

TRIMLINE AIR-COOLED PANEL-MOUNTED AIR CONDITIONERS



DESCRIPTION

Innovations in technology have resulted in much denser components packaging and smaller available panel sizes on which to mount air conditioners. The KOOLTRONIC *TrimLine Series* is the response to these new packaging demands with the *Narrow* 10", 12", 15" and 17" width panel-mount air conditioners. In addition to being narrower than traditional air conditioner units, the *TrimLine Series* include the Condensate Evaporator, Low Temperature Control Thermostat and EMI/RFI Suppressor as *standard* features and are available in all popular voltages and frequencies.

The *TrimLine Series* consists of compact models in 2,000-2,500 BTU/H capacities, mid-size models 28", 33" and 36" with up to 4,000, 5,000 and 6,000 BTU/H respectively, the full-size 47" with 7,000, 10,000 and 13,000 BTU/H and 59" with 16,000 BTU/H. Each model series is designed with a minimum width to take up less cabinet space on the exterior panel or door.

Integral to the *TrimLine Series* is the *M/TAB* (Mounting Template and Assembly Bracket) system which makes installing KOOLTRONIC Air Conditioners simple and fast and interchangeable with corresponding *TrimLine Heat Exchangers*.

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.

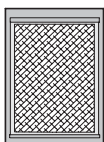
General specifications common to all KOOLTRONIC Air Conditioners are on the first page of this section.

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.

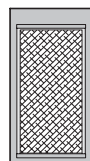
TRIMLINE

STANDARD FEATURES

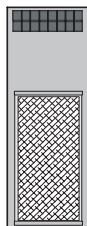
- CFC-free or Low ODP Refrigerant
- All models UL/CUL Listed or Recognized
- NEMA 12 Rating maintained (UL50)
- Compact design with slim 10", 12", 15" and 17" wide mounting footprints
- Field-reversible condenser outlet blower on NP33, NP36, NP47 and NP59
- Exclusive KOOLTRONIC M/TAB mounting system
- Built-in Condensate Evaporator
- 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



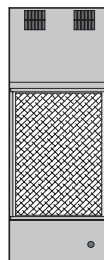
NP17
2,000 BTU/H
17"H x 12"W x 9"D



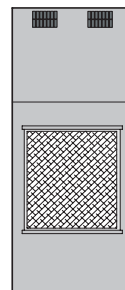
Narrow-Mini
2,500 BTU/H
20"H x 10"W x 10"D



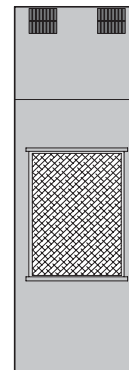
NP28
4,000 BTU/H
28"H x 10"W x 11"D



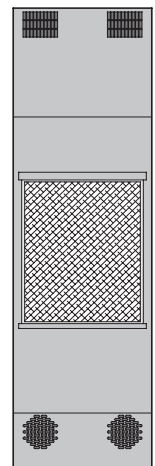
NP33
4,000 BTU/H
33"H x 12"W x 9"D



NP36
4,000 & 6,000
BTU/H
36"H x 15"W x 12"D



NP47
7,000, 10,000
& 13,000 BTU/H
47"H x 15"W x 12"D



NP59
16,000 BTU/H
59"H x 17"W x 14"D

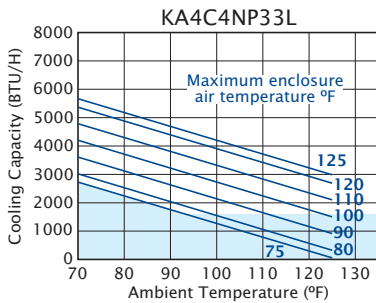
TECHNICAL DATA

Model	Normally in Stock	BTU/H Capacity	95/95 Rating BTU/H	Ambient Temp. °F Max./Min.	Volts	Hz	** Running Amps	Approx. Weight (lbs.)
KA4C4NP33L	Yes	4000	2680	125/50	115/100	60/50	12.8	90
KA4C4NP33L56		4000	2680	125/50	115	50/60*	12.8	90
K2A4C4NP33L	Yes	4000	2680	120/50	230/200	60/50	5.5	90
K2A4C4NP33L5		4000	2680	120/50	230	50	5.8	90



NEMA
TYPE 12
MAINTAINED

PERFORMANCE



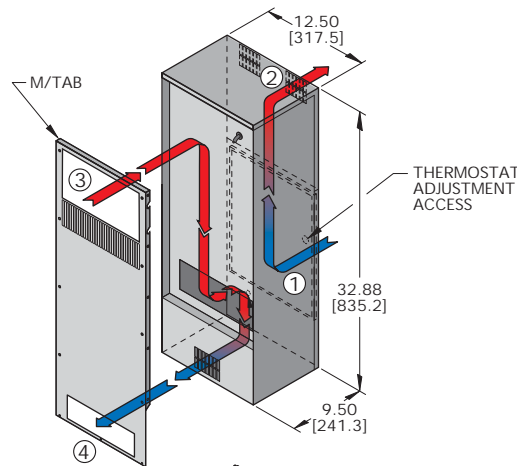
Operation within shaded area not recommended.

STANDARD FEATURES

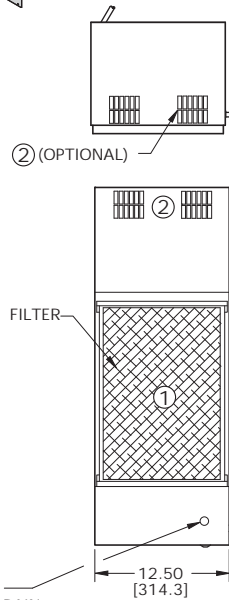
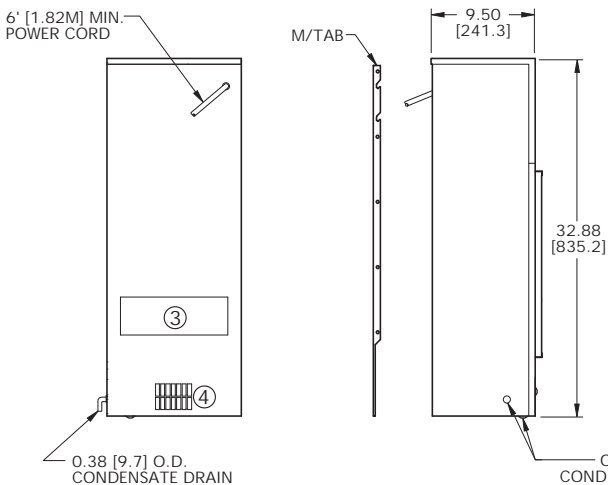
- Built-in Condensate Evaporator
- CFC-Free Refrigerant
- EMI/RFI Suppressor
- Low Temperature Control Thermostat
- M/TAB Mounting System
- NEMA 12 Rating Maintained (UL50)
- Reversible Condenser Outlet Blower
- UL/CUL Listed

ACCESSORIES AND OPTIONS

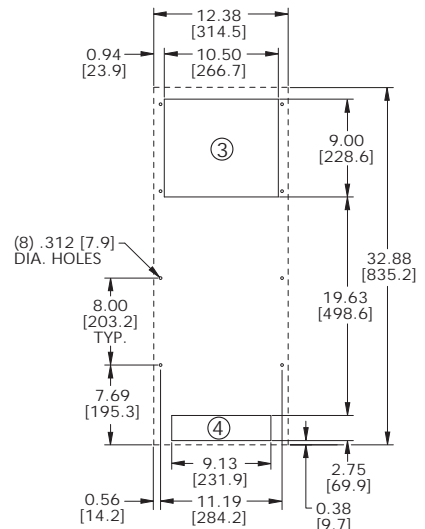
- Cooling Effect Detector
- Enclosure Heater
- Filters
- Filter Recoating Adhesive
- High-Capacity Condensate Evaporator
- Internal Corrosion Protection
- Lead-Lag Controller
- Lifting Eyes
- Low Airflow Detector
- Low Ambient Kit
- Remote Thermostat Relay
- Short Cycle Protector
- Special controls or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



- ① FILTERED CONDENSER AIR INLET (Ambient Air In)
- ② CONDENSER OUTLET (Warm Ambient Air Out)
- ③ WARM AIR RETURN FROM ENCLOSURE
- ④ 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 ambient temperature.

DESCRIPTION

Innovations in technology have resulted in much denser components packaging and smaller available panel sizes on which to mount Air Conditioners. The KOOLTRONIC *TrimLine Series* is the response to these new packaging demands with the Narrow 10", 12", 15", 17" and 21" width panel-mount air conditioners. In addition to being narrower than traditional Air Conditioner units, the *TrimLine Series* include the Condensate Evaporator, Low Temperature Control Thermostat and EMI/RFI Suppressor as *standard* features and are available in all popular voltages and frequencies.

The *TrimLine NP33 Series* consists of compact models in 2,000-5,000 BTU/H capacities. This series is designed with a minimum width to take up less cabinet space on the exterior panel or door.

Integral to the TrimLine Series is the M/TAB (Mounting Template and Assembly Bracket) system which makes installing KOOLTRONIC Air Conditioners simple and fast and interchangeable with corresponding TrimLine Heat Exchangers.

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.

For extreme ambient temperatures and/or severely contaminated environments, the use of *TrimLine* or other 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

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.

REFRIGERANT: 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.

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 EVAPORATOR: Built-in Condensate Evaporator eliminates need for draining condensate under normal operating conditions. May not be adequate in extremely high humidity with open or leaky enclosure. Overflow 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 12 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.

UL/CUL LISTED: All *TrimLine NP33 Series* are *Listed*.

ACCESSORIES AND OPTIONS**

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)

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.

****Contact KOOLTRONIC for information.**

ACCESSORIES AND OPTIONS (continued)**

ENCLOSURE HEATER: 120V or 240V fin strip heater, installed singly or ganged, used to maintain desired internal enclosure temperature, under cold operating conditions.

Single Heater, append letter "F" to Part No.

Double Heater, append letter "G" 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 Shells** 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 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.

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.

Append letter "N" 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.

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:

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. 12251F (16.63" x 11.88" x 0.50" [422mm x 302mm x 13mm])

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.

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 installed outdoors may also require special exterior paint.

****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**

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