

TECHNICAL GUIDE

SPLIT-SYSTEM AIR-COOLED

EVAPORATOR BLOWER

25, 30, 40 & 50 TON

LA300, LB360, 480 & 600



PROVEN PERFORMANCE

GENERAL

The LA/LB line is a flexible performer. LA300, LB360 & 480 can be positioned in up to 12 different positions and suspended in various positions. The LB600 can be positioned in up to 7 different arrangements and suspended also. The LA/LB line will give you the power to condition large amounts of building space and the ability to conform to almost any situation.

FEATURING

- EASE OF SERVICE
- PUMP-OUT ON START-UP
- BASE SECTIONS (25, 30 & 40 Ton only)
- SUSPENSION PACKAGES
- HOT WATER COILS
- STEAM COILS (LA300 & LB360 only)
- WIDE RANGE OF BLOWER MOTORS
- A VARIETY OF DRIVE PACKAGES
- CONTROL BOX WITH LOW VOLTAGE TRANS-FORMER AND MOTOR STARTER (motor, motor drive kit and motor overloads sold separately).







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YORK SPLIT INDOOR PRODUCT NOMENCLATURE

		<u>L A 300 C 00 A 6 A AA 1 A</u>
Model #	Model Number Description	Options
L	Product Category	L = Air Handling Unit - Cooling F = Air Handling Unit - Heat Pump
Α	Product Identifier	A = R-22 Standard Efficiency 2-Pipe B = R-22 Standard Efficiency 4-Pipe
300	Nominal Cooling Capacity MBH	300 = 25 Ton 360 = 30 Ton 480 = 40 Ton 600 = 50 Ton
С	Heat Type	C = Cooling Only
00	Nominal Heating Capacity	00 = No Heat Installed
Α	Airflow Options	A = None
6	Voltage	0 = None 6 = 208/230-460-3-60 5 = 575-3-60
Α	Factory Options	A = None

AA = None

1 = First Generation

FIGURE 1: PRODUCT NOMENCLATURE

Special Options

Product Generation

AA

1

- NOTE: LB600 matches with both HB480 and HB600 Outdoor Condensing Units for maximum efficiency.
- NOTE: LB480 Indoor and HB480 Outdoor Units do match up, but do not meet ASHRAE 90.1 standards for efficiency.

2 = Second Generation

DESCRIPTION

Evaporator blower units are designed with two distinct modules to provide maximum application flexibility. The 25, 30 and 40 ton units are shipped as single packages with the blower module mounted on top of the coil module, The blower module can be repositioned in the field to meet almost any installation requirement. Blower and coil modules for the 50 ton units are shipped separately to simplify handling. These modules can be connected in the field with the same flexibility as the smaller units.

The blower module includes the blower wheels and room for a field-mounted motor and drive. The coil module includes direct expansion coils, 2 in. throwaway filters, liquid line solenoid valves for both capacity reduction and pumpdown, thermal expansion valves, distributors and a condensate drain pan.

Every evaporator coil is pressurized with air to 325 psig and leak tested under water. After the headers are brazed onto the coil and the coil is installed in the unit, the coil is pressurized with a combination of Refrigerant-22 and nitrogen to 150 psig for pressure testing and additional leak testing. After the coil is evacuated and dehydrated, it is pressurized with a holding charge of Refrigerant-22 for storage and/or shipping.

Steam coils, hot water coils, base sections, suspension hardware, blower motors and drive packages are available as field-installed accessories to provide additional application flexibility.

These evaporator blowers, combined with condensing units, provide years of quiet, efficient and dependable operation. These units are manufactured under ISO 9001 Quality System Certification.

For Indoor Unit Installation details, please see document 035-18496-000.

MODULAR DESIGN

These evaporator blowers can be arranged for a variety of air discharge patterns in either the horizontal or vertical position.



FIGURE 2: UNIT INSTALLATION

Figure 2 shows three of the common installation arrangements. Refer to the unit installation instructions for other possibilities.

Units may be bottom-supported or ceiling-suspended and can be arranged to meet almost any space or duct requirements. Each unit is available with a choice of blower motors, drive packages and other accessories to make them suitable for most applications.

FACTORY-MOUNTED COMPONENTS

PART LOAD OPERATION These evaporator blowers have multiple coils with pre-piped distributors, expansion valves and solenoid valves. Field modifications are not required for part load operations. Capacity reduction not only provides economical operation, but also maintains more even temperature and humidity levels in the conditioned space.

EASY SERVICE Serviceable expansion valves are provided on every unit. These superior valves are factory-installed to provide many years of trouble-free operation. If service is required, it is not necessary to unbraze any joints.

PUMP-OUT Evaporator blowers include a solenoid valve for non-recycling pump-out. When a cooling requirement in the conditioned space is needed, the refrigerant is pumped into the high side of the system before unit start-up.

ACCESSORIES

BASE SECTIONS (25, 30 and 40 ton only: Base sections can be used to elevate units above the floor. If desired, outdoor air may be introduced through these sections by cutting an access opening to accommodate the outdoor air duct connection. These bases have a durable finish to match the evaporator blower unit. They may have to be insulated for certain applications.

<u>SUSPENSION PACKAGES</u>: These accessories can be used to suspend horizontal units from above without interfering with access to the unit. They can also be used for elevating a floor-mounted unit (either horizontal or vertical) to provide additional height for the installation of a trap at the condensate drain connection. All suspension packages can be used with vibration isolators.

HOT WATER COILS: Drainable water coils are available for field installation between the blower and the coil modules of both horizontal and vertical units. Since their casings match the dimensions and the finish of the basic units, they become an integral part of the unit after installation. The coils slide out of their casings for easy installation. Coils have copper tubes that have been mechanically expanded into aluminum fins. Both headers are located on the same end of the coil. Coils are leak-tested at 325 psig under water and dried before their connections are capped for storage and shipping. STEAM COILS (LA300 & LB360 only): A steam coil is available on the 25 & 30 Ton for installation between the blower and coil modules of both horizontal and vertical units. Since the casing matches the dimensions and the finish of the basic unit, it becomes an integral part of the unit after installation. The coil slides out of the casings for easy installation and is pitched in the casings to facilitate condensate drainage. The coil has copper tubes that have been mechanically expanded into aluminum fins. Both headers are located on the same end of the coil. The coil is leak-tested at 325 psig and dried before the connections are capped for storage and shipping.

<u>BLOWER MOTORS:</u> Different HP motors are available for each unit to meet almost any air delivery requirement. All motors are UL approved, have permanently lubricated ball bearings and are field-mounted within the insulated cabinet of the units to minimize the transmission of sound to the surrounding space. 5 HP motors are inherently protected. 7.5 HP - 15 HP require motor overload protection.

<u>DRIVE PACKAGES:</u> Different size pulleys and belts are available for each unit to provide a blower RPM range to meet almost any air delivery requirement. Variable pitch motor pulleys can be adjusted to provide the proper blower RPM. All drive packages are rated at least 25% above the nominal HP rating of the blower motor. Two-groove pulleys and two belts are provided on every drive package rated at 5 HP and above.

STARTERS AND HEATER ELEMENTS (7.5 - 15 HP): The blower motors that are available for the units do not have inherent protection and require external motor overload protection. See details in Table 7.

UNIT MODEL	ACCESSORY	CFM								
		8,000	9,000	10,000	11,000	12,000				
LA300	Hot Water Coil	0.06	0.07	0.08	0.09	0.10				
	Steam Coil	0.11	0.14	0.17	0.20	0.23				
		10,000	11,000	12,000	13,000	14,000				
LB360	Hot Water Coil	0.08	0.09	0.10	0.12	0.14				
	Steam Coil	0.17	0.20	0.23	0.27	0.31				
LB480		12,800	14,400	16,000	17,600	19,200				
LB400	Hot Water Coil	0.11	0.13	0.15	0.17	0.20				
LB600		16,000	18,000	20,000	22,000	24,000				
20000	Hot Water Coil	0.15	0.18	0.21	0.24	0.28				

TABLE 1: STATIC RESISTANCES FOR UNIT ACCESSORIES

TABLE 2: UNIT MOUNTING DIMENSIONS¹

LA/LB	DIMENSIONS, INCHES							
UNIT	AX	BX	СХ					
300	69-1/4	49-1/16	26-5/8					
360	69-1/4	49-1/16	26-5/8					
480	84	50-9/16	34					

^{1.} See Figure 4 for dimensions AX, BX and CX.

NOTE: The following illustration shows how the channels should be secured to the unit using the hardware provided with the suspension accessory.







④ After these bottom channels are cut per Note 1, a new hole will have to be drilled at the cut end if the unit is to be mounted on isolators.

FIGURE 4 : LA300/LB360 WEIGHT DISTRIBUTION

TABLE 3: CORNER WEIGHTS

UNIT-	Unit	Neight					
MODEL	Shipping	Operation	Configuration	Α	В	С	D
LA300	1180	1125	HORIZONTAL	276	317	285	247
LASOU	1100	1125	VERTICAL	262	301	301	262
LB360	1180	1146	HORIZONTAL	281	323	290	252
LB300			VERTICAL	266	307	307	266
LB480	1510	1510 1426		348	414	361	303
LD400		1420	VERTICAL	292	348	427	359
LB600	1572	1572 1640	HORIZONTAL	451	386	370	433
LBOOD	1572	1040	VERTICAL	484	414	342	400

TABLE 4: ACCESSORY OPERATING WEIGHT DISTRIBUTION (LBS)¹

ACCESSORY	LA300	LB360	LB480	LB600
BASE ²	25	25	30	45
HOT WATER COIL	35	35	45	35
STEAM COIL 1 ROW	30	30	35	50

 $^{1.}\,$ These weights should be added to each point load in table 3.

^{2.} This accessory can only be applied on units installed in the vertical position.

TABLE 5: UNIT BLOWER MOTOR DATA

UNIT MODEL	HP	MOTOR KIT MODEL NUMBER	FRAMESIZE	VOLTAGE (3PH-60HZ)
		2LR04605032		230/460
	5	2LR04605023	184	208
LA300		2LR04605158		575
	7.5	2LP04607133	213	230/460
	7.5	2LP04607158		575
		2LR04605032		230/460
	5	2LR04605023	184	208
		2LR04605158		575
LB360	7.5	2LP04607133	213	208/230/460
	<i>c.</i> 7	2LP04607158	213	575
	10	2LP04610133	215	208/230/460
	10	2LP04610158	215	575
	7.5	2LP04607133	213	208/230/460
LB480	7.5	2LP04607158		575
LD400	10	2LP04610133	215	208/230/460
	10	2LP04610158	215	575
	10	2LP04610133	215	208/230/460
I Benn	10	2LP04610158	- 210	575
LB600	15	2LP04615133	254	208/230/460
	10	2LP04615158	204	575

TABLE 6: UNIT DRIVE DATA

			ADJUSTABLE MO	TOR PULLEY	FIXED BLOWE	BELTS			
UNIT MODEL	DRIVE KIT MODEL NUMBER	BLOWER RPM RANGE	PITCH DIA. (IN.)	BORE (IN.)	PITCH DIA. (IN.)	BORE (IN.)	QTY.	PITCH LENGTH (IN.)	DESIGNATION
	1LD0440	600 - 750	4.0 - 5.0	1 1/8	12.0	1 3/16	2	63.3	A62
LA300	1LD0407	700 - 850	4.2 - 5.2	1 3/8	11.0	1 3/16	2	63.3	A62
	1LD0442	780 - 940	5.3 - 6.3	1 3/8	12.0	1 3/16	2	63.3	A62
-	1LD0415	636 - 795	4.0 - 5.0	1 1/8	11.0	1 3/16	2	63.3	A62
LB360	1LD0407	668 - 827	4.2 - 5.2	1 3/8	11.0	1 3/16	2	63.3	A62
	1LD0408	827 - 986	5.3 - 6.3	1 3/8	11.0	1 3/16	2	59.7	A59
LB480	1LD0409	607 - 776	4.3 - 5.5	1 3/8	12.4	1 3/16	2	85.1	B84
	1LD0410	776 - 917	5.4 - 6.6	1 3/8	12.4	1 3/16	2	86.8	B85
LB600	1LD0411	692 - 833	4.8 - 6.0	1 3/8	12.4	1 3/16	2	78.6	B78
	1LD0412	762 - 931	5.4 - 6.6	1 5/8	12.4	1 3/16	2	76.8	B75

TABLE 7: MOTOR OVERLOAD ELEMENTS¹

MOTOR HP	VOLTAGE	MODEL NUMBER
	208	2MP04704600
5	230	2MP04704600
5	460	2MP04704900
	575	2MP04705000
	208	2MP04703700
7.5	230	2MP04704500
7.5	460	2MP04704300
	575	2MP04704000
	208	2MP04701600
10	230	2MP04704100
10	460	2MP04704200
	575	2MP04704300
	208	2MP04704400
15	230	2MP04701700
15	460	2MP04704500
	575	2MP04704600

These units are equipped from the factory with a correctly sized motor starter; overload elements are not factory supplied.

Note: Three elements required per unit.

A CAUTION

Do not operate the supply air blower motor above its nominal HP rating when a unit is equipped with a hot water coil accessory. Do not use steam in hot water coils.

A CAUTION

Do not operate the supply air blower above its nominal HP rating when a unit is equipped with a steam coil accessory.

Although these coils are suitable for a much higher pressure, steam above 25 psig provides too much heat that could damage the blower motor.

UNIT	HOT WATER	GPM	CFM	ENTERING	G WATER TEMPE	RATURE MINUS	ENTRY AIR TEM	IPERATURE °F.
MODEL C	COIL MODEL	GPM	CFM	70	90	110	130	150
			6,000	204	263	325	384	443
LA300		50	8,000	236	304	372	440	508
LAJUU		50	10,000	265	341	416	492	568
	1HW0406		12,000	291	374	457	540	623
	11100406		8,000	236	304	372	440	508
		50	10,000	265	341	416	492	568
LB360			12,000	291	374	457	540	623
			14,000	315	405	495	585	675
			12,800	348	447	547	646	746
LB480		75	16,000	389	500	611	722	833
	1HW0407		19,200	425	547	668	790	911
	111440407		16,000	389	500	611	722	833
LB600		75	20,000	436	561	686	810	935
			24,000	473	610	746	882	1,019

TABLE 8: HOT WATER COIL CAPACITIES¹

^{1.} These capacities do not include any blower motor heat.

NOTE: Temperature Water Drop (°F) = (2 X MBH) / GPM.

TABLE 9: HOT WATER COIL CAPACITY CORRECTION AND PRESSURE DROP VS GPM¹

HOT WATER COIL MODEL	GPM	PRESSURE DROP PSI	CAPACITY CORRECTION FACTOR		
	25	0.4	0.79		
1HW0406	50	1.0	1.00		
11100400	75	1.8	1.04		
	100	3.4	1.07		
	50	1.0	0.95		
1HW0407	75	1.5	1.00		
11100407	100	2.4	1.03		
	125	3.5	1.05		

 $^{1.}\,$ For pressure drop in feet (water), multiply these values by 2.31.

TABLE 10: STEAM COIL CAPACITIES¹, MBH @ 2 PSIG²

UNIT	STEAM COIL	CFM	DRY BULB TEMPERATURE OF AIR ENTERING COIL (°F)							
MODEL	MODEL	CFW	10	30	50	70				
		6,000	471	424	380	330				
LA300		8,000	535	483	432	380				
LASOU		10,000	592	535	478	422				
	1NF0454	12,000	642	580	518	456				
	1111-0434	8,000	535	483	432	380				
LB360		10,000	592	535	478	422				
LB300		12,000	642	580	518	456				
		14,000	687	621	555	489				

^{1.} These capacities do not include any blower motor heat.

^{2.} Multiply these capacities by the factors in Table 11 to correct for higher steam pressure.

TABLE 11: CORRECTION FACTORS FOR HIGH STEAM

STEAM PRESSURE (PSIG)	5	10	15	20	25
CAPACITY CORRECTION FACTOR	1.05	1.12	1.19	1.25	1.30

NOTE: Steam Rate = (lbs/Hr.) = 1.025 x MBH



FIGURE 5: UNIT DIMENSIONS - LA300, LB360 & LB480

TABLE 12: UNIT DIMENSIONS - LA300, LB360, LB480

MODEL	Α	В	С	D	E	F	G	н	J	к	L	м
LA300	100-1/8	95-5/8	33-1/4	36-5/8	74	2-1/2	18-7/8	16-1/2	15-13/16	21-7/8	18	22-9/16
LB360	100-1/8	95-5/8	33-1/4	36-5/8	74	2-1/2	18-7/8	16-1/2	15-13/16	21-7/8	18	22-9/16
LB480	103-1/8	95-5/8	40-5/8	44	88-5/8	2-1/2	18-7/8	23-7/8	20-11/16	21-7/8	18	22-11/16



FIGURE 6: 25 TON LIQUID LINE SOLENOID WIRING



FIGURE 7: 30, 40 & 50 TON LIQUID LINE SOLENOID WIRING



FIGURE 8: LA300 PIPING CONNECTIONS







FIGURE 9: LB360 PIPING CONNECTIONS

TABLE 13: UNIT CONNECTION SIZES

Connection Entry		Connection Size								
Connection Entry	LA300	LB360	LB480	LB600 + M2CX600						
Suction Line Sys # 1	2 1/8	1-1/8	1-3/8	2-1/8						
Suction Line Sys # 2	N/A	1-1/8	1-3/8	2-1/8						
Liquid Line Sys # 1	7/8	7/8	7/8	7/8						
Liquid Line Sys # 2	N/A	7/8	7/8	7/8						
Power Wiring	7/8 (2)	7/8 (2)	7/8 (2)	1-3/8						
Control Wiring	7/8 (2)	7/8 (2)	7/8 (2)	7/8 (2)						



FIGURE 11: UNIT DIMENSIONS - LB600



FIGURE 12: LB600 PIPING CONNECTIONS - END PANEL DETAIL



FIGURE 13: HOT WATER COIL DIMENSIONS

TABLE 14: HOT WATER COIL DIMENSIONS

COIL	UNIT	DIMENSIONS									
MODEL	MODEL	Α	В	С	D	E	F				
1HW0406	LA300 LB360	100-1/8	37-7/8	6-3/4	3-7/8	1-3/8	1-3/8				
1HW0407	LB480 LB600	103-1/8	45-1/4	6-1/2	4	1-5/8	1-5/8				



FIGURE 14: STEAM COIL DIMENSIONS

TABLE 15: STEAM COIL DIMENSIONS¹

COIL	UNIT	DIMENSIONS									
MODEL	MODEL	A	В	С	D	E	F	G			
1NF0454	LA300 LB360	100-1/8	37-7/8	4-3/8	18-3/8	1-1/2	2	2-1/2			

^{1.} Coils are field-installed between the evaporator coil and the blower section of the unit.



TABLE 16: BASE SECTIONS DIMENSIONS¹

BASE	UNIT	DIMENSIONS				
MODEL	MODEL	Α	В			
1BS0406	LA300 LB360	100-1/8	37-7/8			
1BS0407	LB480	103-1/8	45-1/4			

 Ventilation air can be brought into the unit through the base section providing the base section is fully insulated in the field.

FIGURE 15: BASE SECTION DIMENSIONS

TABLE 17: PHYSICAL DATA

	DESCRIPTION			MOI	IODEL			
	DESCRIPTION		LA300	LB360	LB480	LB600		
	Rows Deep X Rows Higl	h	4 x 40	4 x 40	4 x 50	4 x 62		
	Finned Length, Inches		93	93	96	96		
	Face Area, Feet ²		25.8	25.8	33.3	41.3		
EVAPORATOR COIL	Tube (copper) OD, Inche	es	3/8	3/8	3/8	3/8		
	Fins (Aluminum) per 1 in	ch	16	16	16	16		
	Piping Connections,	Liquid, Inches	7/8	7/8	7/8	7/8		
	Inches	Suction, Inches	2 1/8	1 1/8	1 3/8	2 1/8		
CENTRIFUGAL BLOWERS (2 PER UNIT)	Diameter X Width, Inche	s (Forward Curved)		18 x 18		20 x 18		
		16 x 20 x 2		-	6	-		
		20 x 20 x 2	-		3	-		
	Size and Quantity Per	20 x 22 x 2		-		-		
FILTERS (THROWAWAY)	Model, Inches	16 x 25 x 2		-	-	6		
		20 x 25 x 2		10	6	3		
		25 x 25 x 2		-	-	6		
	Total Face Area / feet ²		3	4.7	42.6	53.1		
OPERATING CHARGE	System 1		49.65	30.08	37.83	46.59		
(LBS R-22)	System 2		-	30.08	37.83	46.59		
	Tube (copper) OD, Inche	es		1/2	1/2	1/2		
	Rows Deep			2	2	2		
COIL ACCESSORY	Fins (Aluminum) per 1 in	ch		12	12	8		
	Face Area, Feet ²		2	1.2	27.2	27.2		
	Connections (Supply & F	Return), Inches	1 3/8 OI	D (Copper)	1 5/8 OD	(Copper)		
	Tube (copper) OD, inche	es	1 (Outside) 5/8 (Inside)				
	Rows Deep			1				
NON-FREEZE, STEAM	Fins (Aluminum) per 1 in	ch		8		()		
DISTRIBUTING COIL ACCESSORY	Face Area, feet ²		1	8.2	N/A			
	Connection, (Brass)	Inlet		2	-			
	Inches (NPTE)	Outlet	1	-1/2				

TABLE 17: PHYSICAL DATA

	DESCRIPTION			MOE	DEL	
	DESCRIPTION		LA300	LB360	LB480	LB600
	Basic Unit (Less Motor &	Drive)	980	980	1260	1474
	Shipping Weight (lbs)	1180	1180	1510	1572	
	Operating Weight (lbs)	1125	1146	1426	1640	
COMPONENT WEIGHT	Accessories	Hot Water Coil	150	150	190	190
COMPONENT WEIGHT	Accessories	Steam Coil	160	160	-	-
			117 (5hp)	117 (5hp)	-	-
	Blower Motor (1750 RPM	Blower Motor (1750 RPM)			120 (7.5hp)	141 (10hp)
			-	141 (10hp)	141 (10hp)	217 (15hp)

TABLE 18: ELECTRICAL DATA

UNIT MODEL	HP	FLA	VOLTAGE (3PH-60HZ)	MIN. CIRCUIT AMPACITY	MAX. FUSE SIZE (Amps)
		16.7	208	21	35
	5	15.2	230	19	30
	5	7.6	460	10	15
LA300		6.1	575	8	15
LASUU		24.2	208	30	50
	7.5	22	230	28	45
	7.5	11	460	14	20
		9	575	11	20
		16.7	208	21	35
	5.0	15.2	230	19	30
	5.0	7.6	460	10	15
		6.1	575	8	15
		24.2	208	30	50
LB360	7.5	22	230	28	45
LD300	7.5	11	460	14	20
		9	575	11	20
		30.8	208	39	60
	10	28	230	35	60
	10	14	460	18	30
		11	575	14	20
		24.2	208	30	50
	7.5	22	230	28	45
	7.5	11	460	14	20
LB480		9	575	11	20
LD400		30.8	208	39	60
	10	28	230	35	60
	10	14	460	18	30
		11	575	14	20
		30.8	208	39	60
	10	28	230	35	60
	10	14	460	18	30
		11	575	14	20
LB600		46.2	208	58	100
	45	42	230	53	90
	15	21	460	26	45
		17	575	21	35

		CFM													
RPM		8,000 9		9,000	10,000					11,000		12,000			
	SP ²	BHP ³	кW	SP ²	BHP ³	кW									
600	-	-	-	0.30	2.5	2.3	0.20	3.1	2.9	0.02	3.6	3.4	-	-	-
635	0.56	2.4	2.3	0.43	2.7	2.6	0.31	3.3	3.1	0.13	3.8	3.5	-	-	-
700	0.80	3.0	2.8	0.68	3.3	3.1	0.54	3.7	3.5	0.38	4.2	3.9	0.20	4.8	4.5
775	1.12	3.7	3.4	1.00	4.0	3.7	0.85	4.4	4.1	0.70	4.8	4.5	0.54	5.3	5.0
800	1.23	3.9	3.7	1.11	4.3	4.0	0.97	4.7	4.4	0.82	5.1	4.8	0.66	5.6	5.2
875	1.60	4.8	4.5	1.48	5.1	4.8	1.34	5.6	5.2	1.19	6.0	5.7	1.04	6.6	6.2
900	1.73	5.1	4.8	1.61	5.5	5.1	1.47	5.9	5.5	1.33	6.4	6.0	1.17	7.0	6.5
940	1.95	5.6	5.2	1.82	6.0	5.6	1.70	6.5	6.1	-	-	-	-	-	-

TABLE 19: FAN PERFORMANCE DATA - 25 TON¹

^{1.} Unit resistance is based on a dry evaporator coil and clean filters.

2. Available static pressure in IWG to overcome the resistance of the duct system and any accessories added to the unit. Refer to the blower motor and drive table and the accessory static resistance table for additional information.

3. Motors can be selected to operate into the service factor because they are located in the moving air stream, upstream of any heating device. units with steam or hot water coils are the only exception. On these units, the BHP must not exceed the nominal HP rating of the motor.

	CFM														
RPM	10,000			11,000			12,000			13,000			14,000		
	SP ²	BHP ³	кW												
600	0.20	3.1	2.9	0.02	3.6	3.4	-	-	-	-	-	-	-	-	-
635	0.31	3.3	3.1	0.13	3.8	3.5	-	-	-	-	-	-	-	-	-
700	0.54	3.7	3.5	0.38	4.2	3.9	0.20	4.8	4.5	0.03	5.3	5.0	-	-	-
775	0.85	4.4	4.1	0.70	4.8	4.5	0.54	5.3	5.0	0.39	5.8	5.5	0.20	6.4	6.0
800	0.97	4.7	4.4	0.82	5.1	4.8	0.66	5.6	5.2	0.52	6.1	5.7	0.35	6.7	6.3
875	1.34	5.6	5.2	1.19	6.0	5.7	1.04	6.6	6.2	0.93	7.1	6.6	0.77	7.7	7.2
900	1.47	5.9	5.5	1.33	6.4	6.0	1.17	7.0	6.5	1.07	7.5	7.0	0.90	8.2	7.6
940	1.70	6.5	6.1	1.55	7.0	6.6	1.40	7.7	7.2	1.31	8.3	7.8	1.09	9.0	8.4

TABLE 20: FAN PERFORMANCE DATA - 30 TON¹

^{1.} Unit resistance is based on a dry evaporator coil and clean filters.

2. Available static pressure in IWG to overcome the resistance of the duct system and any accessories added to the unit. Refer to the blower motor and drive table and the accessory static resistance table for additional information.

3. Motors can be selected to operate into the service factor because they are located in the moving air stream, upstream of any heating device. units with steam or hot water coils are the only exception. On these units, the BHP must not exceed the nominal HP rating of the motor.



FIGURE 16: BLOWER CURVE LA300 & LB360

	CFM														
RPM	12,800			14,400			16,000			17,600			19,200		
	SP ²	BHP	кW	SP ²	BHP	кW	SP ²	BHP	кW	SP ²	BHP	кW	SP ²	BHP	кW
600	0.20	4.3	3.7	-	-	-	-	-	-	-	-	-	-	-	-
640	0.38	4.8	4.1	0.19	5.6	4.8	-	-	-	-	-	-	-	-	-
700	0.65	5.5	4.7	0.47	6.4	5.5	0.28	7.2	6.2	-	-	-	-	-	-
775	0.99	6.5	5.6	0.84	7.4	6.4	0.66	8.4	7.2	0.46	9.4	8.1	0.23	10.4	9.0
800	1.11	6.8	5.9	0.96	7.8	6.7	0.79	8.8	7.6	0.59	9.8	8.4	0.36	10.8	9.3
900	1.65	8.1	7.0	1.52	9.3	8.0	1.36	10.5	9.0	-	-	-	-	-	-
915	1.73	8.3	7.2	1.60	9.5	8.2	1.44	10.7	9.2	-	-	-	-	-	-

TABLE 21: FAN PERFORMANCE DATA - 40 TON¹

^{1.} Unit resistance is based on a dry evaporator coil and clean filters.

 Available static pressure in IWG to overcome the resistance of the duct system and any accessories added to the unit. Refer to the blower motor and drive table and the accessory static resistance table for additional information.

TABLE 22: FAN PERFORMANCE DATA - 50 TON¹

	CFM														
RPM	16,000			18,000			20,000			22,000			24,000		
	SP ²	BHP	кW	SP ²	BHP	кW	SP ²	BHP	кW	SP ²	BHP	κW	SP ²	BHP	кW
600	0.82	6.0	5.2	0.59	7.2	6.2	0.35	8.4	7.2	0.08	9.7	8.4	-	-	-
660	1.17	7.3	6.3	0.96	8.5	7.3	0.73	9.8	8.5	0.45	11.2	9.7	0.14	12.7	11.0
700	1.40	8.2	7.1	1.21	9.4	8.1	0.98	10.7	9.2	0.70	12.2	10.5	0.40	13.7	11.8
760	1.76	9.5	8.2	1.59	10.8	9.3	1.38	12.3	10.6	1.11	13.8	11.9	0.81	15.6	13.5
800	2.00	10.4	9.0	1.85	11.8	10.2	1.64	13.3	11.5	1.38	14.9	12.9	1.09	16.9	14.6
900	2.60	12.8	11.0	2.49	14.5	12.5	2.35	16.0	13.8	-	-	-	-	-	-
930	2.78	13.5	11.6	2.68	15.3	13.2	-	-	-	-	-	-	-	-	-

^{1.} Unit resistance is based on a dry evaporator coil and clean filters.

2. Available static pressure in IWG to overcome the resistance of the duct system and any accessories added to the unit. Refer to the blower motor and drive table and the accessory static resistance table for additional information.



FIGURE 17: BLOWER CURVE LB480



FIGURE 18: BLOWER CURVE LB600

GUIDE SPECIFICATIONS

EACH UNIT SHALL BE:

- Covered by a 1-year limited parts warranty on the complete unit.
- In current production with published literature available to check performance, limitations, specifications, power requirements, dimensions, operation and appearance; also equipped with a V-belt drive option that:
 - a. Will permit the blower RPM to be adjusted to meet the exact CFM requirement of the system.

EACH UNIT ENCLOSURE SHALL HAVE:

- A steel angle frame to provide the rigid support required for shipping, rigging and years of dependable operation.
- Exterior panels of 18 gauge steel, finished with baked enamel to provide a long lasting quality appearance
- Removable panels to provide easy access to the internal components for maintenance and service, and,
- A filter rack with 2" filters.

THE DIMENSIONS OF EACH UNIT SHALL NOT EXCEED THOSE SPECIFIED.

THE BLOWER MOTOR SHALL:

- Be mounted within the insulated cabinet to minimize the transmission of sound to the surrounding space, and
- Have a service factor of 1.15.

THE EVAPORATOR COIL SHALL:

- Consist of copper tubes arranged in staggered rows, mechanically expanded into aluminum fins,
- Be draw-through, and
- Include factory-mounted distributors, expansion valves and solenoid valves for both capacity reduction and pumpdown.

THE BLOWER WHEELS SHALL:

• Be dynamically balanced to minimize the levels of sound and vibration generated by the unit.

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