

THE WALL-MOUNT™ SIX TON AIR CONDITIONER

WA - 6 Ton Refrigerant 22 64,000 to 68,000 Btuh Right Side Control Panel

60Hz

The Bard Wall-Mount Six Ton 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 copper tubing and enhanced louvered aluminum fin for maximum heat transfer and energy efficiency.

Twin Blowers:

Move air quietly. Models WA701-A, WA701-B and WA721-B feature multispeed blower motors providing airflow adjustment for high and low static operation. Motor overload protection is standard on all models.

Air Conditioner Compressor:

Copeland scroll compressor designed for increased efficiency, quieter operation and improved reliability for longer life. Equipped with crankcase heater.

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, beige 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:

Feature an automatic limit and thermal cut-off safety control. Heater packages are factory or field installed for all models. Features easy slide-in field assembly with various BTUH outputs.

High Pressure Switch is Auto-Reset:

Built-in lock-out circuit resets from the room thermostat. Provides commercial quality protection to the compressor.

Low Pressure Switch is Auto-Reset:

Built-in lock-out circuit and low pressure timed bypass circuit. Resets from room thermostat.

Compressor Control Module:

Built-in off-delay timer adjustable from 30 seconds to 5 minutes. 2-minute on-delay if power interrupt. 120-second bypass for low pressure control, and both soft and manual lockouts for high and low pressure controls. Alarm output for alarm relay.

Low Ambient Control:

Permits operation down to 0°F outdoor ambient.

Dry Contacts for Remote Alarm on High or Low Pressure Lock-out:

Built-in Circuit Breakers:

Standard on all KW versions of models WA701-A, WA701-B and WA721-B. Toggle disconnects are standard on all KW types of model WA701-C (460 volt-3ph).

One Inch, Disposable Air Filters:

Are standard equipment. Optional 1-inch washable filters available and filter racks permit the addition of 2" pleated filter. Factory or field installed.

Condenser Fan and Motor Shroud Assembly:

Slide out for easy access.

Barometric Fresh Air Damper:

Standard on all units. Allows up to 25% outside fresh air.

Slope Top:

Standard feature for water runoff.

Top Rain Flashing:

Standard feature on all models

Full Length Mounting Brackets:

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

Ventilation System Packages

All packages are designed to meet your specific ventilation requirements utilizing one of six 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



- Certified to ANSI/ARI Standard 390-2003 for SPVU (Single Package Vertical Units).
- Commercial Product Not intended for Residential application.









Capacity and Efficiency Ratings

| | | Operating | Compressor | | Cooling | CFM / ESP | | |
|---------|---------|---------------|------------|-------|-------------|--------------------|-------|--------|
| Models | Volts | Voltage Range | Туре | Phase | Cap. BTUH ① | (Rated — Wet Coil) | EER ② | SEER ③ |
| WA702-A | 230/208 | 197 - 253 | SCROLL | 1 | 64,000 | 1,800 / .2 | 9.0 | 10.0 |
| WA701-B | 230/208 | 197 - 253 | SCROLL | 3 | 67,000 | 1,800 / .2 | 9.0 | _ |
| WA701-C | 460 | 414 - 506 | SCROLL | 3 | 67,000 | 1,800 / .2 | 9.0 | _ |
| WA721-B | 230/208 | 197 - 253 | SCROLL | 3 | 68,000 | 1,800 / .2 | 9.0 | |

- ① Capacity is certified in accordance with ANSI/ARI Standard 390-2003 and tested in accordance with ARI Standard 210/240-2003.
- 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 210/240-2003. All ratings based on fresh air intake being 100% closed (no outside air introduction).

Specifications

| | Electrical | Compressor | | | Outdoor I | an Mo | tor | Indoor Blower N | lotor | Filter Size | Shipping |
|---------|----------------|-------------|------|-----------|---------------------|-------|-------------|----------------------|-------|---------------|----------|
| Models | Rating — 60 HZ | RLA | BCSC | LRA | HP/RPM/SPD | FLA | DIA/CFM | HP/RPM/SPD | FLA | (Inches) Std. | Weight |
| WA702-A | 230/208-1 | 29.1 / 31.0 | 32 | 176 / 176 | 1/3 / 850 / 2-Spd | 2.5 | 24" / 2,600 | 1/2 / 1,070 / 2-Spd. | 3.3 | 20 x 30 x 1 | 520 |
| WA701-B | 230/208-3 | 20.5 / 21.5 | 22 | 150 / 156 | 1/3 / 850 / 2-Spd | 2.5 | 24" / 2,600 | 1/2 / 1,070 / 2-Spd | 3.3 | 20 x 30 x 1 | 520 |
| WA701-C | 460-3 | 10.2 | 10.2 | 75 | 1/3 / 850 / 1-Spd | 1.3 | 24" / 2,600 | 1/2 / 1,070 / 2-Spd | 1.9 | 20 x 30 x 1 | 520 |
| WA721-B | 230/208-3 | 20.5 21.5 | 22 | 150 / 156 | 1/2 / 1,075 / 1-Spd | 3.0 | 24" / 3,500 | 1/2 / 1,070 / 2-Spd | 3.3 | 20 x 30 x 1 | 520 |

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

Electrical Specifications

| opecifica | 2110113 | | | | | | | | | | | | | | |
|------------------------|---|--|--|--|--|---|---|---|--|--|--------------------------|---|--------------------------|--|--|
| | | | SINGLE CIF | RCUIT | | DUAL CIRCUIT | | | | | | | | | |
| Rated Volts & Phase | No. Field Power Circuits | | Maximum External Fuse or Circuit Breaker | ② Field Power Wire Size | ② Ground Wire Size | Circ | cuit | Extern or C | al Fuse ircuit | Po | wer | W | ound ire ize | | |
| | | | | | | Ckt. A | Ckt. B | Ckt. A | Ckt. B | Ckt. A | Ckt. B | Ckt. A | Ckt. B | | |
| | 1 | 48 | 60 | 8 | 10 | | | | | | | | | | |
| | 1 | 48 | 60 | 8 | 10 | | | | | | | | | | |
| 230/208-1 | 1 | 59 | 60 | 6 | 10 | | | | | | | | | | |
| | 1 or 2 | 85 | 90 | 4 | 8 | 59 | 26 | 60 | 30 | 6 | 10 | 10 | 10 | | |
| | 1 or 2 | 110 | 110 | 2 | 8 | 59 | 52 | 60 | 60 | 6 | 6 | 10 | 10 | | |
| | | | | | | | | | | | | | | | |
| | 1 | 36 | 50 | 8 | 10 | | | | | | | | | | |
| 230/208-3 | 1 | 36 | 50 | 8 | 10 | | | | | | | | | | |
| | 1 | 52 | 60 | 6 | 10 | | | | | | | | | | |
| | 1 | 60 | 60 | 6 | 10 | | | | | | | | | | |
| | 1 | 17 | 25 | 12 | 12 | | | | | | | | | | |
| 460-3 | 1 | 17 | 25 | 12 | 12 | | | | | | | | | | |
| | 1 | 26 | 30 | 10 | 10 | | | | | | | | | | |
| | Rated Volts & Phase 230/208-1 230/208-3 | Volts & Phase Power Circuits 1 230/208-1 1 1 or 2 1 or 2 1 or 2 230/208-3 1 1 1 1 1 1 | Rated Volts & Phase Power Circuits | Rated Volts & Phase Power Circuits Single Circuit Ampacity Single Circuit Ampacity Single Circuit Breaker Single Circuit Ampacity Single Circuit Breaker Single Circuit Ampacity Single Circuit Breaker S | Rated Volts & Phase No. Field Power Circuits | Rated Volts & Phase No. Field Power Circuits Minimum Circuit Ampacity Minimum External Fuse or Circuit Breaker Power Wire Size Ground Wire Size | No. Field Volts & Phase No. Field Power Circuits Ampacity SINGLE CIRCUIT Size Size | No. Field Power Circuits No. Field Power Circuits Ampacity No. Field Power Circuit Ampacity No. Field Power Circuit Ampacity No. Field Power Circuit Ampacity No. Field Power Wire Size No. Field Power Wire Size | No. Field Volts & Phase No. Field Power Circuits Ampacity SINGLE CIRCUIT | No. Field Power Circuits No. Field Power Circuits No. Field Power Circuit Ampacity No. Field Power Circuit Ampacity No. Field Power Circuit Ampacity No. Field Power Circuit Breaker No. Field Power Wire Size No. | No. Field Power Circuits | No. Field Power Circuits No. Field Power Circuits No. Field Power Circuit Ampacity No. Field Power Circuit Ampacity No. Field Power Circuit Ampacity No. Field Power Circuit Breaker No. Field Power Circuit Ampacity No. Field Power Wire Size No. Field Power Wire Size No. Field Power Circuit Ampacity No. Field Power Wire Size No. Field Power Circuit Breaker No. Field Power Wire Size No. Field Power Circuit Breaker No. Field Power Wire Size No. Field Power Circuit Breaker No. Field Power Wire Size No. Field Power Circuit Breaker No. Field Power Wire Size No. Field Power Wire | No. Field Power Circuits | | |

- ① Maximum size of the time delay fuse or HACR type circuit breaker for protection of field wiring conductors.
- ② Based on 75°C copper wire. All wiring must conform to the National Electrical Code (NEC) and all local codes.
- 3 These "Minimum Circuit Ampacity" values are to be used for sizing the field power conductors. Refer to the National Electric Code (latest revision), article 310 for power conductor sizing. Caution: When more than one field power conductor circuit is run through one conduit, the conductors must be derated. Pay special attention to note 8 of Table 310 regarding Ampacity Adjustment Factors when more than 3 conductors are in a raceway.

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

| Nominal | | At 24 | IOV (1) | | At 208V (1) | | | | | At 480V (2) | | At 460V (2) | | | |
|---------|------|-----------|-----------|--------|-------------|-----------|-----------|--------|------|-------------|--------|-------------|-----------|--------|--|
| KW | Kw | 1-Ph Amps | 3-Ph Amps | Btuh | Kw | 1-Ph Amps | 3-Ph Amps | Btuh | Kw | 3-Ph Amps | Btuh | Kw | 3-Ph Amps | Btuh | |
| 5.0 | 5.0 | 20.8 | | 17,065 | 3.75 | 18.0 | | 12,799 | | | | | | | |
| 9.0 | 9.0 | | 21.7 | 30,717 | 6.75 | | 18.7 | 23,038 | 9.0 | 10.8 | 30,717 | 8.28 | 10.4 | 28,260 | |
| 10.0 | 10.0 | 41.7 | | 34,130 | 7.50 | 36.1 | | 25,598 | | | | | | | |
| 15.0 | 15.0 | 62.5 | 36.1 | 51,195 | 11.25 | 54.1 | 31.2 | 38,396 | 15.0 | 18.0 | 51,195 | 13.80 | 17.3 | 47,099 | |
| 18.0 | 18.0 | | 43.3 | 61,434 | 13.50 | | 37.5 | 46,076 | 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

| | ing Electric Heat to 0 andard on 230/208V | | - Pull Discon | | - UL Listed - CUL Listed | | | |
|-----------------|--|----|------------------------|----|-----------------------------|----|--|--|
| Air Conditioner | -A00 Mode 230/208-1 | ls | -B00 Mode 230/208-3 | ls | -C00 Models 460-3 | | | |
| Models | Heater Model # | KW | Heater Model # | KW | Heater Model # | KW | | |
| | EHWA60-A05 | 5 | EHWA60-B09 | 9 | EHWA05A-C09 | 9 | | |
| WA70 | EHWA05-A10 | 10 | EHWA05-B15 | 15 | EHWA05A-C15 | 15 | | |
| WATO | EHWA05-A15 | 15 | EHWA05-B18 | 18 | | | | |
| | EHWA05-A20 | 20 | | | | | | |
| | | | EHWA60-B09 | 9 | | | | |
| WA72 | N/A | | EHWA05-B15 | 15 | N/A | | | |
| | | | EHWA05-B18 | 18 | | | | |

Indoor Blower Performance - CFM at 230 Volts

| | WA | 70 |
|--------|---------------|---------------|
| | WA | .72 |
| E.S.P. | HIGH SPEED | LOW SPEED |
| In H₂O | DRY/WET COIL | DRY/WET COIL |
| .0 | 2,200/2,000 | 1,600 / 1,450 |
| .1 | 2,100 / 1,900 | 1,525 / 1,375 |
| .2 | 2,000 / 1,800 | - / - |
| .3 | 1,875 / 1,700 | - / - |
| .4 | 1,775 / 1,600 | - / - |
| .5 | 1,650 / 1,475 | - / - |

Form No. Supersedes S3274-206

Clearances Required for Service Access and Adequate Condenser Air Flow

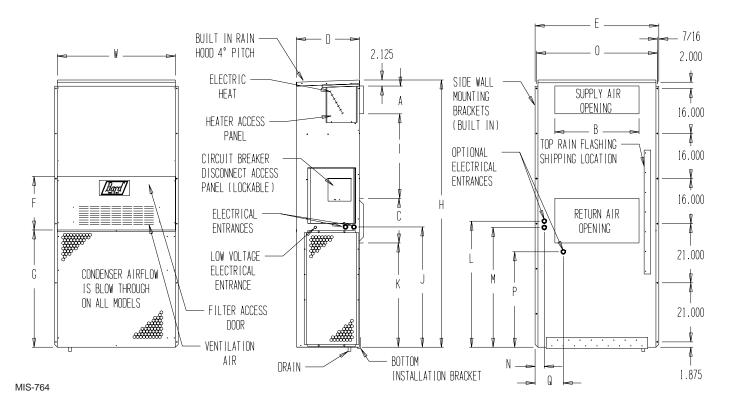
| MODELS | LEFT SIDE | RIGHT SIDE |
|------------|-----------|------------|
| WA70, WA72 | 20" | 20" |

Minimum Clearances Required to Combustible Materials

| MODELS ① | SUPPLY AIR DUCT FIRST THREE FEET | CABINET |
|------------|-------------------------------------|---------|
| WA70, WA72 | 1/4" | 0" |

① Refer to the Installation Manual for more detailed information.

| Dime | nsion | s of B | asic L | Init f | or A | rchit | ectu | ral al | nd Ir | stal | latio | n Re | quire | emei | nts (l | Nom | inal) |) | |
|--------------|--------|--------|--------|--------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|--------|------|-------|-------|-------|
| MODEL | | DEPTH | _ | SUF | PLY | RET | URN | | | | | | | | | | | | |
| WODEL | (W) | (D) | (H) | Α | В | С | В | Е | F | G | - | J | K | L | М | N | 0 | Р | Q |
| WA70 WA72 | 42.075 | 22.432 | 94.875 | 9.88 | 29.88 | 15.88 | 29.88 | 43.88 | 19.00 | 41.66 | 30.00 | 42.68 | 36.94 | 44.69 | 42.43 | 3.37 | 42.88 | 33.88 | 10.00 |



FRONT VIEW SIDE VIEW BACK VIEW

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



Motorized Fresh Air Damper



Commercial Room Ventilator



Economizer



Energy Recovery Ventilator

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 - MFAD

OPTION

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

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

COMMERCIAL ROOM VENTILATOR - CRV

OPTIONAL

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

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

ECONOMIZER - EIFM

OPTIONAL

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

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.

WALL-MOUNT ENERGY RECOVERY VENTILATOR - WERV

OPTIONAL

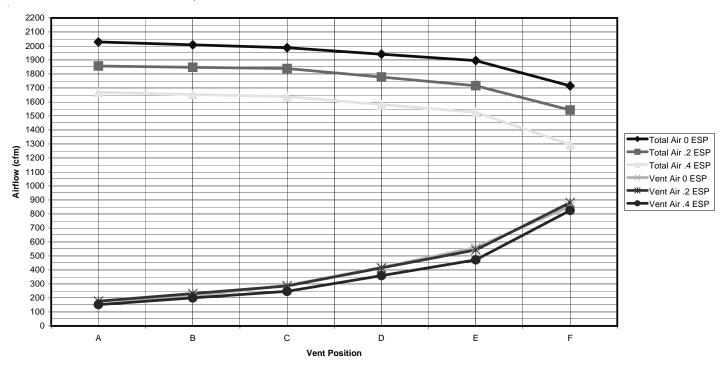
The wall-mount energy recovery ventilator (WERV) is a highly innovative approach to meeting indoor air quality ventilation requirements as established by ANSI/ASHRAE Standard 62.1. The WERV allows from 200 to 450 CFM (depending upon model) of fresh air and exhaust through the unit while maintaining superior 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.

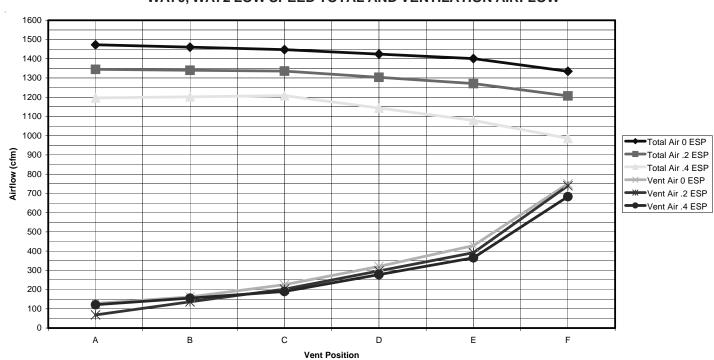
The WERV is designed to be internally mounted behind the service door in the WA, WH or WL model wall mount units. It can be built-in at the factory or field installed as an option. WERV-*5C can be independently adjusted for intake and exhaust rates.

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

WA70, WA72 HIGH SPEED TOTAL AND VENTILATION AIRFLOW



WA70, WA72 LOW SPEED TOTAL AND VENTILATION AIRFLOW



Performance and Application Data- WERV-*5C

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

| Ambi O.I | | | VENTIL | ATION R | ATE 4 | 50 CFM | | | VENTIL | ATION R | ATE 3 | 75 CFM | | | VENTIL | ATION R | ATE 3 | 00 CFM | |
|-------------|----|-------|--------|---------|-------|--------|-------|-------|--------|---------|-------|--------|-------|-------|--------|---------|-------|--------|-------|
| DB/ WB | F | VLT | VLS | VLL | HRT | HRS | HRL | VLT | VLS | VLL | HRT | HRS | HRL | VLT | VLS | VLL | HRT | HRS | HRL |
| | 75 | 21465 | 14580 | 6884 | 13952 | 9477 | 4475 | 17887 | 12150 | 5737 | 11805 | 8018 | 3786 | 14310 | 9720 | 4590 | 9587 | 6512 | 3075 |
| 105 | 70 | 14580 | 14580 | 0 | 9477 | 9477 | 0 | 12150 | 12150 | 0 | 8018 | 8018 | 0 | 9720 | 9720 | 0 | 6512 | 6512 | 0 |
| | 65 | 14580 | 14580 | 0 | 9477 | 9477 | 0 | 12150 | 12150 | 0 | 8018 | 8018 | 0 | 9720 | 9720 | 0 | 6512 | 6512 | 0 |
| | 80 | 31590 | 12150 | 19440 | 20533 | 7897 | 12635 | 26325 | 10125 | 16200 | 17374 | 6682 | 10692 | 21060 | 8100 | 12960 | 14110 | 5427 | 8683 |
| | 75 | 21465 | 12150 | 9314 | 13952 | 7897 | 6054 | 17887 | 10125 | 7762 | 11805 | 6682 | 5123 | 14310 | 8100 | 6210 | 9587 | 5427 | 4160 |
| 100 | 70 | 12352 | 12150 | 202 | 8029 | 7897 | 131 | 10293 | 10125 | 168 | 6793 | 6682 | 111 | 8235 | 8100 | 135 | 5517 | 5427 | 90 |
| | 65 | 12150 | 12150 | 0 | 7897 | 7897 | 0 | 10125 | 10125 | 0 | 6682 | 6682 | 0 | 8100 | 8100 | 0 | 5427 | 5427 | 0 |
| | 60 | 12150 | 12150 | 0 | 7897 | 7897 | 0 | 10125 | 10125 | 0 | 6682 | 6682 | 0 | 8100 | 8100 | 0 | 5427 | 5427 | 0 |
| | 80 | 31590 | 9720 | 21870 | 20533 | 6318 | 14215 | 26325 | 8100 | 18225 | 17374 | 5345 | 12028 | 21060 | 6480 | 14580 | 14110 | 4341 | 9768 |
| | 75 | 21465 | 9720 | 11744 | 13952 | 6318 | 7634 | 17887 | 8100 | 9787 | 11805 | 5345 | 6459 | 14310 | 6480 | 7830 | 9587 | 4341 | 5246 |
| 95 | 70 | 12352 | 9720 | 2632 | 8029 | 6318 | 1711 | 10293 | 8100 | 2193 | 6793 | 5345 | 1447 | 8235 | 6480 | 1755 | 5517 | 4341 | 1175 |
| | 65 | 9720 | 9720 | 0 | 6318 | 6318 | 0 | 8100 | 8100 | 0 | 5345 | 5345 | 0 | 6480 | 6480 | 0 | 4341 | 4341 | 0 |
| | 60 | 9720 | 9720 | 0 | 6318 | 6318 | 0 | 8100 | 8100 | 0 | 5345 | 5345 | 0 | 6480 | 6480 | 0 | 4341 | 4341 | 0 |
| | 80 | 31590 | 7290 | 24300 | 20533 | 4738 | 15794 | 26325 | 6075 | 20250 | 17374 | 4009 | 13365 | 21060 | 4860 | 16200 | 14110 | 3256 | 10854 |
| | 75 | 21465 | 7290 | 14175 | 13952 | 4738 | 9213 | 17887 | 6075 | 11812 | 11805 | 4009 | 7796 | 14310 | 4860 | 9450 | 9587 | 3256 | 6331 |
| 90 | 70 | 12352 | 7290 | 5062 | 8029 | 4738 | 3290 | 10293 | 6075 | 4218 | 6793 | 4009 | 2784 | 8235 | 4860 | 3375 | 5517 | 3256 | 2261 |
| | 65 | 7290 | 7290 | 0 | 4738 | 4738 | 0 | 6075 | 6075 | 0 | 4009 | 4009 | 0 | 4860 | 4860 | 0 | 3256 | 3256 | 0 |
| | 60 | 7290 | 7290 | 0 | 4738 | 4738 | 0 | 6075 | 6075 | 0 | 4009 | 4009 | 0 | 4860 | 4860 | 0 | 3256 | 3256 | 0 |
| | 80 | 31590 | 4860 | 26730 | 20533 | 3159 | 17374 | 26325 | 4050 | 22275 | 17374 | 2672 | 14701 | 21060 | 3240 | 17820 | 14110 | 2170 | 11939 |
| | 75 | 21465 | 4860 | 16605 | 13952 | 3159 | 10793 | 17887 | 4050 | 13837 | 11805 | 2672 | 9132 | 14310 | 3240 | 11070 | 9587 | 2170 | 7416 |
| 85 | 70 | 12352 | 4860 | 7492 | 8029 | 3159 | 4870 | 10293 | 4050 | 6243 | 6793 | 2672 | 4120 | 8235 | 3240 | 4995 | 5517 | 2170 | 3346 |
| | 65 | 4860 | 4860 | 0 | 3159 | 3159 | 0 | 4050 | 4050 | 0 | 2672 | 2672 | 0 | 3240 | 3240 | 0 | 2170 | 2170 | 0 |
| | 60 | 4860 | 4860 | 0 | 3159 | 3159 | 0 | 4050 | 4050 | 0 | 2672 | 2672 | 0 | 3240 | 3240 | 0 | 2170 | 2170 | 0 |
| | 75 | 21465 | 2430 | 19035 | 13952 | 1579 | 12372 | 17887 | 2025 | 15862 | 11805 | 1336 | 10469 | 14310 | 1620 | 12690 | 9587 | 1085 | 8502 |
| 80 | 70 | 12352 | 2430 | 9922 | 8029 | 1579 | 6449 | 10293 | 2025 | 8268 | 6793 | 1336 | 5457 | 8235 | 1620 | 6615 | 5517 | 1085 | 4432 |
| | 65 | 4252 | 2430 | 1822 | 2764 | 1579 | 1184 | 3543 | 2025 | 1518 | 2338 | 1336 | 1002 | 2835 | 1620 | 1215 | 1899 | 1085 | 814 |
| | 60 | 2430 | 2430 | 0 | 1579 | 1579 | 0 | 2025 | 2025 | 0 | 1336 | 1336 | 0 | 1620 | 1620 | 0 | 1085 | 1085 | 0 |
| | 70 | 12352 | 0 | 12352 | 8029 | 0 | 8029 | 10293 | 0 | 10293 | 6793 | 0 | 6793 | 8235 | 0 | 8235 | 5517 | 0 | 5517 |
| 75 | 65 | 4252 | 0 | 4252 | 2764 | 0 | 2764 | 3543 | 0 | 3543 | 2338 | 0 | 2338 | 2835 | 0 | 2835 | 1899 | 0 | 1899 |
| | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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

| (INDOOR DESIGN CONDITIONS 70°F DB) | | | | | | | | | | | | | |
|------------------------------------|-------|-------|-------|-------|-------|-------|--|--|--|--|--|--|--|
| Ambient VENTILATION RATE | | | | | | | | | | | | | |
| O.D. | 450 | CFM | 375 | CFM | 300 | CFM | | | | | | | |
| DB/°F | WVL | WHR | WVL | WHR | WVL | WHR | | | | | | | |
| 65 | 2430 | 1944 | 2025 | 1640 | 1620 | 1328 | | | | | | | |
| 60 | 4860 | 3888 | 4050 | 3280 | 3240 | 2656 | | | | | | | |
| 55 | 7290 | 5832 | 6075 | 4920 | 4860 | 3985 | | | | | | | |
| 50 | 9720 | 7776 | 8100 | 6561 | 6480 | 5313 | | | | | | | |
| 45 | 12150 | 9720 | 10125 | 8201 | 8100 | 6642 | | | | | | | |
| 40 | 14580 | 11664 | 12150 | 9841 | 9720 | 7970 | | | | | | | |
| 35 | 17010 | 13608 | 14175 | 11481 | 11340 | 9298 | | | | | | | |
| 30 | 19440 | 15552 | 16200 | 13122 | 12960 | 10627 | | | | | | | |
| 25 | 21870 | 17496 | 18225 | 14762 | 14580 | 11955 | | | | | | | |
| 20 | 24300 | 19440 | 20250 | 16402 | 16200 | 13284 | | | | | | | |
| 15 | 26730 | 21384 | 22275 | 18042 | 17820 | 14612 | | | | | | | |

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

| Cooling Application Data — Outdoor Temperature °F ① | | | | | | | | | | | | | | |
|---|-----------|-----------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--|
| Model | D.B./W.B. | 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 Sensible Cooling | 66,200 50,600 | 63,600 47,900 | 61,000 45,400 | 58,400 43,500 | 55,700 42,000 | 53,200 40,800 | 50,700 40,100 | 48,100 39,600 | 45,500 39,500 | _ | _ | |
| WA702-A | 80/ 67 | Total Cooling Sensible Cooling | 70,700 49,100 | 69,300 46,900 | 67,700 45,000 | 66,000 43,500 | 64,000 42,400 | 62,000 41,500 | 59,800 41,100 | 57,400 40,900 | 54,800 41,100 | _ | _ _ | |
| | 85/ 72 | Total Cooling Sensible Cooling | 84,200 50,300 | 81,000 47,600 | 77,700 45,200 | 74,500 43,200 | 71,100 41,600 | 67,800 40,200 | 64,500 39,200 | 61,100 38,400 | 57,600 37,900 | _ | _ | |
| | 75/ 62 | Total Cooling Sensible Cooling | 69,700 49,500 | 66,800 48,000 | 63,900 46,600 | 61,100 45,300 | 58,300 44,000 | 55,550 42,800 | 52,800 41,600 | 50,150 40,550 | 47,500 39,500 | _ | _ | |
| WA701-B,C | 80/ 67 | Total Cooling Sensible Cooling | 74,550 48,050 | 72,850 47,100 | 71,050 46,200 | 69,100 45,300 | 67,000 44,450 | 64,800 43,600 | 62,400 42,750 | 59,900 41,950 | 57,250 41,150 | _ | _ | |
| | 85/ 72 | Total Cooling Sensible Cooling | 88,700 49,150 | 85,100 47,750 | 81,550 46,350 | 77,950 44,950 | 74,400 43,550 | 70,800 42,134 | 67,250 40,700 | 63,650 39,300 | 60,100 37,850 | _ | _ | |
| | 75/ 62 | Total Cooling Sensible Cooling | 70,700 50,500 | 67,800 49,000 | 64,900 47,600 | 62,100 46,300 | 59,300 45,000 | 56,500 43,800 | 53,800 42,600 | 51,200 41,600 | 48,500 40,500 | 46,800 39,800 | 45,600 38,600 | |
| WA721 | 80/ 67 | Total Cooling Sensible Cooling | 75,600 49,100 | 73,900 48,100 | 72,100 47,200 | 70,100 46,300 | 68,000 45,500 | 65,800 44,600 | 63,400 43,800 | 60,900 43,000 | 58,300 42,200 | 57,400 41,800 | 54,500 40,850 | |
| Ī | 85/ 72 | Total Cooling Sensible Cooling | 89,700 50,200 | 86,100 48,800 | 82,600 47,400 | 79,000 46,000 | 75,400 44,600 | 71,800 43,200 | 68,300 41,700 | 64,700 40,300 | 61,100 38,900 | 59,500 37,800 | 56,900 35,800 | |

 $^{\ \, \}textcircled{1}$ Below 65°F, unit requires a factory or field installed low ambient control.

| 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 Return air temp. °F.

Air Conditioning Wall-Mount Model Nomenclature WA **70** 10 MODEL NUMBER | ΚW CONTROL MODULES 00 - No KW (See chart below) 07 - No KW CAPACITY | **OUTLET OPTIONS** w/Circuit 70 - 6 Ton X - Front (Standard) Breaker 72 - 6 Ton or Pull REVISIONS H Disconnect **COIL OPTIONS COLOR OPTIONS** 05 - 5KW X - Standard X - Beige (Standard) **VOLTS & PHASE** 09 - 9KW 1 - Phenolic Coated Evaporator 1 - White A - 230/208/60/1 10 - 10KW 2 - Phenolic Coated Condenser 2 - Mesa Tan B - 230/208/60/3 15 - 15KW 3 - Phenolic Coated Evaporator 4 - Buckeye Gray C - 460/60/3 18 - 18KW and Condenser 5 - Desert Brown 20 - 20KW 8 - Dark Bronze **FILTER OPTIONS** X - 1-Inch Disposable (Standard) **VENTILATION OPTIONS** W - 1-Inch Washable See Table Below P - 2-Inch Pleated

Note: For 0KW and circuit breakers (230/208 Volt) or toggle disconnects (460 Volt) applications, insert 0Z in the KW field of model number.

| WA70 & WA72 Ventilation Options | | | | |
|---|----------------------------|--------------------------|--|--|
| MODELS | WA70, WA72 | | | |
| DESCRIPTION | Factory Installed Code No. | Field Installed Part No. | | |
| Barometric Fresh Air Damper | X | BFAD-5 | | |
| Blank-Off Plate | В | BOP-5 | | |
| Motorized Fresh Air Damper | M | MFAD-5 | | |
| Commercial Ventilator - Spring Return w/Exhaust | V | CRVS-5 | | |
| Commercial Ventilator - Power Return w/Exhaust | Р | CRVP-5 | | |
| Economizer (Internal) - Fully Modulating ① | E | EIFM-5C | | |
| Economizer (Internal) - Fully Modulating ① ② | D | N/A | | |
| Energy Recovery Ventilator - 230 Volt ④ | R ③ | WERV-A5B 3 | | |
| Energy Recovery Ventilator - 460 Volt ④ | R ③ | WERV-C5B 3 | | |

- ① Low ambient control is required with economizer for low temperature compressor operation.
- © For use only with "V" Control Module and TCS22 Controller.
- 3 The Energy Recovery Ventilator is available on the WA70 model series only.
- ① Intake and exhaust can be independently adjusted.

| Air Conditioning Control Modules | | | | | | | | | | |
|----------------------------------|-------|-------|-------|-------|------|-------|-------|------------------------|----------------------|--|
| HPC@ | LPC ② | CCM ® | LAC ④ | ALR © | SK ® | ODT Ø | DDC ® | Factory Installed Code | Field Installed Part | |
| STD | STD | STD | STD | STD | | | | J | N/A | |
| STD | STD | STD | STD | STD | | | • | V (9) | CMA-24 | |
| STD | STD | STD | STD | STD | • | | | Field Installed Only | CMC-15 | |
| STD | STD | STD | STD | STD | | • | | Field Installed Only | CMA-14 | |

- STD = Standard equipment for these specified models.
- ① HPC. High pressure control is auto reset. Always used with compressor control module (CCM), which is included. See note ③.
- ② LPC. Low pressure control is auto reset. Always used with compressor control module (CCM), which is included. See note ③.
- 3 CCM. Compressor control module has adjustable 30-second to 5-minute delay-on-break timer. On initial power-up, or any time the power is interrupted, the delay-on-make will be 2 minutes, plus 10% of the delay-on-break setting. There is no delay-on-make during routine operation of the unit. The module also provides the lockout feature (with 1 retry) for high and/or low-pressure controls, and a 2-minute timed bypass for low-pressure control.
- ④ LAC. Low ambient control permits cooling operation down to 0°F.
- S ALR. The alarm relay has a set of normally open and normally closed dry contacts to provide the ability to signal a condition of shutdown on either high or low pressure controls.
- 6 SK. Start kit can be used with all -A single phase models only. Is not used or available for -B or -C three phase models.
- ODT. Outdoor thermostat is adjustable from 0 to 50°F. It is suitable for use as a compressor cut-off thermostat.
- ® 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 air flow, compressor status or filter status.
- 9 "V" control module should be ordered in conjunction with direct digital controller (DDC) model TCS22. Refer to DDC specification sheet S3280 for more information.



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

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

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