

3.3KW - 100KW HORIZONTAL OR VERTICAL DISCHARGE FAN FORCED SUSPENDED UNIT HEATER

VERTICAL DISCHARGE



HORIZONTAL DISCHARGE

CONSTRUCTION:

- 18 ga. steel cabinet with powder coated finish and control compartment housing a master terminal board with a hinged and latched access door, simplifying wiring, installation & maintenance

HEATING ELEMENT:

- Spiral fin steel element with continuously brazed steel fins formed to allow side draw through air flow

OVERHEAT PROTECTION:

- 3.3 - 50 KW units come equipped with automatic reset type limit and 60 - 100 KW units come equipped with manual reset type limit to de-energize the heater should an over-temperature situation occur.

FAN and MOTOR:

- Totally enclosed, 1-speed, 1-phase, permanently lubricated, thermally protected motors with unit bearings on 3 KW - 20 KW models
- Totally enclosed, 2-speed, 1-phase, permanently lubricated, thermally protected motors with sleeve bearings on 25 KW - 50 KW models; 60 -100 KW have 1 speed motors, ball bearing, thermally protected.
- Fan over-ride purges unit of residual heat at shutdown

LOUVER ASSEMBLY:

- Louvers are individually adjustable for directional control of air flow up to 15° from straight horizontal
- Optional diffusers available for down flow (vertical discharge) applications

TEMPERATURE CONTROLS:

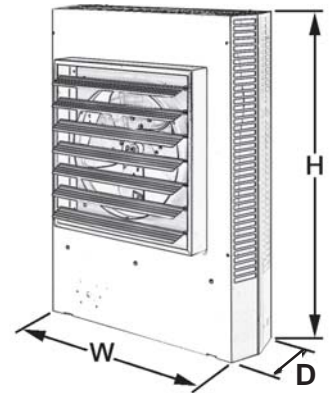
- Optional low voltage and line voltage thermostats available with an adjustable temperature range of 50°-90°F
- Units with model numbers ending in CA1 are factory wired for low voltage controls
- 25 KW through 50 KW units are designed for two stage heating operation, 60 - 70KW units designed for up to three stage and 80 - 100 KW units up to four stage

INSTALLATION:

- Unit Heaters can be mounted for horizontal or vertical discharge
- 5100 series suggested for applications up to 6000 feet; for applications up to or above 6000 feet see UH series.

FIELD INSTALLED OPTIONS:

- In-Built or wall mounted temperature control thermostats - low or line voltage
- Summer fan switch to operate the fan only.
- Power disconnect switch
- 60-100KW units can be multiple stage when used with optional SC5100 and C1025 stat
- Heat stratification thermostat



KW RATING	DIMENSIONS (inches)		
	H	W	D
3.3KW - 5.0KW	17 3/4	14 15/32	6 1/2
7.5KW - 10.0KW	24 5/16	21 1/2	6 1/2
15.0KW - 20.0KW	28 11/16	21 1/2	6 1/2
25.0KW - 50.0KW	34	29 1/4	10 1/16
60.0KW - 70.0KW	35 1/2	30 1/2	14 1/2
80.0KW - 100.0KW	39 1/2	37 1/2	18 1/2

MODEL DESIGNATION

HF 2 B 51 10 C A 1

ELEMENT VOLTAGE •
 PHASE
 MOTOR VOLTAGE ••
 MODEL SERIES
 ELEMENT KW
 CONTACTOR
 TRANSFORMER
 CONTROL VOLTAGE ••

ELEMENT VOLTS:
 F = 208
 H = 240
 HF = 240 / 208
 G = 277
 P = 480

PHASE:
 1 = 1-PHASE
 2 = 1 or 3 PHASE
 3 = 3-PHASE

MOTOR VOLTS:
 F = 208
 H = 240
 B = 240 / 208
 G = 277
 P = 480

CONTACTOR:
 C = INCLUDED
 blank = NONE

TRANSFORMER:
 A = INCLUDED
 blank = NONE

CONTROL VOLTS:
 (WITH CA OPTION)
 1 = 24
 2 = 120

(*) 600-volt units 5kw - 50kw available on special order, consult factory for pricing & availability.

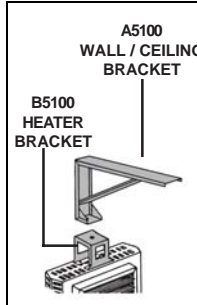
UPC 686334	MODEL	KW	BTU / H	VOLTS	PH	AMPS	CONTROL VOLTAGE	TEMP RISE	AIR THROW	CFM	RECOMMENDED MOUNTING HT.		WT. (LBS.)	LIST					
											Hortz.	Vert							
645089	F1F5103N	3.3	11.2	208	1	15.9	208	26°F	12'	400	9'	9'	25	641					
645102	HF1B5103N	3.3/2.5	11.2 / 8.5	240/208	1	13.7 / 11.9	240 / 208							641					
645683	F2F5103N	3.3	11.2	208	1 / 3	15.9 / 9.2	208							641					
645706	HF2B5103N	3.3/2.5	11.2 / 8.5	240/208	1 3	13.7 / 11.9 7.9 / 6.9	240 / 208							641					
645720	G1G5103N	3.3	11.2	277	1	11.9	277							641					
645126	P3P5103CA1N			480	3	4.0	24							817					
645546	F1F5105N	5.0	17.1	208	1	24.1	208	40°F	12'	400	9'	9'	25	670					
645560	HF1B5105N	5.0/3.7	17.1 / 12.8	240/208	1	20.9 / 18.1	240 / 208							670					
645140	F2F5105N	5.0	17.1	208	1 / 3	24.1 / 13.9	208							670					
645164	HF2B5105N	5.0	17.1	240	1 / 3	20.8 / 12.1	240							670					
		3.7	12.8	208	1 / 3	17.8 / 10.4	208							670					
645843	G1G5105N	5.0	17.1	277	1	18.1	277							670					
645188	P3P5105CA1N	5.0	17.1	480	3	6.1	24						887						
645201	F2F5107CA1L	7.5	25.6	208	1 / 3	36.1 / 20.8	24						34°F	22'	700	10'	12'	54	1033
645225	HF2B5107CA1L	7.5	25.6	240	1 / 3	31.3 / 18.1													1033
		5.6	19.2	208	1 / 3	27.1 / 15.6													1114
645928	G1G5107CA1L	7.5	25.6	277	1	27.1		1138											
645249	P3P5107CA1N	7.5	25.6	480	3	9.1		1138											
645263	F2F5110CA1L	9.9	33.8	208	1 / 3	47.8 / 27.4		1138											
645287	HF2B5110CA1L	10.0	34.1	240	1 / 3	41.2 / 24.0		1138											
		7.5	25.6	208	1 / 3	36.1 / 20.8		1180											
645645	G1G5110CA1L	10.0	34.1	277	1	36.1		1833											
645300	P3P5110CA1N	10.0	34.1	480	3	12.1		1833											
645324	F3F5115CA1L	15.0	51.2	208	3	41.7	1907												
645348	HF3B5115CA1L	15.0/11.2	51.2 / 38.4	240/208	3	36.1 / 31.3	2517												
645362	P3P5115CA1N	15.0	51.2	480	3	18.1	2517												
645386	HF3B5120CA1L	19.7/14.8	67.2 / 50.5	240/208	3	47.8 / 41.1	2966												
645409	P3P5120CA1N	20.0	68.3	480	3	24.1	2966												
645881	F3F5125CA1L	25.0	85.3	208	3	69.5	2966												
645942	HF3B5125CA1L	25.0/18.7	85.3 / 64.0	240/208	3	60.2 / 52.1	3434												
645980	P3P5125CA1N	25.0	85.3	480	3	30.1	3434												
645423	F3F5130CA1L	30.0	102.4	208	3	83.4	3434												
645447	HF3B5130CA1L	30.0/22.5	102.4 / 76.8	240/208	3	72.3 / 62.5	4390												
645461	P3P5130CA1N	30.0	102.4	480	3	36.2	4390												
644044	F3F5140CA1L	40.0	136.5	208	3	111.2	4390												
644068	HF3B5140CA1L	40.0/30.0	136.5/102.4	240/208	3	96.4 / 83.4	5481												
644082	P3P5140CA1N	39.0	133.1	480	3	47.0	5481												
645485	F3F5150CA1L	49.6	169.3	208	3	139.0	5481												
645508	HF3B5150CA1L	50.0/37.5	170.6/128.0	240/208	3	120.5/104.3	5481												
645522	P3P5150CA1N	50.0	170.6	480	3	60.3	7532												
721349	F3F5160CA1	60	204.7	208	3	166.7	7532												
721356	HF3B5160CA1	60/45	204.7/153.6	240/208	3	144.6/125	7532												
721363	P3P5160CA1	60	204.7	480	3	72.3	7851												
721424	F3F5170CA1	70	238.9	208	3	194.4	7851												
721431	HF3B5170CA1	70/52.5	238.9/179.2	240/208	3	168.7/145.8	7851												
721448	P3P5170CA1	70	238.9	480	3	84.3	9177												
721707	HF3B5180CA1	80/60	273/204.7	240/208	3	192.8/166.7	9177												
721714	P3P5180CA1	80	273	480	3	96.3	9548												
721769	HF3B5190CA1	90/67.5	307.1/230.4	240/208	3	216.9/187.5	9548												
721776	P3P5190CA1	90	307.1	480	3	108.4	9548												
721820	HF3B51100CA1	100/75	341.3/256	240/208	3	241/208.3	10079												
721837	P3P51100CA1	100	341.3	480	3	120.4	10079												



NOTE: - To change line voltage control units to low voltage control, add suffix CA1 for 24v or CA2 for 120v to model number and \$101 to list.

- Air delivery and motor data on dual voltage units (240 / 208v) reflect the higher voltage.

**FIELD
INSTALLED
OPTIONS**

MODEL NUMBER	DISCONNECT SWITCH		THERMOSTAT		SUMMER FAN SWITCH		THERMOSTAT & SUMMER FAN SWITCH WALL MOUNTED	STRATIFICATION THERMOSTAT	
	1 Ø	3 Ø	IN-BUILT	WALL MOUNTED	IN-BUILT	WALL MOUNTED		IN-BUILT	WALL MOUNTED
F1F5103N	DCS 202	NA	T5100	ET55S	FS5101	FSW5111	NA	TC5103	TC1602
HF1B5103N									
F2F5103N	NA	DCS 403	T5102	TW 1512	FS5101	FSW5111	NA	TC5103	TC1602
HF2B5103N	DCS 202	NA	T5100	ET55S					
	NA	DCS 403	T5102	TW 1512	FS5101	FSW5111	NA	TC5103	TC1602
G1G5103N	DCS 202	NA	T5100	ET55S					
P3P5103CA1N	NA	DCS 403		A6176	FS5102	FSW5112	TFS5101	TC5102	NA
F1F5105N	DCS 403	NA	T5102	S2025H10AA	FS5101	FSW5111	NA	TC5103	TC1602
HF1B5105N				ET55S					
F2F5105N	NA	DCS 403	T5102	TW 1512	FS5101	FSW5111	NA	TC5103	TC1602
HF2B5105N	DCS 403	NA	T5100	ET55S					
	NA	DCS 403	T5102	TW 1512	FS5101	FSW5111	NA	TC5103	TC1602
G1G5105N	DCS 202	NA	T5100	S2025H10AA					
P3P5105CA1N	NA	DCS 403		T5100	A6176	FS5102	FSW5112	TFS5101	TC5102
F2F5107CA1L	DCS 403	NA	T5100			A6176	FS5101		FSW5111
	NA	DCS 403							
HF2B5107CA1L	DCS 403	NA	T5100	A6176	FS5101	FSW5111	TC5103	TC1602	
	NA	DCS 403							
G1G5107CA1L	DCS 403	NA	T5100	A6176	FS5102	FSW5112	TC5102	TC1602	
P3P5107CA1L	NA	DCS 403							
F2F5110CA1L	DCS 603	NA	T5100	A6176	FS5101	FSW5111	TC5103	TC1602	
HF2B5110CA1L	NA	DCS 403							
	DCS 603	NA	T5100	A6176	FS5101	FSW5111	TC5103	TC1602	
G1G5110CA1N	DCS 403	NA							
P3P5110CA1N	NA	DCS 403	T5100	A6176 OR TW123	FS5102	FSW5112	TFS5101	TC5103	NA
F3F5115CA1L		DCS 603							
HF3B5115CA1L	DCS 403	DCS 403	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
P3P5115CA1L	DCS 403	DCS 403							
HF3B5120CA1L	DCS 603	DCS 603	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
P3P5120CA1N	DCS 403	DCS 403							
F3F5125CA1L	NA	DCS 1003	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
HF3B5125CA1L		DCS 403							
P3P5125CA1N	DCS 1003	DCS 1003	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
F3F5130CA1L	DCS 403	DCS 1003							
HF3B5130CA1L	DCS 1003	DCS 403	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
P3P5130CA1N	DCS 403	DCS 403							
F3F5140CA1L	NA	NA	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
HF3B5140CA1L		DCS 403			DCS 403				
P3P5140CA1N	DCS 603	DCS 603	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
F3F5150CA1L	NA	NA							
HF3B5150CA1L	NA	DCS 1003	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
P3P5150CA1N		DCS 1003							
F3F5160CA1	NA	NA	NA	C1025 Plus Step Controller SC5100	FS5101	FSW5112	NA	TC5102	NA
HF3B5160CA1					FS5101				
P3P5160CA1	NA	NA	NA	C1025 Plus Step Controller SC5100	FS5101	FSW5112	NA	TC5102	NA
F3F5170CA1					FS5101				
HF3B5170CA1	NA	NA	NA	C1025 Plus Step Controller SC5100	FS5101	FSW5112	NA	TC5102	NA
P3P5170CA1					FS5101				
HF3B5180CA1	NA	NA	NA	C1025 Plus Step Controller SC5100	FS5101	FSW5112	NA	TC5102	NA
P3P5180CA1					FS5101				
HF3B5190CA1	NA	NA	NA	C1025 Plus Step Controller SC5100	FS5101	FSW5112	NA	TC5102	NA
P3P5190CA1					FS5101				
HF3B51100CA1	NA	NA	NA	C1025 Plus Step Controller SC5100	FS5101	FSW5112	NA	TC5102	NA
P3P51100CA1					FS5101				

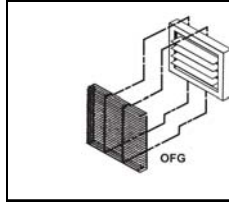
	UPC 686334	MODEL	HEATER KW	WT. (LBS.)	LIST
 <p>A5100 WALL / CEILING BRACKET</p> <p>B5100 HEATER BRACKET</p>	692694	A5105	3.3 - 5.0	9	88
	692700	A5120	7.5 - 20.0	13	108
	692717	A5150	25.0 - 50.0	16	121
	722001	A5175	60.0 - 70.0	25	167
	722018	A51100	80.0 - 100.0	32	175
	688628	B5105	3.3 - 5.0	3	48
	688635	B5150	7.5 - 20.0	8	71
	722032	B5175	25.0 - 50.0	10	76
	722049	B51100	60.0 - 100.0	12	93

	UPC 686334	MODEL	HEATER KW	WT. (LBS.)	LIST
 <p>VERTICAL MOUNT BRACKET</p> <p>V5100</p>	692847	V5105	3.3 - 5.0	9	169
	692854	V5120	7.5 - 20.0	13	207
	692861	V5150	25.0 - 50.0	16	218
	722025	V51100	60.0 - 100.0	22	290
 <p>DUST SHIELDS</p> <p>DS5100</p>	692878	DS5105	3.3 - 5.0	3	30
	692885	DS5120	7.5 - 20.0	4	35
	681223	DS5150	25.0 - 50.0	5	37
	722056	DS5175	60.0 - 70.0	7	45
	722063	DS51100	80.0 - 100.0	8	52

* B5100 Brackets included w ith corresponding A5100 Brackets

HORIZONTAL OR VERTICAL DISCHARGE UNIT HEATER

OSHA APPROVED FAN GUARD



UPC 686334	MODEL	HEATER KW	WT. (LBS.)	LIST
706544	OFG5101	3.3 - 5.0	3	49
706551	OFG5102	7.5 - 20.0	4	53
706568	OFG5103	25.0 - 50.0	5	61
722094	OFG5175	60.0 - 70.0	7	72
722100	OFG51100	80.0 - 100.0	8	89

CONTROL ACCESSORY OPTIONS - FIELD INSTALLED IN HEATER

UPC 686334	MODEL	DESCRIPTION	LIST
POWER DISCONNECT SWITCH			
717151	DCS202 / 5100	2 POLE; 20 AMP; 120-277 V.A.C.	124
717168	DCS403 / 5100	3 POLE; 40 AMP; 120-600 V.A.C.	280
717175	DCS603 / 5100	3 POLE; 60 AMP; 120-600 V.A.C.	409
717182	DCS1003 / 5100	3 POLE; 100 AMP; 120-600 V.A.C.	460
LINE VOLTAGE THERMOSTAT (45 - 90 °F)			
692779	T5100	SPST; LINE DUTY 25 AMP 120-277V	112
692786	T5102	DPST; LINE DUTY 25 AMP 120-277V	151
LOW VOLTAGE THERMOSTAT (ALL CA1 MODELS) (45 - 90 °F)			
692779	T5100	SPST; LOW VOLT/PILOT DUTY; 125VA ; (3.3-20 KW UNITS)	112
692793	T5122	2-STAGE; LOW VOLT; 125VA; (25-50 KW UNITS)	166
STRATIFICATION THERMOSTAT			
692809	TC5102	SPST; LOW VOLT/PILOT DUTY (W/RELAY) ; 70-130°	170
692816	TC5103	SPST; LINE DUTY; AMP 120-240V; 70-130°	113
SUMMER FAN SWITCH			
692823	FS5101	SPST; LINE VOLT ;120-277V	63
692830	FS5102	SPST; LINE VOLT ; 480-600V	92

CONTROL ACCESSORIES - REMOTE WALL MOUNTED

UPC 686334	MODEL	DESCRIPTION	LIST
LINE VOLTAGE THERMOSTAT			
502917	S2025H10AA	SP 25 Amp 120-277V 50-90°F	31
538787	ET5SS	SP 22 Amp 120-277V 50-90°F	36
691093	*TW1512	DPST 25 AMP 120-277V 50-90°F	181
LOW VOLTAGE THERMOSTAT (ALL CA1 MODELS)			
260008	A6176	SPST (3.3 - 20 KW UNITS) 50-90°F	101
691116	TW123	2-STAGE (25 - 50 KW UNITS) 40-90°F	312
STRATIFICATION THERMOSTAT			
691109	TC1602	SPST LINE VOLT 120-277V 70-140°	182
SUMMER FAN SWITCH			
692625	FSW5111	SPST LINE VOLT 120-277V	79
692632	FSW5112	SPST LOW VOLT (W/RELAY)	172
LOW VOLTAGE T' STAT & SUMMER FAN SWITCH(W/RELAY) (CA1 MODELS)			
692649	TFS5101	SPST LOW VOLT 50-90°	185
692656	TFS5102	2-STAGE LOW VOLT 50-90°	371
STEP CONTROLLER AND THERMOSTAT (FIELD INSTALLED IN HEATER)			
523233	SC5100	STEP CONTROLLER	606
523226	C1O25	THERMOSTAT FOR 60-100 KW UNIT HEATER	180

NOTE - 25kw - 50 kw units can be operated as single or two stage heaters depending on the control thermostat selected.
 - Stratification thermostats control fan operation only, a wall or in-built thermostat is also needed to control heater operation.

FIELD INSTALLED DIFFUSER OPTIONS

UPC 686334	MODEL	HEATER KW	RCMND MOUNTING HEIGHT (ft.)		AIR PATTERN DIMENSION (IN.)		DESCRIPTION	AIR PATTERN	WT. (lbs.)	LIST
STANDARD WITH HEATER		3.3 - 5	9		20 X 10		Standard Louver Diffuser Louvers can be individually adjusted for rectangular coverage over doorways like an air curtain, or to meet rectangular floor pattern heating requirements.		NA	
		7.5 - 10	12		40 X 22					
		15 - 20	18		52 X 30					
		25 - 30	22		75 X 42					
		40 - 50	24		84 X 47					
		60 - 70	31		94 X 56					
80 - 100	40		104 X 68							
692687	AD5120	7.5 - 20	10		30		Anemostat Diffuser (Optional). For applications where draft restriction is required at lower unit mounting heights.		10	344
681186	AD5150	25 - 50	15		38				12	513
722070	AD5175		17		50				37	553
		60 - 70	20		60					
			45°	90°	45°	90°				
692663	RD5120	7.5 - 10	10	14	36	30	Radial Diffuser (Optional). Individually adjustable fins permit increased floor coverage at 45° open. Additional throw is accomplished when fins are 90° vertical.		12	381
		15 - 20	14	21	42	35				
692670	RD5150	25 - 30	20	30	62	44				
			40 - 50	18	28	68				
722087	RD5175	60 - 70	26	36	72	60	39	480		