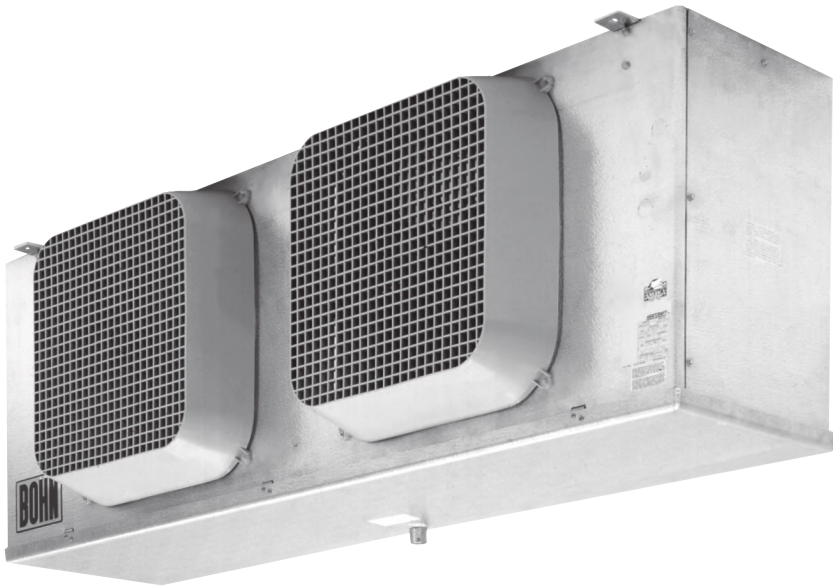




Medium Profile Unit Coolers

Technical Guide

Models BMA | BME/BML | BMG/BMF



BOHN

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Choose the most energy-efficient motor available for evaporators.



The EC motor is an energy sufficient option on Bohn Medium Profile evaporators. Available on all new equipment or as an easy-to-install, drop-in replacement aftermarket part from InterLink™ Commercial Refrigeration Parts. Because they are a drop-in replacement for existing shaded pole and PSC motors, installation is quick and easy. It's a high impact, quick payback solution for reducing costs and achieving green initiatives without replacing the entire system.

EC motors by InterLink are up to 75% energy efficient - that's a 51-59% increase over shaded pole motors and a 30-35% increase over permanent-split capacitor (PSC) motors. With all of this added efficiency, you can count on more energy savings and lower operational costs while taking a step in the right direction toward conserving our planet's resources.

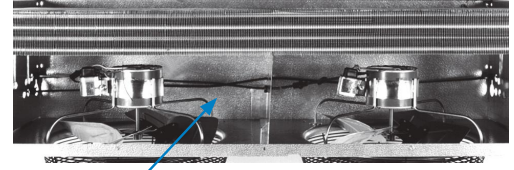
Nomenclature

BM	A	130	B	G	A
Model Series	Model Type	Capacity	Electrical Code	Control Option	Design Revision
Bohn Medium	A = Air Defrost	#BTUH x 100 (R-404A)	A = 115/1/60	G = IntelliGen™	
Profile Unit Cooler	E = Electric Defrost, 6 FPI		B = 208-230/1/60		
	L = Electric Defrost, 4 FPI		C = 208-230/3/60		
	G = Hot Gas Defrost, 6 FPI		D = 460/3/60		
	F = Hot Gas Defrost, 4 FPI		M = 460/1/60		
			E = 575/3/60		
			L = 575/1/60		
			N = 110/1/50		
			Q = 220/1/50		
			R = 380/1/50		
			V = 380/3/50		
			AE = 115/1/60 (EC)		
			BE = 208-230/1/60 (EC)		
			CE = 208-230/3/60 (EC)		

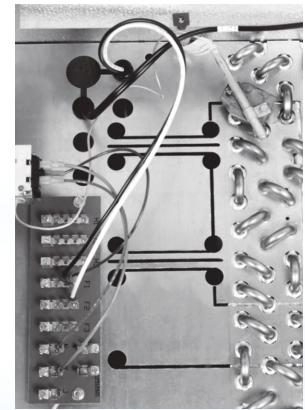
Features & Benefits

Cabinet

- Schrader valve provided for suction pressure measurement
- External equalizer connection
- Heavy-gauge textured aluminum cabinet
- All electrical components factory wired to terminal board and identified, making it easy to field wire the unit
- Sweat connections to reduce potential for leaks
- Internal panels are isolated for quiet operation
- Liquid line solenoid wire harness is factory-installed for quick installation



Factory-installed liquid line solenoid wiring harness for faster installation



Innovative Thermo-Flex™ coil

Motors

- Motors plug into wiring harness for easier servicing
- Single phase EC motors available factory-installed or as a drop-in replacement through InterLink™ Commercial Refrigeration Parts in 115 and 208-230 voltages
- Thermally protected, lifetime-lubricated single phase PSC motors

Controls Options

- intelliGen™ Refrigeration Controller (IRC) units come with factory mounted, tested and calibrated with an electronic expansion valve, pressure transducer, temperature sensors, control board and User Interface. Standard features include Door Sensor, Product Load Input and Alarm Output.
- Optional Field installable intelliGen Webserver Card (iWC) enables local and remote monitoring on any Phone, Tablet or PC.
- Optional Field installable intelliGen Integration Card (iIC) enables connectivity to BACnet and Modbus.
- Quick Response Controller units come factory mounted with an electronic expansion valve, pressure transducer, temperature sensors and control board.
- Beacon II™ units come factory mounted with an electronic expansion valve, pressure transducer, temperature sensors and control board.

Coil

- Patented Thermo-Flex™ coil design allows the coil to “flex” during periods of defrost resulting in expansion of the coil surface. By eliminating the possibility of wear at critical stress areas, the integrity and longevity of the unit are dramatically increased (Patent Number 5,584,340)
- Coil heater slots have been enlarged for easier installation and replacement
- Electric defrost models have fixed defrost termination / fan delay and heater limit thermostats
- Reliable nickel steel alloy defrost heater elements
- Heaters are coil face mounted for easy access

Drain Pan

- Front hinged drain pan for easy access
- Large diameter drain fitting (3/4” ID)

Other Options

- Totally enclosed single phase PSC motors available as an option for 208-230 and 460 voltages
- Factory installed mounted components are available in these configurations:
 - Pre-assembled units come with mounted TXV, liquid line solenoid valve and room thermostat
 - Pre-charged units come with mounted TXV, liquid line solenoid valve, room thermostat, and quick connect fittings
 - Mounted TXV
 - Mounted TXV and solenoid valve
 - Mounted room thermostat
- Most models available with glycol circuiting (see glycol product brochure)
- Units available with stainless steel housing and drain pan
- Units available with Bronze-Glow coil coating (air, electric and hot gas)
- Units available with copper fins (6 FPI models only)
- Air defrost units available with polyester coated fins, or various coil coating options
- Units available with insulated drain pan
- Ship-loose air sock collar available

Bohn offers a five-year limited guarantee against leaks at tube sheets and center supports for all medium profile unit coolers

PERFORMANCE DATA: AIR DEFROST

Model BMA Air Defrost | 60 Hz

Model	Capacity				Fan Data			Air Throw* †					
	R-404A		R-407A/C/F, R-448A/R-449A		No.	CFM	m³H	Diameter		Extended (Std.)		Diffused (Opt.)	
	10°F TD 25°F SST	6°C TD 4°C SST	10°F TD 25°F SST	6°C TD 4°C SST				in.	mm	ft.	m	ft.	m
	BTUH	Watts	BTUH	Watts									
BMA130	13,000	3,800	15,000	4,400	1	2,300	3,910	18	457	65	20	50	15
BMA155	15,500	4,500	18,000	5,300	1	2,200	3,740	18	457	65	20	50	15
BMA245	24,500	7,200	27,500	8,100	2	4,600	7,820	18	457	65	20	50	15
BMA300	30,000	8,800	34,000	10,000	2	4,400	7,480	18	457	65	20	50	15
BMA365	36,500	10,700	41,500	12,200	3	6,900	11,730	18	457	65	20	50	15
BMA450	45,000	13,200	51,500	15,100	3	6,600	11,220	18	457	65	20	50	15
BMA510	51,000	14,900	58,000	17,000	4	9,200	15,640	18	457	65	20	50	15
BMA600	60,000	17,600	68,500	20,100	4	8,800	14,960	18	457	65	20	50	15
BMA710	71,000	20,800	81,000	23,700	5	10,500	17,850	18	457	65	20	50	15

Model BMA Air Defrost | 50 Hz †

Model	Capacity				Fan Data			Air Throw* †					
	R-404A		R-407A/C/F, R-448A/R-449A		No.	CFM	m³H	Diameter		Extended (Std.)		Diffused (Opt.)	
	10°F TD 25°F SST	6°C TD 4°C SST	10°F TD 25°F SST	6°C TD 4°C SST				in.	mm	ft.	m	ft.	m
	BTUH	Watts	BTUH	Watts									
BMA130	12,400	3,600	14,300	4,200	1	2,070	3,520	18	457	60	18.5	45	13.5
BMA155	14,700	4,300	17,100	5,000	1	1,980	3,370	18	457	60	18.5	45	13.5
BMA245	23,300	6,800	26,100	7,700	2	4,140	7,040	18	457	60	18.5	45	13.5
BMA300	28,500	8,400	32,300	9,500	2	3,960	6,730	18	457	60	18.5	45	13.5
BMA365	34,700	10,200	39,400	11,600	3	6,210	10,560	18	457	60	18.5	45	13.5
BMA450	42,800	12,500	48,900	14,300	3	5,940	10,100	18	457	60	18.5	45	13.5
BMA510	48,500	14,200	55,100	16,200	4	8,280	14,080	18	457	60	18.5	45	13.5
BMA600	57,000	16,700	65,100	19,100	4	7,920	13,460	18	457	60	18.5	45	13.5
BMA710	67,500	19,800	77,000	22,500	5	9,450	16,070	18	457	60	18.5	45	13.5

* Standard molded fan guards allow for extended air throw; optional wire guards promote air diffusion

† Air throw data based on 12-ft. high ceilings with no obstructions where velocity drops to 50 FPM

‡ For EC motors, use 60 Hz capacity and airflow values (Units with EC motors operating at 50 Hz will not see a reduction in performance due to the electronic control of the motor)

SPECIFICATIONS: AIR DEFROST

Model BMA Air Defrost | 60 Hz

Model	HP*	PSC								EC Motor			
		115/1/60		208-230/1/60		460/1/60		575/1/60		115/1/60		208-230/1/60	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
BMA130	1/4	4.0	300	1.8	305	1.0	305	0.7	310	2.8	210	1.4	215
BMA155	1/4	4.0	300	1.8	305	1.0	305	0.7	310	2.8	210	1.4	215
BMA245	1/4	8.0	600	3.6	610	2.0	610	1.4	620	5.6	420	2.8	430
BMA300	1/4	8.0	600	3.6	610	2.0	610	1.4	620	5.6	420	2.8	430
BMA365	1/4	12.0	900	5.4	915	3.0	915	2.1	930	8.4	630	4.2	645
BMA450	1/4	12.0	900	5.4	915	3.0	915	2.1	930	8.4	630	4.2	645
BMA510	1/4	16.0	1,200	7.2	1,220	4.0	1,220	2.8	1,240	11.2	840	5.6	860
BMA600	1/4	16.0	1,200	7.2	1,220	4.0	1,220	2.8	1,240	11.2	840	5.6	860
BMA710	1/4	-	1,500	9.0	1,525	5.0	1,525	3.5	1,550	14.0	1,050	7.0	1,075

Model BMA Air Defrost | 50 Hz

Model	HP	PSC Motor			EC Motor	
		110/1/50	220/1/50	380/1/50	110/1/50	220/1/50
		Amps	Amps	Amps	Amps	Amps
BMA130	1/4	4.0	1.8	1.0	2.8	1.4
BMA155	1/4	4.0	1.8	1.0	2.8	1.4
BMA245	1/4	8.0	3.6	2.0	5.6	2.8
BMA300	1/4	8.0	3.6	2.0	5.6	2.8
BMA365	1/4	12.0	5.4	3.0	8.4	4.2
BMA450	1/4	12.0	5.4	3.0	8.4	4.2
BMA510	1/4	16.0	7.2	4.0	11.2	5.6
BMA600	1/4	16.0	7.2	4.0	11.2	5.6
BMA710	1/4	-	9.0	5.0	14.0	7.0

* 575/1/60 motors are 1/3 HP

PERFORMANCE DATA : ELECTRIC DEFROST

Model BME/BML Electric Defrost | 60 Hz

	Model	Capacity				Fan Data			Air Throw* †					
		R-404A		R-407A/C/F, R-448A/R-449A		No.	CFM	m³H	Diameter		Extended (Std.)		Diffused (Opt.)	
		10°F TD -20°F SST	6°C TD -29°C SST	10°F TD -20°F SST	6°C TD -29°C SST				in.	mm	ft.	m	ft.	m
		BTUH	Watts	BTUH	Watts									
6 Fins Per Inch	BME101	10,100	3,000	11,200	3,300	1	2,350	4,000	18	457	65	20	50	15
	BME140	14,000	4,100	15,500	4,500	1	2,250	3,830	18	457	65	20	50	15
	BME190	19,000	5,600	20,500	6,000	2	4,700	7,990	18	457	65	20	50	15
	BME260	26,000	7,600	28,500	8,400	2	4,500	7,650	18	457	65	20	50	15
	BME310	31,000	9,100	34,000	10,000	3	7,050	11,990	18	457	65	20	50	15
	BME390	39,000	11,400	43,000	12,600	3	6,750	11,480	18	457	65	20	50	15
	BME430	43,000	12,600	46,500	13,600	4	8,800	14,960	18	457	65	20	50	15
	BME520	52,000	15,200	57,000	16,700	4	8,400	14,280	18	457	65	20	50	15
	BME620	62,000	18,200	68,000	19,900	5	10,000	17,000	18	457	65	20	50	15
4 Fins Per Inch	BML100	10,000	2,900	11,000	3,200	1	2,325	3,950	18	457	65	20	50	15
	BML165	16,500	4,800	18,000	5,300	2	4,900	8,330	18	457	65	20	50	15
	BML220	22,000	6,400	24,000	7,000	2	4,650	7,910	18	457	65	20	50	15
	BML250	25,000	7,300	27,000	7,900	3	7,350	12,500	18	457	65	20	50	15
	BML330	33,000	9,700	36,500	10,700	3	6,975	11,860	18	457	65	20	50	15
	BML370	37,000	10,800	40,000	11,700	4	9,100	15,470	18	457	65	20	50	15
	BML440	44,000	12,900	48,500	14,200	4	8,700	14,790	18	457	65	20	50	15
	BML530	53,000	15,500	58,500	17,100	5	10,350	17,600	18	457	65	20	50	15

Model BME/BML Electric Defrost | 50 Hz †

	Model	Capacity				Fan Data			Air Throw* †					
		R-404A		R-407A/C/F, R-448A/R-449A		No.	CFM	m³H	Diameter		Extended (Std.)		Diffused (Opt.)	
		10°F TD -20°F SST	6°C TD -29°C SST	10°F TD -20°F SST	6°C TD -29°C SST				in.	mm	ft.	m	ft.	m
		BTUH	Watts	BTUH	Watts									
6 Fins Per Inch	BME101	9,600	2,900	10,600	3,100	1	2,115	3,600	18	457	60	18.5	45	13.5
	BME140	13,300	3,900	14,700	4,300	1	2,025	3,440	18	457	60	18.5	45	13.5
	BME190	18,050	5,300	19,500	5,700	2	4,230	7,190	18	457	60	18.5	45	13.5
	BME260	24,700	7,200	27,100	8,000	2	4,050	6,890	18	457	60	18.5	45	13.5
	BME310	29,450	8,600	32,300	9,500	3	6,345	10,790	18	457	60	18.5	45	13.5
	BME390	37,050	10,800	40,900	12,000	3	6,075	10,330	18	457	60	18.5	45	13.5
	BME430	40,850	12,000	44,200	12,900	4	7,920	13,460	18	457	60	18.5	45	13.5
	BME520	49,400	14,400	54,200	15,900	4	7,560	12,850	18	457	60	18.5	45	13.5
	BME620	58,900	17,300	64,600	18,900	5	9,000	15,300	18	457	60	18.5	45	13.5
4 Fins Per Inch	BML100	9,500	2,800	10,500	3,000	1	2,093	3,560	18	457	60	18.5	45	13.5
	BML165	15,675	4,600	17,100	5,000	2	4,410	7,500	18	457	60	18.5	45	13.5
	BML220	20,900	6,100	22,800	6,700	2	4,185	7,120	18	457	60	18.5	45	13.5
	BML250	23,750	6,900	25,700	7,500	3	6,615	11,250	18	457	60	18.5	45	13.5
	BML330	31,350	9,200	34,700	10,200	3	6,278	10,670	18	457	60	18.5	45	13.5
	BML370	35,150	10,300	38,000	11,100	4	8,190	13,920	18	457	60	18.5	45	13.5
	BML440	41,800	12,300	46,100	13,500	4	7,830	13,310	18	457	60	18.5	45	13.5
	BML530	50,350	14,700	55,600	16,200	5	9,315	15,840	18	457	60	18.5	45	13.5

Capacity Correction Factors For Electric and Hot Gas Defrost Units

Saturated Suction Temp. °F	+20	-10	-20	-30	-40
Saturated Suction Temp. °C	-7	-23	-29	-34	-40
Multiply Capacity By	1.15	1.02	1.00	0.90	0.80

* Standard molded fan guards allow for extended air throw; optional wire guards promote air diffusion

† Air throw data based on 12-ft. high ceilings with no obstructions where velocity drops to 50 FPM

‡ For EC motors, use 60 Hz capacity and airflow values (Units with EC motors operating at 50 Hz will not see a reduction in performance due to the electronic control of the motor)

SPECIFICATIONS: ELECTRIC DEFROST

Model BME/BML Electric Defrost | 60 Hz

Model	HP	PSC Motor						EC Motor		Defrost Heater						
		208-230/1/60		460/1/60		575/1/60		208-230/1/60		Watts	208-230/1/60	208-230/3/60	460/1/60	460/3/60	575/3/60	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts		Total Amps					
6 Fins Per Inch	BME101	1/4	1.8	305	1.0	305	0.7	310	1.4	215	2,730	11.9	8.2	5.9	4.1	3.3
	BME140	1/4	1.8	305	1.0	305	0.7	310	1.4	215	2,730	11.9	8.2	5.9	4.1	3.3
	BME190	1/4	3.6	610	2.0	610	1.4	620	2.8	430	5,350	23.3	16.0	11.6	8.3	6.6
	BME260	1/4	3.6	610	2.0	610	1.4	620	2.8	430	5,350	23.3	16.0	11.6	8.3	6.6
	BME310	1/4	5.4	915	3.0	915	2.1	930	4.2	645	7,750	33.7	23.2	16.8	12.0	9.6
	BME390	1/4	5.4	915	3.0	915	2.1	930	4.2	645	7,750	33.7	23.2	16.8	12.0	9.6
	BME430	1/4	7.2	1,220	4.0	1,220	2.8	1,240	5.6	860	10,200	-	30.5	22.2	15.8	12.6
	BME520	1/4	7.2	1,220	4.0	1,220	2.8	1,240	5.6	860	10,200	-	30.5	22.2	15.8	12.6
	BME620	1/4	9.0	1,525	5.0	1,525	3.5	1,550	7.0	1,075	11,600	-	34.7	25.2	18.1	14.4
4 Fins Per Inch	BML100	1/4	1.8	305	1.0	305	0.7	310	1.4	215	2,730	11.9	8.2	5.9	4.1	3.3
	BML165	1/4	3.6	610	2.0	610	1.4	620	2.8	430	5,350	23.3	16.0	11.6	8.3	6.6
	BML220	1/4	3.6	610	2.0	610	1.4	620	2.8	430	5,350	23.3	16.0	11.6	8.3	6.6
	BML250	1/4	5.4	915	3.0	915	2.1	930	4.2	645	7,750	33.7	23.2	16.8	12.0	9.6
	BML330	1/4	5.4	915	3.0	915	2.1	930	4.2	645	7,750	33.7	23.2	16.8	12.0	9.6
	BML370	1/4	7.2	1,220	4.0	1,220	2.8	1,240	5.6	860	10,200	-	30.5	22.2	15.8	12.6
	BML440	1/4	7.2	1,220	4.0	1,220	2.8	1,240	5.6	860	10,200	-	30.5	22.2	15.8	12.6
	BML530	1/4	9.0	1,525	5.0	1,525	3.5	1,550	7.0	1,075	11,600	-	34.7	25.2	18.1	14.4

Model BME/BML Electric Defrost | 50 Hz

Model	HP	PSC Motor		EC Motor	Defrost Heater			
		220/1/50	380/1/50	220/1/50	Watts	220/1/50	380/3/50	
		Amps	Amps	Amps		Total Amps		
6 Fins Per Inch	BME101	1/4	1.8	1.0	1.4	2,510	11.4	3.4
	BME140	1/4	1.8	1.0	1.4	2,510	11.4	3.4
	BME190	1/4	3.6	2.0	2.8	4,910	22.3	6.9
	BME260	1/4	3.6	2.0	2.8	4,910	22.3	6.9
	BME310	1/4	5.4	3.0	4.2	7,090	32.2	9.9
	BME390	1/4	5.4	3.0	4.2	7,090	32.2	9.9
	BME430	1/4	7.2	4.0	5.6	9,340	-	13.1
	BME520	1/4	7.2	4.0	5.6	9,340	-	13.1
	BME620	1/4	9.0	5.0	7.0	10,620	-	15.0
4 Fins Per Inch	BML100	1/4	1.8	1.0	1.4	2,510	11.4	3.4
	BML165	1/4	3.6	2.0	2.8	4,910	22.3	6.9
	BML220	1/4	3.6	2.0	2.8	4,910	22.3	6.9
	BML250	1/4	5.4	3.0	4.2	7,090	32.2	9.9
	BML330	1/4	5.4	3.0	4.2	7,090	32.2	9.9
	BML370	1/4	7.2	4.0	5.6	9,340	-	13.1
	BML440	1/4	7.2	4.0	5.6	9,340	-	13.1
	BML530	1/4	9.0	5.0	7.0	10,620	-	15.0

* 575/1/60 motors are 1/3 HP

PERFORMANCE DATA : HOT GAS DEFROST

Model BMG/BMF Hot Gas Defrost | 60 Hz

Model	Capacity				Fan Data			Air Throw* †						
	R-404A		R-407A/C/F, R-448A/R-449A		No.	CFM	m³H	Diameter		Extended (Std.)		Diffused (Opt.)		
	10°F TD -20°F SST	6°C TD -29°C SST	10°F TD -20°F SST	6°C TD -29°C SST				in.	mm	ft.	m	ft.	m	
	BTUH	Watts	BTUH	Watts										
6 Fins Per Inch	BMG190	19,000	5,600	20,500	6,000	2	4,700	7,990	18	457	65	20	50	15
	BMG260	26,000	7,600	28,500	8,400	2	4,500	7,650	18	457	65	20	50	15
	BMG310	31,000	9,100	34,000	10,000	3	7,050	11,990	18	457	65	20	50	15
	BMG390	39,000	11,400	43,000	12,600	3	6,750	11,480	18	457	65	20	50	15
	BMG430	43,000	12,600	46,500	13,600	4	8,800	14,960	18	457	65	20	50	15
	BMG520	52,000	15,200	57,000	16,700	4	10,000	17,000	18	457	65	20	50	15
4 Fins Per Inch	BMF165	16,500	4,800	18,000	5,300	2	4,900	8,330	18	457	65	20	50	15
	BMF220	22,000	6,400	24,000	7,000	2	4,650	7,910	18	457	65	20	50	15
	BMF250	25,000	7,300	27,000	7,900	3	7,350	12,500	18	457	65	20	50	15
	BMF330	33,000	9,700	36,500	10,700	3	6,975	11,860	18	457	65	20	50	15
	BMF370	37,000	10,800	40,000	11,700	4	9,100	15,470	18	457	65	20	50	15
	BMF440	44,000	12,900	48,500	14,200	4	8,700	14,790	18	457	65	20	50	15

Model BMG/BMF Hot Gas Defrost | 50 Hz †

Model	Capacity				Fan Data			Air Throw* †						
	R-404A		R-407A/C/F, R-448A/R-449A		No.	CFM	m³H	Diameter		Extended (Std.)		Diffused (Opt.)		
	10°F TD -20°F SST	6°C TD -29°C SST	10°F TD -20°F SST	6°C TD -29°C SST				in.	mm	ft.	m	ft.	m	
	BTUH	Watts	BTUH	Watts										
6 Fins Per Inch	BMG190	19,900	5,800	21,700	6,400	2	4,230	7,190	18	457	60	18.5	45	13.5
	BMG260	22,600	6,600	24,400	7,100	2	4,050	6,890	18	457	60	18.5	45	13.5
	BMG310	29,800	8,700	33,000	9,700	3	6,345	10,790	18	457	60	18.5	45	13.5
	BMG390	33,400	9,800	36,100	10,500	3	6,075	10,330	18	457	60	18.5	45	13.5
	BMG430	39,700	11,700	43,800	12,800	4	7,920	13,460	18	457	60	18.5	45	13.5
	BMG520	47,800	14,000	52,800	15,400	4	7,560	12,850	18	457	60	18.5	45	13.5
4 Fins Per Inch	BMF165	18,100	5,300	19,500	5,700	2	4,410	7,500	18	457	60	18.5	45	13.5
	BMF220	24,700	7,200	27,100	8,000	2	4,185	7,120	18	457	60	18.5	45	13.5
	BMF250	29,500	8,600	32,300	9,500	3	6,615	11,250	18	457	60	18.5	45	13.5
	BMF330	37,100	10,800	40,900	12,000	3	6,278	10,670	18	457	60	18.5	45	13.5
	BMF370	40,900	12,000	44,200	12,900	4	8,190	13,920	18	457	60	18.5	45	13.5
	BMF440	49,400	14,400	54,200	15,900	4	7,830	13,310	18	457	60	18.5	45	13.5

Capacity Correction Factors For Electric and Hot Gas Defrost Units

Saturated Suction Temp. °F	+20	-10	-20	-30	-40
Saturated Suction Temp. °C	-7	-23	-29	-34	-40
Multiply Capacity By	1.15	1.02	1.00	0.90	0.80

* Standard molded fan guards allow for extended air throw; optional wire guards promote air diffusion

† Air throw data based on 12-ft. high ceilings with no obstructions where velocity drops to 50 FPM

‡ For EC motors, use 60 Hz capacity and airflow values (Units with EC motors operating at 50 Hz will not see a reduction in performance due to the electronic control of the motor)

SPECIFICATIONS: HOT GAS DEFROST

Model BMG/BMF Hot Gas Defrost | 60 Hz

Model	HP*	PSC Motor								EC Motor				Drain Pan Heater (Std.)					
		115/1/60		208-230/1/60		460/1/60		575/1/60		115/1/60		208-230/1/60		Watts	115/1/60	208/230/1/60	460/1/60	575/1/60	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts		Total Amps				
6 Fins Per Inch	BMG190	1/4	8.0	600	3.6	610	2.0	610	1.4	620	5.6	420	2.8	430	950	8.3	4.1	2.1	1.7
	BMG260	1/4	8.0	600	3.6	610	2.0	610	1.4	620	5.6	420	2.8	430	950	8.3	4.1	2.1	1.7
	BMG310	1/4	12.0	900	5.4	915	3.0	915	2.1	930	8.4	630	4.2	645	1,350	11.7	5.9	2.9	2.3
	BMG390	1/4	12.0	900	5.4	915	3.0	915	2.1	930	8.4	630	4.2	645	1,350	11.7	5.9	2.9	2.3
	BMG430	1/4	16.0	1,200	7.2	1,220	4.0	1,220	2.8	1,240	11.2	840	5.6	860	1,800	15.7	7.8	3.9	3.1
	BMG520	1/4	16.0	1,200	7.2	1,220	4.0	1,220	2.8	1,240	11.2	840	5.6	860	1,800	15.7	7.8	3.9	3.1
4 Fins Per Inch	BMF165	1/4	8.0	600	3.6	610	2.0	610	1.4	620	5.6	420	2.8	430	950	8.3	4.1	2.1	1.7
	BMF220	1/4	8.0	600	3.6	610	2.0	610	1.4	620	5.6	420	2.8	430	950	8.3	4.1	2.1	1.7
	BMF250	1/4	12.0	900	5.4	915	3.0	915	2.1	930	8.4	630	4.2	645	1,350	11.7	5.9	2.9	2.3
	BMF330	1/4	12.0	900	5.4	915	3.0	915	2.1	930	8.4	630	4.2	645	1,350	11.7	5.9	2.9	2.3
	BMF370	1/4	16.0	1,200	7.2	1,220	4.0	1,220	2.8	1,240	11.2	840	5.6	860	1,800	15.7	7.8	3.9	3.1
	BMF440	1/4	16.0	1,200	7.2	1,220	4.0	1,220	2.8	1,240	11.2	840	5.6	860	1,800	15.7	7.8	3.9	3.1

Model BMG/BMF Hot Gas Defrost | 50 Hz

Model	HP	PSC Motor		EC Motor	Drain Pan Heater (Std.)			
		220/1/50	380/1/50	220/1/50	Watts	220/1/50	380/3/50	
		Amps	Amps	Amps		Total Amps		
6 Fins Per Inch	BMG190	1/4	3.6	2.0	2.8	860	3.9	1.7
	BMG260	1/4	3.6	2.0	2.8	860	3.9	1.7
	BMG310	1/4	5.4	3.0	4.2	1,230	5.6	2.4
	BMG390	1/4	5.4	3.0	4.2	1,230	5.6	2.4
	BMG430	1/4	7.2	4.0	5.6	1,650	7.5	3.2
	BMG520	1/4	7.2	4.0	5.6	1,650	7.5	3.2
4 Fins Per Inch	BMF165	1/4	3.6	2.0	2.8	860	3.9	1.7
	BMF220	1/4	3.6	2.0	2.8	860	3.9	1.7
	BMF250	1/4	5.4	3.0	4.2	1,230	5.6	2.4
	BMF330	1/4	5.4	3.0	4.2	1,230	5.6	2.4
	BMF370	1/4	7.2	4.0	5.6	1,650	7.5	3.2
	BMF440	1/4	7.2	4.0	5.6	1,650	7.5	3.2

* 575/1/60 motors are 1/3 HP

Model BMA Air Defrost

Model	No. of Fans	Connections (in.)				Approx. Net Wt.	
		Coil Inlet ODF	Suction ODF	External Equalizer ODF	Drain FPT	lbs.	kg
BMA130	1	1/2	7/8	1/4	3/4	115	52
BMA155	1	1/2	1-1/8	1/4	3/4	123	56
BMA245	2	7/8	1-1/8	1/4	3/4	134	61
BMA300	2	7/8	1-1/8	1/4	3/4	148	67
BMA365	3	7/8	1-3/8	1/4	3/4	200	91
BMA450	3	1-1/8*	1-3/8	1/4	3/4	227	103
BMA510	4	1-1/8*	1-5/8	1/4	3/4	230	104
BMA600	4	1-1/8*	1-5/8	1/4	3/4	255	116
BMA710	5	1-1/8*	1-5/8	1/4	3/4	285	129

Model BME/BML Electric Defrost

Model	No. of Fans	Connections (in.)				Approx. Net Wt.		
		Coil Inlet ODF	Suction ODF	External Equalizer ODF	Drain FPT	lbs.	kg	
6 Fins Per Inch	BME101	1	1/2	7/8	1/4	3/4	118	54
	BME140	1	1/2	7/8	1/4	3/4	126	57
	BME190	2	7/8	1-1/8	1/4	3/4	138	63
	BME260	2	1-1/8*	1-3/8	1/4	3/4	153	69
	BME310	3	1-1/8*	1-3/8	1/4	3/4	210	95
	BME390	3	1-1/8*	1-3/8	1/4	3/4	237	108
	BME430	4	1-1/8*	1-5/8	1/4	3/4	267	121
	BME520	4	1-1/8*	1-5/8	1/4	3/4	300	136
	BME620	5	1-1/8*	1-5/8	1/4	3/4	338	153
4 Fins Per Inch	BML100	1	1/2	7/8	1/4	3/4	125	56
	BML165	2	7/8	1-1/8	1/4	3/4	136	62
	BML220	2	1-1/8*	1-3/8	1/4	3/4	151	68
	BML250	3	1-1/8*	1-3/8	1/4	3/4	207	94
	BML330	3	1-1/8*	1-3/8	1/4	3/4	234	106
	BML370	4	1-1/8*	1-5/8	1/4	3/4	262	119
	BML440	4	1-1/8*	1-5/8	1/4	3/4	295	134
	BML530	5	1-1/8*	1-5/8	1/4	3/4	332	151

* Supplied with adapter to 7/8 ODF

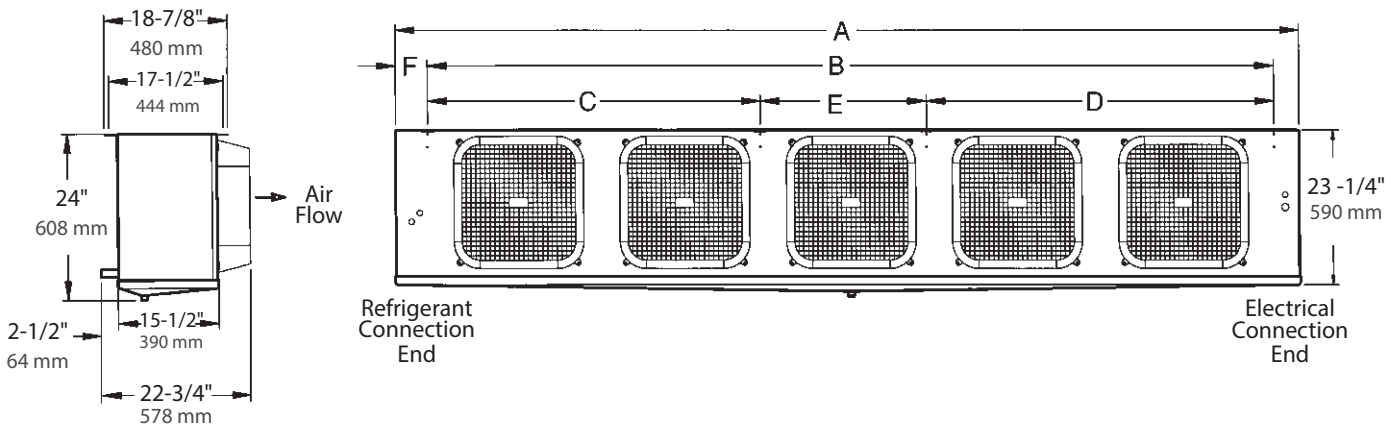
Model BMG/BMF Hot Gas Defrost

Model	No. of Fans	Connections (in.)						Approx. Net Wt.		
		Coil Inlet ODF	Suction ODF	External Equalizer ODF	Drain FPT	Side Port ODF	Hot Gas Pan Conns.** ODF	lbs.	kg	
6 Fins Per Inch	BMG190	2	1-1/8*	1-1/8	1/4	3/4	5/8	7/8	175	79
	BMG260	2	1-1/8*	1-3/8	1/4	3/4	5/8	7/8	190	86
	BMG310	3	1-1/8*	1-3/8	1/4	3/4	5/8	7/8	210	95
	BMG390	3	1-1/8*	1-3/8	1/4	3/4	5/8	7/8	237	108
	BMG430	4	1-1/8*	1-5/8	1/4	3/4	5/8	7/8	267	121
	BMG520	4	1-1/8*	1-5/8	1/4	3/4	5/8	7/8	300	136
4 Fins Per Inch	BML165	2	1-1/8*	1-1/8	1/4	3/4	5/8	7/8	173	78
	BML220	2	1-1/8*	1-3/8	1/4	3/4	5/8	7/8	188	85
	BML250	3	1-1/8*	1-3/8	1/4	3/4	5/8	7/8	207	94
	BML330	3	1-1/8*	1-3/8	1/4	3/4	5/8	7/8	234	106
	BML370	4	1-1/8*	1-5/8	1/4	3/4	5/8	7/8	262	119
	BML440	4	1-1/8*	1-5/8	1/4	3/4	5/8	7/8	295	134

* Supplied with adapter to 7/8 ODF

** Supplied with electric drain pan heater as standard, hot gas pan is optional

DIMENSIONAL DATA



Dimensional Data For All Models

Model	6 FPI Models		4 FPI Models		Dimensions											
	Defrosts		Defrosts		A		B		C		D		E		F	
	Elec.	Hot Gas	Elec.	Hot Gas	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
BMA130	BME101	-	-	-	39-5/16	1,000	30-1/4	770	-	-	-	-	-	-	4-15/16	125
BMA155	BME140	-	BML100	-	39-5/16	1,000	30-1/4	770	-	-	-	-	-	-	4-15/16	125
BMA245	BME190	BMG190	BML165	BMF165	67-5/16	1,710	58-1/4	1,480	-	-	-	-	-	-	4-15/16	125
BMA300	BME260	BMG260	BML220	BMF220	67-5/16	1,710	58-1/4	1,480	-	-	-	-	-	-	4-15/16	125
BMA365	BME310	BMG310	BML250	BMF250	95-5/16	2,420	86-1/4	2,190	-	-	-	-	-	-	4-15/16	125
BMA450	BME390	BMG390	BML330	BMF330	95-5/16	2,420	86-1/4	2,190	-	-	-	-	-	-	4-15/16	125
BMA510	BME430	BMG430	BML370	BMF370	123-5/16	3,130	114-1/4	2,900	56	1,420	58-1/4	1,480	-	-	4-15/16	125
BMA600	BME520	BMG520	BML440	BMF440	123-5/16	3,130	114-1/4	2,900	56	1,420	58-1/4	1,480	-	-	4-15/16	125
BMA710	BME620	-	BML530	-	138-13/16	3,530	129-3/4	3,300	51	1,300	53-1/4	1,350	25-1/2	650	4-15/16	125

NOTE: Evaporator mounting brackets accept up to 1/2" hanger rod

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Motor/Fan Blade/Fan Guards

Part #	Description
5020-S	PSC Motor 115V
5020-T	PSC Motor 208-230V
4567-T	Motor 208-230V PSC Totally Enclosed
25302201	Motor 460V PSC
25304601*	Motor 460V Low Temp PSC Totally Enclosed
25308101*	Motor 208-230V Low Temp PSC Totally Enclosed
25317501	Motor 208-230V EC Totally Enclosed
25317601	Motor 115V EC Totally Enclosed
5599-M	Run Capacitor (5 MFD) - Used with most PSC Motors
5779-G	Run Capacitor (7.5 MFD) - Used with 25304601 Motor Only
22511601	Run Capacitor (7.5 MFD) - Used with 25399301
25399301	Motor 575V Low Temp PSC Totally Enclosed
5064-E	Motor Mount
5130-C	Fan Blade
5054F	Fan Guard Molded
23101802	Fan Guard Blue Wire

* Special motors to be used in room ambients -31°F to -50°F

Cabinet Components

Part #	Description	No. of Fans
40491902	Drain Pan*	1
40492102	Drain Pan*	2
40492302	Drain Pan*	3
40492502	Drain Pan*	4
40492702	Drain Pan*	5
40830101	Header Side Panel	1-5
40830201	Electrical Side Panel	1-5
40830901	Header Connection Panel	1-5
92864003	Drain Fitting	1-5

* Includes provision to mount drain pan heater

Electrical Components

Part #	Description
2891040	Room Thermostat
5709-L	Defrost Term. / Fan Delay Thermostat Sealed Bimetal Type
2890109	Defrost Term. / Fan Delay Thermostat
5708-L	Adjustable Type

NOTE: Contact factory for hot gas defrost components not listed

Drain Pan Defrost Heater (1 per unit)

Part #	Description	Voltage	Color Code
24710301	1 Fan Unit, 530W	208-230V	Black
24710302	2 Fan Unit, 950W	208-230V	Black
24710303	3 Fan Unit, 1350W	208-230V	Black
24710304	4 Fan Unit, 1800W	208-230V	Black
24710305	5 Fan Unit, 2000W	208-230V	Black
24710401	1 Fan Unit, 530W	460V	Red
24710402	2 Fan Unit, 950W	460V	Red
24710403	3 Fan Unit, 1350W	460V	Red
24710404	4 Fan Unit, 1800W	460V	Red
24710405	5 Fan Unit, 2000W	460V	Red
24710502	2 Fan Unit, 950W	115V	Black, White
24710503	3 Fan Unit, 1350W	115V	Black, White
24710901	4 Fan Unit, 1800W	115V	Black, White
24710902	1 Fan Unit, 530W	575V	Black, Red
24710903	2 Fan Unit, 950W	575V	Black, Red
24710904	3 Fan Unit, 1350W	575V	Black, Red
24710905	4 Fan Unit, 1800W	575V	Black, Red
24710905	5 Fan Unit, 2000W	575V	Black, Red

* Includes provision to mount drain pan heater

Coil Defrost Heater (4 per unit)

Part #	Description	Voltage
24710201	1 Fan Unit, 550W	230-460V
24710202	2 Fan Unit, 1100W	230-460V
24710203	3 Fan Unit, 1600W	230-460V
24710204	4 Fan Unit, 2100W	230-460V
24710205	5 Fan Unit, 2400W	230-460V
24711101	1 Fan Unit, 550W	575V
24711102	2 Fan Unit, 1100W	575V
24711103	3 Fan Unit, 1600W	575V
24711104	4 Fan Unit, 2100W	575V
24711105	5 Fan Unit, 2400W	575V
23308001	Heater Clip (1-3 fans)	-
23308101	Heater Clip (4-5 fans)	-

STANDARD NOZZLE SELECTION

Model BMA Air Defrost

Model	No. of Fans	Distributor Tube (in.)		No. of Circuits	R-404A, R-507A Nozzle	R-407A, R-407F, R-407C Nozzle	R-448A, R-449A Nozzle	R-22 Nozzle (Ref. Only)
		OD	Length					
BMA130	1	3/16	21-1/2	3	L-1	L-3/4	L-1	L-3/4
BMA155	1	3/16	21-1/2	5	L-1	L-1	L-1-1/2	L-1
BMA245	2	3/16	21-1/2	9	G-2	G-2	G-2-1/2	G-1-1/2
BMA300	2	3/16	21-1/2	9	G-2	G-2	G-2-1/2	G-2
BMA365	3	3/16	21-1/2	9	G-2-1/2	G-2-1/2	G-3	G-2
BMA450	3	3/16	21-1/2	12	E-3	E-3	E-4	E-2-1/2
BMA510	4	3/16	21-1/2	13	E-4	E-4	E-5	E-2-1/2
BMA600	4	3/16	21-1/2	18	E-4	E-4	E-6	E-3
BMA710	5	3/16	21-1/2	18	E-5	E-5	E-6	E-4

Model BME/BML Electric Defrost

Model	No. of Fans	Distributor Tube (in.)		No. of Circuits	R-404A, R-507A Nozzle	R-407A, R-407F, R-407C Nozzle	R-448A, R-449A Nozzle	R-22 Nozzle (Ref. Only)	
		OD	Length						
6 Fins Per Inch	BME101	1	3/16	21-1/2	5	L-1-1/2	L-1	L-1-1/2	L-3/4
	BME140	1	3/16	21-1/2	6	L-1-1/2	L-1-1/2	L-2	L-1-1/2
	BME190	2	3/16	21-1/2	9	G-2-1/2	G-2	G-2-1/2	G-2
	BME260	2	3/16	21-1/2	12	E-3	E-3	E-4	E-2-1/2
	BME310	3	3/16	21-1/2	13	E-4	E-4	E-5	E-2-1/2
	BME390	3	3/16	21-1/2	18	E-5	E-5	E-6	E-3
	BME430	4	3/16	21-1/2	12	E-5	E-5	E-6	E-3
	BME520	4	3/16	21-1/2	17	E-6	E-6	E-8	E-4
	BME620	5	3/16	21-1/2	17	E-8	E-8	E-10	E-5
4 Fins Per Inch	BML100	1	3/16	21-1/2	6	L-1-1/2	L-1	L-1-1/2	L-3/4
	BML165	2	3/16	21-1/2	9	G-2	G-2	G-2-1/2	G-1-1/2
	BML220	2	3/16	21-1/2	12	E-2-1/2	E-2-1/2	E-4	E-2
	BML250	3	3/16	21-1/2	13	E-3	E-3	E-4	E-2-1/2
	BML330	3	3/16	21-1/2	18	E-4	E-4	E-5	E-3
	BML370	4	3/16	21-1/2	12	E-4	E-4	E-5	E-3
	BML440	4	3/16	21-1/2	17	E-5	E-5	E-8	E-4
	BML530	5	3/16	21-1/2	17	E-6	E-6	E-8	E-4

Note: Nozzles sized for 90-100°F liquid temperature at expansion valve.

Contact Application Engineering for guidance if:

- Liquid temperature is not 90-100°F
- Evaporator TD is not 10°-15°F (room temperature – saturated suction temperature)
- Electric defrost and hot gas models with a saturated suction temperature of 10°F or higher

Caution:

Refrigeration system will not perform properly without correct nozzle!

STANDARD NOZZLE SELECTION

Model BMG/BMF Hot Gas Defrost

Model	No. of Fans	Distributor Tube (in.)		No. of Circuits	R-404A, R-507A Nozzle	R-407A, R-407F, R-407C Nozzle	R-448A, R-449A Nozzle	R-22 Nozzle (Ref. Only)	
		OD	Length						
6 Fins Per Inch	BMG190	2	3/16	21-1/2	9	E-2-1/2	E-2-1/2	E-3	E-1-1/2
	BMG260	2	3/16	21-1/2	12	E-4	E-3	E-4	E-2-1/2
	BMG310	3	3/16	21-1/2	13	E-4	E-4	E-5	E-3
	BMG390	3	3/16	21-1/2	18	E-5	E-5	E-6	E-4
	BMG430	4	3/16	21-1/2	12	E-5	E-5	E-6	E-4
	BMG520	4	3/16	21-1/2	17	E-6	E-6	E-8	E-5
4 Fins Per Inch	BMF165	2	3/16	21-1/2	9	E-2-1/2	E-2	E-2-1/2	E-1-1/2
	BMF220	2	3/16	21-1/2	12	E-3	E-3	E-4	E-2-1/2
	BMF250	3	3/16	21-1/2	13	E-3	E-3	E-4	E-2-1/2
	BMF330	3	3/16	21-1/2	18	E-4	E-4	E-5	E-3
	BMF370	4	3/16	21-1/2	12	E-4	E-4	E-5	E-3
	BMF440	4	3/16	21-1/2	17	E-5	E-5	E-6	E-4

Note: Nozzles sized for 90-100°F liquid temperature at expansion valve.

Contact Application Engineering for guidance if:

- Liquid temperature is not 90-100°F
- Evaporator TD is not 10°-15°F (room temperature – saturated suction temperature)
- Electric defrost and hot gas models with a saturated suction temperature of 10°F or higher

Caution:

Refrigeration system will not perform properly without correct nozzle!



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Since product improvement is a continuing effort, we reserve the right to make changes in specifications without notice.

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