

## TECHNICAL DATA



Model	BTU/H Capacity	Water Flow (GPM) @85°F Max.▼	Volts	Hz	** Running Amps	Approx. Weight (lbs.)
KA4C4WNP33	4000	1.0	115/100	60/50	10.4	85
KA4C4WNP33/56	4000	1.0	115	50/60*	10.4	85
K2A4C4WNP33	4000	1.0	230/200	60/50	5.4	85
K2A4C4WNP33/5	4000	1.0	230	50	5.4	85

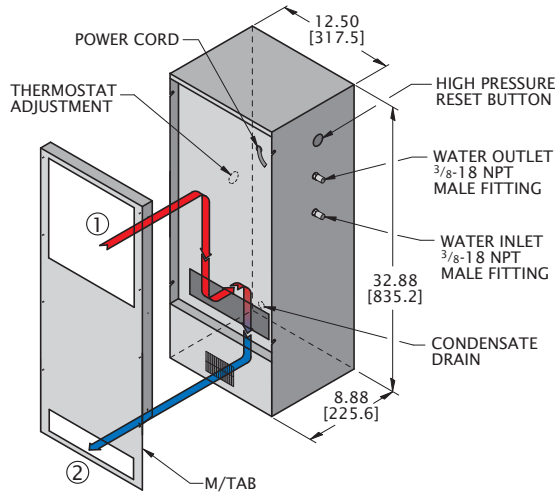
## STANDARD FEATURES

- CFC-Free Refrigerant
- EMI/RFI Suppressor
- Excess Pressure Control
- Low Temperature Control Thermostat
- M/TAB Mounting System
- Water Regulating Valve

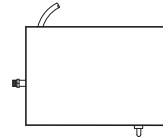
## ACCESSORIES AND OPTIONS

- Aluminum Shell
- Cooling Effect Detector
- Enclosure Heater
- High-Capacity Condensate Evaporator
- Internal corrosion protection
- Lifting Eyes
- Low Airflow Detector
- Mounting Hinge
- Remote Thermostat Relay
- Short Cycle Protector
- Special controls or indicators
- Special materials or finishes
- Special motors, line cords or connectors
- Stainless Steel Shell

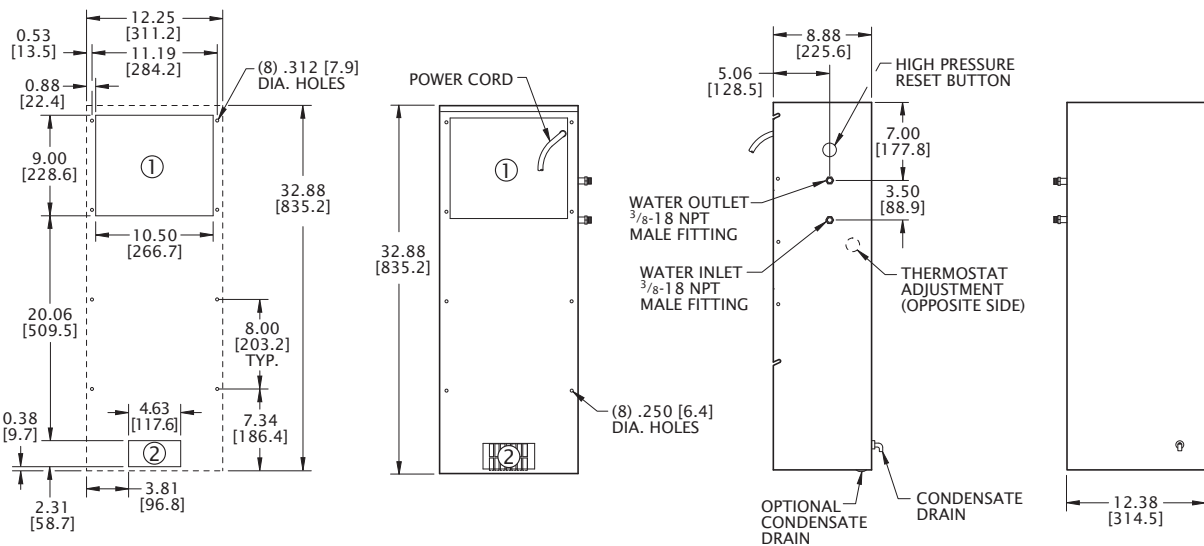
Many popular units are available as 3D solid models for customer system integration. Please contact Kooltronic for details.



- ① WARM AIR RETURN FROM ENCLOSURE
- ② COOL AIR OUTLET TO ENCLOSURE



## MOUNTING PLAN



Dimensions, inches [mm], are for reference only and subject to change.

\* Switchable. Switch is internally-mounted for security.

\*\* Rating shown is for operation at maximum water temperature.

▼ Rated for full capacity load at 85°F water. Usage will vary at lower load or cooler water conditions.

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## DESCRIPTION

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Cool circulating water has greater heat-removal capacity than warm ambient air.

KOOLTRONIC **Water-Cooled Air Conditioners** are recommended for applications with extreme ambient temperatures and/or severely contaminated environments, if a reliable supply of cool, clean water is available.

**Since ambient air is sealed out of the Air Conditioner as well as the enclosure, no contaminants can enter and there are no filters to clean.**

These units contain a regulating valve that automatically adjusts the condenser waterflow rate for water temperature and/or cooling load changes. When the Air Conditioner is shut off, the valve closes, cutting off the water supply to the unit.

The built-in Excess Pressure Control, should the water supply become inadequate for any reason, senses the increased compressor discharge pressure and turns off the unit. For added protection, the switch must be reset manually after the waterflow problem has been corrected.

Outdoor or corrosive environments require weather protection and/or special internal and external protective features. Also see **Integrity NEMA 4/4X** and **Intrepid Outdoor Series**.

See **Rack-Mounted Water-Cooled Air Conditioners** for alternatives to panel-mounted models.

**KOOLTRONIC also designs and manufactures a variety of Air Conditioners to meet unique specifications. We invite your inquiries about our modification and custom-design capabilities.**

## STANDARD FEATURES

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**CLOSED-LOOP COOLING:** The enclosure interior airflow system is isolated from the ambient airflow system. Ambient air can not invade the cool, dehumidified sensitive component compartment.

**BALL-BEARING MOTORS:** All blower motors are UL/CSA Recognized and include automatic-reset thermal overload protection and double-sealed or double-shielded precision ball bearings. Special permanent lubricants perform over a broad temperature range: -20°F [-28.9°C] to 250°F [121.1°C].

**BLOWERS:** All centrifugal blowers are Kooltronic-designed and built, to provide optimum airflow and pressure for each Air Conditioner design.

**RUGGED CONSTRUCTION:** Precision-engineered heavy gauge steel construction of all shells and blowers insures Air Conditioners will stand up under tough applications.

**BAKED POWDER FINISH:** Durable, baked-on gray powder finish is standard. Other finishes are available.

**POWER:** Available in 115 VAC, 60 Hz or 50/60 switchable and 230 VAC, 50 Hz or 60 Hz.

**REFRIGERANTS:** CFC-free R134a Refrigerant is used in all Air Conditioners for which compatible compressors are available. All others contain low Ozone Depleting Potential (ODP) R22 Refrigerant and are being converted to R134a as compatible compressors become available. The model number reflects the refrigerant. A 4 between the A and C signifies R134a; a 3 signifies R22. Consult KOOLTRONIC for status at time of requirement.

**CONDENSATE REMOVAL:** Condensate drain fitting and hose are included.

**LOW TEMPERATURE CONTROL:** Thermostatic Low Temperature Control prevents over-cooling and provides energy-efficient operation.

**EMI/RFI SUPPRESSOR:** EMI/RFI Suppressor minimizes transient line spikes during on/off cycling.

**POWER CORD:** All models have six foot [1.8m] SJT-type 3-wire power cords with appropriate plugs.

**INSULATION:** All cold components, lines and the evaporator compartment are insulated with high-performance insulation for maximum efficiency.

**GASKETING:** All units are fully gasketed for tight, leakproof installation, in compliance with the NEMA 4/4X Enclosure Rating.

**QUALITY ASSURANCE:** Refrigeration system components are kept sealed until charged with refrigerant; all brazed joints are thoroughly leak-tested; each unit is functionally tested before shipment.

**INSTALLATION:** Detailed Installation and Operator's Manual, with drawings, mounting plan and spare parts list is included with each unit.

## ACCESSORIES AND OPTIONS\*\*

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### FACTORY-INSTALLED OPTIONS:

**ALUMINUM SHELL:** Where light weight and/or compatibility with appearance of Aluminum Enclosures are required. Unpainted Type 5052 is standard. Other types and ultra-violet-resistant baked powder finish are available.

Append letter "A" to Part No. (5052 Unpainted)

**CONDENSER ACCESS PANEL:** Expressly designed for quick, convenient access to the condenser coil for easy cleaning and servicing. Recommended for units operating in dirty environments, the panel is easily removed and replaced by use of a few fasteners, without removal of the entire rear cover panel.

**COOLING EFFECT DETECTOR:** A thermostat is mounted inside the cabinet and attached to a sensor in the warm air return. When the air temperature increases to the set point, a signal is sent to a terminal block. User-installed wiring from the terminal block to local and/or remote warning devices (*light, bell, siren, etc.*) can be for normally open or closed operation.

Append letter "B" to Part No.

**INTERNAL CORROSION PROTECTION:** For corrosive or other hostile environments, special coating material is applied to copper lines, coils and other parts subject to damage. Also see **Stainless Steel Cabinet** or **Integrity NEMA 4/4X Air Conditioners**.

Append letter "H" to Part No.

**\*\*Contact KOOLTRONIC for information.**

## **ACCESSORIES AND OPTIONS\*\* (continued)**

**LIFTING EYES:** Heavy-gauge steel lifting eyes, attached to the side panels, assist in positioning units.

Append letter "K" to Part No.

**LOW AIRFLOW DETECTOR:** Similar to the Airflow Switch shown in the Blower Accessories Section, the switch is installed in a suitable location in the Air Conditioner to detect loss of airflow, and sends a signal to a terminal block, through which user-installed wiring and warning devices are activated.

Append letter "M" to Part No.

**SHORT CYCLE PROTECTOR:** Protects the compressor from possible damage due to harmful short cycling, by initiating an "off" period before resumption of normal operation. Generally air conditioners require several minutes off for compressor protection after power interruptions of any type. These power interruptions can include power failures, opening of interlocked access doors, and cases where a thermostat activates the compressor in less than a few minutes. This option is particularly recommended for applications where frequent, brief power failures occur, interlocked cabinet doors are utilized, or where the cabinet internal loads fluctuate across a wide range.

Append letter "Y" to Part No.

**STAINLESS STEEL SHELL:** For applications in corrosive or other hostile environments such as those requiring Internal Corrosion Resistant Coatings, especially where chemical/moisture combinations are present.

### **SPECIAL MATERIALS OR FINISHES\*\***

### **SPECIAL MOTORS, LINE CORDS OR CONNECTORS\*\***

### **CUSTOMER-INSTALLED OPTIONS**

**CONDENSATE EVAPORATOR KIT:** Heated add-on unit for Air Conditioners without built-in condensate evaporator system. Eliminates need for draining of condensate under normal operating conditions. May not be adequate in extremely high humidity with open or leaky enclosure.

Consult KOOLTRONIC for Part No.

**\*\*Contact KOOLTRONIC for information.**

## **HOW TO ORDER**

Specify model number. NOTE: Accessories and Options may affect model number, contact KOOLTRONIC for information.

***For assistance in model selection, refer to the Air Conditioner Sizing and Selection Guide, contact KOOLTRONIC, or use one of our design aid software programs, available FREE.***

**CALL 1-800-321-KOOL (5665)  
or FAX 609-466-1114**

**POPULAR MODELS ARE  
STOCKED AND READY TO SHIP**