



# THE WALL-MOUNT™ 6-TON AIR CONDITIONERS

**Model W70A - Right Side Control Panel**  
**Model W70L - Left Side Control Panel**  
**68,000 Btuh      9.5 EER      60Hz**

**GREEN REFRIGERANT**  
**R-410A**

The Bard Wall-Mount Air Conditioner is a self contained energy efficient system, which is designed to offer maximum indoor comfort at a minimal cost without using valuable indoor floor space or outside ground space. This unit 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.

### Twin Blowers:

Move air quietly. Most models feature multispeed blower motors providing airflow adjustment for high and low static operation. Motor overload protection is standard on all models.

### Air Conditioner Compressor:

Scroll Compressors eliminate need for crankcase heater.

### R-410A Refrigerant:

Designed with R-410A (HFC) non-ozone depleting refrigerant in compliance with the Montreal protocol and 2010 EPA requirements.

### Phase Rotation Monitor:

Standard on all 3 phase scroll compressors. Protects against reverse rotation if power supply is not properly connected.

### Galvanized 20 Gauge Zinc Coated Steel Cabinet:

Cleaned, rinsed, sealed and dried before the polyurethane primer is applied. The cabinet is handsomely finished with a baked on textured enamel, which allows it to withstand 1000 hours of salt spray tests per ASTM B117-03.

### Foil Faced Insulation:

Standard on all units.

### Full Length Mounting Brackets:

Built into cabinet for improved appearance and easy installation. NOTE: Bottom mounting bracket included to assist in installation.

### Electrical Components:

Are easily accessible for routine inspection and maintenance through a left side, service panel opening. Features a lockable, hinged access cover to the circuit breaker or toggle disconnect switch.

### Electric Heat Strips:

Features an automatic limit and thermal cut-off safety control. Heater packages can be factory or field installed.

### Filter Service Door:

Separate service door provides easy access for filter change.

### One Inch, Disposable Air Filters:

Are standard equipment. Optional one inch washable filters available and filter racks permit the addition of 2" pleated filter. Factory or field installed.

### Condenser Fan and Motor Shroud Assembly:

Slides out for easy access.

### Barometric Fresh Air Damper:

Standard on all units. Allows up to 25% outside fresh air. Optional ventilation packages available.

### Built-in Circuit Breakers:

Standard on all electric heat versions of single (230/208 volt) and three phase (230/208 volt) equipment. Toggle disconnects are standard on all electric heat versions of three phase (460 volt) equipment.

### Slope Top:

Standard feature for water run-off.

### Top Rain Flashing:

Standard feature on all models.



### Liquid Line Filter Drier:

Standard on all units. Protects system against moisture.

### Compressor Control Module:

Standard on all units. Built-in off-delay timer adjustable from 30 seconds to 5 minutes. 2-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.

### High & Low Pressure Switches are Auto-Reset:

Standard on all units. Built-in lockout circuit resets from the room thermostat. Provides commercial quality protection to the compressor.

- Complies with efficiency requirements of ANSI/ASHRAE/IESNA 90.1-2010.
- Certified to ANSI/ARI Standard 390-2003 for SPVU (Single Package Vertical Units).
- Intertek ETL Listed to Standard for Safety Heating and Cooling Equipment ANSI/UL 1995/CSA 22.2 No. 236-05, Third Edition.
- Commercial Product - Not intended for Residential application.



## Capacity and Efficiency Ratings

Models	Volts	Operating Voltage Range	Compressor Type	Phase	Cooling Cap. BTUH ①	CFM / ESP (Rated — Wet Coil)	EER ②
W70A1-A, W70L1-A	230/208	197 - 253	SCROLL	1	68,000	1,800 / .2	9.5
W70A1-B, W70L1-B	230/208	197 - 253	SCROLL	3	68,000	1,800 / .2	9.5
W70A1-C, W70L1-C	460	414 - 506	SCROLL	3	68,000	1,800 / .2	9.5

① Capacity is certified in accordance with ANSI/ARI Standard 390-2003.

② EER = Energy Efficiency Ratio and is certified in accordance with ANSI/ARI Standard 390-2003.

All ratings based on fresh air intake being 100% closed (no outside air introduction).

## Specifications

Models	Electrical Rating — 60 HZ	Compressor			Outdoor Fan Motor			Indoor Blower Motor		Filter Size (Inches) Std.	Shipping Weight
		RLA	BCSC	LRA	HP / RPM / SPD	FLA	DIA / CFM	HP / RPM / SPD	FLA		
W70A1-A, W70L1-A	230/208-1	26.9 / 31	31	145	1/2 / 1075 / 1-Spd	4.0	24" / 3,500	1/2 / 1,070 / 2-Spd.	3.3	20 x 30 x 1	575
W70A1-B, W70L1-B	230/208-3	23 / 26.6	26.6	160	1/2 / 1075 / 1-Spd	4.0	24" / 3,500	1/2 / 1,070 / 2-Spd.	3.3	20 x 30 x 1	575
W70A1-C, W70L1-C	460-3	14.1	14.1	87	3/4 / 1075 / 1-Spd	1.7	24" / 3,500	1/2 / 1,070 / 2-Spd.	1.9	20 x 30 x 1	575

**IMPORTANT** — While this electrical data is presented as a guide, it is important to electrically connect properly sized fuses and conductor wires in accordance with the National Electrical Code and all existing local codes.

## Electrical Specifications

MODELS	Rated Volts & Phase	No. Field Power Circuits	SINGLE CIRCUIT				DUAL CIRCUIT							
			③ Minimum Circuit Ampacity	① Maximum External Fuse or Circuit Breaker	② Field Power Wire Size	② Ground Wire Size	③ Minimum Circuit Ampacity		① Maximum External Fuse or Circuit Breaker		② Field Power Wire Size		② Ground Wire Size	
							Ckt. A	Ckt. B	Ckt. A	Ckt. B	Ckt. A	Ckt. B	Ckt. A	Ckt. B
W70A1-A00, A0Z / W70L1-A00, A0Z W70A1-A05 / W70L1-A05 W70A1-A10 / W70L1-A10 W70A1-A15 / W70L1-A15 W70A1-A20	230/208-1	1 1 1 1 or 2 1 or 2	49 49 59 85 110	60 60 60 90 125	8 8 6 4 2	10 10 10 8 6	59 59	26 52	60 60	30 60	6 6	10 6	10 10	10 10
W70A1-B00, B0Z / W70L1-B00, B0Z W70A1-B09 / W70L1-B09 W70A1-B15 / W70L1-B15 W70A1-B18	230/208-3	1 1 1 2	43 43 53	50 50 60	8 8 6	10 10 10	43	28	60	30	8	10	10	10
W70A1-C00, C0Z / W70L1-C00, C0Z W70A1-C09 / W70L1-C09 W70A1-C15 / W70L1-C15	460-3	1 1 1	23 23 27	30 30 35	10 10 8	10 10 10								

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 the National Electrical Code (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 Electric Code (latest revision), article 310 for power conductor sizing.

**Caution:** When more than one field power conductor circuit is run through one conduit, the conductors must be derated. Pay special attention to note 8 of Table 310 regarding Ampacity Adjustment Factors when more than 3 conductors are in a raceway.

## Electric Heat Table---Refer to Electrical Specifications for Availability by Unit Model

Nominal KW	At 240V (1)				At 208V (1)				At 480V (2)			At 460V (2)		
	Kw	1-Ph Amps	3-Ph Amps	Btuh	Kw	1-Ph Amps	3-Ph Amps	Btuh	Kw	3-Ph Amps	Btuh	Kw	3-Ph Amps	Btuh
5.0	5.0	20.8		17,065	3.75	18.0		12,799						
9.0	9.0		21.7	30,717	6.75		18.7	23,038	9.0	10.8	30,717	8.28	10.4	28,260
10.0	10.0	41.7		34,130	7.50	36.1		25,598						
15.0	15.0	62.5	36.1	51,195	11.25	54.1	31.2	38,396	15.0	18.0	51,195	13.80	17.3	47,099
18.0	18.0		43.3	61,434	13.50		37.5	46,076						
20.0	20.0	83.3		68,260	15.00	72.1		51,195						

(1) These electric heaters are available in 230/208V units only.

(2) These electric heaters are available in 480V units only.

## Heater Packages - Field Installed (W70A Only)

Air Conditioner Models	-A00 Models 230/208-1		-B00 Models 230/208-3		-C00 Models 460-3	
	Heater Model #	KW	Heater Model #	KW	Heater Model #	KW
	W70A ①	EHWA60-A05	5	EHW70A-B09	9	EHWA05A-C09
	EHWA05-A10	10	EHWA05-B15	15	EHWA05A-C15	15
	EHWA05-A15	15	EHW70A-B18	18		
	EHWA05-A20	20				

① Field installed heater package not available for W70L models.

## Indoor Blower Performance – CFM at 230 Volts

E.S.P. In H <sub>2</sub> O	W70A / W70L	
	HIGH SPEED DRY / WET COIL	LOW SPEED DRY / WET COIL
.0	2,200 / 2,000	- / -
.1	2,100 / 1,900	- / -
.2	2,000 / 1,800	- / -
.3	1,875 / 1,700	- / -
.4	1,775 / 1,600	- / -
.5	- / -	- / -

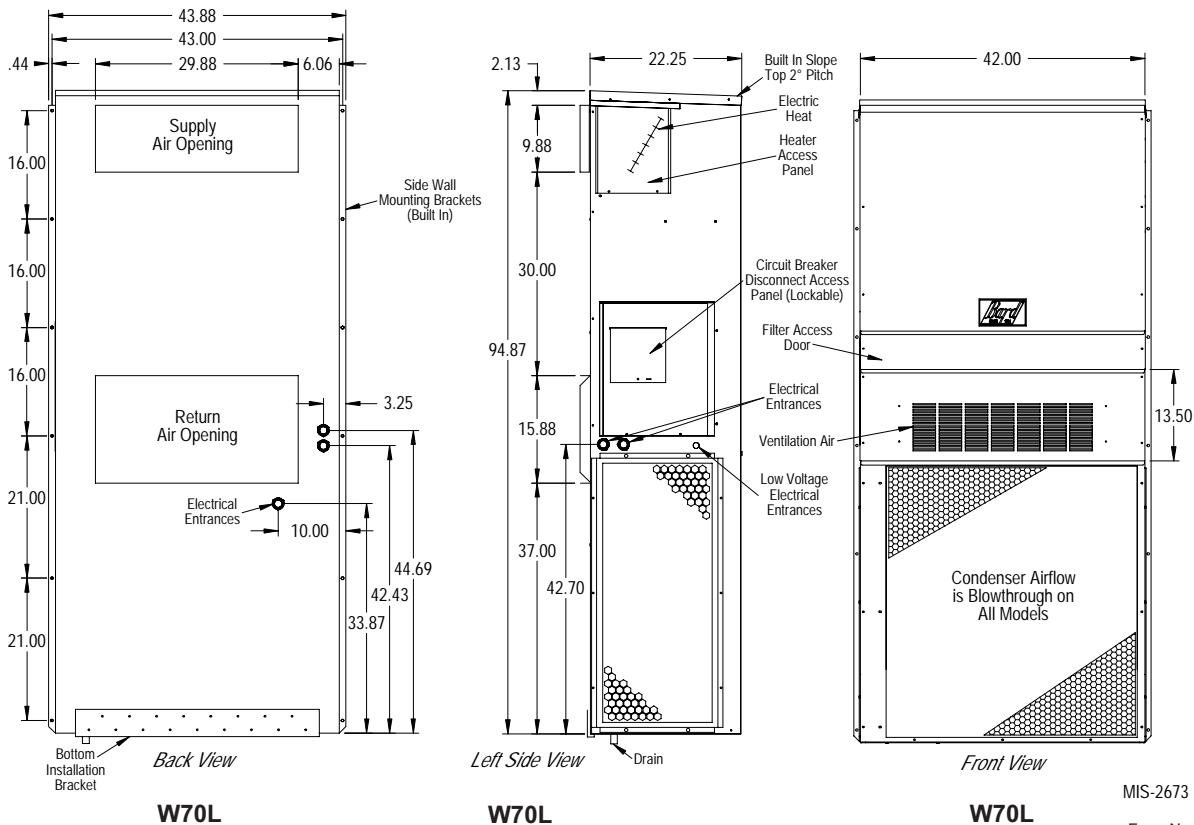
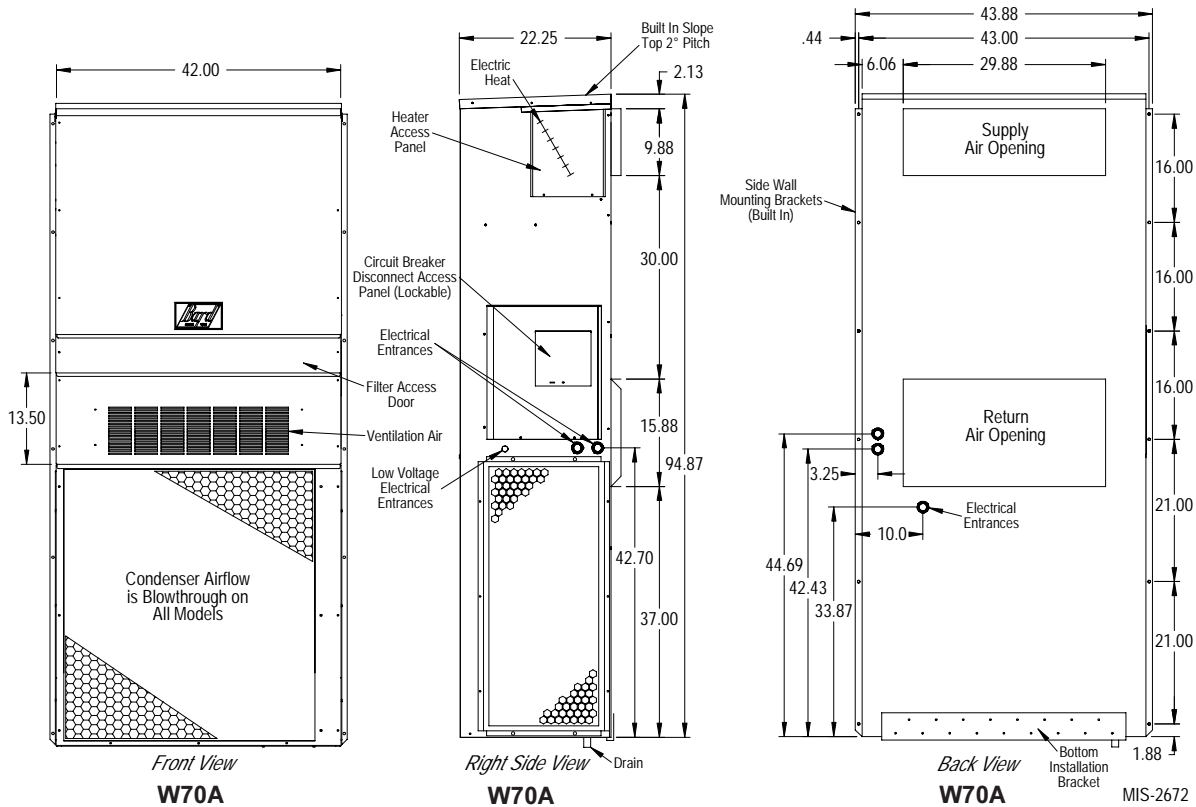
## Clearances Required for Service Access and Adequate Condenser Airflow

MODELS	LEFT SIDE	RIGHT SIDE
W70A / W70L	20"	20"

## Minimum Clearances Required to Combustible Materials

MODELS ①	SUPPLY AIR DUCT FIRST THREE FEET	CABINET
W70A / W70L	1/4"	0"

## Dimensions of Basic Unit for Architectural and Installation Requirements (Nominal)



MIS-2673

## Ventilation System Packages

Bard Wall-Mounts are designed to provide optional ventilation packages to meet all of your ventilation and indoor air quality requirements. All units are equipped with a barometric fresh air damper as the standard ventilation package. All ventilation packages can be built-in at the factory, or field-installed at a later date.



Barometric Fresh Air Damper

### BAROMETRIC FRESH AIR DAMPER - BFAD

**STANDARD**

The barometric fresh air damper is a standard feature on all models. It is installed on the inside of the service door and allows outside ventilation air, up to 25% of the total airflow rating of the unit, to be introduced through the air inlet openings and to be mixed with the conditioned air. The damper opens during blower operation and closes when the blower is off. Adjustable blade stops allow different amounts of outside air to be introduced into the building and can be easily locked closed if required.

### BLANK OFF PLATE - BOP

**OPTIONAL**

A blank off plate is installed on the inside of the service door. It covers the air inlet openings, which restricts any outside air from entering the unit. The blank off plate should be utilized in applications where outside air is not required to be mixed with the conditioned air.



Motorized Fresh Air Damper

### MOTORIZED FRESH AIR DAMPER - MFAD

**OPTIONAL**

The motorized fresh air damper is internally mounted behind the service door and allows outside ventilation air, up to 25% of the total airflow rating of the unit, to be introduced through the air inlet openings and to be mixed with the conditioned air. The two position damper can be fully opened or closed. The damper blade is powered open by a 24VAC motor with spring return on power loss. The damper can be controlled by indoor blower operation or can be field connected to be managed based on building occupancy.

**NOTE:** The above vent systems are intake only without built-in exhaust capability. Building will likely require separate field installed barometric relief or mechanical exhaust elsewhere within the conditioned space. Balancing dampers in the return air grille may be required to achieve specified amount of outdoor air intake.



Commercial Room Ventilator

### COMMERCIAL ROOM VENTILATOR - CRV

**OPTIONAL**

The built-in commercial room ventilator is internally mounted behind the service door and allows outside ventilation air, up to 50% of the total airflow rating of the unit, to be introduced through the air inlet openings. It includes a built-in exhaust air damper.

The commercial room ventilator (CRV) is a simple and innovative approach to improving the indoor air quality by providing fresh air intake and exhaust capability through the CRV. The damper can be easily adjusted to control the amount of fresh air supplied into the building. The CRV can be controlled by indoor blower operation or field controlled based on room occupancy. Two versions are available: the CRVS is power open - spring return on power loss; the CRVP is power open and power return. Complies with ANSI/ASHRAE Standard 62.1 "Ventilation for Acceptable Indoor Air Quality."

### ECONOMIZER - EIFM

**OPTIONAL**

The built-in economizer system is internally mounted behind the service door and allows outdoor air to be introduced through the air inlet openings. The amount of outdoor air varies in response to the system controls and settings defined by the end user. It includes a built-in exhaust air damper. The economizer is designed to provide "free cooling" when outside air conditions are cool and dry enough to satisfy cooling requirements without running the compressor. This in turn provides lower operating costs, while extending the life of the compressor.



Economizer

### Standard Features:

- One Piece Construction - Easy to install with no mechanical linkage adjustment required.
- Exhaust Air Damper - Built in with positive closed position. Provides exhaust air capability to prevent pressurization of tight buildings.
- Actuator Motor - 24 volt, power open, spring return with built in torque limiting switch.
- Proportioning Type Control - for maximum "free cooling" economy and comfort.
- Moisture Eliminator & Prefilter - permanent, washable aluminum construction.
- Enthalpy Control - adjustable to monitor outdoor temperature and humidity.
- Minimum Position Potentiometer - adjustable to control minimum damper blade position for ventilation purposes.
- Mixed Air Sensor - to monitor outside and return air to automatically modulate damper position.



Energy Recovery Ventilator

### WALL-MOUNT ENERGY RECOVERY VENTILATOR - ERVF

**OPTIONAL**

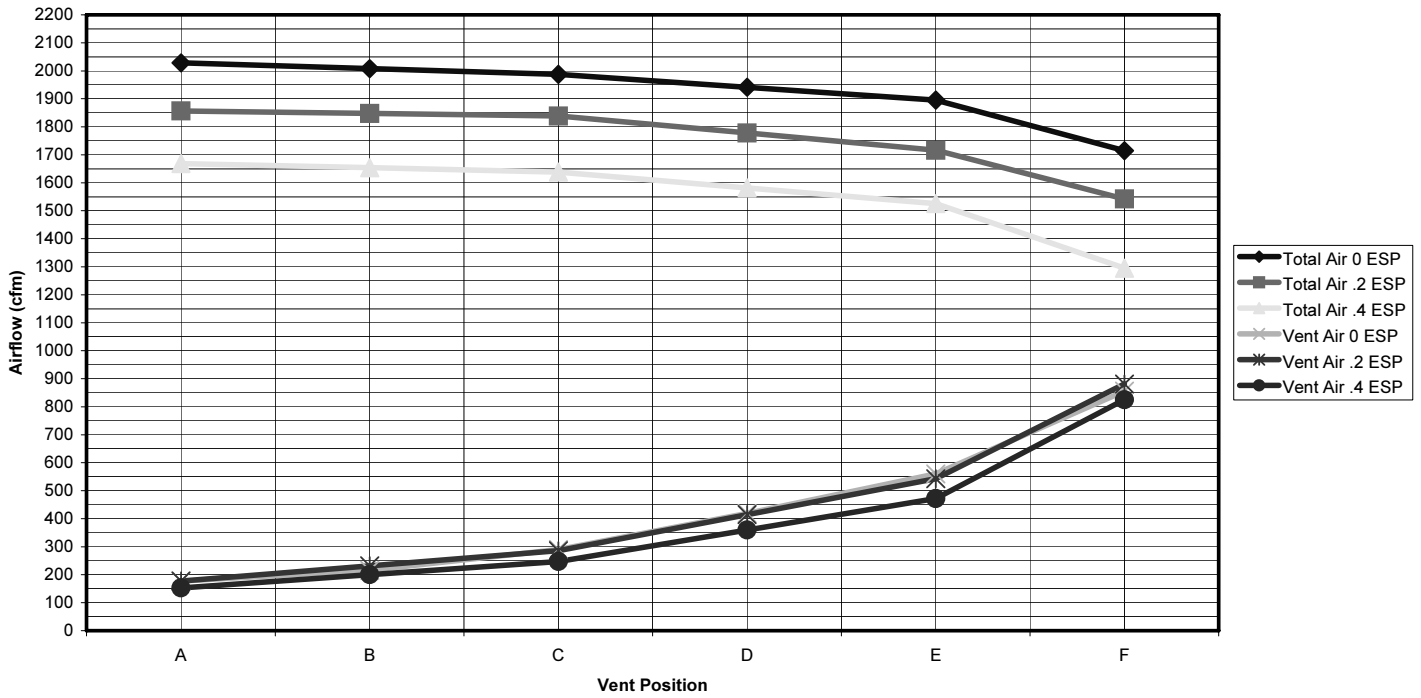
The wall-mount energy recovery ventilator is a highly innovative approach to meeting indoor air quality ventilation requirements as established by ANSI/ASHRAE Standard 62.1. The ERVF allows from 200 to 450 CFM (depending upon model) of fresh air and exhaust through the unit while maintaining superior indoor comfort and humidity levels. In most cases, this can be accomplished without increasing equipment sizing or operating costs. Heat transfer efficiency is up to 67% during summer and 75% during winter conditions.

The ERVF consists of a unique "rotary energy recovery cassette" that provides effective sensible and latent heat transfer capabilities during summer and winter conditions. Various control schemes are addressed - including limiting ventilation during building occupancy only.

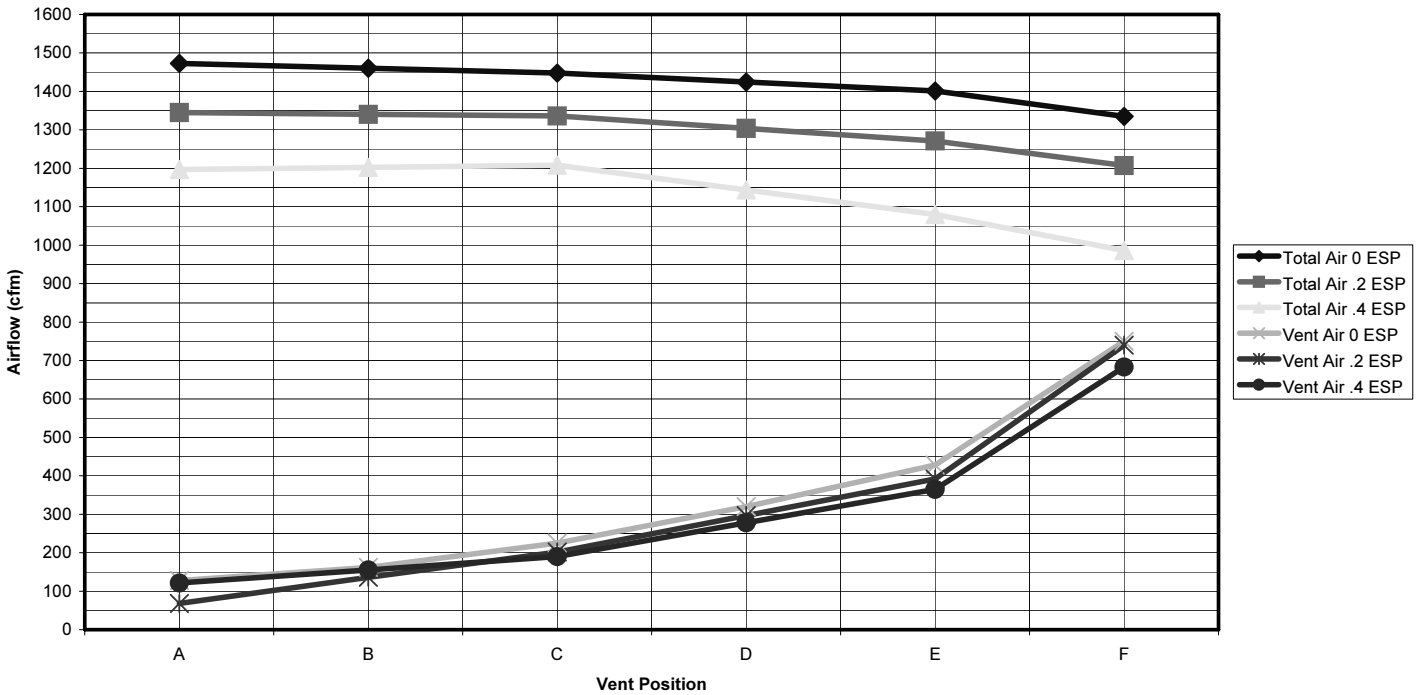
The ERVF is designed to be internally mounted behind the service door in the W70A or W70L model wall mount units. It can be built-in at the factory or field installed as an option. ERVF-\*5C can be independently adjusted for intake and exhaust rates.

Manufactured under U.S. Patent Nos. 5,485,878

W70A, W70L HIGH SPEED TOTAL AND VENTILATION AIRFLOW



W70A, W70L LOW SPEED TOTAL AND VENTILATION AIRFLOW



# Performance and Application Data- ERVF-\*5C

## SUMMER COOLING PERFORMANCE (INDOOR DESIGN CONDITIONS 75°DB/62°WB)

Ambient O.D.	VENTILATION RATE – 450 CFM 65% EFFICIENCY						VENTILATION RATE – 375 CFM 66% EFFICIENCY						VENTILATION RATE – 300 CFM 67% EFFICIENCY						
	DB/ WB	F	VLT	VLS	VLL	HRT	HRS	HRL	VLT	VLS	VLL	HRT	HRS	HRL	VLT	VLS	VLL	HRT	HRS
105	75	21465	14580	6884	13952	9477	4475	17887	12150	5737	11805	8018	3786	14310	9720	4590	9587	6512	3075
	70	14580	14580	0	9477	9477	0	12150	12150	0	8018	8018	0	9720	9720	0	6512	6512	0
	65	14580	14580	0	9477	9477	0	12150	12150	0	8018	8018	0	9720	9720	0	6512	6512	0
100	80	31590	12150	19440	20533	7897	12635	26325	10125	16200	17374	6682	10692	21060	8100	12960	14110	5427	8683
	75	21465	12150	9314	13952	7897	6054	17887	10125	7762	11805	6682	5123	14310	8100	6210	9587	5427	4160
	70	12352	12150	202	8029	7897	131	10293	10125	168	6793	6682	111	8235	8100	135	5517	5427	90
	65	12150	12150	0	7897	7897	0	10125	10125	0	6682	6682	0	8100	8100	0	5427	5427	0
	60	12150	12150	0	7897	7897	0	10125	10125	0	6682	6682	0	8100	8100	0	5427	5427	0
95	80	31590	9720	21870	20533	6318	14215	26325	8100	18225	17374	5345	12028	21060	6480	14580	14110	4341	9768
	75	21465	9720	11744	13952	6318	7634	17887	8100	9787	11805	5345	6459	14310	6480	7830	9587	4341	5246
	70	12352	9720	2632	8029	6318	1711	10293	8100	2193	6793	5345	1447	8235	6480	1755	5517	4341	1175
	65	9720	9720	0	6318	6318	0	8100	8100	0	5345	5345	0	6480	6480	0	4341	4341	0
	60	9720	9720	0	6318	6318	0	8100	8100	0	5345	5345	0	6480	6480	0	4341	4341	0
90	80	31590	7290	24300	20533	4738	15794	26325	6075	20250	17374	4009	13365	21060	4860	16200	14110	3256	10854
	75	21465	7290	14175	13952	4738	9213	17887	6075	11812	11805	4009	7796	14310	4860	9450	9587	3256	6331
	70	12352	7290	5062	8029	4738	3290	10293	6075	4218	6793	4009	2784	8235	4860	3375	5517	3256	2261
	65	7290	7290	0	4738	4738	0	6075	6075	0	4009	4009	0	4860	4860	0	3256	3256	0
	60	7290	7290	0	4738	4738	0	6075	6075	0	4009	4009	0	4860	4860	0	3256	3256	0
85	80	31590	4860	26730	20533	3159	17374	26325	4050	22275	17374	2672	14701	21060	3240	17820	14110	2170	11939
	75	21465	4860	16605	13952	3159	10793	17887	4050	13837	11805	2672	9132	14310	3240	11070	9587	2170	7416
	70	12352	4860	7492	8029	3159	4870	10293	4050	6243	6793	2672	4120	8235	3240	4995	5517	2170	3346
	65	4860	4860	0	3159	3159	0	4050	4050	0	2672	2672	0	3240	3240	0	2170	2170	0
	60	4860	4860	0	3159	3159	0	4050	4050	0	2672	2672	0	3240	3240	0	2170	2170	0
80	75	21465	2430	19035	13952	1579	12372	17887	2025	15862	11805	1336	10469	14310	1620	12690	9587	1085	8502
	70	12352	2430	9922	8029	1579	6449	10293	2025	8268	6793	1336	5457	8235	1620	6615	5517	1085	4432
	65	4252	2430	1822	2764	1579	1184	3543	2025	1518	2338	1336	1002	2835	1620	1215	1899	1085	814
	60	2430	2430	0	1579	1579	0	2025	2025	0	1336	1336	0	1620	1620	0	1085	1085	0
75	70	12352	0	12352	8029	0	8029	10293	0	10293	6793	0	6793	8235	0	8235	5517	0	5517
	65	4252	0	4252	2764	0	2764	3543	0	3543	2338	0	2338	2835	0	2835	1899	0	1899
	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

## ERVF-\*5C WINTER HEATING PERFORMANCE (INDOOR DESIGN CONDITIONS 70°F DB)

Ambient O.D.	VENTILATION RATE					
	450 CFM 80% EFF.		375 CFM 81% EFF.		300 CFM 82% EFF.	
DB/°F	WVL	WHR	WVL	WHR	WVL	WHR
65	2430	1944	2025	1640	1620	1328
60	4860	3888	4050	3280	3240	2656
55	7290	5832	6075	4920	4860	3985
50	9720	7776	8100	6561	6480	5313
45	12150	9720	10125	8201	8100	6642
40	14580	11664	12150	9841	9720	7970
35	17010	13608	14175	11481	11340	9298
30	19440	15552	16200	13122	12960	10627
25	21870	17496	18225	14762	14580	11955
20	24300	19440	20250	16402	16200	13284
15	26730	21384	22275	18042	17820	14612

### LEGEND:

VLT = Ventilation Load - Total  
VLS = Ventilation Load - Sensible  
VLL = Ventilation Load - Latent  
HRT = Heat Recovery - Total  
HRS = Heat Recovery - Sensible  
HRL = Heat Recovery - Latent  
WVL = Winter Ventilation Load  
WHR = Winter Heat Recovery

NOTE: Sensible performance only is shown for winter application.

**Cooling Application Data — Outdoor Temperature °F ①**

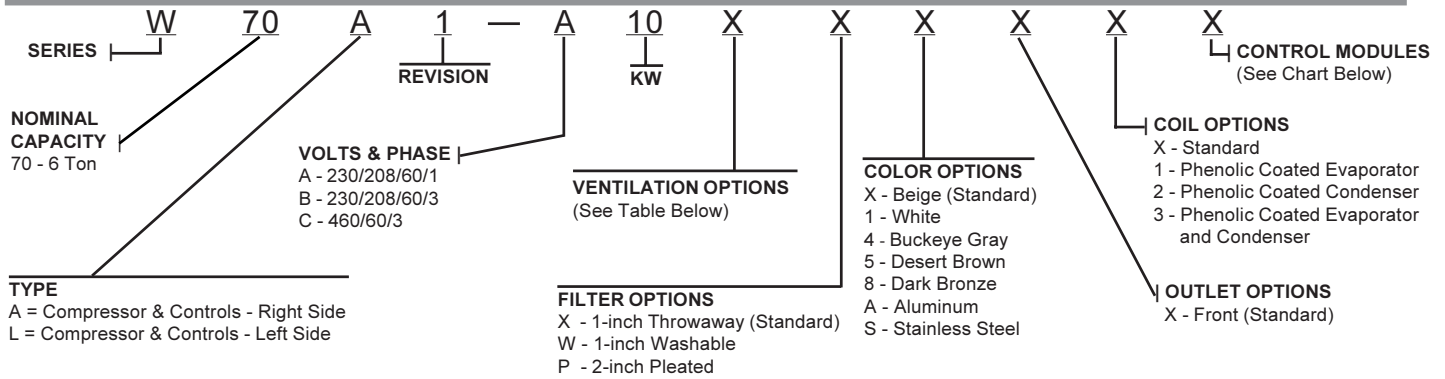
Model	D.B./W.B. ②	Cooling Capacity	75°F	80°F	85°F	90°F	95°F	100°F	105°F	110°F	115°F	120°F	125°F
W70A1 W70L1	75/ 62	Total Cooling	74,200	70,000	66,200	62,600	59,200	56,100	53,100	50,500	47,900	45,500	43,300
		Sensible Cooling	53,000	51,400	49,900	48,300	46,700	45,100	43,600	42,000	40,500	38,900	37,300
	80/ 67	Total Cooling	79,200	76,300	73,500	70,800	68,000	65,400	62,700	60,200	57,600	55,100	52,700
		Sensible Cooling	51,400	50,400	49,400	48,300	47,100	45,900	44,700	43,400	42,100	40,700	39,300
	85/ 72	Total Cooling	94,300	89,200	84,400	79,900	75,500	71,500	67,600	64,000	60,500	57,300	54,200
		Sensible Cooling	52,600	51,200	49,600	48,000	46,200	44,400	42,600	40,700	38,800	36,800	34,800

① Below 65°F, unit requires a factory or field installed low ambient control.

② Return air temp. °F.

Capacity Multiplier Factors			
% of Rated Airflow	-10	Rated	+10
Total BTUH	0.975	1.0	1.02
Sensible BTUH	0.950	1.0	1.05

# Air Conditioning Wall-Mount Model Nomenclature



Note: For 0KW and circuit breakers (230/208 Volt) or toggle disconnects (460 Volt) applications, insert 0Z in the KW field of the model number. See Page 2 for available Factory Installed KW options and Field Installed Heater Packages.

## Ventilation

Models	W70A, W70L	
	Factory Installed Code No.	Field Installed Part No.
Barometric Fresh Air Damper - Standard	X	BFAD-5
Blank-Off Plate	B	BOP-5
Motorized Fresh Air Damper	M	MFAD-5
Commercial Ventilator - Spring Return w/Exhaust	V	CRVS-5
Economizer - Fully Modulating ①	E	EIFM-5C
Economizer - Fully Modulating ①②	D	N/A
Energy Recovery Ventilator - 230 Volt *	R	ERVF-A5 ③
Energy Recovery Ventilator - 460 Volt *	R	ERVF-C5 ③
Door Kit for ERVF (Required)	N/A	WMDK5-*

- ① Low ambient control is required with economizer for low temperature compressor operation.
- ② For use only with "V" Control Module and TCS24 Controller.
- ③ Intake and exhaust can be independently adjusted.
- \* WMDK Door Kit must be ordered in addition to ERVF Assembly and color matched to unit ("X" = Beige; "4" = Buckeye Gray; "8" = Dark Bronze)

## Air Conditioning Control Modules

									W70A, W70L	
HPC ①	LPC ②	CCM ③	LAC ④	ALR ⑤	SK ⑥	SK ⑦	ODT ⑧	DDC ⑨	Factory Installed Code	Field Installed Part
STD	STD	STD							X	N/A
STD	STD	STD	●						E	CMA-28
STD	STD	STD	●	●					J	Factory Only
STD	STD	STD	●		●				K	CMC-15 and CMA-28
STD	STD	STD	●	●	●				M	Factory Only
STD	STD	STD		●					N, W18L Only	N/A
STD	STD	STD			●				Field Installed Only	CMC-15
STD	STD	STD					●		Field Installed Only	CMA-14
STD	STD	STD	●	●				●	V ⑩	Factory Only
STD	STD	STD						●	Field Installed Only	CMA-24
STD	STD	STD				●			Field Installed Only	SK117

- STD = Standard equipment for these specified models.
- ① HPC. High pressure control is auto reset. Always used with compressor control module (CCM) which is included. See note ③.
  - ② LPC. Low pressure control is auto reset. Always used with compressor control module (CCM) which is included. See note ③.
  - ③ CCM. Compressor control module has adjustable 30-second to 5-minute delay-on-break timer. On initial power-up, or any time the power is interrupted, the delay-on-make will be 2-minutes plus 10% of the delay-on-break setting. There is no delay-on-make during routine operation of the unit. The module also provides the lockout feature (with 1 retry) for high and/or low-pressure controls, and a 2-minute timed bypass for low-pressure control.
  - ④ LAC. Low ambient control permits cooling operation down to 0°F
  - ⑤ ALR. The alarm relay has a set of normally open and normally closed dry contacts to provide the ability to signal a condition of shutdown on either high or low pressure controls.
  - ⑥ SK. PTCR start kit can be used with all -A single phase models. Increases starting torque 2-3x. Not used for -B or -C three phase models. Do not use if SK117 is used.
  - ⑦ SK. Start capacitor and potential relay start kit can be used with all -A single phase models. Increases starting torque 9x. Not used for -B or -C three phase models. Do not use if CMC-15 is used.
  - ⑧ ODT. Outdoor thermostat is adjustable from 0 to 50°F. It is suitable for use as a compressor cut-off thermostat.
  - ⑨ DDC. Incorporates 4 additional sensors: discharge air temperature, indoor blower airflow, compressor current, and dirty filter. These sensing devices function to input analog data such as temperature, as well as digital data such as airflow, compressor status or filter status.
  - ⑩ "V" control module should be ordered in conjunction with direct digital controller (DDC) model TCS24. Refer to DDC specification sheet S3280 for more information.



Bard Manufacturing Company, Inc.  
Bryan, Ohio 43506  
www.bardhvac.com

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.

Form No.  
S3409  
May, 2011

Supersedes S3409-510