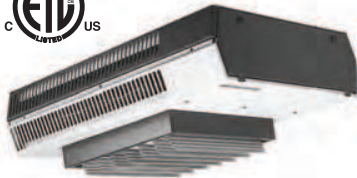


5100 Series Horizontal or Vertical Mounted Fan Forced Unit Heater

3.3 KW THROUGH 50 KW SUSPENDED FAN FORCED UNIT HEATERS AVAILABLE IN 1 OR 3 PHASE FOR ALL STANDARD VOLTAGES FROM 208V TO 480V THAT CAN BE MOUNTED TO PROVIDE HORIZONTAL OR VERTICAL DISCHARGE.



Horizontal Discharge



Vertical Discharge

Manufactured 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.

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.

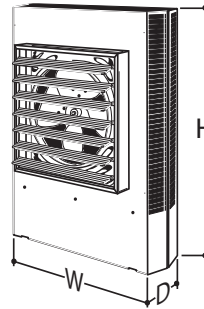
TEMPERATURE CONTROLS:

Optional low voltage and line voltage thermostats available with an adjustable temperature range of 40°F to 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.

INSTALLATION:

Unit Heaters can be mounted for horizontal or vertical discharge. Applications up to 6000 Ft. See UH Series above 6000 Ft. ABS (American Bureau of Shipping) type approved.

Taskmaster Dimensions



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

Installing the Taskmaster Series

DETERMINING HEATER REQUIREMENTS

Calculate the heating loads using the NEMA handbook or ASHRAE guide. Then determine the quantity and size of unit heaters to be used. To maintain uniform heat and reduce stratified air, it is recommended that the total CFM of the units turn the air over approximately 3 times per hour. In instances where a large group of people are located and normally in the same area, use a large number of lower KW unit heaters. In warehouse areas or storage rooms where heat distribution and constant temperatures are less important, use fewer heaters of higher capacity.

HORIZONTAL MOUNT

Small rooms can be heated by one unit heater. Where two walls are exposed, heaters should be mounted as shown in Figure A. In larger rooms, units should be located so their air streams wipe exposed walls without blowing at them. Units should be located so that the air stream of one supports that of another thus setting up a circulatory air movement shown in Figure B. (Distance between units to be approximately 1-1/2 times published air throw.) Units should not be mounted horizontally in areas having ceiling heights in excess of 15-18 ft.

VERTICAL MOUNT

Units should be mounted vertically in high bay areas, or where heater location would not interfere with plant operation or traffic. Heaters should be situated to provide free air circulation. Size and selection of units should be based on recommended mounting height. Optional diffusers may best be employed to reduce high air velocity and at the same time disperse heated air in a uniform pattern. When unit heaters are used to combat cold air inrush from opened loading dock doors, one or more units should be arranged to blow warm air across opening (Figure C).

DUAL MOUNTING

Where square footage is large and comfort essential, both horizontal and vertical installations may best serve your requirements as Figure D demonstrates.

Note: Products in this section with factory installed controls are subject to 100% cancellation/restocking charges.

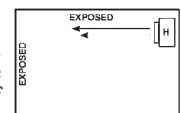


Figure A

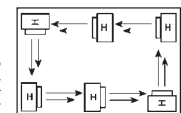


Figure B

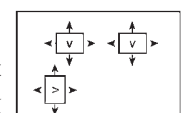


Figure C

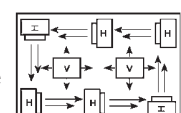


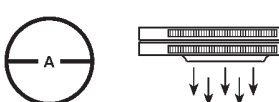
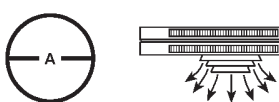
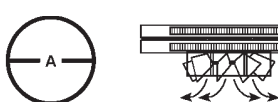
Figure D

5100 Series Horizontal or Vertical Mounted Fan Forced Unit Heater

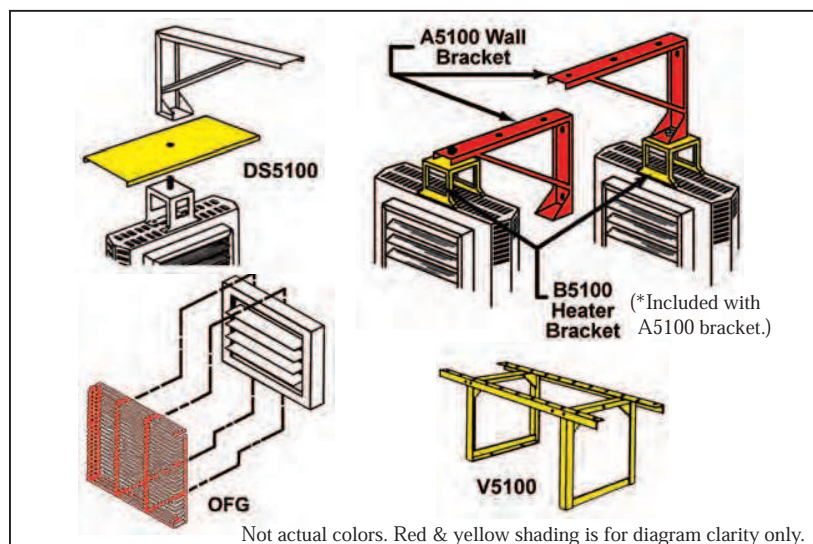
Diffuser Options

15

DESCRIPTION		UPC# 686334	MODEL NUMBER	KW USED	MAX MOUNTING HEIGHT (ft.)		DIMENSION A (feet)		DIMENSION B (feet)		WT. (lbs.)	
1	Louver Diffuser (Standard). Louvers can be individually adjusted for rectangular coverage over doorways as an air curtain, or to meet rectangular floor pattern heating requirements.	NA	Standard	3.3-5 7.5-10 25-30 40-50	9 12 18 22 24		20 40 52 75 84		10 22 30 42 47		NA	
2	General Distribution (No Diffuser). The 5100 air chute venturi permits general down flow air pattern distribution as required at a higher mounting height.	NA	Not Required	3.3-5 7.5-10 25-30 40-50	9 12 18 22 24		15 30 40 55 64		NA		NA	
3	Anemostat Diffuser (Optional). For applications where draft restriction is required at lower unit mounting heights.	692687	AD5120	7.5-10	15		38		NA		10	
		681186	AD5150	25-30	17		50				12	
		681186	AD5150	40-50	20		60				37	
		722070	AD5175	60-70	31		-					
4	Radial Diffuser (Optional). Individually adjustable fins permit increased floor coverage at 45° open. Additional throw is accomplished when fins are 90° vertical. (Please allow for higher mounting heights.)	692663	RD5120	7.5-20	45°	90°	45°	90°	NA		12	
		692663	RD5120		10	14	36	30				
		692670	RD5150	25-50	14	21	42	35				14
		692670	RD5150		20	30	62	44				
		722087	RD5175	60-70	18	28	68	54				39
					26	36	72	60				

 Description 1 Louver Diffuser	 Description 2 No Diffuser	 Description 3 Anemostat Diffuser	 Description 4 Radial Diffuser
--	--	--	--

Mounting Brackets & Model Designator



MOUNTING BRACKETS			
UPC# 686334	MODEL	MODEL SIZE	WT.
692694	A5105	3.3 KW TO 5.0 KW	9 lbs.
692700	A5120	7.5 KW TO 20.0 KW	13 lbs.
692717	A5150	25.0 KW TO 50.0 KW	16 lbs.
688628	B5105*	3.3 KW TO 20.0 KW	3 lbs.
688635	B5150*	25.0 KW TO 50.0 KW	8 lbs.
692847	V5105	3.3 KW TO 5.0 KW	9 lbs.
692854	V5120	7.5 KW TO 20.0 KW	13 lbs.
692861	V5150	25.0 KW TO 50.0 KW	16 lbs.
DUST SHIELD			
692878	DS5105	3.3 KW TO 5.0 KW	3 lbs.
692885	DS5120	7.5 KW TO 20.0 KW	4 lbs.
681223	DS5150	25.0 KW TO 50.0 KW	5 lbs.
FAN GUARD			
706544	OFG5101	3.3 KW TO 5.0 KW	3 lbs.
706551	OFG5102	7.5 KW TO 20.0 KW	4 lbs.
706568	OFG5103	25.0 KW TO 50.0 KW	5 lbs.

HOW TO DESIGNATE A MODEL:

HF	2	B	51	10	C	A	1
Element Volts F = 208 H = 240 HF = 240/208 G = 277 P = 480	Phase 1 = 1-Phase 2 = 1 or 3-Ph. 3 = 3-Phase	Motor Voltage F = 208 H = 240 B = 240 / 208 G = 277 P = 480	Model Series 51	Element KW	Control System Blank = None C = Contactor	Transformer Blank = None A = Included	Control Volts 1 = 24 2 = 120 (with CA option)

5100 Series Horizontal or Vertical Mounted Fan Forced Unit Heater

Standard Taskmaster Models & Series Notes

16

UPC# 686334	MODEL	KW	BTU / H	VOLTS	PH	AMPS	CONTROL VOLTAGE	TEMP RISE	AIR THROW	CFM	RECOMMENDED MOUNTING HT.		WT. (LBS.)
											Horizontal	Vertical	
645089	F1F5103N	3.3	11.2	208	1	15.9	208	26°F	12'	400	9'	9'	25
645102	HF1B5103N	3.3/2.5	11.2 / 8.5	240/208	1	13.7 / 11.9	240 / 208						
645683	F2F5103N	3.3	11.2	208	1 / 3	11.9 / 6.9	208						
645706	HF2B5103N	3.3/2.5	11.2 / 8.5	240/208	1 / 3	13.7 / 11.9	240 / 208						
645720	G1G5103N	3.3	11.2	277	1	11.9	277						
645126	P3P5103CA1N			480	3	4.0	24						
645546	F1F5105N			5.0	17.1	208	1	24.1	208				
645560	HF1B5105N	5.0/3.7	17.1 / 12.8	240/208	1	20.9 / 18.1	240 / 208	40°F	12'	400	9'	9'	25
645140	F2F5105N	5.0	17.1	208	1 / 3	24.1	208						
645164	HF2B5105N	5.0	17.1	240	1 / 3	20.8 / 18.1							
		3.7	12.8	208	1 / 3	12.1 / 10.4	208						
645843	G1G5105N	5.0	17.1	277	1	18.1	277						27
645188	P3P5105CA1N	5.0	17.1	480	3	6.1	24						
645201	F2F5107CA1L	7.5	25.6	208	1 / 3	36.1 / 20.8	24	34°F	22'	700	10'	12'	54
645225	HF2B5107CA1L	7.5	25.6	240	1 / 3	27.1 / 31.3							
645928	G1G5107CA1L	5.6	19.2	208	1 / 3	31.3 / 27.1							
		7.5	25.6	277	1	27.1							
645249	P3P5107CA1N	7.5	25.6	480	3	9.1							
645263	F2F5110CA1L	9.9	33.8	208	1 / 3	47.8 / 27.4							
645287	HF2B5110CA1L	10.0	34.1	240	1 / 3	41.2 / 24.0							
		7.5	25.6	208	1 / 3	36.1 / 20.8							
645645	G1G5110CA1N	10.0	34.1	277	1	36.1							
645300	P3P5110CA1N	10.0	34.1	480	3	12.1							
645324	F3F5115CA1L	15.0	51.2	208	3	41.7							
645348	HF3B5115CA1L	15.0/11.2	51.2 / 38.4	240/208	3	36.1 / 31.3							
645362	P3P5115CA1N	15.0	51.2	480	3	18.1							
645386	HF3B5120CA1L	19.7/14.8	67.2 / 50.5	240/208	3	47.8 / 41.1							
645409	P3P5120CA1N	20.0	68.3	480	3	24.1							
645881	F3F5125CA1L	25.0	85.3	208	3	69.5							
645942	HF3B5125CA1L	25.0/18.7	85.3 / 64.0	240/208	3	60.2 / 52.1							
645980	P3P5125CA1N	25.0	85.3	480	3	30.1							
645423	F3F5130CA1L	30.0	102.4	208	3	83.4							
645447	HF3B5130CA1L	30.0/22.5	102.4 / 76.8	240/208	3	72.3 / 62.5							
645461	P3P5130CA1N	30.0	102.4	480	3	36.2							
644044	F3F5140CA1L	40.0	136.5	208	3	111.2							
644068	HF3B5140CA1L	40.0/30.0	136.5/102.4	240/208	3	96.4 / 83.4							
644082	P3P5140CA1N	39.0	133.1	480	3	47.0							
645485	F3F5150CA1L	49.6	169.3	208	3	139.0							
645508	HF3B5150CA1L	50.0/37.5	170.6/128.0	240/208	3	120.5/104.3							
645522	P3P5150CA1N	50.0	170.6	480	3	60.3							

International Models

UPC# 686334	MODEL	KW	BTU/H	VOLTS	PH	AMPS	CONTROL VOLTAGE	TEMP RISE	AIR THROW	CFM	RECOMMENDED MOUNTING HT.		WT. (LBS.)				
											Horizontal	Vertical					
715300	Q3H5103CA1	3.3	11263	380	3	5.02	24	26	12'	400	9'	9'	25				
724920	R3H5103CA1			415		4.6											
724937	Q3H5105CA1			380		7.6											
424944	R3H5105CA1	5.0	17065	415		6.96		40					27				
717137	Q3H5107CA1			380		11.4											
724951	R3H5107CA1			415		10.5		34	22'	700	10'	12'	54				
686570	Q3H5110CA1	10.0	34130	380		15.2		45			10'	14'	55				
724968	R3H5110CA1			415		13.9											
724975	Q3H5115CA1			15.0		51195			380	22.8	43	32'	1100	11'	20'	64	
724982	R3H5115CA1	415	20.9														
704175	Q3H5120CA1	380	30.4					57						12'	18'	65	
724999	R3H5120CA1	20.0	68260	415		27.85											
719193	Q3H5125CA1			25.0		85325		380	38.0	40/44	45'	2000/1800	12'	22'	120		
710619	R3H5125CA1							415	34.8								
725002	Q3H5130CA1	30.0	102390					380	45.6				47/53	40'		12'	20'
710626	R3H5130CA1			415		41.8											
725019	Q3H5140CA1			40.0		136520		380	60.85	40/45	55'	3100/2800			15'	24'	
709835	R3H5140CA1	415	55.7														

• For 24V control add "CA1" suffix. • For 120V control add "CA2" suffix. • For other voltages consult factory.

NOTES:

- 25-50KW models are wired for single or two stage heating and have two speed motors.
- Air delivery and motor data on dual voltage units reflect higher voltage.
- 600 Volt models available in 5 KW through 30 KW. Contact factory for delivery.
- Supply wire on 40 and 50 KW models should have rated insulation of 75°C minimum.
- Use T5122 for two stage control.
- Use TW123 for two stage control.
- Use TFS5102 for two stage control.
- Wall thermostat must be used when built-in stratification thermostat is required.

5100 Series Horizontal or Vertical Mounted Fan Forced Unit Heater

Recommended Control Options, Control Accessory Options, & Control Accessories

17

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	ET5SS	FS5101	FSW5111	NA	TC5103	TC1602
HF1B5103N									
F2F5103N	DCS 202	NA	T5100	ET 5SS	FS5101	FSW5111	NA	TC5103	TC1602
HF2B5103N									
G1G5103N	DCS 202	NA	T5100	ET5SS	FS5102	FSW5112	TFS5101	NA	NA
P3P5103CA1N	NA	DCS 403		A6176				TC5102	
F1F5105N	DCS 403	NA	T5100	S2025	FS5101	FSW5111	NA	TC5103	TC1602
HF1B5105N				ET5SS					
F2F5105N	DCS 403	NA	T5100	S2025	FS5101	FSW5111	NA	TC5103	TC1602
HF2B5105N				TW 1512					
G1G5105N	DCS 202	NA	T5100	ET5SS	FS5102	FSW5112	TFS5101	NA	NA
P3P5105CA1N	NA	DCS 403		TW 1512				TC5102	
F2F5107CA1L	DCS 403	NA	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
HF2B5107CA1L	NA	DCS 403		A6176 OR TW123				TC5102	
G1G5107CA1L	DCS 403	NA	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
P3P5107CA1L	NA	DCS 403		A6176 OR TW123				TC5102	
F2F5110CA1L	DCS 603	NA	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
HF2B5110CA1L	NA	DCS 403		A6176 OR TW123				TC5102	
G1G5110CA1N	DCS 403	NA	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
P3P5110CA1N	NA	DCS 403		A6176 OR TW123				TC5102	
F3F5115CA1L	DCS 603	NA	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
HF3B5115CA1L	NA	DCS 403		A6176 OR TW123				TC5102	
P3P5115CA1L	DCS 403	NA	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
HF3B5120CA1L	NA	DCS 603		A6176 OR TW123				TC5102	
P3P5120CA1N	DCS 403	NA	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
F3F5125CA1L	DCS 1003	NA		A6176 OR TW123				TC5102	
HF3B5125CA1L	NA	DCS 403	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
P3P5125CA1N	DCS 1003	NA		A6176 OR TW123				TC5102	
F3F5130CA1L	DCS 403	NA	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
HF3B5130CA1L	NA	DCS 1003		A6176 OR TW123				TC5102	
P3P5130CA1N	DCS 403	NA	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
F3F5140CA1L	DCS 603	NA		A6176 OR TW123				TC5102	
HF3B5140CA1L	NA	DCS 403	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
P3P5140CA1N	DCS 1003	NA		A6176 OR TW123				TC5102	
F3F5150CA1L	DCS 603	NA	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
HF3B5150CA1L	NA	DCS 403		A6176 OR TW123				TC5102	
P3P5150CA1N	DCS 1003	NA	T5100	A6176 OR TW123	FS5101	FSW5111	TFS5101	TC5103	TC1602
F3F5150CA1L	DCS 1003	NA		A6176 OR TW123				TC5102	

CONTROL ACCESSORY OPTIONS - FIELD INSTALLED IN HEATER			CONTROL ACCESSORIES - REMOTE WALL MOUNTED		
UPC#	MODEL	DESCRIPTION	UPC#	MODEL	DESCRIPTION
686334			686334		
POWER DISCONNECT SWITCH			LINE VOLTAGE THERMOSTAT		
717151	DCS202/5100	2 POLE; 20 AMP; 120-277 V.A.C.	691086	**TW1510	SPST; 25 AMP 120-277V 50-90°
717168	DCS403/5100	3 POLE; 40 AMP; 120-600 V.A.C.	691093	*TW1512	DPST; 25 AMP 120-277V 50-90°
717175	DCS603/5100	3 POLE; 60 AMP; 120-600 V.A.C.	LOW VOLTAGE THERMOSTAT (ALL CA1 MODELS)		
717182	DCS1003/5100	3 POLE; 100 AMP; 120-600 V.A.C.	260008	A6176	SPST; (3.3 - 20 KW UNITS) 50-90°
LINE VOLTAGE THERMOSTAT (45 - 90 °F)			691116	TW123	2STAGE; (25 - 50 KW UNITS) 40-90°
692779	T5100	SPST; LINE DUTY 25 AMP 120-277V	STRATIFICATION THERMOSTAT		
692786	T5102	DPST; LINE DUTY 25 AMP 120-277V	691109	TC1602	LINE VOLT 120-277V 70-140°
LOW VOLTAGE THERMOSTAT (ALL CA1 MODELS) (45 - 90 °F)			SUMMER FAN SWITCH		
692779	T5100	SPST; LOW VOLT/PILOT DUTY; 125VA; (3.3-20 KW UNITS)	692625	FSW5111	SPST; LINE VOLT 120-277V
692793	T5122	2-STAGE; LOW VOLT; 125VA; (25-50 KW UNITS)	692632	FSW5112	SPST; LOW VOLT (W/RELAY)
STRATIFICATION THERMOSTAT			LOW VOLTAGE T'STAT & SUMMER FAN SWITCH(W/RELAY) (CA1 MODELS)		
692809	TC5102	SPST; LOW VOLT/PILOT DUTY (W/RELAY) ; 70-130°	692649	TFS5101	SPST; LOW VOLT 50-90°
692816	TC5103	SPST; LINE DUTY; AMP 120-240V; 70-130°	692502	TFS5102	2 STAGE; LOW VOLT 50-90°
SUMMER FAN SWITCH					
692823	FS5101	SPST; LINE VOLT ; 120-277V			
692830	FS5102	SPST; LINE VOLT ; 480-600V			

**Any SPST thermostat of sufficient amperage may be substituted.

*Use DPST thermostat for 3-phase line voltage control in non "C" models.