

# MINI AIR-COOLED PANEL-MOUNTED AIR CONDITIONERS



MINI



NEMA  
TYPE 12  
MAINTAINED

## DESCRIPTION

KOOLTRONIC *Micro-Mini Air Conditioners* are ideal for low-capacity applications with space limitations. Mounted on any vertical panel of equipment enclosures, they occupy minimal floor space and no cabinet space. Hostile ambient air is sealed from the electronic cabinet air by the closed-loop design and gasketed mountings.

*Micro-Mini Air Conditioners* are suitable for applications that have low static pressures, where fans can provide adequate airflow.

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

For extreme ambient temperatures and/or severely contaminated environments, the use of *Water-Cooled Air Conditioners* or *Water-Cooled Heat Exchangers* is recommended.

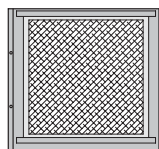
General specifications common to all KOOLTRONIC Air Conditioners are on the first page of this section.

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.

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

## STANDARD FEATURES

- CFC-free Refrigerant
- UL/CUL Listed
- NEMA 12 Rating maintained (UL50)
- Thermostatic Low Temperature Control
- EMI/RFI Suppressor
- Heavy-duty steel enclosures with baked powder finish
- Six foot [1.8m] (minimum) SJT 3-wire power cord



Micro-Mini  
1,000 BTU/H  
13"H x 14"W x 6"D

## TECHNICAL DATA

Model	Normally in Stock	BTU/H Capacity	95/95 Rating BTU/H	Ambient Temp. °F Max./Min.	Volts	Hz	** Running Amps	Approx. Weight (lbs.)
KA4C1.0MML	Yes	1000	720	125/50	115/100	60/50	4.5	43
KA4C1.0MML56		1000	720	125/50	115 <sup>†</sup>	50/60*	4.5	43
K2A4C1.0MML	Yes	1000	720	125/50	230/200	60/50	2.3	43
K2A4C1.0MML5		1000	720	120/50	230	50	2.3	43



## STANDARD FEATURES

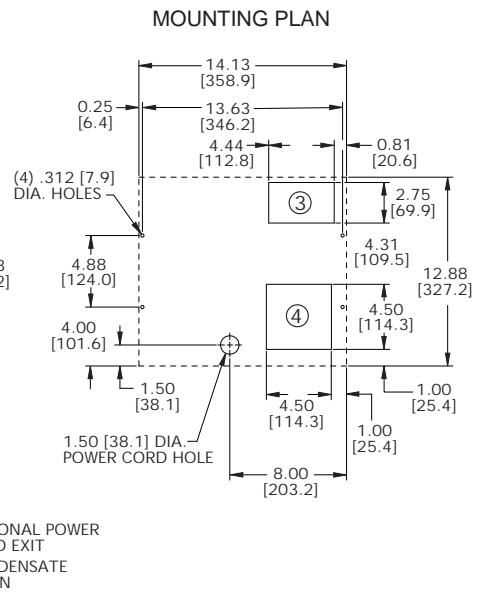
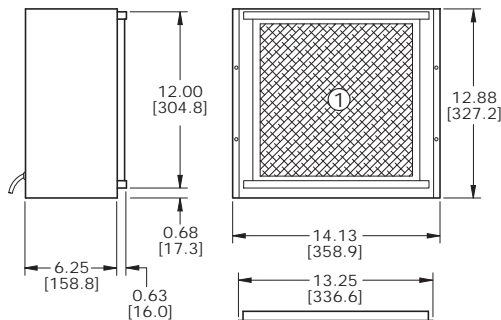
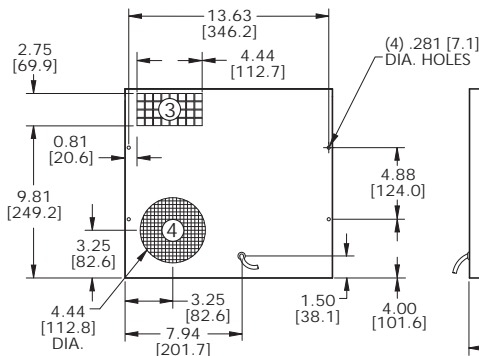
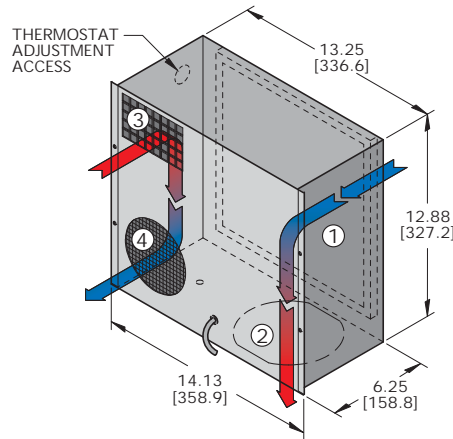
- Ball-bearing Motors
- CFC-Free Refrigerant
- EMI/RFI Suppressor
- Low Temperature Control Thermostat
- NEMA12 Rating Maintained (UL50)
- UL/CUL Listed

## ACCESSORIES AND OPTIONS

- Cooling Effect Detector
- Filters
- Filter Recoating Adhesive
- High-Capacity Condensate Evaporator
- Internal Corrosion Protection
- Lead-Lag Controller
- Lifting Eyes
- Low Ambient Kit
- Mounting Hinge
- Remote Thermostat Relay
- Short Cycle Protector
- Special controls or indicators
- Special materials or finishes
- Special motors, line cords, or connectors
- Stainless or Aluminum Shell
- Weather Protection Kit



- FILTERED CONDENSER AIR INLET (Ambient Air In)
- CONDENSER OUTLET (Warm Ambient Air Out)
- WARM AIR RETURN FROM ENCLOSURE
- COOL AIR OUTLET TO ENCLOSURE



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

<sup>†</sup> The transformer required to reduce 115 volt supply to 100 volts for 50 Hz compressor operation is externally mounted. Consult KOOLTRONIC for resulting dimensional changes.

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

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

## DESCRIPTION

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*Micro-Mini Air Conditioners* are suitable for applications that have low static pressures, where fans can provide adequate airflow.

Where rack mounting is required, special adapter plates are available.

Outdoor or corrosive environments require weather protection and/or special internal and external protective features.

For extreme ambient temperatures and/or severely contaminated environments, the use of Water-Cooled Air Conditioners is recommended.

**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 or waterflow system. Ambient air can not invade the cool, dehumidified sensitive component compartment.

**BALL-BEARING MOTORS:** All fan motors are UL/CSA Recognized and include automatic-reset thermal overload protection and double-sealed or double-shielded precision ball bearings. Special permanent lubricants in the tub axial fans perform over a broad temperature range: 14°F [-10°C] to 158°F [70°C] and are designed to meet UL, CSA and VDE.

**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.

**REFRIGERANT:** CFC-free R134a Refrigerant is used in all *Micro-Mini Series* Air Conditioners.

**PERMANENT FILTERS:** Multi-layer grid of sturdy, corrugated aluminum in an aluminum frame. May be reused after washing off accumulations and spraying with A-16 Recoating Adhesive.

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

**POWER CORD:** All models have six foot [1.8m] SJT-type 3-wire power cords and are supplied 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 12 Enclosure Rating (UL50).

**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.

**UL/CUL LISTED:** All Micro-Mini models are **UL/CUL Listed**.

## ACCESSORIES AND OPTIONS\*\*

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### FACTORY-INSTALLED OPTIONS:

#### **ADAPTER PLATE FOR RACK MOUNTING\*\***

**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)

**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 Shell** or **Integrity NEMA 4/4X Air Conditioners**.

Append letter "H" to Part No.

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

Append letter "K" to Part No.

**LOW AMBIENT KIT:** Maintains sufficient operating pressures when ambient temperatures drop below 50°F [10°C]. Includes a compressor heater and pressure actuated condenser blower cycling control.

**MOUNTING HINGE:** (Left-hand or Right-hand) Allows the Air Conditioner itself to be used as a cabinet door. (Caution: The cabinet must be able to support the full weight of the unit in open position.) Specify left-hand or right-hand, determined by facing the mounting side of the Air Conditioner.

Append letter "P" to Part No. for left-hand.

Append letter "S" to Part No. for right-hand.

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

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

**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.

### SPECIAL MATERIALS OR FINISHES\*\*

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

**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.

Append letter "V" to Part No. (304-2B Unpainted)

## 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.

**FILTER RECOATING ADHESIVE:** This compound is a superior product for recoating all permanent filters after washing. The adhesives penetrate dirt layers to keep the filter surface tacky for longer effective performance between washings.

Part No. A-16 - one pint container.

**FILTERS FOR REPLACEMENT:** All KOOLTRONIC filters consist of a multi-layer grid of sturdy corrugated aluminum, securely held in a one-piece aluminum frame. Filters are required wherever air is drawn into an electronics enclosure or related cooling equipment to keep internal parts as clean as possible.

A non-drying adhesive coating traps a high percentage of particulate matter. These washable, reusable filters are designed to last the life of the cooling unit. Replacements are available for those which become damaged or otherwise non-serviceable.

Part No. 900F (11.38" x 11.38" x 0.50" [289mm x 289mm x 13mm])

**WEATHER PROTECTION KIT:** For outdoor installations subject to invasion by rain, snow or windblown dirt, special deflectors shield the condenser air inlet and outlet ports. Air conditioners or heat exchangers installed outdoors may also require special exterior paint.

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.*

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