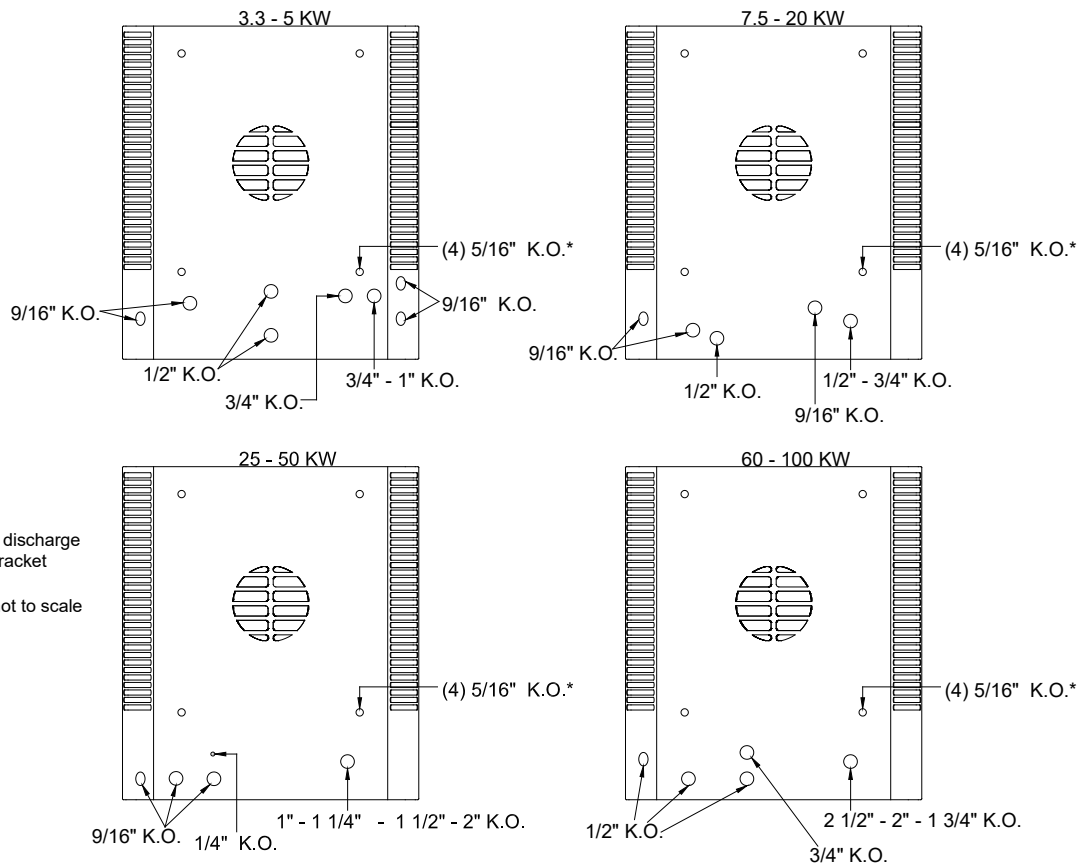
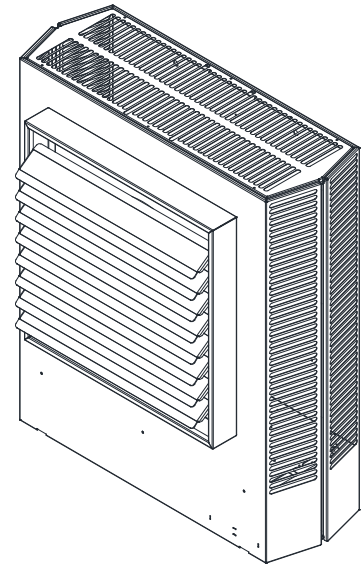
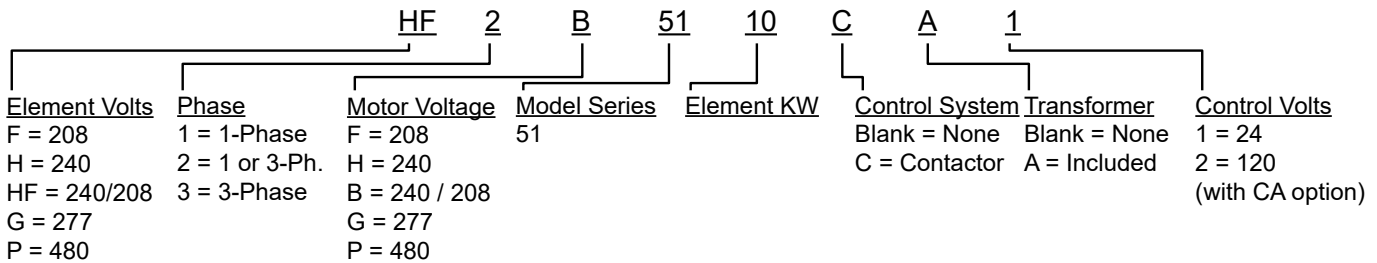


- Heavy 18 gauge steel construction
- Powder coated paint finish
- Copper clad steel sheath element with brazed fins and Nichrome element wire
- Totally enclosed fan motors
- Louvers are individually adjustable for directional air flow
- Optional remote and unit mounted controls include thermostats, disconnects, and fan switches
- Optional accessories include mounting brackets, louvers, fan guards, and dust shields



* For vertical discharge mounting bracket
Diagrams not to scale

HOW TO DETERMINE A MODEL:



* 600 Volt units 5KW - 50KW available on special order, consult factory for pricing & availability

Product Specifications

CONSTRUCTION:

Heavy 18 gauge welded 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:

Copper clad steel sheath element with continuously brazed steel fins formed to allow side draw through air flow.

OVERHEAT PROTECTION:

All units come equipped with automatic reset type limit controls 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. All motors mounted with rubber insulators to minimize vibration & noise. 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 40°F to 110°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.

INSTALLATION:

Unit Heaters can be mounted for horizontal or vertical discharge. Applications up to 6000 Ft. See UH Series above 6000 Ft.

FEATURES:

- Made in U.S.A.

FIELD INSTALLED OPTIONS:

- In-unit or wall mounted temperature control thermostats low or line voltage.
- Summer fan switch to operate the fan only.
- Power disconnect switch.
- Heat stratification thermostat.

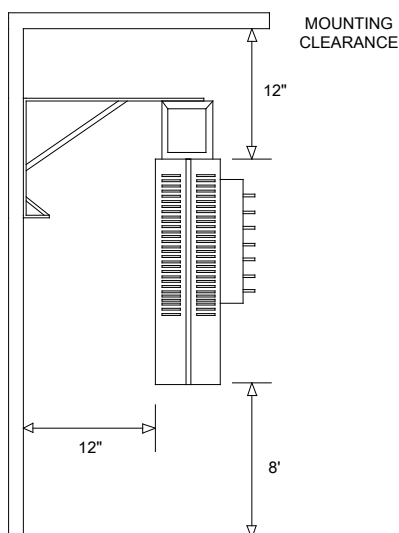


FIG. 1
HORIZONTAL DISCHARGE

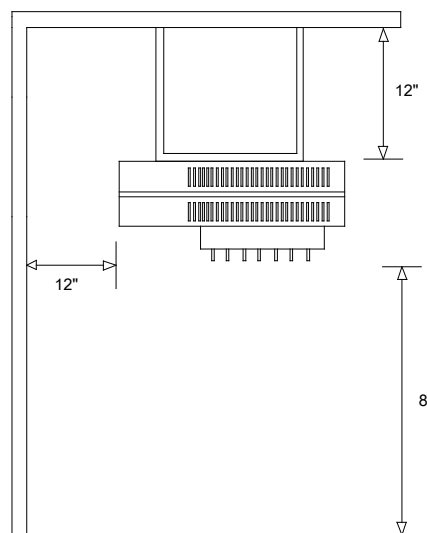
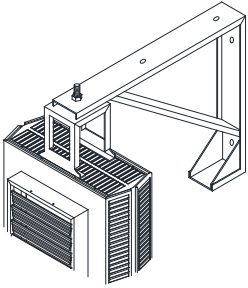
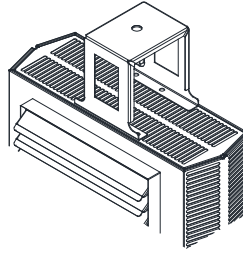


FIG. 2
VERTICAL DISCHARGE

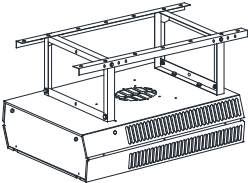
Accessories & Options



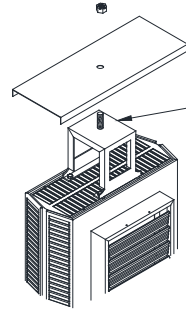
A5100 BRACKET			
WALL BRACKET & HEATER BRACKET	HEATER KW	BRACKET	WT (LBS)
	3.3 - 5	A5105	9
	7.5 - 20	A5120	13
	25 - 50	A5150	16
	60 - 70	A5175	25
	80 - 100	A51100	36



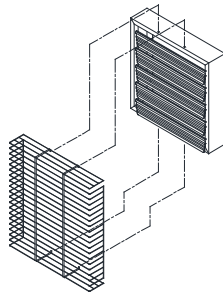
B5100 BRACKET			
HEATER BRACKET	HEATER KW	BRACKET	WT (LBS)
	3.3 - 20	B5105	2
	25 - 50	B5150	3
	60 - 70	B5170	5
	80 - 100	B51100	12



V5100 BRACKET			
VERTICAL MOUNT BRACKET	HEATER KW	BRACKET	WT (LBS)
	3.3 - 5	V5105	9
	7.5 - 20	V5120	13
	25 - 50	V5150	16
	60 - 70	V5175	19
	80 - 100	V51100	22



DS5100 DUST SHIELD			
DUST SHIELD	HEATER KW	BRACKET	WT (LBS)
	3.3 - 5	DS5105	3
	7.5 - 20	DS5120	4
	25 - 50	DS5150	5
	60 - 70	DS5175	10
	80 - 100	DS51100	17



OFG5100 FAN GUARD			
FAN GUARD	HEATER KW	BRACKET	WT (LBS)
	3.3 - 5	OFG5101	1
	7.5 - 20	OFG5102	1
	25 - 50	OFG5103	2
	60 - 70	OFG5175	4
	80 - 100	OFG51100	5

DISCONNECT SWITCH	DISCONNECT SWITCH MUST BE DERATED FOR USE AT MAX 80% OF TOTAL HEATER RATED AMPERAGE
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THERMOSTATS		(BUILT IN) FACTORY SUPPLIED AND FIELD INSTALLED (EXCEPT SD MODEL THERMOSTAT)
T5100	40°-100°F	SINGLE POLE SINGLE STAGE FIELD MOUNTED IN CONTROL SECTION KNOCKOUT PROVIDED
T5102	60°-120°F	DPST FIELD INSTALLED - USE WITH 3.3 AND 5 KW UNITS LINE VOLTAGE WITH THREE PHASE POWER
T5122	45°-90°F	LOW VOLTAGE TWO STAGE FIELD INSTALLED FOR USE WITH UNITS 25 TO 50 KW
RK120EAA	50°-90°F	WALL MOUNTED SINGLE STAGE LOW VOLTAGE
TW123	40°-90°F	WALL MOUNTED TWO STAGE LOW VOLTAGE (25 TO 50 KW UNITS)
ET9SS	50°-90°F	WALL MOUNTED LINE VOLTAGE SINGLE POLL 22 AMP 120-277 VOLT
TW1512	50°-90°F	DPST WALL MOUNTED LINE VOLTAGE 25 AMP 120-277 VOLT (303-5 KW ON THREE PHASE POWER)
SD	50°-90°F	SETBACK CONTROL WITH OCCUPANCY SENSOR AND DIGITAL DISPLAY

STEP CONTROLLER	60 TO 100 KW UNITS ONLY
SEQUENCES ON THE STAGING IN THE 60 TO 100 KW HEATERS USING FIELD SUPPLIED SIGNAL OR C1025 WALL THERMOSTAT	
C1025 THERMOSTAT	WALL THERMOSTAT WITH 0-10 VDC PULSING SIGNAL FOR STEP CONTROLLER

FAN CONTROL	(BUILT IN) FACTORY INSTALLED OR FIELD INSTALLED
FS	SUMMER FAN SWITCH FACTORY INSTALLED IN HEATER
TFS	SUMMER FAN SWITCH REMOTE WALL MOUNTED
TC5102 OR TC5103	STRATIFICATION THERMOSTAT FACTORY INSTALLED IN HEATER
TC1602	STRATIFICATION THERMOSTAT REMOTE WALL MOUNTED

Standard Models

MFG CATALOG NUMBER	MFG MODEL NUMBER	KW	BTUs / H	VOLTS	PH	AMPS	CONTROL VOLTAGE	TEMP RISE	AIR THROW	CFM	RECOMMENDED MOUNTING HT.		WT. (LBS)
											Horizontal	Vertical	
06450802	F1F5103N	3.3	11.2	208	1	15.9 / 9.17	208	26°F	12'	400	9'	9'	25
06451002	HF1B5103N	3.3/2.5	11.2 / 8.5	240/208	1	13.7 / 11.9	240 / 208						
06456802	F2F5103N	3.3	11.2	208	1 / 3	15.9 / 9.17	208						
06457002	HF2B5103N	3.3/2.5	11.2 / 8.5	240/208	1 / 3	13.7 / 11.9	240 / 208						
					3	7.9 / 6.9							
06457202	G1G5103N	3.3	11.2	277	1	11.9	277						
06451202	P3P5103CA1N*			480	3	4.0	24						
06455402	F1F5105N	5.0	17.1	208	1	24.1	208	40°F	12'	400	9'	9'	25
06455602	HF1B5105N	5.0/3.7	17.1 / 12.8	240/208	1	20.9 / 18.1	240 / 208						
06451402	F2F5105N	5.0	17.1	208	1 / 3	24.1	208						
					3	13.9							
06451602	HF2B5105N	5.0	17.1	240	1 / 3	20.8 / 18.1	240						
		3.7	12.8	208	1 / 3	17.1 / 10.4	208						
06458402	G1G5105N	5.0	17.1	277	1	18.1	277						
06451802	P3P5105CA1N*	5.0	17.1	480	3	6.1	24						
06452002	F2F5107CA1L*	7.5	25.6	208	1 / 3	36.1 / 20.8	24	34°F	22'	700	10'	12'	54
06452202	HF2B5107CA1L*	7.5	25.6	240	1 / 3	27.1 / 31.3							
		5.6	19.2	208	1 / 3	31.3 / 27.1							
06459202	G1G5107CA1L*	7.5	25.6	277	1	27.1							
06452402	P3P5107CA1N*	7.5	25.6	480	3	9.1							
06452602	F2F5110CA1L*	9.9	33.8	208	1 / 3	47.8 / 27.4							
		10.0	34.1	240	1 / 3	41.2 / 24.0							
06452802	HF2B5110CA1L*	7.5	25.6	208	1 / 3	36.1 / 20.8							
		10.0	34.1	277	1	36.1							
06456402	G1G5110CA1N*	10.0	34.1	480	3	12.4							
06453002	P3P5110CA1N*	15.0	51.2	208	3	41.7							
06453202	F3F5115CA1L*	15.0/11.2	51.2 / 38.4	240/208	3	36.1 / 31.3							
06453402	HF3B5115CA1L*	19.7/14.8	67.2 / 50.5	240/208	3	47.8 / 41.1							
06453602	P3P5115CA1N*	20.0	68.3	480	3	24.1							
06453802	HF3B5120CA1L*	25.0	85.3	208	3	69.5							
06454002	P3P5120CA1N*	25.0/18.7	85.3 / 64.0	240/208	3	60.2 / 52.1							
06458802	F3F5125CA1L*	25.0	85.3	480	3	30.1							
06459402	HF3B5125CA1L*	30.0	102.4	208	3	83.4							
06454202	F3F5130CA1L*	30.0/22.5	102.4 / 76.8	240/208	3	72.3 / 62.5							
06454402	HF3B5130CA1L*	30.0	102.4	480	3	36.2							
06440402	F3F5140CA1L*	40.0	136.5	208	3	111.2							
06440602	HF3B5140CA1L*	40.0/30.0	136.5/102.4	240/208	3	96.4 / 83.4							
06440802	P3P5140CA1N*	39.0	133.1	480	3	47.0							
06454802	F3F5150CA1L*	49.6	169.3	208	3	139.0							
06455002	HF3B5150CA1L*	50.0/37.5	170.6/128.0	240/208	3	120.5/104.3							
06455202	P3P5150CA1N	50.0	170.6	480	3	60.3							
								40/44°F	45'	2000/1800	12'	22'	120
								47/53°F	40'	2000/1800	12'	20'	120
								40/45°F	55'	3100/2800	15'	24'	120
								51/56°F	50'	3100/2800	15'	22'	120

Recommended Control Options, Control Accessory Options, & Control Accessories

MFG 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	ET9STS	FS5101	FSW5111	NA	TC5103	TC1602
HF1B5103N									
F2F5103N	NA	DCS 403	T5102	TW 1512	FS5101	FSW5111	NA	TC5103	TC1602
HF2B5103N	DCS 202	NA	T5100	ET 5SS					
	NA	DCS 403	T5102	TW 1512	FS5101	FSW5111	NA	TC5103	TC1602
G1G5103N	DCS 202	NA	T5100	ET5SS					
P3P5103CA1N	NA	DCS 403		T5100	RK120EAA	FS5102	FSW5112	TFS5101	TC5102
F1F5105N	DCS 403	NA	T5102		S2025	FS5101	FSW5111	NA	TC5103
HF1B5105N				ET5SS					
F2F5105N	NA	DCS 403	T5102	TW 1512	FS5101	FSW5111	NA	TC5103	TC1602
HF2B5105N	DCS 403	NA	T5100	ET5SS					
	NA	DCS 403	T5102	TW 1512	FS5101	FSW5112	TFS5101	TC5102	NA
G1G5105N	DCS 403	NA	T5100	S2025					
P3P5105CA1N	NA	DCS 403		T5100	RK120EAA	FS5102	FSW5112	TFS5101	TC5102
F2F5107CA1L	DCS 403	NA	T5100			RK120EAA	FS5101		FSW5111
	NA	DCS 403							
HF2B5107CA1L	DCS 403	NA	T5100	RK120EAA	FS5101	FSW5111	TC5103	TC1602	
	NA	DCS 403							
G1G5107CA1L	DCS 403	NA	T5100	RK120EAA	FS5102	FSW5112	TFS5101	NA	TC1602
P3P5107CA1L	NA	DCS 403							
F2F5110CA1L	DCS 603	NA	T5100	RK120EAA	FS5101	FSW5111	TFS5101	TC5103	TC1602
	NA	DCS 403							
HF2B5110CA1L	DCS 603	NA	T5100	RK120EAA	FS5101	FSW5111	TFS5101	TC5103	TC1602
	NA	DCS 403							
G1G5110CA1N	DCS 603	NA	T5100	RK120EAA	FS5102	FSW5112	TFS5101	TC5103	TC1602
P3P5110CA1N	NA	DCS 403							
F3F5115CA1L		DCS 603							
HF3B5115CA1L		DCS 603							
P3P5115CA1L		DCS 403							
HF3B5120CA1L		DCS 603							
P3P5120CA1N		DCS 403							
F3F5125CA1L		DCS 1003							
HF3B5125CA1L		DCS 403							
P3P5125CA1N		NA							
F3F5130CA1L		DCS 1003							
HF3B5130CA1L		DCS 603							
P3P5130CA1N		DCS 603							
F3F5140CA1L	NA								
HF3B5140CA1L	NA								
P3P5140CA1N	DCS 603								
F3F5150CA1L	NA								
HF3B5150CA1L	NA								
P3P5150CA1N	DCS 1003								