THE WALL-MOUNT™ 50Hz ONE TON AIR CONDITIONER

WE121 "GREEN" Refrigerant R407C
9,500 Btuh (2.78 KW)
Right Side Control Panel 50Hz

The Bard Wall-Mount One Ton Air Conditioner is a self contained energy efficient heating and cooling system which is designed to offer maximum indoor comfort at a minimal cost without using valuable indoor floor space or outside ground space. The One Ton is the ideal product for versatile applications such as: new construction, modular offices, school modernization, telecommunication structures, portable structures or correctional facilities. Factory or field installed accessories are available to meet specific job requirements.

Engineered Features

Aluminum Finned Copper Coils:
Grooved tubing and enhanced louvered fin for maximum heat transfer and energy efficiency.

Quiet Twin Blowers:
Designed to accept full ducted system or for non-ducted free blow installations. Motor overload protection is standard.

Air Conditioner Compressor:
Rotary compressor is designed for high efficiency and quiet operation.

Galvanized 20 Gauge Zinc Coated Steel Cabinet:
Finished with a baked on, beige polyester enamel.

Electrical Components:
Are easily accessible for routine inspection and maintenance through a right side, service panel opening.

One Inch, Disposable Air Filter:
Easily removed for replacement from the outside. Optional two inch (51 mm) pleated filter, factory or field installed.

Slope Top:
Standard feature for water run-off.

Top Rain Flashing:
Standard feature on all models.

High Pressure Switch is Auto-Reset:
Built-in lockout circuit resets from the room thermostat. Provides commercial quality protection to the compressor.

Liquid Line Filter/Drier:
Is standard for maximizing refrigerant circuit protection.

Compressor Control Module:
Built-in off-delay timer adjustable from 30-seconds to 5-minutes. Two-minute on-delay if power interrupt. 120-second bypass for low pressure control, and both soft and manual lockouts for high and low pressure controls. Alarm output for alarm relay.

Barometric Fresh Air Damper:
Allows up to 100 CFM (.047m^3/s) of fresh air.

Automatic Condensate Disposal System:
Eliminates the need to provide a separate condensate drain. The drain valve closes at temperatures above 40° F (4.4°C) and opens when the temperature drops below 40°F (4.4°C). Built-in slinger ring fan blade.

***Full Length Mounting Flanges*:**
Built into cabinet for improved appearance and easy installation.

ISO 9001 UL REGISTERED FIRM FILE NO. A6887

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Optional Engineered Features

Low Pressure Switch is Auto-Reset:
Built-in lock-out circuit and low pressure timed bypass circuit. Resets from room thermostat. Can be factory or field installed.

Low Ambient Control:
Permits operating in air conditioning mode below 65°F (18.3°C) ambient condition down to 0°F (-17.8°C) outdoor ambient.

Alarm Relay:
Dry contacts for remote alarm on high or low pressure lockouts.

Fully Modulating Economizer:
Can be factory or field installed.

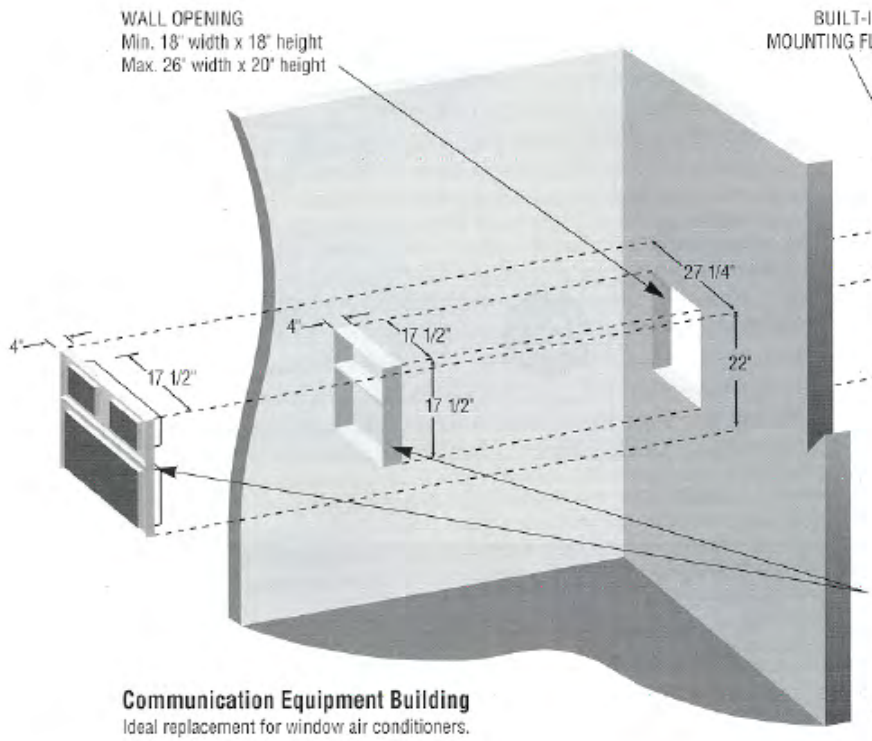
Capacity and Efficiency Ratings

MODEL	VOLTS / HZ	PHASE	HEAT STRIP	COOLING CAPACITY BTUH / KW	EER
WE121-G00	220/50	1	None	9,500 / 2.78	9.50
WE121-G02	220/50	1	2.0 KW	9,500 / 2.78	9.50
WE121-G03	220/50	1	3.0 KW	9,500 / 2.78	9.50

Typical Applications

Portable Office Building

Example: Ducted supply with a non-ducted return installation.



Communication Equipment Building

Ideal replacement for window air conditioners.

Accessories

① Combination Supply/Return Plastic Front Grille Assembly with decorative wood grain finish and expandable (up to 8") wall sleeve. Model No. CSRG-1

② Master Controller - pre-wired control system provides redundancy and equal wear on two air conditioning units. Includes adjustable (2-12°F) wide differential thermostat and 4 alarm circuits. Model No. MC91A (air conditioning only). Model No. MC91AE (air conditioning with economizer).

Electrical Specifications

Models	Rated Volts and Phase	Operating Voltage Range	No. Field Power Ckts.	Minimum Circuit③ Ampacity	Maximum External Fuse① or Circuit Breaker	Field Power ② Wire Size	Ground ② Wire Size
WE121-G00	220/50-1	198-240	1	7	15	14	14
WE121-G02	220/50-1	198-240	1	13	15	14	14
WE121-G03	220/50-1	198-240	1	20	20	12	12

① Maximum size of the time delay fuse or HACR type circuit breaker for protection of field wiring conductors.
② Based on 75°C copper wire. All wiring must conform to NEC and all local codes.
③ These "Minimum Circuit Ampacity" values are to be used for sizing the field power conductors. Refer to the National Electrical Code (latest revision), article 310 for power conductor sizing.

Specifications

Model	Electrical Rating - 50HZ	Compressor RLA	Compressor LRA	Outdoor Fan Motor HP/RPM	Outdoor Fan Motor FLA	Indoor Blower Motor HP/RPM	Indoor Blower Motor FLA	CFM (m^3/s) (Rated-WET Coil)	Shipping Weight
WE121-G	220 / 50-1	3.9 / 4.3	28.0	1/10-1075	.70	1/8-1650	.85	400 (.189)	155 lbs./70kg

Indoor Blower Performance - CFM (m^3/s) at 220 Volts

E.S.P. IN H_20 (Pa)	WE121 Dry/Wet Coil
.0 (0)	456 (.215) / 430 (.203)
.1 (25)	417 (.197) / 396 (.187)
.2 (50)	378 (.178) / 366 (.173)
.3 (75)	335 (.158) / 323 (.152)
.4 (100)	280 (.132) / 258 (.122)

Electric Heat Table

Model	Rated Volts and Phase	KW	BTUH	Amps
WE121-G02	220V-1	2.0	6,830	9.1
WE121-G03	220V-1	3.0	10,250	13.7

Cooling Application Data - Outdoor Temperature ˚F (°C) ①

Model	DB/WB ºF (ºC) ②	Cooling Capacity	70° (21°)	75° (24°)	80° (26.5°)	85° (29.5°)	90° (32°)	95° (35°)	100 (37.8°)	105° (40.5°)	110 (43°)	115 (46°)
WE121	75 (24)/ 62 (17)	Total Cooling BTUH (KW)	10,470 (3.06)	10,030 (2.94)	9,590 (2.80)	9,150 (2.68)	8,710 (2.55)	8,270 (2.42)	7,830 (2.29)	7,390 (2.16)	6,950 (2.03)	6,510 (1.91)
		Sensible Cooling BTUH (KW)	7,970 (2.33)	7,830 (2.29)	7,690 (2.25)	7,550 (2.21)	7,410 (2.17)	7,270 (2.13)	7,130 (2.09)	6,990 (2.05)	6,850 (2.00)	6,410 (1.88)
	80 (26.5)/ 67 (19.5)	Total Cooling BTUH (KW)	11,025 (3.23)	10,720 (3.14)	10,415 (3.05)	10,110 (2.96)	9,800 (2.87)	9,500 (2.78)	9,195 (2.69)	8,890 (2.60)	8,585 (2.51)	8,280 (2.42)
		Sensible Cooling BTUH (KW)	7,700 (2.25)	7,630 (2.24)	7,560 (2.22)	7,490 (2.19)	7,415 (2.17)	7,340 (2.15)	7,266 (2.13)	7,195 (2.10)	7,120 (2.08)	7,050 (2.06)
	85 (29.5)/ 72 (22)	Total Cooling BTUH (KW)	13,248 (3.88)	12,706 (3,72)	12,165 (3.56)	11,625 (3.40)	11,080 (3.24)	10,540 (3.09)	10,000 (2.93)	9,455 (2.77)	8,915 (2.61)	8,375 (2.45)
		Sensible Cooling BTUH (KW)	7,955 (2.33)	7,800 (2.28)	7,650 (2.24)	7,495 (2.19)	7,340 (2.15)	7,190 (2.10)	7,035 (2.06)	6,880 (2.01)	6,730 (1.97)	6,575 (1.92)

① Below 65°F (18.3°C), unit requires a factory or field installed low ambient control.
② Return air temp. °F (°C).

CAPACITY MULTIPLIER FACTORS			
% of Rated Air Flow	-10	Rated	+10
Total BTUH / KW	0.975	1.0	1.02
Sensible BTUH / KW	.0950	1.0	1.05

Air Conditioning Model Nomenclature

WE 12 1 — G 00 X X X X X J

MODEL NUMBER: WE

CAPACITY: 12 - 1 Ton

REVISION: 1

VOLTS & PHASE: G - 220/50/1

KW: 00 - No KW; 02 - 2.0 KW; 03 - 3.0 KW

VENTILATION OPTIONS: X - Barometric Fresh Air Damper; B - Blank-off Plate; E - Economizer - Fully Modulating with Exhaust

FILTER OPTIONS: X - 1 inch (25mm) Disposable; W - 1 inch (25mm) Washable; P - 2 inch (51mm) Pleated

COLOR OPTIONS: X - Beige (Standard); 1 - White; 2 - Mesa Tan; 4 -Buckeye Gray; 5 - Desert Brown

OUTLET OPTIONS: X - Front

COIL OPTIONS: X - Standard Coils; 1 - Phenolic Coated Evaporator; 2 - Phenolic Coated Condenser; 3 - Phenolic Coated Evaporator and Condenser

CONTROL MODULES: E - Low Ambient Control; J - Telecommunications

Air Conditioning Control Modules

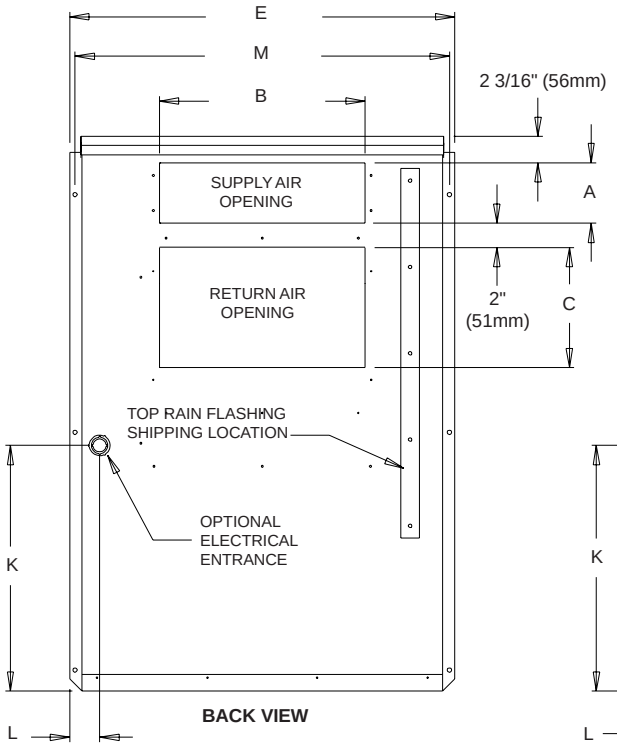
Factory Installed Code No.	Field Installed Part No.	MODULE DESCRIPTION: High Pressure Control	Compressor Control Module	Low Pressure Control	Low Ambient Control	Alarm Relay
X		STD	STD			
E	CMA-25	STD	STD		•	
J	-	STD	STD	•	•	•
-	CMA-16A	STD	STD	•	•	

STD: High pressure control and compressor control module with TDR are standard on WA121-G models.
NOTE: For electronic and communication equipment shelter application, control module "J" is recommended.

Dimensions of Basic Unit for Architectural and Installation Requirements - Inches (mm)

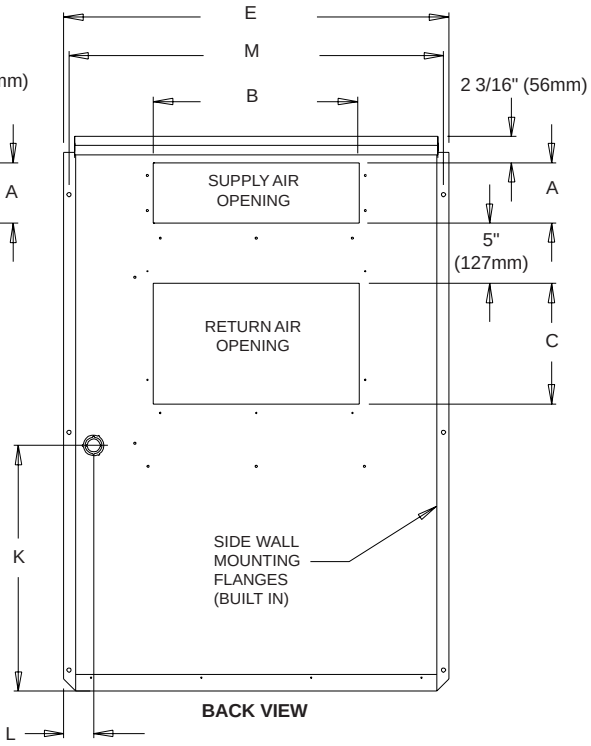
UNIT	WIDTH (W)	DEPTH (D)	HEIGHT (H)	SUPPLY A	SUPPLY B	RETURN C	RETURN B	E	F	G(*)	I	J	K	L	M
WE121	30-1/8 (765)	14-5/8 (372)	46 (1,168)	5 (127)	17 (432)	10 (254)	17 (432)	32 (813)	18-1/4 (464)	2 or 5 (51 or 127)	19-7/8 (505)	23-3/4 or 26-3/4 (603 or 679)	20-1/4 (514)	2-1/2 (64)	31-1/16 (789)

RETURN AIR OPENING IN UPPER POSITION FIELD CONVERTIBLE

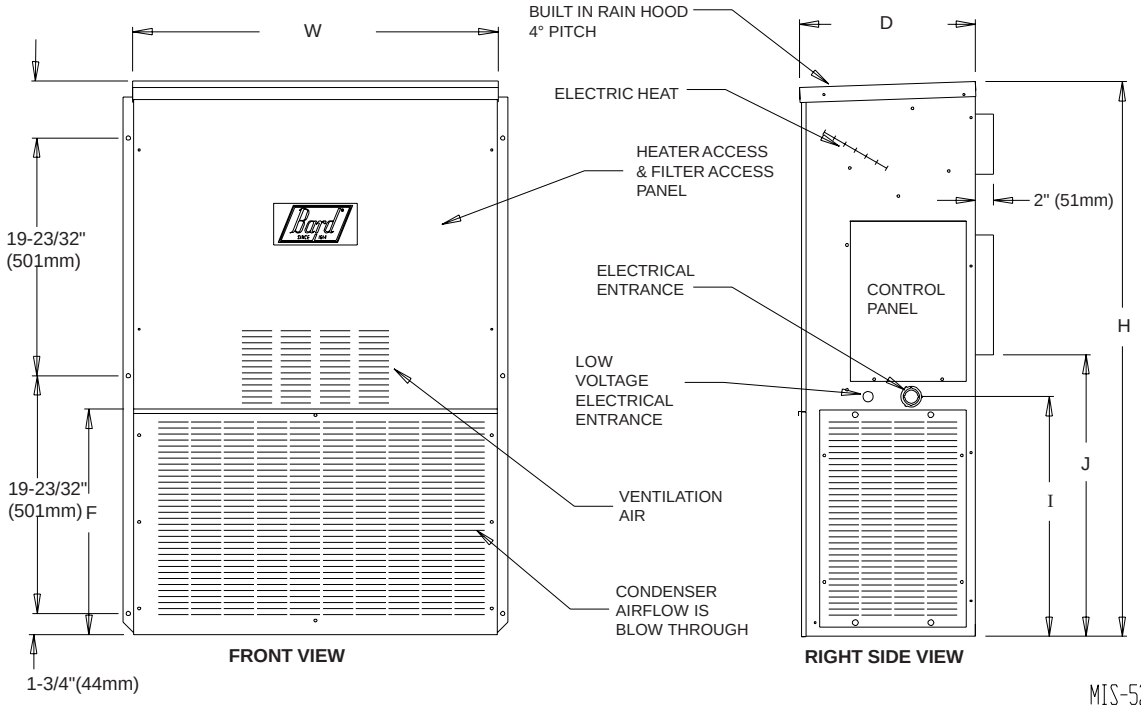


BACK VIEW

RETURN AIR OPENING IN LOWER POSITION FACTORY STANDARD



BACK VIEW



FRONT VIEW

RIGHT SIDE VIEW

MIS-524 A

(*) Position of return air flanges are interchangeable between two positions. Factory built at 5 inches (127mm).

NOTE: Maintain a minimum of 20 inches (508mm) clearance on right side to allow access to control panel and allow proper airflow to outdoor condenser coil. Allow 15 inches (381mm) on left side.

Bard Manufacturing Company, Inc.
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www.bardhvac.com

Since 1914 . . . Moving ahead, just as planned

Due to our continuous product improvement policy, all specifications subject to change without notice.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

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