

## BELT DRIVE VERTICAL EXPANSION BLOWER COIL UNITS

### ALL MODELS

- 3, 4, and 5 Ton
- 208/230-3-60 and 460-3-60 supply voltage
- Cabinets are fabricated with polyurethane based powder coated A60 galvanealed steel
- Standard with thermal expansion valve mounted - with side port distributors
- Internal parts are to be built from G90 galvanized steel
- Coils are constructed of copper tube-aluminum fin material. Office pin refrigerent metering with optional TXV kits
- Drain pans are double sloped for positive drainage and are plastic or optional type 304 stainless steel
- Field installed accessory electric heater packages from 5 to 20 kW
- Fully insulated with 1", 1-1/2 pound dual density IAQ insulation

### PERFORMANCE TESTING

- Run-tested at the factory prior to shipment
- 500 hour salt spray test per ASTM B-117

### EASY TO INSTALL AND SERVICE

- Motors are permanently lubricated ball bearings
- Motors are standard ETL Approved motors are 208/230/460 volt and have overload protection
- Blower wheels are belt drive forward curved and factory balanced
- Easy to remove access panels on front of each section
- Air filters are standard, two inch throw-away filters



Models	Tons	CFM RANGE		Dimensions H x W x D	Filter Size (Qty)	Ship Wt.
		Low	High			
BHV036	3	900	1500	50 x 22 x 23-1/2	16 x 32 (1)	170
BHV048	4	1200	2000	56-1/2 x 25 x 23-1/2	20 x 20 (2)	201
BHV060	5	1500	2500	59-1/2 x 29-1/4 x 25-1/2	20 x 20 (2)	253

RESIDENTIAL AND COMMERCIAL SYSTEMS • SPLIT SYSTEMS • PACKAGED AIR CONDITIONERS • COMBINATION GAS / ELECTRIC UNITS • HEAT PUMPS • AIR HANDLERS • MANUFACTURED HOME AIR CONDITIONERS • GAS, OIL AND ELECTRIC FURNACES

## SPECIFICATIONS

MODEL		BHV036M3A		BHV036M4A		BHV048M4		BHV048M5		BHV060M5A		BHV060M6A	
<b>Application</b>		Vertical											
<b>Electrical Data</b>	Voltage	208/230	460	208/230	460	208/230	460	208/230	460	208/230	460	208/230	460
	Phase/Hz	3/60											
	Min. Circuit Ampacity	3.0	1.4	4.4	2.0	4.4	2.0	5.8	2.6	5.8	2.6	8.3	3.8
	Max. Fuse	15											
	Contactors	Field Supplied											
<b>Blower Data</b>	Size	10-6R				12-6R				12-9R			
	Horsepower	1/2		3/4		3/4		1		1		1-1/2	
	FLA/RLA	2.2/20.0	1.0/10.0	3.2/25.0	1.6/12.5	3.2/25.0	1.6/12.5	4.2/30.0	2.1/15.0	4.2/30.0	2.1/15.0	6.0/40.0	3.0/20.0
<b>Refrigerant Connection</b>	Liquid (O.D.)	3/8"				1/2"				1/2"			
	Suction (O.D.)	7/8"				7/8"				1-1/8"			
<b>Condensate Drain</b>		3/4" FPT											
<b>Filters in inches (qty.)</b>		2 x 20 x 20 (1)				2 x 22-1/2 x 22-1/2 (1)				2 x 16 x 25 (2)			
<b>Shipping Weight (lbs.)</b>		170				201				253			

## FAN PERFORMANCE

MODEL	INTER SP	CFM	.25" ESP		.50" ESP		.75" ESP		1.00" ESP		1.25" ESP		1.50" ESP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
BHV036	.29	900	852	.19	1000	.24	1138	.31	1236	.37	1352	.43	1460	.50
	.38	1050	938	.26	1078	.33	1200	.40	1308	.47	1402	.54	1503	.60
	.47	1200	1019	.32	1144	.42	1262	.50	1363	.59	1462	.65	1546	.71
	.58	1350	1111	.44	1217	.53	1333	.64	1433	.73	1513	.81	1603	.89
	.70	1500	1195	.59	1307	.70	1403	.80	1502	.91				
BHV048	.44	1200	788	.29	898	.36	1009	.43	1107	.53	1210	.62	1277	.73
	.57	1400	886	.42	1004	.52	1082	.60	1169	.67	1257	.81	1339	.90
	.71	1600	968	.54	1061	.64	1154	.75	1236	.91	1318	1.00	1391	1.12
	.88	1800	1066	.78	1148	.90	1231	1.02	1303	1.13	1375	1.27	1442	1.37
	1.06	2000	1148	1.00	1221	1.14	1298	1.30	1385	1.43				
BHV060	.41	1500	733	.29	851	.39	949	.46	1046	.58	1140	.69	1229	.82
	.52	1750	806	.43	909	.54	999	.62	1087	.72	1171	.85	1256	1.00
	.65	2000	873	.57	966	.69	1052	.77	1134	.92	1220	1.08	1289	1.21
	.80	2250	947	.76	1036	.89	1117	1.04	1195	1.15	1265	1.33	1340	1.46
	.96	2500	1027	.99	1106	1.15	1185	1.26	1252	1.43				

## FAN PERFORMANCE WITH AHW SERIES HOT WATER COILS

MODEL	INTER SP	CFM	.25" ESP		.50" ESP		.75" ESP		1.00" ESP		1.25" ESP		1.50" ESP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
BHV036 AHW36VH2A	.41	900	905	.21	1043	.27	1165	.32	1277	.38	1378	.46	1468	.54
	.53	1050	994	.29	1120	.35	1241	.43	1345	.52	1440	.57	1519	.63
	.67	1200	1091	.38	1228	.46	1330	.57	1424	.63	1515	.72	1589	.78
	.83	1350	1200	.54	1319	.63	1413	.72	1507	.81	1576	.88	1659	.95
	1.00	1500	1298	.70	1403	.80	1496	.91	1582	1.00				
BHV048 AHW48VH2A	.57	1200	881	.31	984	.40	1071	.46	1159	.56	1257	.64	1334	.74
	.74	1400	968	.46	1066	.56	1154	.64	1236	.74	1318	.83	1385	.93
	.94	1600	1056	.61	1148	.73	1221	.83	1318	.96	1391	1.08	1457	1.15
	1.15	1800	1159	.87	1236	.96	1324	1.09	1391	1.22	1463	1.35	1530	1.48
	1.37	2000	1267	1.16	1344	1.28	1411	1.41						
BHV060 AHW60VH2A	.53	1500	775	.34	891	.44	983	.53	1082	.64	1171	.74	1257	.90
	.68	1750	851	.48	950	.59	1041	.69	1128	.78	1213	.95	1396	1.09
	.85	2000	930	.66	1019	.76	1107	.92	1188	1.02	1260	1.17	1337	1.32
	1.05	2250	1011	.87	1097	1.03	1173	1.15	1246	1.29	1316	1.42	1387	1.59
	1.25	2500	1091	1.12	1170	1.30	1243	1.46						

NOTICE: When a hot water coil is installed in a BHV unit, a freeze stat must be field installed to prevent the hot water coil from freezing.

Specifications subject to change without notice.

## DIRECT EXPANSION COOLING CAPACITIES

### BHV036

			85°F DB/71°F WB				80°F DB/67°F WB				75°F DB/63°F WB			
SUCT TEMP	PD PSI	CFM	TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR	
					DB	WB			DB	WB			DB	WB
40	9.19	900	51.5	31.0	53.2	53.2	44.0	28.6	50.6	50.6	33.6	24.4	49.9	49.7
		1200	58.0	36.8	56.7	56.3	49.5	33.6	54.1	53.5	41.5	30.6	51.4	50.8
		1500	63.5	41.5	59.4	58.5	54.0	38.0	56.4	55.4	47.0	35.8	53.0	52.1
45	6.46	900	46.0	28.8	55.5	55.5	34.6	24.6	54.8	54.5	25.2	20.6	53.8	53.3
		1200	51.0	33.8	59.0	58.4	42.5	30.8	56.3	55.6	29.4	25.2	55.6	54.6
		1500	55.5	38.5	61.3	60.2	48.5	36.0	57.8	56.8	34.8	30.2	56.4	55.1
50	4.35	900	35.4	24.6	59.7	59.5	25.4	20.6	58.7	58.2	18.5	17.5	57.0	56.1
		1200	43.5	31.0	61.1	60.4	29.6	25.4	60.4	59.4	22.0	21.4	58.5	56.9
		1500	49.5	36.2	62.7	61.5	35.0	30.4	61.3	59.8	24.6	24.2	60.1	57.6

### BHV048

			85°F DB/71°F WB				80°F DB/67°F WB				75°F DB/63°F WB			
SUCT TEMP	PD PSI	CFM	TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR	
					DB	WB			DB	WB			DB	WB
40	13.02	1200	67.0	40.5	53.7	53.7	56.5	37.2	51.3	51.3	48.5	34.2	48.6	48.5
		1600	75.0	48.0	57.2	56.8	64.0	44.0	54.4	53.9	53.5	40.0	51.8	51.2
		2000	82.0	54.0	59.9	58.9	70.0	50.5	56.7	55.8	59.0	46.0	53.8	52.8
45	9.39	1200	58.5	37.2	56.3	56.2	47.5	33.4	54.2	54.0	37.4	29.2	52.5	52.2
		1600	66.0	44.5	59.3	58.7	55.0	40.0	56.7	56.0	45.0	36.6	53.9	53.2
		2000	72.0	50.5	61.5	60.5	60.5	46.0	58.6	57.5	50.0	42.5	55.4	54.5
50	6.20	1200	49.0	33.6	59.1	58.9	37.5	29.4	57.4	57.1	25.8	24.2	56.4	55.7
		1600	56.0	40.5	61.5	60.8	46.0	36.8	58.8	58.0	30.8	29.4	58.0	56.6
		2000	61.5	46.5	63.4	62.3	48.5	41.5	60.8	59.5	37.0	35.8	58.5	56.8

### BHV060

			85°F DB/71°F WB				80°F DB/67°F WB				75°F DB/63°F WB			
SUCT TEMP	PD PSI	CFM	TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR		TTL MBH	SENS MBH	LVG AIR	
					DB	WB			DB	WB			DB	WB
40	10.41	1500	88.0	52.5	52.6	52.6	74.0	48.0	50.5	50.5	62.5	43.5	48.0	47.9
		2000	100.0	62.5	56.1	55.7	85.0	57.5	53.5	53.0	70.0	51.5	51.1	50.6
		2500	111.0	71.0	58.7	57.9	93.0	65.0	55.8	54.9	77.0	59.0	53.1	52.2
45	7.39	1500	76.0	48.0	55.5	55.5	64.0	43.5	53.0	52.8	47.0	36.6	52.4	52.1
		2000	88.0	57.5	58.4	58.0	72.0	51.5	56.1	55.5	58.5	46.0	53.6	52.9
		2500	96.0	65.0	60.7	59.7	79.0	59.5	58.0	57.0	63.0	52.5	55.5	54.4
50	4.78	1500	63.5	42.5	58.6	58.5	47.5	36.8	57.3	57.0	32.8	30.4	56.3	55.6
		2000	73.0	52.0	61.0	60.4	59.0	46.5	58.5	57.7	39.0	37.2	57.8	56.4
		2500	81.0	59.5	62.9	61.8	63.5	53.0	60.4	59.2	46.5	44.5	58.5	56.8

### TXV KITS

MODEL	USED ON
AMF153TKB	3 TON
AMF355TKB	4 & 5 TON

### DISCHARGE / RETURN PLENUM \*

MODEL	USED ON
ADR36DRPA	3 TON
ADR48DRPA	4 TON
ADR60DRPA	5TON

\*Can be used as Discharge or Return plenum, if both are required you must order two.

### HOT WATER COILS

MODEL	USED ON	2 ROW WATER CONNECTION
AHW36VH2A	3 TON	7/8 OD SWT
AHW48VH2A	4 TON	7/8 OD SWT
AHW60VH2A	5 TON	1-1/8 OD SWT

## HOT WATER HEATING CAPACITIES

AHW36						AHW48						AHW60					
GPM	PD FT.	CFM	TTL MBH	LAT F	LWT F	GPM	PD FT.	CFM	TTL MBH	LAT F	LWT F	GPM	PD FT.	CFM	TTL MBH	LAT F	LWT F
3.0	3.40	900	46.5	108.0	148.2	4.0	1.10	1200	57.5	104.4	150.5	6.0	0.50	1500	73.0	105.3	154.9
		1200	52.5	100.6	144.1			1600	64.0	97.4	146.9			2000	82.0	98.2	151.9
		1500	57.5	95.4	140.9			2000	70.0	92.4	144.2			2500	89.0	93.1	149.5
4.0	6.00	900	49.0	110.5	154.9	6.0	2.50	1200	62.0	108.0	158.7	12.0	2.00	1500	83.0	111.2	165.8
		1200	56.0	103.1	151.4			1600	70.0	100.9	155.9			2000	95.0	103.9	163.8
		1500	61.0	97.8	148.6			2000	77.0	95.8	153.6			2500	104.0	98.7	162.1
5.0	9.40	900	50.5	112.1	159.2	8.0	4.40	1200	65.0	110.0	163.4	18.0	4.50	1500	87.0	113.5	170.1
		1200	58.0	104.8	156.2			1600	74.0	102.9	161.0			2000	100.0	106.3	168.6
		1500	64.0	99.5	153.8			2000	81.0	97.8	159.1			2500	111.0	101.1	167.3

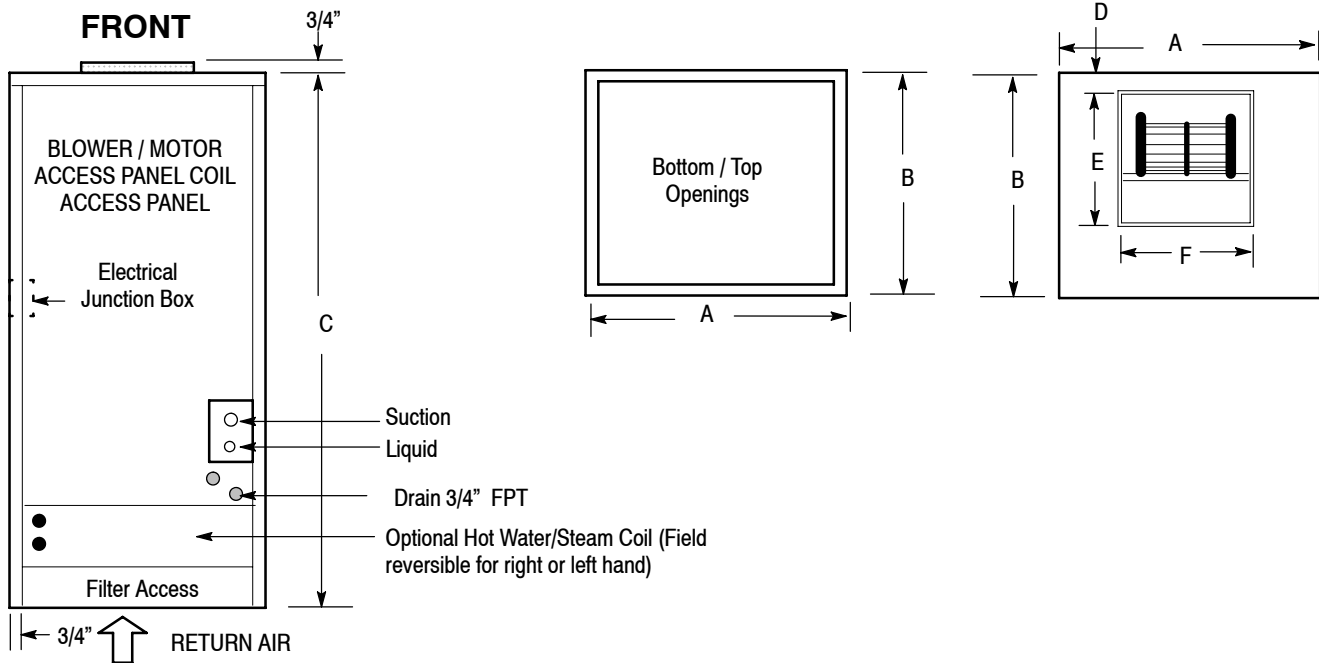
NOTE: Capacities based on 60° EAT and 180° EWT. Units not recommended for heating applications when the leaving air exceeds 130°.

## HOT WATER HEATING CORRECTION FACTORS

ENTERING AIR TEMP (F)	ENTERING WATER TEMP (F)								
	100°	110°	120°	130°	140°	150°	160°	170°	180°
50°	.419	.500	.579	.665	.742	.838	.917	1.000	1.090
55°	.376	.460	.544	.629	.708	.791	.873	.963	1.048
60°	.335	.419	.500	.579	.665	.742	.838	.917	1.000
65°	.290	.376	.460	.544	.629	.708	.791	.873	.963
70°	.251	.335	.419	.500	.579	.665	.742	.838	.917
75°	.205	.290	.376	.460	.544	.629	.708	.791	.873
80°	.167	.251	.335	.419	.500	.579	.665	.742	.838

NOTE: When correction factors are used for various entering air and entering water temperatures, multiply the correction factor times the above listed capacity. The correction factors may be used with all published 180° EWT heating capacities.

## BHV DIMENSIONS



## BHV DIMENSIONS

MODEL	A	B	C	D	E	F
BHV036	22	23-1/2	50	3	12	8-3/4
BHV048	25	23-1/2	56-1/2	1-1/2	14	9-1/2
BHV060	29-1/4	25-1/2	59-5/8	1	14	13

## ELECTRIC HEAT ACCESSORY

### Heater Model # - C-36BV-(Kw)-(Phase)-(Voltage)

Voltage / Phase	Kw Range	Stages **	Used On
208 / 3	2.1 - 9.0	1	BHV036M*A
208 / 3	9.1 - 10.0	2	
208 / 3	10.1 - 12.0	2	
240 / 3	2.1 - 10.0	1	
240 / 3	10.1 - 12.0	2	
480 / 3	2.1 - 10.0	1	
480 / 3	10.1 - 12.0	1	

Electric Heaters are non-stock items and may be purchased directly from the O.E.M. supplier. For pricing information or ordering contact:

**BEL THERMAL UNITS (BTU)**  
**3640 N.E. 4th Ave.**  
**Ft. Lauderdale, Fl. 33334**

**Tel: (954) 566-0043**  
**Fax: (800) 956-0002**  
**www.BELTHERMAL.com**

### Heater Model # - C-48BV-(Kw)-(Phase)-(Voltage)

Voltage / Phase	Kw Range	Stages **	Used On
208 / 3	2.1 - 9.0	1	BHV048M*A
208 / 3	9.1 - 15.0	2	
208 / 3	15.1 - 17.0	2	
240 / 3	2.1 - 10.0	2	
240 / 3	10.5 - 15.0	2	
240 / 3	15.1 - 17.0	2	
480 / 3	2.1 - 17.0	1	

When ordering, complete the heater model number with the desired Kw, Phase, & voltage. Example: The model number for a 10.5kw, 3 Phase, 240 volt heater to go on a BHV048M\*A would be **C-48BV-10.5-3-240**. (kW is available in increments of 0.10kW.)

#### AVAILABLE OPTIONS:

- CLASS 2 CONTROL TRANSFORMER, 24V.
  - One and two stage heaters
  - Three and four stage heaters
- SINGLE POINT LINE CONNECTION
  - Heater and motor voltage must be the same
  - Fan relay, motor circuit fusing and control transformer. (See item 3 for recommended disconnect switch.
- DOOR INTERLOCKING DISCONNECT SWITCH
  - 40 AMP Unit
  - 80 AMP Unit
  - 100 AMP Unit
- TWO, THREE, and FOUR STAGE PROGRAMMABLE THERMOSTAT. (Wall or Duct Sensor-Specify)

Other options are available.

\*\* Standard staging, consult factory for optional staging.

### Heater Model # - C-60BV-(Kw)-(Phase)-(Voltage)

Voltage / Phase	Kw Range	Stages **	Used On
208 / 3	2.1 - 9.0	1	BHV060M*A
208 / 3	9.1 - 15.0	2	
208 / 3	15.1 - 17.2	2	
208 / 3	17.3 - 19.6	2	
240 / 3	2.1 - 10.0	1	
240 / 3	10.1 - 15.0	2	
240 / 3	15.1 - 17.0	2	
240 / 3	17.1 - 19.6	2	
480 / 3	2.1 - 19.6	1	

International Comfort Products, LLC  
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