



THE WALL-MOUNT™ AIR CONDITIONERS - WA (60HZ)

WA-SERIES **60Hz**
1.5 to 5 Ton (18,300 to 57,500 Btuh)
Right Side Control Panel **Refrigerant 22**

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:
Reciprocating compressors with crankcase heater and discharge muffler are standard on 1.5 and 2 ton models.

Scroll Compressors eliminate need for crankcase heater. Standard on 2.5 to 5 ton, and available on 2 ton models.

Phase Rotation Monitor:
Standard on all 3 phase scroll compressors. Protects against reverse rotation if power supply is not properly connected. Not required on reciprocating compressors.

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.

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

Electric Heat Strips:
Features an automatic limit and thermal cut-off safety control. Heater packages can be factory or field installed for all 1.5 through 5 ton models.

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.

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.

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

Top Rain Flashing:
Standard feature on all models.



MEA # 357-93-E

Ventilation System Packages

All packages are designed to meet your specific ventilation requirements utilizing one of five ventilation options for the product. The ventilation package is mounted within the unit eliminating the need for an exterior mounted hood or damper assembly on the unit. All assemblies can be factory installed, installed in the field at time of installation or as a retrofit system after installation.

- Standard - Barometric Fresh Air Damper
- Optional - Motorized Fresh Air Damper
- Optional - Blank off Plate
- Optional - Commercial Room Ventilator w/Exhaust
 - CRV - Spring Return
 - CRVP - Power Return
- Optional - Economizer w/ Exhaust
- Optional - Energy Recovery Ventilator

- Complies with efficiency requirements of ANSI/ASHRAE/IESNA 90.1-2007.
- Certified to ANSI/ARI Standard 390-2003 for SPVU (Single Package Vertical Units).
- Commercial Product - Not intended for Residential application.



Capacity and Efficiency Ratings

MODELS	WA182	WA242	WA253	WA302	WA372	WA423	WA484	WA602	WA605
Cooling Capacity BTUH ①	18,300	23,400	23,000	30,000	36,000	42,000	47,500	57,500	56,500
EER ②	9.20	9.20	9.80	9.30	9.20	9.20	9.60	8.70	9.00
SEER ③	10.20	10.50	11.00	10.60	10.00	10.60	11.00	10.20	10.20

① Capacity is certified in accordance with ANSI/ARI Standard 390-2003 and tested in accordance with ARI Standard 210/240-2008.

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

③ SEER = Seasonal Energy Efficiency Ratio and is tested in accordance with ARI Standard 210/240-2008.

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

Specifications 1-1/2 Ton through 3 Ton

MODELS	WA182-A	WA242-A	WA242-B	WA242-C	WA253-A	WA253-B	WA302-A	WA302-B	WA302-C	WA372-A	WA372-B	WA372-C
Electrical Rating--60 Hz	230/208 - 1	230/208 - 1	230/208 - 3	460 - 3	230/208 - 1	230/208 - 3	230/208 - 1	230/208 - 3	460 - 3	230/208 - 1	230/208 - 3	460 - 3
Operating Voltage Range	197-253	197-253	197-253	414-506	197-253	197-253	197-253	197-253	414-506	197-253	197-253	414-506
Compressor--Circuit A												
Voltage	230/208	230/208	230/208	460	230/208	230/208	230/208	230/208	460	230/208	230/208	460
Rated Load Amps	7.0/8.0	9.5/10.0	6.6/6.9	3.6	8.6/9.5	6.5/7.0	12.2/12.9	8.4/8.4	4.2	16.5/17.3	10.5/11.0	5.2
Branch Circuit Selection Current	9.0	10.0	7.0	4.0	10.3	7.1	14.1	9.0	4.5	17.3	11.0	5.5
Lock Rotor Amps	49/49	56/56	51/51	25	54/54	45/45	73/73	63/63	31	100/100	77/77	37
Compressor Type	Recip.	Recip.	Recip.	Recip.	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Fan Motor & Condenser												
Fan Motor--HP--RPM	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075	1/5 - 1075
Fan Motor--Amps	1.2	1.2	1.2	1.4	1.2	1.2	1.5	1.5	1.4	1.5	1.5	1.4
Fan--DIA/CFM	18" - 1600	18" - 1600	18" - 1600	18" - 1600	18" - 1600	18" - 1600	20" - 2100	20" - 2100	20" - 2100	20" - 1900	20" - 1900	20" - 1900
Blower Motor & Evap.												
Blower Motor--HP--RPM-SPD	1/6-1100-1	1/6-1100-1	1/6-1100-1	1/3-1100-2	1/6-1100-1	1/6-1100-1	1/3-1100-2	1/3-1100-2	1/3-1100-2	1/3-1100-2	1/3-1100-2	1/3-1100-2
Blower Motor--Amps	1.0	1.0	1.0	1.1	1.0	1.0	2.2	2.2	1.1	2.2	2.2	1.1
CFM Cooling & E.S.P. w/Filter (Rated-Wet Coil)	650 - .40	800 - .20	800 - .20	800 - .20	800 - .20	800 - .20	1000 - .40	1000 - .40	1000 - .40	1100 - .30	1100 - .30	1100 - .30
Filter Sizes (inches) STD.	16x25x1	16x25x1	16x25x1	16x25x1	16x25x1	16x25x1	16x30x1	16x30x1	16x30x1	16x30x1	16x30x1	16x30x1
Shipping Weight --LBS.	300	300	300	300	300	300	355	355	355	355	355	355

Specifications 3-1/2 Ton through 5 Ton

MODELS	WA423-A	WA423-B	WA423-C	WA484-A	WA484-B	WA484-C	WA602-A	WA602-B	WA602-C	WA605-A	WA605-B	WA605-C
Electrical Rating--60 Hz	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3
Operating Voltage Range	197-253	197-253	414-506	197-253	197-253	414-506	197-253	197-253	414-506	197-253	197-253	414-506
Compressor--Circuit A												
Voltage	230/208	230/208	460	230/208	230/208	460	230/208	230/208	460	230/208	230/208	460
Rated Load Amps	19.3/21	11.8/11.8	6.1	20.2/20.8	11.9/12.3	6.2	26.0/28.5	18.1/18.4	6.8	25.0/26.0	15.1/15.7	7.5
Branch Circuit Selection Current	21	12.5	6.5	21.8	12.9	6.5	29.0	19.0	9.0	29.0	18.0	9.0
Lock Rotor Amps	127/127	88/88	42	131/131	91/91	46	148/148	137/137	62	148/148	123/123	62
Compressor Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Fan Motor & Condenser												
Fan Motor--HP--RPM-SPD	1/3-825-2	1/3-825-2	1/3-825-1	1/3-825-2	1/3-825-2	1/3-825-1	1/3-850-2	1/3-850-2	1/3-850-2	1/3-1100-1	1/3-1100-1	1/3-1100-1
Fan Motor--Amps	2.5	2.5	1.3	2.5	2.5	1.3	2.5	2.5	1.3	4.0	4.0	1.7
Fan--DIA/CFM	24" - 2600	24" - 2600	24" - 2600	24" - 2600	24" - 2600	24" - 2600	24" - 2600	24" - 2600	24" - 2600	24" - 2800	24" - 2800	24" - 2800
Blower Motor & Evap.												
Blower Motor--HP--RPM-SPD	1/2-1070-2	1/2-1070-2	1/2-1070-2	1/2-1070-2	1/2-1070-2	1/2-1070-2	1/2-1070-2	1/2-1070-2	1/2-1070-2	1/2-1070-2	1/2-1070-2	1/2-1070-2
Blower Motor--Amps	3.3	3.3	1.9	3.3	3.3	1.9	3.3	3.3	1.9	3.3	3.3	1.9
CFM Cooling & E.S.P. w/Filter (Rated-Wet Coil)	1400 - .30	1400 - .30	1400 - .30	1550 - .20	1550 - .20	1550 - .20	1700 - .30	1700 - .30	1700 - .30	1700 - .30	1700 - .30	1700 - .30
Filter Sizes (inches) STD.	20x30x1	20x30x1	20x30x1	20x30x1	20x30x1	20x30x1	20x30x1	20x30x1	20x30x1	20x30x1	20x30x1	20x30x1
Shipping Weight --LBS.	500	500	500	500	500	500	500	500	500	500	500	500

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 open 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 - 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 available (except on 1.5 and 2-Ton models). The CRV and CRVS are power open - spring return on power loss, and CRVP is power open and power close. Complies with ANSI/ASHRAE Standard 62.1 "Ventilation for Acceptable Indoor Air Quality".



Commercial Room Ventilator

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.

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.



Economizer

WALL-MOUNT ENERGY RECOVERY VENTILATOR - WERV

OPTIONAL

The wall-mount energy recovery ventilator (WERV) is a highly innovative approach to meeting indoor air quality ventilation requirements as established by ANSI/ASHRAE Standard 62.1. The WERV 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 WERV 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.

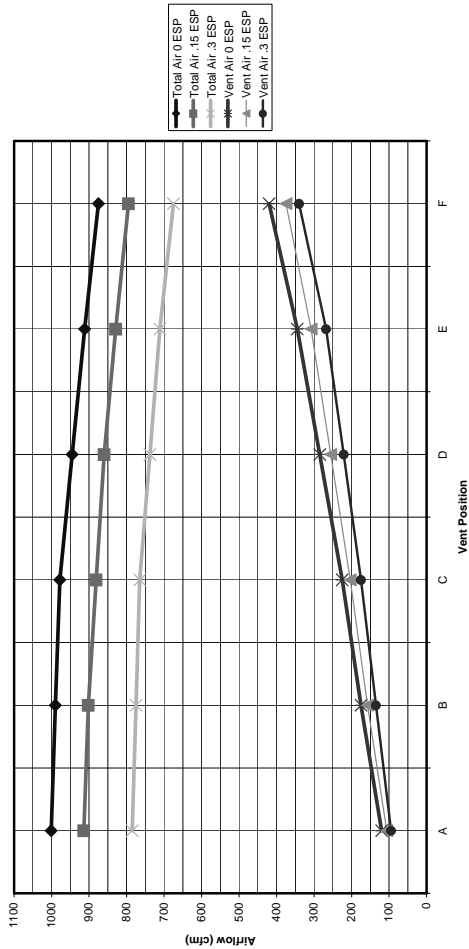
The WERV is designed to be internally mounted behind the service door in the WA, WH or WL model wall-mount units. It can be built-in at the factory or field installed as an option. WERV-*3C and WERV-*5C can be independently adjusted for intake and exhaust rates.



Energy Recovery Ventilator

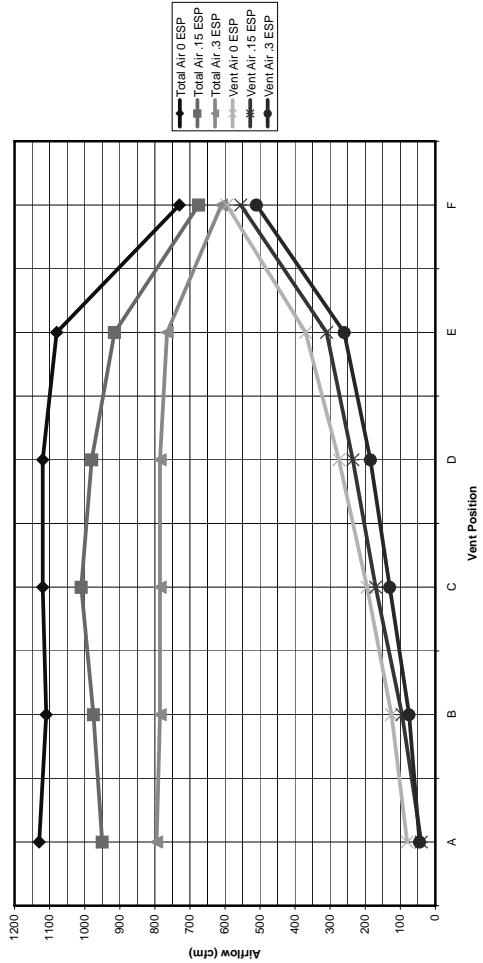
Commercial Room Ventilator Performance Data - CRV-2

WA18, WA24 & WA25 TOTAL AND VENTILATION AIRFLOW

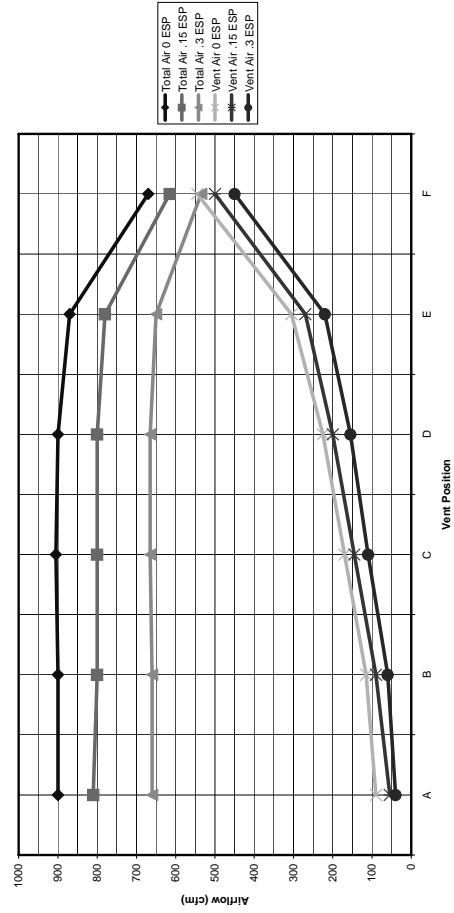


Commercial Room Ventilator Performance Data - CRVS-3 and CRVP-3

WA30 & WA37 HIGH SPEED TOTAL AND VENTILATION AIRFLOW

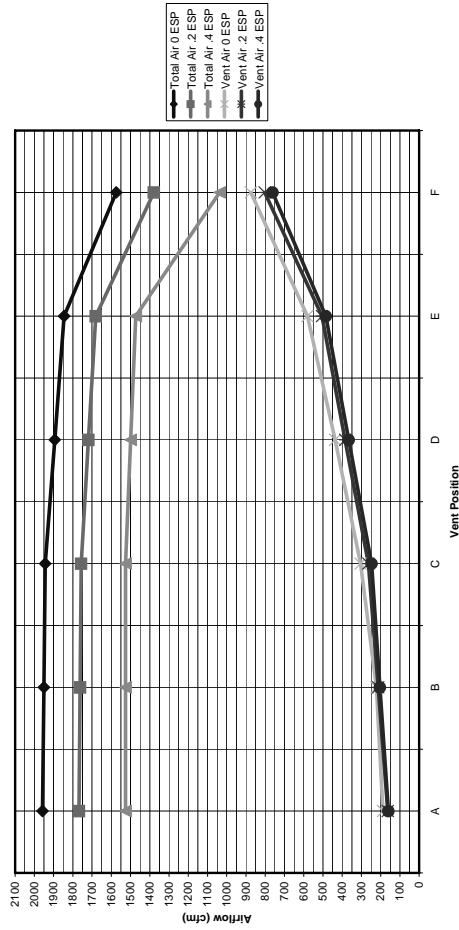


WA30 & WA37 LOW SPEED TOTAL AND VENTILATION AIRFLOW

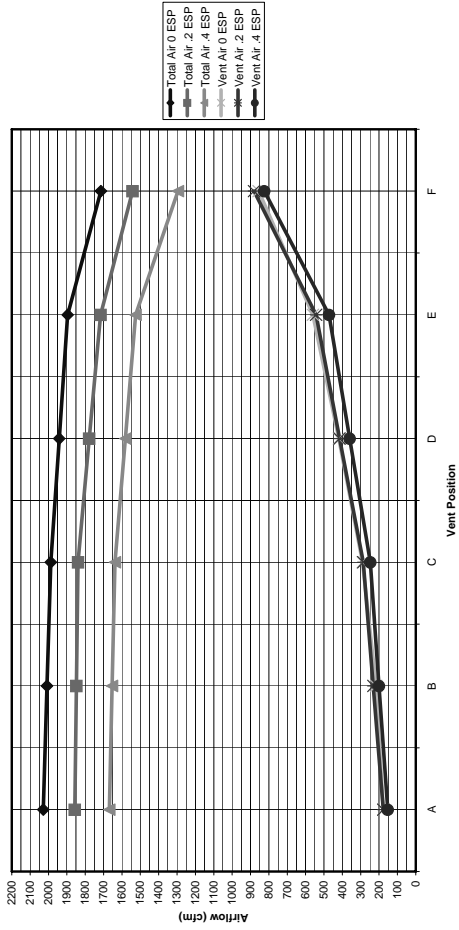


Commercial Room Ventilator Performance Data - CRVS-5 and CRVP-5

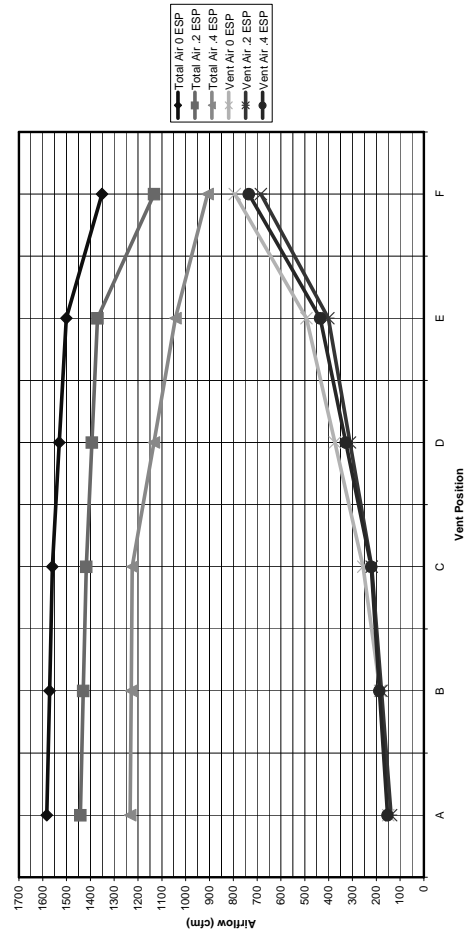
WA42 & WA48 HIGH SPEED TOTAL AND VENTILATION AIRFLOW



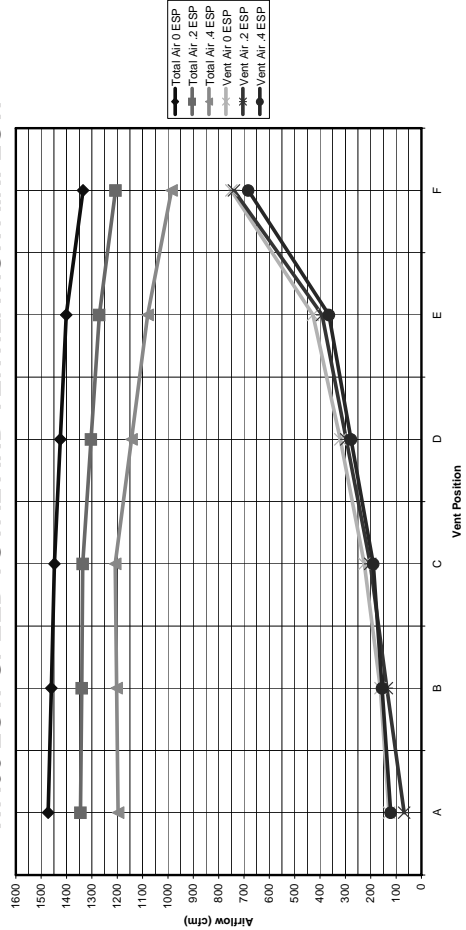
WA60 HIGH SPEED TOTAL AND VENTILATION AIRFLOW



WA42 & WA48 LOW SPEED TOTAL AND VENTILATION AIRFLOW



WA60 LOW SPEED TOTAL AND VENTILATION AIRFLOW



Performance and Application Data- WERV-*2B

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

Ambient O.D.	VENTILATION RATE -- 250 CFM 62% EFFICIENCY							VENTILATION RATE -- 225 CFM 63% EFFICIENCY						VENTILATION RATE -- 200 CFM 63% EFFICIENCY					
	DB/ WB	F	VLT	VLS	VLL	HRT	HRS	HRL	VLT	VLS	VLL	HRT	HRS	HRL	VLT	VLS	VLL	HRT	HRS
105	75	11925	8100	1325	7394	5022	822	10727	7287	3441	6758	4591	2168	9540	6480	3060	6010	4082	1928
	70	8100	8100	0	5022	5022	0	7287	7287	0	4591	4591	0	6480	6480	0	4082	4082	0
	65	8100	8100	0	5022	5022	0	7287	7287	0	4591	4591	0	6480	6480	0	4082	4082	0
100	80	17550	6750	10800	10881	4185	6696	15788	6072	9716	9946	3826	6121	14040	5400	8640	8845	3402	5443
	75	11925	6750	5175	7394	4185	3209	10727	6072	4655	6758	3826	2933	9540	5400	4140	6010	3402	2608
	70	6863	6750	113	4255	4185	70	6173	6072	101	3889	3826	64	5490	5400	90	3458	3402	56
	65	6750	6750	0	4185	4185	0	6072	6072	0	3826	3826	0	5400	5400	0	3402	3402	0
	60	6750	6750	0	4185	4185	0	6072	6072	0	3826	3826	0	5400	5400	0	3402	3402	0
95	80	17550	5400	12150	10881	3348	7533	15788	4858	10930	9946	3060	6886	14040	4320	9720	8845	2722	6124
	75	11925	5400	6525	7394	3348	4046	10727	4858	5870	6758	3060	3698	9540	4320	5220	6010	2722	3289
	70	6863	5400	1463	4255	3348	907	6173	4858	1315	3889	3060	829	5490	4320	1170	3458	2722	737
	65	5400	5400	0	3348	3348	0	4858	4858	0	3060	3060	0	4320	4320	0	2722	2722	0
	60	5400	5400	0	3348	3348	0	4858	4858	0	3060	3060	0	4320	4320	0	2722	2722	0
90	80	17550	4050	13500	10881	2511	8370	15788	3643	12145	9946	2295	7651	14040	3240	10800	8845	2041	6804
	75	11925	4050	7875	7394	2511	4883	10727	3643	7084	6758	2295	4463	9540	3240	6300	6010	2041	3969
	70	6863	4050	2813	4255	2511	1744	6173	3643	2530	3889	2295	1594	5490	3240	2250	3458	2041	1417
	65	4050	4050	0	2511	2511	0	3643	3643	0	2295	2295	0	3240	3240	0	2041	2041	0
	60	4050	4050	0	2511	2511	0	3643	3643	0	2295	2295	0	3240	3240	0	2041	2041	0
85	80	17550	2700	14850	10881	1674	9207	15788	2429	13359	9946	1530	8416	14040	2160	11880	8845	1361	7484
	75	11925	2700	9225	7394	1674	5720	10727	2429	8298	6758	1530	5228	9540	2160	7380	6010	1361	4649
	70	6863	2700	4163	4255	1674	2581	6173	2429	3744	3889	1530	2359	5490	2160	3300	3458	1361	2098
	65	2700	2700	0	1674	1674	0	2429	2429	0	1530	1530	0	2160	2160	0	1361	1361	0
	60	2700	2700	0	1674	1674	0	2429	2429	0	1530	1530	0	2160	2160	0	1361	1361	0
80	75	11925	1350	10575	7394	837	6557	10727	1214	9513	6758	765	5993	9540	1080	8460	6010	680	5330
	70	6863	1350	5513	4255	837	3418	6173	1214	4959	3889	765	3124	5490	1080	4410	3458	680	2778
	65	2363	1350	1013	1465	837	628	2125	1214	911	1339	765	547	1890	1080	810	1190	680	510
	60	1350	1350	0	837	837	0	1214	1214	0	765	765	0	1080	1080	0	680	680	0
75	70	6863	0	6863	4255	0	4255	6173	0	6173	6889	0	3889	5490	0	5490	3458	0	3458
	65	2363	0	2363	1465	0	1465	2125	0	2125	1339	0	1339	1890	0	1890	1190	0	1190
	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

WERV-*2B WINTER HEATING PERFORMANCE (INDOOR DESIGN CONDITIONS 70°F DB)

Ambient O.D.	VENTILATION RATE					
	250 CFM 74% EFF.		225 CFM 75% EFF.		200 CFM 75% EFF.	
DB/°F	WVL	WHR	WVL	WHR	WVL	WHR
65	1350	999	1214	911	1080	810
60	2700	1998	2429	1822	2160	1620
55	4050	2997	3643	2733	3240	2430
50	5400	3996	4858	3643	4320	3240
45	6750	4995	6072	4554	5400	4050
40	8100	5994	7287	5465	6480	4860
35	9450	6993	8501	6376	7560	5670
30	10800	7992	9716	7287	8640	6480
25	12150	8991	10930	8198	9720	7290
20	13500	9990	12145	9108	10800	8100
15	14850	10989	13359	10019	11880	8910

NOTE: Sensible performance only is shown for winter application.

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

Electrical Specifications

Model	Rated Volts and Phase	No. Field Power Circuits	Single Circuit				Dual Circuit									
			⊙ Minimum Circuit Ampacity	⊙ Maximum External Fuse or Ckt. Brkr.	⊙ Field Power Wire Size	⊙ Ground Wire	⊙ Minimum Circuit Ampacity		⊙ Maximum External Fuse or Ckt. Brkr.		⊙ Field Power Wire Size		⊙ Ground Wire Size			
							Ckt. A	Ckt. B	Ckt. A	Ckt. B	Ckt. A	Ckt. B	Ckt. A	Ckt. B		
WA182 - A00, A0Z A05 A08 A10	230/208-1	1 1 1 1	16 30 45 56	20 30 45 60	12 10 8 6	12 10 10 10										
WA242 - A00, A0Z A05 A08 A10	230/208-1	1 1 1 1	17 30 45 56	20 30 45 60	12 10 8 6	12 10 10 10										
WA242 - B00, B0Z B06	230/208-3	1 1	13 22	15 25	14 10	12 10										
WA242 - C00, C0Z C06	460-3	1 1	8 11	15 15	14 14	14 14										
WA253 - A00, A0Z A05 A08 A10	230/208-1	1 1 1 1	18 30 45 56	25 30 45 60	10 10 8 6	10 10 10 10										
WA253 - B00, B0Z B06	230/208-3	1 1	14 22	20 25	12 10	12 10										
WA302 - A00*, A0Z* A05* A08 A10* A15	230/208-1	1 1 1 1 1 or 2	24 31 47 57 83	35 35 50 60 90	8 8 8 6 4	10 10 10 10 8	57	26	60	30	6	10	10	10		
WA302 - B00*, B0Z* B06 B09* B15	230/208-3	1 1 1 1	17 23 32 50	20 25 35 50	12 10 8 8	12 10 10 10										
WA302 - C00*, C0Z* C06 C09* C15	460-3	1 1 1 1	10 12 17 26	15 15 20 30	14 14 12 10	14 14 12 10										
WA372 - A00*, A0Z* A05* A08 A10* A15	230/208-1	1 1 1 1 1 or 2	28 32 47 58 84	35 35 50 60 90	8 8 8 6 4	10 10 10 10 8	57	26	60	30	6	10	10	10		
WA372 - B00*, B0Z* B06 B09* B15	230/208-3	1 1 1 1	20 24 33 51	25 25 35 60	10 10 8 6	10 10 10 10										
WA372 - C00*, C0Z* C06 C09* C15	460-3	1 1 1 1	11 12 17 26	15 15 20 30	14 14 10 10	14 14 10 10										
WA423 - A00, A0Z A05 A10 A15 A20	230/208-1	1 1 1 1 or 2 1 or 2	35 35 59 85 110	50 50 60 90 110	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		
WA423 - B00, B0Z B09 B15 B18	230/208-3	1 1 1 1	24 34 52 60	35 35 60 60	8 8 6 6	10 10 10 10										
WA423 - C00, C0Z C09 C15	460-3	1 1 1	13 17 26	15 20 30	14 12 10	14 12 10										
WA484 - A00, A0Z A05 A10 A15 A20	230/208-1	1 1 1 1 or 2 1 or 2	36 36 59 85 110	50 50 60 90 110	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		
WA484 - B00, B0Z B09 B15 B18	230/208-3	1 1 1 1	25 34 52 60	35 35 60 60	8 8 6 6	10 10 10 10										
WA484 - C00, C0Z C09 C15	460-3	1 1 1	13 17 26	15 20 30	14 12 10	14 12 10										
WA602 - A00, A0Z A05 A10 A15 A20	230/208-1	1 1 1 1 or 2 1 or 2	44 44 59 85 110	60 60 60 90 110	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		
WA602 - B00, B0Z B09 B15 B18	230/208-3	1 1 1 1	32 34 52 60	45 45 60 60	8 8 6 6	10 10 10 10										
WA602 - C00, C0Z C09 C15	460-3	1 1 1	16 17 26	20 20 30	12 12 10	12 12 10										
WA605 - A00, A0Z A05 A10 A15 A20	230/208-1	1 1 1 1 or 2 1 or 2	46 46 59 85 110	60 60 60 90 110	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		
WA605 - B00, B0Z B09 B15 B18	230/208-3	1 1 1 1	32 34 52 60	45 45 60 60	8 8 6 6	10 10 10 10										
WA605 - C00, C0Z C09 C15	460-3	1 1 1	16 18 27	20 20 30	12 12 10	12 12 10										

① Maximum size of the time delay fuse or HACR type circuit breaker for protection of field wiring conductors.

② Based on 75C copper wire. All wiring must conform to the National Electrical Code 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 version), Article 310 for power conductor sizing.

Caution: When more than one field power 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 three (3) current carrying conductors are in a raceway. * Top outlet supply option is available only factory installed and only on the selected models.

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

Form No. S3208-1108

Supersedes S3208-908

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Indoor Blower Performance - CFM at 230 or 460 Volts

ESP in H ₂ O	WA182 WA242 WA253	WA302 WA372		WA423 WA484		WA602 WA605	
	Dry/Wet Coil	High Speed Dry/Wet Coil	Low Speed Dry/Wet Coil	High Speed Dry/Wet Coil	Low Speed Dry/Wet Coil	High Speed Dry/Wet Coil	Low Speed Dry/Wet Coil
0	1020/975	1395/1315	950/935	1885/1800	1650/1600	2200/2000	1600/1450
.1	960/905	1340/1270	930/915	1770/1665	1550/1500	2100/1900	1525/1375
.2	865/800	1285/1190	910/885	1635/1550	1450/1400	2000/1800	1465/1200
.3	820/735	1205/1100	855/830	1500/1400	1350/1300	1875/1700	-/-
.4	735/650	1110/1000	800/755	1370/1285	1300/1175	1775/1600	-/-
.5	615/535	1005/870	-/-	1250/1150	-/-	1650/1475	-/-

Above data is with 1" standard throwaway filter and 1" washable filter.

For optional 2" pleated filter - reduce ESP by .15 in.

See installation instructions for maximum ESP information on various KW application.

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						
6.0	6.0		14.4	20,478	4.50		12.5	15,359	6.0	7.2	20,478	5.52	6.9	18,840
8.0	8.0	33.3		27,304	6.00	28.8		20,478						
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	18.0	21.7	61,434	16.56	20.8	56,519
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

- Designed for adding Electric Heat to 0 KW Units
- Circuit Breaker Standard on 230/208V Models
- Toggle Disconnect Standard on 460V Models

- UL Listed
- CUL Listed

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
WA182	EHWA02-A05	5	N/A	N/A	N/A	N/A
	EHWA02A-A08	8				
	EHWA02A-A10	10				
WA242 WA253	EHWA02-A05	5	EHWA24-B06	6	EHWH24B-C06 [Ⓢ]	6
	EHWA02A-A08	8				
	EHWA02A-A10	10				
WA302	EHWA03-A05	5	EHWA03-B06 EHWA03-B09 EHWA03-B15	6 9 15	EHWC03A-C06 EHWC03A-C09 EHWA03A-C15	6 9 15
	EHWA03-A08	8				
	EHWA03-A10	10				
	EHWA03-A15	15				
WA372	EHWA03-A05	5	EHWA03-B06 EHWA03-B09 EHWA37-B15	6 9 15	EHWC03A-C06 EHWC03A-C09 EHWA03A-C15	6 9 15
	EHWA03-A08	8				
	EHWA03-A10	10				
	EHWA03-A15	15				
WA423 WA484	EHWA05-A05	5	EHWA05-B09 EHWA05-B15 EHWA05-B18	9 15 18	EHWA05A-C09 EHWA05A-C15	9 15
	EHWA05-A10	10				
	EHWA05-A15	15				
	EHWA05-A20	20				
WA602 WA605	EHWA60-A05	5	EHWA60-B09 EHWA05-B15 EHWA05-B18	9 15 18	EHWA05A-C09 EHWA05A-C15	9 15
	EHWA05-A10	10				
	EHWA05-A15	15				
	EHWA05-A20	20				

NOTE: Field installed Heater Packages are not approved for use with top supply opening models.

Ⓢ Model WA242 only.

Cooling Application Data - Outdoor Temperature ①

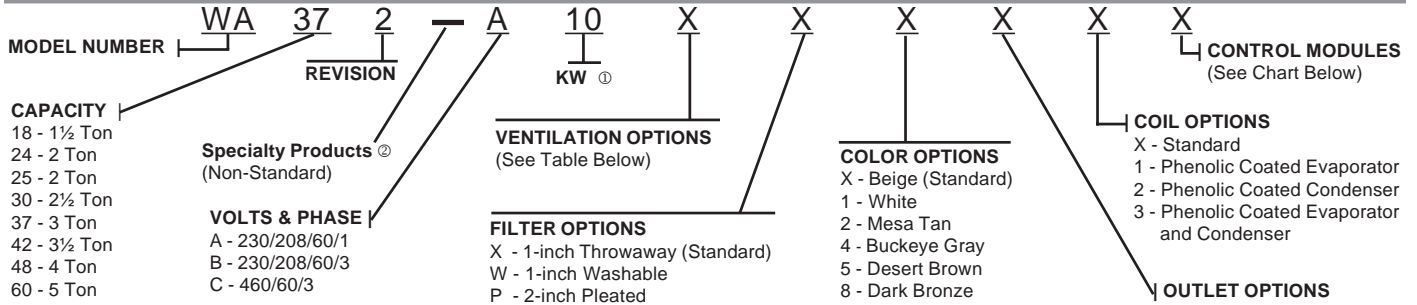
Model	D.B./W.B. ②	Cooling Capacity	75°F	80°F	85°F	90°F	95°F	100°F	105°F	110°F	115°F	120°F	125°F
WA182	75/62	Total Cooling Sensible Cooling	19,600 14,825	18,675 14,700	17,725 14,475	16,825 14,190	15,925 13,830	15,050 13,390	14,175 12,880	13,325 12,300	12,500 11,640	11,700 10,700	11,100 10,150
	80/67	Total Cooling Sensible Cooling	20,975 14,625	20,360 14,465	19,710 14,300	19,020 14,135	18,300 13,970	17,540 13,640	16,750 13,230	15,920 12,720	15,060 12,125	14,400 11,600	13,800 11,000
	85/72	Total Cooling Sensible Cooling	24,950 14,750	23,780 14,620	22,620 14,400	21,460 14,090	20,315 13,690	19,180 13,190	18,050 12,610	16,930 11,930	15,815 11,155	14,700 10,400	13,600 9,650
WA242	75/62	Total Cooling Sensible Cooling	24,200 18,500	23,300 18,300	22,300 18,000	21,400 17,500	20,400 17,100	19,600 16,500	18,800 15,800	17,900 15,100	17,100 14,400	16,300 13,400	15,500 12,500
	80/67	Total Cooling Sensible Cooling	25,800 17,900	25,300 17,900	24,700 17,800	24,100 17,500	23,400 17,200	22,800 16,800	22,100 16,200	21,300 15,600	20,500 14,900	19,700 14,000	18,900 13,100
	85/72	Total Cooling Sensible Cooling	30,800 18,400	29,600 18,200	28,400 17,900	27,200 17,400	26,000 16,900	25,000 16,300	23,900 15,500	22,700 14,700	21,600 13,800	20,500 12,700	19,500 11,600
WA253	75/62	Total Cooling Sensible Cooling	23,400 19,100	22,600 18,700	21,800 18,400	21,000 17,900	20,100 17,600	19,200 17,100	18,300 16,600	17,400 16,200	16,400 15,600	15,400 15,100	14,300 14,600
	80/67	Total Cooling Sensible Cooling	24,900 18,500	24,600 18,300	24,200 18,200	23,700 17,900	23,000 17,700	22,300 17,400	21,500 17,000	20,700 16,700	19,700 16,200	18,600 15,800	17,400 15,300
	85/72	Total Cooling Sensible Cooling	29,700 19,000	28,800 18,600	27,800 18,300	26,800 17,800	25,600 17,400	24,400 16,900	23,200 16,200	22,100 15,700	20,700 15,000	19,400 14,300	17,900 13,600
WA302	75/62	Total Cooling Sensible Cooling	30,900 25,700	29,700 25,300	28,500 24,900	27,400 24,400	26,100 23,900	25,100 23,300	24,000 22,700	22,900 22,200	21,900 21,500	20,800 20,800	19,700 20,100
	80/67	Total Cooling Sensible Cooling	33,000 24,900	32,300 24,800	31,600 24,600	30,900 24,400	30,000 24,100	29,200 23,700	28,300 23,300	27,300 22,900	26,300 22,300	25,200 21,700	24,000 21,100
	85/72	Total Cooling Sensible Cooling	39,300 25,500	37,800 25,200	36,300 24,700	34,900 24,300	33,400 23,700	32,000 23,000	30,500 22,200	29,100 21,500	27,700 20,600	26,200 19,600	24,700 18,700
WA372	75/62	Total Cooling Sensible Cooling	37,300 28,100	35,700 27,700	34,200 27,300	32,800 26,800	31,400 26,400	30,100 25,800	28,900 25,200	27,800 24,500	26,700 23,800	25,700 22,900	24,600 22,100
	80/67	Total Cooling Sensible Cooling	39,800 27,200	38,900 27,100	38,000 27,000	37,000 26,800	36,000 26,600	35,100 26,200	34,100 25,800	33,100 25,300	32,100 24,700	31,100 24,000	30,000 23,200
	85/72	Total Cooling Sensible Cooling	47,400 27,900	45,500 27,500	43,700 27,200	41,800 26,600	40,000 26,100	38,400 25,400	36,800 24,600	35,200 23,700	33,800 22,800	32,300 21,700	30,900 20,600
WA423	75/62	Total Cooling Sensible Cooling	43,200 35,000	41,700 34,300	40,100 33,500	38,400 32,800	36,600 32,000	34,800 31,200	33,000 30,200	31,000 29,300	29,000 28,300	26,900 27,200	24,700 26,100
	80/67	Total Cooling Sensible Cooling	46,100 33,900	45,400 33,600	44,500 33,200	43,400 32,800	42,000 32,300	40,500 31,700	38,900 31,000	37,000 30,300	34,900 29,400	32,600 28,500	30,100 27,500
	85/72	Total Cooling Sensible Cooling	54,900 34,700	53,100 34,100	51,100 33,400	49,000 32,600	46,700 31,700	44,300 30,700	42,000 29,600	39,400 28,400	36,700 27,100	33,900 25,800	31,000 24,400
WA484	75/62	Total Cooling Sensible Cooling	48,200 39,120	46,300 38,520	44,650 37,680	43,070 37,510	41,300 37,000	39,340 36,130	37,190 34,910	34,840 33,330	32,300 31,400	30,900 30,000	29,500 28,700
	80/67	Total Cooling Sensible Cooling	51,440 37,950	50,440 37,800	49,640 37,600	48,750 37,400	47,500 37,300	45,890 36,740	43,920 35,800	41,590 34,490	38,900 32,800	38,100 32,050	37,250 31,350
	85/72	Total Cooling Sensible Cooling	59,900 38,750	58,650 38,250	57,240 37,450	55,350 37,230	52,700 36,600	49,700 35,570	46,700 34,150	43,800 32,320	40,850 30,100	39,100 28,700	37,450 27,500
WA602	75/62	Total Cooling Sensible Cooling	60,350 45,170	57,500 43,700	54,630 42,180	52,320 41,110	50,000 40,000	47,660 38,840	45,290 37,640	42,910 36,390	40,500 35,100	N/A N/A	N/A N/A
	80/67	Total Cooling Sensible Cooling	64,600 43,950	62,750 42,960	60,690 41,830	59,190 41,150	57,500 40,400	55,610 39,570	53,540 38,660	51,260 37,670	48,800 36,600	N/A N/A	N/A N/A
	85/72	Total Cooling Sensible Cooling	76,800 44,900	73,300 43,470	69,610 41,970	66,740 40,840	63,800 39,600	60,780 38,260	57,700 36,810	54,530 35,260	51,300 33,600	N/A N/A	N/A N/A
WA605	75/62	Total Cooling Sensible Cooling	57,200 44,600	55,400 43,800	53,500 42,900	51,400 42,000	49,200 41,000	47,000 39,900	44,500 38,800	41,900 37,600	39,100 36,300	N/A N/A	N/A N/A
	80/67	Total Cooling Sensible Cooling	61,100 43,200	60,400 42,900	59,400 42,500	58,100 42,000	56,500 41,400	54,700 40,600	52,500 39,800	50,000 38,800	47,100 37,800	N/A N/A	N/A N/A
	85/72	Total Cooling Sensible Cooling	72,800 44,300	70,600 43,600	68,200 42,700	65,600 41,700	62,800 40,600	59,800 39,300	56,600 37,900	53,200 36,400	49,500 34,800	N/A N/A	N/A N/A

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

② Return air temperature.

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



① For 0KW and circuit breakers (230/208 Volt) or toggle disconnects (460 Volt) applications, insert 0Z in the KW field of the model number.
 ② Insert "D" for dehumidification with hot gas reheat — Models WA42, 48 & 60 only. See Form F1742 for complete details.

Ventilation Options

Models	WA182, WA242, WA253		WA302, WA372		WA423, WA484, WA602, WA605	
	Factory Installed Code No.	Field Installed Part No.	Factory Installed Code No.	Field Installed Part No.	Factory Installed Code No.	Field Installed Part No.
Barometric Fresh Air Damper - Standard	X	BFAD-2	X	BFAD-3	X	BFAD-5
Blank-Off Plate	B	BOP-2	B	BOP-3	B	BOP-5
Motorized Fresh Air Damper	M	MFAD-2	M	MFAD-3	M	MFAD-5
Commercial Ventilator - Spring Return w/Exhaust	V	CRV-2	V	CRVS-3	V	CRVS-5
Commercial Ventilator - Power Return w/Exhaust	---	---	P	CRVP-3	P	CRVP-5
Economizer - Fully Modulating ①	E	EIFM-2B	E	EIFM-3C	E	EIFM-5C
Economizer - Fully Modulating ①②	D	N/A	D	N/A	D	N/A
Energy Recovery Ventilator - 230 Volt	R	WERV-A2B-*	R	WERV-A3C-* ③	R	WERV-A5C-* ③
Energy Recovery Ventilator - 460 Volt	N/A	N/A	R	WERV-C3C-* ③	R	WERV-C5C-* ③

① Low ambient control is required with economizer for low temperature compressor operation.
 ② For use only with "V" Control Module and TCS23 Controller.
 ③ Intake and exhaust can be independently adjusted. * Color option must be specified to match unit (X = Beige, 4 = Buckeye Gray)

Air Conditioning Control Modules

AVAILABLE CONTROL OPTIONS									WA182, WA242, WA302, WA372, WA423 Models	
TDR ①	HPC ②	LPC ③	CCM ④	LAC ⑤	ALR ⑥	SK ⑦	ODT ⑧	DDC ⑨	Factory Installed Code	Field Installed Part
●									D	CMA-5
				●					E	CMA-6
	●	●	●						G	CMA-10A
	●	●	●	●					H	CMA-13A
●				●					I	CMA-12
	●	●	●	●	●				J	Factory Only
	●	●	●	●	●	●			K	CMA-13A & CMC-15
	●	●	●	●	●	●			M	Factory Only
						●			Field Installed Only	CMC-15
							●		Field Installed Only	CMA-14
	●	●	●	●	●			●	V ⑩	Factory Only
								●	Field Installed Only	CMA-23 ■

Air Conditioning Control Modules

AVAILABLE CONTROL OPTIONS									WA253, WA484, WA602, WA605 Models	
TDR ①	HPC ②	LPC ③	CCM ④	LAC ⑤	ALR ⑥	SK ⑦	ODT ⑧	DDC ⑨	Factory Installed Code	Field Installed Part
	STD	●	STD						G	CMA-16A
	STD	●	STD	●					H	CMA-18A
Does	STD	●	STD	●					I	CMA-6
Not	STD	●	STD	●	●				J	Factory Only
Apply	STD	●	STD	●	●	●			K	CMA-13A & CMC-15
To	STD	●	STD	●	●	●			M	Factory Only
These	STD		STD			●			Field Installed Only	CMC-15
Models	STD		STD				●		Field Installed Only	CMA-14
	STD	●	STD	●	●			●	V ⑩	Factory Only
	STD		STD					●	Field Installed Only	CMA-24 ▲

STD = Standard equipment for these specified models.
 ① TDR. Time delay relay only for compressor is fixed 5-minute delay-on-break to prevent short cycling. Not needed if HPC or LPC are used. See notes ②, ③ and ④.
 ② HPC. High pressure control is auto reset. Always used with compressor control module (CCM) which is included. See note ④.
 ③ LPC. Low pressure control is auto reset. Always used with compressor control module (CCM) which is included. See note ④.
 ④ 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.
 ⑤ LAC. Low ambient control permits cooling operation down to 0°F
 ⑥ 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.
 ⑦ SK. Start kit can be used with all -A single phase models only. Is not used or available for -B or -C three phase models.
 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 TCS23. Refer to DDC specification sheet S3280 for more information.
 ■ Use CMA-24 for Model WA423. ▲ Use CMA-23 for Models WA253.

Clearances Required for Service Access and Adequate Condenser Airflow

MODELS	LEFT SIDE	RIGHT SIDE
WA18, WA24, WA25, WA37	15"	20"
WA42, WA48, WA60	20"	20"

NOTE: For side by side installation of two (2) WA models there must be 20" between units. This can be reduced to 15" by using a WL model (left side compressor and controls) for the left unit and WA (right side compressor and controls) for right unit. See WL Specifications S3279.

Minimum Clearances Required to Combustible Materials

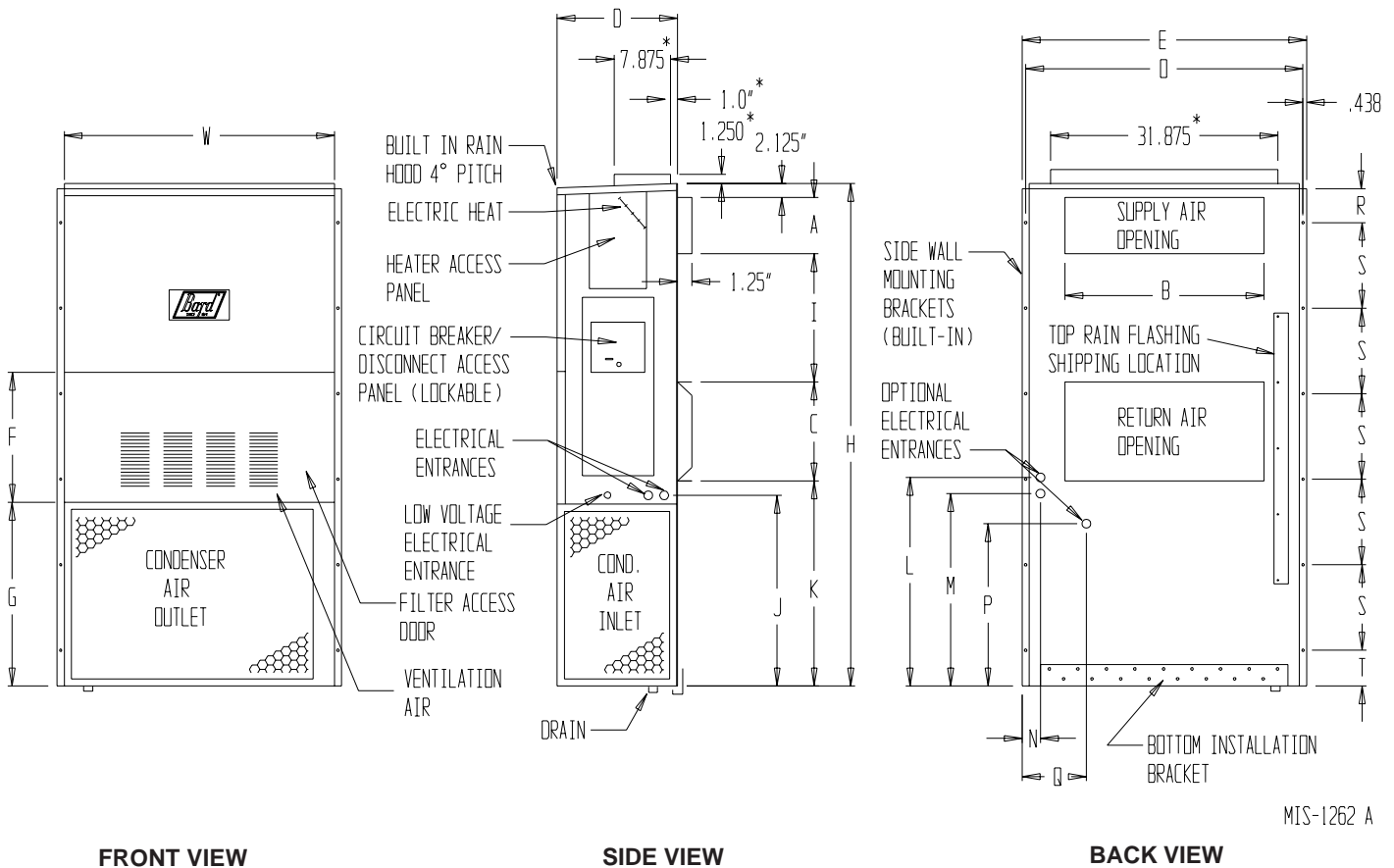
MODELS ①	SUPPLY AIR DUCT FIRST THREE FEET	CABINET
WA18, WA24, WA25	0"	0"
WA30, WA37	1/4"	0"
WA42, WA48, WA60	1/4"	0"

① Refer to the Installation Manual for more detailed information.

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

MODEL	WIDTH (W)	DEPTH (D)	HEIGHT (H)	SUPPLY		RETURN																
				A	B	C	B	E	F	G	I	J	K	L	M	N	O	P	Q	R	S	T
WA18 WA24 WA25	33.300	17.125	70.563	7.88	19.88	11.88	19.88	35.00	18.50	25.75	20.56	26.75	28.06	29.25	27.00	2.63	34.13	22.06	10.55	4.19	12.00	5.00
WA30 WA37	38.200	17.125	70.563	7.88	27.88	13.88	27.88	40.00	18.50	25.75	17.93	26.75	28.75	29.25	27.00	2.75	39.13	22.75	9.14	4.19	12.00	5.00
WA42 WA48 WA60	42.075	22.432	84.875	9.88	29.88	15.88	29.88	43.88	19.10	31.66	30.00	32.68	26.94	34.69	32.43	3.37	43.00	23.88	10.00	1.44	16.00	1.88

All dimensions are in inches. Dimensional drawings are not to scale.



MIS-1262 A

*Optional top outlet (factory installed only) for WA30 and WA37 models only.



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 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.

<p>Form No. S3208 November, 2008</p>
<p>Supersedes S3208-908</p>