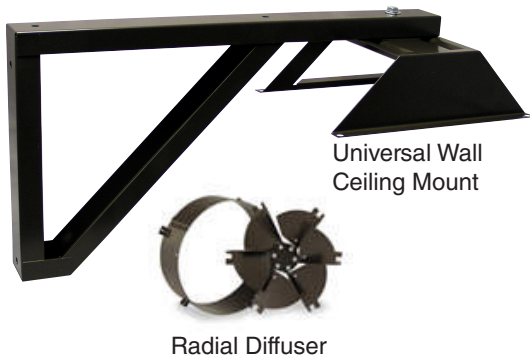


MUH Series Electric Unit Heaters



► APPLICATIONS:

For factories, warehouses, garages, stores, shipping rooms, power stations, aircraft hangars. Can be used for primary, supplementary, spot, or dual-system heating.



Universal Wall
Ceiling Mount

Radial Diffuser

OPTIONAL BUILT-IN CONTROLS AND ACCESSORIES ON MUH HEATERS

FACTORY INSTALLED ONLY** DESCRIPTION

MUH03 & 05 (208, 208/240, 277V Supply
24 or 120V Control Transformer and Power Contactor
24 or 120V H.C. Power Contactor

MUH03 & 05 (480V Supply & MUH07 thru MUH50
Optional 120V Control

2-Stage Control of Elements (See Note 5)

Manual Reset

Outlet Mesh (BirdScreen) For all MUH Heaters

**Optional built-in controls and accessories factory installed only - Not to be field installed

► COMMERCIAL GRADE CONSTRUCTION

- Ruggedly built, yet lighter weight for easier installation. No piping flues, valves, or trap

► SAFE AND RELIABLE

- Meets all UL, NEC, and OSHA requirements
- 5 Year Element Warranty
- Auto Thermal Cut-out protects from overheating

► CONTROL YOUR COMFORT

- Custom designed outlet for added throw
- Fan delay to eliminates cold drafts.
- Individually adjustable discharge louvers to control air flow

► MULTI WATTAGE UNITS

- 3 to 50 kW heating output
- 208, 240, 277, and 480V
- 10,000 to 170,500 BTU/hr



DIMENSIONS

CATALOG NUMBER	HEIGHT	WIDTH	DEPTH
MUH03 & 05	16"	14"	7-1/2"
MUH07 & 10	21-3/4"	19"	7-1/2"
MUH15 & 20	21-3/4"	19"	12-3/4"
MUH25 & 30	30"	26-5/8"	11-3/4"
MUH40 & 50	30"	26-5/8"	17-1/8"

				ELECTRICAL DATA				AIR DELIVERY DATA FAN MOTOR DATA							MOUNTING HEIGHT				
CATALOG NUMBER	UPC 6-85360	VOLTS	PHASE	KW	BTU/HR.	AMPS (3)	CONTROL VOLT (1)	2 STAGE ELEMENT CONTROL	CFM (2)	FPM (2)	ΔT(°F)	VOLTS	RPM (2)	HP	HORIZ.	VERT.	HOROIZ. THROW	WIRE SIZE	SHIP WT. (LBS.) W/BRCKT
MUH0381	04721 8	208	1Ø	3	10.2	14.5	208	N/A	350	800	27°	208	1600	1/100	8	9	12	AWG 12	1
MUH0581	04728 7	208	1-3Ø	5	17	24	208	5A	350	800	45°	208	1600	1/100	8	9	12	AWG 10	27
MUH078	04735 5	208	1-3Ø	7.5	25.6	36	24	5B	650	970	37°	208	1600	1/30	9	14	18	AWG 6	38
MUH108	04741 6	208	1-3Ø	10	34.1	48	24	5B	650	970	49°	208	1600	1/30	9	14	18	AWG 4	38
MUH158	04745 4	208	1-3Ø	15	51.2	72	24	5A	910	1640	52°	208	1530	1/20	11	20	35	AWG 2	53
MUH208	04749 2	208	3Ø	20	68.2	56	24	5A	1320	2060	48°	208	1500	1/10	12	23	41	AWG 4	60
MUH308	04756 0	208	3Ø	30	102.3	84	24	5A	2100/1800	2100/2030	45°/53°	208	1600/1375	1/4	12	20	50	AWG 1	93
MUH508	04766 9	208	3Ø	50	170.5	139	24	5A	3000/2600	3260/2900	53°/61°	208	1525/1420	1/2	15	25	60	AWG 4/0	114
MUH0321	04716 4	208/240	1Ø	2.2/3.0	7.5/10.2	11.0/12.5	208/240	N/A	350	800	27°	208/240	1600	1/100	8	9	12	AWG 12	27
MUH0521	04722 5	208/240	1-3Ø	3.7/5.0	12.6/17.0	18.0/21.0	208/240	5A	350	800	45°	208/240	1600	1/100	8	9	12	AWG 10	27
MUH072	04730 2	208/240	1-3Ø	5.6/7.5	19.1/25.6	27.0/31.3	24	5B	650	970	37°	208/240	1600	1/30	9	14	18	AWG 8	38
MUH102	04736 2	208/240	1-3Ø	7.5/10.0	25.6/34.1	36.0/42.0	24	5B	650	970	49°	208/240	1600	1/30	9	14	18	AWG 6	38
MUH152	04742 3	208/240	3Ø	11.2/15.0	38.2/51.2	31.3/36.1	24	5C	910	1640	52°	208/240	1530	1/20	11	20	35	AWG 6	53
MUH202	04746 1	208/240	3Ø	15.0/20.0	51.2/68.2	41.2/48.0	24	5C	1320	2060	48°	208/240	1500	1/10	12	23	41	AWG 4	60
MUH252	04750 8	208/240	3Ø	18.7/25.0	63.8/85.2	52.0/60.0	24	5A	2100/1800	2100/2030	38°/44°	208/240	1600/1375	1/4	13	23	50	AWG 3	93
MUH302	04753 9	208/240	3Ø	22.5/30.0	76.7/102.3	63.0/72.3	24	5A	2100/1800	2100/2030	45°/53°	208/240	1600/1375	1/4	12	20	50	AWG 2	93
MUH402	04760 7	208/240	3Ø	30.0/40.0	102.3/136.4	83.4/96.4	24	5A	3000/2600	3260/2900	42°/49°	208/240	1525/1420	1/2	15	28	60	AWG 1/0	114
MUH502	04763 8	208/240	3Ø	37.5/50.0	127.3/170.5	104.2/120.4	24	5A	3000/2600	3260/2900	53°/61°	208/240	1525/1420	1/2	15	25	60	AWG 3/0	114
MUH0371	04720 1	277	1Ø	3	10.2	11	277	N/A	350	800	27°	277	1600	1/100	8	9	12	AWG 14	27
MUH0571	04727 0	277	1Ø	5	17	18	277	N/A	350	800	45°	277	1600	1/100	8	9	12	AWG 10	27
MUH077	04734 8	277	1Ø	7.5	25.6	27	24	5B	650	970	37°	277	1600	1/30	9	14	18	AWG 8	38
MUH107	04740 9	277	1Ø	10	34.1	36	24	5B	650	970	49°	277	1600	1/30	9	14	18	AWG 6	38
MUH0341	04718 8	480	3Ø	3	10.2	3.6	24	N/A	350	800	27°	480	1600	1/100	8	9	12	AWG 14	27
MUH0541	04725 6	480	3Ø	5	17	6	24	N/A	350	800	45°	480	1600	1/100	8	9	12	AWG 14	27
MUH074	04732 4	480	3Ø	7.5	25.6	9	24	5B	650	970	37°	480	1600	1/30	9	14	18	AWG 14	38
MUH104	04738 6	480	3Ø	10	34.1	12	24	5B	650	970	49°	480	1600	1/30	9	14	18	AWG 14	38
MUH154	04743 0	480	3Ø	15	51.2	18	24	5C	910	1640	52°	480	1530	1/20	11	20	35	AWG 10	53
MUH204	04747 8	480	3Ø	20	68.2	24	24	5C	1320	2060	48°	480	1500	1/10	12	23	41	AWG 10	60
MUH254	04751 5	480	3Ø	25	85.2	30	24	5C	2100/1800	2100/2030	38°/44°	480	1600/1375	1/4	13	23	50	AWG 8	93
MUH304	04754 6	480	3Ø	30	102.3	36	24	5C	2100/1800	2100/2030	45°/53°	480	1600/1375	1/4	12	20	50	AWG 6	93
MUH404	04761 4	480	3Ø	40	136.4	48	24	5A	3000/2600	3260/2900	42°/49°	480	1525/1420	1/2	15	28	60	AWG 4	114
MUH504	04764 5	480	3Ø	50	170.5	60.2	24	5A	3000/2600	3260/2900	53°/61°	480	1525/1420	1/2	15	25	60	AWG 4	114
MUH0331	04717 1	347	1Ø	3	10.2	8.6	347	N/A	350	800	27°	347	1600	1/100	8	9	12	AWG 14	27
MUH0531	04724 9	347	1Ø	5	17	14.4	347	N/A	350	800	45°	347	1600	1/100	8	9	12	AWG 10	27
MUH073	04731 7	347	1Ø	7.5	25.6	21.6	24	5B	650	970	37°	347	1600	1/30	9	14	18	AWG 14	38
MUH103	04737 9	347	1Ø	10	34.1	28.8	24	5B	650	970	49°	347	1600	1/30	9	14	18	AWG 14	38
MUH0361	04719 5	600	3Ø	3	10.2	2.9	24	N/A	350	800	27°	600	1600	1/100	8	9	12	AWG 14	27
MUH0561	04726 3	600	3Ø	5	17	4.8	24	N/A	350	800	45°	600	1600	1/100	8	9	12	AWG 10	27
MUH076	04733 1	600	3Ø	7.5	25.6	7.3	24	5B	650	970	37°	600	1600	1/30	9	14	18	AWG 14	38
MUH106	04739 3	600	3Ø	10	34.1	9.7	24	5B	650	970	49°	600	1600	1/30	9	14	18	AWG 14	38
MUH156	04744 7	600	3Ø	15	51.2	14.5	24	5C	910	1640	52°	600	1530	1/20	11	20	35	AWG 12	53
MUH206	04748 5	600	3Ø	20	68.2	19.3	24	5C	1320	2060	48°	600	1500	1/10	12	23	41	AWG 12	60
MUH256	04752 2	600	3Ø	25	85.2	24.2	24	5C	2100/1800	2100/2030	38°/44°	600	1600/1375	1/4	13	23	50	AWG 10	93
MUH306	04755 3	600	3Ø	30	102.3	29	24	5C	2100/1800	2100/2030	45°/53°	600	1600/1375	1/4	12	20	50	AWG 8	93
MUH406	04762 1	600	3Ø	40	136.4	38.7	24	5A	3000/2600	3260/2900	42°/49°	600	1525/1420	1/2	15	28	60	AWG 6	114
MUH506	04765 2	600	3Ø	50	170.5	48.3	24	5A	3000/2600	3260/2900	53°/61°	600	1525/1420	1/2	15	25	60	AWG 3	114

NOTES:

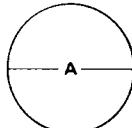
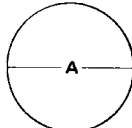
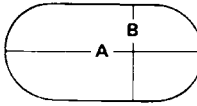
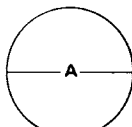
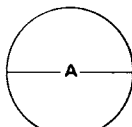
1. All standard units are supplied with a low voltage control transformer and contactor (24V) except MUH03 & 05, 208, 240 & 277 volt models. Low voltage control on these units is available on made to order. All units are also available on special order for 120 volt control; internal with transformer or external without transformer.
2. On dual voltage units CFM, FPM, & RPM ratings are listed at higher voltage operation in Full Line Catalog. 3. On dual phase units maximum amp draw is listed for respective voltage in Full Line Catalog.
4. 25 thru 50 KW models having two-speed motors and dual CFM ratings are listed in Full Line Catalog. 5A. Standard 5B. Optional - made to order - amp load unbalanced on 3 Phase. 5C. Optional - made to order - amp load balanced on 3 Phase. * Must use 2-stage Thermostat on 3Ø operation.

OPTIONAL FIELD INSTALLED ELECTRICAL CONTROLS

CATALOG	UPC 6 85360	DESCRIPTION	ELECTRICAL RATING	USE WIDTH
UHMT1	15241 7	Single Pole Internal Thermostat-Temp Range□40F - 85F	25A □ 120, 240VAC Res. 22A □ 277VAC Res.	All MUH Series Heaters (except MUH0521 3□, MUH0581 3□ which use MT2)
UHMT2	15242 4	Two Stage Internal Thermostat-Temp Range□40F - 85F	25A □ 120, 240VAC Res. 22A □ 277VAC Res. 125VA	MUH0521 3□, MUH0581 3□, MUH158, MUH208, MUH252, MUH302, MUH308, MUH402, MUH502, MUH504, MUH508
MCFS	04637 2	Internal Summer Fan Switch 250, 480, 600V.A.C. 1,2 OR 3□	Pilot Duty 6A, 600VAC Res. 2 HP	All MUH Series Heaters
MRFS1	04708 9	Remote Summer Fan Switch (Line Voltage)	2 HP, 250-480VAC	All MUH Series Heaters
MRFS2	04709 6	Remote Summer Fan Switch with Relay (24V Coil-Single Pole Normally Open)	6 AFL, 35 ALR, 250VAC, 60H□ 3 AFL, 18 ALR, 480VAC, 60H□	All MUH Series Heaters (except MUH0321, MUH0371, MUH0381, MUH0521, MUH0571, MUH0581 Units unless optional control transformer is supplied
HRTA	04694 5	Heat Recovery Thermostat with Relay (24V Coil-Single Pole Normally Open) Hi - 120F, Low - 60F	6 AFL, 35 ALR, 250VAC, 60H□ 3 AFL, 18 ALR, 480VAC, 60H□	All MUH Series Heaters (except MUH0321, MUH0371, MUH0381, MUH0521, MUH0571, MUH0581 Units unless optional control transformer is supplied
MPDS25	04703 4	Power Disconnect Switch (3 Pole)	25A □ 600VAC, Res.	MUH0321, MUH0341, MUH0371, MUH0381, MUH0521, MUH0541 MUH0571, MUH0581, MUH074, MUH104, MUH154, MUH204
MPDS60	04704 1	Power Disconnect Switch (3 Pole)	63A □ 600VAC, Res.	MUH152, MUH158 3□ only, MUH202, MUH208, MUH252, MUH254, MUH304, MUH404, MUH504

NOTE□We can not supply an integral disconnect for 60 amp heaters.

DIFFUSER SELECTOR TABLES FOR VERTICAL MOUNTING

CATALOG	DESCRIPTION	CATALOG NUMBER	MAX. MNT. HEIGHT	A DIMENSION	DIFFUSER PATTERN AND AREA
NONE	WITHOUT DIFFUSER No diffuser needed where a straight downflow air pattern is required. For maximum air throw, remove louvers. Any of three diffusers can be added to basic heater.	MUH03 & MUH05	9	18	
NONE		MUH07 & MUH10	14	26	
NONE		MUH15	20	35	
NONE		MUH20	23	40	
NONE		MUH25	23	63	
NONE		MUH30	20	55	
NONE	ANEMOSTAT DIFFUSER The "comfort" diffuser. Produces draft-free air movement at low mounting heights. Floor coverage shown in table.	MUH40	28	70	
NONE		MUH50	25	63	
MADS		MUH03 & MUH05	8	18	
MADM		MUH07 & MUH10	12	28	
MADM		MUH15	15	35	
MADM		MUH20	17	40	
MADL	LOUVER DIFFUSER Permits directional (straight line) air flow as in air curtain application over doorways. Rectangular coverage, Louvers can be turned in either direction.	MUH25	19	60	
MADL		MUH30	17	55	
MADL		MUH40	22	77	
MADL		MUH50	20	70	
MLDS		MUH03 & MUH05	9	25(a) 12(b)	
MLDM		MUH07 & MUH10	14	39(a) 19(B)	
MLDM	RADIAL DIFFUSER Increases floor coverage. Adjustable fins, in vertical mode, direct downward in a tight pattern. Conversely, when fins are tilted to 45° angle, floor coverage is up to 25% greater at relatively low mounting heights.	MUH15	18	50(a) 25(b)	
MLDM		MUH20	20	56(a) 28(b)	
MLDL		MUH25	23	72(a) 36(b)	
MLDL		MUH30	20	72(a) 36(b)	
MLDL		MUH40	24	88(a) 44(b)	
MLDL		MUH50	22	80(a) 40(b)	
MRDS	RADIAL DIFFUSER Increases floor coverage. Adjustable fins, in vertical mode, direct downward in a tight pattern. Conversely, when fins are tilted to 45° angle, floor coverage is up to 25% greater at relatively low mounting heights.	MUH03 & MUH05	9	20	
MRDM		MUH07 & MUH10	14	31	
MRDM		MUH15	18	40	
MRDM		MUH20	20	45	
MRDL		MUH25	23	69	
MRDL		MUH30	20	60	
MRDL		MUH40	24	75	
MRDL		MUH50	22	68	

OPTIONAL MOUNTING BRACKETS

CATALOG NUMBER	UPC NUMBER 6 85360	USED ON	WT. (LBS.)
B10	15229 5	MUH03 - 10	8
B20	15230 1	MUH15 & 20	10
B30	15231 8	MUH25 & 30	13
B50	15232 5	MUH40 & 50	15

OPTIONAL CEILING MOUNTING BRACKETS

CATALOG NUMBER	UPC NUMBER 6 85360	USED ON	WT. (LBS.)
CMB10	15236 3	MUH03 - 10	3
CMB20	15237 0	MUH15 & 20	4
CMB30	15238 7	MUH25 & 30	5
CMB50	15239 4	MUH40 & 50	6

OPTIONAL VERTICAL CEILING MOUNTING BRACKETS

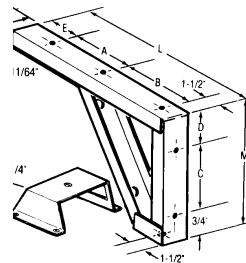
CATALOG NUMBER	UPC NUMBER 6 85360	USED ON	WT. (LBS.)
VDMB5	15245 5	MUH03 - 05	5
VDMB20	15246 2	MUH07 - 20	7
VDMB50	15247 9	MUH25 - 50	9

CATALOG NUMBER	UPC 6 85360	DESCRIPTION	WT. (LBS.)
MLDS	04697 6	Louvered Diffuser for 3 & 5□W Units	5
MLDM	04696 9	Louvered Diffuser for 7.5 - 20□W Units	8
MLDL	04695 2	Louvered Diffuser for 25 - 50□W Units	10
MRDS	04707 2	Radial Diffuser for 3 & 5□W Units	5
MRDM	04706 5	Radial Diffuser for 7.5 thru 20□W Units	6
MRDL	04705 8	Radial Diffuser for 25 thru 50□W Units	10
MADS	04636 5	Anemostat Diffuser for 3 & 5□W Units	7
MADM	04635 8	Anemostat Diffuser for 7.5 -20□W Units	10
MADL	04634 1	Anemostat Diffuser for 25 -50□W Units	21

NOTE□Model MPDS60 disconnect switch is not suitable for field installation on 7.5 & 10 □w unit heaters.

BRACKET SIZE

DIMENSION	3-20Kw	25 - 50K
A	7-1/4"	9-7/16"
B	9-1/2"	14-3/8"
C	7-1/4"	12-1/8"
D	11-5/16"	2-1/16"
E	2-1/4"	3"
L	20-1/2"	28-15/16"
M	9-15/16"	14-15/16"
N	3-1/4"	4-1/2"



ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

- Unit mounts either horizontally or vertically. Totally versatile. For factories, warehouses, garages, stores, shipping rooms, power stations, aircraft hangers. Can be used for primary, supplementary, spot, or dual-system heating.
- Wide range of optional control kits are field installable, increasing the MUH adaptability to the specification market.
- Forced air unit heater with 10 power ratings; from 3KW to 50 KW heating output; 208, 240, 277 and 480V, 10,230 to 170,500 BTU/hr.
- 32 compatible models (no need to try to assemble a heating system from 70 or 80 models!)
- Heavy gauge die-formed steel housing. Two-toned, smartly styled.
- Advanced pull-through air flow design draws air across heating element for more even air distribution and cooler element operation.
- Specially designed venturi outlet to meet that added throw as required in vertical position.
- Branch circuit fusing (when required).
- Completely enclosed fan motor.
- 1- or 3-phase wiring on 5 through 10 KW 208/240V and 15 KW 208V units (field interchangeable).
- Aluminum-finned, copper clad steel sheath heating element has longer useful life, because of cooler sheath temperature and faster heat dissipation.
- 24V control transformer standard on most models, providing a safer and more accurate means of temperature control. 3KW and 5KW, 208-277V, have line voltage controls as standard (24V control available on made-to-order basis).
- Automatic reset linear thermal cut-out, capillary type, provides protection over entire length of element areas (Manual reset protection available on made-to-order basis).
- 2-speed fan selector switch (25 to 50 KW models).
- Fan delay feature eliminates cold drafts. Element heats up before fan cuts in, then fan continues to distribute heat after element shuts off.
- Ruggedly built, yet lighter weight for easier installation. No piping flutes, valves, or traps.
- Individually adjustable discharge louvers to control air flow.
- Choice of optional diffusers for variety of air patterns, maximizing heat concentration and coverage in the vertical position.
- Meets all UL, NEC, and OSHA requirements.