

5100 Series Horizontal or Vertical Mounted Fan Forced Unit Heater

Standard Taskmaster Models & Series Notes

UPC# 686334	MODEL	KW	BTU / H	VOLTS	PH	AMPS	CONTROL VOLTAGE	TEMP RISE	AIR THROW	CFM	RECOMMENDED MOUNTING HT.		WT. (LBS.)	LIST							
											Horizontal	Vertical									
645089	F1F5103N	3.3	11.2	208	1	15.9	208	26°F	12'	400	9'	9'	25	693							
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			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	724
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	240														
645843	G1G5105N	3.7	12.8	208	1/3	12.1 / 10.4	208														
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	1116							
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															
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															
645645	G1G5110CA1N	7.5	25.6	208	1/3	36.1 / 20.8															
645300	P3P5110CA1N	10.0	34.1	277	1	36.1															
645324	F3F5115CA1L	10.0	34.1	480	3	12.1															
645348	HF3B5115CA1L	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									43°F	32'	1100	11'	20'	64	1980
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	15.0	51.2	480	3	18.1															
645881	F3F5125CA1L	20.0	68.3	480	3	24.1															
645942	HF3B5125CA1L	25.0	85.3	208	3	69.5															
645980	P3P5125CA1N	25.0/18.7	85.3 / 64.0	240/208	3	60.2 / 52.1		40/44°F	45'	2000/1800	12'	22'	120	3204							
645423	F3F5130CA1L	25.0	85.3	480	3	30.1															
645447	HF3B5130CA1L	30.0	102.4	208	3	83.4															
645461	P3P5130CA1N	30.0/22.5	102.4 / 76.8	240/208	3	72.3 / 62.5															
644044	F3F5140CA1L	30.0	102.4	480	3	36.2															
644068	HF3B5140CA1L	40.0	136.5	208	3	111.2															
644088	P3P5140CA1N	40.0/30.0	136.5 / 102.4	240/208	3	96.4 / 83.4		40/45°F	55'	3100/2800	15'	24'	120	4742							
645485	F3F5150CA1L	40.0	136.5	480	3	47.0															
645508	HF3B5150CA1L	49.6	169.3	208	3	139.0															
645522	P3P5150CA1N	50.0/37.5	170.6 / 128.0	240/208	3	120.5 / 104.3															
645508	HF3B5150CA1L	50.0	170.6	480	3	60.3															
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.)	LIST
											Horizontal	Vertical		
715300	Q3H5103CA1	3.3	11263	380	3	5.02	24	26	12'	400	9'	9'	25	693
724920	R3H5103CA1			415		4.6								
724937	Q3H5105CA1			380		7.6								
424944	R3H5105CA1	5.0	17065	415	3	6.96	24	40	12'	400	9'	9'	27	958
717137	Q3H5107CA1			380		11.4								
724951	R3H5107CA1			415		10.5								
686570	Q3H5110CA1	7.5	25600	380	3	15.2	24	34	22'	700	10'	12'	54	1116
724968	R3H5110CA1			415		13.9								
724975	Q3H5115CA1			380		22.8								
724982	R3H5115CA1	15.0	51195	415	3	20.9	24	43	32'	1100	11'	20'	64	2066
704175	Q3H5120CA1			380		30.4								
724999	R3H5120CA1			415		27.85								
719193	Q3H5125CA1	25.0	85325	380	3	38.0	24	40/44	45'	2000/1800	12'	22'	120	3204
710619	R3H5125CA1			415		34.8								
725002	Q3H5130CA1			380		45.6								
710626	R3H5130CA1	30.0	102390	415	3	41.8	24	47/53	40'	2000/1800	12'	20'	120	3709
725019	Q3H5140CA1			380		60.85								
709835	R3H5140CA1			415		55.7								

- For 24V control add "CA1" suffix and \$101 list. • For 120V control add "CA2" suffix and \$101 list.
- For other voltages consult factory.

NOTES:

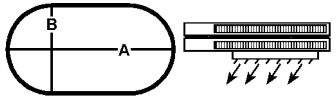
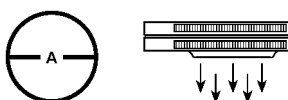
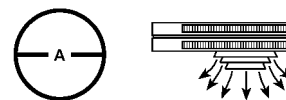
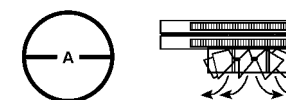
- 25-50KW models are wired for single or two stage heating and have two speed motors.
- Air delivery and motor data on dual voltage units reflect higher voltage.
- 600 Volt models available in 5 KW through 30 KW. Contact factory for delivery.
- Supply wire on 40 and 50 KW models should have rated insulation 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.

Note: Please see page 60 for custom color availability - add 10% to net heater cost.

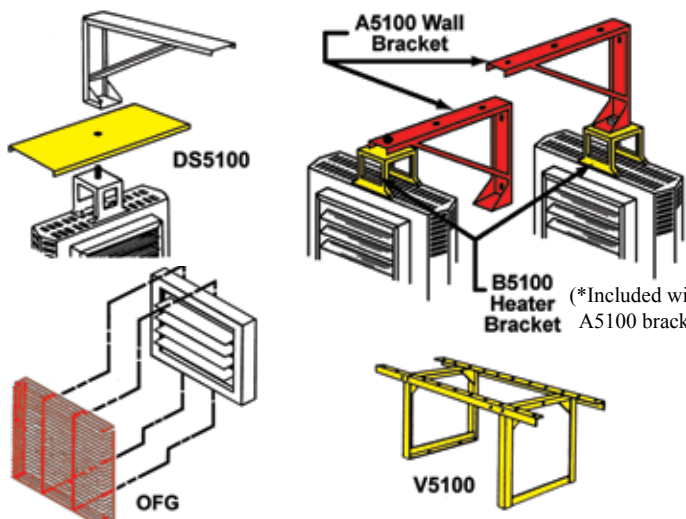
5100 Series Horizontal or Vertical Mounted Fan Forced Unit Heater

Diffuser Options

DESCRIPTION	UPC# 686334	MODEL NUMBER	KW USED	MAX MOUNTING HEIGHT (ft.)		DIMENSION A (feet)		DIMENSION B (feet)	WT. (lbs.)	LIST
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	20	10	NA	NA	NA	
				12	40	22				
				18	52	30				
				22	75	42				
				24	84	47				
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	15	NA	NA	NA		
				12	30					
				18	40					
				22	55					
				24	64					
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	372		
	681186	AD5150	25-30	17	50		12	555		
	681186	AD5150	40-50	20	60		37	598		
	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	412
	692663	RD5120	25-50	10	14	36	30		14	481
	692670	RD5150		14	21	42	35			
	692670	RD5150	20	30	62	44				
	692670	RD5150	18	28	68	54				
	722087	RD5175	60-70	26	36	72	60		39	519

 <p>Description 1 Louver Diffuser</p>	 <p>Description 2 No Diffuser</p>	 <p>Description 3 Anemostat Diffuser</p>	 <p>Description 4 Radial Diffuser</p>
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Mounting Brackets & Model Designator



Not actual colors. Red & yellow shading is for diagram clarity only.

MOUNTING BRACKETS				
UPC#	MODEL	MODEL SIZE	WT.	LIST
686334				
692694	A5105	3.3 KW TO 5.0 KW	9 lbs.	96
692700	A5120	7.5 KW TO 20.0 KW	13 lbs.	117
692717	A5150	25.0 KW TO 50.0 KW	16 lbs.	131
688628	B5105*	3.3 KW TO 20.0 KW	3 lbs.	52
688635	B5150*	25.0 KW TO 50.0 KW	8 lbs.	77
692847	V5105	3.3 KW TO 5.0 KW	9 lbs.	183
692854	V5120	7.5 KW TO 20.0 KW	13 lbs.	224
692861	V5150	25.0 KW TO 50.0 KW	16 lbs.	236
DUST SHIELD				
692878	DS5105	3.3 KW TO 5.0 KW	3 lbs.	33
692885	DS5120	7.5 KW TO 20.0 KW	4 lbs.	38
681223	DS5150	25.0 KW TO 50.0 KW	5 lbs.	40
FAN GUARD				
706544	OFG5101	3.3 KW TO 5.0 KW	3 lbs.	53
706551	OFG5102	7.5 KW TO 20.0 KW	4 lbs.	58
706568	OFG5103	25.0 KW TO 50.0 KW	5 lbs.	66

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

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.

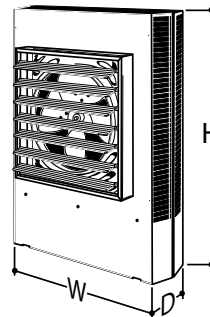
TEMPERATURE CONTROLS:

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.

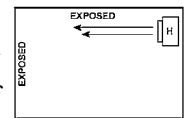


Figure A

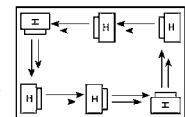


Figure B

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).

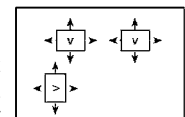


Figure C

DUAL MOUNTING

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

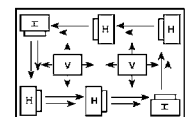


Figure D

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