts of O.E.M. equipment.

The advantages of an SQBA belt-drive unit over a direct-drive in-line fan include quieter operation, adjustable performance to suit operating needs and availability of larger volume units.

Construction

SQBA models feature a housing of durable mill galvanized outer “skin” over a rigid frame which is designed to provide an attractive finish, yet be a rigid unit to resist severe installation and handling conditions commonly encountered. Three of the four sides of the unit are removable, providing access to the internal parts for inspection and maintenance without disturbing the framework.

The overlapping deep-spun venturi minimizes air turbulence and increases efficiency. The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise levels. The wheels are computer balanced on state-of-the-art equipment.

The SQBA wheel is secured to a machined aluminum hub with a line bore, which eliminates the need for bushings.

Drive Mechanism

The SQBA utilizes a standard V-belt drive design with variable pitch cast iron motor pulley for adjusting fan speed. The drive shaft is turned, ground and polished. All components are out of the airstream. The motor support is adjustable for proper tensioning.

Bearings

Heavy duty pillow-block bearings with cast iron housing are self-aligning and relubricable.

Motors

The standard motor for SQBA models is open drip-proof construction, located out of the airstream. Totally enclosed, energy efficient, two-speed and explosion-proof motors may also be available. Motor enclosure may affect UL Listing. All motor brands are recognized and serviced nationwide.

c UL us LISTED

UL705 - E39944

Type SQBA ventilators are Listed by Underwriters Laboratory Inc. to US and Canadian safety standards.

amca CERTIFIED RATINGS SOUND AND AIR PERFORMANCE AIR MOVEMENT AND CONTROL ASSOCIATION INTERNATIONAL, INC.

American Coolair Corporation, ILG Industries Division certifies that the Type SQBA units shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Duct mounted square in-line fans shall be of the SQBA centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall bear the AMCA Certified Ratings Seal for air and sound performance. Housing and rigid frame of the fans to be galvanized steel, with wheel and venturi overlapping for efficient operation. Three sides of the unit are to be removable for access to the inside fan components and drive.

Drive mechanism shall incorporate a V-belt drive with cast iron motor pulley. Drive shaft shall be turned, ground and polished. The centrifugal wheel shall be heavy gauge aluminum with backward-inclined, non-overloading blades and be computer balanced.

Bearings shall be self-aligning and have fittings for relubrication.

Motor shall be open drip-proof construction, NEMA design B with minimum service factor of 1.15. Adjustable motor pulley shall be provided to allow for field adjustment and system balance. Motor shall be mounted on an adjustable steel mounting bracket. Motor shall be mounted to allow easy access to the cast iron variable pitch drive pulley.

(Safety disconnect switch, backdraft damper, epoxy coating and other accessories shall be listed in the fan schedule.)

SQBA06 Performance Data

CFM at Static Pressure																				RPM Range Motor HP			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		1.50					
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/4 D1	1/4 D2	1/4 D3	
267		203		113																			986
0.02	3.3	0.02	2.6	0.02	2.1																		
281		220		141																			1035
0.02	3.6	0.02	3.0	0.02	2.5																		
294		237		168																			1085
0.02	4.0	0.02	3.4	0.02	3.0																		
307		254		191																			1134
0.02	4.5	0.02	3.9	0.02	3.4																		
317		267		206		115																	1171
0.03	4.8	0.03	4.3	0.03	3.8	0.02	3.4																
334		288		230		153																	1232
0.03	5.4	0.03	5.0	0.03	4.5	0.03	4.1																
351		309		252		187																	1294
0.03	5.9	0.03	5.5	0.03	5.1	0.03	4.7																
367		329		273		218																	1355
0.04	6.4	0.04	5.9	0.04	5.5	0.04	5.2																
384		349		294		246		173															1417
0.04	6.9	0.05	6.4	0.05	6.1	0.05	5.7	0.05	5.4														
401		369		316		270		208															1479
0.05	7.4	0.05	7.0	0.05	6.6	0.05	6.2	0.05	5.9														
417		388		337		292		240															1540
0.06	7.9	0.06	7.6	0.06	7.3	0.06	6.8	0.06	6.5														
434		406		358		314		269															1602
0.06	8.5	0.06	8.2	0.07	7.9	0.07	7.4	0.07	7.1														
451		425		379		335		295															1663
0.07	9.1	0.07	8.8	0.07	8.5	0.07	8.0	0.07	7.7														
468		443		401		357		318		270													1725
0.08	9.7	0.08	9.4	0.08	9.2	0.08	8.7	0.08	8.4	0.08	8.1												
484		461		422		378		341		299													1787
0.09	10.3	0.09	10.0	0.09	9.8	0.09	9.4	0.09	9.0	0.09	8.8												
501		479		443		399		362		325													1848
0.10	11.0	0.10	10.7	0.10	10.5	0.10	10.1	0.10	9.7	0.10	9.4												
518		496		463		421		384		349													1910
0.11	11.7	0.11	11.4	0.11	11.2	0.11	10.9	0.11	10.4	0.11	10.1												
534		514		483		442		405		371		333											1971
0.12	12.4	0.12	12.1	0.12	11.9	0.12	11.7	0.12	11.2	0.12	10.9	0.12	10.7										
551		532		503		463		426		393		359											2033
0.13	13.3	0.13	12.9	0.13	12.8	0.13	12.6	0.13	12.2	0.13	11.8	0.13	11.5										
568		549		523		485		448		415		383											2095
0.14	14.1	0.14	13.8	0.15	13.6	0.15	13.5	0.15	13.2	0.15	12.7	0.15	12.4										

Performance shown is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream

Power ratings (BHP) do not include drive losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values show are for installation Type B: free inlet fan sone levels.

SQBA08 Performance Data

CFM at Static Pressure																				RPM Range Motor HP			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		1.50					
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/4 D1	1/4 D2	1/4 D3	
369		316		223																			986
0.02	3.4	0.02	3.0	0.02	2.8																		
388		337		261																			1035
0.02	3.7	0.02	3.4	0.02	3.2																		
406		359		293																			1085
0.02	4.2	0.02	3.9	0.02	3.6																		
425		380		323		190																	1134
0.02	4.7	0.03	4.4	0.03	4.1	0.02	3.8																
439		395		344		238																	1171
0.03	5.1	0.03	4.9	0.03	4.5	0.03	4.2																
461		420		375		293																	1232
0.03	5.7	0.03	5.5	0.03	5.1	0.04	4.9																
485		446		404		337																	1294
0.04	6.2	0.04	6.1	0.04	5.7	0.04	5.5																
507		470		430		376		278															1355
0.04	6.7	0.04	6.6	0.04	6.2	0.05	6.0	0.04	5.8														
531		495		457		412		334															1417
0.05	7.2	0.05	7.1	0.05	6.8	0.05	6.5	0.05	6.3														
554		520		484		445		379		267													1479
0.05	7.8	0.05	7.7	0.06	7.3	0.06	7.1	0.06	7.0	0.06	6.8												
577		544		510		474		419		336													1540
0.06	8.4	0.06	8.2	0.06	7.9	0.07	7.6	0.07	7.6	0.07	7.4												
600		568		536		502		456		388													1602
0.07	9.0	0.07	8.8	0.07	8.6	0.07	8.3	0.08	8.2	0.08	8.0												
623		592		562		529		491		430		344											1663
0.08	9.7	0.08	9.5	0.08	9.2	0.08	8.9	0.09	8.8	0.09	8.7	0.08	8.5										
646		617		588		555		522		470		401											1725
0.09	10.4	0.09	10.2	0.09	9.9	0.09	9.6	0.10	9.4	0.10	9.3	0.10	9.2										
669		641		613		582		552		508		448											1787
0.09	11.0	0.10	10.9	0.10	10.6	0.10	10.3	0.10	10.1	0.11	10.0	0.11	9.8										
692		665		638		608		579		543		488		305									1848
0.10	11.7	0.11	11.6	0.11	11.3	0.11	11.1	0.12	10.8	0.12	10.7	0.12	10.5	0.10	10.2								
715		689		663		635		606		575		527		386									1910
0.12	12.5	0.12	12.5	0.12	12.2	0.12	11.9	0.13	11.6	0.13	11.4	0.13	11.3	0.12	10.9								
738		712		687		661		632		604		564		446									1971
0.13	13.3	0.13	13.4	0.13	13.2	0.13	12.8	0.14	12.5	0.14	12.3	0.15	12.0	0.14	11.7								
761		736		712		687		659		633		599		495									2033
0.14	14.2	0.14	14.3	0.14	14.1	0.14	13.7	0.15	13.4	0.15	13.2	0.16	13.0	0.16	12.6								
785		760		736		712		686		660		631		538		383							2095
0.15	15.1	0.15	15.2	0.16	15.0	0.16	14.7	0.16	14.4	0.17	14.1	0.17	13.9	0.18	13.6	0.16	13.3						

Performance shown is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream

Power ratings (BHP) do not include drive losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values show are for installation Type B: free inlet fan sone levels.

SQBA10 Performance Data

CFM at Static Pressure																				RPM Range Motor HP				RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		1.50						
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/4 D1	1/4 D2	1/4 D3	1/3	
452		376		312																				
0.02	3.7	0.02	3.6	0.02	3.2																			986
475		403		351																				
0.02	4.1	0.02	4.0	0.03	3.6																			1035
497		431		378																				
0.02	4.5	0.03	4.4	0.03	4.1																			1085
520		458		402																				
0.03	4.9	0.03	4.8	0.03	4.6																			1134
537		478		419		303																		
0.03	5.2	0.03	5.2	0.04	5.0	0.03	4.5																	1171
565		511		449		407																		
0.03	5.9	0.04	5.9	0.04	5.6	0.04	5.1																	1232
593		542		480		445																		
0.04	6.4	0.04	6.4	0.05	6.2	0.05	5.8																	1294
621		573		511		475		355																
0.04	6.9	0.05	6.9	0.05	6.9	0.06	6.5	0.05	6.2															1355
650		604		544		505		465																
0.05	7.6	0.05	7.6	0.06	7.6	0.06	7.3	0.07	6.9															1417
678		635		578		536		505																
0.06	8.2	0.06	8.2	0.07	8.2	0.07	8.0	0.08	7.7															1479
706		664		612		566		537		446														
0.06	8.8	0.07	8.9	0.08	8.9	0.08	8.9	0.09	8.4	0.08	8.2													1540
735		695		647		597		567		534														
0.07	9.6	0.08	9.6	0.08	9.6	0.09	9.7	0.09	9.3	0.10	9.0													1602
762		724		680		628		597		570		441												
0.08	10.2	0.09	10.3	0.09	10.3	0.10	10.5	0.10	10.1	0.11	9.7	0.10	9.6											1663
791		754		713		660		627		602		561												
0.09	10.9	0.10	11.0	0.10	10.9	0.11	11.1	0.11	10.9	0.12	10.4	0.12	10.2											1725
819		784		745		694		657		632		605												
0.10	11.6	0.11	11.7	0.11	11.7	0.12	11.7	0.13	11.6	0.13	11.2	0.14	10.8											1787
847		813		776		728		688		662		638												
0.11	12.3	0.12	12.4	0.12	12.4	0.13	12.4	0.14	12.4	0.14	12.0	0.15	11.6											1848
876		843		807		763		720		692		669		491										
0.12	13.0	0.13	13.1	0.14	13.1	0.14	13.1	0.15	13.1	0.16	12.8	0.16	12.4	0.15	11.9									1910
904		872		838		797		752		722		699		622										
0.14	13.7	0.14	13.8	0.15	13.8	0.16	13.8	0.16	13.8	0.17	13.6	0.18	13.2	0.18	12.6									1971
932		901		869		831		785		752		729		679										
0.15	14.4	0.15	14.6	0.16	14.6	0.17	14.5	0.18	14.6	0.18	14.5	0.19	14.0	0.20	13.3									2033
961		931		899		864		819		784		759		716										
0.16	15.3	0.17	15.4	0.18	15.5	0.18	15.4	0.19	15.4	0.20	15.3	0.21	15.0	0.22	14.1									2095
989		959		929		896		853		815		789		748		586								
0.18	16.2	0.18	16.3	0.19	16.4	0.20	16.4	0.21	16.3	0.22	16.2	0.22	15.9	0.23	15.0	0.22	14.5							2156
1017		989		959		928		888		848		820		779		715								
0.19	17.1	0.20	17.2	0.21	17.3	0.22	17.4	0.23	17.3	0.23	17.0	0.24	16.8	0.25	16.0	0.26	15.3							2218
1045		1018		989		959		923		881		851		809		764		500						
0.21	18.1	0.22	18.2	0.22	18.3	0.23	18.4	0.24	18.3	0.25	18.1	0.26	17.8	0.27	16.9	0.28	16.1	0.23	15.8					2280
1073		1047		1019		990		956		915		882		838		800		604						
0.23	19.1	0.23	19.2	0.24	19.3	0.25	19.4	0.26	19.4	0.27	19.2	0.28	18.8	0.29	18.0	0.30	17.0	0.28	16.7					2341

Performance shown is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream

Power ratings (BHP) do not include drive losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels.

SQBA12 Performance Data

CFM at Static Pressure																				RPM Range Motor HP						RPM
.125		.250		.375		.500		.750		1.00		1.50		2.00		2.50		3.00								
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/4	1/3	1/2	3/4	1	1½	
985		889		788		661																				1078
0.10	6.5	0.11	6.2	0.11	6.2	0.11	6.0																			
1042		953		860		746																				1132
0.11	7.1	0.12	6.7	0.13	6.9	0.13	6.6																			
1155		1080		993		904		682																		1240
0.15	8.5	0.16	7.9	0.17	8.1	0.17	8.0	0.17	7.4																	
1211		1142		1058		976		769																		1294
0.16	9.3	0.18	8.6	0.19	8.7	0.19	8.8	0.19	8.3																	
1323		1261		1186		1111		937		736																1402
0.21	10.8	0.22	10.2	0.23	10.0	0.24	10.3	0.25	9.9	0.24	9.1															
1378		1318		1249		1175		1017		826																1455
0.23	11.7	0.25	11.1	0.26	10.7	0.27	10.9	0.28	10.7	0.27	10.2															
1434		1376		1312		1239		1093		911																1509
0.26	12.6	0.27	12.0	0.28	11.4	0.29	11.6	0.31	11.6	0.30	11.1															
1489		1433		1373		1303		1166		995																1563
0.28	13.3	0.30	12.8	0.31	12.1	0.32	12.2	0.34	12.4	0.34	11.8															
1545		1490		1434		1367		1236		1079																1617
0.31	14.1	0.33	13.6	0.34	13.0	0.36	12.9	0.37	13.1	0.38	12.7															
1601		1547		1494		1431		1304		1161		812														1671
0.34	14.8	0.36	14.4	0.38	13.9	0.39	13.7	0.41	13.9	0.42	13.5	0.40	12.2													
1656		1603		1553		1494		1370		1238		916														1725
0.38	15.6	0.39	15.2	0.41	14.7	0.43	14.5	0.45	14.7	0.46	14.5	0.45	13.1													
1711		1660		1611		1557		1435		1312		1007														1779
0.41	16.6	0.43	16.1	0.45	15.6	0.46	15.3	0.49	15.5	0.50	15.4	0.49	14.3													
1767		1716		1669		1618		1499		1384		1092														1833
0.45	17.5	0.47	17.1	0.49	16.5	0.50	16.1	0.53	16.3	0.55	16.4	0.54	15.4													
1822		1772		1727		1678		1564		1453		1177														1887
0.49	18.3	0.51	18.0	0.53	17.5	0.55	17.1	0.57	17.0	0.59	17.3	0.60	16.4													
1932		1884		1841		1797		1692		1586		1344		1063												1995
0.57	20	0.60	19.9	0.62	19.5	0.64	19.0	0.67	18.6	0.69	19.0	0.71	18.3	0.69	16.9											
1987		1939		1896		1854		1754		1650		1424		1152												2048
0.62	21	0.64	21	0.66	20	0.68	19.9	0.72	19.4	0.74	19.8	0.77	19.3	0.75	18.3											
2042		1995		1953		1912		1818		1714		1501		1238												2102
0.67	22	0.69	22	0.71	21	0.74	21	0.77	20	0.80	21	0.83	20	0.82	19.5											
2097		2050		2009		1969		1880		1778		1576		1323												2156
0.72	23	0.74	23	0.77	22	0.79	22	0.83	21	0.86	21	0.89	22	0.89	21											
2152		2106		2065		2027		1942		1842		1649		1407		1151										2210
0.77	24	0.80	24	0.82	23	0.85	23	0.89	22	0.92	22	0.96	23	0.96	22	0.94	20									
2207		2162		2121		2084		2003		1906		1719		1491		1246										2264
0.83	25	0.86	25	0.88	25	0.90	24	0.95	23	0.98	23	1.03	24	1.04	22.6	1.02	22									
2261		2217		2178		2140		2063		1970		1788		1574		1334										2318
0.89	26	0.92	26	0.94	26	0.97	25	1.01	24	1.05	24	1.10	25	1.11	24	1.10	23									
2383		2340		2302		2266		2195		2111		1936		1749		1522		1292								2438
1.03	28	1.06	28	1.09	28	1.11	28	1.16	27	1.20	26	1.26	27	1.29	26	1.29	26	1.26	24							
2446		2404		2366		2331		2262		2183		2010		1835		1619		1398								2500
1.11	30	1.14	30	1.17	29	1.19	29	1.25	28	1.29	27	1.35	28	1.39	28	1.39	27	1.37	26							
2510		2469		2431		2396		2330		2255		2086		1919		1716		1499								2563
1.20	31	1.23	31	1.25	31	1.28	30	1.34	29	1.38	28	1.45	29	1.50	29	1.50	28	1.48	27							

Performance shown is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream

Power ratings (BHP) do not include drive losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels.

SQBA13 Performance Data

CFM at Static Pressure																				RPM Range Motor HP						RPM
.125		.250		.375		.500		.750		1.00		1.50		2.00		2.50		3.00								
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/4	1/3	1/2	3/4	1	1½	
1513		1418		1316		1203		916																		1132
0.18	8.9	0.19	8.4	0.20	8.0	0.21	7.8	0.21	7.3																	
1594		1504		1408		1304		1045																		1186
0.20	9.8	0.21	9.2	0.23	8.9	0.24	8.6	0.24	8.2																	
1675		1589		1499		1402		1171																		1240
0.23	10.8	0.24	10.2	0.26	9.8	0.27	9.5	0.28	9.1																	
1755		1673		1588		1497		1288		1025																1294
0.26	11.8	0.27	11.1	0.29	10.7	0.30	10.4	0.31	10.1	0.31	9.7															
1834		1757		1675		1590		1398		1156																1348
0.29	12.8	0.31	12.2	0.32	11.7	0.34	11.4	0.35	11.1	0.35	10.7															
1914		1839		1762		1681		1503		1284																1402
0.33	13.7	0.34	13.0	0.36	12.5	0.37	12.2	0.39	11.9	0.40	11.6															
1992		1920		1846		1769		1602		1404																1455
0.36	14.5	0.38	13.8	0.40	13.3	0.41	12.9	0.44	12.6	0.45	12.3															
2071		2002		1931		1857		1700		1519																1509
0.40	15.3	0.42	14.6	0.44	14.1	0.45	13.8	0.48	13.3	0.50	13.1															
2150		2083		2015		1945		1795		1628		1196														1563
0.45	16.2	0.47	15.5	0.48	15.0	0.50	14.6	0.53	14.1	0.55	13.8	0.55	13.2													
2228		2165		2099		2031		1889		1732		1335														1617
0.49	17.0	0.51	16.4	0.53	15.9	0.55	15.4	0.58	14.9	0.60	14.6	0.61	14.1													
2307		2245		2182		2117		1981		1833		1464														1671
0.54	17.9	0.56	17.2	0.58	16.7	0.60	16.3	0.64	15.8	0.66	15.5	0.68	14.9													
2385		2326		2265		2202		2072		1932		1590														1725
0.60	18.7	0.62	18.1	0.64	17.6	0.66	17.2	0.69	16.7	0.72	16.5	0.74	15.9													
2464		2406		2347		2287		2162		2028		1712														1779
0.65	19.6	0.67	19.0	0.69	18.5	0.71	18.1	0.75	17.7	0.79	17.4	0.82	17.0													
2542		2486		2429		2371		2250		2122		1828		1457												1833
0.71	20	0.73	19.8	0.76	19.4	0.78	19.1	0.82	18.6	0.85	18.3	0.89	17.9	0.89	17.2											
2620		2566		2511		2454		2338		2215		1939		1589												1887
0.78	21	0.80	21	0.82	20	0.84	19.9	0.88	19.4	0.92	19.1	0.97	18.7	0.97	18.2											
2698		2645		2592		2537		2425		2307		2046		1717												1941
0.84	23	0.87	22	0.89	21	0.91	21	0.95	20	1.00	19.9	1.05	19.5	1.06	19.1											
2816		2766		2715		2663		2556		2444		2201		1908		1559										2023
0.95	24	0.98	24	1.00	23	1.02	23	1.07	22	1.11	22	1.18	21	1.20	21	1.19	20									
2895		2846		2797		2746		2643		2535		2303		2029		1701										2078
1.03	25	1.06	25	1.08	24	1.10	24	1.15	23	1.20	23	1.27	22	1.30	22	1.30	21									
2975		2927		2879		2830		2729		2625		2402		2145		1832										2133
1.12	27	1.14	26	1.16	26	1.19	25	1.24	25	1.28	24	1.36	24	1.40	23	1.40	23									
3054		3007		2960		2913		2815		2714		2500		2257		1962		1619								2188
1.20	28	1.23	27	1.25	27	1.28	26	1.33	26	1.38	25	1.46	25	1.51	24	1.52	24	1.49	23							
3131		3086		3040		2994		2899		2801		2594		2363		2088		1777								2242
1.29	29	1.32	29	1.34	28	1.37	28	1.42	27	1.47	26	1.56	26	1.62	26	1.63	25	1.63	24							

Performance shown is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream

Power ratings (BHP) do not include drive losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels.

SQBA15 Performance Data

CFM at Static Pressure																		RPM Range Motor HP						RPM
.125		.250		.375		.500		.750		1.00		1.50		2.00		2.50		3.00							
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/3	1/2	3/4	1	1½	2	
2042		1942		1837		1712		1410																		1119
0.27	12.1	0.29	11.2	0.31	10.7	0.32	9.9	0.32	8.7																	
2136		2040		1942		1827		1548		1210																1166
0.30	13.0	0.32	12.1	0.34	11.6	0.35	10.8	0.37	9.6	0.36	8.9															
2228		2135		2042		1937		1678		1378																1212
0.34	13.9	0.36	13.0	0.38	12.5	0.39	11.9	0.41	10.5	0.41	9.9															
2322		2232		2144		2046		1807		1528																1259
0.38	14.8	0.40	13.9	0.42	13.4	0.44	12.9	0.46	11.5	0.46	11.0															
2413		2326		2241		2150		1929		1666																1305
0.42	15.8	0.44	14.8	0.46	14.3	0.48	14.1	0.51	12.6	0.51	12.2															
2507		2422		2340		2255		2050		1803																1352
0.46	16.8	0.49	15.8	0.51	15.2	0.53	15.1	0.56	13.8	0.57	13.4															
2600		2518		2438		2357		2167		1936																1399
0.51	17.8	0.53	16.9	0.56	16.2	0.58	16.1	0.61	15.1	0.63	14.5															
2784		2706		2631		2557		2390		2188		1713														1492
0.61	19.8	0.64	18.9	0.67	18.3	0.69	18.0	0.73	17.7	0.76	16.7	0.77	16.0													
2876		2800		2728		2656		2499		2311		1862														1539
0.67	21	0.70	20	0.73	19.3	0.76	19.0	0.80	19.0	0.83	17.8	0.84	17.3													
2967		2893		2822		2752		2604		2427		2001														1585
0.73	22	0.76	21	0.79	20	0.82	19.9	0.87	20.3	0.90	19.0	0.92	18.7													
3059		2987		2918		2850		2709		2543		2139		1632												1632
0.80	23	0.83	22	0.86	21	0.89	21	0.94	22	0.97	20	1.01	20	0.98	19.1											
3150		3079		3011		2946		2810		2654		2271		1825												1678
0.87	24	0.90	23	0.93	22	0.96	22	1.01	23	1.05	22	1.09	21	1.09	21											
3291		3223		3158		3094		2966		2823		2472		2065												1750
0.98	26	1.01	25	1.04	24	1.08	24	1.14	24	1.18	24	1.23	23	1.24	23											
3383		3317		3253		3191		3067		2931		2600		2211												1797
1.06	27	1.09	27	1.12	26	1.16	25	1.22	25	1.27	26	1.33	24	1.34	24											
3569		3505		3444		3385		3268		3144		2848		2492		2097										1892
1.23	29	1.27	29	1.30	28	1.34	27	1.40	27	1.46	28	1.53	26	1.57	26	1.57	25									
3661		3599		3539		3480		3366		3248		2967		2627		2253										1939
1.32	30	1.36	30	1.39	29	1.43	28	1.50	28	1.56	28	1.64	26	1.68	27	1.69	26									
3753		3692		3633		3576		3464		3350		3084		2759		2401		1924								1986
1.42	31	1.46	31	1.49	30	1.53	29	1.60	28	1.67	29	1.76	27	1.80	27	1.81	27	1.75	26							
3846		3787		3729		3673		3564		3453		3200		2891		2547		2155								2034
1.52	32	1.56	32	1.60	31	1.64	30	1.71	29	1.78	30	1.88	29	1.93	28	1.95	28	1.94	27							

Performance shown is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream

Power ratings (BHP) do not include drive losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels.

SQBA16 Performance Data

CFM at Static Pressure																				RPM Range Motor HP					RPM
.125		.250		.375		.500		.750		1.00		1.50		2.00		2.50		3.00							
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2	3/4	1	1½	2	
1991		1868		1730		1495																			807
0.20	6.8	0.21	6.6	0.23	6.4	0.23	6.1																		
2096		1973		1858		1644																			844
0.23	7.4	0.24	7.2	0.26	7.0	0.26	6.8																		
2202		2078		1974		1794																			881
0.26	8.0	0.27	7.8	0.29	7.6	0.30	7.4																		
2307		2182		2084		1945		1483																	918
0.29	8.7	0.31	8.4	0.32	8.2	0.33	8.0	0.32	7.3																
2410		2284		2189		2076		1682																	954
0.32	9.3	0.34	9.0	0.36	8.8	0.37	8.6	0.37	8.0																
2515		2388		2295		2198		1841																	991
0.36	9.9	0.38	9.7	0.40	9.4	0.41	9.2	0.42	8.8																
2620		2493		2400		2311		1991		1447															1028
0.40	10.6	0.42	10.4	0.44	10.1	0.45	9.9	0.47	9.5	0.43	8.8														
2722		2595		2502		2418		2136		1740															1064
0.44	11.3	0.46	11.0	0.48	10.8	0.50	10.6	0.52	10.2	0.50	9.4														
2827		2701		2607		2526		2289		1939															1101
0.48	12.1	0.51	11.8	0.53	11.6	0.55	11.3	0.58	10.9	0.57	10.3														
2931		2806		2711		2632		2434		2100															1138
0.53	12.9	0.56	12.7	0.58	12.4	0.60	12.2	0.63	11.7	0.64	11.1														
3033		2909		2813		2735		2562		2247															1174
0.58	13.7	0.61	13.5	0.63	13.2	0.65	13.0	0.69	12.5	0.70	11.9														
3137		3014		2917		2840		2683		2395															1211
0.64	14.5	0.67	14.3	0.69	14.0	0.71	13.8	0.75	13.4	0.77	12.8														
3240		3120		3022		2944		2798		2546															1248
0.69	15.4	0.72	15.2	0.75	14.9	0.78	14.7	0.82	14.2	0.84	13.7														
3344		3225		3127		3049		2908		2698		1996													1285
0.76	16.2	0.79	16.1	0.82	15.9	0.84	15.7	0.88	15.2	0.92	14.6	0.87	13.1												
3497		3382		3283		3204		3069		2905		2335													1340
0.85	17.6	0.89	17.4	0.92	17.3	0.95	17.0	0.99	16.6	1.03	16.1	1.03	14.6												
3603		3490		3392		3311		3179		3033		2506													1378
0.93	18.5	0.96	18.4	0.99	18.2	1.02	18.0	1.07	17.5	1.11	17.0	1.13	15.7												
3706		3596		3497		3416		3284		3151		2659													1415
1.00	19.3	1.04	19.1	1.07	19.0	1.10	18.8	1.15	18.3	1.19	17.8	1.23	16.6												
3809		3701		3603		3521		3390		3263		2808		2032											1452
1.08	20	1.12	20	1.15	19.8	1.18	19.6	1.24	19.1	1.28	18.6	1.33	17.6	1.20	16.1										
3911		3806		3708		3626		3494		3374		2957		2347											1489
1.16	21	1.20	21	1.24	21	1.27	21	1.33	20	1.37	19.5	1.43	18.4	1.36	17.0										
4017		3913		3817		3734		3602		3485		3112		2593											1527
1.25	22	1.29	22	1.33	22	1.36	21	1.42	21	1.47	20	1.54	19.4	1.51	18.0										
4119		4018		3922		3839		3706		3592		3265		2774											1564
1.34	23	1.38	23	1.42	23	1.46	22	1.52	22	1.57	21	1.65	20	1.64	19.0										
4221		4122		4028		3944		3810		3699		3411		2935											1601
1.44	24	1.48	23	1.52	23	1.56	23	1.62	23	1.68	22	1.76	21	1.77	20										
4323		4226		4133		4050		3915		3804		3547		3087		2396									1638
1.54	24	1.58	24	1.62	24	1.66	24	1.73	24	1.78	23	1.88	22	1.91	21	1.76	19.7								
4428		4333		4242		4158		4022		3912		3676		3240		2707									1676
1.65	25	1.69	25	1.73	25	1.77	25	1.84	25	1.90	24	2.00	23	2.04	22	1.96	20.7								

Performance shown is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream

Power ratings (BHP) do not include drive losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels.

SQBA18 Performance Data

CFM at Static Pressure																		RPM Range Motor HP						RPM
.125		.250		.375		.500		.750		1.00		1.50		2.00		2.50		3.00								
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2	3/4	1	1½	2	3	
2423		2252		2031		1807																				
0.23	6.6	0.25	6.3	0.27	5.8	0.27	5.4																			734
2561		2403		2202		1984																				
0.26	7.2	0.28	6.9	0.30	6.6	0.31	6.1																			771
2695		2546		2364		2155																				
0.30	7.9	0.32	7.5	0.34	7.2	0.36	6.7																			807
2831		2690		2526		2329		1939																		
0.34	8.5	0.36	8.2	0.39	8.0	0.40	7.5	0.41	6.8																	844
2967		2833		2683		2500		2126																		
0.38	9.3	0.41	8.9	0.43	8.7	0.45	8.3	0.47	7.4																	881
3103		2975		2836		2668		2305																		
0.43	10.0	0.46	9.7	0.48	9.4	0.51	9.1	0.53	8.1																	918
3235		3111		2982		2828		2477		2122																
0.48	10.7	0.51	10.3	0.54	10.1	0.56	9.9	0.59	8.9	0.59	8.4															954
3369		3251		3128		2987		2652		2324																
0.53	11.5	0.56	11.1	0.59	10.9	0.62	10.6	0.66	9.7	0.67	9.0															991
3504		3390		3273		3143		2826		2507																
0.59	12.3	0.62	11.9	0.66	11.7	0.68	11.5	0.73	10.7	0.75	9.7															1028
3635		3524		3412		3291		2993		2680																
0.65	13.1	0.69	12.7	0.72	12.4	0.75	12.3	0.80	11.6	0.82	10.7															1064
3769		3662		3554		3440		3163		2857																
0.72	13.9	0.76	13.5	0.79	13.2	0.82	13.1	0.88	12.6	0.91	11.6															1101
3902		3799		3695		3587		3329		3033																
0.79	14.8	0.83	14.4	0.87	14.1	0.90	13.9	0.96	13.5	1.00	12.7															1138
4032		3932		3832		3729		3488		3202		2632														
0.86	15.6	0.91	15.2	0.94	14.9	0.98	14.7	1.04	14.3	1.09	13.6	1.10	12.2													1174
4230		4134		4039		3942		3723		3458		2923														
0.99	16.8	1.03	16.3	1.07	16.0	1.11	15.8	1.18	15.4	1.24	14.8	1.27	13.3													1229
4364		4270		4177		4084		3878		3628		3104														
1.08	17.5	1.12	17.0	1.17	16.7	1.20	16.5	1.28	16.2	1.34	15.7	1.39	14.2													1266
4497		4406		4316		4225		4030		3795		3282														
1.17	18.3	1.22	17.8	1.26	17.5	1.30	17.2	1.38	16.9	1.45	16.5	1.52	15.2													1303
4629		4541		4453		4365		4180		3959		3459		2943												
1.27	19.1	1.32	18.6	1.37	18.2	1.41	18.0	1.49	17.7	1.56	17.3	1.64	16.2	1.63	15.1											1340
4766		4680		4594		4509		4331		4124		3640		3164												
1.38	20	1.43	19.5	1.48	19.1	1.52	18.8	1.60	18.5	1.68	18.1	1.78	17.1	1.79	15.9											1378
4898		4814		4731		4648		4477		4282		3814		3355												
1.49	21	1.54	20	1.59	20	1.64	19.7	1.72	19.3	1.80	19.0	1.92	18.1	1.94	16.8											1415
5031		4949		4868		4787		4622		4437		3988		3536												
1.61	22	1.66	21	1.71	21	1.76	21	1.85	20	1.93	19.8	2.06	19.1	2.10	17.7											1452
5163		5083		5004		4925		4765		4590		4160		3715		3227										
1.73	23	1.79	22	1.84	22	1.89	22	1.98	21	2.06	21	2.21	20.0	2.26	18.7	2.22	18.1									1489
5263		5185		5107		5029		4873		4704		4289		3849		3406										
1.83	23	1.88	23	1.94	23	1.99	22	2.08	22	2.17	21	2.32	20.7	2.39	19.5	2.38	18.6									1517
5402		5326		5250		5174		5023		4861		4468		4036		3619										
1.97	24	2.03	24	2.08	24	2.14	23	2.23	23	2.32	22	2.49	22	2.57	20.7	2.58	19.5									1556
5538		5463		5389		5315		5168		5013		4639		4216		3810										
2.11	25	2.17	25	2.23	24	2.29	24	2.39	24	2.48	23	2.65	23	2.75	22	2.78	21									1594
5677		5604		5532		5460		5316		5166		4813		4400		4000		3549								
2.27	26	2.33	26	2.39	25	2.45	25	2.55	25	2.65	24	2.83	24	2.95	23	2.99	22	2.93	21							1633

Performance shown is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream

Power ratings (BHP) do not include drive losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels.

SQBA20 Performance Data

CFM at Static Pressure																				RPM Range Motor HP					RPM
.125		.250		.375		.500		.750		1.00		1.50		2.00		2.50		3.00							
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	3/4	1	1½	2	3	
4184		4001		3822		3642		3225																	878
0.64	14.1	0.67	11.8	0.70	10.5	0.73	9.8	0.75	9.1																
4349		4172		4000		3827		3443		2861															910
0.71	15.1	0.74	12.8	0.77	11.3	0.80	10.7	0.83	9.9	0.82	8.8														
4577		4407		4242		4078		3728		3275															954
0.82	16.3	0.85	14.2	0.88	12.6	0.91	11.8	0.96	11.0	0.96	10.0														
4768		4603		4444		4286		3957		3561															991
0.91	17.3	0.95	15.4	0.98	13.7	1.01	12.9	1.06	12.0	1.08	11.1														
5035		4878		4726		4576		4270		3924															1043
1.06	18.8	1.10	17.2	1.13	15.4	1.17	14.4	1.23	13.4	1.26	12.7														
5224		5073		4925		4780		4487		4167															1080
1.18	19.9	1.21	18.3	1.25	16.6	1.29	15.4	1.35	14.5	1.39	13.8														
5414		5267		5123		4982		4701		4401		3533													1117
1.30	21	1.34	19.5	1.38	17.9	1.41	16.5	1.48	15.6	1.53	14.8	1.52	12.9												
5603		5460		5321		5184		4913		4629		3890													1154
1.43	22	1.47	21	1.51	19.0	1.55	17.8	1.62	16.8	1.68	16.0	1.70	14.1												
5791		5653		5518		5385		5122		4851		4191													1191
1.57	23	1.61	22	1.65	20	1.69	19.0	1.77	17.9	1.83	17.1	1.88	15.5												
5985		5851		5719		5590		5335		5076		4472													1229
1.72	24	1.77	23	1.81	22	1.85	20	1.93	19.1	2.00	18.3	2.06	16.9												
6173		6043		5914		5788		5541		5291		4729		3763											1266
1.88	25	1.92	24	1.97	23	2.01	22	2.09	20	2.17	19.4	2.25	18.1	2.15	16.2										
6361		6234		6109		5986		5745		5504		4975		4219											1303
2.05	26	2.09	25	2.14	24	2.18	23	2.27	21	2.34	20	2.45	19.1	2.42	17.1										
6549		6425		6304		6184		5949		5715		5214		4556											1340
2.22	28	2.27	27	2.32	25	2.36	24	2.45	22	2.53	21	2.65	20	2.66	18.2										
6742		6621		6503		6386		6157		5930		5452		4860											1378
2.41	29	2.46	28	2.51	27	2.56	25	2.65	23	2.74	22	2.87	21	2.90	19.5										

Performance shown is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream

Power ratings (BHP) do not include drive losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels.

SQBA24 Performance Data

CFM at Static Pressure																				RPM Range Motor HP							RPM
.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		2.50									
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2	3/4	1	1½	2	3	5	
4389		4038		3538																							567
0.34	6.6	0.36	6.1	0.38	5.5																						
4830		4504		4146		3413																					616
0.43	7.6	0.46	7.2	0.48	6.7	0.47	6.0																				
5055		4737		4413		3878																					641
0.49	8.2	0.51	7.8	0.53	7.4	0.54	6.7																				
5813		5518		5248		4947		3292																			726
0.70	10.5	0.72	10.1	0.75	9.7	0.78	9.2	0.73	8.0																		
6256		5972		5717		5458		4598																			776
0.85	11.9	0.88	11.5	0.91	11.1	0.94	10.7	0.96	9.4																		
6513		6235		5986		5741		5049		2849																	805
0.95	12.8	0.97	12.4	1.00	12.0	1.04	11.6	1.08	10.4	0.92	9.9																
6997		6731		6492		6265		5738		4553																	860
1.16	14.6	1.18	14.2	1.21	13.8	1.24	13.4	1.31	12.4	1.27	11.1																
7261		7000		6766		6546		6068		5203																	890
1.28	15.6	1.31	15.1	1.33	14.7	1.37	14.4	1.44	13.5	1.45	12.1																
7533		7278		7048		6834		6390		5707																	921
1.42	16.6	1.44	16.1	1.47	15.7	1.51	15.4	1.58	14.6	1.62	13.3																
7805		7555		7329		7120		6700		6132		4803															952
1.57	17.6	1.59	17.1	1.62	16.7	1.65	16.3	1.73	15.5	1.78	14.4	1.70	13.2														
8067		7823		7601		7395		6993		6499		5567															982
1.72	18.5	1.74	18.1	1.77	17.6	1.81	17.2	1.88	16.5	1.95	15.4	1.93	14.1														
8338		8099		7881		7679		7291		6848		6123		4200													1013
1.89	19.5	1.91	19.0	1.94	18.6	1.97	18.2	2.05	17.5	2.13	16.6	2.14	15.2	1.93	14.5												
8661		8428		8214		8016		7642		7240		6667		5484													1050
2.10	21	2.12	20	2.15	19.7	2.18	19.3	2.27	18.6	2.35	17.9	2.39	16.7	2.31	15.4												
8896		8667		8457		8261		7895		7515		7015		6124													1077
2.27	22	2.29	21	2.32	21	2.35	20	2.43	19.5	2.52	18.8	2.58	17.7	2.55	16.3												
9131		8906		8699		8506		8147		7783		7337		6614													1104
2.44	23	2.46	22	2.49	22	2.52	21	2.61	20	2.69	19.7	2.77	18.8	2.77	17.4												
9365		9145		8941		8750		8397		8047		7639		7034													1131
2.63	23	2.64	23	2.67	22	2.71	22	2.79	21	2.88	21	2.96	19.8	2.99	18.6												
9600		9383		9182		8994		8646		8307		7929		7407													1158
2.82	24	2.84	24	2.86	23	2.90	23	2.98	22	3.07	22	3.16	21	3.21	19.7												
9895		9683		9486		9301		8959		8631		8280		7833		5626											1192
3.07	26	3.09	25	3.12	24	3.15	24	3.23	23	3.33	23	3.42	22	3.49	21	3.27	19.0										
10112		9903		9708		9526		9188		8867		8530		8124		6460											1217
3.27	26	3.29	26	3.31	25	3.35	25	3.43	24	3.53	23	3.62	23	3.70	22	3.61	19.8										
10337		10131		9940		9760		9426		9111		8787		8413		7059											1243
3.48	27	3.50	27	3.53	26	3.56	26	3.64	25	3.74	24	3.84	24	3.93	23	3.92	21										
10553		10351		10162		9984		9654		9344		9030		8680		7523											1268
3.70	28	3.71	28	3.74	27	3.77	27	3.85	26	3.95	25	4.06	25	4.15	24	4.20	22										
10770		10571		10384		10208		9881		9576		9271		8939		7928											1293
3.92	29	3.94	29	3.96	28	3.99	28	4.08	27	4.17	26	4.28	26	4.38	25	4.47	23										
10994		10798		10614		10440		10117		9817		9519		9203		8307		5775									1319
4.16	30	4.18	30	4.20	29	4.23	29	4.32	28	4.41	27	4.52	27	4.62	26	4.75	24	4.33	23								
11210		11017		10836		10664		10344		10047		9756		9452		8643		6713									1344
4.40	31	4.42	31	4.44	30	4.47	30	4.56	29	4.65	28	4.76	28	4.87	27	5.02	25	4.77	24								

Performance shown is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream

Power ratings (BHP) do not include drive losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B:free inlet fan sone levels.

SQBA30 Performance Data

CFM at Static Pressure																						RPM Range Motor HP							RPM
.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		2.50											
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	3/4	1	1½	2	3	5	7½	
5949		5416		4187																									
0.37	5.7	0.41	5.3	0.41	4.5																								422
6258		5766		4959																									
0.42	6.2	0.46	5.9	0.49	5.0																								441
6564		6106		5470																									
0.47	6.7	0.52	6.4	0.55	5.6																								460
7173		6766		6273		5326																							
0.59	7.9	0.64	7.6	0.69	7.0	0.69	6.3																						498
7649		7275		6841		6241																							
0.70	8.9	0.75	8.6	0.80	8.1	0.84	7.3																						528
7964		7609		7204		6693																							
0.78	9.6	0.83	9.3	0.88	8.9	0.93	8.0																						548
8295		7957		7578		7124																							
0.87	10.4	0.92	10.0	0.98	9.7	1.03	9.0																						569
8984		8677		8340		7960		6644																					
1.08	12.3	1.14	11.8	1.19	11.5	1.25	11.0	1.29	9.2																				613
9311		9017		8696		8341		7316																					
1.19	13.2	1.25	12.7	1.31	12.3	1.37	12.0	1.45	10.1																				634
9701		9420		9116		8785		7931																					
1.33	14.2	1.39	13.8	1.45	13.4	1.52	13.1	1.62	11.3																				659
10011		9740		9450		9134		8362		6174																			
1.45	15.1	1.52	14.6	1.58	14.3	1.64	14.0	1.76	12.4	1.67	10.9																		679
10337		10075		9796		9496		8787		7353																			
1.59	16.0	1.65	15.5	1.72	15.2	1.78	14.9	1.91	13.6	1.90	11.8																		700
10631		10378		10109		9820		9155		8061																			
1.72	16.8	1.78	16.3	1.85	15.9	1.92	15.6	2.05	14.6	2.10	12.7																		719
11233		10995		10744		10477		9881		9091		6794																	
2.00	18.4	2.07	17.9	2.14	17.5	2.21	17.2	2.36	16.5	2.47	14.8	2.31	13.6																758
11542		11311		11068		10811		10243		9530		8015																	
2.16	19.2	2.23	18.7	2.31	18.3	2.38	18.0	2.52	17.4	2.65	15.9	2.60	14.5																778
11896		11673		11438		11192		10652		10002		8919																	
2.36	20	2.43	19.8	2.50	19.3	2.58	18.9	2.73	18.3	2.87	17.1	2.90	15.6																801
12466		12253		12031		11799		11298		10720		9943		8030															
2.69	22	2.77	22	2.84	21	2.92	21	3.08	20	3.23	19.0	3.34	17.5	3.18	16.5														838
13034		12831		12621		12402		11932		11405		10763		9687															
3.06	24	3.14	23	3.22	23	3.30	22	3.46	22	3.62	21	3.77	19.5	3.78	18.2														875
13601		13408		13208		13000		12558		12071		11507		10746															
3.46	26	3.54	25	3.62	24	3.70	24	3.87	23	4.05	23	4.21	22	4.31	20														912
13893		13704		13508		13306		12876		12407		11872		11194															
3.67	27	3.76	26	3.84	25	3.93	25	4.10	24	4.27	24	4.44	23	4.58	21														931
14321		14139		13950		13755		13343		12896		12398		11800		8614													
4.01	28	4.09	27	4.18	27	4.27	26	4.45	26	4.63	25	4.81	24	4.96	23	4.68	21												959
14582		14402		14217		14026		13624		13190		12710		12148		9744													
4.22	29	4.31	28	4.40	28	4.49	27	4.67	26	4.85	26	5.03	25	5.20	24	5.08	22												976
15102		14929		14751		14568		14184		13772		13324		12817		11173													
4.67	31	4.76	30	4.86	29	4.95	29	5.13	28	5.32	28	5.51	27	5.70	26	5.81	23												1010
15606		15439		15268		15092		14723		14331		13908		13441		12152													
5.14	33	5.23	32	5.33	31	5.42	31	5.61	30	5.81	29	6.01	29	6.20	28	6.45	25												1043
16125		15964		15799		15629		15276		14901		14501		14066		12970		10040											
5.65	35	5.75	34	5.85	33	5.94	33	6.14	32	6.34	31	6.55	31	6.75	30	7.08	27	6.70	26										1077

Performance shown is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream

Power ratings (BHP) do not include drive losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B:free inlet fan sone levels.

SQBA36 Performance Data

CFM at Static Pressure																				RPM Range Motor HP								RPM
.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		2.50										
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	3/4	1	1½	2	3	5	7½	10	
8143		7044																										331
0.52	5.8	0.55	4.9																									
9010		8020		6686																								359
0.65	6.9	0.69	6.1	0.72	5.7																							
9595		8652		7571																								378
0.76	7.7	0.80	7.0	0.83	6.3																							
10085		9173		8206		5827																						394
0.85	8.3	0.90	7.7	0.93	7.0	0.88	7.0																					
10788		9910		9043		7850																						417
1.00	9.3	1.06	8.9	1.09	8.0	1.12	7.7																					
11277		10417		9596		8594																						433
1.12	10.0	1.18	9.6	1.22	8.8	1.25	8.3																					
11795		10951		10168		9285																						450
1.25	10.9	1.31	10.5	1.36	9.7	1.39	9.1																					
12738		11916		11185		10423																						481
1.52	12.3	1.58	12.2	1.64	11.5	1.68	10.6																					
13195		12381		11668		10944		8738																				496
1.67	13.2	1.73	13.0	1.79	12.3	1.83	11.6	1.89	10.9																			
14077		13274		12590		11920		10293																				525
1.98	14.6	2.03	14.6	2.11	14.1	2.16	13.3	2.23	12.3																			
14532		13736		13063		12414		10931																				540
2.15	15.4	2.20	15.4	2.28	14.9	2.34	14.2	2.41	13.1																			
15413		14624		13970		13353		12045		9800																		569
2.51	16.7	2.56	16.8	2.64	16.5	2.71	15.9	2.79	14.6	2.83	14.4																	
16565		15785		15149		14563		13387		11921																		607
3.05	18.5	3.08	18.6	3.17	18.4	3.25	18.0	3.36	16.7	3.44	16.1																	
16991		16212		15581		15004		13864		12517																		621
3.27	19.2	3.30	19.3	3.38	19.2	3.47	18.7	3.58	17.6	3.66	16.7																	
17840		17065		16442		15880		14798		13610		11844																649
3.74	21	3.75	21	3.83	21	3.93	20	4.07	19.2	4.14	18.2	4.24	18.0															
18687		17916		17302		16752		15713		14626		13254																677
4.25	22	4.25	22	4.32	22	4.42	22	4.59	21	4.68	19.9	4.77	19.4															
19143		18373		17761		17217		16197		15151		13900		11540														692
4.54	23	4.53	23	4.61	23	4.70	23	4.88	22	4.98	21	5.07	20	5.04	20													
19930		19163		18556		18020		17029		16040		14931		13372														718
5.08	24	5.06	24	5.12	25	5.22	24	5.42	23	5.54	22	5.62	22	5.74	21													
20323		19558		18953		18421		17442		16476		15418		14029														731
5.36	25	5.33	25	5.40	25	5.50	25	5.70	24	5.83	23	5.91	22	6.03	22													
21109		20349		19747		19220		18263		17337		16356		15183														757
5.96	26	5.92	27	5.97	27	6.07	27	6.29	26	6.44	25	6.54	24	6.64	24													
21927		21168		20569		20048		19110		18217		17295		16259														784
6.64	28	6.57	28	6.62	28	6.71	28	6.94	28	7.12	27	7.23	26	7.32	25													
22743		21989		21391		20875		19953		19086		18211		17263		14345												811
7.36	30	7.28	30	7.31	30	7.40	30	7.63	30	7.84	28	7.97	28	8.06	27	8.25	26											
23225		22475		21877		21363		20450		19598		18744		17837		15328												827
7.81	31	7.72	31	7.74	31	7.83	31	8.06	31	8.28	30	8.43	29	8.53	28	8.77	27											
23707		22960		22365		21852		20946		20106		19273		18399		16149												843
8.28	32	8.18	32	8.20	32	8.28	32	8.51	32	8.74	31	8.90	30	9.01	29	9.25	28											
24191		23444		22852		22341		21441		20613		19797		18952		16884												859
8.77	33	8.65	33	8.66	34	8.74	34	8.98	33	9.22	32	9.39	31	9.51	30	9.75	29											

Performance shown is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream

Power ratings (BHP) do not include drive losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B:free inlet fan sone levels.

SQDA
Direct Drive Square In-Line Fans

Applications

The SQDA units are quiet, dependable in-line centrifugal fans recommended for a wide range of general exhaust applications where low to medium ranges of air volume and pressure are specified, in both ducted and non-ducted ventilation systems. Applications include virtually all types of light manufacturing, commercial and institutional buildings such as shopping centers, hospitals, schools, hotels, office and apartment buildings, warehouses, airports, bus terminals and many others.

Designed for easy positioning and quick installation, the versatile Square In-Line can be located inside equipment rooms, in ceiling spaces or as parts of O.E.M. equipment.

The advantages of a SQDA direct-drive over a belt-drive in-line unit include lower maintenance requirements, reduced risks of lower performance levels as a result of loosened belts, and lower operating costs.

Construction

SQDA models feature a housing of durable mill galvanized outer “skin” over a rigid frame which is designed to provide an attractive finish, yet be a rigid unit to resist severe installation and handling conditions commonly encountered. Three of the four sides of the unit are removable, providing access to the internal parts for inspection and maintenance without disturbing the framework.

The overlapping deep-spun venturi minimizes air turbulence and increases efficiency. The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise levels. Backplate fins draw cool air through the motor compartment. The wheels are computer balanced on state-of-the-art equipment.

The SQDA wheel is secured to a machined aluminum hub with a line bore, which eliminates the need for bushings.

Drive Mechanism

SQDA models have all the advantages of a direct-drive assembly. There are no belts, bearings or pulleys to consume power or require maintenance.

Motors

The standard motor for most SQDA models is open construction, located out of the airstream. Totally enclosed, energy efficient, two-speed and explosion-proof motors may also be available. Motor enclosure may affect UL Listing. All motor brands are recognized and serviced nationwide.

c UL us LISTED

UL705 - E39944

Type SQDA ventilators are Listed by Underwriters Laboratory Inc. to US and Canadian safety standards.

amca CERTIFIED RATINGS SOUND AND AIR PERFORMANCE AIR MOVEMENT AND CONTROL ASSOCIATION INTERNATIONAL, INC.

American Coolair Corporation, ILG Industries Division certifies that the Type SQDA units shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Duct mounted square in-line fans shall be of the SQDA centrifugal type as manufactured by ILG Industries Division of American Coolair Corporation (individual models to be listed in fan schedule). Units shall bear the AMCA Certified Ratings Seal for sound and air performance. Housing and rigid frame of the fans to be galvanized steel, with wheel and venturi overlapping for efficient operation. Three sides of the unit are to be removable for access to the inside fan components and drive.

Drive construction shall be of the direct-drive design. The line bore hub shall be mounted onto the backplate of the centrifugal wheel. The centrifugal wheel shall be heavy gauge aluminum with backward-inclined, non-overloading blades and be computer balanced.

Motor shall be open construction, NEMA design B. The unit shall be equipped with a safety disconnect device. Optional variable speed control on some models allows for field adjustment and system balance.

(Backdraft damper, epoxy coating and other accessories shall be listed in the fan schedule.)

SQDA06 - SQDA10 Performance Data

SQDA06	CFM at Static Pressure																RPM RANGE OF SELECTED MODELS		RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		SQDA06A11	SQDA06E16	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP	1/10 HP	
149																				
0.01	0.5																			550
210		122																		
0.01	1.7	0.01	1.0																	775
258		190																		
0.01	3.0	0.01	2.3																	950
298		242		175																
0.02	4.2	0.02	3.6	0.02	3.1															1100
339		294		236		163														
0.03	5.6	0.03	5.1	0.03	4.7	0.03	4.3													1250
393		360		306		259		192												
0.05	7.2	0.05	6.8	0.05	6.4	0.05	6.0	0.05	5.7											1450
447		421		375		331		289												
0.07	9.0	0.07	8.7	0.07	8.4	0.07	7.9	0.07	7.6											1650

SQDA08	CFM at Static Pressure																RPM RANGE OF SELECTED MODELS		RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		SQDA08A11	SQDA08E16	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP	1/10 HP	
204																				
0.01	0.5																			550
287		210																		
0.01	1.7	0.01	1.4																	775
352		297		192																
0.01	3.1	0.02	2.7	0.02	2.5															950
408		361		299																
0.02	4.3	0.02	4.0	0.03	3.8															1100
463		423		379		308														
0.03	5.9	0.03	5.7	0.04	5.3	0.04	5.1													1250
537		503		466		425		359		220										
0.05	7.5	0.05	7.4	0.05	7.1	0.06	6.8	0.06	6.7	0.05	6.5									1450
593		561		529		495		449		388										
0.07	9.0	0.07	8.8	0.07	8.5	0.07	8.3	0.08	8.2	0.08	8.0									1600

SQDA10	CFM at Static Pressure																RPM RANGE OF SELECTED MODELS		RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		SQDA10A11	SQDA10E15	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP	1/10 HP	
250																				
0.01	0.5																			550
375		292																		
0.01	2.4	0.01	2.3																	825
443		366		281																
0.02	3.6	0.02	3.5	0.02	3.1															975
500		435		381																
0.02	4.6	0.03	4.5	0.03	4.2															1100
568		515		453		414														
0.03	6.1	0.04	6.1	0.04	5.8	0.05	5.3													1250
636		590		529		492		443												
0.05	7.4	0.05	7.4	0.06	7.4	0.06	7.1	0.07	6.7											1400
704		663		612		564		536		466										
0.07	9.0	0.07	9.0	0.08	9.0	0.08	9.0	0.09	8.6	0.09	8.4									1550

Performance shown is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstrear

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels

AMCA Certified Ratings apply to SQDA Square In-Line constant speed fans and not variable speed fans.

SQDA12 - SQDA13 Performance Data

SQDA12	CFM at Static Pressure																RPM RANGE OF SELECTED MODELS		RPM
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		SQDA12E10	SQDA12J17*	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/8 HP	1/2 HP	
569		379																		
0.01	1.6	0.02	1.2																	570
628		465																		
0.02	2.1	0.02	1.7																	630
683		536		337																
0.02	2.7	0.03	2.3	0.03	2.0															685
768		638		480																
0.03	3.5	0.04	3.1	0.04	2.9															770
848		733		601		435														
0.04	4.4	0.05	3.9	0.05	3.7	0.05	3.4													850
923		819		703		559														
0.05	5.3	0.06	4.7	0.07	4.6	0.07	4.3													925
998		901		796		676		536												
0.07	6.1	0.08	5.6	0.09	5.4	0.09	5.2	0.09	4.8											1000
1022		928		826		713		578												
0.07	6.3	0.09	5.9	0.09	5.7	0.10	5.5	0.09	5.2											1025
1721		1656		1603		1553		1494		1370		1238		1078		916				
0.36	15.9	0.38	15.6	0.39	15.2	0.41	14.7	0.43	14.5	0.45	14.7	0.46	14.5	0.46	14.0	0.45	13.1			1725

SQDA13	CFM at Static Pressure																RPM RANGE OF SELECTED MODELS		RPM
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		SQDA13F11	SQDA13K17*	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/5 HP	3/4 HP	
807		609																		
0.02	2.8	0.03	1.5																	570
892		719																		
0.03	3.4	0.03	2.2																	630
970		814		604																
0.04	4.1	0.04	3.0	0.05	2.4															685
1091		954		791																
0.05	5.0	0.06	4.0	0.07	3.4															770
1204		1082		943		766														
0.07	6.0	0.08	5.0	0.09	4.4	0.09	4.0													850
1310		1199		1076		932		750												
0.09	6.9	0.10	6.0	0.11	5.4	0.11	5.0	0.11	4.7											925
1417		1314		1203		1079		928												
0.11	7.8	0.12	7.0	0.13	6.4	0.14	6.1	0.14	5.8											1000
1516		1420		1318		1207		1080												
0.14	8.7	0.15	8.0	0.16	7.4	0.17	7.1	0.18	6.8											1070
1594		1503		1407		1304		1189		899										
0.16	9.6	0.17	8.8	0.19	8.3	0.20	7.9	0.20	7.7	0.21	7.2									1125
2479		2422		2363		2303		2242		2114		1976		1825		1648				
0.60	18.9	0.62	19.1	0.64	18.5	0.66	18.0	0.68	17.6	0.72	17.2	0.75	16.9	0.77	16.7	0.78	16.4			1750

Performance shown is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstrear

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels

* - These models are not compatible with variable speed control.

AMCA Certified Ratings apply to SQDA Square In-Line constant speed fans and not variable speed fans.

SQDA15 - SQDA18 Performance Data

SQDA15	CFM at Static Pressure																RPM RANGE OF SELECTED MODELS		RPM
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		SQDA15H10	SQDA15L17*	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/3 HP	1 HP	
1095		882																		570
0.03	4.7	0.04	2.8																	
1210		1024		765																630
0.04	5.5	0.05	3.8	0.06	2.7															
1316		1147		927																685
0.06	6.3	0.07	4.7	0.07	3.5															
1479		1329		1157		932														770
0.08	7.6	0.09	6.0	0.10	5.1	0.11	4.3													
1633		1496		1353		1167		951												850
0.11	8.9	0.12	7.4	0.14	6.7	0.14	5.8	0.14	5.3											
1777		1649		1525		1370		1185												925
0.14	10.1	0.16	8.7	0.17	8.2	0.18	7.1	0.18	6.6											
1921		1802		1690		1559		1399		1002										1000
0.18	11.4	0.19	9.9	0.21	9.2	0.22	8.5	0.23	7.7	0.23	6.8									
2065		1954		1850		1737		1600		1275										1075
0.22	12.7	0.24	11.3	0.26	10.4	0.27	10.0	0.28	9.0	0.29	8.0									
3314		3242		3173		3107		3043		2912		2765		2595		2403				1725
0.91	26	0.94	25	0.97	25	1.00	24	1.03	23	1.09	24	1.14	23	1.16	22	1.18	22			

SQDA16	CFM at Static Pressure																RPM OF SELECTED MODELS		RPM
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		SQDA16J8*	SQDA16L11*	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2 HP	1 HP	
2226		2042		1919		1794		1568												825
0.19	6.5	0.21	6.1	0.23	5.8	0.24	5.6	0.24	5.5											
3077		2937		2812		2717		2638		2442		2108		1540						1140
0.51	12.1	0.53	11.7	0.56	11.3	0.58	10.9	0.60	10.5	0.64	10.3	0.64	10.0	0.58	9.3					

SQDA18	CFM at Static Pressure																RPM OF SELECTED MODELS		RPM
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		SQDA18J8*	SQDA18L11*	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2 HP	1 HP	
2905		2761		2616		2444		2240		1830										825
0.28	8.9	0.32	8.2	0.34	7.9	0.36	7.6	0.38	7.1	0.38	6.5									
4014		3910		3806		3703		3595		3338		3042		2757						1140
0.75	15.4	0.79	14.8	0.83	14.4	0.87	14.1	0.90	13.9	0.97	13.6	1.01	12.7	1.02	11.9					

Performance shown is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstrear

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels

* - These models are not compatible with variable speed control.

AMCA Certified Ratings apply to SQDA Square In-Line constant speed fans and not variable speed fans.

Installation

Most SQBA and SQDA in-line centrifugal fans are shipped fully assembled and ready for installation. Always inspect equipment for transit damage before accepting delivery to assure a valid claim. Special handling and storage procedures are required if unit is to remain idle for a long time prior to installation.

Placement

For convenience in wiring and service, it is recommended that the fans be installed so that the motor is easily accessible. In addition, belt-driven units should be accessibly installed for maintenance and servicing of belts, bearings, and pulleys.

Mounting

SQBA and SQDA in-line centrifugal fans may be mounted in any orientation within a system of ductwork. All fans should be rigidly mounted in such a manner that the unit is adequately supported by either the ductwork or by ceiling/floor supports.

The SQBA and SQDA units are designed with slip-fit duct connectors as standard. Flexible duct connections or transition pieces may be used in mounting the fan. However, make sure that proper duct design is maintained so as not to obstruct airflow. For ease of installation, mounting flanges and round duct connectors are available. See pages 22-23.

Inspection

- **Check centrifugal wheel** for free rotation.
- **Check belt** for proper tension. (SQBA)
- **Check bearings** for proper and secure locking to drive shaft. (SQBA)
- **Check motor and fan sheave faces** for proper alignment. (SQBA)
- **Check circuit phase, voltage and wiring connection** against that shown on motor nameplate.
- **Check direction of fan rotation** for proper air flow.
- **After one week of operation**, **check belt** for proper tension. (SQBA)

Maintenance

Units should be checked monthly for the first two or three months and periodically thereafter. On all SQBA and SQDA units, three of the four side panels are removable for ease in cleaning and maintenance.

Cleaning and Adjustment

Units should be cleaned periodically to remove accumulated dust, dirt, and other foreign matter which may collect on the blades or other parts. Fans should be checked for eroded parts which should be replaced to avoid structural damage and possible failure.

On belt drive units, belt wear, tension, and alignment should be checked. Note that belt and/or pulley misalignment will cause excessive belt wear and premature failure. This check of the drive components should be made frequently during the first 24-48 hours of the fan's operation.

Lubrication

Proper lubrication is the most important maintenance requirement. Fan bearings on belt drive units should be lubricated annually or more frequently depending on usage and operating conditions. For best results, use a #2 consistency lithium base grease such as Shell Alvania #2 lubricant or equivalent.

Motor bearings should be lubricated according to the motor manufacturer's instructions.

Adjustment of Variable Pitch Pulley and Belt (SQBA)

Variable pitch pulley may be adjusted within catalog RPM range to alter performance. However, adjustment beyond catalog RPM range may cause motor overload and possible premature motor failure. Pulley alignment and belt tension should be adjusted if necessary. Inspection every 6 to 12 months is recommended.

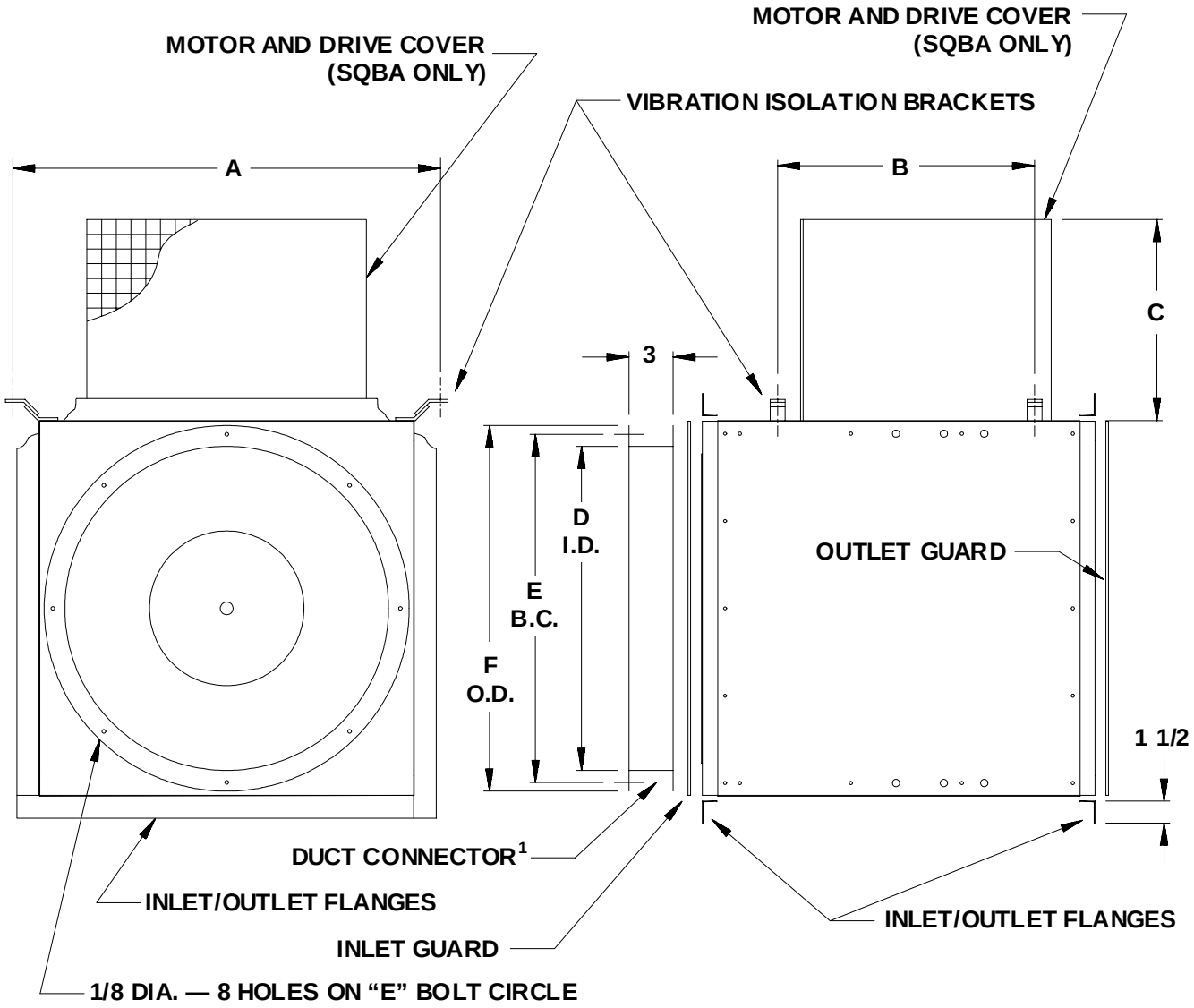
WARNING **CAUTION**

DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m^3/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m^3/s
0.125 SP x 24.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

SQBA and SQDA Accessory Details



Unit	A	B	C[2]	D[1]	E[1]	F[1]
SQDA06, SQDA08, SQDA10	17 5/8	10	–	--	--	--
SQBA06, SQBA08, SQBA10	17 5/8	10	11 3/4	--	--	--
SQBA12, SQDA12	21 9/16	17 13/16	17 3/4	--	--	--
SQBA13, SQDA13	23 9/16	17 7/16	17 3/4	--	--	--
SQBA15, SQDA15	26 9/16	18 13/16	17 3/4	18	19 5/8	20 13/16
SQBA16, SQDA16	29 1/16	17 7/16	17 3/4	22	23 5/8	24 13/16
SQBA18, SQDA18	32 1/16	18 13/16	17 3/4	22	23 5/8	24 13/16
SQBA20	34 1/16	19 3/4	17 3/4	22	23 5/8	24 13/16
SQBA24	40	26 3/4	18 3/4	26	27 5/8	28 13/16
SQBA30	49	29 7/16	18 3/4	36	37 11/16	38 7/8
SQBA36	59 1/2	32 13/16	18 3/4	36	37 11/16	38 7/8

1 -- The duct connector accessory is not available on unit sizes 13 and smaller.

2 -- Motor and drive cover dimensions apply to type SQBA fans only.

SQBA and SQDA Options and Accessories

Vibration Isolators
Vibration isolators reduce sound and vibration transmission to the fan support structure. Isolators are available in spring type for hanging installations, and rubber-in-shear type for bottom mounting.

Inlet and Outlet Flanges
Heavy gauge galvanized steel flanges are available to simplify duct attachment.

Special Motors
Two-speed, totally enclosed, energy efficient and explosion-proof motors for hazardous locations may be available for many models. Motor enclosure may affect UL listing.

Backdraft Dampers
Gravity or motor operated backdraft dampers are available. They are aluminum construction and designed for duct installation.

Safety Disconnects
Safety disconnects cut power to motor for servicing of unit. A disconnect switch is an accessory available on SQBA units, and is shipped loose for field installation. An optional wiring harness is available to connect the motor to the switch at the junction box. All SQDA units have a disconnect device with a factory mounted and wired junction box as standard.

Protective Coatings
Fan units are not recommended for exhausting air of a corrosive nature. However, special protective coatings are available where units may be exposed to corrosive conditions. Parts requiring painting are processed through the American Coolair five-stage pretreatment system prior to the application of any coatings to insure maximum finish adhesion. These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400° F to a smooth, hard continuous finish. Consult your ILG Industries representative for available coatings.

Duct Connector
Round duct connector is available on some SQBA and SQDA units to accommodate round duct attachment.

Inlet and Outlet Guards
Both inlet and outlet guards are available to prevent the entry of foreign material into the fan.

Variable Inlet Vanes
Variable Inlet Vanes (VIV) are available for controlling air flow in an efficient manner.

Internal Insulation
One inch thick insulation on the interior of the fan housing for both sound attenuation and prevention of condensation.

Drive Guard
A heavy gauge steel and PVC coated wire mesh guard is available to protect the drive components on SQBA units.

Motor and Drive Cover
Combination motor cover and drive guard made of heavy gauge galvanized steel and PVC coated wire is available to protect both the motor and drive components on SQBA units.

Speed Controller (for selected SQDA models only)
Solid state speed controller provides capability to change performance and speed ranging from 50% to 100% of fan capacity. This permits adjustment for fine tuning and balancing the ventilation system (see performance tables).

SQBA Specification Checklist

- General in-line units for low, medium, and high ranges of air volume and pressure in commercial, institutional, and light manufacturing buildings.
- Centrifugal design with advantages of compact, attractive appearance, quiet operation, and performance against higher static pressures.
- Variable pitch motor pulley allows for speed adjustment.
- Motor base is adjustable to provide proper belt tension and alignment.
- Galvanized steel exterior over galvanized steel frame provides a high degree of rigidity.
- Deep-spun, overlapping, one-piece venturi minimizes noise, reduces air turbulence and improves efficiency.
- Aluminum centrifugal wheel is quiet, non-overloading, backward-inclined design and is computer balanced.
- Standard open drip-proof motor is out of the airstream for protection.
- Heavy duty pillow-block bearings with cast iron housing are self-aligning and relubricable.
- AMCA Seal assures certified rating of sound and air performance.

SQDA Specification Checklist

- General in-line units for low to medium ranges of air volume and pressure in commercial, institutional, and light manufacturing buildings.
- Centrifugal design with advantages of compact, attractive appearance, quiet operation, and performance against higher static pressures.
- Direct-drive advantages of minimal maintenance and operating costs.
- Galvanized steel exterior over galvanized steel frame provides a high degree of rigidity.
- Deep-spun, overlapping, one piece venturi minimizes noise, reduces air turbulence, and improves efficiency.
- Aluminum centrifugal wheel is quiet, non-overloading, backward-inclined design and is computer balanced.
- Standard open motor is out of the airstream for protection.
- Safety disconnect device allows power to be cut for servicing of the unit.
- Fans are factory run and tested prior to shipment to ensure dependable operation.
- AMCA Seal assures certified rating of sound and air performance.

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

ILG INDUSTRIES

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