

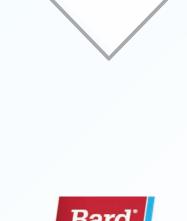
The Bard Wall-Mount Air Conditioner is an energy efficient self contained system, which is designed to offer maximum indoor comfort at a minimal cost without using valuable indoor floor space or outside ground space. This unit is the ideal product for versatile applications such as: new construction,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

- Complies with efficiency requirements of ASHRAE/IESNA 90.1-2016
- Certified to ASNI/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 Fourth Edition
- Commercial Product Not intended for residential application
- Bard is an ISO 9001:2015 Certified Manufacturer

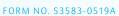


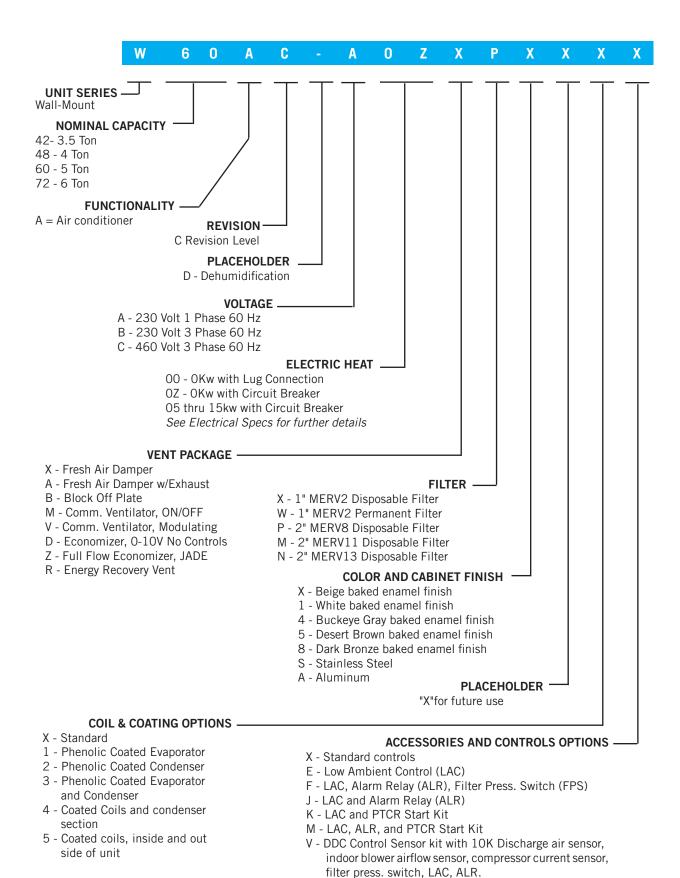












////// ENGINEERED FEATURES

NEW! EXCLUSIVE *Non-Fiberglass Foil Faced Insulation: Environmentally friendly high "R" value non-fiberglass insulation that is made with recycled denim and cotton materials used with a FSK foil face that is both durable and cleanable.

Durable Cabinet Construction: Multiple cabinet construction options are available for different outdoor conditions. Optional cabinet coatings may be ordered for corrosive outdoor environments. Front access control panel location.

Green Fin Hydrophilic Evaporator Coil: Green fin stock enhances coil wettability to help prevent mold growth, aid with condensate drainage, and provide a limited amount of protection to corrosive particulates in the air stream.

*Balanced Climate™ Technology (patent pending): High latent capacity humidity & sound reduction removes up to 35% more humidity than any other wall mount on the market with the use of a 2 stage thermostat or controlling device. Bard Balanced Climate™ innovation comes standard on all models.

Optional Mechanical Dehumidification: Models are available with hot gas reheat dehumidification for energy efficient humidity removal. Electronic Expansion Valves are standard for all dehumidification models.

Field or Factory Installed Vents: Multiple ventilation options are available as easily installed kits with electrical plugs, or Factory installed options that can be removed for service. Economizer operation includes improved air path for minimized recirculation and does not require an intake hood.

Reliable, Easy-to-Use Controls: Easily accessible through front control panel locations. A lockable hinged access cover to circuit protection is provided. Phase rotation monitor is standard on all 3 phase models. Adjustable compressor on/off delay timer (CCM) with diagnostic lights is standard on all models.

ECM Indoor Motor Technology: 5 speed dual shaft motor provides quiet airflow operation when used with a twin blower assembly. Motor overload protection standard on all models.

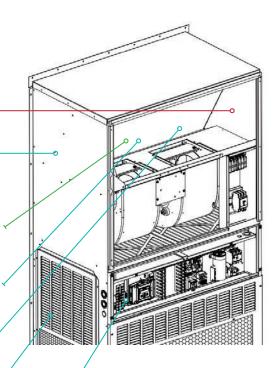
Electric Strip Heat: Reliable, comfortable heater packages feature an automatic limit and thermal cut-off safety control. Heater packages can be factory or field installed.

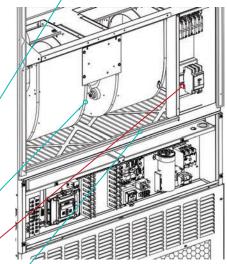
Easy Filter Access: A separate filter door is provided for ease of filter access during routine unit maintenance. 1" and 2" filters are available with a rating of up to MERV13.

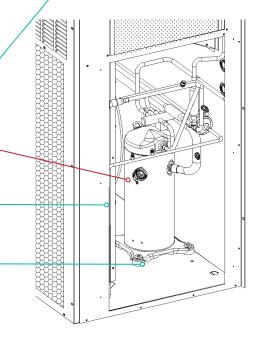
Enclosed Condenser Motor: An enclosed casing condenser motor with ball bearings is used for reliable operation and extended motor life. Enclosed condenser motors are standard on all units.

Improved Condenser Coil Cleaning: Removable fan shroud side panels allow for easy condenser coil intake surface cleaning.

High Efficiency Cooling: Scroll compressors for quiet, efficient cooling. Designed with R-410A (HFC) non-ozone depleting refrigerant in compliance with the Montreal protocol and 2010 EPA requirements. A liquid line filter-drier to protect the system from moisture is standard on all units.







////// UNIT MODES OF OPERATION

Cooling Operation: The Bard WA Series WALL MOUNT products offer single stage cooling operation using R410A refrigerant. Copper tube/Aluminum hydrophilic green fin coils are used to provide high efficiency and easy serviceability. Scroll compressor technology delivers years of quiet, reliable operation.



Heating Operation: The Bard WA Series WALL MOUNT products offer optional single or two stage heating operation using resistance heaters. Circuit breaker disconnect protection is standard in all units equipped with electric heat.



Mechanical Dehumidification Operation: The Bard W42ACD through W72ACD Series WALL MOUNT products offer optional dehumidification operation that removes moisture from air entering the unit. A three-way valve, reheat coil, and electronic expansion valve (EEV) are standard with all models. The dehumidification circuit incorporates an independent heat exchanger coil in the supply air stream. This coil reheats the supply air after it passes over the cooling coil without requiring the electric resistance heater to be used for reheat purposes. This results in very high mechanical dehumidification capability from the air conditioner on demand without using electric resistance reheat. Airflow is reduced resulting in quiet and comfortable soft shift to dehumidification mode.



Ventilation Operation: The Bard WA Series WALL MOUNT products offer optional ventilation operation that brings outdoor air into the structure. Vent options can be factory or field installed, and can be used to bring in outdoor air for occupants, save energy by using outdoor air for free cooling, or positively pressurize a structure. Exhaust air options allow room air to be vented outdoors when fresh air is being brought into the structure. Energy recovery options are also available for occupied structures which condition the air being brought in to save energy when ventilation is necessary regardless of outdoor temperature.



Balanced Climate™ Operation: Balanced Climate™ is a great comfort feature that can easily be applied under any normal circumstances. If you are setting up your Bard system to air condition in a typical environment where 72 degrees is your lowest cooling set-point, then remove the Y1/Y2 jumper, and install a two stage cooling thermostat. You will increase your humidity removal up to 35% and provide a much more comfortable environment.



If you intend air conditioning below 60° outdoor conditions, then just like any other system, a LAC kit must be installed.

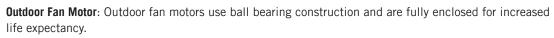
If you are installing the unit with any ventilation package, a Bard LAC Kit must be installed. Failure to utilize a LAC with any air conditioner can cause coil freeze up.

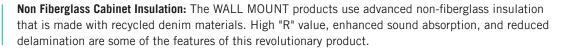
Balanced Climate can readily be applied to Duct-Free (supply & return air grille) applications. It may also be applied to ducted applications with limited static of 0.20" ESP (total including both supply & return statics).

CAUTION: Balanced Climate is not a replacement for a dehumidification (hot gas reheat) unit for extreme applications, but rather an enhancement feature for limited climates and applications.

ADVANCED FEATURE DESCRIPTIONS

ECM Indoor Blower Motor: Energy efficient indoor brush-less DC blower motors use EC constant torque technology with 4 selectable pre-programmed speeds. By selecting the needed speed, the WALL MOUNT product can reduce or increase airflow. A NEMA48® frame enclosure is used. A high speed tap can be selected to offer the maximum CFM possible with the blower assembly.









////// CAPACITY AND EFFICIENCY RATINGS

MODELS	W42AC	W48AC	W60AC	W72AC
Cooling Capacity BTUH ① EER ②	42,000	48,000	57,500	71,000
	11.0	11.0	11.0	10.0

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

SPECIFICATIONS 3-1/2 TON THROUGH 6 TON

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MODELS	W42AC-A	W42AC-B	W42AC-C	W48AC-A	W48AC-B	W48AC-C
Electrical Rating – 60 Hz	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
CompressorCircuit A						
Voltage Rated Load Amps	230/208 13.8/16.5	230/208 9.5/11.3	460 5.1	230/208 16.5/18.7	230/208 11.8/13.3	460 5.8
Branch Circuit Selection Current	19.9	13.6	6.1	21.8	14.5	6.3
Lock Rotor Amps Compressor Type	109/109 Scroll	83.1/83.1 Scroll	41 Scroll	117/117 Scroll	98/98 Scroll	55 Scroll
Fan Motor & Condenser						
Fan MotorHPRPM Fan MotorAmps FanDIA/CFM	1/3 2.3 24" - 2900	1/3 2.6 24" - 2900	1/3 0.8 24" - 2900	1/3 1.6 24" - 3000	1/3 2.6 24" - 3000	1/3 1.3
Blower Motor & Evap.						
Blower Motor—HP-SPD Blower Motor—Amps	1/3 Variable 2.3	1/3 Variable 2.3	1/3 Variable 1.6	1/3 Variable 3.1	1/3 Variable 2.3	1/3 Variable 1.2
Motor Type	Constant Torque ECM					
CFM Cooling & E.S.P. w/Filter (Rated-Wet Coil)	135015	135015	135015	155020	155020	155020
Filter Sizes (inches) STD., 2 required	20x20x1	20x20x1	20x20x1	20x20x1	20x20x1	20x20x1
Basic Unit Weight-LBS.	490	490	490	495	495	495
Barometric Fresh Air Damper (X) Barometric Damper w/ Exhaust (A) Blank-Off Plate (B) Commercial Room Ventilator (M, V) Economizer (D, Z)	13 16 14 42 44	13 16 14 42 44	13 16 14 42 44	13 16 14 42 44	13 16 14 42 44	13 16 14 42 44

MODELS	W60AC-A	W60AC-B	W60AC-C	W72AC-A	W72AC-B	W72AC-C
Electrical Rating – 60 Hz	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
CompressorCircuit A						
Voltage Rated Load Amps	230/208 20.6/23.6	230/208 13.6/15.5	460 7.6	230/208 27.4/30.4	230/208 16.7/18.5	460 9.1
Branch Circuit Selection Current	24.4	16	7.8	37	22.5	10.6
Lock Rotor Amps Compressor Type	144/144 Scroll	110/110 Scroll	52 Scroll	185/185 Scroll	149/149 Scroll	75 Scroll
Fan Motor & Condenser						
Fan MotorHPRPM Fan MotorAmps FanDIA/CFM	1/3 1.8 24" - 3100	1/3 1.8 24" - 3100	1/3 0.9 24" - 3100	1/2 3.2 24" - 4000	1/2 3.2 24" - 4000	1/2 1.6 24" - 4000
Blower Motor & Evap.						
Blower Motor—HP-SPD Blower Motor—Amps	3/4 Variable 3.2	1/2 Variable 3.2	1/2 Variable 1.6	3/4 Variable 3.8	3/4 Variable 3.8	3/4 Variable 1.9
Motor Type	Constant Torque ECM					
CFM Cooling & E.S.P. w/Filter (Rated-Wet Coil)	175020	175020	175020	190025	190025	190025
Filter Sizes (inches) STD., 2 required	20x20x1	20x20x1	20x20x1	20x20x1	20x20x1	20x20x1
Basic Unit Weight-LBS.	505	505	505	555	555	555
Barometric Fresh Air Damper (X) Barometric Damper w/ Exhaust (A) Blank-Off Plate (B) Commercial Room Ventilator (M, V) Economizer (D, Z)	13 16 14 42 44	13 16 14 42 44	13 16 14 42 44	13 16 14 42 44	13 16 14 42 44	13 16 14 42 44

 $[\]odot$ 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).

OPTIONAL SHIPPING CRATES

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Optional crates are available to help protect your valuable WALL MOUNT investment during shipping. Constructed from OSB sheathing with steel corner posts, and sized for standard truck transportation. Treated for pests in accordance with the International Plant Protection Convention, Publication 15, Annex 1. Packaging is acceptable for international shipments.

CRATE NO.	UNITS USING CRATE	DESCRIPTION
TBD	W42AC, W48AC	Standard Unit Crate
TBD	W60AC, W72AC	Standard Unit Crate

////// COOLING APPLICATION DATA - OUTDOOR TEMPERATURE ①②

MODEL	RETURN AIR (DB/WB)	COOLING CAPACITY	75°F	80°F	85°F	90°F	95°F	100°F	105°F	110°F	115°F	120°F	125°F
	75/62	Total Cooling	44400	42400	40500	38500 31600	36600	34800	33100	31300	29600 27700	27900	26200
W42AC	80/67	Sensible Cooling Total Cooling Sensible Cooling	33900 47400 32900	33200 46200 32500	32300 44900 32000	43500 31600	30800 42000 31100	30100 40500 30600	29300 39000 30000	28500 37300 29400	35600 28800	27000 33800 28200	26100 31900 27500
	85/72	Total Cooling Sensible Cooling	56500 33700	54000 33000	51600 32200	49100 31400	46700 30500	44300 29600	42100 28600	39700 27600	37400 26500	35100 25500	32800 24400
	75/62	Total Cooling Sensible Cooling	51300 40300	48800 39300	46500 38200	44100 37200	41800 36200	39700 35200	37500 34200	35300 33300	33300 32400	31200 31200	29200 29200
W48AC	80/67	Total Cooling Sensible Cooling	54700 39100	53200 38500	51600 37800	49800 37200	48000 36500	46200 35800	44200 35100	42100 34400	40000 33700	37800 33000	35500 32300
	85/72	Total Cooling Sensible Cooling	65200 40100	62200 39100	59300 38000	56200 37000	53300 35800	50600 34700	47700 33500	44800 32300	42000 31100	29300 29800	36500 28600
	75/62	Total Cooling Sensible Cooling	61600 47200	58500 45800	55600 44400	52700 43100	50100 41900	47600 40900	45300 39800	43000 38900	40900 38000	38900 37200	36900 36500
W60AC	80/67	Total Cooling Sensible Cooling	65700 45800	63700 44900	61700 44000	59600 43100	57500 42300	55500 41600	53400 40800	51300 40200	49200 39500	47100 38900	45000 38400
	85/72	Total Cooling Sensible Cooling	78300 46900	74500 45600	70900 44200	67300 42800	63900 41500	60700 40300	57600 38900	54600 37700	51700 36400	48900 35200	46300 34000
	75/62	Total Cooling Sensible Cooling	76200 55800	72100 54100	68500 52400	65000 50900	61800 49500	58900 48000	56100 46800	53600 45700	51300 44600	49000 43600	47000 42700
W72AC	80/67	Total Cooling Sensible Cooling	81300 54100	78600 53000	76100 51900	73500 50900	71000 49900	68600 48900	66200 48000	63900 47200	61700 46400	59400 45600	57300 44900
	85/72	Total Cooling Sensible Cooling	96800 55400	91900 53800	87400 52100	83000 50600	78600 49000	75000 47300	71400 48500	68000 44300	64800 42700	61700 41200	58900 39700

- ① Low ambient control allows for compressor operation down to 0°F.
- ② Outdoor temperatures shown are measured at the condenser section air inlet.
- 3 Return air temperature °F.
- ① Data shown is at default LO speed operation

CAPACITY MULT	IPLIER FA	CTORS	
% of Rated Airflow	-10	Rated	+10
Total BTUH	0.975	1.0	1.02
Sensible BTUH	0.950	1.0	1.05

////// R410A UNIT CHARGE RATES

UNIT	STD. UNIT - LBS.	DEHUM. UNITS - LBS.
W42AC	7.25	7.25
W48AC	7.38	7.38
W60AC	9.25	9.50
W72AC	9.50	9.75

////// BALANCED CLIMATE APPLICATION DATA (OPTIONAL, REQUIRES 2 STAGE COOLING THERMOSTAT)

MODEL	RETURN AIR (DB/WB)	COOLING CAPACITY	75°F	80°F	85°F	90°F	95°F	100°F	105°F	110°F	115°F	120°F	125°F	131°F
	75/62	Total Cooling Sensible Cooling Latent Cooling % Latent Increase Lbs. H2O per Hr.	40900 28800 12100 13% 11.42	39400 28200 11200 18% 10.57	37900 27500 10400 21% 9.811	36500 26800 9700 29% 9.151	34800 26100 8700 33% 8.208	33300 25400 7900 41% 7.453	31700 24700 7000 46% 6.604	30100 23900 6200 55% 5.849	28500 23200 5300 64% 5	26800 22500 4300 79% 4.057	25100 21700 3400 97% 3.208	23000 20700 2300 100% 2.1698
W42AC	80/67	Total Cooling Sensible Cooling Latent Cooling % Latent Increase Lbs. H20 per Hr.	43600 27900 15700 8% 14.81	42900 27600 15300 10% 14.43	42100 27200 14900 13% 14.06	41200 26800 14400 17% 13.58	40000 26300 13700 20% 12.92	38800 25800 13000 24% 12.26	37400 25300 12100 26% 11.42	35900 34700 11200 29% 10.57	34300 24100 10200 33% 9.623	32500 23500 9000 38% 8.491	30600 22800 7800 44% 7.358	28100 21900 6200 55% 5.8491
	85/72	Total Cooling Sensible Cooling Latent Cooling % Latent Increase Lbs. H2O per Hr.	52000 28600 23400 3% 22.08	50200 28000 22200 5% 20.94	48400 27400 21000 8% 19.81	46500 26600 19900 11% 18.77	44500 25800 18700 13% 17.64	42500 25000 17500 16% 16.51	40300 24100 16200 17% 15.28	38200 23200 15000 19% 14.15	36100 22200 13900 22% 13.11	33800 21300 12500 23% 11.79	31500 20200 11300 26% 10.66	28600 18900 9700 28% 9.1509
	75/62	Total Cooling Sensible Cooling Latent Cooling % Latent Increase Lbs. H2O per Hr.	49900 35200 14700 25% 13.87	47000 33900 13100 27% 12.36	44400 32700 11700 29% 11.04	42000 31500 10500 34% 9.906	39600 30400 9200 39% 8.679	37500 29500 8000 44% 7.547	35600 28600 7000 53% 6.604	33800 27700 6100 67% 5.755	32100 26900 5200 83% 4.906	30500 26200 4300 100% 4.057	29000 25500 3500 100% 3.302	27400 24800 2600 100% 2.4528
W48AC	80/67	Total Cooling Sensible Cooling Latent Cooling % Latent Increase Lbs. H2O per Hr.	53200 34100 19100 18% 18.02	51200 33200 18000 18% 16.98	49300 32400 16900 18% 15.94	47400 31500 15900 21% 15	45500 30700 14800 22% 13.96	43700 30000 13700 24% 12.92	42000 29300 12700 28% 11.98	40300 28600 11700 34% 11.04	38600 28000 10600 41% 10	36900 27400 9500 49% 8.962	35300 26800 8500 62% 8.019	33500 26200 7300 84% 6.8868
	85/72	Total Cooling Sensible Cooling Latent Cooling % Latent Increase Lbs. H20 per Hr.	63400 34900 28500 12% 26.89	59900 33700 26200 12% 24.72	56600 32600 24000 11% 22.64	53500 31300 22200 14% 20.94	50600 30100 20500 15% 19.34	47800 29000 18800 15% 17.74	45300 27900 17400 18% 16.42	42900 26800 16100 22% 15.19	40600 25800 14800 26% 13.96	38400 24800 13600 30% 12.83	36300 23700 12600 37% 11.89	34100 22600 11500 47% 10.849
	75/62	Total Cooling Sensible Cooling Latent Cooling % Latent Increase Lbs. H20 per Hr.	56100 39000 17100 16% 16.13	53800 38400 15400 18% 14.53	51500 37700 13800 19% 13.02	49300 36800 12500 23% 11.79	47000 36000 11000 25% 10.38	44900 35100 9800 32% 9.245	42600 34100 8500 35% 8.019	40500 33100 7400 45% 6.981	38300 32000 6300 54% 5.943	36100 30900 5200 67% 4.906	33900 29700 4200 90% 3.962	31200 28200 3000 100% 2.8302
W60AC	80/67	Total Cooling Sensible Cooling Latent Cooling % Latent Increase Lbs. H2O per Hr.	59900 37800 22100 10% 20.85	58600 37600 21000 10% 19.81	57200 37300 19900 11% 18.77	55700 36800 18900 13% 17.83	54000 36300 17700 14% 16.7	52300 35700 16600 16% 15.66	50300 35000 15300 18% 14.43	48300 34200 14100 21% 13.3	46100 33300 12800 24% 12.08	43700 32300 11400 28% 10.75	41300 31200 10100 35% 9.528	38100 29800 8300 43% 7.8302
	85/72	Total Cooling Sensible Cooling Latent Cooling % Latent Increase Lbs. H20 per Hr.	71400 38700 32700 4% 30.85	68500 38200 30300 5% 28.58	65700 37500 28200 5% 26.6	62900 36600 26300 7% 24.81	60000 35600 24400 8% 23.02	57200 34600 22600 10% 21.32	54200 33400 20800 10% 19.62	51400 32100 19300 12% 18.21	48500 30700 17800 14% 16.79	45400 29200 16200 15% 15.28	42500 27600 14900 17% 14.06	38800 25700 13100 18% 12.358
	75/62	Total Cooling Sensible Cooling Latent Cooling % Latent Increase Lbs. H2O per Hr.	67400 47000 20400 0% 19.25	65100 45900 19200 6% 18.11	62700 44800 17900 10% 16.89	60300 43700 16600 15% 15.66	57900 42600 15300 20% 14.43	55500 41400 14100 23% 13.3	53100 40200 12900 28% 12.17	50600 39000 11600 32% 10.94	48200 37700 10500 36% 9.906	45700 36400 9300 42% 8.774	43100 35100 8000 46% 7.547	40000 33400 6600 55% 6.2264
W72AC	80/67	Total Cooling Sensible Cooling Latent Cooling % Latent Increase Lbs. H2O per Hr.	71900 45600 26300 -3% 24.81	70900 45000 25900 1% 24.43	69600 44400 25200 4% 23.77	68200 43700 24500 8% 23.11	66500 43000 23500 10% 22.17	64700 42100 22600 13% 21.32	62700 41200 21500 15% 20.28	60400 40300 20100 17% 18.96	58000 39200 18800 19% 17.74	55400 38100 17300 20% 16.32	52500 36900 15600 21% 14.72	48900 35400 13500 21% 12.736
	85/72	Total Cooling Sensible Cooling Latent Cooling % Latent Increase Lbs. H2O per Hr.	85600 46700 38900 -6% 36.7	82900 45700 37200 -2% 35.09	79900 44600 35300 0% 33.3	77000 43400 33600 4% 31.7	73900 42200 31700 6% 29.91	70800 40700 30100 8% 28.4	67600 39300 28300 10% 26.7	64300 37800 26500 11% 25	60900 36100 24800 11% 23.4	57600 34400 23200 12% 21.89	54000 32700 21300 10% 20.09	49800 30500 19300 8% 18.208

① Low ambient operation disables Balanced Climate Operation.

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							

② Outdoor temperatures shown are measured at the condenser section air inlet.

③ Return air temperature °F.

④ % Latent increase is a comparison to non-Balanced Climate unit operation.

INDOOR AIRFLOW CFM @ STATIC PRESSURES – EC BLOWER CONSTANT TORQUE MOTOR WITH ADJUSTMENT SPEEDS

ESP		W42AC BLOW	ER TAPS - DRY	WET COIL CFM		W48AC BLOWER TAPS - DRY/WET COIL CFM				
In H20	Blower and Vent Only	Balanced Climate	Default LO Cooling and Heating	Optional MED Cooling and Heating	Optional HI Cooling and Heating	Blower and Vent Only	Balanced Climate	Default LO Cooling and Heating	Optional MED Cooling and Heating	Optional HI Cooling and Heating
O"	1510/1495	1345/1190	1510/1495	1740/1650	1815/1750	1795/1685	1370/1305	1795/1685	1895/1850	2000/1920
.1"	1445/1415	1120/1025	1445/1415	1660/1600	1740/1675	1730/1625	1270/1200	1730/1625	1845/1765	1940/1850
.15"	1410/1375	1020/950	1410/1375	1620/1565	1700/1635	1690/1590	1220/1145	1690/1590	1815/1725	1905/1815
.2"	1370/1325	930/875	1370/1325	1580/1530	1660/1600	1655/1555	1165/1095	1660/1600	1785/1685	1870/1780
.3"	1280/1230		1280/1230	1490/1440	1575/1515	1575/1485		1575/1515	1715/1610	1800/1710
.4"	1175/1120		1175/1120	1400/1330	1490/1430	1485/1405		1490/1430	1635/1540	1730/1635
.5"	1055/1000		1055/1000	1310/1205	1400/1345	1390/1325		1400/1325	1550/1475	1655/1560

ESP		W60AC BLOW	ER TAPS - DRY/	WET COIL CFM		W72AC BLOWER TAPS - DRY/WET COIL CFM				
In H20	Blower and Vent Only	Balanced Climate	Default LO Cooling and Heating	Optional MED Cooling and Heating	Optional HI Cooling and Heating	Blower and Vent Only	Balanced Climate	Default LO Cooling and Heating	Optional MED Cooling and Heating	Optional HI Cooling and Heating
0"	1960/1870	1540/1480	1960/1870	2085/1985	2160/2065	2140/2065	1675/1605	2140/2065	2210/2155	2265/2195
.1"	1880/1815	1365/1320	1880/1815	2005/1925	2070/1985	2080/2005	1515/1455	2080/2005	2160/2085	2215/2140
.15"	1840/1785	1285/1245	1840/1785	1970/1895	2025/1950	2050/1975	1445/1390	2050/1975	2135/2055	2190/2110
.2"	1805/1760	1215/1180	1805/1760	1935/1865	1990/1915	2020/1945	1380/1330	2020/1945	2105/2025	2165/2080
.3"	1735/1700		1735/1700	1870/1810	1920/1855	1960/1885		1960/1885	2050/1965	2110/2020
.4"	1675/1635		1675/1635	1815/1750	1865/1800	1900/1825		1900/1825	1985/1905	2050/1965
.5"	1625/1570		1625/1570	1770/1700	1820/1755	1840/1765		1840/1765	1920/1855	1985/1905

Five factory programmed speed taps (torque settings) are available for the indoor blower motor, and are selected through different unit modes of operation. These modes are energized by 24VAC signals from the low voltage terminal block located inside the control panel by a thermostat or other controlling device.

- 1. Blower and Ventilation Only Speed is the CFM amount for continuous fan and ventilation without a call for cooling.
- 2. Balanced Climate Speed is the indoor CFM amount for user selectable Balanced Climate operation and optional Mechanical De humidification. To use Balanced Climate, remove the jumper between Y1 and Y2 on the low voltage terminal strip. A 2 stage cool ing thermostat is then used to control blower airflow stages. Be sure to follow all guidelines provided in the installation manual. A controls kit that includes a low ambient control (LAC) must be used for Balanced Climate Operation if ventilation options are to be used or cooling operation will occur below a 60° outdoor temperature. Balanced Climate can be used for duct free and ducted applications below 0.20"WC ESP total static. Balanced Climate provides increased moisture removal during the cooling cycle, but is not a replacement for optional mechanical dehumidification. Optional mechanical dehumidification provides moisture removal without significantly cooling the space being conditioned. Mechanical dehumidification is highly recommended for applications requiring indoor humidity control for schools, public areas, agricultural, pharmaceutical, and areas with high outdoor humidity and varying indoor heat load.
- 3. Default LO Cooling and Heating Speed is the indoor CFM amount for cooling operation using the default blower speed tap selection. This speed is labeled as LO on the speed selection terminal strip inside the unit control panel. All units ship with cooling and heating operation at LO cooling and heating speed, and provides the optimal airflow amount for normal use.
- 4. Optional MED Cooling and Heating Speed is selected manually during unit setup and provides a higher indoor CFM for hi static duct applications and increased airflow. This speed is labeled as MED on the speed selection terminal strip inside the unit control panel.
- 5. Optional HI Cooling and Heating Speed is selected manually during unit setup and provides the highest allowable indoor CFM amount. Not recommended for standard unit operation. This speed is labeled as HI on the speed selection terminal strip inside the unit control panel.

////// SOUND DATA - DBA @ 5 FT. AND 10 FT.*

DUCT FREE	INDOOR (COOLING OPERA	TION @ 5 FT.	INDOOR C	INDOOR COOLING OPERATION @ 10 FT.				
Unit	Standard Grilles	With WMICF	With WMICF and WAPR-11	Standard Grilles	With WMICF	With WMICF and WAPR-11	Standard Features		
W42AC	TBD	TBD	TBD	TBD	TBD	TBD	TBD		
W48AC	TBD	TBD	TBD	TBD	TBD	TBD	TBD		
W60AC	TBD	TBD	TBD	TBD	TBD	TBD	TBD		
W72AC	TBD	TBD	TBD	TBD	TBD	TBD	TBD		

DUCTED SUPPLY	INDOOR (COOLING OPER	ATION @ 5 FT.	INDOOR C	INDOOR COOLING OPERATION @ 10 FT.					
Unit	Standard Grilles	With WMICF	With WMICF and WAPR-11	Standard Grilles	With WMICF	With WMICF and WAPR-11	Standard Features			
W42AC	TBD	TBD	TBD	TBD	TBD	TBD	TBD			
W48AC	TBD	TBD	TBD	TBD	TBD	TBD	TBD			
W60AC	TBD	TBD	TBD	TBD	TBD	TBD	TBD			
W72AC	TBD	TBD	TBD	TBD	TBD	TBD	TBD			

////// ELECTRICAL SPECIFICATIONS — W**AC SERIES

				Single Ci	rcuit							Multiple	Circui	t				
MODEL	Rated Volts &	No. Field Power Circuits	③ Minimum Circuit	① Maximum External	© Field Power	② Ground		Minimo Circuit Ampacit		Exte	Maximi ernal Fus kt. Break	e or		② ield Pow Wire Siz			② Ground Vire Size	9
	Phase		Ampacity	Fuse or Ckt. Brkr.	Wire Size	Wire	Ckt. A	Ckt. B	Ckt. C	Ckt. A	Ckt. B	Ckt. C	Ckt. A	Ckt. B	Ckt. C	Ckt. A	Ckt. B	Ckt. C
A15 A20	230/208-1	1 or 2 1 or 2	31 31 57 83 109	50 50 60 90 125	8 8 6 4 2	10 10 10 8 6	57 57	26 52		60 60	30 60		6 6	10 6		10 10	10 10	
B15 B18	230/208-3	1 1	23 23 32 51 60	35 35 35 60 60	8 8 8 6	10 10 10 10 10												
W42AC-C00, C0Z C09 C15	460-3	1 1 1	12 17 26	15 20 30	14 12 10	14 12 10												
W48AC-A00, A0Z A05 A10 A15 A20	230/208-1	1 1 1 1 or 2 1 or 2	35 35 59 85 111	50 50 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	
W48AC-B00, B0Z B06 B09 B15 B18	230/208-3	1 1	26 26 33 51 60	35 35 35 60 60	8 8 8 6 6	10 10 10 10 10												
W48AC-C00, C0Z C09 C15	460-3	1 1 1	12 17 26	15 20 30	14 12 10	14 12 10												
W60AC-A00, A0Z A05 A10 A15 A20	230/208-1	1 1 1 1 or 2 1 or 2	38 38 59 85 111	60 60 60 90 125	8 8 6 3 2	10 10 10 8 6	59 59	26 52		60 60	30 60		6 6	10 6		10 10	10 10	
W60AC-B00, B0Z B06 B09 B15 B18	230/208-3	1 1 1 1 2	28 28 34 52 NA	40 40 40 60 N/A	8 8 8 6 N/A	10 10 10 10 N/A	34	28		40	30		8	10		10	10	
W60AC-C00, C0Z C09 C15	460-3	1 1 1	14 18 26	20 20 30	12 12 10	12 12 10												
W72AC-A00, A0Z A05 A10 A15 A20	230/208-1	1 1 or 2 1 or 2 1 or 2	56 56 60 86 112	60 60 70 90 125	6 6 6 3 2	10 10 8 8 6	56 56 56	26 52 52		60 60 60	30 60 60		6 6 6	10 6 6		10 10 10	10 10 10	
W72AC -B00, B0Z B06 B09 B15 B18	230/208-3	1 1 1 1 2	38 38 38 53 N/A	45 45 45 60 N/A	8 8 8 6 N/A	10 10 10 10 N/A	38	28		40	30		8	10		10	10	
W72AC-C00, C0Z C09 C15	460-3	1 1 1	18 18 27	25 25 30	10 10 10	10 10 10												

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 current carrying conductors are in a raceway.

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 local codes.

Based on 75°C copper wire. All wiring must conform to the National Electrical Code and all local codes.

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 conductors.

////// HEATER PACKAGES - FIELD INSTALLED "C" SERIES UNITS

	ding Electric Heat to 0 Standard on 230/208V		ETL US & Canada ListedToggle Disconnect Standard on 460V Models						
Air Conditioner	-A00 N 230/2		-B00 I 230/2	Models 208-3	-C00 I	Models 0-3			
Models	Heater Model #	KW	Heater Model #	KW	Heater Model #	KW			
W42AC W48AC	EHWA48C-A05 EHWA42C-A10 EHWA42C-A15 EHWA42C-A20	5 10 15 20	EHWA42C-B06 EHWA42C-B09 EHWA42C-B15 EHWA42C-B18	6 9 15 18	EHWA48C-C09 EHWA42C-C15	9 15			
W60AC	EHWA60C-A10 EHWA60C-A15 EHWA60C-A20	10 15 20	EHWA42C-B06 EHWA42C-B09 EHWA42C-B15 EHWA42C-B18	6 9 15 18	EHWA60C-C09 EHWA60C-C15	9 15			
W72AC	EHWA72C-A05 EHWA72C-A10 EHWA72C-A15 EHWA72C-A20	5 10 15 20	EHWA72C-B06 EHWA72C-B09 EHWA72C-B15 EHWA72C-B18	6 9 15 18	EHWA60C-C09 EHWA60C-C15	9 15			

////// ELECTRIC HEAT TABLE - REFER TO ELECTRICAL SPECIFICATIONS FOR AVAILABILITY BY UNIT MODEL

NOMINAL	AT 240V (1)					AT 208V (1)				AT 480V (2)			AT 460V (2)		
KW	KW	1-PH AMPS	3-PH AMPS	втин	KW	1-PH AMPS	3-PH AMPS	KW	KW	3-PH AMPS	KW	KW	3-PH AMPS	KW	
4.0	4.0	16.7		13,652	3.00	14.4		10,239							
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.

///// C SERIES WALL MOUNT™ VENTILATION OPTION SELECTION CHART

VENT CODE	FIELD INSTALL Kit	UNIT	OPERATION	DESCRIPTION
Х	FAD-NE5	W42AC, W48AC, W60AC, W72AC	Barometric	Air damper provides slight positive room pressure during blower operation, No room air exhaust.
Α	FAD-BE5	W42AC, W48AC, W60AC, W72AC	Barometric	Air damper provides slight positive room pressure during blower operation, barometric room air exhaust.
В	BOP5	W42AC, W48AC, W60AC, W72AC	No Ventilation	Insulated plates used to seal vent intake and exhaust openings.
М	CRV-F5	W42AC, W48AC, W60AC, W72AC	24V On/Off	Vent Provides motorized spring return on/off operation to bring in outdoor air and exhaust room air. No intake hood required.
V	CRV-V5	W42AC, W48AC, W60AC, W72AC	24V On/Off, 2-10V	Vent provides motorized spring return modulating or on/off operation to bring in outdoor air and exhaust room air. Minimum and occupied vent blade positions. No intake hood required.
D	ECON-NC5*	W42AC, W48AC, W60AC, W72AC	2-10V only	Full flow Economizer that uses 2 to 10V signal from a DDC control system or thermostat. No intake hood required.
Z	ECON-WD5*	W42AC, W48AC, W60AC, W72AC	JADE Controller	Full flow Economizer that uses the JADE controller and included sensors to operate free cooling. Enthalpy or Dry Bulb operation user selectable. No intake hood required.
R	ERV-FA5*	W42AC, W48AC, W60AC, W72AC	24V On/Off, 3 blower speeds	208/230V Energy Recovery ventilator with energy wheel media. 3 independently selected intake and exhaust blower speeds. No intake hood required.
	ERV-FC5*	W42AC, W48AC, W60AC, W72AC	24V On/Off, 3 blower speeds	460V Energy recovery ventilator with energy wheel media. 3 independently selected intake and exhaust blower speeds. No intake hood required.

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

WALL MOUNT™ VENTILATION OPTIONS SPECIFICATIONS

"X" Vent Code Option – Standard Fresh Air Damper No Exhaust (FAD-NE)

The barometric fresh air damper without exhaust 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. The room exhaust air path is sealed with an insulated block-off plate.

"A" Vent Code Option - Fresh Air Damper with Barometric Exhaust (FAD-BE)

The barometric fresh air damper with exhaust is an optional 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. The room exhaust air path uses a barometric damper design that relieves room pressurization during outdoor air intake. Adjustable blade stops allow room pressure adjustment by controlling the amount of exhaust air leaving the building.

"B" Vent Code Option - Block Off Plate (BOP)

Blank off plates are installed on the inside of the service door and over the exhaust opening in the condenser partition. The plates cover the air inlet and room exhaust openings, which restricts any outside air from entering the unit or room air from leaving the conditioned space. The blank off plate option may be utilized in applications where outside air intake is not required by state or local codes.

"M" Vent Code Option - Commercial Room Ventilator with fixed blade position (CRV-F)

The built-in commercial room ventilator with fixed blade position is internally mounted behind the service door and allows outside ventilation air, up to 50% of the total airflow rating of the unit. It includes a built-in exhaust air damper for room pressurization relief. Blade stops are easily adjustable to set intake airflow. The commercial room ventilator with fixed blade position (CRV-F) is a simple and innovative approach to improving the indoor air quality by providing fresh air intake and exhaust capability. The CRV-F can be activated by indoor blower operation or independently controlled by a thermostat or controller using a 24VAC occupancy or schedule signal. Blade operation is controlled by a on/off spring return motor that closes rapidly when de-energized. Blade seals provide minimal blade leakage.

"V" Vent Code Option - Commercial Room Ventilator with Modulating Blade position (CRV-V)

The built-in commercial room ventilator with modulating blade position is internally mounted behind the service door and allows outside ventilation air, up to 50% of the total airflow rating of the unit. It includes a built-in exhaust air damper for room pressurization relief. Blade seals allow for minimal blade leakage. A ventilation control board allows multiple blade settings to adjust intake airflow.

"V" Vent Code Option – Ventilation Control Board

The CRV ventilation control board allows for a room pre-purge bringing in outdoor air into an area before occupancy starts based on a thermostat schedule. Pre-purge settings are OFF, 30, 60, 90 minutes and are adjusted using jumpers located on the board. The pre-purge airflow amount is adjustable using a potentiometer. A separate potentiometer is also provided for occupancy (vent only) airflow adjustment. Potentiometers are also provided for cooling operational air intake amounts. The CRV-V ventilation control board also allows for 0-10V input for modulating ventilation control based on CO2 levels. Complies with ANSI/ASHRAE Standard 62.1 "Ventilation for Acceptable Indoor Air Quality" and other state and local ventilation codes that require outdoor air intake but not economizer operation.



Commercial Room Ventilator- Airpath



"V" Vent CRV Control Board

WALL MOUNT™ VENTILATION OPTIONS SPECIFICATIONS (continued)

"D" Vent Code Option – Economizer without controls installed (ECON-NC)

The built-in economizer is internally mounted behind the service door and allows outside ventilation air, up to 100% of the total airflow rating of the unit. It includes a built-in exhaust air damper for room pressurization relief. 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 provides lower operating costs, extended equipment life, and cooling operation at cold (-40°F) outdoor temperatures. The ECON-NC does not contain unit ventilation controls, and provides a 0-10V Belimo actuator motor with spring return. Blade seals are used to minimize blade leakage. Controls are provided by using a field supplied DDC system, or a thermostat capable of 0-10V economizer operation. Indoor and outdoor temperature sensors are not provided with the ventilation option, and must be ordered separately.

"Z" Vent Code Option – Economizers with JADE® Controller (ECON-WD)

The JADE controlled economizer is internally mounted behind the service door and allows outside ventilation air. The ECON-WD allows up to 100% of the total airflow rating of the unit. Both include a built-in exhaust air damper for room pressurization relief. 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 provides lower operating costs, extended equipment life, and cooling operation down to -40°F outdoor temperatures.

"Z" Vent Code Option – (ECON-WD) JADE® Controller Information

JADE Economizer controls provide Demand Ventilation Control, operational checkout, an easy to read LCD screen, configurable freeze protection, and LCD displayed economizer component failure alarms. Minimum vent position, occupancy ventilation, and 0-10V CO2 input is available for use with select CO2 room sensors. When used with a Bard economizer assembly, the JADE controller is able to meet most state and local codes for economizer use.

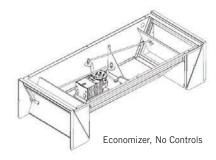
JADE Controller Specifications:

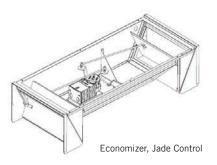
- Operating Humidity Range (% RH) 5 to 95% RH, non-condensing
- Contact Ratings 30 VAC-- 1.5 A Run, 3.5 A Inrush
- Voltage 20 to 30 VAC RMS
- Operating Temperature Range (F) -40 F to +150 F
- Operating Temperature Range (C) -40 C to +65 C
- · Approvals, Federal Communications Commission Compliant
- Approvals, CE Compliant
- Complies with California Title 24
- Mixed air and Outdoor Enthalpy Sensor using Sylk Bus.
- Output 2-10 VDC to actuator, Sylk Bus.

"R" Vent Code Option – Energy Recovery Ventilator (ERV-F)

The wall-mount energy recovery ventilator (ERV) is a highly innovative approach to meeting indoor air quality ventilation requirements as established by ANSI/ASHRAE Standard 62.1. The ERV allows up to 400 CFM (dependent 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 ERV 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 ERV is designed to be internally mounted behind the service door, and includes independent blowers for intake air and exhaust air balancing. It can be built-in at the factory (W**A only) or field installed (W**A) as an option. Wiring includes plug-in harnesses for easy vent installation and removal.









Jade Control Module

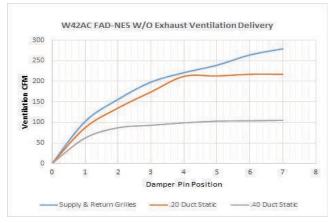


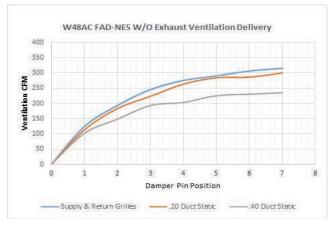
Energy Recovery Ventilator

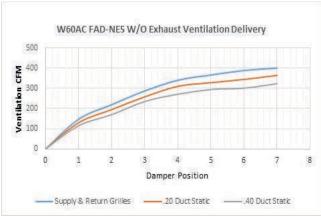
WALL MOUNT™ BAROMETRIC DAMPER (FAD) PERFORMANCE

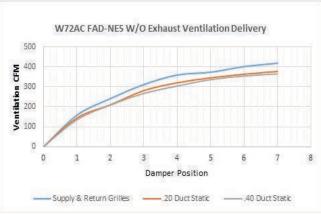
//////

"X" (FAD-NE5 and FAD-NE5) Barometric Damper Without Exhaust Vent Code Options

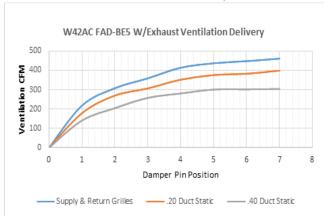


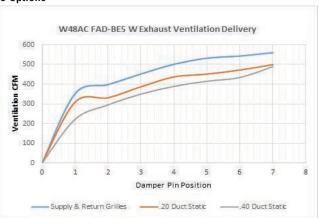


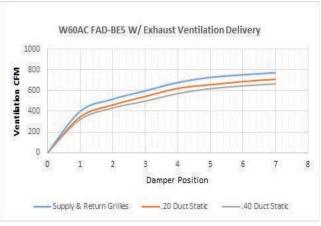


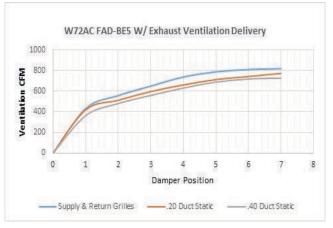


"A" (FAD-BE5 and FAD-BE5) Barometric Damper With Exhaust Vent Code Options





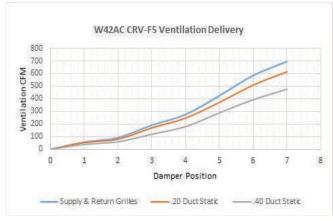


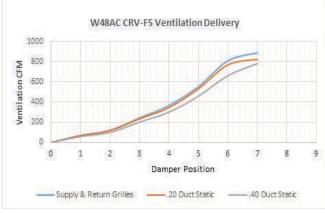


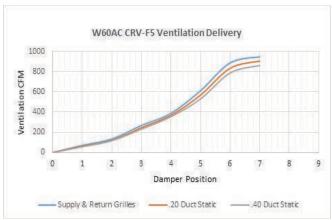
WALL MOUNT™ CLASSROOM VENTILATOR (CRV) PERFORMANCE

"M" (CRV-F) Vent Code Options

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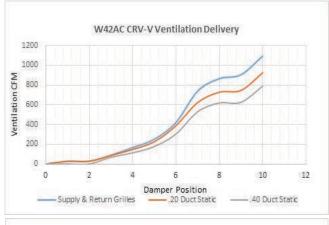


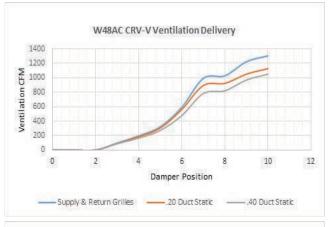


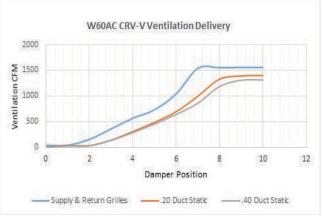


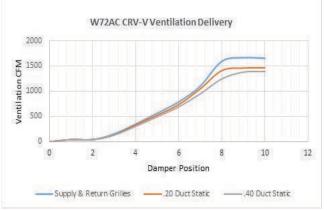


"V" (CRV-V) Vent Code Options





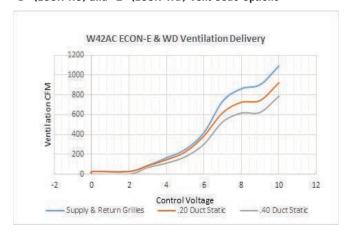


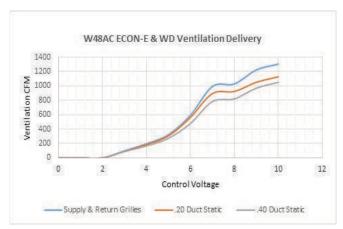


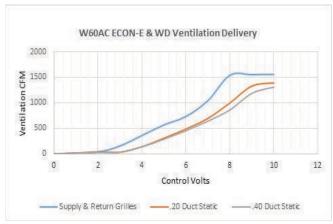
WALL MOUNT™ ECONOMIZER AIRFLOW PERFORMANCE

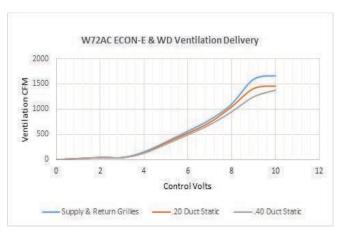
"D" (ECON-NC) and "Z" (ECON-WD) Vent Code Options

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////// WALL MOUNT™ ENERGY RECOVERY VENTILATION (ERV) PERFORMANCE

"R" (ERV-FA5 and ERV-FC5) Vent Code Options for W42AC, W48AC, W60AC, and W72AC SUMMER COOLING PERFORMANCE (INDOOR DESIGN CONDITIONS 75°DB/62°WB)

AMBIE O.D	IBIENT VENTILATION RATE 450 CFM O.D. 63% EFFICIENCY					VENTILATION RATE 375 CFM 64% EFFICIENCY				VENTILATION RATE 300 CFM 65% EFFICIENCY									
DB/WB	F	VLT	VLS	VLL	HRT	HRS	HRL	VLT	VLS	VLL	HRT	HRS	HRL	VLT	VLS	VLL	HRT	HRS	HRS
105	75 70 65	21465 14580 14580	14580 14580 14580	6884 0 0	13952 9477 9477	9477 9477 9477	4475 0 0	17887 12150 12150	12150 12150 12150	5737 0 0	11805 8018 8018	8018 8018 8018	3786 0 0	14310 9720 9720	9720 9720 9720	4590 0 0	9587 6512 6512	6512 6512 6512	3075 0 0
100	80 75 70 65 60	31590 21465 12352 12150 12150	12150 12150 12150 12150 12150	19440 9314 202 0	20533 13952 8029 7897 7897	7897 7897 7897 7897 7897	12635 6054 131 0	26325 17997 10293 10125 10125	10125 10125 10125 10125 10125	16200 7762 168 0	17374 11805 6793 6682 6682	6682 6682 6682 6682 6682	10692 5123 111 0	21060 14310 8235 8100 8100	8100 8100 8100 8100 8100	12960 6210 135 0	14110 9587 5517 5427 5427	5427 5427 5427 5427 5427	8683 4160 90 0
95	80 75 70 65 60	31590 21465 12352 9720 9720	9720 9720 9720 9720 9720	21870 11744 2632 0	20533 13952 8029 6318 6318	6318 6318 6318 6318 6318	14215 7634 1711 0 0	26325 17887 10293 8100 8100	8100 8100 8100 8100 8100	18225 9787 2193 0 0	17374 11805 6793 5345 5345	5345 5345 5345 5345 5345	12028 6459 1447 0 0	21060 14310 8235 6480 6480	6480 6480 6480 6480 6480	14580 7830 1755 0	14110 9587 5517 4341 4341	4341 4341 4341 4341 4341	9768 5246 1175 0 0
90	80 75 70 65 60	31590 21465 12352 7290 7290	7290 7290 7290 7290 7290	24300 14175 5062 0	20533 13952 8029 4738 4738	4738 4738 4738 4738 4738	15794 9213 3290 0	26325 17887 10293 4050 4050	6075 6075 6075 6075 6075	20250 11812 4218 0 0	17374 11805 6793 4009 4009	4009 4009 4009 4009 4009	13365 7796 2784 0	21060 14310 8235 4860 4860	4860 4860 4860 4860 4860	16200 9450 3375 0	14110 9587 5517 3256 3256	3256 3256 3256 3256 3256	10854 6331 2261 0
85	80 75 70 65 60	31590 21465 12352 4860 4860	4860 4860 4860 4860 4860	26730 16605 7492 0 0	20533 13952 8029 3159 3159	3159 3159 3159 3159 3159	17374 10793 4870 0	26325 17887 10293 4050 4050	4050 4050 4050 4050 4050	22275 13837 6243 0	17374 11805 6793 2672 2672	2672 2672 2672 2672 2672	14701 9132 4120 0 0	21060 14310 8235 3240 3240	3240 3240 3240 3240 3240 3240	17820 11070 4995 0	14110 9587 5517 2170 2170	2170 2170 2170 2170 2170 2170	11939 7416 3346 0
80	75 70 65 60	21465 12352 4252 2430	2430 2430 2430 2430	19035 9922 1822 0	13952 8029 2764 1579	1580 1580 1580 1580	12372 6449 1184 0	17887 10293 3543 2025	2025 2025 2025 2025	15862 8268 1518 0	11805 6793 2338 1336	1336 1336 1336 1336	10469 5457 1002 0	14310 8235 2835 1620	1620 1620 1620 1620	12690 6615 1215 0	9587 5517 1899 1085	1085 1085 1085 1085	8502 4432 814 0
75	70 65 60	12352 4252 0	0 0 0	12352 4252 0	8029 2764 0	0 0 0	8029 2764 0	10293 3543 0	0 0 0	10293 3543 0	6793 2338 0	0 0 0	6793 2338 0	8235 2835 0	0 0 0	8235 2835 0	5517 1899 0	0 0 0	5517 1899 0

ERV-FA5 WINTER HEATING PERFORMANCE (INDOOR DESIGN CONDITIONS 70°F DB)

LEGEND:

VLT = Ventilation Load - TotalVLL = Ventilation Load - LatentHRS = Heat Recovery - Sensible

WVL = Winter Ventilation Load

VLS = Ventilation Load - Sensible
HRT = Heat Recovery - Total
HRL = Heat Recovery - Latent
WHR = Winter Heat Recovery



Energy Recovery wheels transfer heat from one airpath to another airpath.

Cooling Operation: Heat is removed from the outoor air being brought in for ventilation. Heat is added to the indoor air leaving the structure.

Heating Operation: Heat is removed from the indoor air leaving the structure. Heat is added to the outdoor air being brought in for ventilation.

AMBIENT			VENTILAT	ION RATE			
O.D.	450 80%	CFM EFF.	375 81%		300 CFM 82% EFF.		
DB/°F	WVL WVL		WVL	WVL	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	

NOTE: Sensible performance only is shown for winter application.

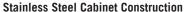
////// CABINET AND COIL OPTIONS

Cabinet Finish Options

Unit models are available in Beige, White, Buckeye Gray, Desert Brown, Dark Bronze, stainless steel, and aluminum. Painted cabinet construction is comprised of 20 gauge Zinc coated steel. Parts are cleaned, rinsed, sealed, and dried before a polyurethane primer is applied. The cabinet coating is completed with a baked on textured enamel. The resulting finish is designed to withstand 1000 hours of salt spray tests per ASTM B117-03.

Stainless steel external cabinet construction is comprised of 316 grade materials. Stainless steel screws and fasteners are used in all externally exposed areas. A corrosion resistant coated fan blade and stainless steel condenser motor mount is provided.

Aluminum external cabinet construction is ASTM B 209 grade .06" thickness with a stucco appearance.



Exterior Stainless Steel finish cabinets are often selected for corrosion and chemical resistance. Higher grades of stainless steel are often specified to meet the requirements of harsh environments. Units may not only be exposed to wind - blown dust, dirt, lint, and fibers but also may be exposed to corrosive agents. The Bard stainless steel unit offers a high quality stainless steel grade enclosure and fasteners for years of operation in these conditions.

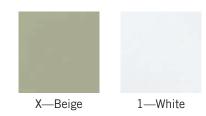
Features:

- Sides, doors, grilles, back panels, and top are 316 grade stainless steel.
- Base, condenser partition, and fan shroud are 304 grade stainless steel.
- Stainless steel exterior cabinet screws, washers, nuts, and bolts, are used.
- Stainless steel outdoor motor mount and motor mount hardware.
- Compressor mounting hardware is stainless steel and hex no-spin rivet nuts are used in the unit base.
- Corrosion resistant coating is applied to fan blade.

Bard highly suggests units exposed to extremely harsh environments, high quantities, of airborne dirt and dust, or sprayed with water hose and splashing water be ordered with the Blank Off Plate (BOP) ventilation option unless codes require fresh air intake. The BOP ventilation option installs plates over the fresh air intake and exhaust openings.

Green Fin Hydrophilic Evaporator Coils Standard On All Units

Bard WALL MOUNT products include a green protective coating applied to the aluminum fin stock used for the evaporator coil. The evaporator coil coating is hydrophilic (attracts water) and allows for proper condensate drainage along with mild corrosion protection. Resistance to corrosive agents include ammonia, sodium hydroxide, sodium chloride, acidic solutions and solvents.









A—Aluminum



Hydrophilic Green Coil (Standard)

////// CABINET AND COIL OPTIONS

Evaporator and Condenser Coil TechniCoat Coating Options

All models utilize a copper/aluminum evaporator and condenser coil. An additional corrosion resistant TechniCoat 10-2TM coating may be ordered for the condenser coil (option 1), evaporator coil (option 2) or both evaporator and condenser coils (option 3). TechniCoat is a proprietary epoxy-modified phenolic dip coating. Total Immersion ensures complete coverage with no significant loss of thermal efficiency. The 4-step coating system consist of (1) a multi-step cleaning process, (2) chemical etch primer, (3) epoxy-modified phenolic, and (4) phenolic sealer. The result is a corrosion resistant coil that outperforms a copper finned coil, is less expensive, and is also nearly 3 times lighter. ASTM B117 salt spray tests conducted show over 4500 hours with "no fin corrosion or degradation."



AeroMarine (Optional)

1= Coated Condenser Coil

A corrosion resistant dip coated condenser coil is used.

2= Coated Evaporator Coil

A corrosion resistant dip coated evaporator coil is used.

3= Coated Condenser and Evaporator Coil

A corrosion resistant dip coated condenser and evaporator coil is used.

Cabinet Coating Options

Bard recommends unit coatings be used in applications that may be exposed to corrosive particulates in the airstream. These applications include wastewater treatment plants, gas and oil refinery operations, battery manufacturers, areas with Sulfur water, wineries, chemical plants, pulp and paper mills, and seacoast installations. Contact your Bard distributor for additional information regarding cabinet coating options.

4= Exterior Unit Cabinet & Condenser Section

The 4 option unit contains our corrosion resistance phenolic coated coils and a coated unit condenser section. By coating the condenser section, the copper tubing, motor mount, sheet metal parts, filter/drier and compressor housing in the condenser area are protected with a epoxy semi-gloss coating.

5= Exterior & Interior

The 5 option unit contains our corrosion resistance phenolic coated coils and is both internally and externally coated. By coating the interior and exterior of the unit, the copper tubing, motor mount, sheet metal parts, filter/drier, compressor housing, blower assembly, and any optional ventilation features are protected with a epoxy semi-gloss coating. This is the highest level of protection available. It is required for applications where the internal and external features of the unit are exposed to a high level of salt or corrosive chemicals.

///// WALL MOUNT™ FACTORY INSTALLED CONTROLS OPTIONS

Factory installed controls are provided by Bard to enhance a WALL MOUNT product before it is shipped. All WALL MOUNT products are shipped with a auto-reset high pressure switch and an auto-reset low pressure switch to help protect refrigeration components. A compressor control module with adjustable voltage protection, delay on make and break, and high/low pressure diagnostics is also standard

CONTROL CODE	DESCRIPTION OF FACTORY INSTALLED COMPONENTS
X	Hi Pressure Switch, Low Pressure Switch, Compressor Control Module.
E	Hi Pressure Switch, Low Pressure Switch, Compressor Control Module, Low Ambient Control
F	Hi Pressure Switch, Low Pressure Switch, Compressor Control Module, Low Ambient Control, Dirty Filter Press. Switch
J	Hi Pressure Switch, Low Pressure Switch, Compressor Control Module, Low Ambient Control, Alarm Relay
K	Hi Pressure Switch, Low Pressure Switch, Compressor Control Module, Low Ambient Control, PTCR Start Kit
M	Hi Pressure Switch, Low Pressure Switch, Compressor Control Module, Low Ambient Control, Alarm Relay, PTCR Start Kit
V	Hi Pressure Switch, Low Pressure Switch, Compressor Control Module, Low Ambient Control, Alarm Relay, Discharge temperature sensor, Indoor Blower Airflow Press. Switch, Compressor Current Sensor, Dirty Filter Pressure Switch (Not available for Dehum models)

WALL MOUNT™ FIELD INSTALLED KITS

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Field installed kits provide accessories that can be installed in the field. Required components, wires, enclosures, screws, and instructions that are needed are provided within the kit.

CONTROL CODE	KIT PART NO.	UNITS USING KIT	DESCRIPTION OF FIELD INSTALLED KIT
NA	CMC-32	W42AC, W48AC, W60AC, W72AC	PTCR Start Kit. Increases starting torque by 2 to 3x. 230V-60hz-1 phase (A voltage) only. Cannot be used in combination with SK start kit
NA	CMC-33	W42AC, W48AC, W60AC, W72AC	Dirty Filter Kit
E	CMA-39	W42AC, W48AC, W60AC, W72AC	Low Ambient Control allows compressor cooling between 0°F and 50°F outdoor temp fan cycling
NA	CMA-42	W42AC, W48AC, W60AC, W72AC	Alarm Relay Kit
NA	CMA-43	W42AC, W48AC, W60AC, W72AC	Outdoor Thermostat Kit used to disable compressor cooling below 50°F outdoor temp. Adjustable between 50° and 0°F
٧	CMA-44	W42AC, W48AC, W60AC, W72AC	Kit Includes Discharge temperature sensor, Indoor Blower Airflow Press. Switch, Compressor Current Sensor, Dirty Filter Pressure Switch

////// 24VAC LOW VOLTAGE TERMINAL DESIGNATIONS

Bard WALL MOUNT products provide 24VAC power to controllers and thermostats. They also are able to receive 24VAC signals from a controlling device. The V controls option provides additional sensors for use with a field supplied DDC controls systems. The information below provides terminal designations and how they are used in the WALL MOUNT unit. More information on low voltage connections and operational sequences is provided in the unit installation manual.

Terminal	Unit	Description
R	All Units	24VAC low voltage output (HOT Terminal)
RT	All Units	RT terminal has jumper to R terminal. When jumper is removed, R and RT can be used with normally closed contacts for fire/smoke detector for unit shutdown.
C	All Units	Ground Terminal
G	All Units	Indoor fan input
Y 1	All Units	1st Stage cooling input. Economizer stage when used. Balanced Climate stage when used. Remove jumper between Y1 and Y2 for 2 stage blower operation.
Y2	All Units	2nd Stage cooling input. Compressor cooling stage when Econ or Balanced Climate is used.
B/W1	All Units	1st Stage electric heat
W2	All Units	2 nd State electric heat. Jumper between W1 and W2 must be removed for staged heat
Α	Vent option units only	Ventilation option input. Calls for occupied vent air intake for CRV, ERV, ECON
D	Dehum. units only	Dehumidification input on units equipped with mechanical reheat dehumidification
L	All Units	24VAC Alarm active output
1	C, J, M, V Control Opt.	Alarm relay Normally Closed Contract
2	C, J, M, V Control Opt.	Alarm relay Normally Open Contact
3	C, J, M, V Control Opt.	Alarm Relay Common Contact
9	V Controls Option Only	Discharge Air Sensor, 10K ohm
10	V Controls Option Only	Discharge Air Sensor, 10K ohm
11	G, V Control Options	Filter Switch, Normally Open Contacts
12	G, V Control Options	Filter Switch, Normally Open Contacts
13	V Controls Option Only	Blower Airflow Switch, Normally Open Contacts
14	V Controls Option Only	Blower Airflow Switch, Normally Open Contacts
15	V Controls Option Only	Compressor Current Sensor, Normally Open Contacts
16	V Controls Option Only	Compressor Current Sensor, Normally Open Contacts

////// OPTIONAL CONTROLS AND KIT COMPONENT DEFINITIONS

Hi Pressure Control (HPC) - The high pressure control provides a means of protecting the refrigeration circuit when high system pressures occur. It is a auto-reset device that is connected to the Compressor Control Module. When activated, the compressor is disabled until pressures reach an acceptable level. If activated twice in the same cooling call, compressor operation is locked out until the cooling call is interrupted.

Low Pressure Control (LPC) - The low pressure control provides a means of protecting the refrigeration circuit when extremely low system pressures occur. It is a auto-reset device that is connected to the Compressor Control Module. When activated, the compressor is disabled until pressures reach an acceptable level.

Compressor Control Module (CCM) - The compressor control module locks out compressor operation to protect the refrigeration system based on signals from the hi and low pressure switches. It provides diagnostics to indicate when a refrigerant pressure event occurs, and also sends a signal to the alarm relay. Low incoming unit power protection suspends compressor operation when incoming voltage is too low. Suspending compressor operation avoids reverse scroll operation. The low voltage feature is adjustable or can be disables. An adjustable delay on break timer is provided. Delay on make is 2 mins. plus 10% of delay on break setting.

Alarm Relay (ALR) - The alarm relay provides a set of NO and NC pilot duty contacts that operate when the compressor control module locks out compressor operation because of a high or low system refrigerant pressure event.

Low Ambient Control (LAC) - The low ambient control pressure sensor is attached to the suction line of the system, and monitors low side system pressure. Operation of the LAC occurs as outdoor temperatures drop below the 60°F. On/Off and modulating controls are used. On/Off LAC operation cycles the condenser fan operation based on outdoor temperature. Modulating LAC operation is factory adjusted and slows the condenser fan speed RPM based on outdoor temperature.

Crankcase Heater (CCH) - The heater is a belly band that is installed around the base of the compressor that applies heat when the refrigeration system is not operational. This heat is meant to prevent refrigerant oil migration when the unit is not running. Normal scroll compressor use does not require the use of the CCH, and this option is only recommended for northern areas of the US and Canada with extreme cold operation. Field Install Option Only.

Outdoor Thermostat (ODT) - The outdoor thermostat measures outdoor temperatures and includes relay contacts (NO). The relay is located on the outer control panel and the sensor bulb is mounted to the fan shroud in the outdoor condenser section. When wired into the cooling signal inside the control panel, compressor operation can be disabled when temperatures are below the adjustable setting. Adjustment range is 0°F to 50°F.

PTCR Start Kit - PTCR (Precision Temperature Coefficient Resistor) start kit includes the start device and wires needed for installation. The device is located inside the unit control panel near the compressor capacitor and provides an increase in starting torque. The PTCR Start Kit is not normally required when a clean, stable power source is available for the unit. The kit can only be used in 230 Volt single phase units.

Start Capacitor and Potential Relay Start Kit - The kit includes a start capacitor and relay that is energized during startup of the compressor. The capacitor, relay, and needed wires are provided in a metal enclosure that is field installed in the outdoor section attached to the back. The Start Capacitor Kit is not normally required when a clean, stable power source is available for the unit. The kit can only be used in 230 Volt single phase units. Start capacitor kit cannot be used with the PTCR start kit installed.

Dirty Filter Switch Indicator (DFS) - The switch is adjustable and measures pressure drop across the unit filter surface. When pressure drop is higher than the switch setting NO and NC contacts are provided to indicate the filter needs to be serviced.

Discharge Air Sensor - The discharge air sensor provides a temperature reading of the supply air leaving the unit. The sensor is a 10K OHM @ 77°F measuring device. It is installed in the supply air stream in the heater bracket. Airflow Switch - The airflow switch measures the pressure differential between the blower inlet and outlet. It is located directly above the blower partition. Relay contacts (NO) are provided for V controls option that indicates the indoor blower assembly needs to be serviced. The F controls option has indicator light only.

Compressor Current Sensor - The compressor current sensor indicates when the compressor is operational by measuring Amp draw. It is located inside the unit control panel. Relay contacts (NO) are provided to indicate the compressor is not operating.

////// CABINET AND CLEARANCE DIMENSIONS - W**AC SERIES UNITS

CLEARANCES REQUIRED FOR SERVICE ACCESS AND ADEQUATE CONDENSER INLET AIRFLOW MODELS LEFT SIDE RIGHT SIDE

W42AC, W48AC, W60AC, W72AC	20"	20"	
1.) Follow all national, state, and local codes and re	egulations regarding	the installation of heating	
and cooling equipment regarding Single Package	ed Vertical Units (S	PVII) including electrical acce	22

- and cooling equipment regarding Single Packaged vertical units (SPVU) including electrical access clearances.

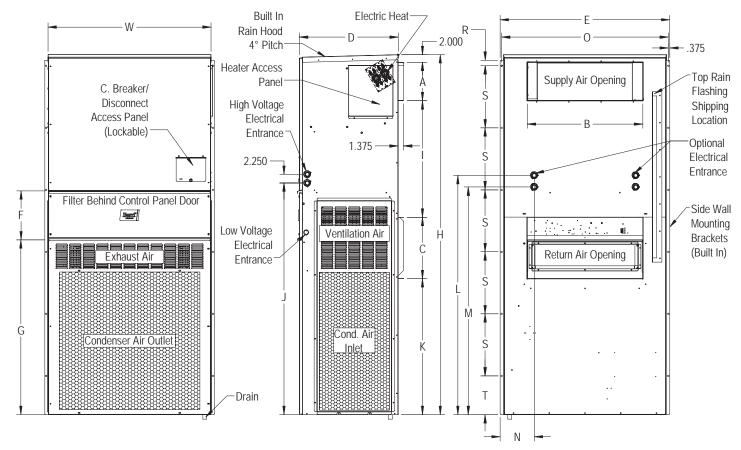
 2.) Each until this installation with the unit installed requires 40" on the left or right side of the unit
- 2.) Field ventilation installation with the unit installed requires 40" on the left or right side of the unit.3.) Bard recommends a minimum of 10 ft. between the unit front condenser air outlet and solid objects
- 3.) Bard recommends a minimum of 10 ft. between the unit front condenser air outlet and solid objects including fences, walls, bushes, and other airflow obstructions.
- 4.) Bard recommends a minimum of 15 ft. between the condenser air outlets of 2 units that are facing each other
- Bard recommends a minimum clearance of 4" under the unit cabinet for condenser defrost drainage during heat pump operation.

MINIMUM CLEARANCES REQUIRED TO COMBUSTIBLE MATERIALS					
MODELS ①	SUPPLY AIR DUCT FIRST THREE FEET	CABINET			
W42AC, W48AC, W60AC, W72AC	1/4"	0"			

 $\ensuremath{\mathbb{O}}$ Refer to the Installation Manual for more detailed information.

DIMENSIO	DIMENSIONS OF W18-72A BASIC UNIT FOR ARCHITECTURAL & INSTALLATION REQUIREMENTS (NOMINAL)																				
MODEL	WIDTH	DEPTH	HEIGHT	SUF	PLY	RET	URN														
WIODEL	(W)	(D)	(H)	Α	В	С	В	D	E	F	G	- 1	J	K	L	M	N	0	R	S	Т
W42AC W48AC	42	25.52	84.88	9.88	29.88	15.88	29.88	25.52	43.88	12.63	39.06	30	53.75	26.94	55.59	52.59	8.82	43	1.438	16	1.88
W60AC W72AC	42	25.52	93.00	9.88	29.88	15.88	29.88	25.52	43.88	12.63	45	30	59.75	35.06	61.72	58.72	8.82	43	1.438	16	10.00

① Wall Mounting holes in side flanges are 0.375.



MIS-3978

WALL CURB ACCESSORIES

Optional wall curb accessories are available to help reduce vibration through the outer wall surface or to use existing wall openings when replacing equipment. Follow all static pressure airflow requirements, safety and installation guidelines in the instructions provided with the curb and WALL MOUNT products.

CURB	UNITS USING CURB	DESCRIPTION
WMICF5-*	W42AC, W48AC,W60AC, W72AC	Provides vibration isolation for reduced sound transmission through wall
WWC5-*	W42AC, W48AC, W60AC, W72AC	Install to use with existing wall openings. Wall openings must provide sufficient airflow

^{*} Color Option

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INDOOR SOUND REDUCTION ACCESSORIES

Optional sound accessories are available to help reduce sound transmission from the supply and return openings inside the indoor area. Follow all static pressure airflow requirements, safety and installation guidelines in the instructions provided with the accessories and WALL MOUNT products.

ACCESSORY	UNITS USING ACCESS.	DESCRIPTION
WAPR11-*	W42AC, W48AC, W60AC, W72AC	Acoustical return air plenum that offsets the return air path. Air intake at floor level

^{*} Color Option

NON-DUCTED SUPPLY AND RETURN GRILLES

Supply and return louver grilles are of a brushed aluminum finish. 2" flange versions are recommended for standard installations to allow grille attachment when large wall openings are present. Return filter grilles are available for filter access from an indoor area. Filter grilles do not include a filter, and are not recommended for unit with ventilation due to filter location. A manual damper return grille is available for W42 and W72 models. The manual damper is adjustable, and is only recommended for installations where increased return duct static pressure is required.

GRILLE NO.	UNITS USING GRILLE	DESCRIPTION OF LOUVER GRILLE
SG-5W	W42AC, W48AC, W60AC, W72AC	10" x 30" with 2" Flange 4 way deflection supply grille. Use for standard installations
RG-5W	W42AC, W48AC, W60AC, W72AC	16" x 30" with 2" Flange return grille. Use for standard installations.
RFG-5W	W42AC, W48AC, W60AC, W72AC	16" x 30" with 1" Flange return filter grille. Not recommended for use as primary filter for units with vent options
RGD-5	W42AC, W48AC, W60AC, W72AC	16" x 30" with 1" Flange return grille. Manual damper used to restrict return air

////// NON-DUCTED SUPPLY GRILLES - SPREAD AND THROW CHARACTERISTICS

One of the most important setup procedures for non-ducted supply applications is to adjust the 4 way supply grille blade positions. Placement of equipment, occupants, the thermostat, and room size can all play an important role in deciding how the conditioned supply air must be directed in an indoor area. The chart below may be used as a reference tool to help with this process.

SUPPLY GRILLE	AIRFLOW CFM	DEFLECTION	VELOCITY	TOTAL PRESSURE	THROW
		0°	968	.073" WC	51-73 ft.
	1450 CFM	22.5°	1071	.103" WC	39-56 ft.
SG-5W	2000 CFM	45°	1331	.169" WC	28-40 ft.
3u-3w		O°	1336	.130" WC	61-86 ft.
		22.5°	1477	.188" WC	54-65 ft.
		45°	1835	.335" WC	33-46 ft.

////// CONTROLLER, THERMOSTAT, HUMIDISTAT AND CO2 VENTILATION CONTROL OPTIONS

Bard provides a wide variety of controllers for equipment cooling, thermostats, for equipment and comfort cooling, humidistats for dehumidification units, and CO2 sensors for ventilation control. Lockable thermostat covers are available for applications where security or supervisory control is desired.

CONTROLLER	OPERATION	DESCRIPTION
MC-4002	2 Unit Lead/Lag Controller	Standard Lead/Lag Controller with remote alarming capability.

THERMOSTAT	OPERATION	DESCRIPTION
8403-057	1 Heat/1 Cool	Easy to use, Nonprogrammable
8403-059	2 Heat/2 Cool	Programmable or Nonprogrammable
8403-060	3 Heat/3 Cool	Programmable or Nonprogrammable, ventilation output, dehumidification operation
8403-089	1 Heat/1 Cool	Temp. Settings per Day 4, 2, 1, 0 Programs per Week 7, 5-2, 5-1-1 or Nonprogrammable
8403-090	2 Heat/2 Cool	Temp. Settings per Day 4, 2, 1, 0 Programs per Week 7, 5-2, 5-1-1 or Nonprogrammable
8403-091	1 Heat/1 Cool	Easy to use, Nonprogrammable. FEMA use
8403-092	2 Heat/2 Cool	Programmable or Nonprogrammable, ventilation output, Wi-Fi

HUN	MIDISTAT	OPERATION	DESCRIPTION
840	03-038	Humidity %RH	Easy to use w/SPDT switching. Ratings: Pilot duty 50VA @24V, 120VA @ 120/240V
840	03-047	Humidity %RH	Electronic with display, EEPROM memory, lockable keypad, humidity sensor calibration

CO2 CONTROL	OPERATION	DESCRIPTION
8403-056	CO2 PPM	CO2 ventilation control with digital display. Use with JADE Economizer for modulating ventilation
8403-067	CO2 PPM	CO2 ventilation control with digital display. On/Off or modulating ventilation operation

THERMOSTAT COVER*	SIZE	DESCRIPTION
8405-003	(Inside) 5-1/16" H x 6-1/16" W (Outside) 6-1/2" H x 7-1/2" W x 2-15/16" D	Clear acrylic with ventilation. Fits all thermostats except 8403-060
8405-005	(Inside) 5-7/8" H x 8-3/8" W (Outside) 7-1/4" H x 9-3/4" W x 3-3/8" D	Clear acrylic with ventilation. Fits all thermostats.
8405-006	(Inside) 5-1/16" H x 6-1/16" W (Outside) 6-3/8" H x 7-3/8" W x 2-7/8" D	Clear acrylic with ventilation. Fits all thermostats except 8403-060
8405-007	(Inside) 5-7/8" H x 8-3/8" W (Outside) 7-1/8" H x 9-5/8" W x 3-1/4" D	Beige painted steel cover with ventilation. Fits all thermostats.

^{*} Thermostat covers include ventilation, but may effect temperature control reaction time. If security control lockout is needed, the 8403-060 thermostat provides input control lockout features.



Bard Manufacturing Company, Inc. 1914 Randolph Dr., Bryan, OH 43506 419-636-1194

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.