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ENVIRONMENTAL CONTROL



Wiegmann has always recognized that our customers in the electrical and electronic marketplace need reliable, high quality enclosures and environmental control products to meet their protection requirements. Protection Requirements today not only mandate NEMA TYPE 12, 3R, 4, & 4X, but also require a broad mix of BTU & size selections. Wiegmann is proud to offer those choices via a whole new line of A/C products. They are: Advantage Series, Trim Line Series, Micro-Mini Series, Integrity Series, and the Top Mount Series.

Three Basic Cooling Methods

When selecting a cooling method there are three types to consider.

1 *Passive Ventilation* — If there is only a minimal heat gain in your

circumstance, use of louvers or grilles with filters can be effective. This method, however, usually provides less cooling effect than is necessary with today's components.

2 *Forced Convection Air Cooling* — If the installation will be in a clean, non-hazardous environment with an acceptable ambient (outside the enclosure) temperature range, a simple forced-air cooling system utilizing outside air is usually adequate. Combined with an air filter, such devices generally meet the heat removal needs of typical electronic equipment and many electrical applications (Fig. 1). Examples of forced convection air cooling are filtered fans, fan trays, and blowers of various types.

3 *Closed-Loop Cooling* — In harsh environments involving high temperatures, wash-down requirements, heavy particulate matter or the presence of chemicals capable of damaging components (NEMA 4 or 12 environments), ambient air must be kept out of the enclosure. Closed-loop cooling consists of two separate circulation systems. One system, sealed against the ambient air, cools and recirculates the clean cool air throughout the enclosure. The second system uses ambient air or water to remove and discharge the heat. Examples of closed-loop cooling equipment employed with electronics and process controls are heat exchangers and air conditioners.

FIGURE 1 — Forced Convection Method

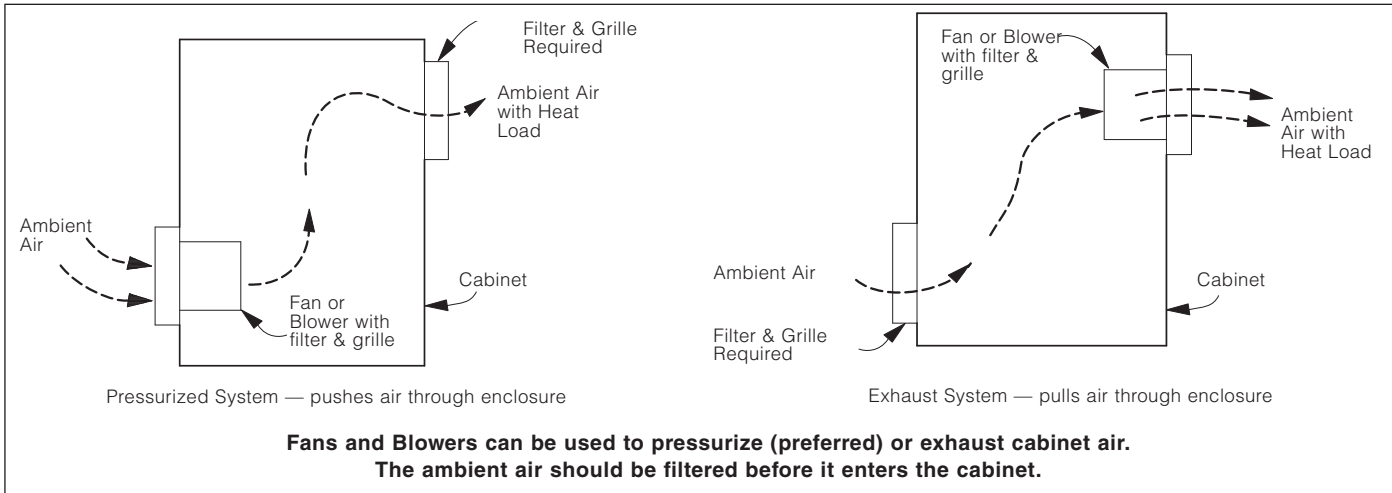
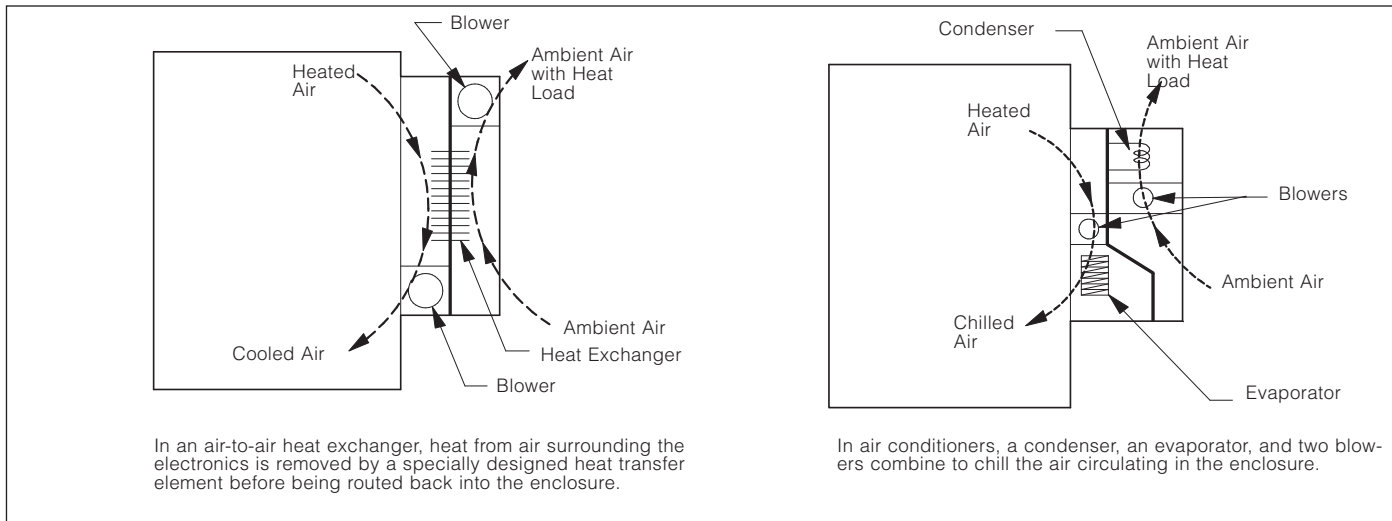


FIGURE 2 - Closed Loop Cooling Method



Cooling Control Cabinets

Most electrical & electronic control systems generate a substantial amount of heat during operation. This heat factor is intensified as controls are made more compact, perform more functions, and are placed in more confined areas. Additional problems are encountered when the electronic process control system is located on-site in an industrial setting, rather than in a clean computer room. The factory environment can be hostile to the point that performance and effective life of the electronic components are materially reduced, or the control system fails completely. Ambient temperature might be excessively high, as that found in a steel mill. Moisture-laden air and air-borne particulate matter might be present to adversely affect the electronic components, as in the paper manufacturing industry.

Air conditioners are designed to perform reliably under many of these harsh conditions and to provide the cooling and environmental protection required by sensitive electronic production control systems.

Factors Affecting Model Selection

This selection is presented as a basic outline or checklist of the various conditions to be considered when choosing a cooling unit for a certain application. The following are factors which must be considered when selecting a cooling unit:

Internal Heat Load — This is the heat dissipated by the electronic controls. It is expressed in watts. One watt equals 3.413 BTU/HR. Thus, to obtain the approximate cooling capacity required to remove a specific heat load, the following formula can be used:

$$\text{Watts} \times 3.413 = \text{BTU/HR}$$

For example, a heat load of 800 watts requires an air conditioner capable of removing at least 2,730 BTU/HR.

Resistance to Air Flow in the Enclosure

Air Flow is measured in cubic feet per minute (CFM). To create an air flow of any desired velocity requires that pressure be produced by the blower in the air conditioner. Resistance to this blower-produced air flow is created by obstruction within the cabinet in the air flow path. The resistance itself is called pressure drop (P.D.) and is measured in inches of water column.

The effect of significant restrictions in the cabinet air flow path are as follows: The obstructions cause pressure drops, which leads to cool air flow reduction. This reduction in cool air flow will decrease the effective capacity of the cooling unit. When selecting the proper cooling unit, allowance must be made for pressure drop.

Heat Load From The Surroundings

Ambient conditions can cause a heat gain in the enclosure. The rated capacity of the cooling unit must be sufficient to handle this heat gain. When evaluating the additional heat load gained from the surroundings, the subject more or less breaks down into two situations: (1) the cabinet is insulated and well sealed, or (2) the cabinet is not insulated (most cabinets are uninsulated.)

(1) **Cabinet Insulated** — Normally, well insulated cabinets will not gain sufficient ambient heat to affect air conditioner's operation. Maximum operating temperature for our air conditioners is 125°F. When the air conditioner operates in ambient temperatures below 125°F, the cooling capacity of the air conditioner substantially increases.

(2) **Cabinet Not Insulated** — Obviously, this design placed more of a burden on the cooling unit. Heat is conducted to the cool side. Thus, high ambient heat will be readily transmitted into the cooler enclosure.

To determine the additional capacity required of our air conditioner installed in an uninsulated cabinet, the surface square footage of the enclosure must be

calculated to obtain the total effective heat transfer area. For this calculation, use the surface area of the sides, plus the area of the top, and omit the bottom area of the cabinet.

Air movement outside the uninsulated cabinet will increase the heat conducted from the ambient into the enclosure. When there is little or no air circulation outside the cabinet, the layer of air immediately adjacent to the exterior cabinet walls acts as an insulating film. Exterior air movement dissipates this insulating layer of air in proportion to the velocity of the air flow. Substantial ambient air circulation will increase the transmitted heat load imposed on the cooling unit.

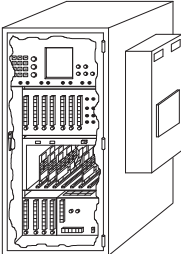
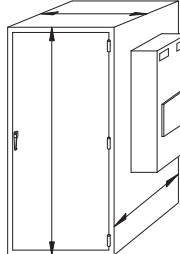
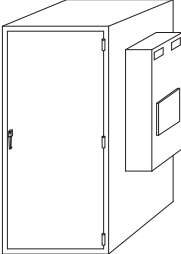
If the cabinet being cooled is not air tight, then high ambient relative humidity will adversely affect the cooling effectiveness of the air conditioner. When humid air infiltrates a poorly sealed enclosure, the air conditioner is required to use up valuable BTU/HR capacity just to condense the moisture from the internal air. Conversely, if the cabinet is well sealed, high ambient relative humidity, has very little effect on the heat capacity of the air conditioner.

Steps For Sizing an Air Conditioner

Proper selection of an air conditioner is determined by the following criteria:

- Required cooling capacity BTU/hr. (complete Steps #1-4)
- Mounting requirements (top or side mounting options)
- Dimension of air conditioner and enclosure

Cooling And Control Cabinets

STEP ONE	STEP TWO	STEP THREE	STEP FOUR
			<p><i>(Watts x 3.413) + [1.25 x Area ft.2 x Δ T (°F)] = BTU/HR.</i></p> <p><i>Capacity Required BTU/HR. Capacity Rating</i></p>
<p><i>1 Watt = 3.413 BTU/HR. Determine the internal heat load in Watts that must be dissipated.</i></p>	<p><i>1 m2 = 10.76 ft.2 Calculate the exposed surface area of the enclosure: 2(h' x w') + 2(h' x d') + (w' x d') = Area (ft2)</i></p>	<p><i>1oC or 1oKΔT=1.8oF T Determine the temperature differential by subtracting the maximum allowable temperature inside the enclosure (Ti) from the maximum ambient temperature outside the enclosure (To) To-Ti=ΔT</i></p>	



Description

A highlight of the Panel-Mounted TrimLine Series is an easy, revolutionary system for installing Panel-Mounted Air Conditioners and Heat Exchangers onto electronic or electrical enclosures. The M/TAB is standard on all TrimLine Air Conditioners. This integral system functions as a mounting template, pre-installation hanger and final assembly bracket.

The M/TAB was specifically designed to assist in the difficult job of installing enclosure Air Conditioners. It simplifies

FEATURES-SPECIFICATIONS

the installation process by eliminating the problem of handling flange-mounted Air Conditioners. The solution is provided by following these installation steps...

- Use the M/TAB as a template to drill holes for mounting to the enclosure
- Bolt M/TAB to enclosure
- Cut out the Supply and Return openings
- Hang the Air Conditioner or Heat Exchanger on the M/TAB
- Secure the unit to the M/TAB

The M/TAB also allows for the quick removal and transportation of the Air Conditioner or Heat Exchanger, separate from the equipment, for servicing

or change to a different capacity same-size Air Conditioner or to a same-size Heat Exchanger.

Features

- No exposed rails or mounting flanges; aesthetically pleasing while conserving cabinet space
- Reduction in installation time and labor, with significant cost savings
- Ease of installation and one piece design reduce mounting errors
- Allows the installer to operate independently
- Functions as a pre-installation hanger and final assembly bracket
- Installation is totally outside the enclosure; no clumsy mounting from inside the enclosure





NEMA
TYPE 3R & 12
MAINTAINED

FEATURES-SPECIFICATIONS

Description

At last - air conditioners designed specifically for cooling electronic enclosures that can be used for both indoor and outdoor applications right out of the box!

No more bulky unattractive weather-hoods... No more worries over what options to specify for outdoor applications.

Expertly designed and crafted, the ADVANTAGE Series boasts a stylish appearance with rounded edges, no visible hardware and a textured baked powder finish to blend easily with contemporary enclosure designs.

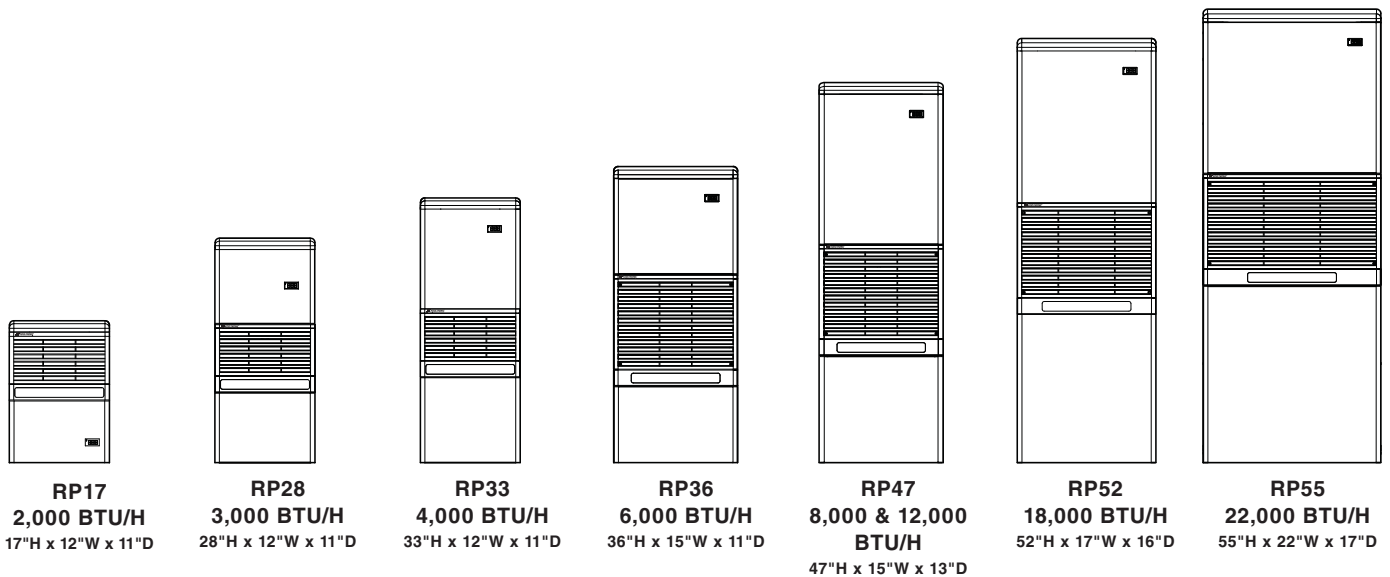
Serviceability has been made easier by incorporating a "knock-down" sheetmetal design which provides quick access to internal components.

These air conditioners are available in capacities from 2,000 to 22,000 BTU/H in seven heights, all utilizing the exclusive M/TAB integral mounting system.

Features

- Capacities: 2,000 to 22,000 BTU/H
- Textured Beige Powder Finish
- Built-in Condensate Evaporator
- CFC-Free Refrigerant
- Closed-Loop Cooling
- Crankcase Compressor Heater
- Digital Temperature Display

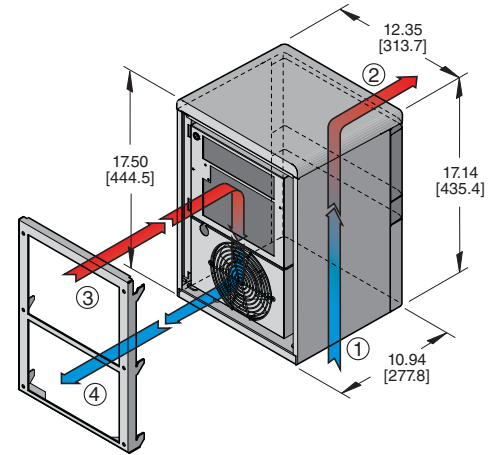
- EMI/RFI Suppressor
- Head Pressure Control Switch
- Heavy-duty Steel Enclosure
- Low Temperature Control Thermostat
- M/TAB Mounting System
- NEMA 3R and 12 Ratings Maintained (UL50)
- Filters
- Six Foot [1.8m] (minimum) SJT 3-wire Cord
- UL/CUL Recognized
- Complete line of accessories



**ENVIRONMENTAL CONTROLS
ADVANTAGE "RP17" SERIES AIR-COOLED
SIDE-MOUNTED AIR CONDITIONERS**



UL US **NEMA**
TYPE 3R & 12
MAINTAINED



- 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

FEATURES-SPECIFICATIONS

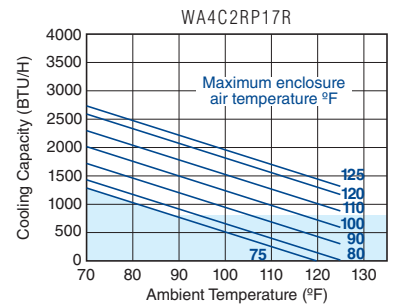
Standard Features

- Condensate Evaporator
- CFC-Free Refrigerant
- Crankcase Compressor Heater
- Digital Temperature Display
- EMI/RFI Suppressor
- Head Pressure Control Switch
- Filters
- Low Temperature Control Thermostat
- M/TAB Mounting System
- NEMA 3R & 12 Rating Maintained
- UL/CUL Recognized†
- Textured Beige Powder Finish

Accessories and Options

- Cooling Effect Detector
- Enclosure Heater
- Filter Recoating Adhesive
- Filters for replacement
- Internal corrosion protection
- Painted Metal Grille
- Power Loss Delayed Compressor Start
- Short Cycle Protector
- Special paint finishes

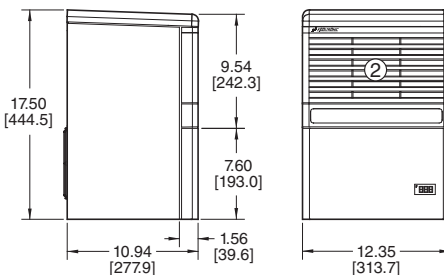
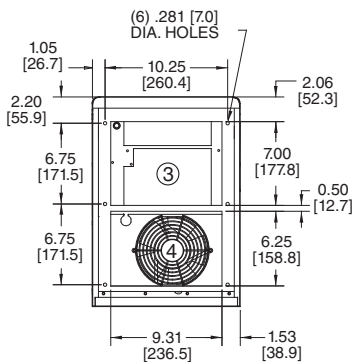
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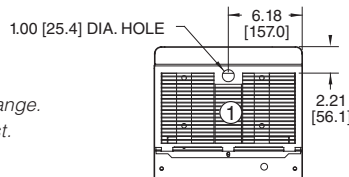
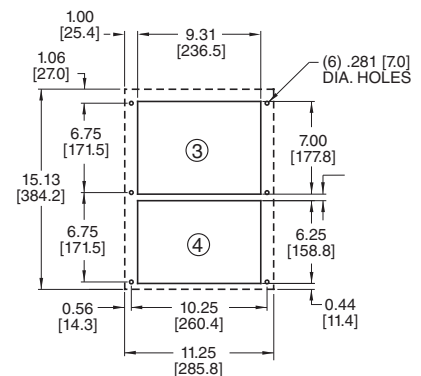
Operation within shaded area not recommended.

ADVANTAGE SERIES RP17 ADVANTAGE AIR-COOLED PANEL-MOUNTED AIR CONDITIONERS

MODEL	RATED CAPACITY (BTU/H)	95/95 RATING (BTU/H)	AMBIENT TEMP. °F MAX./MIN.	VOLTS	HZ	RUNNING AMPS	APPROX. WEIGHT (LBS.)
WA4C2RP17R	2000	1200	120/50	115/100	60/50	7.0/7.5	64
W2A4C2RP17R	2000	1200	120/50	230/200	60/50	4.0	64



MOUNTING PLAN



Dimensions, inches [metric], are for reference only and subject to change.
†UL/CUL Recognized models are available as Listed at added cost.

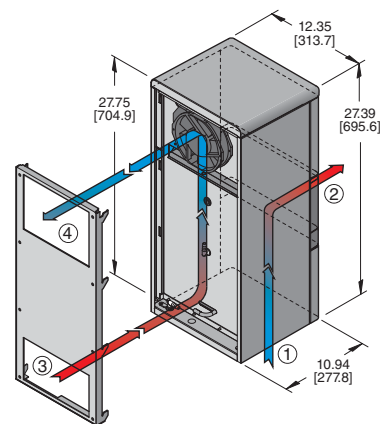
ENVIRONMENTAL CONTROLS ADVANTAGE "RP28" SERIES AIR-COOLED SIDE-MOUNTED AIR CONDITIONERS

K7



NEMA
TYPE 3R & 12
MAINTAINED

- 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



FEATURES-SPECIFICATIONS

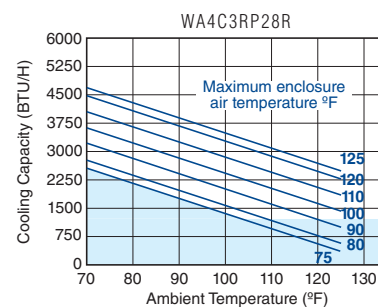
Standard Features

- Condensate Evaporator
- CFC-Free Refrigerant
- Crankcase Compressor Heater
- Digital Temperature Display
- EMI/RFI Suppressor
- Head Pressure Control Switch
- Filters
- Low Temperature Control Thermostat
- M/TAB Mounting System
- NEMA 3R & 12 Rating Maintained
- UL/CUL Recognized†
- Textured Beige Powder Finish

Accessories and Options

- Cooling Effect Detector
- Enclosure Heater
- Filter Recoating Adhesive
- Filters for replacement
- Internal corrosion protection
- Painted Metal Grille
- Power Loss Delayed Compressor Start
- Short Cycle Protector
- Special paint finishes

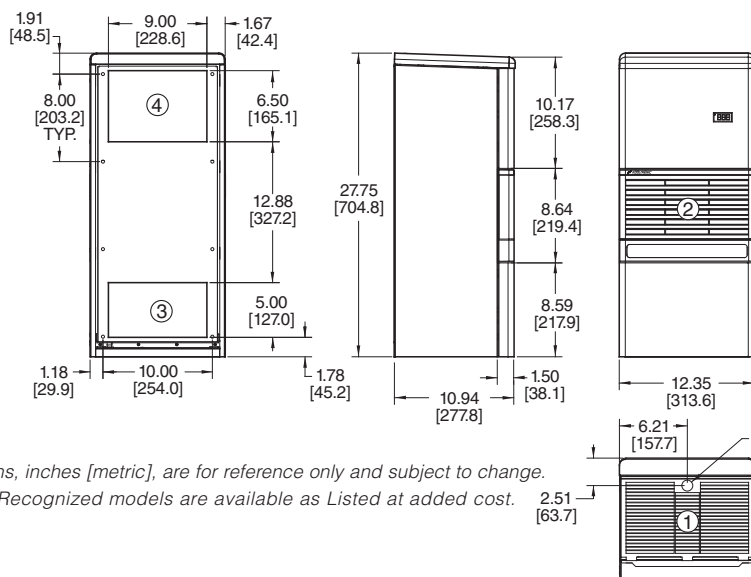
PERFORMANCE CHART



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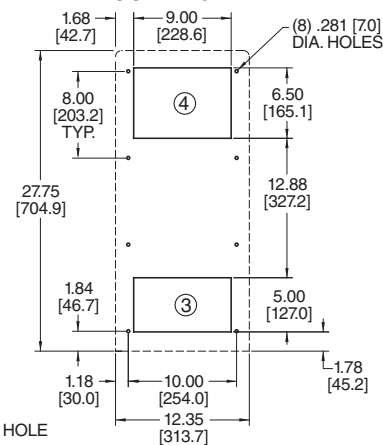
ADVANTAGE SERIES RP17 ADVANTAGE AIR-COOLED PANEL-MOUNTED AIR CONDITIONERS

MODEL	RATED CAPACITY (BTU/H)	95/95 RATING (BTU/H)	AMBIENT TEMP. °F MAX./MIN.	VOLTS	HZ	RUNNING AMPS	APPROX. WEIGHT (LBS.)
WA4C3RP28R	3000	2220	125/50	115/100	60/50	9.8/9.7	86
W2A4C3RP28R	3000	2220	115/50	230/200	60/50	5.5/5.6	86



Dimensions, inches [metric], are for reference only and subject to change.
†UL/CUL Recognized models are available as Listed at added cost.

MOUNTING PLAN



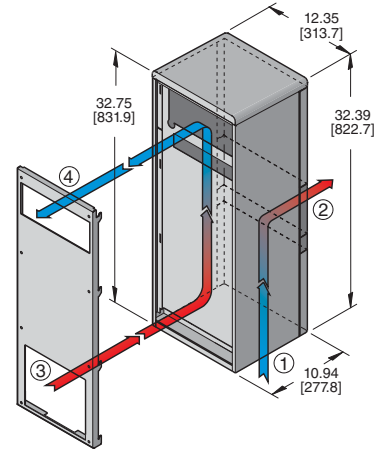
UNIT MUST BE 4" [100mm] MINIMUM ABOVE FLOOR FOR FILTER ACCESS

**ENVIRONMENTAL CONTROLS
ADVANTAGE "RP33" SERIES AIR-COOLED
SIDE MOUNT AIR CONDITIONERS**



UL **us** **NEMA**
TYPE 3R & 12
MAINTAINED

- 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



FEATURES-SPECIFICATIONS

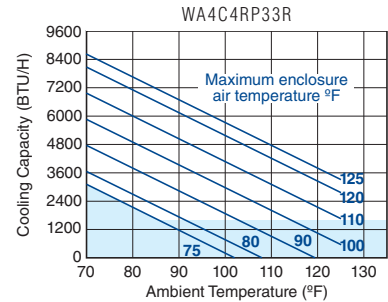
Standard Features

- Built-in Condensate Evaporator
- CFC-Free Refrigerant
- Crankcase Compressor Heater
- Digital Temperature Display
- EMI/RFI Suppressor
- Head Pressure Control Switch
- Filters
- Low Temperature Control Thermostat
- M/TAB Mounting System
- NEMA 3R & 12 Rating Maintained
- UL/CUL Recognized[‡]
- Textured Beige Powder Finish

Accessories and Options

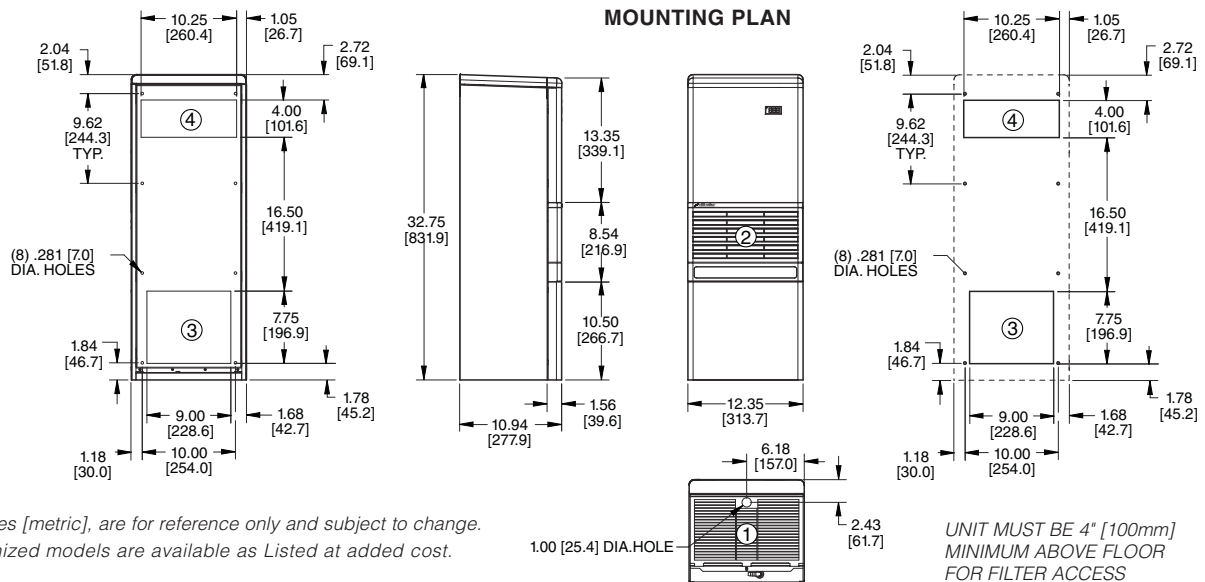
- Cooling Effect Detector
- Enclosure Heater
- Filter Recoating Adhesive
- Filters for replacement
- Internal corrosion protection
- Painted Metal Grille
- Power Loss Delayed Compressor Start
- Short Cycle Protector
- Special paint finishes

PERFORMANCE CHART



WDTS SERIES ENVIRONMENTAL CONTROLS 3500 BTU SIDE MOUNT AIR CONDITIONERS

MODEL	RATED CAPACITY (BTU/H)	95/95 RATING (BTU/H)	AMBIENT TEMP. °F MAX./MIN.	VOLTS	HZ	RUNNING AMPS	APPROX. WEIGHT (LBS.)
WA4C4RP33R	4000	2850	125/50	115/100	60/50	13.6/13.3	98
W2A4C4RP33R	4000	2850	125/50	230/200	60/50	5.8	98



Dimensions, inches [metric], are for reference only and subject to change.
[‡]UL/CUL Recognized models are available as Listed at added cost.

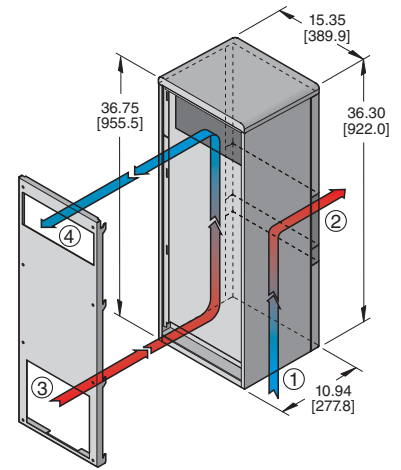
ENVIRONMENTAL CONTROLS ADVANTAGE "RP36" SERIES AIR-COOLED SIDE-MOUNTED AIR CONDITIONERS

K9



NEMA
TYPE 3R & 12
MAINTAINED

- 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



FEATURES-SPECIFICATIONS

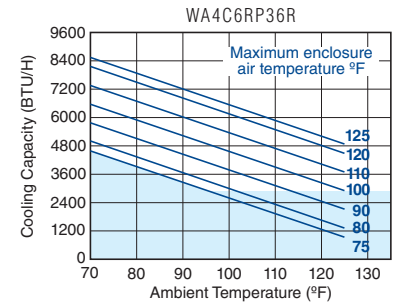
Standard Features

- Built-in Condensate Evaporator
- CFC-Free Refrigerant
- Crankcase Compressor Heater
- Digital Temperature Display
- EMI/RFI Suppressor
- Head Pressure Control Switch
- Filters
- Low Temperature Control Thermostat
- M/TAB Mounting System
- NEMA 3R & 12 Rating Maintained
- UL/CUL Recognized[†]
- Textured Beige Powder Finish

Accessories and Options

- Cooling Effect Detector
- Enclosure Heater
- Filter Recoating Adhesive
- Filters for replacement
- Internal corrosion protection
- Painted Metal Grille
- Power Loss Delayed Compressor Start
- Short Cycle Protector
- Special paint finishes

PERFORMANCE CHART

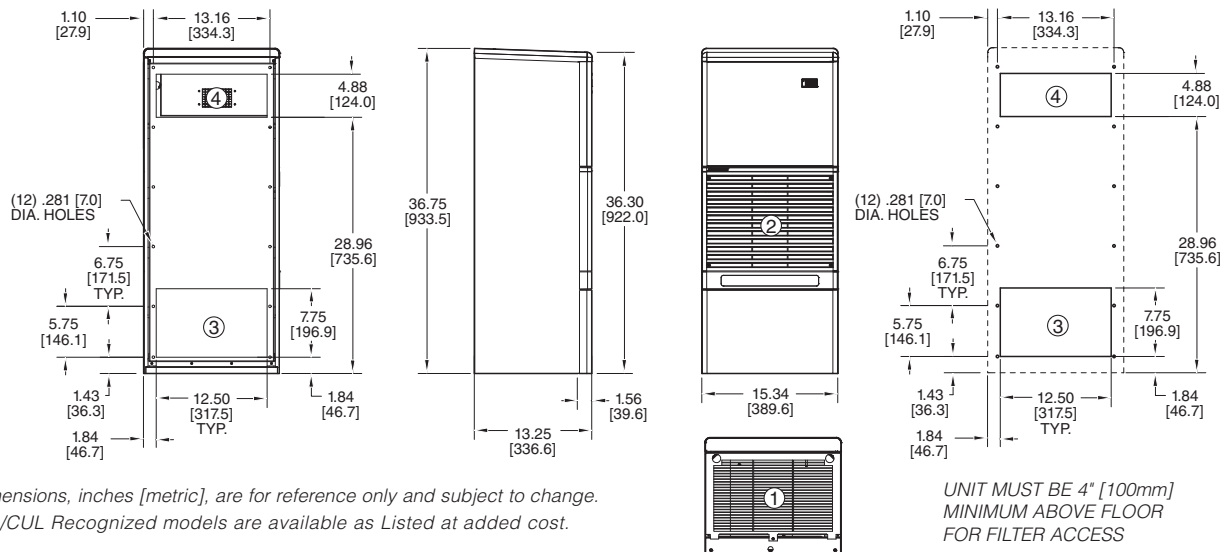


Operation within shaded area not recommended.

ADVANTAGE SERIES RP36 ADVANTAGE AIR-COOLED PANEL-MOUNTED AIR CONDITIONERS

MODEL	RATED CAPACITY (BTU/H)	95/95 RATING (BTU/H)	AMBIENT TEMP. °F MAX./MIN.	VOLTS	HZ	RUNNING AMPS	APPROX. WEIGHT (LBS.)
WA4C6RP36R	6000	4500	125/50	115/100	60/50	19.5/20.0	123
W2A4C6RP36R	6000	4500	115/50	230/200	60/50	19.5/20.0	123

MOUNTING PLAN



Dimensions, inches [metric], are for reference only and subject to change.
[†]UL/CUL Recognized models are available as Listed at added cost.

UNIT MUST BE 4" [100mm]
MINIMUM ABOVE FLOOR
FOR FILTER ACCESS

WIEGMANN

www.hubbell-wiegmann.com
Data Subject To Change Without Notice

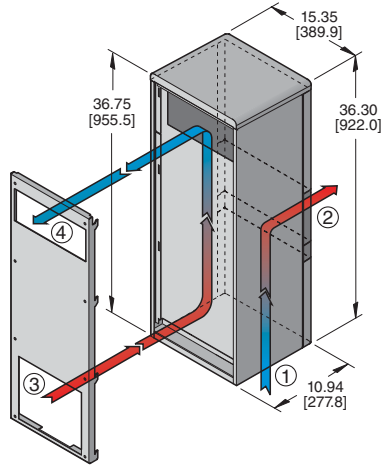


ENVIRONMENTAL CONTROLS ADVANTAGE "RP47" SERIES AIR-COOLED SIDE-MOUNTED AIR CONDITIONERS

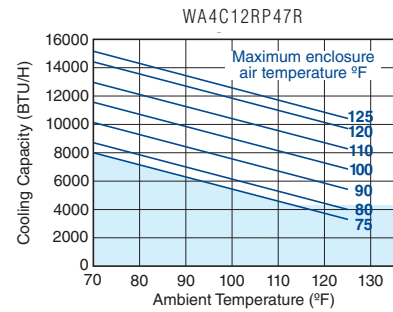
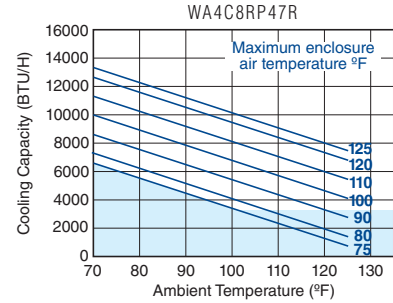


NEMA
TYPE 3R & 12
MAINTAINED

- 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



PERFORMANCE CHART



Operation within shaded area not recommended.

Standard Features

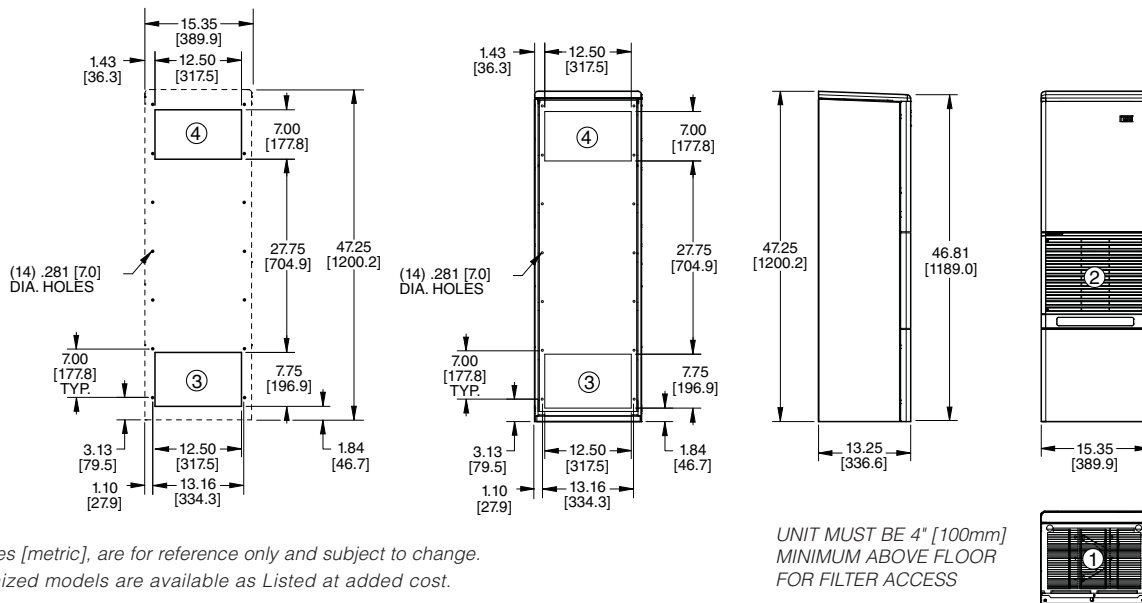
- Built-in Condensate Evaporator
- CFC-Free Refrigerant
- Crankcase Compressor Heater
- Digital Temperature Display
- EMI/RFI Suppressor
- Head Pressure Control Switch
- Filters
- Low Temperature Control Thermostat
- M/TAB Mounting System
- NEMA 3R & 12 Rating Maintained
- UL/CUL Recognized*
- Textured Beige Powder Finish

Accessories and Options

- Cooling Effect Detector
- Enclosure Heater
- Filter Recoating Adhesive
- Filters for replacement
- Internal corrosion protection
- Painted Metal Grille
- Power Loss Delayed Compressor Start
- Short Cycle Protector
- Special paint finishes

ADVANTAGE SERIES RP47 ADVANTAGE AIR-COOLED PANEL-MOUNTED AIR CONDITIONERS

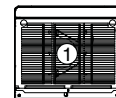
MODEL	RATED CAPACITY (BTU/H)	95/95 RATING (BTU/H)	AMBIENT TEMP. °F MAX./MIN.	VOLTS	HZ	RUNNING AMPS	APPROX. WEIGHT (LBS.)
WA3C8RP47R	8000	6600	125/50	115/100	60/50	12.2/12.7	150
W2A3C8RP47R	8000	6600	125/50	230/200	60/50	5.7/5.9	150
WA3C12RP47R	12000	8500	125/50	115/100	60/50	19.8/19.1	150
W2A3C12RP47R	12000	8500	125/50	230/200	60/50	9.1/9.0	150



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

*UL/CUL Recognized models are available as Listed at added cost.

UNIT MUST BE 4" [100mm] MINIMUM ABOVE FLOOR FOR FILTER ACCESS





NEMA
TYPE 12
MAINTAINED

FEATURES-SPECIFICATIONS

Description

Innovations in technology have resulted in much denser components packaging and smaller available panel sizes on which to mount Air Conditioners. The 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 and the full-size model at 47" with 10,000 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 Air Conditioners simple and fast and interchangeable with corresponding TrimLine Heat Exchangers.

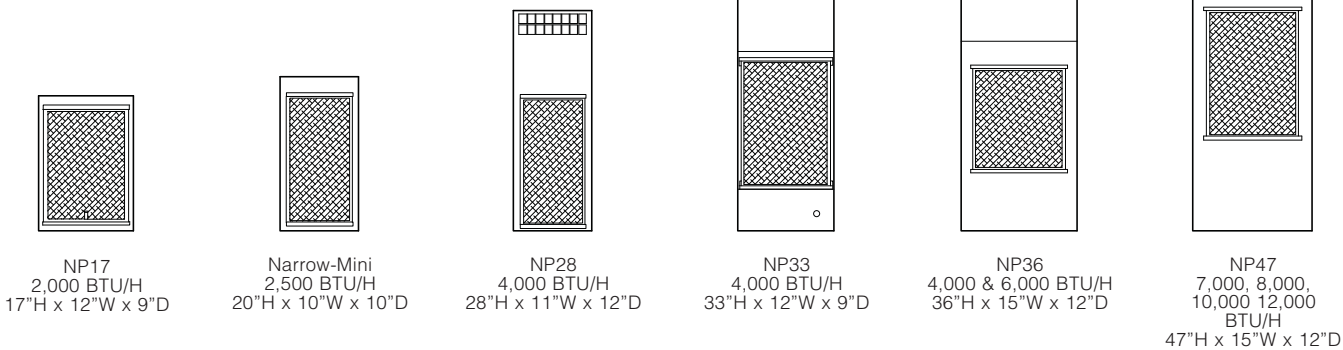
Outdoor or corrosive environments require weather protection and/or special internal and external protective features. For outdoor applications see the Advantage and Integrity Outdoor Series.

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

Features

- Capacities: 2,000 to 10,000 BTU/H; six heights available
- CFC-free or Low ODP Refrigerant
- All models UL/CUL Listed or Recognized
- Tested and approved by UL for NEMA 12 Enclosures
- Compact design with slim 10", 12", 15" and 17" wide mounting footprints

- Exclusive KOOLTRONIC M/TAB integral mounting system for quick, easy installation
- Built-in Condensate Evaporator eliminates need for draining normal condensate
- Thermostatic Low Temperature Control prevents over-cooling and provides energy-efficient operation
- EMI/RFI Suppressor minimizes transient line spikes during on/off cycling
- Field-reversible condenser outlet blower provides choice of horizontal or vertical air discharge
- Heavy-duty steel enclosures with gray baked powder finish
- Six foot (minimum) SJT 3-wire power cord
- Complete line of accessories

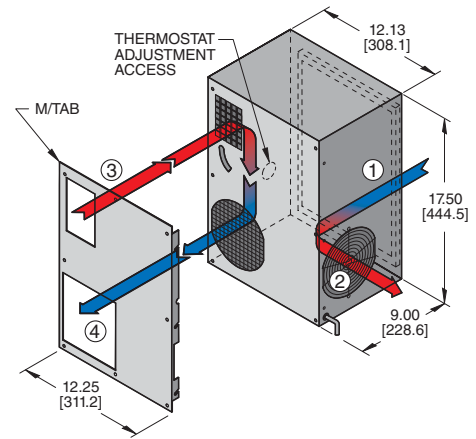


ENVIRONMENTAL CONTROLS TRIMLINE "NP17" SERIES SIDE-MOUNTED AIR CONDITIONERS



NEMA
TYPE 12
MAINTAINED

- 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



Standard Features

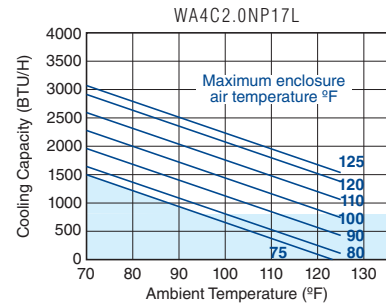
- Built-in Condensate Evaporator
- CFC-Free Refrigerant
- EMI/RFI Suppressor
- Low Temperature Control Thermostat
- M/TAB Mounting System
- NEMA 12 Rating Maintained (UL50)[†]
- UL/CUL Listed
- Gray Powder Finish

- Filter Recoating Adhesive
- Filters for replacement
- Internal corrosion protection
- Lifting Eyes
- Low Ambient Kit
- Short Cycle Protector
- Special materials or finishes
- Special motors, line cords, or connectors
- Stainless or Aluminum Cabinet
- Weather Protection Kit

Accessories and Options

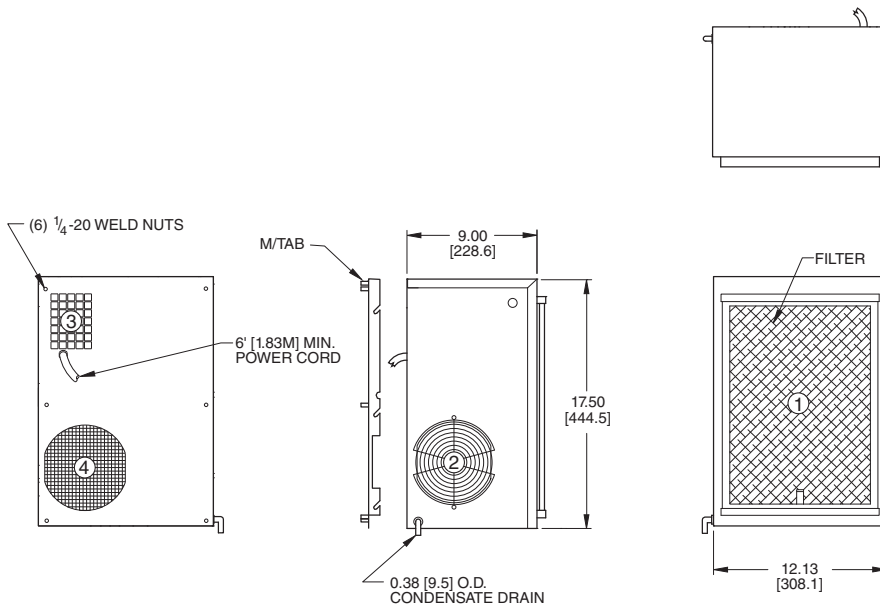
- Cooling Effect Detector

PERFORMANCE CHART

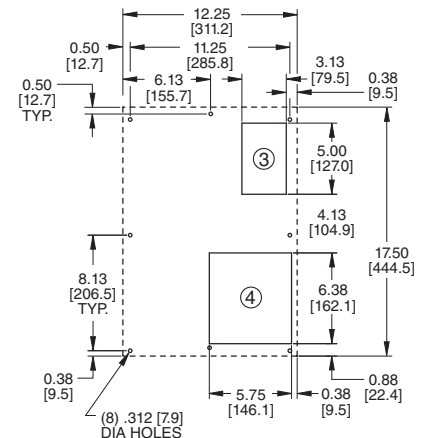


Operation within shaded area not recommended.

TRIMLINE SERIES NP17 AIR-COOLED PANEL-MOUNTED AIR CONDITIONERS							
MODEL	RATED CAPACITY (BTU/H)	95/95 RATING (BTU/H)	AMBIENT TEMP. °F MAX./MIN.	VOLTS	HZ	RUNNING AMPS	APPROX. WEIGHT (LBS.)
WA4C20NP17L	2000	1420	125/50	115/100	60/50	6.7/6.5	59
W2A4C20NP17L	2000	1420	125/50	230/200	60/50	4.3	59



MOUNTING PLAN



Dimensions, inches [metric], are for reference only and subject to change.
[†]UL/CUL Recognized models are available as Listed at added cost.

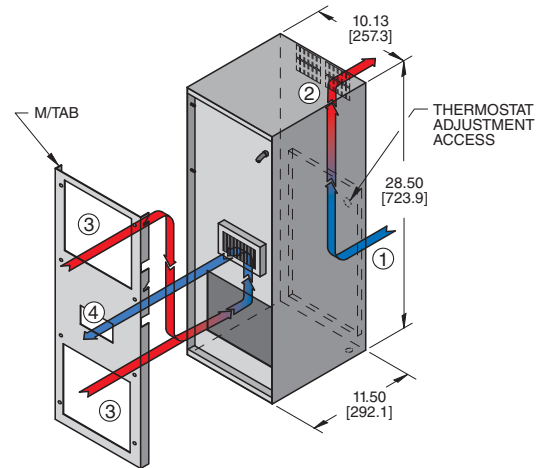
Weld nuts supplied for alternate mounting method to maintain NEMA 12. Mounting Plans furnished on request.

ENVIRONMENTAL CONTROLS TRIMLINE "NP28" SERIES AIR-COOLED SIDE-MOUNTED AIR CONDITIONERS

K13



- 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

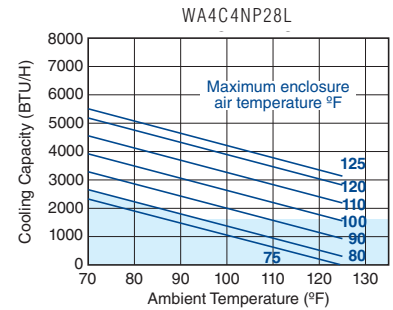


Standard Features

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

- Filter Recoating Adhesive
- Filters for replacement
- Internal corrosion protection
- Lifting Eyes
- Low Ambient Kit
- Short Cycle Protector
- Special materials or finishes
- Special motors, line cords, or connectors
- Stainless or Aluminum Cabinet
- Weather Protection Kit

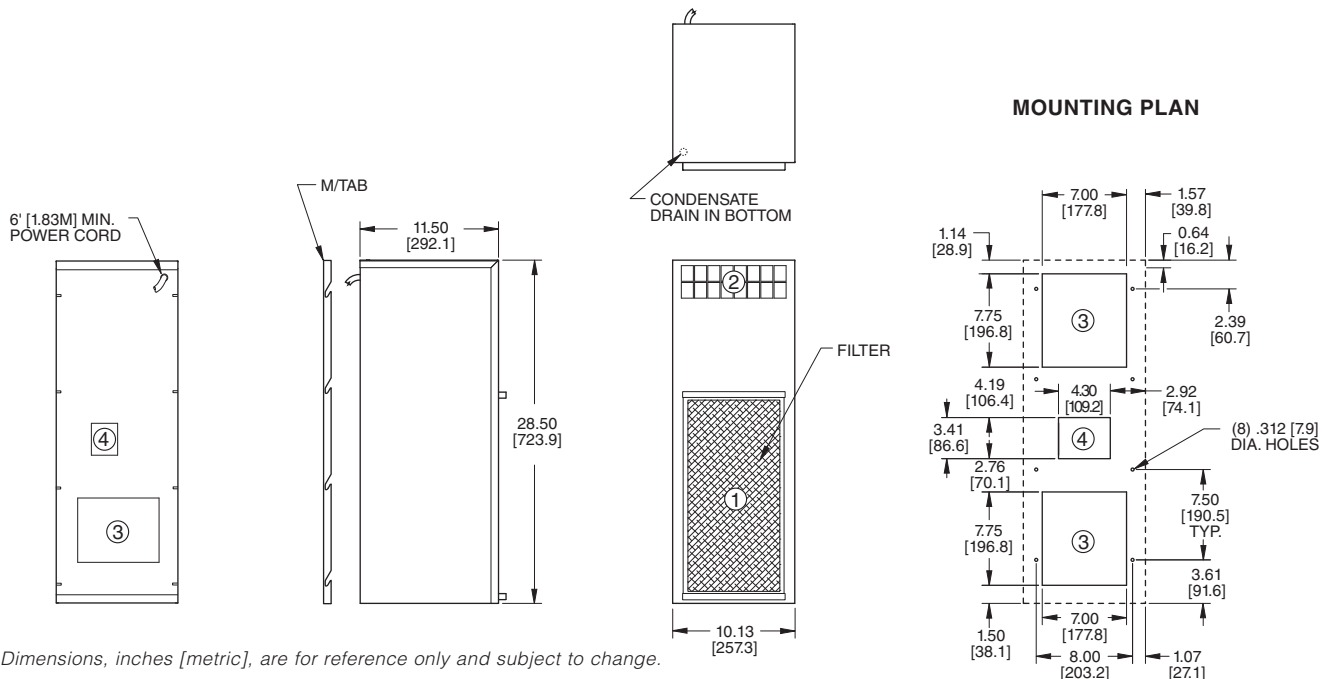
PERFORMANCE CHART



Accessories and Options

- Cooling Effect Detector

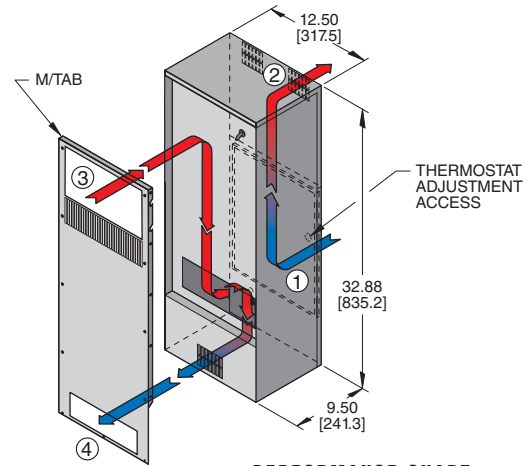
TRIMLINE SERIES NP28 AIR-COOLED PANEL-MOUNTED AIR CONDITIONERS							
MODEL	RATED CAPACITY (BTU/H)	95/95 RATING (BTU/H)	AMBIENT TEMP. °F MAX./MIN.	VOLTS	HZ	RUNNING AMPS	APPROX. WEIGHT (LBS.)
WA4C4NP28L	4000	2520	125/50	115/100	60/50	13.0/12.0	85
W2A4C4NP28L	4000	2520	120/50	230/200	60/50	6.0	85



ENVIRONMENTAL CONTROLS TRIMLINE "NP33" SERIES AIR-COOLED SIDE-MOUNTED AIR CONDITIONERS



NEMA
TYPE 12
MAINTAINED



- 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

Standard Features

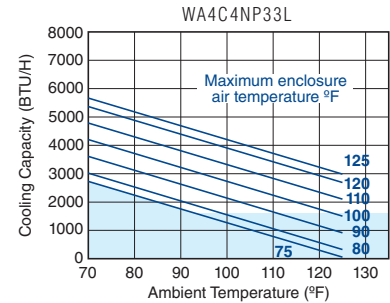
- Built-in Condensate Evaporator
- CFC-Free or Low ODP Refrigerant
- EMI/RFI Suppressor
- Low Temperature Control Thermostat
- M/TAB Mounting System
- NEMA 12 Rating Maintained (UL50)
- Reversible Condenser Outlet Blower
- UL/CUL Listed
- Gray Powder Finish

- Enclosure Heater
- Filter Recoating Adhesive
- Filters for replacement
- Internal corrosion protection
- Lifting Eyes
- Low Airflow Detector
- Low Ambient Kit
- Short Cycle Protector
- Special materials or finishes
- Special motors, line cords, or connectors
- Stainless or Aluminum Cabinet
- Weather Protection Kit

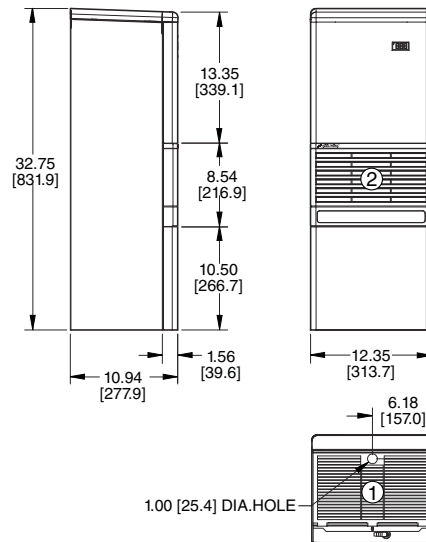
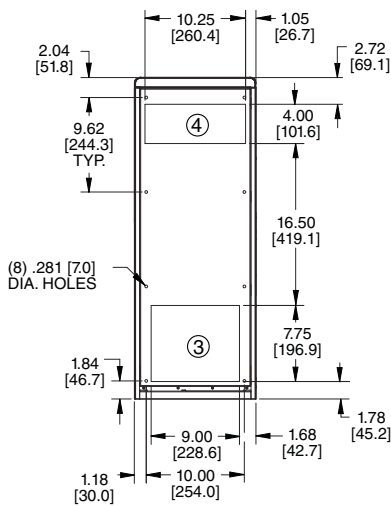
Accessories and Options

- Cooling Effect Detector

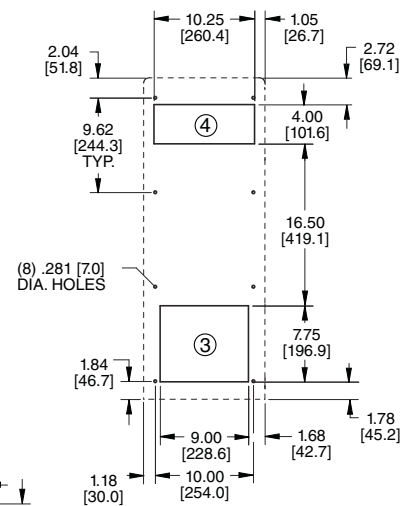
PERFORMANCE CHART



TRIMLINE SERIES NP33 AIR-COOLED PANEL-MOUNTED AIR CONDITIONERS							
MODEL	RATED CAPACITY (BTU/H)	95/95 RATING (BTU/H)	AMBIENT TEMP. °F MAX./MIN.	VOLTS	HZ	RUNNING AMPS	APPROX. WEIGHT (LBS.)
WA4C4NP33L	4000	2680	125/50	115/100	60/50	12.8	90
W2A4C4NP33L	4000	2680	125/50	230/200	60/50	7.0	90



MOUNTING PLAN



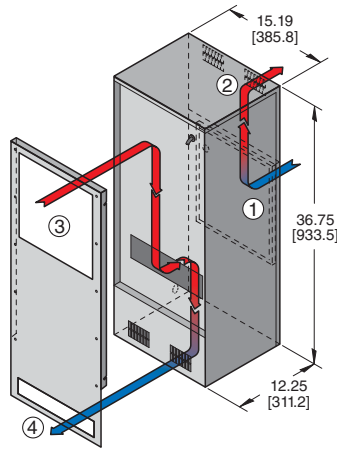
Dimensions, inches [metric], are for reference only and subject to change.

ENVIRONMENTAL CONTROLS TRIMLINE "NP36" SERIES AIR-COOLED SIDE-MOUNTED AIR CONDITIONERS

K15



- 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



Standard Features

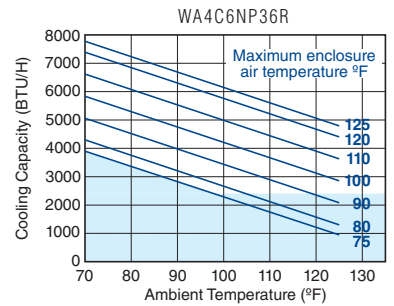
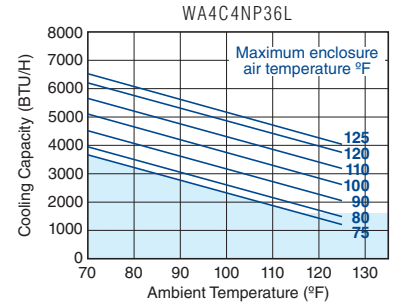
- Built-in Condensate Evaporator
- CFC-Free Refrigerant
- EMI/RFI Suppressor
- Low Temperature Control Thermostat
- M/TAB Mounting System
- NEMA 12 Rating Maintained(UL50)
- Reversible Condenser Outlet Blower
- UL/CUL Listed/Recognized[‡]
- Gray Powder Finish

- Filter Recoating Adhesive
- Filters for replacement
- Internal corrosion protection
- Lifting Eyes
- Low Ambient Kit
- Low Airflow Detector
- Short Cycle Protector
- Special materials or finishes
- Special motors, line cords, or connectors
- Stainless or Aluminum Cabinet
- Weather Protection Kit

Accessories and Options

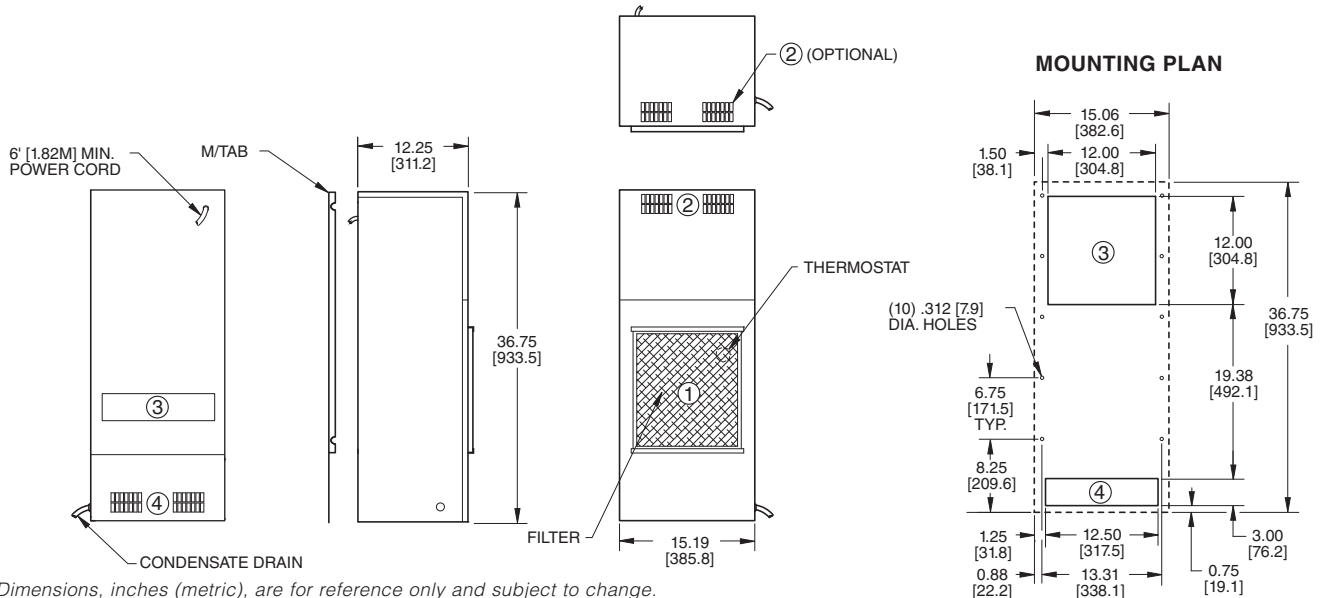
- Cooling Effect Detector

PERFORMANCE CHARTS



Operation within shaded area not recommended.

TRIMLINE SERIES NP36 AIR-COOLED PANEL-MOUNTED AIR CONDITIONERS							
MODEL	RATED CAPACITY (BTU/H)	95/95 RATING (BTU/H)	AMBIENT TEMP. °F MAX./MIN.	VOLTS	HZ	RUNNING AMPS	APPROX. WEIGHT (LBS.)
WA4C4NP36L	4000	3700	125/50	115/100	60/50	13.5	125
W2A4C4NP36L	4000	3700	125/50	230/200	60/50	7.5	125
WA4C6NP36R	6000	4100	125/50	115/100	60/50	16.5/17.0	125
W2A4C6NP36L	6000	4100	125/50	230/200	60/50	8.2	125



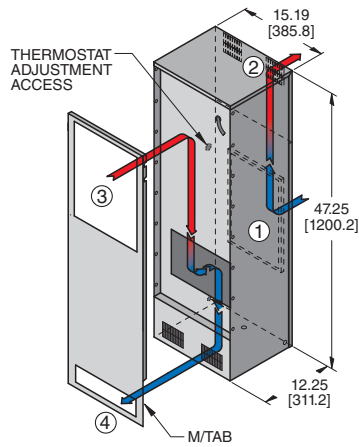
Dimensions, inches (metric), are for reference only and subject to change.

[‡]UL/CUL Recognized models are available as Listed at added cost.

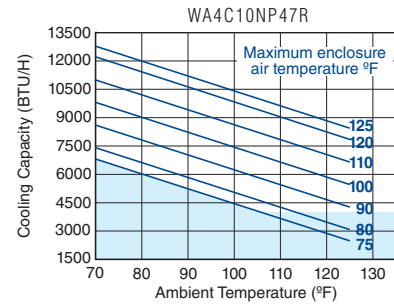
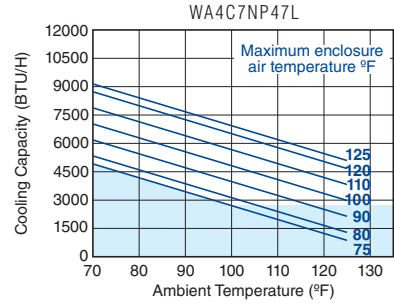
ENVIRONMENTAL CONTROLS TRIMLINE "NP47" SERIES AIR-COOLED SIDE-MOUNTED AIR CONDITIONERS



- 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



PERFORMANCE CHARTS



Operation within shaded area not recommended.

Standard Features

- Built-in Condensate Evaporator
- CFC-Free or Low ODP Refrigerant
- EMI/RFI Suppressor
- Low Temperature Control Thermostat
- M/TAB Mounting System
- NEMA 12 Rating Maintained (UL50)
- Reversible Condenser Outlet Blower
- UL/CUL Listed/Recognized[†]
- Gray Powder Finish

- Enclosure Heater
- Filter Recoating Adhesive
- Filters for replacement
- Internal corrosion protection
- Lifting Eyes
- Low Airflow Detector
- Low Ambient Kit
- Short Cycle Protector
- Special materials or finishes
- Special motors, line cords, or connectors
- Stainless or Aluminum Cabinet
- Weather Protection Kit

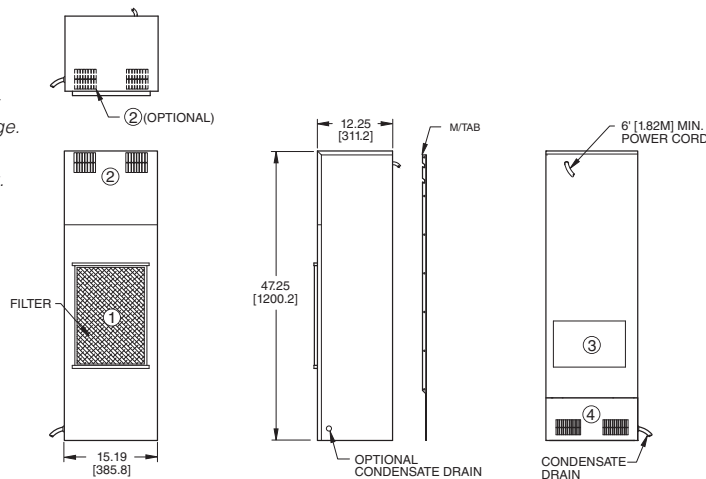
Accessories and Options

- Cooling Effect Detector
- Deep Drain Pan Kit

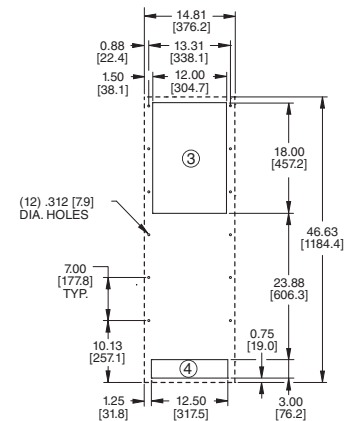
TRIMLINE SERIES NP47 AIR-COOLED PANEL-MOUNTED AIR CONDITIONERS							
MODEL	RATED CAPACITY (BTU/H)	95/95 RATING (BTU/H)	AMBIENT TEMP. °F MAX./MIN.	VOLTS	HZ	RUNNING AMPS	APPROX. WEIGHT (LBS.)
WA4C7NP47R	7000	4750	125/50	115/100	60/50	16.5	150
WA4C7NP47L	7000	4750	125/50	230/200	60/50	8.6	150
WA3C10NP47R	10000	7250	120/50	115/100	60/50	19.2/18.6	160
WA4C10NP47L	10000	7250	125/50	230/200	60/50	11.8	160
WA3C13NP47R	13000	7250	120/50	115/100	60/50	19.2/18.6	160
WA4C13NP47R	13000	7250	125/50	230/200	60/50	11.8	160

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

[†]UL/CUL Recognized models are available as Listed at added cost.



MOUNTING PLAN



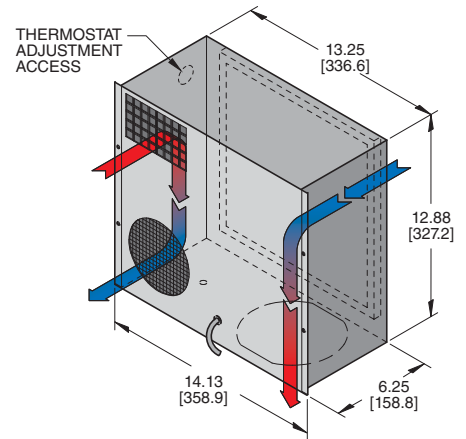
ENVIRONMENTAL CONTROLS MICRO-MINI SERIES AIR-COOLED SIDE-MOUNTED AIR CONDITIONERS

K17



**NEMA
TYPE 12
MAINTAINED**

- 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



FEATURES-SPECIFICATIONS

Standard Features

- Ball-bearing Motors
- CFC-Free Refrigerant
- EMI/RFI Suppressor
- Low Temperature Control Thermostat
- NEMA 12 Rating Maintained (UL50)
- UL/CUL Listed
- Gray Powder Finish

Accessories and Options

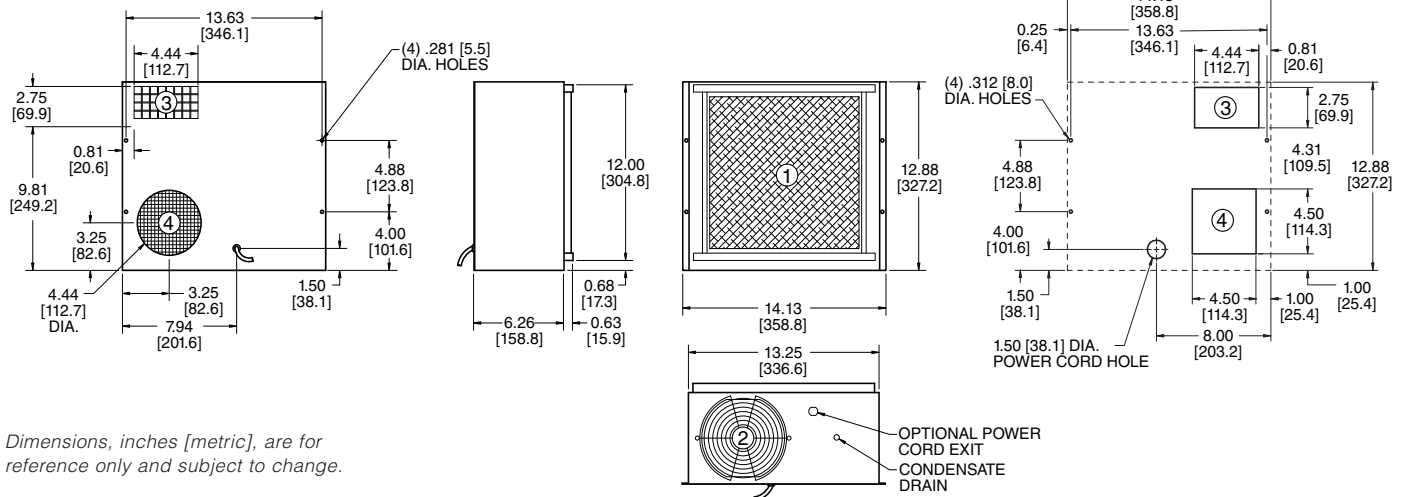
- Adapter Plate for rack mounting
- Compressor Heater
- Condensate Evaporator
- Cooling Effect Detector
- Filter Recoating Adhesive
- Filters for replacement
- Internal corrosion protection
- Lifting Eyes

- Low Ambient Kit and Compressor Heater
- Mounting Hinge
- Short Cycle Protector
- Special materials or finishes
- Special motors, line cords, or connectors
- Stainless or Aluminum Cabinet
- Weather Protection Kit

MICRO-MINI SERIES AIR-COOLED PANEL-MOUNTED AIR CONDITIONERS

MODEL	RATED CAPACITY (BTU/H)	95/95 RATING (BTU/H)	AMBIENT TEMP. °F MAX./MIN.	VOLTS	HZ	RUNNING AMPS	APPROX. WEIGHT (LBS.)
WA4C10MML	1000	600	125/50	115/100	60/50	4.5	43
W2A4C10MML	1000	600	125/50	230/200	60/50	2.3	43

MOUNTING PLAN



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



NEMA
TYPE 4/4X
MAINTAINED

FEATURES-SPECIFICATIONS

Description

Designed specifically for NEMA 4 and 4X Enclosure applications that require washdown or are subject to outdoor storm conditions, Integrity NEMA 4/4X Air Conditioners protect the ratings of NEMA 4 or 4X Enclosures.

These exclusive patented UL/CUL Recognized Panel-Mounted Air Conditioners provide superior closed-loop cooling and also protect against the hazards specified for both Indoor and Outdoor NEMA 4 and 4X Enclosures. Tested and rated by universally recognized Underwriters Laboratories, these uniquely-designed 304-2B Stainless Steel Air Conditioners prevent unwanted environmental penetration of NEMA 4 and 4X Enclosures as they provide a clean, cool internal environment.

With the design advantages of the Integrity NEMA 4/4X Series and the inclusion of the unique Mounting Template and Assembly Bracket (M/TAB), modified for this design, this series offers the finest in cooling innovation and technology.

Features

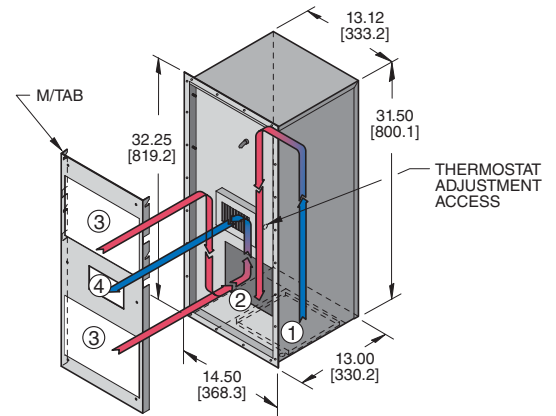
- Capacities range from 2,000 to 10,000 BTU/H in 32", 38", 47" and 59" heights
- UL/CUL Listed or Recognized®
- Tested and approved by UL for NEMA 4 and 4X Enclosures
- CFC-free Refrigerant
- Gasketed flanges on all four mounting edges for positive leakproof seal
- Exclusive modified integral Mounting Template and Assembly Bracket (M/TAB) for quick, easy installation.
- Thermostatic Low Temperature Control prevents over-cooling and provides energy-efficient operation
- Internal Corrosion Protection
- EMI/RFI Suppressor minimizes transient line spikes during on/off cycling
- Separate blower-driven evaporator and condenser air systems penetrate high static pressure applications
- Rugged heavy duty stainless steel exterior

ENVIRONMENTAL CONTROLS INTEGRITY "32" SERIES AIR-COOLED SIDE-MOUNTED AIR CONDITIONERS

K19



NEMA
TYPE 4/4X
MAINTAINED



- 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

Standard Features

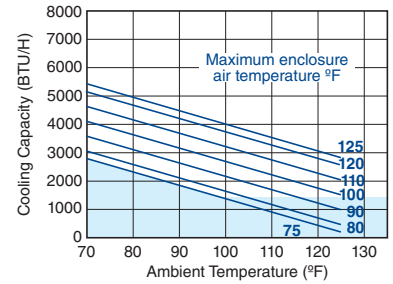
- CFC-Free Refrigerant
- EMI/RFI Suppressor
- Internal corrosion protection
- Low Temperature Control Thermostat
- M/TAB Mounting System
- NEMA 4/4X Rating Maintained (UL50)
- Stainless Steel Cabinet
- UL/CUL Recognized[†]

Accessories and Options

- Cooling Effect Detector
- Filter Recoating Adhesive
- Filters for replacement
- Lifting Eyes
- Low Ambient Kit & Compressor Heater
- Short Cycle Protector
- Special materials or finishes

PERFORMANCE CHART

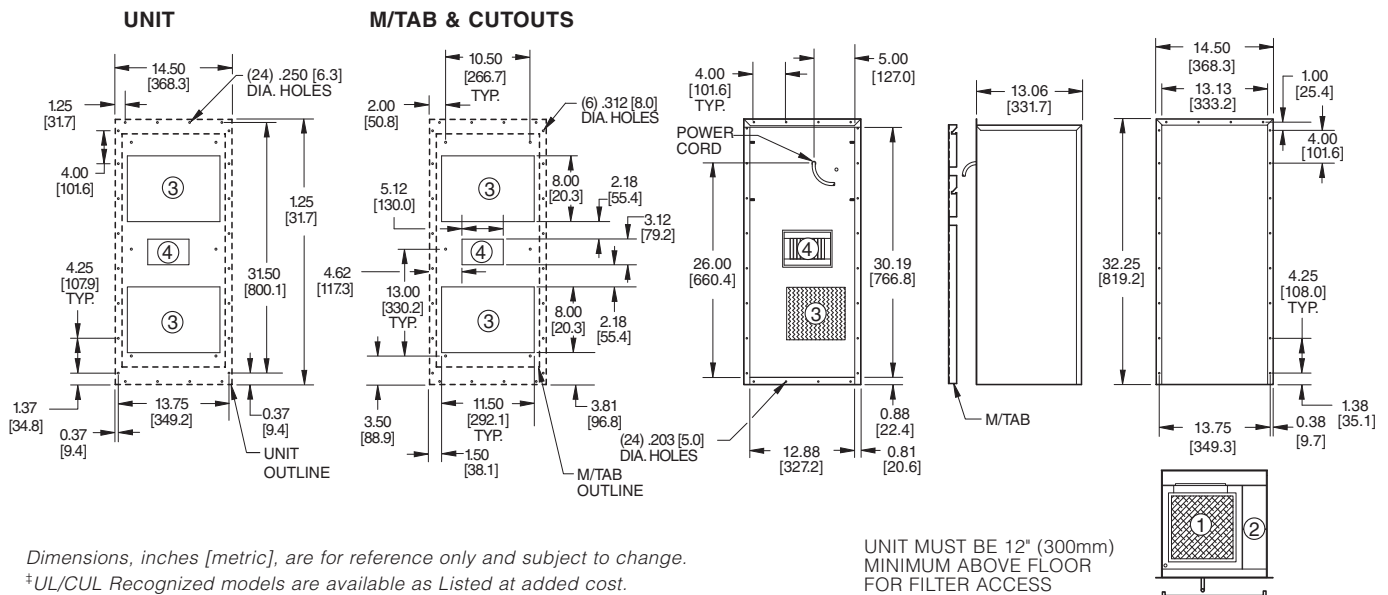
WNA4C4P32R



Operation within shaded areas not recommended.

INTEGRITY SERIES 32 AIR-COOLED PANEL-MOUNTED AIR CONDITIONERS							
MODEL	RATED CAPACITY (BTU/H)	95/95 RATING (BTU/H)	AMBIENT TEMP. °F MAX./MIN.	VOLTS	HZ	RUNNING AMPS	APPROX. WEIGHT (LBS.)
WNA4C4P32L	4000	2650	125/50	115/100	60/50	13.0/12.0	105
W2NA4C4P32L	4000	2650	120/50	230/200	60/50	6.0	105

MOUNTING PLAN



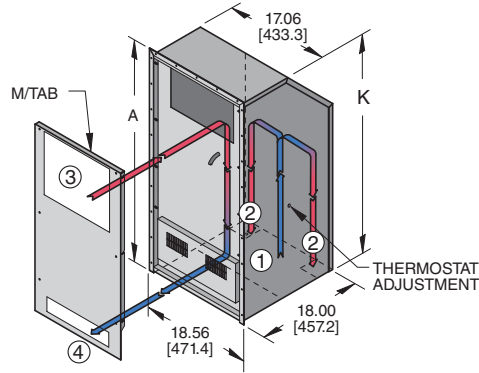
Dimensions, inches [metric], are for reference only and subject to change.
[†]UL/CUL Recognized models are available as Listed at added cost.

UNIT MUST BE 12" (300mm) MINIMUM ABOVE FLOOR FOR FILTER ACCESS

ENVIRONMENTAL CONTROLS INTEGRITY "38 & 47" SERIES AIR-COOLED SIDE-MOUNTED AIR CONDITIONERS

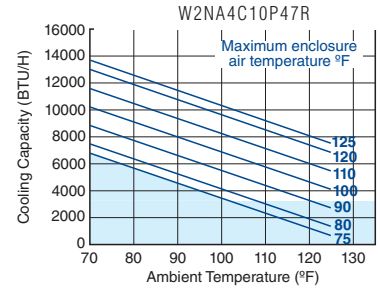
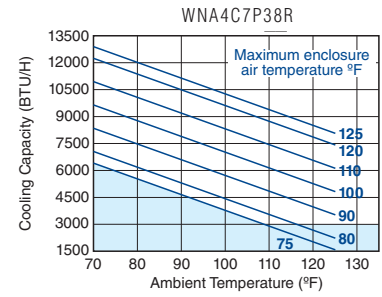


CANUS
NEMA
TYPE 4/4X
MAINTAINED



- 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

PERFORMANCE CHARTS

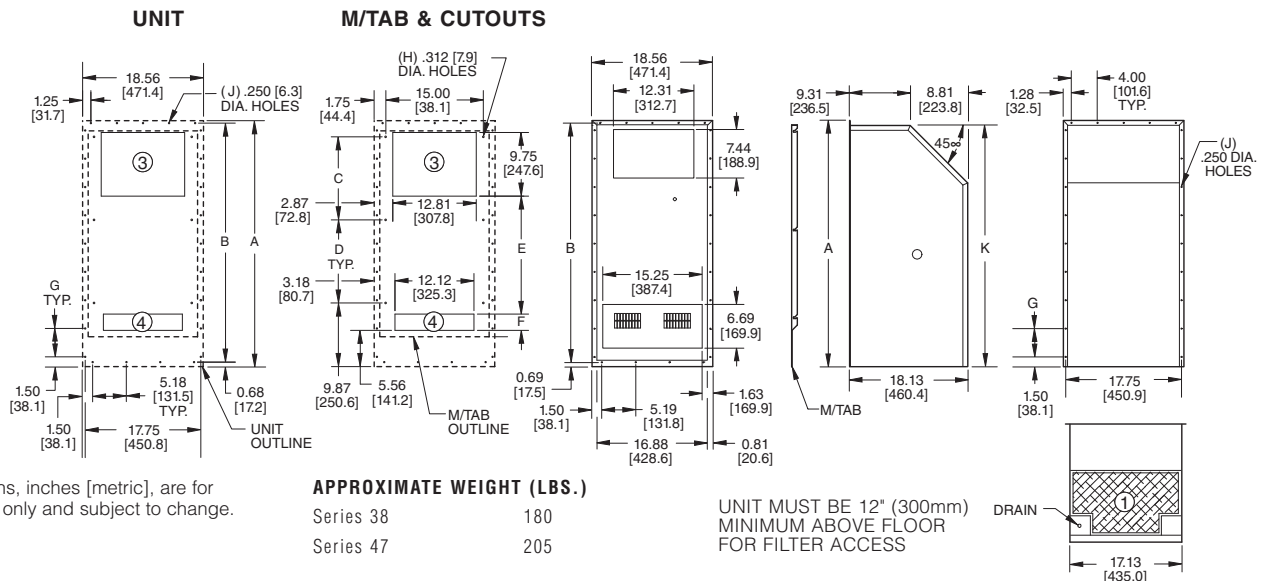


Operation within shaded areas not recommended.

INTEGRITY SERIES 38 & 47 AIR-COOLED PANEL-MOUNTED AIR CONDITIONERS							
MODEL	RATED CAPACITY (BTU/H)	95/95 RATING (BTU/H)	AMBIENT TEMP. °F MAX./MIN.	VOLTS	HZ	RUNNING AMPS	APPROX. WEIGHT (LBS.)
WNA4C7P38L	7000	6000	131/50	115/100	60/50	20	180
W2NA4C7P38L	7000	6000	131/50	230/200	60/50	9.3/9.9	180
W2NA4C10P47L	10000	7750	131/50	230/200	60/50	10.9/12.5	205

DIMENSIONS INCHES (METRIC)					
MODEL	A	B	C	D	E
SERIES 38	37.75 (958.8)	36.69 (931.9)	12.75 (323.8)	12.75 (323.8)	18.12 (463.5)
SERIES 47	47.00 (1193.8)	45.93 (1166.6)	12.25 (311.1)	11.25 (285.7)	27.37 (695.1)
MODEL	F	G	H	J	K
SERIES 38	2.50 (63.5)	4.34 (110.2)	6.00 (152.4)	27.00 (685.8)	37.00 (939.8)
SERIES 47	2.50 (63.5)	4.00 (101.6)	8.00 (203.2)	33.00 (838.2)	46.25 (1174.7)

MOUNTING PLAN

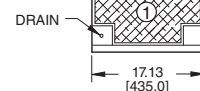


Dimensions, inches [metric], are for reference only and subject to change.

APPROXIMATE WEIGHT (LBS.)

Series 38	180
Series 47	205

UNIT MUST BE 12" (300mm) MINIMUM ABOVE FLOOR FOR FILTER ACCESS



ENVIRONMENTAL CONTROLS COMPACT SERIES AIR COOLED TOP-MOUNT AIR CONDITIONERS

K21



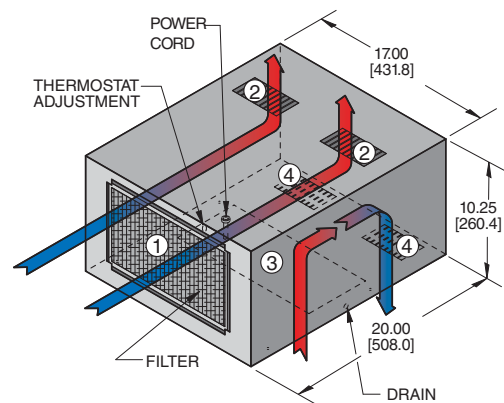
Standard Features

- Built-in Condensate Evaporator
- CFC-Free Refrigerant
- EMI/RFI Suppressor
- Low Temperature Control Thermostat
- UL/CUL Listed
- Gray Powder Finish

Accessories and Options

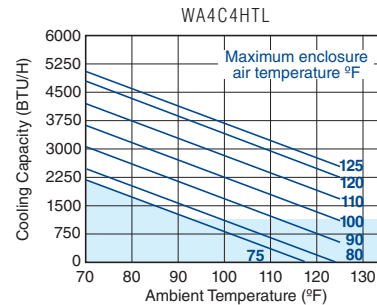
- Cooling Effect Detector
- Enclosure Heater
- Filter Recoating Adhesive

- Filters for replacement
- Internal corrosion protection
- Lifting Eyes
- Low Airflow Detector
- Low Ambient Kit
- Short Cycle Protector
- Special materials or finishes
- Special motors, linecords or protectors
- Stainless or Aluminum Cabinet



- 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

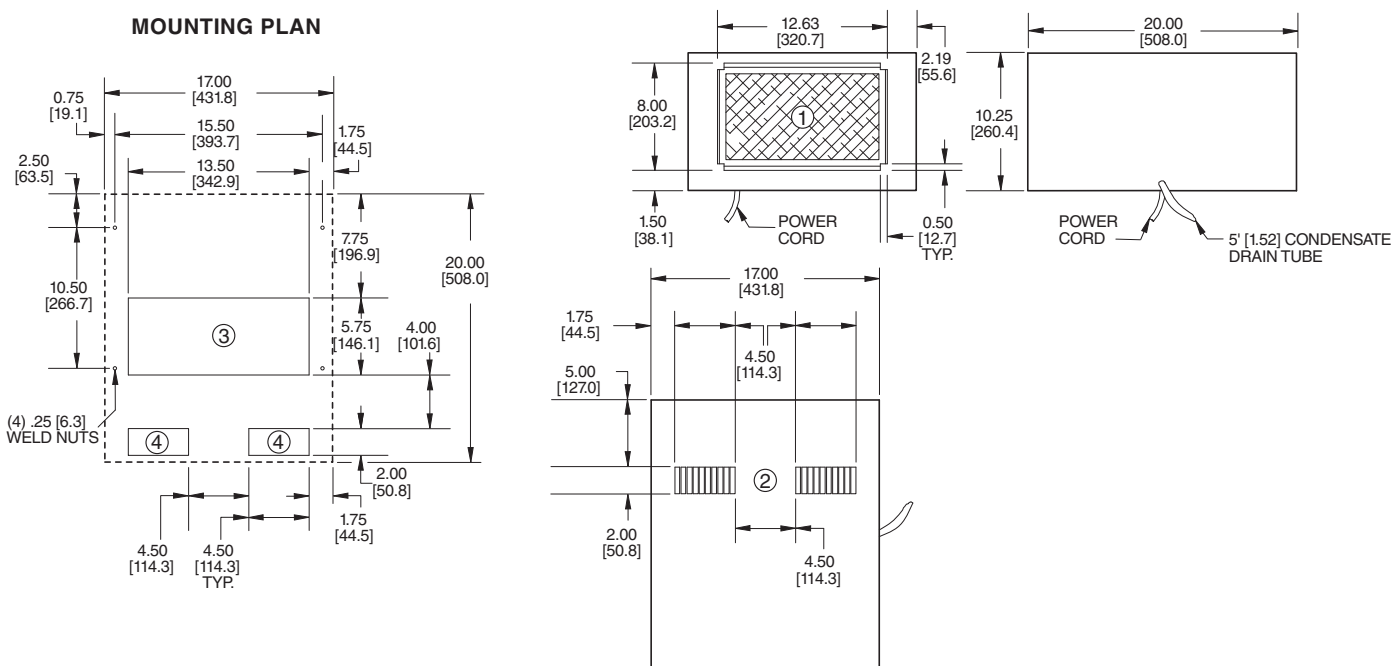
PERFORMANCE CHART



Operation within shaded areas not recommended.

COMPACT SERIES AIR-COOLED TOP-MOUNTED AIR CONDITIONERS							
MODEL	RATED CAPACITY (BTU/H)	95/95 RATING (BTU/H)	AMBIENT TEMP. °F MAX./MIN.	VOLTS	HZ	RUNNING AMPS	APPROX. WEIGHT (LBS.)
WA4C4HTR	4000	2200	125/50	115/100	60/50	13.1	85
W2A4C4HTR	4000	2200	115/50	230/200	60/50	5.9	85

MOUNTING PLAN





NEMA 4/4X



NEMA 12

Industry Standards

UL Listed

NEMA 12, 4 or 4X

 UL File E32576
FEATURES-SPECIFICATIONS**Applications**

Compressed air cooling is used where conventional enclosure cooling (air conditioners or heat exchangers) is not possible. Example: Small to medium size enclosures; nonmetallic enclosures; areas where the size of cooling devices is restricted.

Features

- Suitable for harsh environments
- Small physical size
- Creates cool air without refrigerants (no CFC's, HFC's)
- Exceptionally reliable—no moving parts
- Virtually no maintenance

Requirements

- Clean, dry, oil-free compressed air (100 PSIG/70°F or below) required

to achieve published BTU/hr. ratings. Lower pressures and higher temperatures will reduce BTU/hr. ratings

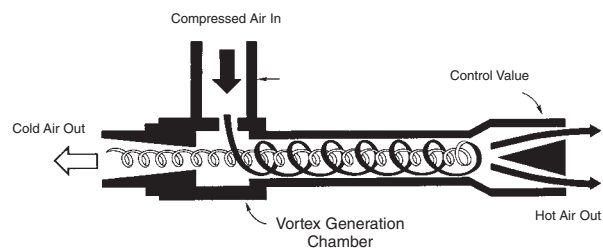
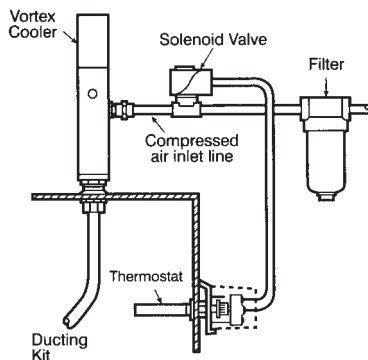
- A 5 micron water and particulate removal filter must be installed prior to operating any Vortex Cooler (included in kits)
- An oil removable filter can be installed between the 5 micron filter and the Vortex cooler if oil is present in the compressed air line
- Mounting holes:
 - NEMA 12 kits — (1) 1-3/32" (28mm) or 3/4" knockout hole for cooling tube and (1) 11/16" hole for thermostat
 - NEMA 4 & NEMA 4X kits — (1) 1-5/16" (49mm) or 1-1/2" knockout hole for cooling tube and (2) #8 holes for thermostat

Kit Includes the Following

- Vortex Cooling Tube
- Solenoid Valve 120V 60Hz – 110V 50 Hz (230V available)
- 5 micron water and particulate removal filter
- Ducting Kit
- Thermostat

How Enclosure Coolers Create Cold Air

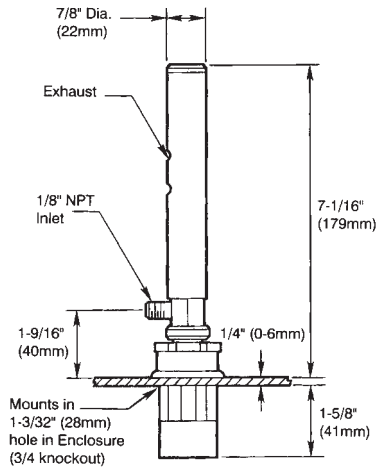
Vortex Coolers are powered by a vortex tube – a unique device that creates a vortex from compressed air and separates it into hot and cold airstreams. Here's how it works. The vortex tube's cylindrical generator causes the input compressed air to rotate, reaching speeds up to 1,000,000 rpm as it is forced down the inner walls of the hot, or longer end of the vortex tube. At the end of the hot tube, as small portion of this air exits through a needle valve as hot air exhaust. The remaining air is forced back through the center of the incoming air stream at a slower speed. The heat in the slower moving air is transferred to the faster moving incoming air. This super-cooled air flows through the center of the generator and exits through the cold air exhaust port.



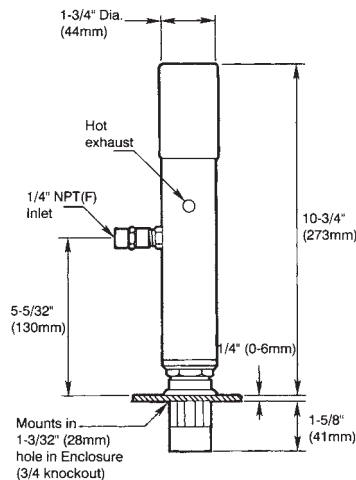


VORTEX COOLERS										
CATALOG NUMBER	CAPACITY		AIR CONSUMPTION			TUBE SURFACE TEMP AT BTU	THERMOSTAT MOUNTING	NEMA TYPE	UL TYPE	COOLING TUBE MATERIAL
	BTUH	KCAL/H	SCFM	SLPM	THERMOSTAT (FACTORY SET)					
W750400	400	101	8	227	90°F ± 2°	150°F	External	12	12	Aluminum
W740900	900	225	15	425	90°F ± 2°	150°F	External	12	12	Aluminum
W7901500	1500	378	25	708	90°F ± 2°	150°F	External	12	12	Aluminum
W7971700	1700	425	25	708	90°F ± 2°	150°F	Internal	4	4	Aluminum
W797SS1700	1700	425	25	708	90°F ± 2°	150°F	Internal	4X	4X	Stainless Steel

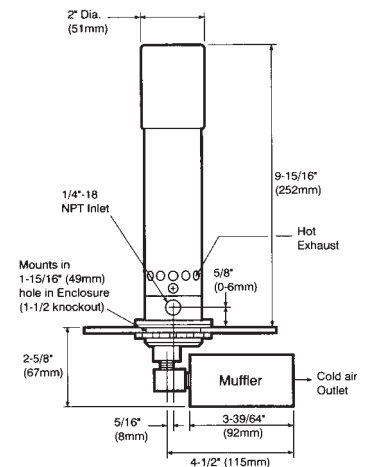
ACCESSORIES	
CATALOG NUMBER	FILTER TYPE AND SIZE
W38OILFILTER	Auto-drain oil removal filter, 3/8" NPT (F), rated to 25 SCFM/708 SLPM
W12OILFILTER	Auto-drain oil removal filter, 1/2" NPT (F), rated to 50 SCFM/1415 SLPM



Model W750400



Model W740900 & W7901500



Model W7971700 & W797SS1700

Note: Thermostats for Models W750400, W740900 and W7901500 mounts in an 11/16" (18mm) diameter hole.



FEATURES-SPECIFICATIONS

Applications

Used for enclosure cooling in low static pressure applications.

Features

- High airflow with low noise operation makes these versatile cooling fans very popular in a wide range of applications
- Reliable cooling is achieved particularly in areas with minimum space requirements
- The cooling system incorporates the filtered fan boxes as its air inlet, while the exhaust grille is the air outlet
- The washable aluminum filter grille and air filter is easily accessible and can be removed for cleaning
- Available in 115 VAC or 230 VAC 50/60 Hz versions
- Heavy gauge steel construction
- Attractive, ascetically appealing grille design
- All models can pressurize or exhaust
- Aluminum filter is coated with adhesive baffle surfaces for dust and dirt collection. Can be recoated after cleaning for optimum performance

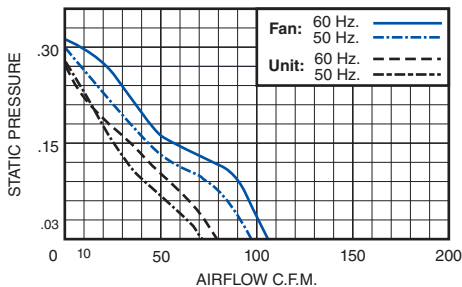
Note: One grille and filter are included with each fan package. Normally, an additional exhaust grille and filter required for each installation and must be ordered separately.

Accessories

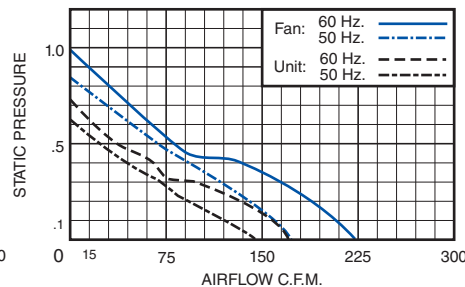
- Exhaust Grille and Filters (see page L25)
- Filter Coat

PERFORMANCE GRAPHS

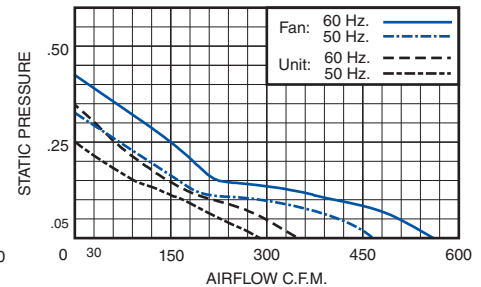
WPFB100



WPFB200



WPFB500

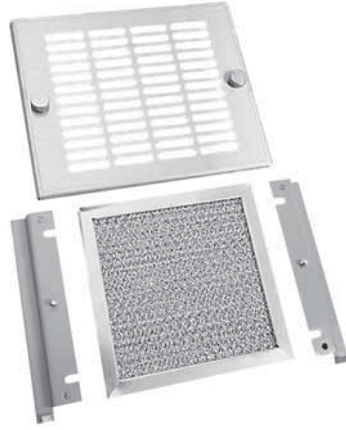


Static pressure is in inches of water.

**ENVIRONMENTAL CONTROLS
WPFB/WPFBE SERIES FILTERED BOX FANS & GRILLES**



“WPFB” Box Fan



“WPFBE” Exhaust Grille with Filter



Filter Coat

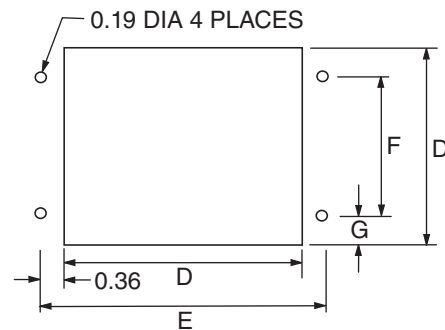
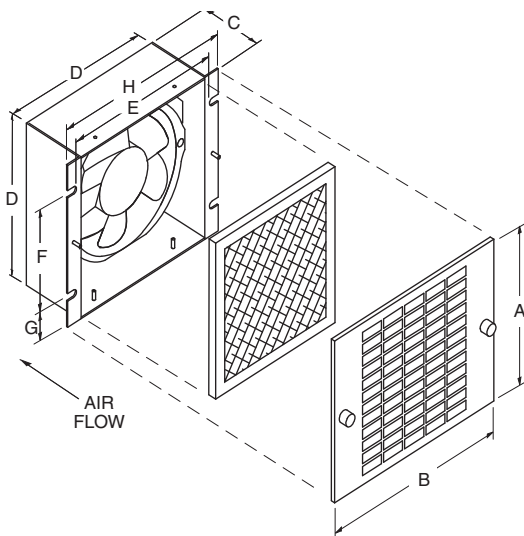
Industry Standards
UR, cUR, and CE recognized

FEATURES-SPECIFICATIONS

WPFB SERIES BOX FANS													
CATALOG NUMBER	FREE-FLOW AIR DELIVERY (CFM)	RATED VOLTAGE	NOMINAL (RPM)	RUNNING AMPS	WATTS	A	B	C	D	E	F	G	H
WPFB100115	105	115	3000	0.18	15	6.13 (156)	7.38 (188)	2.38 (61)	5.62 (143)	6.38 (162)	4.13 (105)	0.75 (19)	7.00 (178)
WPFB100230	105	230	3000	0.18	15	6.13 (156)	7.38 (188)	2.38 (61)	5.62 (143)	6.38 (162)	4.13 (105)	0.75 (19)	7.00 (178)
WPFB200115	210	115	3300	0.29	33	7.63 (194)	8.88 (226)	3.00 (76)	7.12 (181)	7.88 (200)	4.50 (114)	1.31 (33)	8.50 (216)
WPFB200230	210	230	3300	0.29	33	7.63 (194)	8.88 (226)	3.00 (76)	7.12 (181)	7.88 (200)	4.50 (114)	1.31 (33)	8.50 (216)
WPFB500115	560	115	1600	0.87	60	11.62 (295)	13.00 (330)	4.56 (116)	11.13 (283)	11.88 (302)	6.88 (175)	2.13 (54)	12.50 (318)
WPFB500230	560	230	1600	0.87	60	11.62 (295)	13.00 (330)	4.56 (116)	11.13 (283)	11.88 (302)	6.88 (175)	2.13 (54)	12.50 (318)

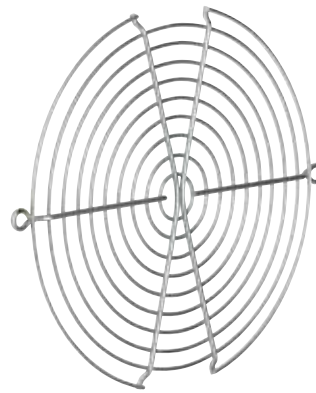
WPFBE SERIES EXHAUST GRILLES WITH FILTERS								
CATALOG NUMBER		A	B	D	E	F	G	W*
WITH FILTER	FILTER ONLY							
WPFBE100	WPFBM100	6.13 (156)	7.38 (188)	5.62 (143)	6.38 (162)	4.13 (105)	0.75 (19)	5.66 (144)
WPFBE200	WPFBM200	7.63 (194)	8.88 (226)	7.12 (181)	7.88 (200)	4.50 (114)	1.31 (33)	7.16 (182)
WPFBE500	WPFBM500	11.62 (295)	13.00 (330)	11.13 (283)	11.88 (302)	6.88 (175)	2.13 (54)	11.16 (283)

FILTER COAT	
CATALOG NUMBER	DESCRIPTION
WAX10	10 oz pump spray bottle





WA4AXFN



WAGARD6

FEATURES-SPECIFICATIONS

MUFFIN FANS & FINGER GUARDS

Applications

Designed for use in enclosures where space is limited and reliable cooling is required.

Features

- Fan furnished standard with 24" lead wire. 90 degree plug attached
- Black color
- Impeller and frame are glass reinforced thermoplastic, UL94-VO
- Die cast aluminum housing
- Finger guards are welded electroplated nickel chrome steel wire. Guards withstand 200 lbs. separation force to meet UL, CSA standards
- One finger guard and all mounting hardware is provided. Additional finger guards can be mounted on either side for maximum safety

WAXFN SERIES MUFFIN FANS & WAGARD SERIES FINGER GUARDS

CATALOG NUMBER		VOLTAGE RATING	RATED INPUT (WATTS)	FREQ (Hz)	RATED SPEED (RPM)	NOISE LEVEL	MAXIMUM AIR FLOW		MAXIMUM STATIC PRESSURE/H2O	DIMENSIONS H X W X D
FAN	FAN GUARD						(M3/MIN)	CFM		
WA4AXFN	WAGARD4	115	17/15	50/60	2500/3000	37 ± 2	2.5/3.1	88/110	5.8/7.0	4.71x4.71x1.50 (120x120x38)
WA4AXFN2	WAGARD4	230	17/15	50/60	3500/3000	37 ± 2	2.5/3.1	88/110	5.8/7.0	4.71x4.71x1.50 (120x120x38)
WA6AXFN	WAGARD6	115	26/35	50/60	2800/3500	46 ± 2	5.4/6.6	190/235	5.4/6.6	6.77x6.77x2.01 (172x172x51)
WA6AXFN2	WAGARD6	230	26/35	50/60	2800/3500	46 ± 2	5.4/6.6	190/235	5.4/6.6	6.77x6.77x2.01 (172x172x51)
WA10AXFN	WAGARD10	115	35	50/60	1650	55		547	10	10.00x10.00x3.50 (254x254x89)
WA10AXFN2	WAGARD10	230	33	50/60	1650	55		547	10	10.00x10.00x3.50 (254x254x89)

**ENVIRONMENTAL CONTROLS
WAVK, WAVK-SS & WAFLT LOUVER PLATE KITS & FILTER KITS**



WAVK0303SSA



WAFLT33

FEATURES-SPECIFICATIONS

LOUVER PLATE KITS

Description

Designed to provide ventilation or cooling in enclosures where excessive moisture or excessive internal heat is a problem. These kits are fabricated from 14 gauge steel and include all hardware for mounting. Kits are easily field installed by making a cutout of the proper size and attaching the louver plate in place. Finish is ANSI 61 gray polyester powder finish over phosphatized surfaces or 316 stainless steel. Filter kit must be ordered separately.

FILTER KITS FOR LOUVER PLATES KITS

Description

Designed for use with Louver Plate Kit. Mounting holes on filter brackets align with mounting holes on louver kits. Aluminum filters are good for stopping dust and dirt from penetrating the enclosures. Filters are designed to mount behind louver kits. Kit consists of aluminum filter, brackets and all necessary hardware for installation. Louver kit must be ordered separately.

WAVK SERIES LOUVER PLATE KIT AND WAFLT SERIES FILTER KITS FOR LOUVER PLATES												
LOUVER KIT PAINTED	CATALOG NUMBER		NUMBER OF LOUVERS	NUMBER OF LOUVER ROWS	LOUVER LENGTH	A	B	L	M	P	R	S
	LOUVER KIT 316 S.S.	FILTER KIT										
WAVK0203	WAVK0203SSA	—	3	1	2.00 (51)	3.25 (83)	3.25 (83)	2.00 (51)	2.00 (51)	2.50 (64)	2.50 (64)	—
WAVK0303	WAVK0303SSA	WAFLT33	3	1	3.00 (76)	3.87 (98)	4.50 (114)	2.62 (67)	3.25 (83)	3.12 (79)	3.75 (95)	—
WAVK0304	WAVK0304SSA	WAFLT34	4	1	3.00 (76)	4.75 (121)	4.50 (114)	3.50 (89)	3.25 (83)	4.00 (102)	3.75 (95)	—
WAVK0404	WAVK0404SSA	WAFLT44	4	1	4.00 (102)	5.62 (143)	5.50 (140)	4.37 (111)	4.25 (108)	4.87 (124)	4.75 (121)	—
WAVK0604	WAVK0604SSA	WAFLT64	8	1	3.00 (76)	5.62 (143)	7.50 (191)	4.37 (111)	6.25 (159)	4.87 (124)	6.75 (171)	—
WAVK0606	WAVK0606SSA	WAFLT66	12	1	3.00 (76)	7.87 (200)	7.50 (191)	6.62 (168)	6.25 (159)	7.12 (181)	6.75 (171)	3.56 (90)
WAVK0806	WAVK0806SSA	WAFLT86	12	2	4.00 (102)	8.18 (208)	9.50 (241)	6.93 (176)	8.25 (210)	7.43 (189)	8.75 (222)	3.71 (94)
WAVK0808	WAVK0808SSA	WAFLT88	16	2	4.00 (102)	10.56 (268)	9.50 (241)	9.31 (236)	8.25 (210)	9.81 (249)	8.75 (222)	4.90 (124)
WAVK0812	WAVK0812SSA	WAFLT812	24	2	4.00 (102)	15.31 (389)	9.50 (241)	14.06 (357)	8.25 (210)	14.56 (370)	8.75 (222)	7.28 (185)

Note: Center holes (dimension "S") are not needed on any filter kits. Only 6 x 6 and larger louver kits require center holes.

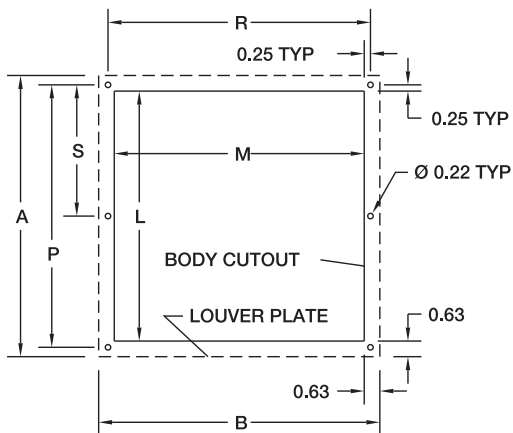
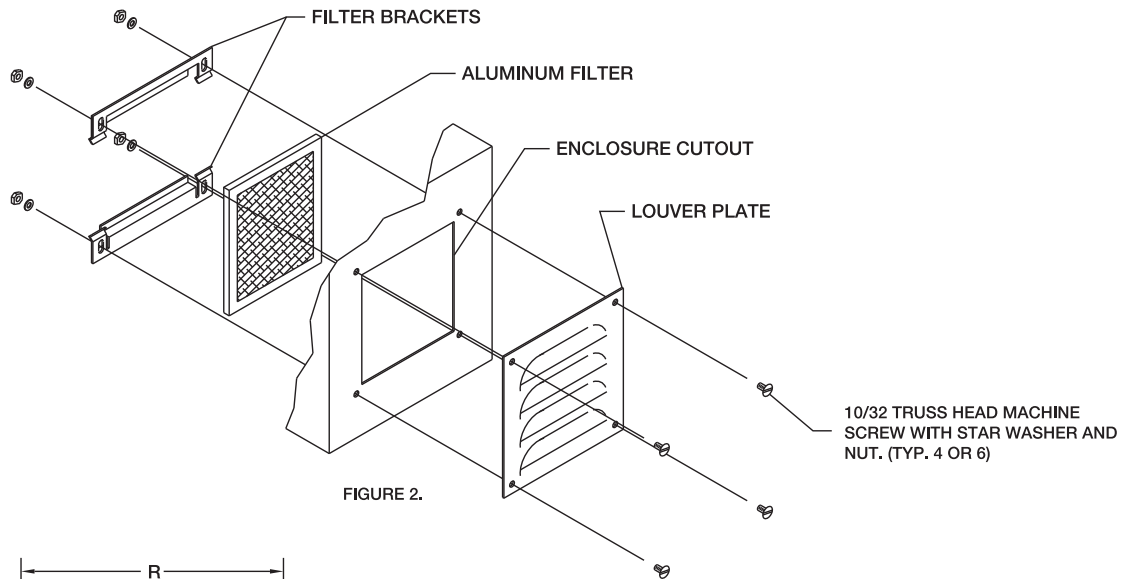


FIGURE 1

Notes:

Installation Instructions

1. Make sure the proper louver kit and/or filter kit has been ordered.
2. Locate and mark holes and cutout as shown in figure 1.
3. Drill holes using a 7/32" drill bit making sure there are no electrical wires or internal components in the way.
4. Assemble louver kits and/or filter kits as shown in figure 2.

Note: After installation is complete, make sure louver and filter kits do not interfere with any internal or external equipment.



EHG030

Industry Standards

UL Recognized Component
cUL Recognized Component
CE Recognized

FEATURES-SPECIFICATIONS

Applications

Designed to provide enclosed electronic, pneumatic, hydraulic, and mechanical equipment with protection from low temperatures, condensation, and corrosion.

Features

- Positive Temperature Coefficient heater unit maintains a stable temperature environment within enclosure,

allowing critical components to perform with consistent reliability for longer periods

- Expanded voltage range of 110V to 230V
- Heating body is extruded, black anodized, aluminum
- Easily installed by clip mounting on 35mm DIN rails
- Connection: Push-type terminals

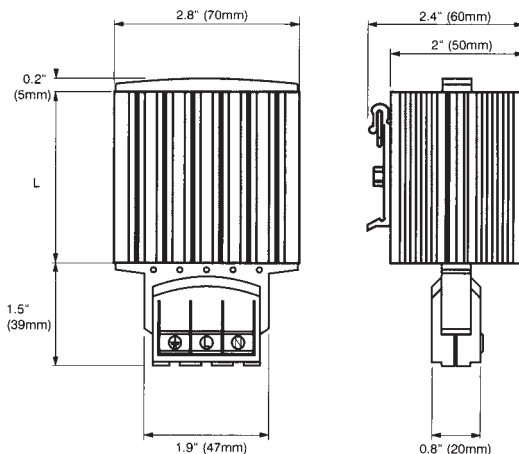
- Max surface temperature of heater is 194°F
- Protection Class: 1 (tested for grounding at 1,600V)
- CAUTION—Do not mount on wooden structures. Avoid placement near heat-sensitive components

Accessories

- Thermostats (see pages K33-K34)

EHG SERIES ENCLOSURE RADIANT HEATERS				
CATALOG NUMBER	WATTS*	RATED VOLTAGE	Hz	DIMENSIONS H X W X D
EHG015	15	110 - 250	50/60	2.60x2.80x2.00 (65x70x50)
EHG030	30	110 - 250	50/60	2.60x2.80x2.00 (65x70x50)
EHG045	45	110 - 250	50/60	2.60x2.80x2.00 (65x70x50)
EHG060	60	110 - 250	50/60	5.50x2.80x2.00 (140x70x50)
EHG075	75	110 - 250	50/60	5.50x2.80x2.00 (140x70x50)
EHG100	100	110 - 250	50/60	5.50x2.80x2.00 (140x70x50)
EHG150	150	110 - 250	50/60	8.70x2.80x2.00 (220x70x50)

**Due to the nature of PTC heaters, the actual power rating of the heater can be up to 10% lower, or 5% higher than the nominal power rating at 68°F (20°C) ambient temperature.*





WHVL031100120

Industry Standards

- UL Recognized Component
- cUL Recognized Component
- CE Recognized

FEATURES-SPECIFICATIONS

Applications

Used when larger heating capacities or internal forced air circulation is required and space is limited.

Features

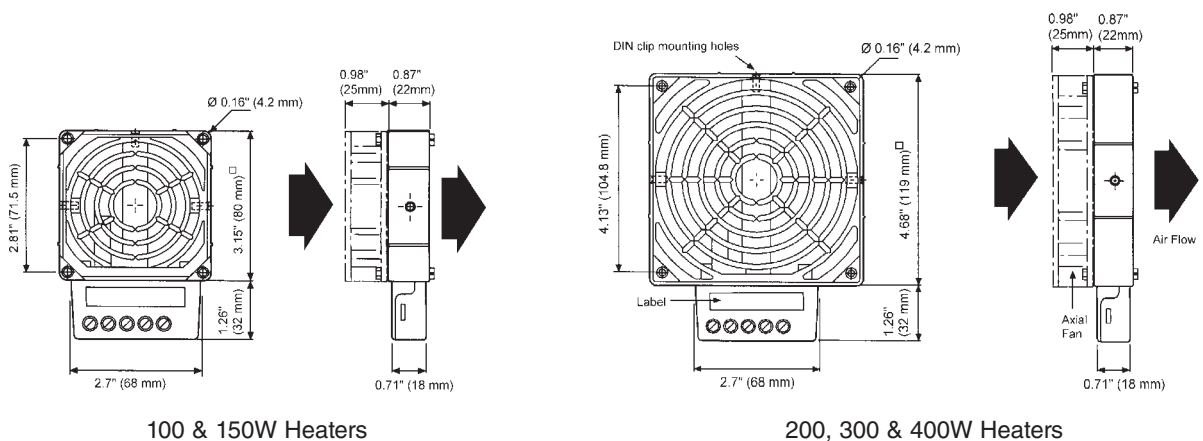
- Compact design to prevent condensation or maintain minimum temperature in enclosures
- Cartridge heater heating element
- 50,000 hour life expectancy at 77°F ambient
- Connection: 5 pole terminal for max. 14 AWG
- Easily installed by clip mounting on 35mm DIN rails
- Protection class 1 (tested for grounding at 1,500 V)
- Heater comes fully assembled with fan

- CAUTION—Do not mount on wooden structures. Avoid placement near heat-sensitive components. Note that fan must be used in conjunction with heating element

Accessories

- Thermostats (see pages K33-K34)
- Also available in 230 V

WHVL SERIES ENCLOSURE FAN HEATERS					
CATALOG NUMBER	RATED VOLTAGE	WATTS	OPERATING CURRENT (AMPS)	MAXIMUM TEMPERATURE WITH FAN	DIMENSIONS H X W X D
WHVL031100120	120	100	0.89	250°F (120°C)	1.85x3.15x4.41(47x80x112)
WHVL031150120	120	150	1.30	320°F (160°C)	1.85x3.15x4.41(47x80x112)
WHVL031200120	120	200	1.79	250°F (120°C)	1.85x4.68x5.94(47x119x151)
WHVL031300120	120	300	2.62	320°F (160°C)	1.85x4.68x5.94(47x119x151)
WHVL031400120	120	400	3.45	360°F (180°C)	1.85x4.68x5.94(47x119x151)



100 & 150W Heaters

200, 300 & 400W Heaters



WCR027350120

Industry Standards

UL Recognized Component
cUL Recognized Component
CE Recognized

FEATURES-SPECIFICATIONS

Applications

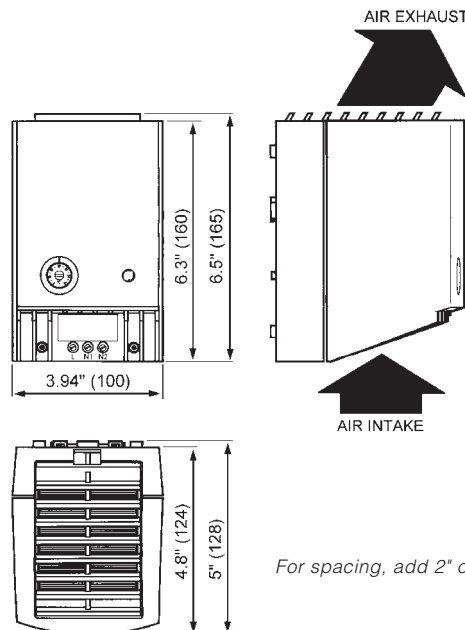
Designed to protect sensitive mechanical, electrical, and electronic equipment from the harmful effects of condensation, corrosion, and low temperatures. Thermostatically controlled fan-driven heater units maintain a stable temperature with enclosure so critical components can perform more reliably over a longer period of time.

Features

- Positive Temperature Coefficient (PTC) semiconductor heating element, self regulating and temperature limiting
- Adjustable thermostat
- LED lamp for optical indication of function
- Durable, non-metallic plastic housing, UL94-VO

- Connection: 2 - pole terminal, max. AWG 14
- Easily installed by clip-mounting on 35mm DIN rail
- CAUTION—Do not mount on wooden structures. Avoid placement near heat-sensitive components

WCR SERIES FAN HEATERS							
CATALOG NUMBER	RATED VOLTAGE	WATTS	MAX. AMPS (INRUSH CURRENT)	THERMOSTAT ADJUSTABLE FROM	AXIAL FAN BALL BEARING	TEMPERATURE SCALE	DIMENSIONS H X W X D
WCR027350120	120	550	11A	32-140°F (0-60°C)	20 CFM	Fahrenheit	6.50x3.94x5.00 (165x100x128)
WCR027350230	230	400	13A	32-140°F (0-60°C)	20 CFM	Celsius	6.50x3.94x5.00 (165x100x128)
WCR027550120	120	650	14A	32-140°F (0-60°C)	26 CFM	Fahrenheit	6.50x3.94x5.00 (165x100x128)
WCR027550230	230	550	15A	32-140°F (0-60°C)	26 CFM	Celsius	6.50x3.94x5.00 (165x100x128)



For spacing, add 2" clearance for heat sensitive parts



EGL250-120

Industry Standards

- UL Recognized Component
- cUL Recognized Component
- CE Recognized
- VDE Approval

FEATURES-SPECIFICATIONS

Applications

- Use when larger heating capacities or internal forced air circulation is required.
- Designed to prevent condensation or maintain minimum temperature in enclosures.

Features

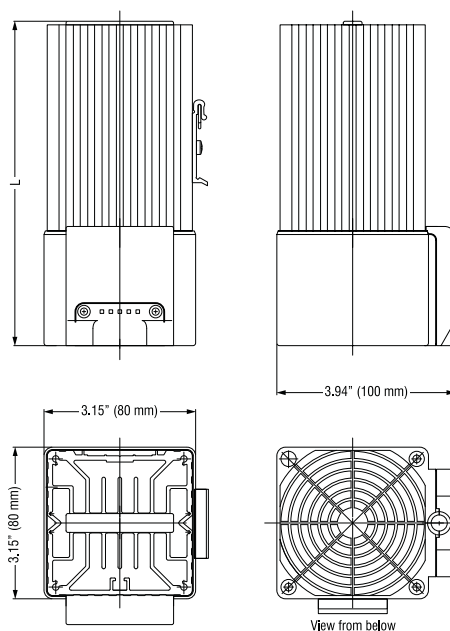
- Heating element is micanite with fail safe thermostat
- Silver, anodized aluminum extruded body
- Ball bearing life expectancy is 50,000 hrs. at 77°F (20°C)
- Connection: 3 pole terminal for AWG 16 max, with strain relief

- Easily installed by clip mounting on 35mm DIN rails
- CAUTION—Do not mount on wooden structures. Avoid placement near heat-sensitive components

Accessories

- Thermostats (see pages K33-K34)

EGL SERIES FAN HEATERS							
CATALOG NUMBER	RATED VOLTAGE	WATTS	STARTING AMPS	SURFACE TEMPERATURE	AXIAL FAN	CIRCULATION POWER	DIMENSIONS H X W X D
EGL250-120	120	250	2.2	167°F	Ball Bearing	32 CFM Free Blowing	7.20x3.15x3.94 (182x80x100)
EGL250	230	250	1.1	167°F	Ball Bearing	26 CFM Free Blowing	7.20x3.15x3.94 (182x80x100)
EGL400-120	120	400	3.5	167°F	Ball Bearing	32 CFM Free Blowing	8.70x3.15x3.94 (222x80x100)
EGL400	230	400	1.7	167°F	Ball Bearing	26 CFM Free Blowing	8.70x3.15x3.94 (222x80x100)



For spacing, add 2" clearance for heat sensitive parts



ETR202



ETR202F



ZR011

- Two thermostats in one unit
 - one Normally Closed (NC) and one Normally Open (NO)
 - or two Normally Open (NO)
- Each with wide adjustable temperature range
- Available with °F or °C scale
- DIN rail mountable

Industry Standards

UL Recognized Component
cUL Recognized Component
CE Recognized
CSA Rated

FEATURES-SPECIFICATIONS

Applications

ETR202C and ETR202F

- Designed to provide air temperature control and monitoring in switch gear enclosures that are set up to operate with heaters, fans, filter ventilators, heat exchangers, and/or signal transmitters.
- When the enclosure reaches the pre-determined set point, temperature contacts in the thermostat are activated and the fan or heater automatically begins to operate.
- Thermostats prolong the life expectancy of heaters and fans by curtailing their operating hours and also increase the working efficiency of electrical components by exposing them to fewer contaminants from the surrounding environment.

ZR011

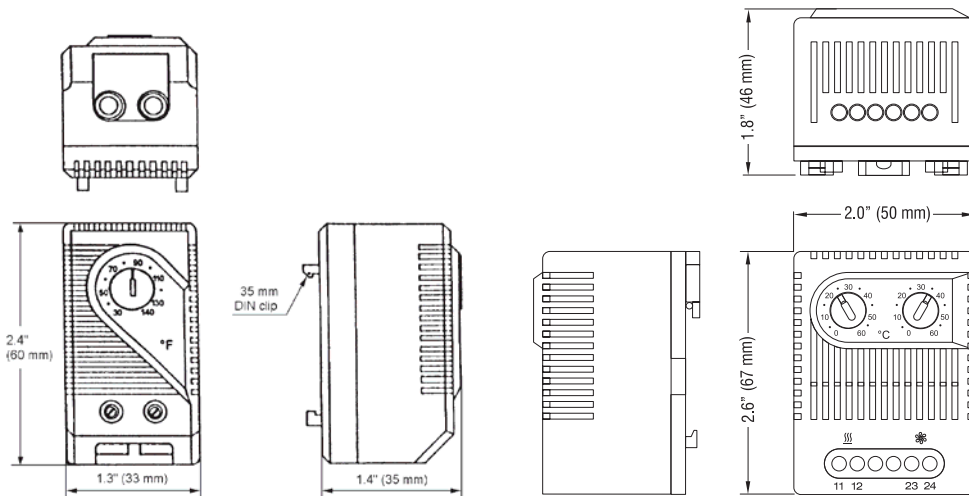
- The ZR011 houses two separate thermostats, allowing the independent control of heating and cooling or other equipment. Both thermostats offer wide adjustment ranges and are color coded for easy function recognition.
- Switching capacity:
NC: 10A resistive/2A inductive @ 250 VAC
NO: 5A resistive/2A inductive @ 250 VAC DC 30W

Features

- Normally Closed Thermostat—For the control of fan heaters and heaters
- Normally Open Thermostat—For the control of cooling units, fans, filter ventilators or switching, or signal transmitters in the event of overheating
- Available in Fahrenheit or Celsius scale
- Thermostatic bi-metallic sensor element
- Easily installed by clip mounting on 35mm or 38mm DIN rails

- Housing made from gray flame retardant UL94-VO plastic
- Connection: 2 pole terminal for max. 14 AWG
- Switching Difference (hysteresis): 12°F (7°C)
- Switching Capacity: 15 A (2) AC 120V, 10 A (2) AC 250V, 10A 12V DC, 5A 24V DC

ETR & ZR SERIES THERMOSTATS					
CATALOG NUMBER	TEMP. SCALE	TEMP. RANGE	SWITCHING	FOR PRODUCT TYPE	DIMENSIONS H X W X D
ETR202F	Fahrenheit	32-140°F	Normally Closed	Heating	2.40x1.30x1.40 (60x33x35)
ETR202	Celsius	0-60°C	Normally Closed	Heating	2.40x1.30x1.40 (60x33x35)
ETR201F	Fahrenheit	32-140°F	Normally Open	Cooling	2.40x1.30x1.40 (60x33x35)
ETR201	Celsius	0-60°C	Normally Open	Cooling	2.40x1.30x1.40 (60x33x35)
ZR 011F	Fahrenheit	32-140°F	Normally Closed/ Normally Open	Heating/Cooling	2.60x2.00x1.80 (67x50x46)
ZR 011C	Celsius	0-60°C	Normally Closed/ Normally Open	Heating/Cooling	2.60x2.00x1.80 (67x50x46)





ETF-3000

Industry Standards

UL Recognized Component
cUL Recognized Component
CE recognized

FEATURES-SPECIFICATIONS

Applications

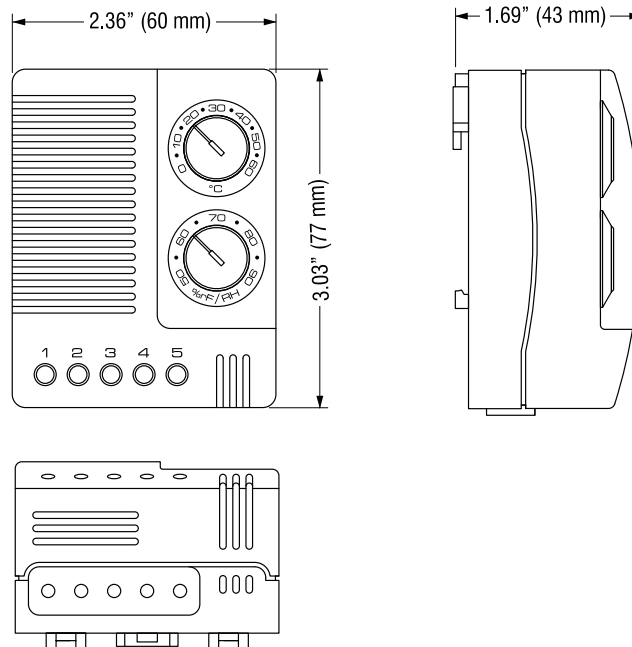
- Designed to provide both air temperature and humidity control as well as monitoring in electrical and electronic enclosures.
- Highly effective in ATM's, parking control gates, ticket dispensers and traffic control systems where equipment is exposed to wide range of outdoor elements.

Features

- Independently senses the relative humidity and temperature. Resistive and inductive loads (heaters or Filterfans™) can be switched
- 100,000 cycle life expectancy
- LED lamp for optical indication of function

- Durable, non metallic plastic gray housing, UL94-VO
- Easily installed by clip mounting on 35mm DIN rail
- Switching capacity: 8A(4) AC 240V, 0.8A DC 48V, 8A DC 24V

ETF SERIES FAN HEATERS							
CATALOG NUMBER	OPERATING VOLTAGE	TEMPERATURE SCALE	SWITCHING DIFFERENCE (HYSTERESIS)	RESPONSE TIME (SECONDS)	TEMPERATURE RANGE	RELATIVE HUMIDITY RANGE	DIMENSIONS H X W X D
ETF3000120F	120	Fahrenheit	Approx. 3.6°F (2°K)	Approx. 160	32-140°F	50 to 90%	2.64x1.97x1.54 (67x50x39)
ETF3000	230	Celsius	Approx. 3.6°F (2°K)	Approx. 160	0-60°C	50 to 90%	2.64x1.97x1.54 (67x50x39)





STFX05

FEATURES-SPECIFICATIONS

Applications

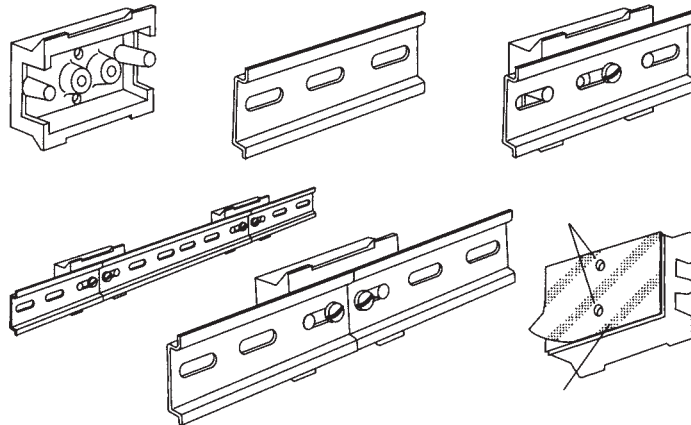
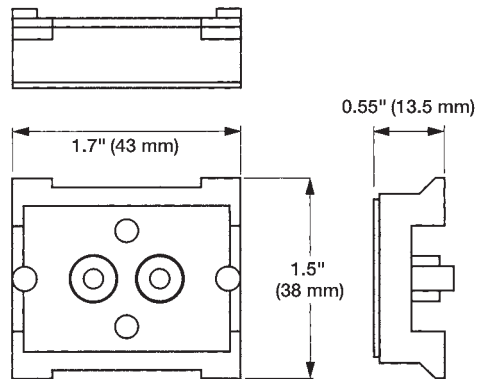
Effective substitute for DIN rail or "Unistrut". Multipurpose mounting device which allow the mounting of small DIN rail mountable appliances reducing time and labor.

Features

- Provides direct snap-in mounting for thermostats, time relays, small heaters, terminals, and other appliances with DIN rail mounting or by the use of screw holes
- Manufactured from black UL94-VO polyamide material
- Included self adhesive bears continuous loads of 1.1 lbs. (after 24 hours)
- Holes for screw mounting are provided for heavy applications

STFX SERIES UNIVERSAL THERMOSTAT MOUNT				
CATALOG NUMBER	HOLDING CAPACITY	PACKAGE QUANTITY*	TEMP. RANGE OF MOUNTING MATERIAL	DIMENSIONS H X W X D
STFX05	.44 lbs. (200g) initially 1.1 lbs. (500g) after 24 hour curing period	5	-22-131°F (-30-55°C)	1.50x1.70x.55 (38x43x14)

*Sold in package quantity only





WAFMP4

FEATURES-SPECIFICATIONS

Fan Mounting Plate

Description

Designed to mount a fan and louver kit together. This fan mounting plate kit consists of a fan mounting plate, filter and all necessary hardware for installation. When ordering a fan mounting plate, you will need to order a fan, louver kit and a fan guard. Fans, louver kits and fan guards must be ordered separately.

WAFMP SERIES FAN MOUNTING PLATE			
CATALOG NUMBER			
FAN, FILTER & LOUVER MOUNTING PLATE KIT	FAN*	LOUVER KIT PAINTED**	FAN GUARD ***
WAFMP4	WA4AXFN	WAVK0606	WAGARD4
WAFMP4	WA4AXFN2	WAVK0606	WAGARD4
WAFMP6	WA6AXFN	WAVK0806	WAGARD6
WAFMP6	WA6AXFN2	WAVK0806	WAGARD6
WAFMP10	WA10AXFN	WAVK0812	WAGARD10
WAFMP10	WA10AXFN2	WAVK0812	WAGARD10

*See page K26 for information on fans.

**See page K27 for information on louver kits.

***See page K26 for information on guards.

Note: Fan guard, fan and louver plate are not included in kit. Order separately.

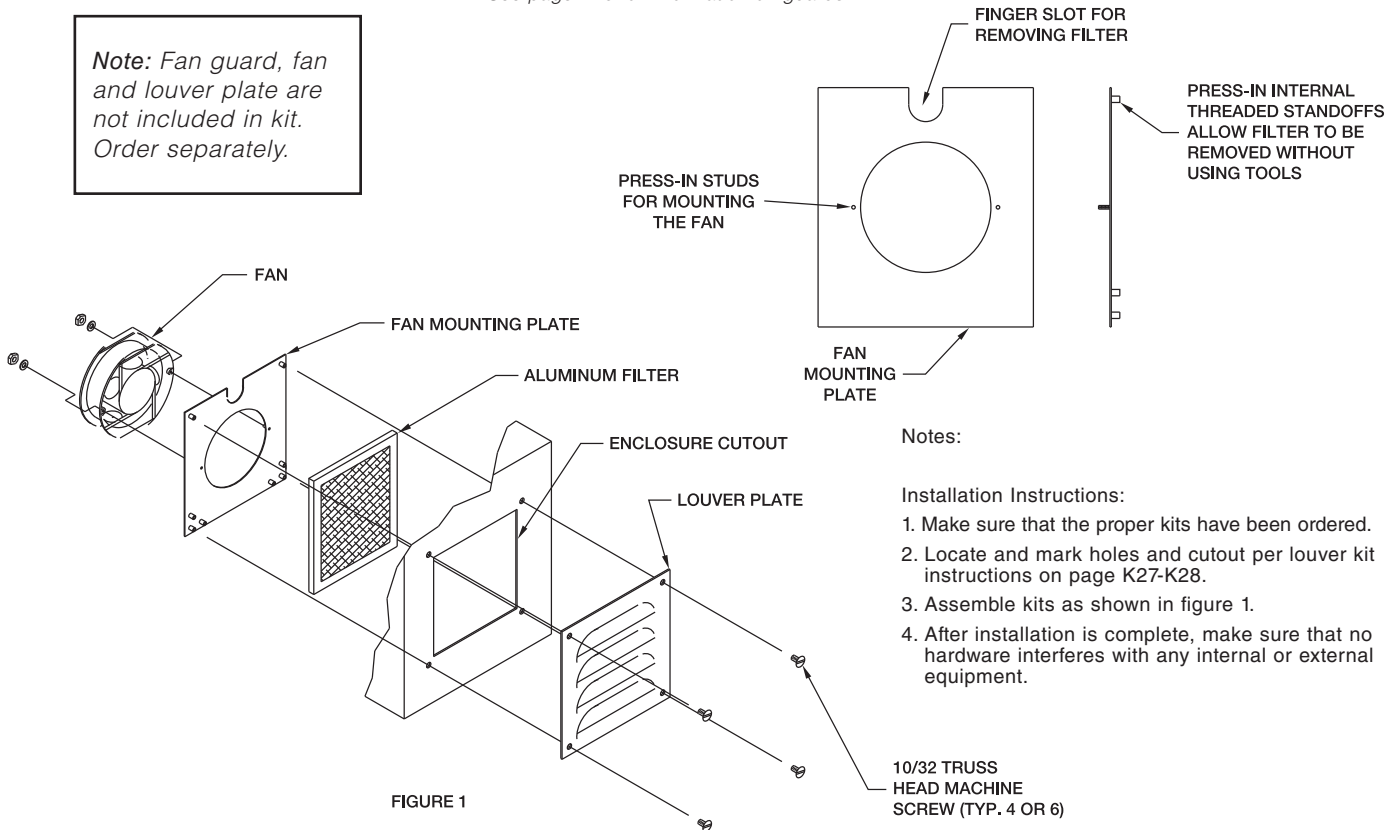


FIGURE 1

Notes:

Installation Instructions:

1. Make sure that the proper kits have been ordered.
2. Locate and mark holes and cutout per louver kit instructions on page K27-K28.
3. Assemble kits as shown in figure 1.
4. After installation is complete, make sure that no hardware interferes with any internal or external equipment.





SERIES 1803



SERIES 1800, 1801, 1802



 **Industry standards**
 IP54
 IP55 (with fine filter mat)
 UR Recognized component

FEATURES-SPECIFICATIONS

Application

- The latest passive technology for fan cooling and pressurizing of industrial enclosures
- Filtered passive ventilation can be provided by an exhaust filter for either convection cooling or in combination with a fan in forced air cooling

Features

- All four models are available in 120 and 230 volt with an expected service life of 50,000 hours
- Self-adhesive seal on mounting frame prevents dust and water from entering the enclosure

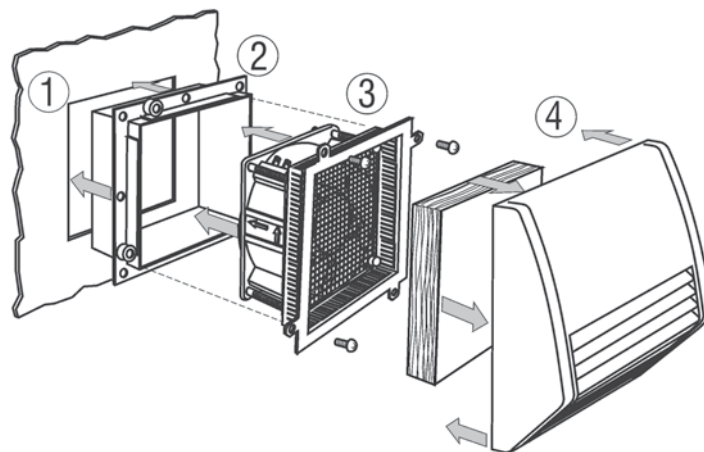
- The functional design of the intake exhaust fan hoods minimize direct infiltration of falling water
- By simply turning the axial fan, the direction of the airflow can be changed by 180 degrees
- Air Channeling makes the filter fan particularly quiet in operation
- Plastic self-extinguishing UL94-V0 and temperature resistant -31°F to 158°F
- Durable, reusable medium filter mat included
- RAL7035 Light Gray Finish
- Ball Bearing Axial Fan with plastic impeller UL94V-01. 2 lead wires 4" long (pressure clamps inclusive)

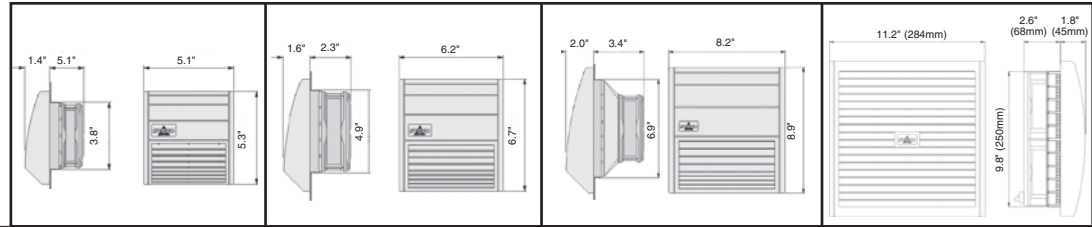
Time-Saving Steps

1800 Series Fans can be easily connected and installed from the outside of the cabinet.

1. Remove protective film from the sealing strips provided on the mounting frame
2. Insert mounting frame into enclosure cutout.
3. Terminate the axial fan with push type connectors and slide the unit into the mounting frame.
4. Insert the Filter Mat and snap on the protective Hood.

Time-Saving Assembly and Maintenance





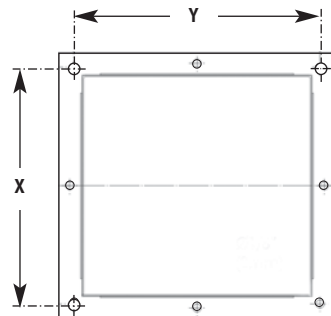
1800 SERIES FILTER FAN				
Catalog No. (for 120V 60Hz)	W01800120-4	W01801120-5	W01802120-7	W01803120-10
Catalog No. (for 230V 50Hz)	W01800230-4	W01801230-5	W01802230-7	W01803230-10
Filter mat: Medium grade	350 g/m ² , filtering degree 83%, Particle < 10 μm, G4(EN779)			
Air volume				
free blowing:	12 cfm (21 m ³ /h)	35 cfm (55 m ³ /h)	60 cfm (102 m ³ /h)	176 cfm (300 m ³ /h)
with exhaust filter:	9 cfm (16 m ³ /h)	24 cfm (42 m ³ /h)	40 cfm (68 m ³ /h)	135 cfm (230 m ³ /h)
Current consumption 120V	160 mA	180 mA	180 mA	400 mA
230V	80 mA	100 mA	100 mA	700 mA
Power consumption 120V	13W	15W	15W	60W
230V	13W	15W	15W	60W
Average noise level at 3 ft				
DIN EN ISO 9614-2	31 dB (A)	40 dB (A)	39 dB (A)	53 dB (A)
Mounting depth	1.8" (45 mm)	2.3" (58 mm)	3.4" (86 mm)	2.6" (65 mm)
Enclosure cut-out	3.8" x 3.8" (97 x 97mm +0.4)	4.9" x 4.9" (125 x 125mm +0.4)	6.9" x 6.9" (176 x 176mm +0.4)	9.84" x 9.84" (250 x 250mm)
Weight	1.2 lbs (0.54 kg)	2.2 lbs (1.0 kg)	4.2 lbs (1.9 kg)	7.7 lbs (3.5 kg)
120V / 60Hz models have increased air volume performance of approx. 15%				

1800 SERIES EXHAUST GRILLE & FILTER				
Catalog No.	W11800F-4	W11801F-5	W11802F-7	W11803F-10
Filter mat: Medium grade	350 g/m ² , filtering degree 94%, Particle Ø to 10 μm, G4 (DIN 24185)			
Mounting depth	0.6" (16 mm)	0.6" (16 mm)	0.6" (16 mm)	9" (22 mm)
Enclosure cut-out	3.8" x 3.8" (97 x 97mm +0.4)	4.9" x 4.9" (125 x 125mm +0.4)	6.9" x 6.9" (176 x 176mm +0.4)	9.8" x 9.8" (250 x 250mm +.4)
Weight	0.6 lbs (0.27 kg)	0.8 lbs (0.38 kg)	1.3 lbs (0.60 kg)	2.1 lbs (95 kg)

REPLACEMENT FILTER MATS*				
Medium filter (G4)	MM08600-4	MM08601-5	MM08602-7	MM08608-10
Fine filter (F5)	FM08603-4	FM08604-5	FM08605-7	FM08609-10

*Box of (3)

MOUNTING FRAME	HOLE CENTERS FOR ATTACHING WITH SCREWS - HOLE Ø 1/8" (3MM)			
	X = 4.3" (109 mm)	X = 5.4" (137 mm)	X = 7.4" (188 mm)	X = 10.4" (264 mm)





WPF10-115BK

Industry Standards

UR, cUR, and CE recognized
IP43
(IP54 with optional WPFG Series gasket)

FEATURES-SPECIFICATIONS

Applications

- Most innovative technology for fan cooling and pressurizing of industrial enclosures
- Provides a high quality, economical method of cooling enclosures
- Filtered passive ventilation can be provided by an exhaust filter for either convection cooling or in combination with a fan in forced air cooling
- Slim line design allows grille to protrude from enclosure surface less than one quarter inch
- Maintains aesthetics of enclosure

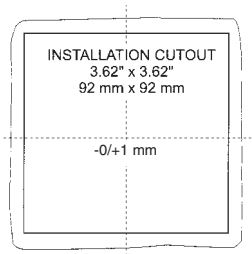
Features

- All models are 115V with an expected service life of 30,000 hours
- High performance fan motors and finger guards
- Polycarbonate fire retardant plastic grilles, UL94-VO
- Durable, reusable filter mat included
- Grilles are available in black or beige
- Patented "Click and Fit" system allows for rapid filter fan and exhaust filter installation without screws; this time saving feature will cut installation time by up to 30 minutes from traditional box fan packages

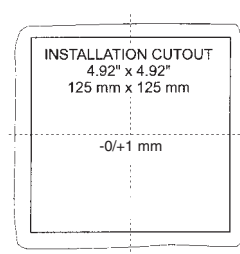
- Cutout template provided with every unit
- Fan or exhaust filter simply snaps into cutout opening
- Connector type: WPF10 Series 2, 12" wires. WPF20 – WPF60 Series terminal strip

Accessories

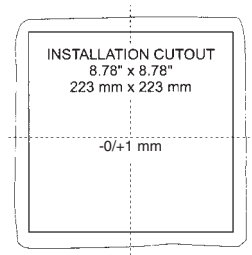
- Exhaust Filters
- Gaskets (WPFG Series) recommended if installing on enclosure with textured finish (only WPF10)
- Replacement Filters



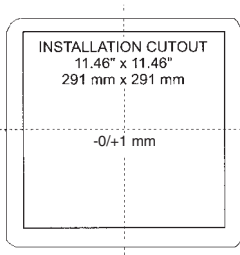
WPF10



WPF20



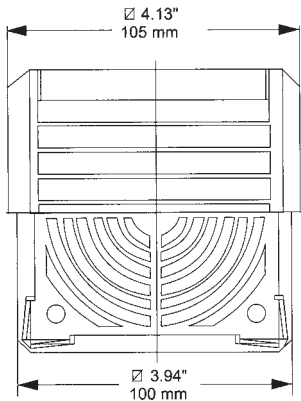
**WPF25
WPF30**



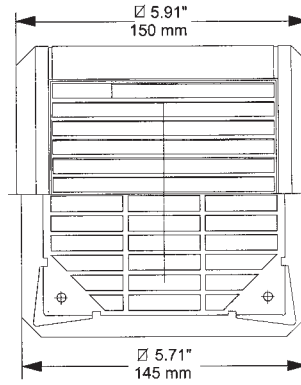
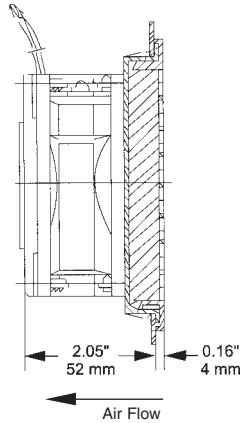
**WPF50
WPF60**

CATALOG NUMBER		RATED VOLTAGE	FREE FLOW AIR DELIVERY (CFM)*	AIR DELIVERY W/EXHAUST (CFM)	MAX. STATIC PRESSURE (PA)	AMBIENT TEMP. DEGREE F MAX/MIN	FILTER DENSITY (G/M2)	FILTERING LEVEL	SOUND LEVEL (DB)	REQUIRED CUT OUT DIMENSION
BLACK GRILLE	BEIGE GRILLE									
WPF10-115BK	WPF10-115	115V	16.22	10.12	29.00	140/14	150.00	67%	39	3.62x 3.62 (92x92)
WPF20-115BK	WPF20-115	115V	37.95	28.41	69.00	122/14	350.00	83%	49	4.92x 4.92 (125x125)
WPF25-115BK	WPF25-115	115V	88.67	62.29	57.00	122/14	350.00	83%	55	8.78x 8.78 (223x223)
WPF30-115BK	WPF30-115	115V	168.59	142.14	89.00	122/14	350.00	83%	55	8.78x 8.78 (223x223)
WPF50-115BK	WPF50-115	115V	312.11	236.90	205.00	122/14	350.00	83%	69	11.46x11.46 (291x291)
WPF60-115BK	WPF60-115	115V	423.09	304.64	225.00	122/14	350.00	83%	71	11.46x11.46 (291x291)

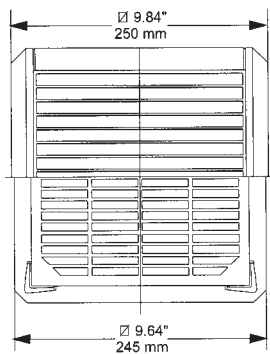
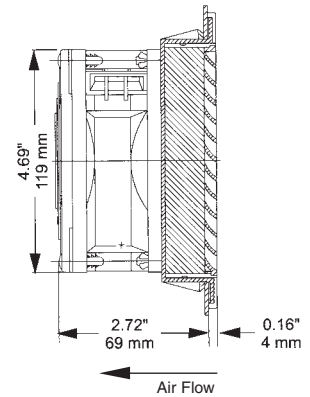
*Add 15% for operation @ 60Hz



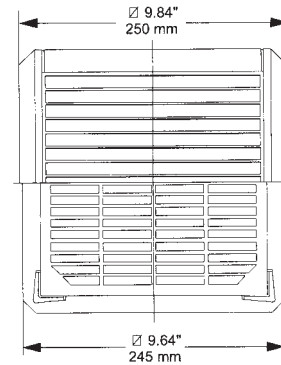
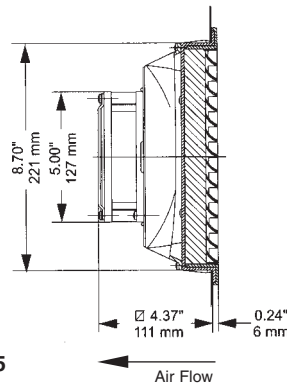
WPF10



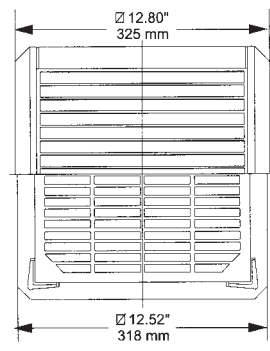
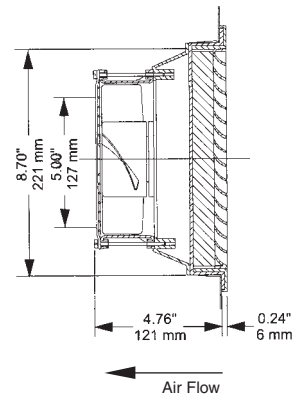
WPF20



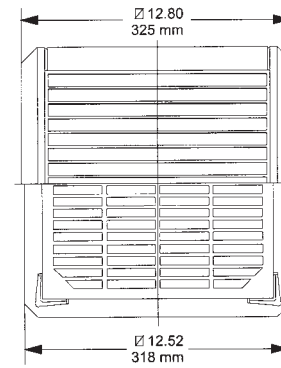
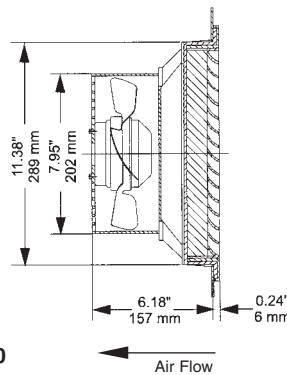
WPF25



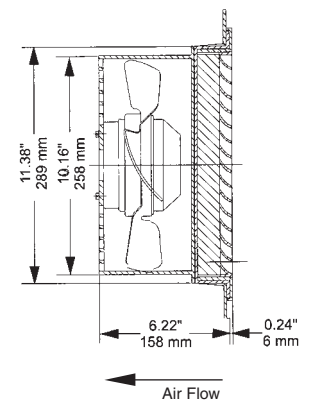
WPF30



WPF50



WPF60



**ENVIRONMENTAL CONTROLS
WPFA SERIES EXHAUST GRILLE WITH FILTER**



WPFA10BK



WPFA10

Industry Standards

IP43

(IP54 with optional WPFG Series gasket)

FEATURES-SPECIFICATIONS

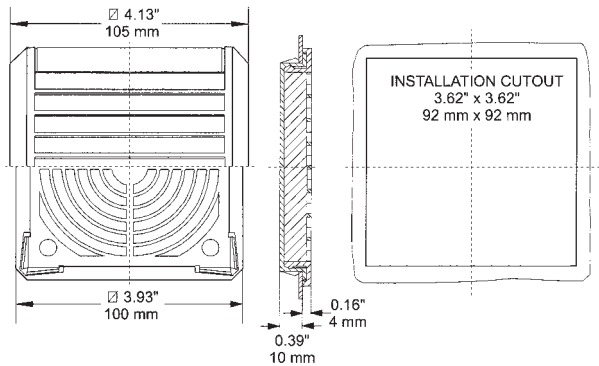
Applications

- Polycarbonate fire retardant plastic grilles, UL94-VO
- Durable, reusable filter mat included
- Grilles are available in black or beige

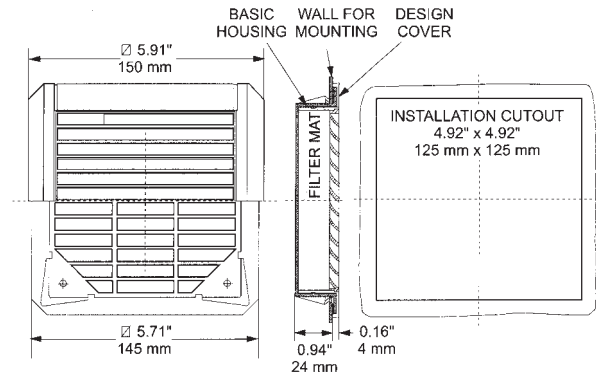
Accessories

- Gaskets (WPFG series) recommended if installing on enclosure with textured finish

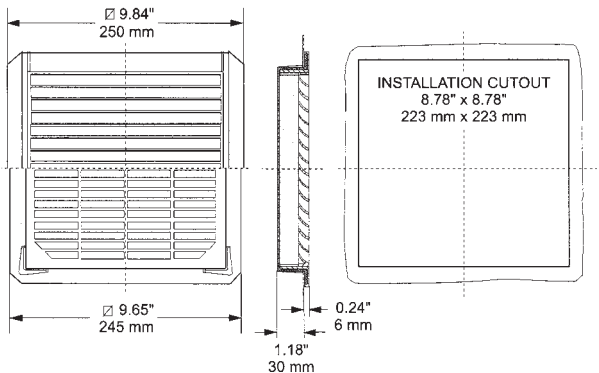
EXHAUST GRILLE WITH FILTER				
CATALOG NUMBER		FILTER DENSITY (G/M ²)	FILTERING LEVEL	REQUIRED CUT OUT DIMENSIONS
BLACK GRILLE	BEIGE GRILLE			
WPFA10BK	WPFA10	150	67%	3.60x3.60/92x92
WPFA20BK	WPFA20	350	83%	4.90x4.90/125x125
WPFA25/30BK	WPFA25/30	350	83%	8.80x8.80/223x223
WPFA50/60BK	WPFA50/60	350	83%	11.50x11.50/291x291



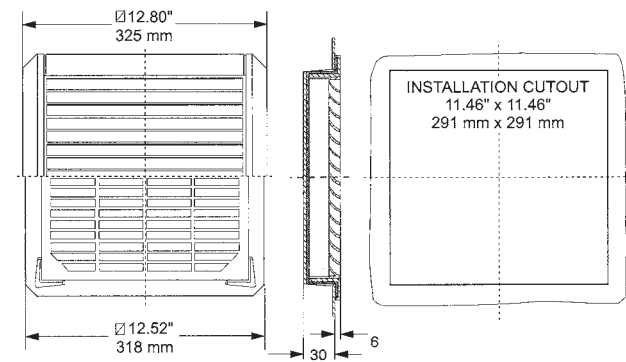
WPFA 10



WPFA 20



WPFA 25/30



WPFA 50/60



WPGF25/30



WPFM20



WPG1BK



WPG25/30BE

FEATURES-SPECIFICATIONS

GASKETS FOR FILTERFANS™

Applications

- Packaged individually
- Provides added sealing protection
- Recommended when fans or exhaust grilles are installed on enclosures with textured finishes
- Changes Filter Fan rating from IP43 to IP 54 when installed

WPGF SERIES GASKET FOR FILTERFANS™		
CATALOG NUMBER		
GASKET	USE WITH FILTER FAN NO.	USE WITH EXHAUST GRILLE NO.
WPGF10	WPF10-115BK WPF10-115	WPFA10BK WPFA10
WPGF20	WPF20-115BK WPF20-115	WPFA20BK WPFA20
WPGF25/30	WPF25-115BK WPF30-115BK WPF25-115 WPF30-115	WPFA25BK WPFA30BK WPFA25 WPFA30
WPGF50/60	WPF50-115BK WPF60-115BK WPF50-115 WPF60-115	WPFA50BK WPFA60BK WPFA50 WPFA60

AC & FILTERFAN™ REPLACEMENT FILTER MATS

Applications

Replacement filter mat for WPF-115 Series Filterfans and WPFA Series Exhaust Grilles.

Features

- Packaged in quantities of 5
- Made of synthetic fibers
- Re-usable up to 20 times
- 100% resistant to humidity

AC & FILTERFAN™ REPLACEMENT FILTER MATS						
FILTER CATALOG NUMBER	USE WITH FILTER FAN OR A/C SERIES	USE WITH EXHAUST GRILLE	MASS FILTER LEVEL %	FILTER DENSITY (G/M2)	H	W
WPFM10	WPF10-115	WPFA10	67	150	3.40 (85)	3.40 (85)
WPFM20	WPF20-115	WPFA20	83	350	4.50 (115)	4.50 (115)
WPFM25/30	WPF25-115 WPF30-115	WPFA30	83	350	8.30 (210)	8.30 (210)
WPFM50/60	WPF50-115 WPF60-115	WPFA50	83	350	11.00 (280)	11.00 (280)
WPFM25/30AC	WDTS1200-6000	—	83	150	8.30 (210)	8.3 (210)
WPFM50/60AC	WDTS8000-12000	—	83	150	11.00 (280)	11.00 (280)
WPFMDTTAC	WDTT3500-4500	—	83	150	11.81 (300)	11.81 (300)

FILTERFAN™ REPLACEMENT GRILLES

Features

- Packaged individually
- Grille only replacement for filter fans
- Available in black or beige

FILTERFAN™ REPLACEMENT GRILLES						
			CATALOG NUMBER			
BLACK GRILLE	BEIGE GRILLE	USE WITH A/C UNIT GRILLE	BLACK GRILLE FOR FILTER FAN	BEIGE GRILLE FOR FILTER FAN	BLACK GRILLE FOR EXHAUST GRILLE W/FILTER	BEIGE GRILLE FOR EXHAUST GRILLE W/FILTER
WPG1BK	WPG1BE	—	WPF10-115BK	WPF10-115	WPFA10BK	WPFA10
WPG2BK	WPG2BE	—	WPF20-115BK	WPF20-115	WPFA20BK	WPFA20
WPG3BK	WPG3BE	WDTS1200-6000	WPF25-115BK WPF30-115BK	WPF25-115 WPF30-115	WPFA25BK WPFA30BK	WPFA25 WPFA30
WPG5BK	WPG5BE	WDTS6000-12000	WPF50-115BK WPF60-115BK	WPF50-115 WPF60-115	WPFA50BK WPFA60BK	WPFA50 WPFA60



