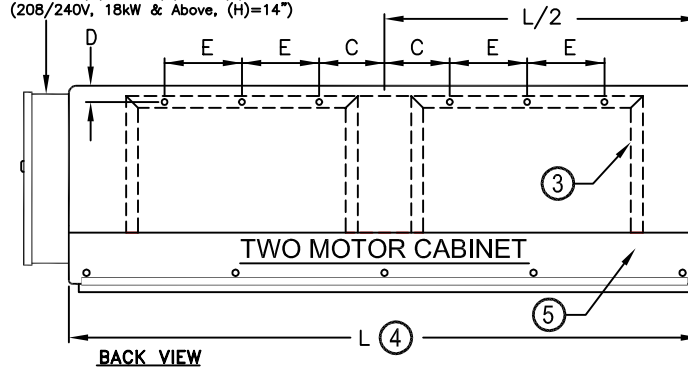
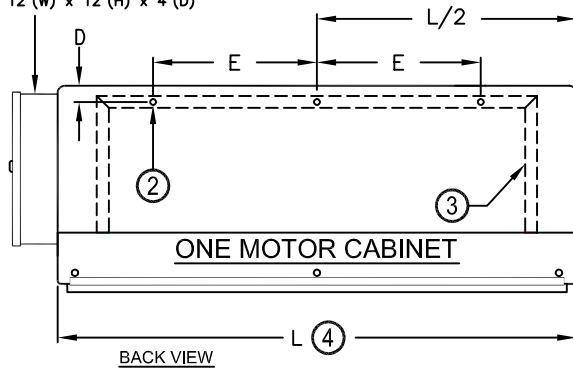


AIR CURTAIN MOUNTING BRACKET HOLE LOCATION

Control Panel Dimensions
12"(W) x 12"(H) x 4"(D)

Control Panel Dimensions
12"(W) x 12"(H) x 4"(D)
(208/240V, 18kW & Above, (H)=14")

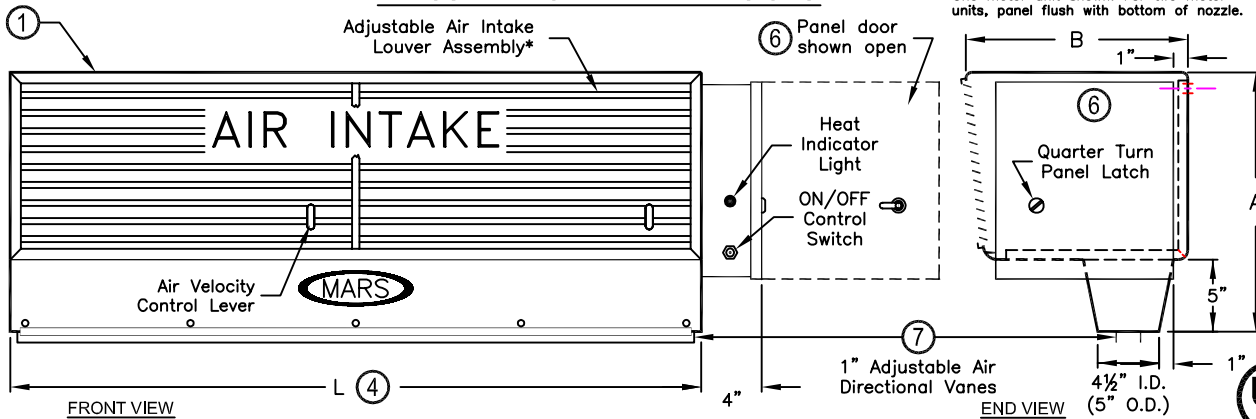


NOTES:

- ① This product is designed to comply with the National Electric Code (NEC) and be Canadian U.L. Listed and U.L. Listed.
- ② 7/16" mounting holes. (3) provided on one motor models, (6) provided on two motor models.
- ③ Cabinets contain an internal steel bracket with sufficient strength to provide cabinet rigidity and fastening to wall.
- ④ Model number indicates length of unit in inches, which is denoted as "L". Actual length may vary up to 1 1/4" over model number.
- ⑤ All units have a self contained one piece molded white polyethylene cabinet. Cabinets feature a self-extinguishing characteristic and are resistant to high humidity, chemical and climate exposures.
- ⑥ Motor control panel is prewired and premounted on right hand side of cabinet, specify for alternate location. A minimum of 17" clearance from end of cabinet required for easy access.
- ⑦ Units is to be installed such that air flow is unobstructed. Air discharge nozzle containing adjustable air directional vanes with 40° sweep front to back.
- ⑧ Wall mounted 24 volt thermostat with remote "heat/off/fan only" switch. Shipped loose, field wired to terminal block in panel, per diagram.
- ⑨ Circuit protection as per N.E.C. by others.
- ⑩ Optional microswitch is field installed and is to be wired to the terminal block in panel. Switch to be mounted such that air curtain turns on as door starts to open.

AIR CURTAIN CABINET DIMENSIONS

NOTE:
One motor unit shown. For two motor units, panel flush with bottom of nozzle.



LISTED



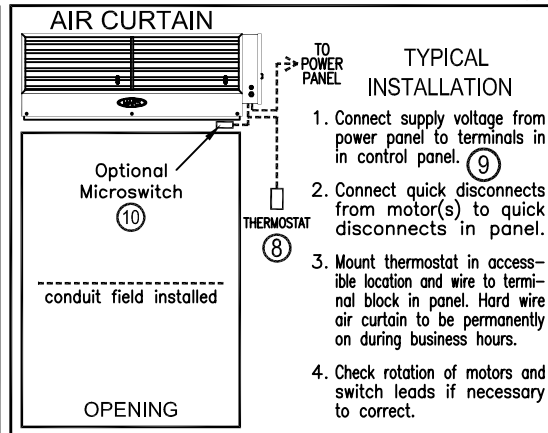
CERTIFIED



-2 denotes the number of motors per unit.

*NOTE: Louver assembly size and number varies with unit length.

MODEL NUMBER ④	NUMBER OF MOTORS	HEIGHT A	DEPTH B	MOUNTING HOLE SPACING C	MOUNTING HOLE LOCATION D	SPACING BETWEEN MTG. HOLES E
E38C/CH	1	15 3/4"	12 3/4"	-	1 1/4"	12"
E42C/CH	1	15 3/4"	12 3/4"	-	1 1/4"	12"
E48C/CH	1	15 3/4"	12 3/4"	-	1 1/4"	12"
E60C	1	15 3/4"	12 3/4"	-	1 1/4"	12"
E60C/CH-2	2	15 3/4"	12 3/4"	4 3/4"	1 1/4"	12"
E72C/CH-2	2	15 3/4"	12 3/4"	5"	1 1/4"	12"
E96C/CH-2	2	18"	15"	12"	3 3/4"	12"
E42CHS	1	18"	15"	-	3 3/4"	14"
E48CHS	1	18"	15"	-	3 3/4"	14"
E60CHS	1	18"	15"	-	3 3/4"	14"
E96CHS-2	2	18"	15"	10"	3 3/4"	14"



PROJECT	MODEL NO.
LOCATION	DRAWING NO.
ARCHITECT	DATE
ENGINEER	SHEET OF
	DRAWN BY
	CHECKED BY
	PROJECT NO.

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EC - ECH - ECHS COMMERCIAL ELECTRIC HEATED MODELS

JOB: _____ **ARCHITECT/ENGINEER:** _____ **DRWG.:** _____
CONTRACTOR: _____ **SHEET** _____ **of** _____ **DATE:** _____

MARK	HEATED MODEL NUMBER	NO. REQ'D	LENGTH	WEIGHT (LBS)	MOTOR FAN DATA										REMARKS		
					HP 1750 RPM	VOLTS & PHASE	HEATER INPUT, KW ②	AMPS ①,②	TEMP. RISE °F ②	Max FPM @ Nozzle		Max CFM @ Nozzle		dBA Measured 10 ft. from Nozzle			
										C	CH	C	CH	C		CH	
	E38C/CH		3' 2"	70	1/2						2150	3225	1700	2550	56	63	
	E42C/CH		3' 6"	75	1/2						1950	2925	1700	2550	56	63	
	E48C/CH		4'	80	1/2						1700	2550	1700	2550	56	63	
	E60C		5'	85	1/2						2040	-	2550	-	56	-	
	E60C/CH-2		5'	125	Two 1/2						2720	4080	3400	5100	63	65	
	E72C/CH-2		6'	140	Two 1/2						2275	3400	3400	5100	63	65	
	E96C/CH-2		8'	160	Two 1/2						1700	2550	3400	5100	63	65	
	E42CHS		3' 6"	110	1						4600		4000			69	
	E48CHS		4'	115	1						4000		4000			69	
	E60CHS		5'	125	1						3200		4000			69	
	E96CHS-2		8'	210	Two 1						4000		8000			72	

NOTES: ① Represents unit's combined Full Load Amp (FLA) current. Multiply by 1.25 for Ampacity.
 ② Refer to heater availability chart for parameter values.

EQUIPMENT SPECIFICATIONS - Standard Features

GENERAL:

Air curtains shall be a Mars® Air Doors brand air curtain: Type "C-CH-CHS" Commercial Electric Heated.

APPROVALS

Air curtains shall meet the requirements of the National Electric Code and shall be Canadian Underwriters Laboratories Listed and Underwriters Laboratories Listed.

CABINET

Cabinets shall be a self contained one piece molded white polyethylene material. Cabinet shall feature self-extinguishing characteristics and be resistant to high heat and all chemical and climatic exposures. Cabinet to contain an internal steel bracket with sufficient strength to provide cabinet rigidity and fastening to the wall. Cabinet to have mechanically field adjustable variable air intake louver assembly, capable of reducing outlet velocity up to 60% with louvers in totally closed position. Discharge air outlet nozzle shall be wedge shaped containing adjustable air directional vanes with a 40° sweep front to back. Motor/fan(s) assembly to be easily accessible for maintenance.

ELECTRIC HEATER COIL

The heating coils shall be an open coil type for rapid temperature rise to be located in the air curtain nozzle directly in the air stream. Thermal overload protection shall be provided by manual reset protectors, which shall directly disconnect the electric power from the heaters in the event of an overload. Secondary protectors in the heating contactor shall not be substituted.

MOTORS AND BLOWER WHEELS

Motor(s) shall be totally enclosed air over (TEAO) type suitable for continuous heavy duty, all angle operation. Construction shall include sealed lifetime pre-lubricated ball bearings, resilient mounted and protected by an automatic reset thermal overload switch. Motor(s) to have quick disconnect plug for fast and easy removal of motor/fan assembly(s) for inspection and cleaning. Motor(s) to have double extended shaft and direct drive, double inlet, dynamically balanced, forward curved squirrel cage blower wheels.

ELECTRIC WIRING

Air curtain shall contain pre wired, pre mounted control panel ready for power connection. Panel mounted on right hand side of unit unless otherwise specified. Control panel adds 4 inches to unit's overall length and requires an additional 17 inches of clearance from the end of the cabinet for access to panel. Unit shall include a 24 volt thermostat with "heat/off/fan" switch, shipped loose and field installed. Terminal block provided inside panel.

GUARANTEE Shall be 18 months on all parts.

An equipment specification can be prepared by combining the standard features with the checked boxes below indicating the selection of the optional features.

OPTIONAL FEATURES

When checked below, the air curtain will be supplied with the following special features.

- Two speed motor with hi/lo switch located on control panel. If 480 volt air curtain is specified, a separate 120 or 208-230V single phase service is required.
- Hi/Lo Heat control switch located on control panel. (Available in 3 Phase only)
- Door microswitch (20Amp) for automatic on/off control. Turns air curtain on when door is opened and turns the air curtain off when door is closed. (Field installed)
 - Plunger type
 - Roller type
- Delay microswitch with delay timers pre mounted in the control panel (check type below)
 - Fixed delay (preset at factory, specify delay)
 - 30 60 90 120 240 600 seconds
 - Adjustable time delay (field adjustable from 1 second to 17 minutes)
- Washable aluminum air filter
 - In lieu of adjustable inlet air louver
 - In conjunction with adjustable inlet air louver

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MARS® HEATER AVAILABILITY CHART

SINGLE PHASE UNITS (FLA) - Full Load Amps, (AMPC) - Ampacity

THREE PHASE UNITS (FLA) - Full Load Amps, (AMPC) - Ampacity

UNITS WITH ONE 1/2 HORSE POWER MOTOR			
VOLTAGE	6kW/20.5 MBH	9kW/30.7 MBH	12kW/41 MBH
208 240	32 FLA (40 AMPC) 28 FLA (35 AMPC)	46 FLA (58 AMPC) 41 FLA (51 AMPC)	61 FLA (77 AMPC) 53 FLA (67 AMPC)
MODEL #	TEMP. RISE °F	TEMP. RISE °F	TEMP. RISE °F
E38C/CH E42C/CH E48C/CH E60C	11.1/7.4 11.1/7.4 11.1/7.4 11.1	16.0/11.1 16.0/11.1 16.0/11.1 11.1	22.2/14.8 22.2/14.8 22.2/14.8 14.8

UNITS WITH TWO 1/2 HORSE POWER MOTORS			
VOLTAGE	12kW/41 MBH	18kW/61.4 MBH	24kW/82 MBH
208 240	63 FLA (79 AMPC) 56 FLA (71 AMPC)	92 FLA (115 AMPC) 81 FLA (102 AMPC)	NOT AVAILABLE
MODEL #	TEMP. RISE °F	TEMP. RISE °F	
E60C/CH-2 E72C/CH-2 E96C/CH-2	11.1/7.4 11.1/7.4 11.1/7.4	16.0/11.1 16.0/11.1 16.0/11.1	

UNITS WITH ONE 1 HORSE POWER MOTOR			
VOLTAGE	6kW/20.5 MBH	9kW/30.7 MBH	12kW/41 MBH
208 240	36 FLA (45 AMPC) 32 FLA (40 AMPC)	50 FLA (63 AMPC) 45 FLA (56 AMPC)	65 FLA (81 AMPC) 58 FLA (72 AMPC)
MODEL #	TEMP. RISE °F	TEMP. RISE °F	TEMP. RISE °F
E42CHS E48CHS E60CHS	4.7 4.7 4.7	7.1 7.1 7.1	9.5 9.5 9.5

UNITS WITH TWO 1 HORSE POWER MOTORS			
VOLTAGE	12kW/41 MBH	18kW/61.4 MBH	24kW/82 MBH
208 240	72 FLA (90 AMPC) 64 FLA (80 AMPC)	101 FLA (126 AMPC) 89 FLA (112 AMPC)	NOT AVAILABLE
MODEL #	TEMP. RISE °F	TEMP. RISE °F	
E96CHS-2	4.7	7.1	

UNITS WITH ONE 1/2 HORSE POWER MOTOR			
VOLTAGE	8kW/27.3 MBH	12kW/41 MBH	16kW/54.6 MBH
208 240 480	25 FLA (32 AMPC) 22 FLA (28 AMPC) 11 FLA (14 AMPC)	36 FLA (45 AMPC) 32 FLA (40 AMPC) 16 FLA (20 AMPC)	47 FLA (59 AMPC) 41 FLA (52 AMPC) 20 FLA (25 AMPC)
MODEL #	TEMP. RISE °F	TEMP. RISE °F	TEMP. RISE °F
E38C/CH E42C/CH E48C/CH E60C	14.8/9.9 14.8/9.9 14.8/9.9 9.9	22.2/14.8 22.2/14.8 22.2/14.8 14.8	29.7/19.8 29.7/19.8 29.7/19.8 19.8

UNITS WITH TWO 1/2 HORSE POWER MOTORS			
VOLTAGE	16kW/54.6MBH	24kW/82 MBH	32kW/109.2 MBH
208 240 480	50 FLA (63 AMPC) 44 FLA (55 AMPC) 21 FLA (27 AMPC)	72 FLA (90 AMPC) 63 FLA (79 AMPC) 31 FLA (39 AMPC)	94 FLA (118 AMPC) 82 FLA (103 AMPC) 41 FLA (52 AMPC)
MODEL #	TEMP. RISE °F	TEMP. RISE °F	TEMP. RISE °F
E60C/CH-2 E72C/CH-2 E96C/CH-2	14.8/9.9 14.8/9.9 14.8/9.9	22.2/14.8 22.2/14.8 22.2/14.8	- /19.8 29.7/19.8 29.7/19.8

UNITS WITH ONE 1 HORSE POWER MOTOR			
VOLTAGE	8kW/27.3 MBH	12kW/41 MBH	16kW/54.6 MBH
208 240 480	27 FLA (32 AMPC) 24 FLA (29 AMPC) 12 FLA (14 AMPC)	38 FLA (46 AMPC) 33 FLA (41 AMPC) 17 FLA (20 AMPC)	48 FLA (60 AMPC) 43 FLA (53 AMPC) 22 FLA (27 AMPC)
MODEL #	TEMP. RISE °F	TEMP. RISE °F	TEMP. RISE °F
E42CHS E48CHS E60CHS	6.3 6.3 6.3	9.5 9.5 9.5	12.6 12.6 12.6

UNITS WITH TWO 1 HORSE POWER MOTOR			
VOLTAGE	16kW/54.6MBH	24kW/82 MBH	32kW/109.2 MBH
208 240 480	54 FLA (68 AMPC) 42 FLA (59 AMPC) 23 FLA (29 AMPC)	76 FLA (95 AMPC) 67 FLA (84 AMPC) 33 FLA (42 AMPC)	98 FLA (123 AMPC) 85 FLA (107 AMPC) 43 FLA (54 AMPC)
MODEL #	TEMP. RISE °F	TEMP. RISE °F	TEMP. RISE °F
E96CHS-2	6.3	9.5	12.6

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