KOOLTRONIC
COOLING EXCELLENCE FOR ELECTRONICS

RACK-MOUNT SERIES
AIR-COOLED AIR CONDITIONERS

TECHNICAL DATA

Model	Normally In Stock	UL/CUL Listed or Recognized	BTU/H Rating	95/95 Rating	Ambient Temp. °F Max.	Ambient Temp. °F Min.	Ambient Temp. °C Max.	Ambient Temp. °C Min.	Volts	Hz	** Running Amps	Approx. Weight lbs	Approx. Weight kg
KA4C5RML	Yes	Listed	5000	4400	120*	0	49	-18	115/100	60/50	15/14.5	97	44
K2A4C5RML	Yes	Listed	5000	4150/4030	120*	0	49	-18	230	60/50	7.8/6.8	97	44

* Maximum ambient temperature is shown for Option 1 evaporator airflow. For other options maximum ambient temperature is 115°F.
** Rating shown is for operation at maximum ambient temperature.

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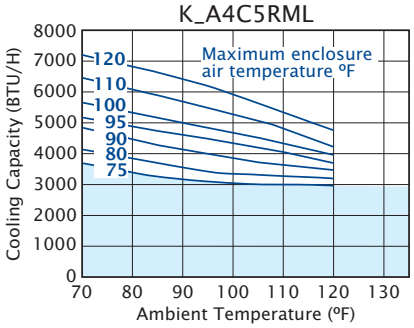
STANDARD FEATURES

All Models UL/CUL Listed
CFC-Free Refrigerant
Condenser Airflow at Front of Unit
Condenser Impeller Speed Controller
Customized airflow with supplied baffle plates
EIA-notched flanges
EMI/RFI Suppressor
Filter
Heavy-duty Steel Shell
Ideal for inconspicuous internal mounting
Low Temperature Control Thermostat
Six-Foot [1.8m] (minimum) SJT 3-Wire Power Cord

ACCESSORIES AND OPTIONS

Cooling Effect Detector
Enclosure Heater
Filter Recoating Adhesive
Internal Corrosion Protection
Lead-Lag Controller
Other voltages and frequencies
Remote Thermostat Relay
Replacement Filters
Short-Cycle Protector
Special materials or finishes
Special motors, line cords or connectors
Stainless Steel or Aluminum Shell

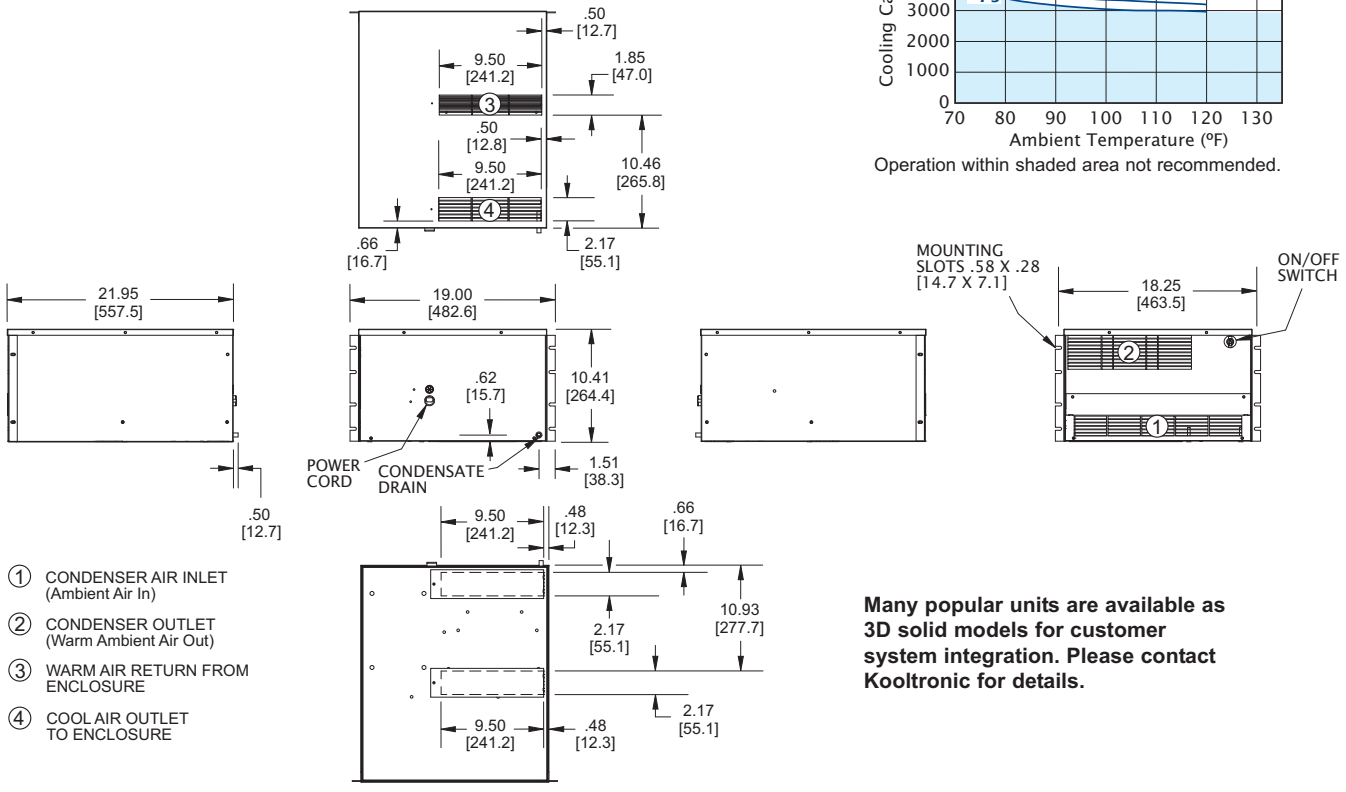
PERFORMANCE



Operation within shaded area not recommended.

DRAWINGS

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



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

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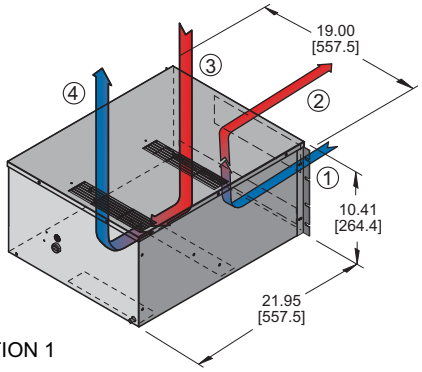
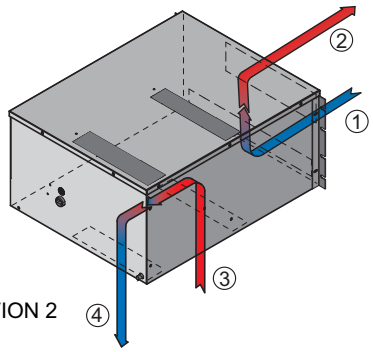
AIRFLOW AND DIMENSIONS

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

The RML Series offers a choice of up to five evaporator airflow patterns, allowing installation in any location within a data rack. Using suppled baffle plates the RML can easily be configured for a variety of applications.
In addition, the RML features a unique condenser airflow design with both intake and outlet at the front of the unit. The RML is the only air conditioner on the market with this same-side condenser airflow configuration. This design gives greater flexibility when locating the unit within an enclosure, frees up additional space and requires only one cutout on the enclosure.



OPTION 1



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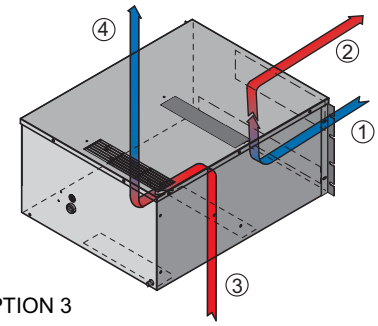

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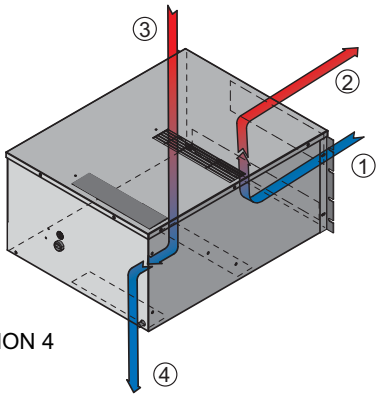
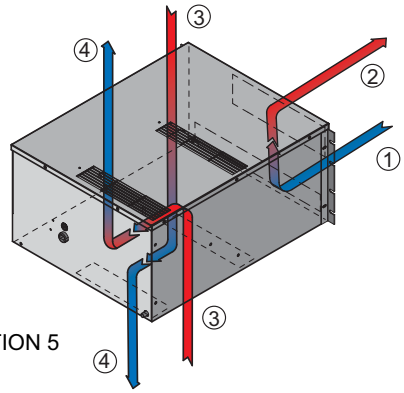


OPTION 4



OPTION 5

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

① FILTERED CONDENSER AIR INLET (Ambient Air In)

② CONDENSER OUTLET (Warm Ambient Air Out) 2.25 x 3.38 [57.2 x 85.9] each

③ WARM AIR RETURN FROM ENCLOSURE 2.00 x 15.00 [50.8 x 381.0]

④ COOL AIR OUTLET TO ENCLOSURE 2.00 x 4.50 [50.8 x 114.3] each

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RACK-MOUNT SERIES
AIR-COOLED AIR CONDITIONERS

DESCRIPTION

The ***RML Series*** Rack-Mounted Air Conditioners are designed specifically for cooling electronic enclosures, and boast an innovative design concept allowing installation in any location within a data rack while keeping electronics cool. The key to this flexibility is the evaporator airflow pattern. The ***RML Series*** Air Conditioners feature two evaporator air inlets and two outlets on the top and bottom of the unit. By using supplied baffle plates, the air conditioners can easily be configured for a variety of applications, with the choice of up to five airflow pattern options. In addition to airflow variety, the ***RML Series*** features condenser airflow at the front of the unit. This unique design eliminates the need for duct work, freeing up more space in the electronics cabinet. It also allows greater flexibility when locating a unit within an enclosure, and requires only one cutout on the enclosure.

Rated at 5,000 BTU/H and available in 115 or 230 VAC, these air conditioners are an excellent choice for Data Centers, Communications and Telecom applications. The ***RML Series*** is UL Listed and offers a wide variety of options, including a Cooling Effect Detector, Internal Corrosion Protection and Stainless or Aluminum Shell.

STANDARD FEATURES

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.

CONDENSER IMPELLER SPEED CONTROLLER: A solid state sensor reacting to the condenser coil temperature modulates the condenser impeller between minimum and maximum speed based on the coil temperature. This reduces noise levels, fan cycling, compressor cycling and prevents the unit from freezing.

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

HEAVY-DUTY STEEL SHELL: Precision-engineered heavy gauge steel construction of all shells and blowers insures Air Conditioners will stand up under tough applications.

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

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 the ***RML Series*** Air Conditioners.

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 3R 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.

TEXTURED BAKED POWDER FINISH: Durable, baked-on textured grey powder finish is standard. Other finishes are available.

UL/CUL LISTED: The ***RML Series*** is UL/CUL Listed.

ACCESSORIES AND OPTIONS*

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.

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

HEATER KIT: Heater, control thermostat and heater limiter used to maintain desired internal enclosure temperature under cold operating conditions.

INTERNAL CORROSION PROTECTION: An air cured coating is sprayed on copper lines and brazed joints, providing a degree of protection from corrosive environments. This coating will withstand 1000 hours of salt spray per the ASTM B 117 test method. See also Stainless Steel cabinet or Integrity NEMA 4/4X Air Conditioners. **NOTE:** Severe operational environments such as wastewater treatment and salt spray are likely to cause corrosion failure over a period of time regardless of coating. **Warranty:** Corrosive conditions may effect the warranty coverage. Consult factory for warranty limitations in corrosive environments.

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.

Other voltages and frequencies*

FILTER: Filter consisting of a multi-layer grid of sturdy corrugated aluminum, securely held in a one-piece aluminum frame. The filter part number for the RML Series is 8752F. (16.59″ x 8.34″ x 0.38″ [421mm x 212mm x 10mm])

SHORT CYCLE PROTECTOR: Protects the compressor from possible damage due to harmful short cycling, by initiating an "off" period before resumption of normal operation. This option is particularly recommended for applications where interlocked cabinet doors are utilized, where the cabinet internal loads fluctuate across a wide range or ambient air temperatures vary significantly throughout the day.

Special materials or finishes*

Special motors, line cords or connectors*

*Contact KOOLTRONIC for more information.

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