

## 3 - 22 HP Horizontal Air Discharge

## Overview



### Product Description:

The 3-22 HP condensing units feature an enhanced grill design that gives up to 40% more free-air area than prior models and its vertical receiver needs less refrigerant to ensure a full column of liquid reaches the expansion valve. Fan motors and serviceable components are accessible via the front grill for quick service and the sight glass is conveniently placed so that charging is quick, easy and accurate. Thorough cleaning of the coil is easier because the unit's top panel is one piece and lighter for easy removal. A liquid base valve and suction service tap is placed on the outside of the cabinet for easy pump-downs and quick diagnosis. The footprint is smaller for easy jobsite placement. These condensing units utilize the Floating Tube™ coil design, which eliminates tube-sheet leaks, allowing for a 5-year warranty against tube-sheet leaks. PSC motors come standard to help save you energy.

Opting for the Beacon II™ Refrigeration System with Smart Defrost, factory-installed Smart Defrost Kit™ (SDK), Variable Speed EC (VSEC) motor with Orbus™ Controller increases energy efficiency and qualifies this product for the **E Solutions™** product portfolio

### Certifications



### Nomenclature

B	D	T	0500		M	6	C
Model	Compressor	Application	Equiv. HP		Operating Range	Refrigerant	Voltage
B = Bohn	D = Discus® Z = Scroll	T = Outdoor N = Indoor S = Beacon II™	0300 = 3HP 0400 = 4HP 0500 = 5HP 0501 = 5HP 0600 = 6HP <u>0601 = 6HP</u> 0650 = 6.5HP 0700 = 7HP 0750 = 7.5HP	0751 = 7.5HP 0800 = 8 HP 0860 = 8.5HP 0900 = 9HP 1000 = 10HP 1200 = 12HP 1300 = 13HP 1401 = 14HP 1500 = 15HP 2200 = 22HP	L = Low M = Medium	2 = R-22 <u>6 = R-404A/507</u>	C = 208-230/3/60 (200-220/3/50)* D = 460/3/60 (380-420/3/50)* E = 575/3/60  * Limited by compressor model

### Cabinet & Construction

- All units feature the Floating Tube™ coil design which eliminates tube sheet leaks
- Painted steel cabinet for superior strength and corrosion resistance

### Serviceability

- Manual pumpdown switch on all units
- Convenient access panels to easily service internal components
- Large electrical panel to facilitate ease of access

### Quality & Performance

- Sight Glass is easily viewable
- Fixed high pressure switch eliminates capillary tubes
- Refrigeration duty, rifled copper condenser tubing
- Piping is laid out to minimize stress and vibration and is pre-bent to eliminate braze joints where possible to reduce leak potential
- All joints are sweat type connections, no mechanical joints to leak
- Separate subcooling circuit in condenser for added capacity and vapor free liquid
- Pressure relief valve on receiver
- ServiceMate™ diagnostic module standard on all non-Beacon™ condensing units

### Components

#### Compressor

- Discus compressors are spring mounted with suction and discharge eliminators
- Receivers are sized for sufficient pumpdown capacity with inlet and outlet service valves

#### Other

- Sight glass and permanent line filter

#### Motors

- Available with Variable Speed EC Motors

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## Performance Data

### Models with Discus® Compressors

\* = T for Outdoor, N for Indoor, S for Beacon II™

L6 models require the demand cooling option for R-22 operation.

Bohn Base Model	Compressor	Suction Temp. °F	Capacity (BTUH)			
			Ambient Temperature °F			
			90°F	95°F	100°F	110°F
<b>Medium Temperature (R-404A/507)</b>						
BD*0500M6	2DC3R53KE	40°F	56,550	53,940	51,100	45,880
BD*0500M6	2DC3R53KE	30°F	49,130	46,880	44,590	40,200
BD*0500M6	2DC3R53KE	20°F	41,390	39,280	37,400	33,670
BD*0500M6	2DC3R53KE	15°F	33,780	32,220	30,500	27,400
BD*0500M6	2DC3R53KE	0°F	26,610	25,330	24,070	21,520
BD*0500M6	2DC3R53KE	-10°F	20,610	19,560	18,790	16,540
BD*0501M6	2DD3R63KE	40°F	64,500	61,590	58,670	52,820
BD*0501M6	2DD3R63KE	30°F	56,160	53,590	51,090	46,390
BD*0501M6	2DD3R63KE	20°F	47,920	45,530	43,640	39,160
BD*0501M6	2DD3R63KE	15°F	39,480	37,700	35,950	32,270
BD*0501M6	2DD3R63KE	0°F	31,490	30,080	28,670	25,980
BD*0501M6	2DD3R63KE	-10°F	24,820	23,810	22,710	20,540
BD*0750M6	2DL3R78KE	40°F	78,520	74,990	71,410	-
BD*0750M6	2DL3R78KE	30°F	68,490	65,510	62,540	57,070
BD*0750M6	2DL3R78KE	20°F	58,930	56,000	53,530	48,910
BD*0750M6	2DL3R78KE	15°F	48,810	46,750	44,690	40,220
BD*0750M6	2DL3R78KE	0°F	39,060	37,380	35,700	32,500
BD*0750M6	2DL3R78KE	-10°F	30,850	29,570	28,180	25,330
BD*0751M6	2DA3R89KE	40°F	95,540	90,870	86,130	77,750
BD*0751M6	2DA3R89KE	30°F	83,510	79,960	76,400	69,330
BD*0751M6	2DA3R89KE	20°F	71,440	68,060	65,470	59,180
BD*0751M6	2DA3R89KE	15°F	59,380	56,890	54,140	49,200
BD*0751M6	2DA3R89KE	0°F	47,760	45,670	43,490	39,600
BD*0751M6	2DA3R89KE	-10°F	37,700	36,060	34,200	30,540
BD*0800M6	3DA3R10ME	40°F	111,970	107,150	102,420	92,590
BD*0800M6	3DA3R10ME	30°F	98,210	94,270	90,330	82,550
BD*0800M6	3DA3R10ME	20°F	83,450	80,170	77,330	70,980
BD*0800M6	3DA3R10ME	15°F	69,400	66,800	63,930	58,770
BD*0800M6	3DA3R10ME	0°F	55,730	53,610	51,480	47,440
BD*0800M6	3DA3R10ME	-10°F	44,150	42,460	40,620	36,900
BD*1000M6	3DB3R12ME	40°F	128,860	123,170	117,590	-
BD*1000M6	3DB3R12ME	30°F	114,710	109,930	105,200	94,900
BD*1000M6	3DB3R12ME	20°F	97,920	93,930	90,730	82,760
BD*1000M6	3DB3R12ME	15°F	82,310	79,060	75,350	68,920
BD*1000M6	3DB3R12ME	0°F	62,280	63,630	60,950	55,900
BD*1000M6	3DB3R12ME	-10°F	52,260	50,180	47,890	43,240
BD*1200M6	3DF3R15ME	40°F	150,790	144,290	137,400	-
BD*1200M6	3DF3R15ME	30°F	133,280	127,640	123,360	-
BD*1200M6	3DF3R15ME	20°F	116,610	111,940	107,260	97,720
BD*1200M6	3DF3R15ME	15°F	98,100	94,270	89,720	82,840
BD*1200M6	3DF3R15ME	0°F	79,540	76,300	73,200	67,700
BD*1200M6	3DF3R15ME	-10°F	63,260	61,160	58,540	53,680
BD*1500M6	3DS3R17ME	40°F	176,330	168,560	160,860	146,980
BD*1500M6	3DS3R17ME	30°F	156,910	150,350	143,860	129,870
BD*1500M6	3DS3R17ME	20°F	134,090	128,610	124,130	113,470
BD*1500M6	3DS3R17ME	15°F	112,610	108,240	103,290	94,610
BD*1500M6	3DS3R17ME	0°F	90,910	87,380	83,840	77,220
BD*1500M6	3DS3R17ME	-10°F	72,080	69,470	66,530	60,500

Bohn Base Model	Compressor	Suction Temp. °F	Capacity (BTUH)			
			Ambient Temperature °F			
			90°F	95°F	100°F	110°F
<b>Low Temperature (R-404A/507)</b>						
BD*0300L6	2DF3F16KE	0°F	33,130	31,390	29,220	26,200
BD*0300L6	2DF3F16KE	-10°F	26,750	25,320	23,560	21,060
BD*0300L6	2DF3F16KE	-20°F	20,750	19,560	18,380	16,040
BD*0300L6	2DF3F16KE	-30°F	15,530	14,500	13,470	11,440
BD*0300L6	2DF3F16KE	-40°F	11,470	10,490	9,520	7,580
BD*0400L6	2DL3F20KE	0°F	38,320	36,470	34,630	30,970
BD*0400L6	2DL3F20KE	-10°F	31,200	29,620	28,040	24,900
BD*0400L6	2DL3F20KE	-20°F	24,500	23,140	21,790	19,100
BD*0400L6	2DL3F20KE	-30°F	18,590	17,400	16,220	13,890
BD*0400L6	2DL3F20KE	-40°F	13,820	12,750	11,690	9,590
BD*0600L6	2DB3F25KE	0°F	44,920	42,830	40,730	36,590
BD*0600L6	2DB3F25KE	-10°F	36,970	35,160	33,360	29,780
BD*0600L6	2DB3F25KE	-20°F	29,340	27,770	26,210	23,110
BD*0600L6	2DB3F25KE	-30°F	22,440	21,070	19,700	16,990
BD*0600L6	2DB3F25KE	-40°F	16,730	15,490	14,260	11,800
BD*0601L6	3DA3F28KE	0°F	49,300	47,060	44,820	40,390
BD*0601L6	3DA3F28KE	-10°F	40,810	38,920	37,050	33,350
BD*0601L6	3DA3F28KE	-20°F	32,530	30,940	29,370	26,250
BD*0601L6	3DA3F28KE	-30°F	25,110	23,710	22,330	19,610
BD*0601L6	3DA3F28KE	-40°F	19,140	17,830	16,530	13,960
BD*0750L6	3DB3F33KE	0°F	57,490	54,880	52,280	47,130
BD*0750L6	3DB3F33KE	-10°F	47,800	45,630	43,470	39,210
BD*0750L6	3DB3F33KE	-20°F	38,230	36,410	34,600	31,040
BD*0750L6	3DB3F33KE	-30°F	29,550	27,960	26,380	23,260
BD*0750L6	3DB3F33KE	-40°F	22,550	21,030	19,520	16,540
BD*0900L6	3DF3F40KE	0°F	75,860	72,600	69,350	62,910
BD*0900L6	3DF3F40KE	-10°F	62,020	59,280	56,570	51,180
BD*0900L6	3DF3F40KE	-20°F	49,030	46,730	44,440	39,920
BD*0900L6	3DF3F40KE	-30°F	37,670	35,680	33,700	29,810
BD*0900L6	3DF3F40KE	-40°F	28,660	26,850	25,050	21,490
BD*1000L6	3DS3F46KE	0°F	82,110	78,620	75,150	68,260
BD*1000L6	3DS3F46KE	-10°F	67,850	64,870	61,900	56,030
BD*1000L6	3DS3F46KE	-20°F	54,240	51,680	49,130	44,090
BD*1000L6	3DS3F46KE	-30°F	42,040	39,780	37,540	33,100
BD*1000L6	3DS3F46KE	-40°F	31,990	29,910	27,840	23,740
BD*1200L6	4DA3F47KE	0°F	90,990	86,720	82,470	74,030
BD*1200L6	4DA3F47KE	-10°F	74,350	70,880	67,420	60,580
BD*1200L6	4DA3F47KE	-20°F	58,560	55,650	52,770	47,050
BD*1200L6	4DA3F47KE	-30°F	44,600	41,970	39,360	34,190
BD*1200L6	4DA3F47KE	-40°F	33,380	30,700	28,040	24,030
BD*1500L6	4DL3F63KE	0°F	112,860	107,630	102,420	92,110
BD*1500L6	4DL3F63KE	-10°F	93,820	89,380	84,970	76,230
BD*1500L6	4DL3F63KE	-20°F	75,470	71,720	67,990	60,620
BD*1500L6	4DL3F63KE	-30°F	58,730	55,530	52,350	46,070
BD*1500L6	4DL3F63KE	-40°F	44,520	41,710	38,930	33,400
BD*2200L6	4DT3F76KE	0°F	128,840	122,150	115,500	102,320
BD*2200L6	4DT3F76KE	-10°F	108,680	103,010	97,380	86,230
BD*2200L6	4DT3F76KE	-20°F	88,210	83,410	78,650	69,210

Section 2

# Air-Cooled Condensing Units

# BOHN

## 3 - 22 HP Horizontal Air Discharge

## Electrical Data

### Models with Discus® Compressors

\* = T for Outdoor, N for Indoor, S for Beacon II™

Bohn Base Model	Voltage	Compressor		Fan Motor			Beacon II or Air Defrost		Electric Defrost - Low Amps				Electric Defrost - High Amps			
		RLA	LRA	Qty	Motor HP	FLA	MCA	MOPD	MCA	MOPD	Evap. Fans	Elec. Htrs	MCA	MOPD	Evap. Fans	Elec. Htrs
<b>Medium Temperature (R-404A/507)</b>																
BD*0500M6C	208-230/3/60	20.0	12.0	1	1/3	2.7	27.7	45	-	-	-	-	50.0	60	15	40 (1)
BD*0500M6D	460/3/60	9.4	60.0	1	1/3	1.9	15.0	20	-	-	-	-	25.0	30	8	20 (1)
BD*0500M6E	575/3/60	6.9	49.0	1	1/3	1.2	15.0	15	-	-	-	-	20.0	20	6.4	16 (1)
BD*0501M6C	208-230/3/60	20.0	12.0	1	1/3	2.7	27.7	45	-	-	-	-	50.0	60	15	40 (1)
BD*0501M6D	460/3/60	9.4	60.0	1	1/3	1.9	15.0	20	-	-	-	-	25.0	30	8	20 (1)
BD*0501M6E	575/3/60	7.1	49.0	1	1/3	1.2	15.0	15	-	-	-	-	20.0	20	6.4	16 (1)
BD*0750M6C	208-230/3/60	28.3	169.0	1	1/3	2.7	38.1	60	-	-	-	-	60.0	80	20	48 (1)
BD*0750M6D	460/3/60	12.4	85.0	1	1/3	1.9	20.0	25	-	-	-	-	31.3	35	10	25 (1)
BD*0750M6E	575/3/60	11.9	67.0	1	1/3	1.2	20.0	25	-	-	-	-	25.0	35	8	20 (1)
BD*0751M6C	208-230/3/60	28.7	169.0	2	1/3	5.4	41.3	70	-	-	-	-	61.3	90	20	48 (1)
BD*0751M6D	460/3/60	12.6	85.0	2	1/3	3.8	20.0	30	-	-	-	-	31.3	40	10	25 (1)
BD*0751M6E	575/3/60	11.9	67.0	2	1/3	2.4	20.0	25	-	-	-	-	25.3	35	80	20 (1)
BD*0800M6C	208-230/3/60	36.8	215.0	2	1/3	5.4	51.4	80	-	-	-	-	87.5	100	20	70 (2)
BD*0800M6D	460/3/60	17.9	106.0	2	1/3	3.8	26.2	40	-	-	-	-	43.8	50	13	35 (1)
BD*0800M6E	575/3/60	14.7	84.0	2	1/3	2.4	20.8	35	-	-	-	-	35.0	45	10.4	28 (1)
BD*1000M6C	208-230/3/60	39.1	215.0	2	1/3	5.4	54.3	90	-	-	-	-	87.5	110	20	70 (2)
BD*1000M6D	460/3/60	17.9	106.0	2	1/3	3.8	26.2	40	-	-	-	-	43.8	50	13	35 (1)
BD*1000M6E	575/3/60	14.8	84.0	2	1/3	2.4	20.9	35	-	-	-	-	35.0	45	10.4	28 (1)
BD*1200M6C	208-230/3/60	43.2	275.0	2	1/3	5.4	59.4	100	-	-	-	-	87.5	110	20	70 (2)
BD*1200M6D	460/3/60	21.2	138.0	2	1/3	3.8	30.2	50	-	-	-	-	43.8	60	13	35 (1)
BD*1500M6C	208-230/3/60	53.5	275.0	2	3/4	8.8	75.7	125	90.7	125	15	70 (2)	100.0	125	20	80 (2)
BD*1500M6D	460/3/60	26.0	138.0	2	3/4	4.4	36.9	60	51.9	70	15	40 (1)	75.0	80	15	60 (2)
BD*1500M6E	575/3/60	21.2	111.0	2	3/4	3.6	30.0	50	42.0	60	12	32 (1)	60.0	60	12	48 (1)
<b>Low Temperature (R-404A/507)</b>																
BD*0300L6C	208-230/3/60	14.0	102.0	1	1/3	2.7	20.6	35	-	-	-	-	50.0	50	15	40 (1)
BD*0300L6D	460/3/60	7.1	52.0	1	1/3	1.9	15.0	15	-	-	-	-	25.0	25	8	20 (1)
BD*0300L6E	575/3/60	6.0	41.0	1	1/3	1.2	15.0	15	-	-	-	-	20.0	20	6.4	16 (1)
BD*0400L6C	208-230/3/60	2.3	161.0	1	1/3	2.7	32.2	50	-	-	-	-	60.0	70	15	48 (1)
BD*0400L6D	460/3/60	9.2	60.0	1	1/3	1.9	15.0	20	-	-	-	-	31.3	35	8	25 (1)
BD*0400L6E	575/3/60	6.9	49.0	1	1/3	1.2	15.0	15	-	-	-	-	25.0	25	6.4	20 (1)
BD*0600L6C	208-230/3/60	25.3	161.0	1	1/3	2.7	34.4	50	-	-	-	-	75.0	80	20	60 (2)
BD*0600L6D	460/3/60	11.9	80.0	1	1/3	1.9	20.0	25	-	-	-	-	37.5	40	10	30 (1)
BD*0600L6E	575/3/60	8.6	63.0	1	1/3	1.2	15.0	20	-	-	-	-	30.0	30	8	24 (1)
BD*0601L6C	208-230/3/60	24.0	150.0	1	1/3	2.7	32.7	50	-	-	-	-	75.0	80	20	60 (2)
BD*0601L6D	460/3/60	10.8	77.0	1	1/3	1.9	20.0	25	-	-	-	-	37.5	40	10	30 (1)
BD*0601L6E	575/3/60	9.4	62.0	1	1/3	1.2	15.0	20	-	-	-	-	30.0	30	8	24 (1)
BD*0750L6C	208-230/3/60	27.6	161.0	1	1/3	2.7	37.2	60	-	-	-	-	75.0	80	20	60 (2)

**Notes:**

Consult factory for 50 HZ applications.

Number of defrost heater contactors in parentheses.

Two fan large units have the ability for a reduced amp electric defrost kit (low amps). Confirm proper defrost kit prior to ordering or installing.