

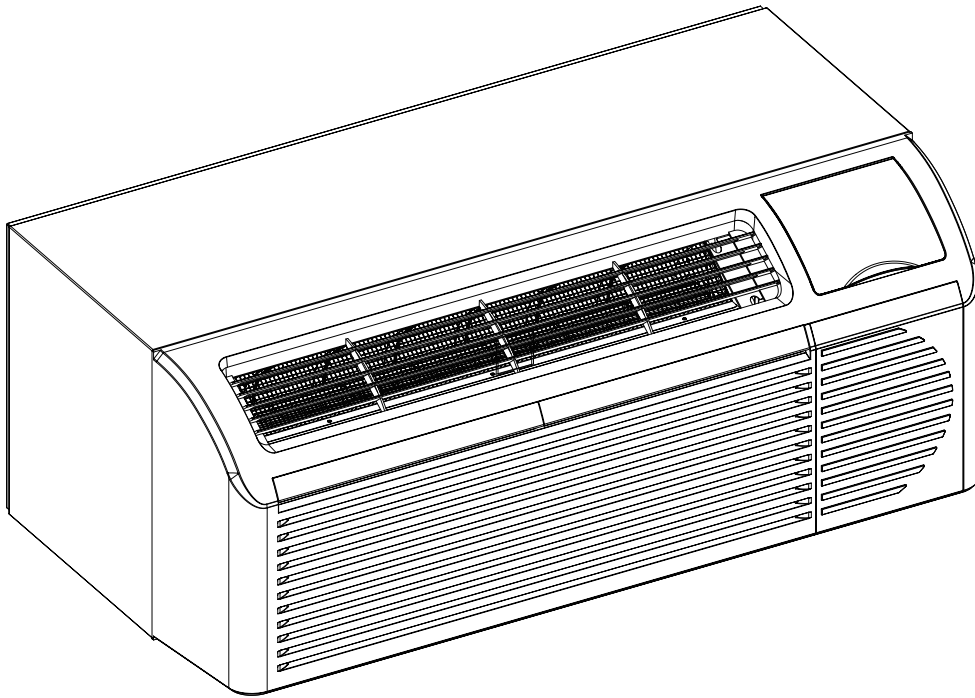
**E-TAC (GB Series)  
Packaged Terminal Air Conditioner / Heat Pump  
7,000 – 15,000 Btuh**



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## **Performance and Specifications**



## **Engineered Terminal Air Conditioner**

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# APPLICATIONS

Whether you are designing a new structure or replacing packaged terminal air conditioning units in an existing building, Gree E-TAC will meet your needs.

- Hotels and motels
- Nursing homes and assisted living care centers
- Offices
- Apartments
- Single-family dwellings
- Home conversions and residential add-ons

## NEW CONSTRUCTION

The Gree E-TAC Packaged Terminal Air Conditioning (E-TAC) unit is designed to meet the needs of the architect, engineer, and contractor. For unit installation, Gree's expert support network will assist in all applicable aspects of the construction project, from preparing a budget to start-up.

### ADVANTAGES FOR NEW CONSTRUCTION

#### Design Flexibility for the Architect/Engineer

- Whisper-quiet performance, indoors and out
- No bulky duct system
- No separate equipment room
- No water towers or additional cooling equipment
- No complex match-up of different HVAC components
- Less sensitivity to building orientation (sun, wind, shade)
- Optional architectural grille to permit custom exterior appearance

#### Initial Cost Savings for the Building Owner

- No expensive component HVAC system purchase
- No equipment room or maintenance engineering staff
- Two-part delivery to minimize on-site damage
- Weather-protected wall sleeve that goes in place during construction; chassis that slides in place after construction
- No seasonal changeover required for cooling or heating - units are self-contained comfort systems

### Lower Operating Costs and Reliable Comfort for The Occupant

- Heat pump models offer substantial savings over models with conventional electric resistance heaters
- Individual units allow tenants to choose the degree of comfort and operating economy.
- Rapid servicing reduces downtime: complete chassis can be replaced in minutes without disrupting other occupants.
- Each unit operates independently of other units in the building. No dependency by building on central HVAC system.

## RETROFIT/REPLACEMENT

If you are replacing a unit in an existing wall sleeve, your options include:

- Replace the existing wall sleeve with the the polymer wall sleeve. See accessory sleeve section for selecting the correct sleeve for your application.  
**NOTE:** in most cases, when replacing the wall sleeve, the exterior grille must also be replaced.
- Use an existing sleeve and exterior grille. The Gree E-TAC will fit into:
  - The following major competitors' wall sleeves/grilles: Carrier, GE, Amana, Trane, Friedrich and Bryant, and NO accessory retrofit kit is required.
  - Friedrich T series and ZoneAire wall sleeves, with a required wall sleeve extension (see accessory Friedrich Retrofit Wall Sleeve Adapter).

# PRODUCT CATALOG NUMBER-NOMENCLATURE

E-TAC

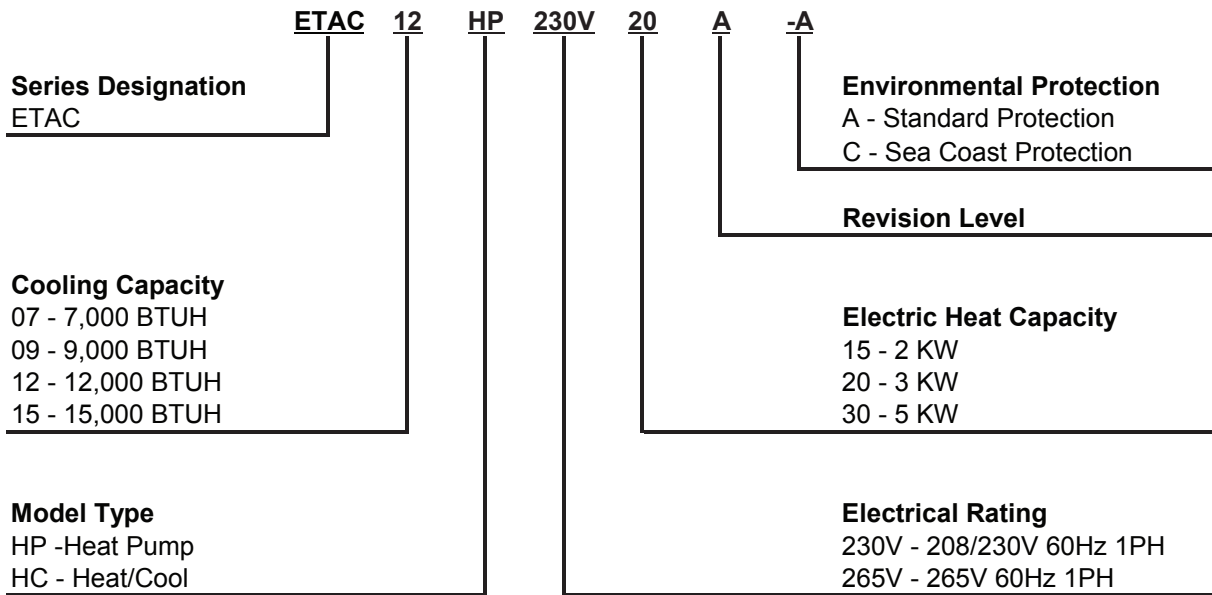


Fig. 3 – Catalog Number Nomenclature

## APPLICATION CONSIDERATIONS

Installation instructions are shipped with all E-TAC units. It is important that air conditioning systems be properly sized and installed for each application in order to achieve the desired temperature and humidity levels within the space to be conditioned. It is strongly recommended that a professional engineer match the E-TAC units with the building structure and climate.

The following application considerations are all important in choosing the proper E-TAC for the building structure.

### Undersizing

If an E-TAC unit is undersized (cooling capacity is less than required load for an application), the unit will not be able to cool the space down to the desired temperature during very hot days. The result could be warm and humid or warm and dry conditioned space.

### Oversizing

If an E-TAC unit is oversized (cooling capacity is greater than required load for the specific application), the unit will cool the space down to the desired temperature too quickly.

The unit will cycle on and off, however, dehumidification only takes place when the unit is operating. The result of this type of application in a hot and/or humid climate would be a cool, yet excessively humid, space.

### Air Infiltration

Excessive air infiltration can intensify problems associated with undersizing or oversizing a E-TAC unit. This can be the cause of insufficient cooling, dehumidification, or heating. Sources of air infiltration include vents, gaps around windows and doors, and improperly sealed floors, ceilings or wall joints.

### Condensate Removal

Gree's E-TAC has a new condensate (water) disposal system. The outdoor fan prop has a built in slinger ring which draws condensate and sprays it on the warm outdoor coil for evaporation. Thus providing better disposal of excess condensate and improving unit operating efficiency.

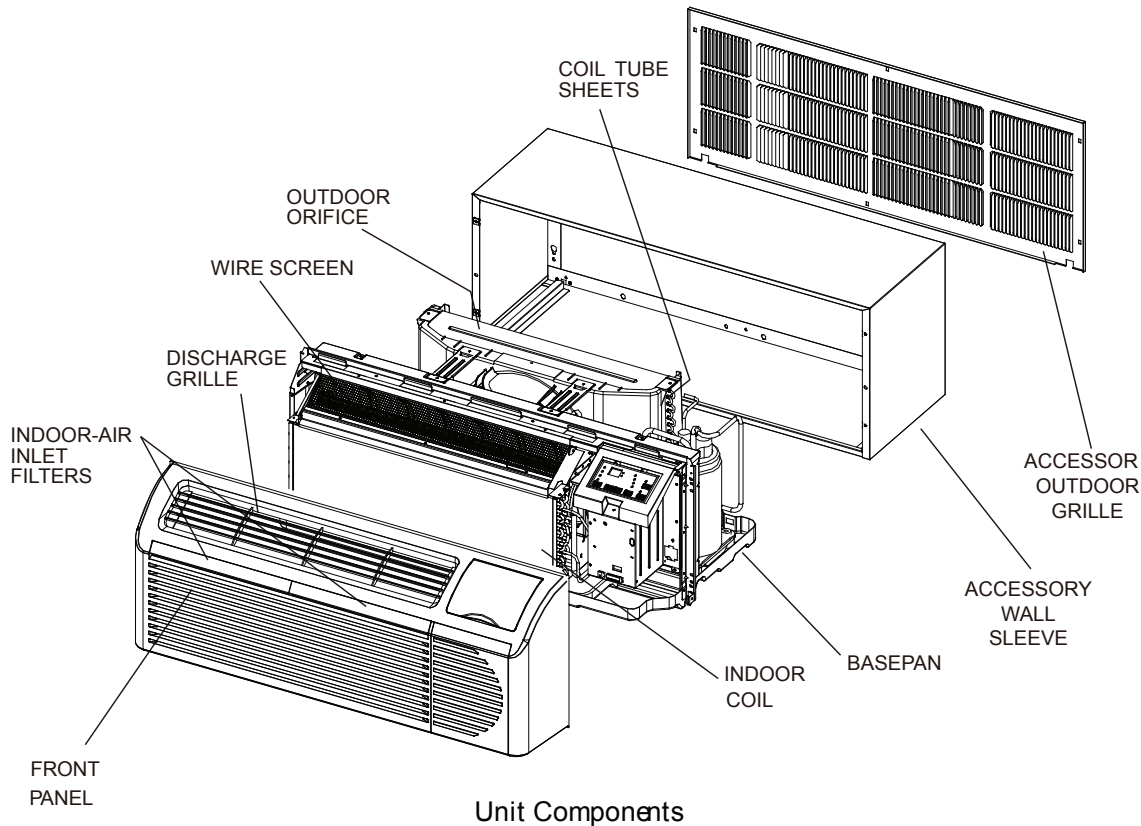
It is normal and desirable to have some condensate water in the base pan to boost operating efficiency.

**NOTE: This unit will not always evaporate 100% of the unit generated condensate and blown in rain water. If it is necessary to control 100% of the condensate, the Drain Kit (Part No.: DRAIN-KIT-1PK) and a building condensate drain system is recommended.**



# PRODUCT OVERVIEW (E-TAC)

This section summarizes product features covered in detail in later sections of this manual.



E-TAC

## Comfortouch Digital Control

- **Temperature Display and Touch Pad on Unit**  
Precise and easy-to-use
- **Continuous Temperature Sensing**  
Ideal comfort for your guests
- **Cooling, Heating and Fan Modes**  
One unit for all seasons
- **Setpoint Stoppers**  
Electronic temperature limiting reduces operating costs
- **Auto Restart and Random Restart Delay**  
Automatically restarts after a power failure
- **Freeze Protection**  
Protects unoccupied rooms from freezing temperatures
- **Emergency Heat (Heat Pump Models)**  
Bypasses compressor operation and activates electric heater for guest comfort
- **Remote Control Options**  
The ultimate in installation flexibility; Wired, Wireless or Energy Management

## Silencer System

- **Three-Speed Indoor Fan**  
More comfort options for guests to choose from
- **Dual Motor Technology**  
Separate indoor and outdoor motors allows one of the quietest and most efficient units in the industry
- **AeroQuiet Indoor Blower Wheel**  
Provides quiet and consistent airflow for maximum guest comfort
- **Rotary Compressor Technology**  
Quiet operation and low sound transmission indoors
- **Insulated Bulkhead Between Indoors and Outdoors**  
Quiet operation and low sound transmission indoors

## Smartfan Comfort Control

- **Programmable Constant Fan Operation**  
Green Customized Comfort in heating or cooling modes
- **Quiet Fan Start-Up and Stops**  
Smooth ramp-up and ramp-down of fan speed for quiet comfort

# E-TAC PRODUCT FEATURES AND BENEFITS

## E-TAC 5-YEAR WARRANTY

All E-TACs are protected by a five-year limited warranty.

- Two-year parts and labor limited warranty
- Three years additional parts and labor coverage on the sealed refrigeration system
- Limited three years (years 3-5) parts-only coverage

**E-TAC GB Series Packaged Terminal Air Conditioner Limited Warranty**

**TWO-YEAR PARTS AND LABOR LIMITED WARRANTY** - During the first two years after purchase, E-TAC will, through the manufacturer's authorized service technician, and free of charge to the user or subsequent owner, repair or replace any parts that fail due to material or workmanship. The replacement part will be a new or reconditioned part that meets or exceeds the original specifications.

**EXTENDED THREE-YEAR PARTS AND LABOR LIMITED WARRANTY ON SEALED REFRIGERATION SYSTEM ONLY** - During the first three years after purchase of an air conditioning system, E-TAC will, through its authorized service technician, repair or replace any parts that fail due to material or workmanship. This warranty applies to the sealed refrigeration system only. This warranty does not cover any other parts of the system.

**EXTENDED THREE-YEAR PARTS ONLY LIMITED WARRANTY ON NON-SEALED REFRIGERATION SYSTEMS** - During the first three years after purchase of a non-sealed refrigeration system, E-TAC will, through its authorized service technician, repair or replace any parts that fail due to material or workmanship. This warranty does not cover any other parts of the system.

**DOES NOT INCLUDE LABOR** - Labor is required for access, including one of diagnosis or repair, removal and installation of an air conditioning system from the original location.

**LIMITATION OF WARRANTIES** - ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSES) ARE HEREBY DISCLAIMED. THIS WARRANTY IS LIMITED TO THE PERIOD OF THREE YEARS. THIS WARRANTY DOES NOT COVER ANY OTHER PARTS OF THE SYSTEM. THIS WARRANTY DOES NOT APPLY TO THE EXCESSIVE WEAR PARTS IN THE SYSTEM. THIS WARRANTY DOES NOT COVER ANY OTHER PARTS OF THE SYSTEM. THIS WARRANTY DOES NOT COVER ANY OTHER PARTS OF THE SYSTEM.

**ALL RIGHTS UNDER THE TERMS OF THIS WARRANTY SHALL BE EXERCISED DURING NORMAL BUSINESS HOURS. ALL REPLACEMENT PARTS, WHETHER NEW OR RECONDITIONED, WILL BE LIMITED TO THE WARRANTY PERIOD THAT THE REPLACEMENT PARTS CARRY ON THEIR OWN.**

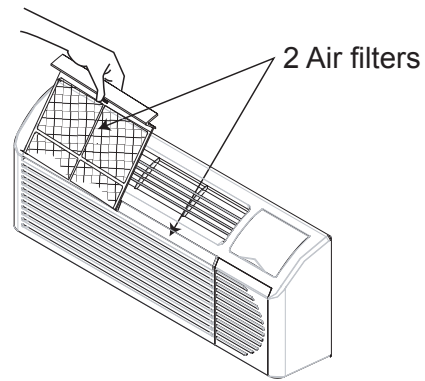
Warranted dependent on use or service details are required with flow through the ductwork specification.  
This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.  
©2008 E-TAC, Inc.

### Exclusive Warranty

E-TAC

## TWO-PIECE LIFETIME INDOOR FILTER

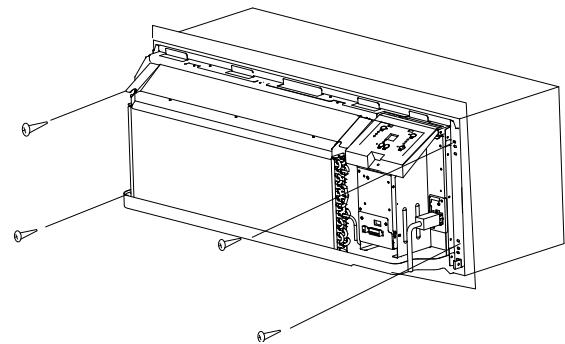
Two-piece removable filters easily slide in and out from the front of the E-TAC unit and are interchangeable. The front panel does not need to be removed to access or change the filters. The filters are washable and permanent.



Two-Piece Indoor Filter

## EASY ACCESS TO CHASSIS

Access to the chassis simply requires removing front panel, then four easy to access screws and then sliding the chassis out of the sleeve for service or maintenance.

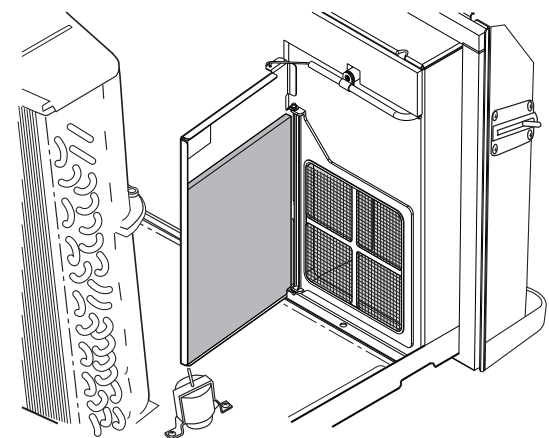


Easy to Access Chassis

## OUTDOOR AIR VENTILATION

The unique vent system is activated by a two-position control. Fresh outside air is redirected by the vent door to the indoor room. A molded plastic filter prevents dirt and debris from entering the room side of the unit. The vent mechanism is made from non corrosive material ensuring reliable operation. Amagnet on the door and high-pressure airflow create a tight, draft free seal when the vent door is closed.

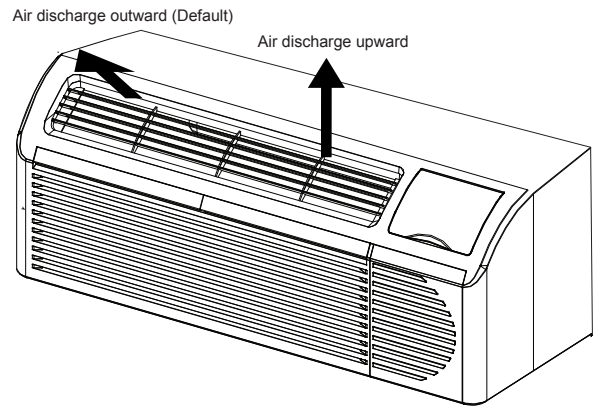
*The vent will provide up to 65 cfm of fresh air.*



Outdoor Air Ventilation

## BI-DIRECTIONAL DISCHARGE GRILLE

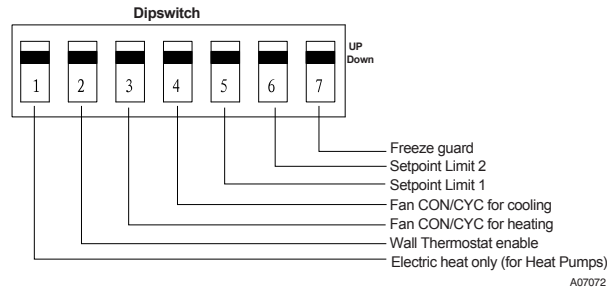
The discharge grille is constructed of durable polycarbonate and is reversible. Air flows upward at a 40 degree angle to the floor but can easily be adjusted to an 80 degree angle to the floor.



**Bi-Directional Discharge Grille**

## SYSTEM CONFIGURATION

There are many different configuration possibilities, through both dip switches and the digital keypad, that allow you to configure the E-TAC for your exact application. See Owner’s Manual for more detailed information.

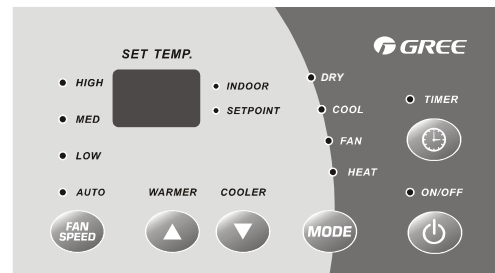


**Configuration Switches**

**E-TAC**

## COMFORTOUCH DIGITAL CONTROL

The digital keypad provides a simple to operate control. The large, easy to press, “On/Off”, “Fan Speed”, “Mode”, “Setpoint Up” and “Setpoint Down” buttons make the control easy to operate. LEDs are used to show the operating conditions selected. Large numbers are used to display the Setpoint, and if configured, room air temperature.



TEMP CONTROL      FAN, MODE & OPERATION

**Comfortouch Display**

## STAY DRY DEHUMIDIFICATION

The E-TAC provide users with Stay Dry mode to reduce the humidity in the room, making it more comfortable.

The Stay Dry mode is designed to assist removing extra moisture from the air, not dry it out completely. This is not intended to replace a dehumidifier or act as a dehumidifier.



**Stay Dry Mode**

## SLEEP MODE

The E-TAC sleep mode function is geared toward making sleeping conditions more pleasant without your having to get up and adjust the unit while in bed. The sleep mode feature allows a time period between 0.5 to 24 hours for the E-TAC to automatically turn off for a pleasant sleeping experience.



**Sleep Mode**

## SETPPOINT STOPPER

The E-TAC allows building owners and operators to set an allowable setpoint range for heating and cooling, operative to maintain room temperature to a limited setpoint range and save energy. The E-TAC comes from factory with economical settings of 65-78°. The cooling and heating setpoint limits may be adjusted independently and the range may be expanded or reduced to satisfy your needs and application.

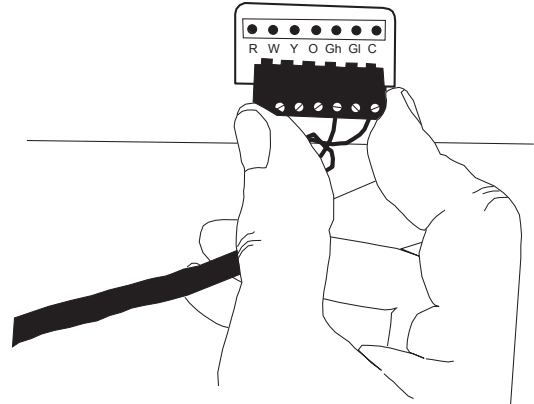


**Electronic Setpoint Limiting**

E-TAC

## WALL THERMOSTAT INTERFACE

E-TAC provides a standard wired wall thermostat interface connecting block for quick easy installation. The unit has a removable terminal connector to make field wiring easy. See more info on wall thermostat connections in the Dimensional Drawings and Installation Data Section.



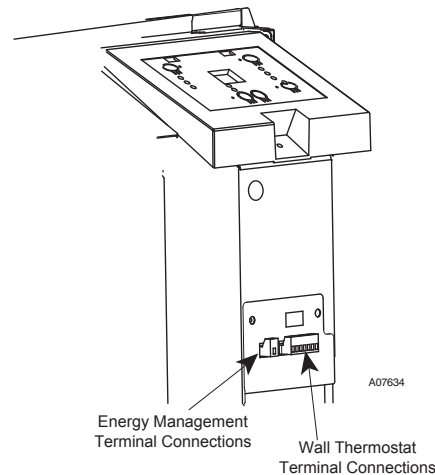
A07073

**Removable Thermostat Connector**

## ENERGY MANAGEMENT INTERFACE

The Energy Management interface is standard and provides a simple to install Energy Management connection. The unit has a removable terminal connector to make field wiring easy. When 24VAC is supplied to the input the unit will turn off. Once the 24VAC is removed (becomes 0 volts), the unit will turn back on.

**Note:** For more info, see the section in the back, Typical Wiring Schematic For Energy Management Interface.

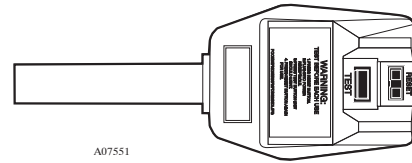


A07634

**Wall Thermostat and Energy Management Interface**

## LCDI POWER CORD PROTECTION

The power cord for the 208/230-v unit provides LCDI protection by automatically disconnecting power during an unsafe condition. Power can be restored by pressing the RESET button.



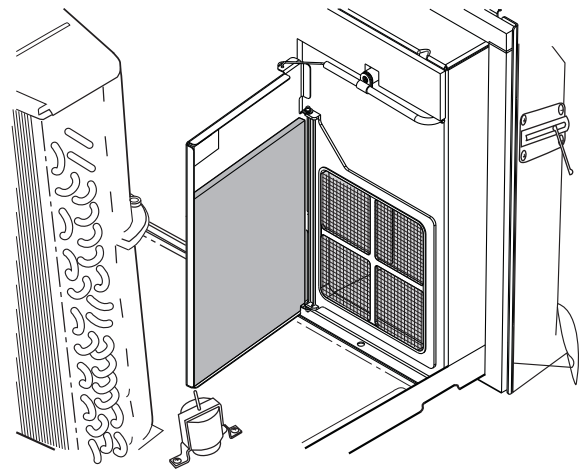
**LCDI Power Cord Plug Head**

## SEAMLESS BASEPAN

Seamless drawn basepan add protection against water accumulation resulting from storm-driven rain with heavy wind. Gree's deep basepan hold up to 1-3/4 gallons (6.6 liters) of water without spilling.

## CONDENSATE DRAIN VALVE

The temperature-activated drain valve opens when the outdoor temperature drops below 55° F (12.8° C) to prevent water from freezing in the basepan.

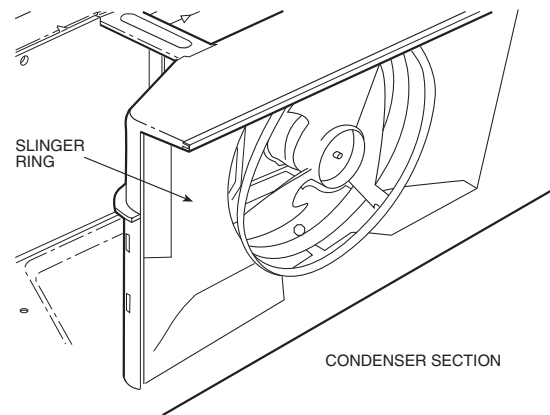


**Condensate Drain Valve Prevents Water from Freezing in Basepan**

## CONDENSATE REMOVAL

Gree's E-TAC has a new condensate (water) disposal system. The suction pull, along with the slinger ring, draws in water which is sprayed up onto the outdoor coil. The water then evaporates, thus providing better disposal of excess condensate and improving unit efficiency.

**NOTE:** If it is necessary to control 100% of the condensate, the Drain Kit (Part No.: DRAIN-KIT-1PK) is recommended.



**Condensate Removal System**

E-TAC

## COASTAL PROTECTION

The Gree Coastal E-TAC features a corrosion-resistant coating that exceeds the performance and protection of other products of this kind on the market. The coating provides the salt air corrosion protection giving you the added reliability in your business.

Install the best in corrosion protection for your property, without the worry of performance degradation, coating breakdown or shortened life.

Gree's Coastal Units are made with a blue-colored anti-corrosion epoxy treated to resist corrosion. This technology maintains excellent heat transfer properties while extending the coil life against damage from salt air and salt water in seacoast installations. This is a tough epoxy coating that uniformly covers the outside coil surface with a thick .5 to 1.0 mil layer of protection. This advanced material is highly flexible, eliminating cracking problems with traditional coatings and dipped coils.



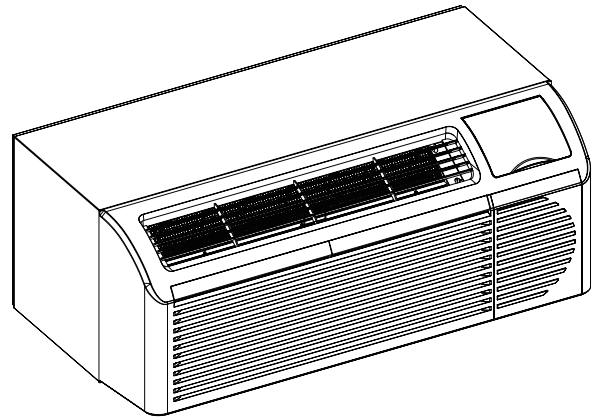
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Corrosion Protection

## COASTAL PREMIUM PROTECTION

- Condenser Coils are coated with a corrosion resistant epoxy resin *providing enhanced resistance to acidic and salt air conditions.*
- *1500 hr salt spray tested.*
- Durable non-corrosive fan wheel and *shroud.*
- Added protection with durable powder *coated paint.*
- All exposed fasteners manufactured of *high quality stainless steel.*

**NOTE:** Refer to the product warranty for reduced warranty coverage on standard non-corrosion protected units installed within one mile of the of the sea coast or within a corrosive environment.





# HEAT PUMPS PAY THEIR OWN WAY

Heat pump models are available at a nominal additional cost. In many locales, the payback is realized in just a few months

## SPECIAL FEATURES

### *Two-Stage Thermostat:*

The indoor thermostat senses the indoor temperature and automatically turns on the electric heat to warm the room quickly. After the desired temperature conditions have been satisfied, the thermostat automatically switches to heat pump mode. If compressor failure occurs, the thermostat will provide backup electric heat automatically.

### *Outdoor Thermostat:*

During the heating cycle, the outdoor thermostat senses outdoor coil temperature. It switches the unit to electric heat mode when the outdoor coil temperature is 28° F (-2.2° C) or below for one minute. The thermostat switches the unit back to heat pump mode when the outdoor coil temperature rises above 40° F (4.4° C) for ten minutes, which is enough to provide heat to meet demand. The entire operation is completely automatic.

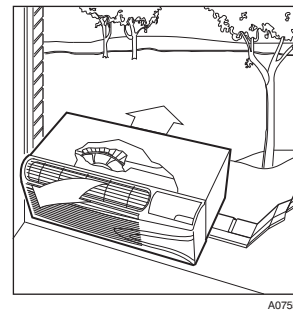
### *Reversing Valve:*

The reversing valve provides quiet refrigerant flow when energized in heating mode. The valve controls the direction of refrigerant flow for both heating and cooling functions and remains energized as long as the controls are in the heat position. When the cooling controls are activated, the valve automatically reverses to the cooling position.

### *Manual Compressor Override Configuration:*

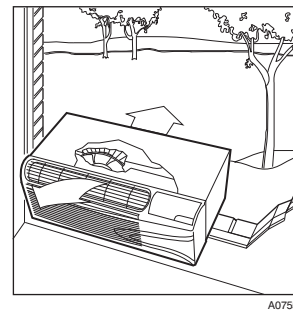
This configuration dip switch completely locks out the compressor. See Owners Manual for more details. Note that the compressor and heater do not operate at the same time, thus conserving energy.

# HOW THE HEAT PUMP WORKS



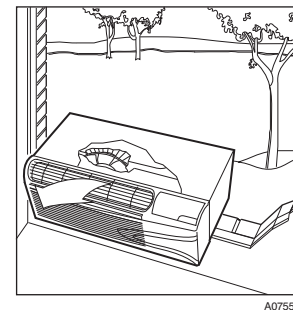
### *In Hot Weather:*

Gree's E-TAC units provide indoor comfort in the same manner as conventional air conditioners, removing heat and humidity from indoor air. The heat and humidity is released to the outdoors. Gree's high efficiency design saves energy and reduces cooling costs.



### *In Cool Weather:*

When the outdoor coil temperature is above 28° F (-2.2° C), the heat pump draws heat from outdoor air and uses it to heat indoor air. Since heat is transferred and not produced, Gree's heat pump uses less electricity and reduces energy costs significantly.



### *In Sub-Freezing Weather:*

When the outdoor coil temperature falls below 28° F (-2.2° C) for one minute, the unit automatically switches on a built-in electric heater. The compressor stops and the indoor fan circulates warm air produced by the heater. When the outdoor coil temperature rises above 40° F (4.4° C) for ten minutes, heat pump operation resumes automatically.

# FIELD-INSTALLED ACCESSORIES



## POLYMER WALL SLEEVES

For the best performance and longest life, Gree recommends genuine polymer wall sleeves for all installations.

All polymer wall sleeves are made from a molded polymer that is designed for strength and durability. This material has excellent corrosion resistance and a flammability rating of UL94-5V.

The sleeve surface is textured to prevent shine and hide scratches. The rib configuration on the sleeve bottom allows easy chassis removal and aids in drainage

The locating holes in the side and top panels allow for easy fastening of the sleeve to wall openings. Refer to dimension drawings in Typical Wall Installation and Dimension section.

The sleeve's alpine mist color (a shade of beige) closely matches the front panel and blends in well with any inside or outside decor. The polymer wall sleeve comes in both insulated (factory installed) or non-insulated, to meet the requirements of every application.

### Insulated Polymer Wall Sleeve

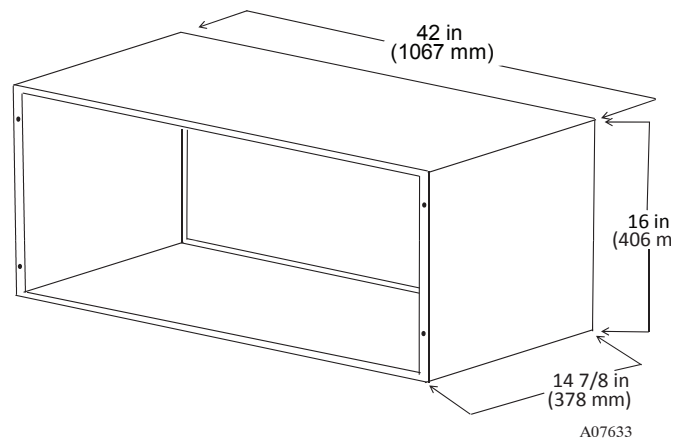
Part No.: SLEEVE-INSUL-1PK

Gree's accessory insulated polymer wall sleeve, with factory-installed insulation, provides superior sound absorption, reduces heat loss and prevents sleeve sweating, a condition that can occur when the outside temperature is cold and the indoor conditions are warm and humid.

### Non-Insulated Polymer Wall Sleeve

Part No.: WALL-SLEEVE-1PK

Gree's accessory non-insulated polymer wall sleeve provides a superior appearance and protection for many applications.



**Corrosion-Protected Polymer Sleeve**

**IMPORTANT** For applications where weather conditions could influence sleeve sweating, a condition that can occur when the outside temperature is cold and the indoor conditions are warm and humid, the Insulated Polymer Wall Sleeve should be considered.

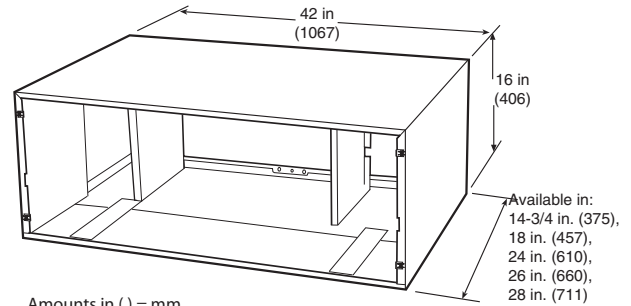


## FIELD-INSTALLED ACCESSORIES (CONT.)

### Metal Insulated Wall Sleeves

Part No.: SLEEVE-STEEL-1PK  
SLEEVE-EXT18-1PK  
SLEEVE-EXT24-1PK  
SLEEVE-EXT26-1PK  
SLEEVE-EXT28-1PK

Gree's metal wall sleeves are available in a variety of sizes for most applications and difficult installations. Choose from 14-3/4 in., 18 in., 24 in., 26 in., or 28 in. (375 mm, 457 mm, 610 mm, 660 mm, and 711 mm) standard depth sizes. All metal wall sleeves come with factory-installed insulation, designed to minimize heat loss, reduce outdoor noise transmissions into the room and prevent sleeve sweating. In addition, the metal wall sleeve provides a flammability rating higher than UL94-5V.



Amounts in ( ) = mm

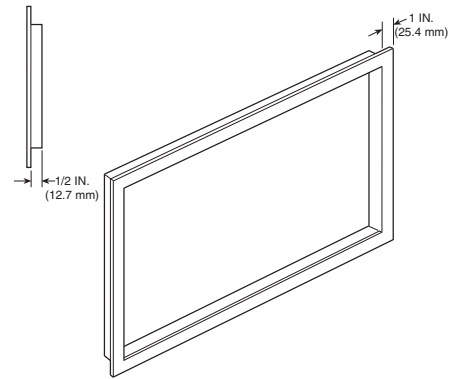
A07381

### Metal Wall Sleeve

### Wall Sleeve Molding Kit

Part No.: SLEEVE-MOLDING

For a superior look and to hide any construction imperfections, use Gree's wall sleeve molding kit to trim the wall sleeve to the wall. The molding kit is a perfect solution and can be used with any Gree wall sleeve (matches wall sleeve color).



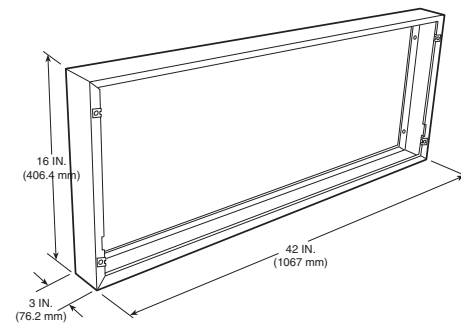
A08395

### Wall Sleeve Molding Kit

### Friedrich (and ZoneAire) Retrofit Wall Sleeve Adapter

Part No.: FR-SLEEVE-EXT

The Friedrich (and ZoneAire) wall sleeve adapter is constructed of metal and is designed to increase the depth of an existing Friedrich T-series or ZoneAire wall sleeve to accommodate all industry standard PTAC units.



A08396

### Friedrich Wall Sleeve Adapter Kit

# FIELD-INSTALLED ACCESSORIES (CONT.)

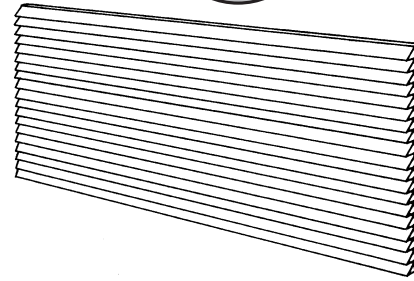
## OUTDOOR GRILLES



### Polymeric Architectural Outdoor Grilles (Louvered)

- Part No.: GRILLE-PLA-BEIGE  
GRILLE-PLA-ALPIN  
(color matches Gree's polymer wall sleeve)  
GRILLE-PLA-BROWN  
GRILLE-PLA-WHITE

This value line of polymeric architectural outdoor grilles will blend attractively with most building exteriors. Mounted easily from inside the room, the one-piece, molded grille is designed for protection, enhanced appearance, and superior weather-resistance. The grille is made of durable polymer and has a colorfast, lightly textured finish that blends well with most exterior finishes.

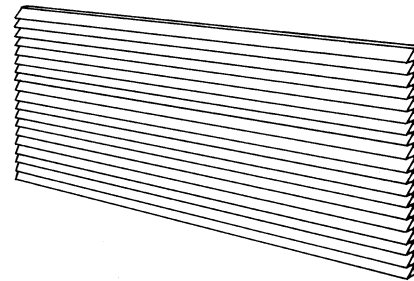


**Polymer Architectural Grille**

### Aluminum Architectural Outdoor Grilles (Louvered)

- Part No.: GRILLE-ALU-CLEAR (anodized aluminum)  
GRILLE-ALU-WHITE  
GRILLE-ALU-BEIGE  
GRILLE-ALU-ALPIN  
(color matches Gree's polymer wall sleeve)  
(additional colors available)

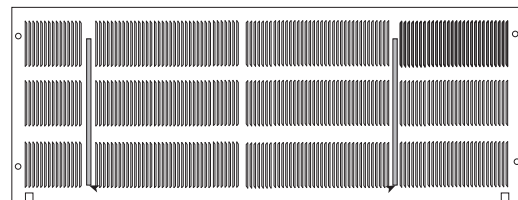
This premium line of decorative outdoor grilles will enhance the appearance of any building. The grilles are made of strong, durable, extruded, anodized aluminum and are designed to be mounted easily from inside the room. These elegant grilles, available in many standard colors, have baked enamel finishes containing 50% Kynar<sup>®</sup> resin, for a superior finish that will withstand the most extreme conditions.



**Aluminum Architectural Grille**

### Standard Outdoor Aluminum Grille

Part No.: GRILLE-ALU-STAMP  
This cost-effective, one-piece standard grille is made from durable anodized aluminum. The grille is lightweight, has a clear finish, and is easy to install from inside the room.



**Standard Grille**

**IMPORTANT:** Gree recommends only the use of Gree-supplied grilles for use with the E-TAC units. However, the architectural designs of a building may dictate the use of special or oversized grilles and/or louvers. Special louvers or any special architectural treatment of the building facade that may restrict free circulation of condenser airflow should be referred to Gree Corporation for evaluation and approval.  
See Sizing Outdoor Grille Selection.

# FIELD-INSTALLED ACCESSORIES (CONT.)

## SUBBASE

Part No.: PTACSUBBASE-A

The easy to install, non-electrical subbase provides mechanical support and requires no wiring.

All subbase models are pre-assembled, mount to the wall sleeve, and come with adjustable legs and side skirting to provide a finished appearance.

A subbase (or leveling legs) is required for installations where the wall sleeve extends 4 or more inches into the room or the wall is less than 2 in. (50.8 mm) thick. The minimum clearance between the bottom of the sleeve and the floor is 3-1/4 in. (82.6 mm), and the maximum clearance is 5-1/2 (139.7 mm) inches.

### Electrical Subbase Modules

Upgrade non-electrical subbase to a fully electrical subbase by add a Electrical Subbase module.

The electrical subbase modules have an electrical junction box, receptacle outlet, and cover plate.

- Part No: PTAC-REC-230V15-A
- PTAC-REC-230V20-A
- PTAC-REC-230V30-A
- PTAC-REC-265V15-A
- PTAC-REC-265V20-A
- PTAC-REC-265V30-A
- PTAC-REC-HW-A

### Subbase Fuse Kit

- Part No.: PTAC-FUSE-15-A
- PTAC-FUSE-20-A
- PTAC-FUSE-30-A

The fuse kit provides in-line over-current protection at the unit when required by NEC (National Electric Code) or local codes.

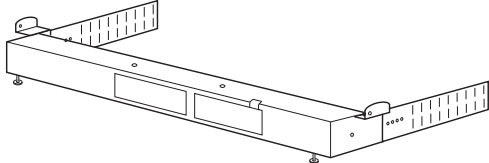
### Subbase Power Disconnect Switch

Part No.: PTAC-SWITCH-A

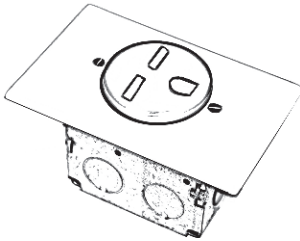
The subbase power disconnect 2-pole switch provides a recessed power disconnect for the PTAC unit when required by NEC or local codes.

**IMPORTANT: The fuse kits and disconnect switch accessories can only be used with Part No. PTAC-SUBBASE-A.**

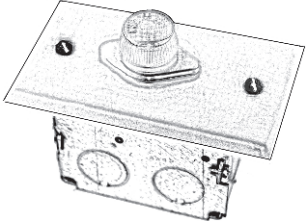
**IMPORTANT: All standard cord-connected 265-v E-TAC units will require a field-installed electrical subbase accessory per UL and NEC electrical codes.**



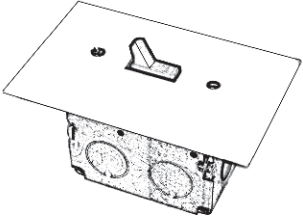
**Non-Electrical Subbase Assembly**



**Electrical Subbase Modules**



**Subbase Fuse Module**



**Power Disconnect Switch Module**

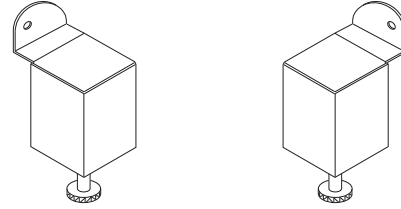
E-TAC

## FIELD-INSTALLED ACCESSORIES (CONT.)

### Leveling Legs

Part No.: LEVELING-LEGS

Leveling legs attach easily to the wall sleeve and offer accurate leveling and support for units without a subbase. Leveling legs are adjustable from 3-1/4 to 5-1/2 inches (82.6 to 139.7 mm).

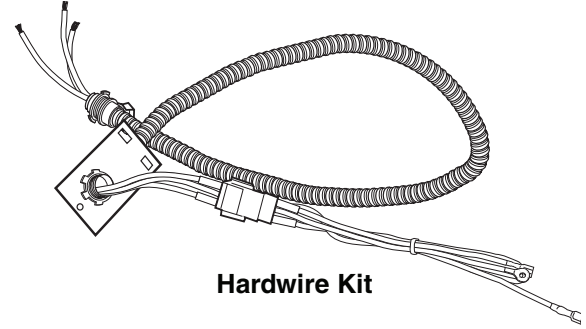


**Leveling Legs**

### Hardwire Kit

Part No.: HARDWIRE-KIT-1PK

This accessory hardwire kit provides a permanent connection to the unit. Electrical hard wiring is required when NEC (National Electrical Code) or local codes restrict the use of power cord and plug connections. The hardwire kit mounts on the front right side of the unit and comes with 36 inches of flexible steel conduit and a Molex connector for easy connect/disconnect.

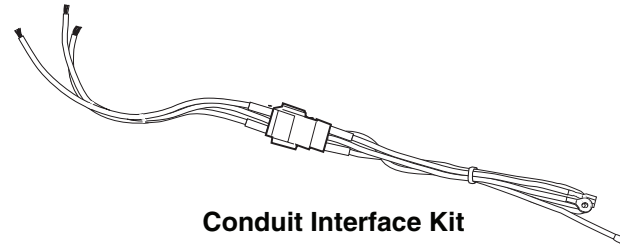


**Hardwire Kit**

### Conduit Interface Kit

Part No.: CONDUIT-INTF-4PK

The conduit interface accessory kit provides the wire connection to the unit to interface to existing installed conduit.



**Conduit Interface Kit**

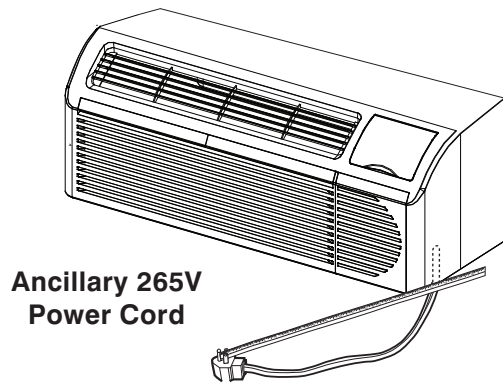
### Ancillary 265v Power Cord

Part No. PTAC-CORD-15A

PTAC-CORD-20A

PTAC CORD-30A

The Ancillary 265v power cord extends 58 inches from bottom of front panel to the plug head. Do not use where prohibited by codes or regulations.



**Ancillary 265V  
Power Cord**

# FIELD-INSTALLED ACCESSORIES (CONT.)

## THERMOSTATS

Gree's full line of wall thermostats are designed to enhance every E-TAC application. The TopTech Comfort Series of thermostats consists of programmable and non-programmable air conditioner and heat pump controls. Wall thermostats are simple and easy to use. Wall thermostats provide better temperature and

humidity control as they can be placed in an optimal position in the room.

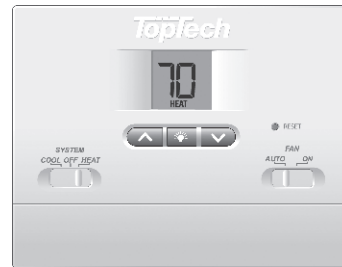
For wiring multiple E-TAC units to one wall thermostat see the Multiple Wall Thermostat Wiring section.

### Non-Programmable Thermostat

Part No.: TT-N-411 (Heat / Cool Models)  
TT-N-421 (Heat Pump Models)

This low-voltage, easy-to-use non-programmable thermostat provides maximum guest comfort.

- Dual Powered – Hardwired or Battery
- Large Display with Bright Blue Backlight
- Adjustable Temperature Set Point Limits
- Non-Volatile Memory Retains User Settings
- Separate Heating and Cooling Set Points
- Display Degree F or C Switch
- Mount to Horizontal Box
- Adjustable Temperature Differential



**Non-Programmable Thermostat**

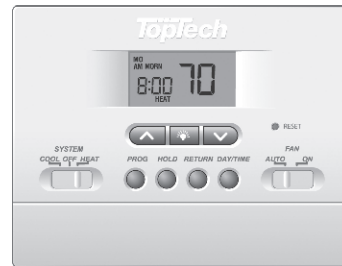
### Digital Programmable Thermostat

Part No.: TT-P-411 (Heat / Cool Models)  
TT-P-421 (Heat Pump Models)

This micro computer controlled, 7-day programmable wall thermostat has enhanced features for both heat pumps and heating/cooling units.

The programmable model includes the non-programmable features plus the following:

- 5-2 Day Separate Programming
- Adaptive Recovery Mode (ARM™)
- Separate Set Point Program Times
- Temporary Program Override
- Programmable Extended Hold Mode
- Meets California Title 24 Guidelines



**Programmable Thermostat**

### Wireless Non-Programmable Thermostat

Part No.: TT-N-631W (for Heat Pump & Heat /Cool Models)

This low voltage wireless wall thermostat provides easy installation and superior performance. Includes both wireless wall thermostat and receiver module and features:

- Two speed fan control (High and Low Speed)
- Universal 2H/1C Heat Pump or 1H/1C Conventional
- Power Loss Memory
- Heating and Cooling Set-point Limit
- Large Temperature and Set-point Display
- Large Blue Backlight Screen



E-TAC

## FIELD-INSTALLED ACCESSORIES (CONT.)

### Air Deflector

Part No.: PTAC-DEFLECTOR-A

The PTAC Air Deflector mounts easily to the units and directs air up and away from overhanging drapes. The Air Deflector saves energy by eliminating trapped air flow between the window and the curtain while increasing guest comfort levels and helping to manage mold and mildew in the window area.

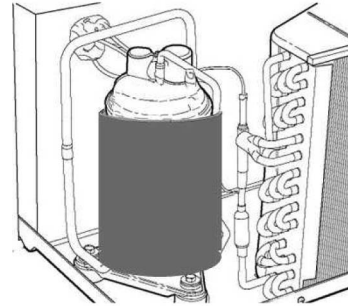


**Air Deflector**

### Sound Muzzler

Part No.: PTAC-SOUND-A

Our Sound Muzzler is specifically designed and constructed with environmental friendly materials that absorb mechanical sound energy and block offensive noise from the compressor. This acoustic wrap is weatherproof and easy to install.

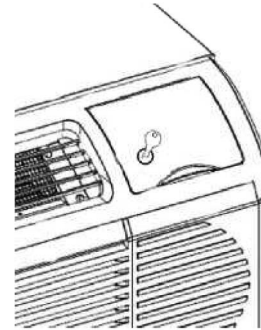


**Sound Muzzler**

### Security Door

Part No.: PTAC-LOCK-A

This key-locking security door kit prevents unauthorized access to the unit's heating and cooling controls and prevents tampering with units in public locations and institutions. This field-installed accessory includes a control door with lock assembly and two matching keys.



**Security Door**

## E-9000 REMOTE CONTROL

Part No. 30510092MX

The E-9000 remote control is versatility and allows users to change room temperature and modes from the palm of your hand. The large LCD display and buttons makes it easy-to-understand and easy-to-use.



**E-9000 Remote Control**



## FIELD-INSTALLED ACCESSORIES (CONT.)

### Condensate Drain Kit

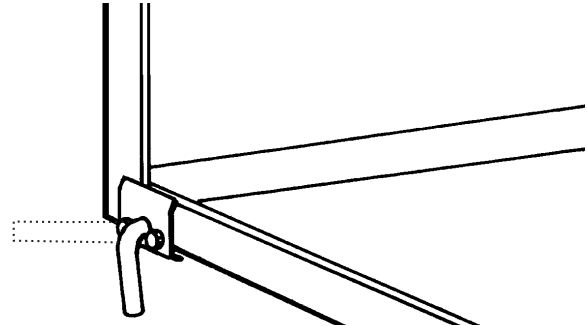
Part No.: DRAIN-KIT-1PK

This universal drain kit may be used internally or externally to route condensate to a drainage system. It can be field-installed on any Gree wall sleeve. Although Gree units are designed to dissipate all the condensate generated during normal cooling, there may be times when abnormal conditions cause more condensate than the unit can dissipate. If condensate that drips from the wall sleeve is objectionable, this internal/external drain kit should be installed.

The drain kit may be attached to the exterior right or left side of the wall sleeve for external draining or mounted to the room side of the wall sleeve for internal draining.

A 3 in. (152.4 mm) straight tube and 90° curved tube are supplied to simplify any application (1/2 in. / 12.7 mm OD copper).

**IMPORTANT: For internal drains installed in the plastic wall sleeve, the drain must be installed on the flat area of the sleeve. It cannot be installed in the wafer area.**



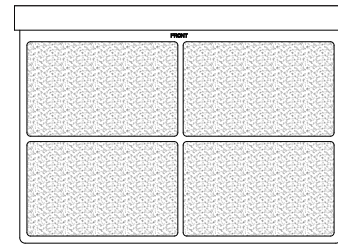
Drain Kit

A07748

### Replacement Filters

Part No.: GA-FILTER-10PK

The Gree E-TAC model replacement air filters come in packages of 10. The filters save energy by preventing the evaporator coils from being plugged with dirt and lint. These economical and sturdy filters are interchangeable and may be washed, vacuumed, and reused.



Replacement Filters

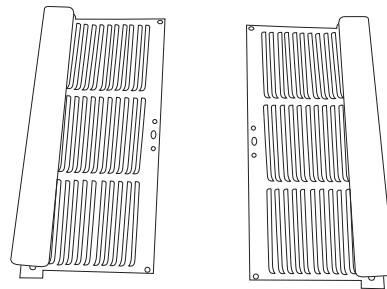
A07749

### Baffle Kit

Part No.: BAFFLE-KIT-1PK

The accessory baffle kit ensures a good seal between the unit and the exterior grille to prevent air recirculation, which can cause system failure.

The accessory baffle kit is required for applications where a Gree wall sleeve is used without a Gree authorized exterior grille.



Baffle Kit

A07275

## FIELD-INSTALLED ACCESSORIES (CONT.)

### Air Knight

The Air Knight by TopTech is an air treatment system not a filter. It drastically reduce odors, smoke, mold, fungi, VOC's (chemical odors) and bacteria found in

many rooms. Airborne bacteria and mold reduction is normally in the 90+ percentile.

### Air Knight Plug-In

Part No.: RGF-PIP-16-GA.

The Air Knight Plug-In, plugs directly into a wall outlet and can be used with or without its internal fan. Because it has its own outlets as part of the unit, you do not lose the wall outlet.

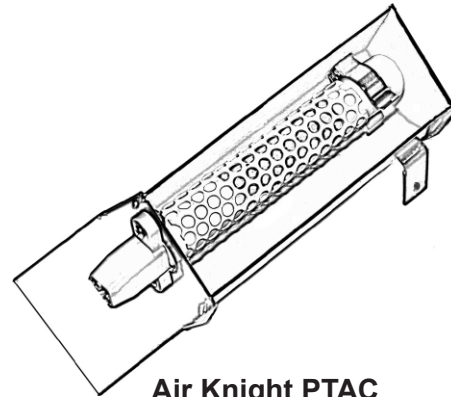


**Air Knight Plug In**

### Air Knight PTAC

Part No: TT-AKPTAC

The Air Knight PTAC mounts inside the E-TAC air discharge steam. The indoor fan delivers air treatment quietly and affectively into the room. The PTAC Air Knight is never lost or misplaced since it stays attached to the unit.



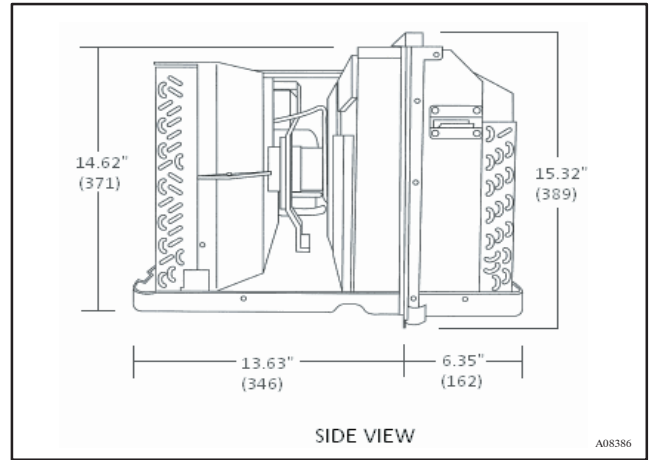
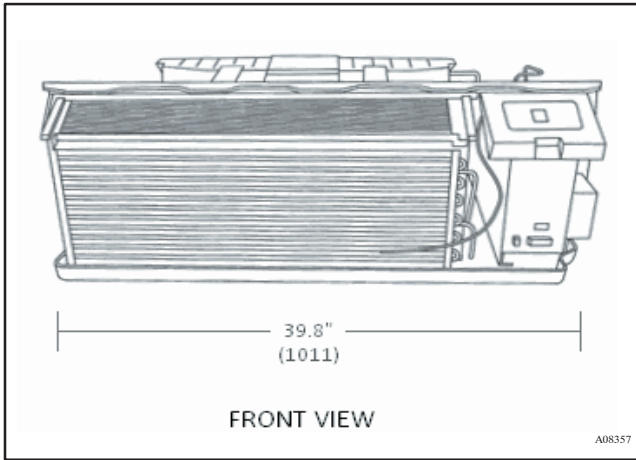
**Air Knight PTAC**



# DIMENSIONAL DRAWINGS AND INSTALLATION DATA - NEW CONSTRUCTION

Proper building practices must be used when constructing a wall opening to support a PTAC wall sleeve and chassis.

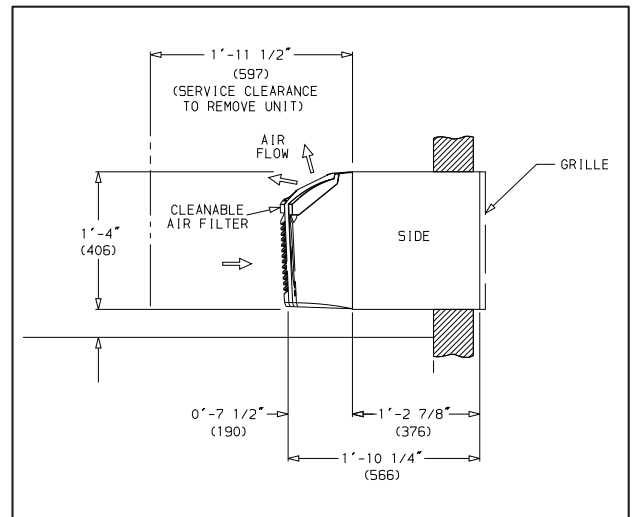
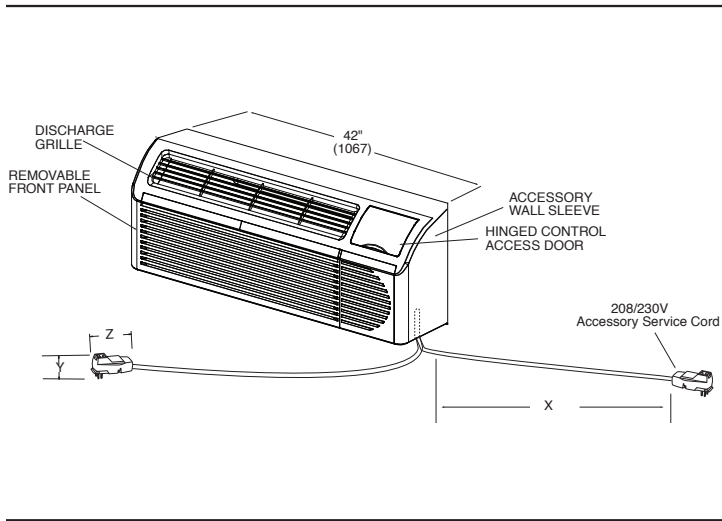
If practices are unknown, consult your local architect or building contractor. Installed wall sleeve must be level from side to side and a quarter bubble to the outside.



E-TAC

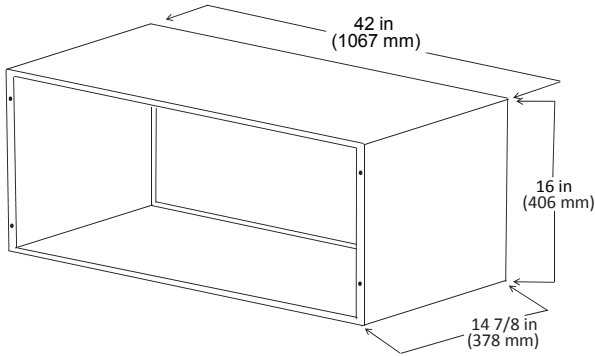
# DIMENSIONAL DRAWINGS AND INSTALLATION DATA

VOLTAGE	CURRENT	DIMENSIONS – Inches (mm)				PLUG TYPE		
		X	Y		Z		NEMA PLUG	NEMA RECEPTACLE
SUPPLIER 1	SUPPLIER 2		SUPPLIER 1	SUPPLIER 2				
208/230	15	58 (1473)	2.36 (60)	2.44 (62)	3.35 (85)	4 (101)	6-15P	6-15R
208/230	20	58 (1473)	2.36 (60)	2.44 (62)	3.35 (85)	4 (101)	6-20P	6-20R
208/230	30	58 (1473)	2.55 (65)	4 (101)	2.63 (67)	3.8 (96)	6-30P	6-30R
265	15	15 (381)	1.5 (38.2)		1.46 (37.3)		7-15P	7-15R
265	20	15 (381)	2 (50)				7-20P	7-20R
265	30	15 (381)	2.41 (61.3)		2.48 (63.2)		7-30P	7-30R



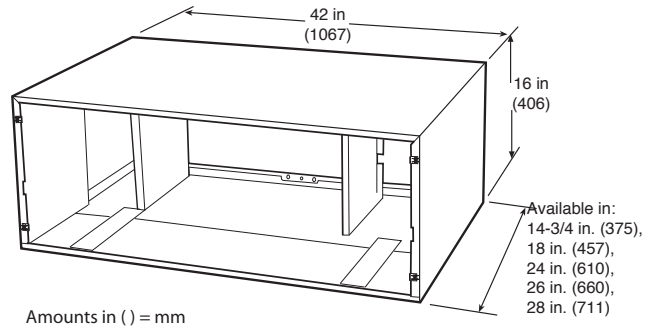
# DIMENSIONAL DRAWINGS AND INSTALLATION DATA - NEW CONSTRUCTION (CONT.)

## WALL SLEEVE MOUNTING DIMENSIONS FOR STANDARD AND ACCESSORY GRILLES



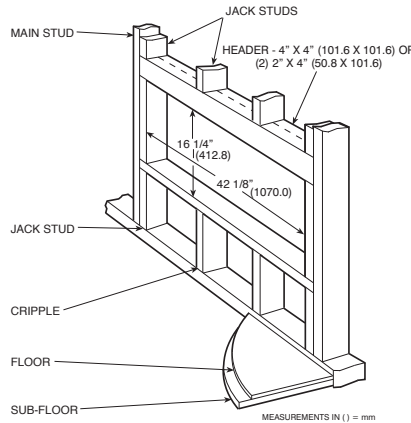
A07633

**Standard Polymer Non-Insulated Wall Sleeve**  
**Standard Polymer Insulated Wall Sleeve**



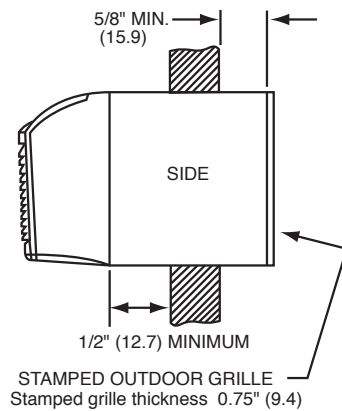
A07381

**Standard and Extended Metal Insulated Wall Sleeve**

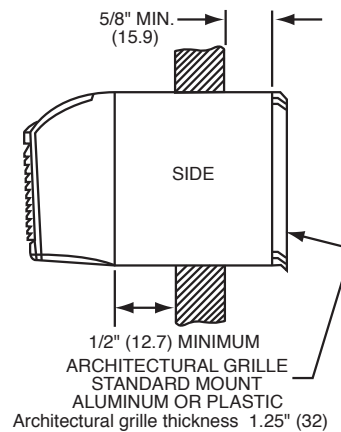


A07382

**Framing and Minimum Wall Sleeve Opening**



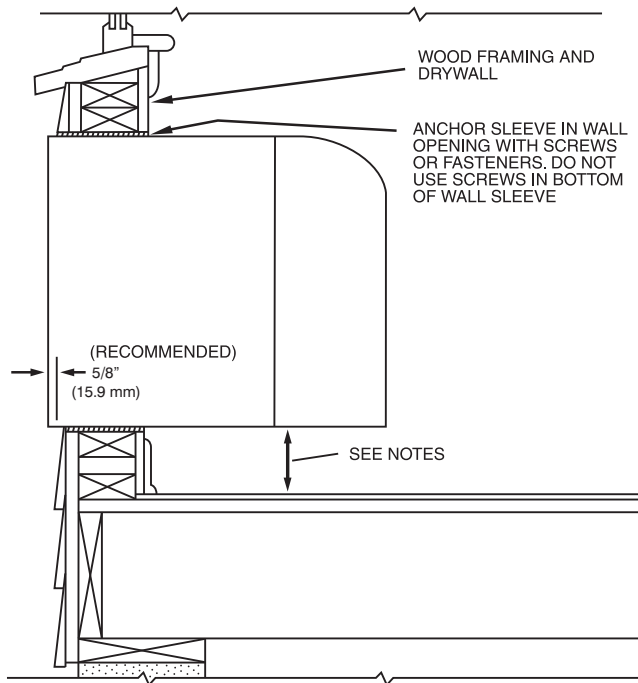
NOTE: Dimensions in ( ) are in millimeters



A07383A

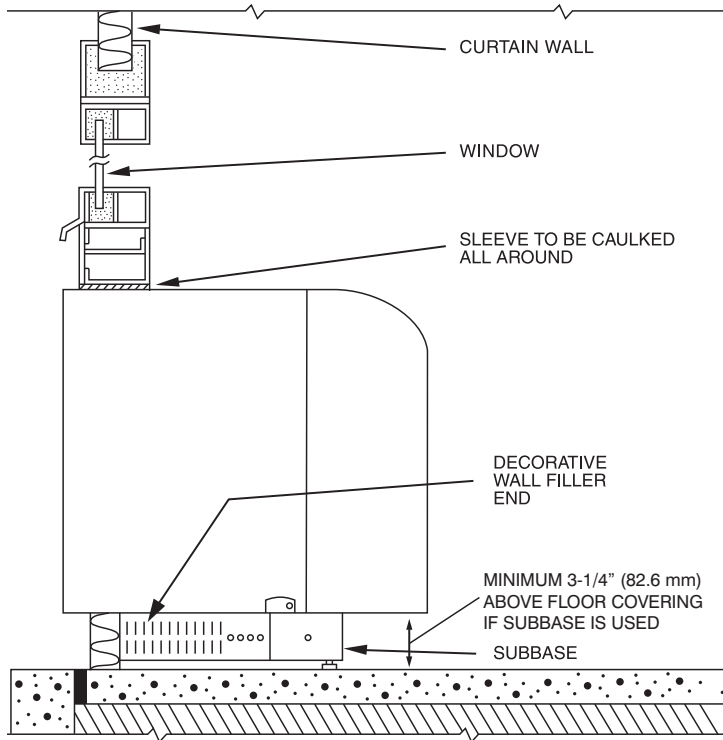
**Wall Sleeve Mounting (All Models)**

# TYPICAL WALL INSTALLATION



A07384

**Typical Wall Sleeve Installation**



A07385

**Typical Curtain Wall Installation (All Models)**

## Important Sleeve Installation Considerations:

- All Gree sleeves are self pitching and must be mounted level in all directions.
- The sleeve should be caulked on all sides, including both inside and outside the building.
- If more than 4 in. (101.6 mm) of wall sleeve projects into the room, an accessory subbase must be used for support.
- For all applications with an accessory subbase, wall sleeve must extend 3-1/4 in. (82.6 mm) minimum into room and must be 3-1/4 in. (82.6 mm) minimum to 5-1/2 in. (139.7 mm) maximum above floor (including carpeting) to allow for proper fit of subbase.
- For applications where the wall sleeve is mounted flush to the exterior of the building (or recessed in), Gree recommends a field-supplied drip edge be installed to prevent water infiltration into the building.
- Insulated wall sleeves should be considered for superior sound absorption, to reduce heat loss and to prevent sleeve sweating, a condition that can occur when the outside temperature is cold and the indoor conditions are warm and humid.

## NOTES:

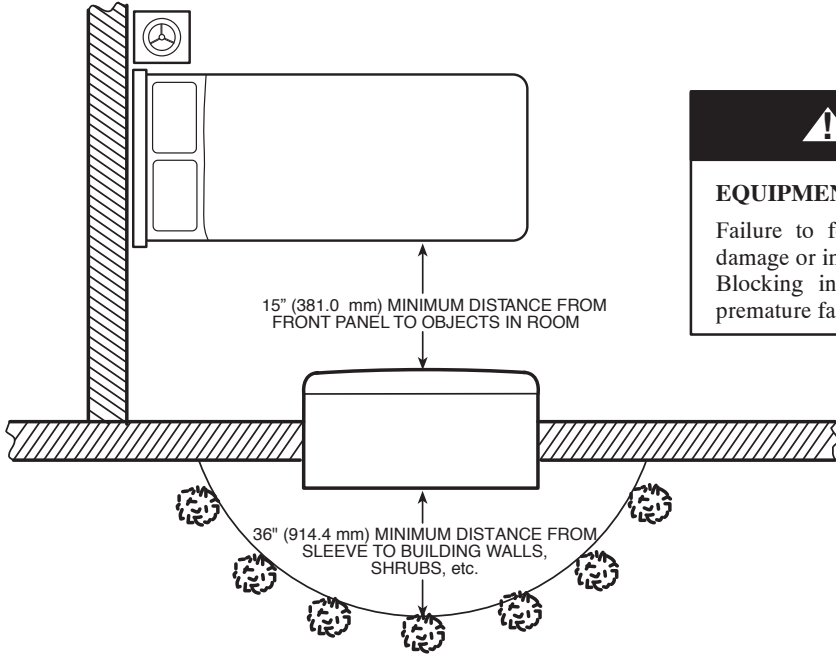
1. Sleeve may be flush mounted to floor, but front panel may have to be notched to accommodate service cord.
2. If more than 4 in. (101.6 mm) of sleeve projects into room, an accessory subbase must be used for support.
3. For walls 2 in. (50.8 mm) thick or less, an accessory subbase must be used for support.
4. Caulk around sleeve on both indoor and outdoor sides.

E-TAC

# DIMENSIONAL DRAWINGS AND INSTALLATION - NEW CONSTRUCTION (CONT.)

## MINIMUM CLEARANCE FOR INDOOR AND OUTDOOR DISCHARGE AIR

E-TAC



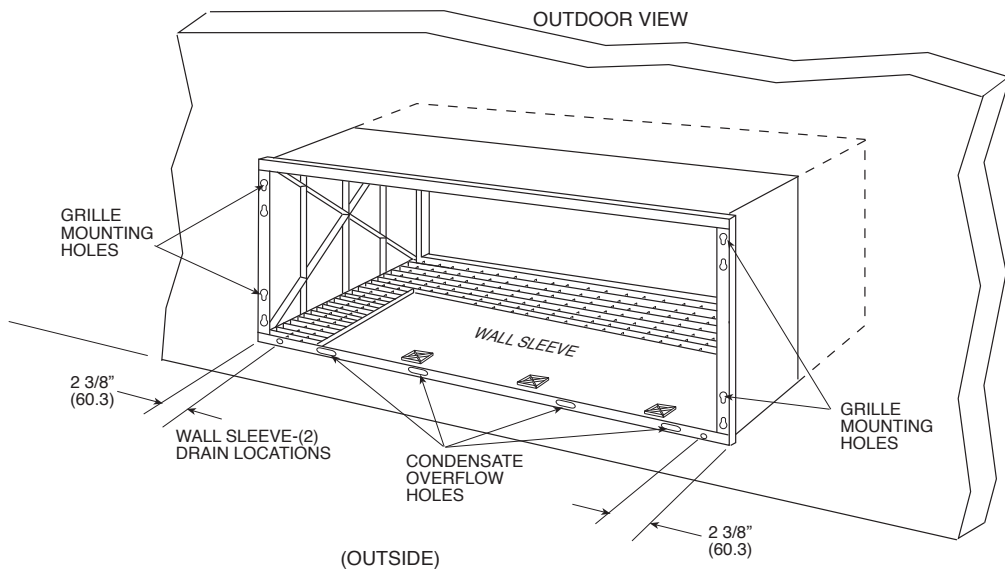
**⚠ CAUTION**

**EQUIPMENT OPERATION HAZARD**

Failure to follow this caution may result in equipment damage or improper operation. Blocking indoor or outdoor discharge air could cause premature failure of unit.

**Indoor and Outdoor Discharge Air Circulation**

A07386

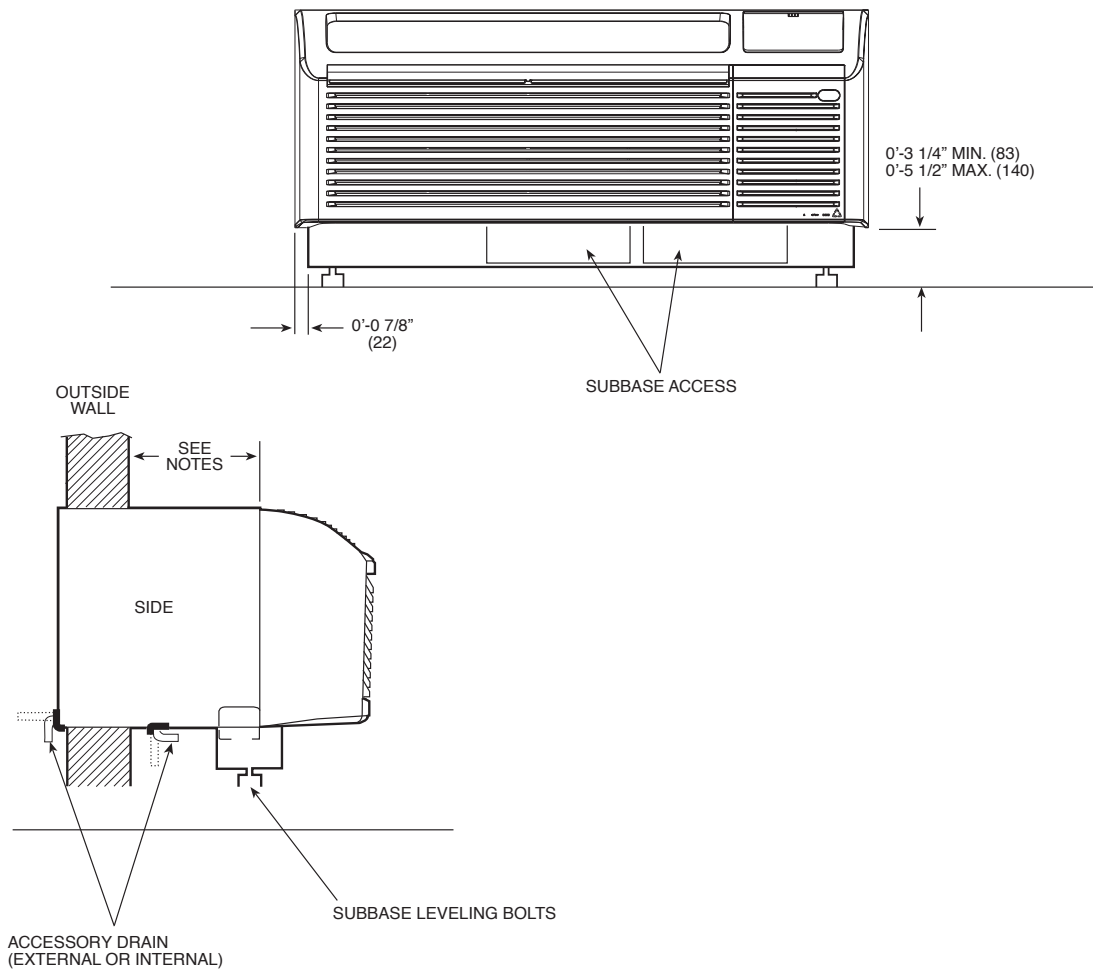


**Back of Polymer Wall Sleeve**

A07387

# DIMENSIONAL DRAWINGS AND INSTALLATION DATA - NEW CONSTRUCTION (CONT.)

## TYPICAL SUBBASE INSTALLATION

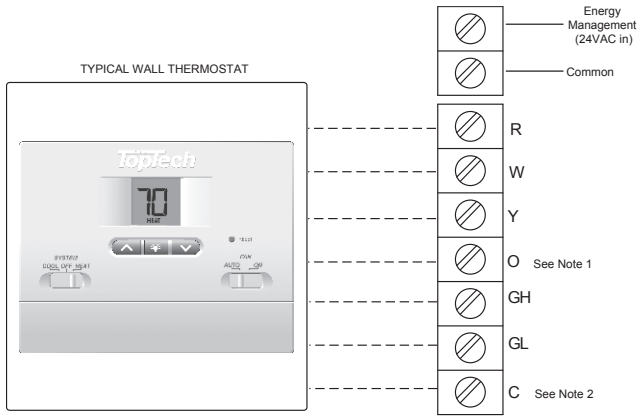


### NOTES:

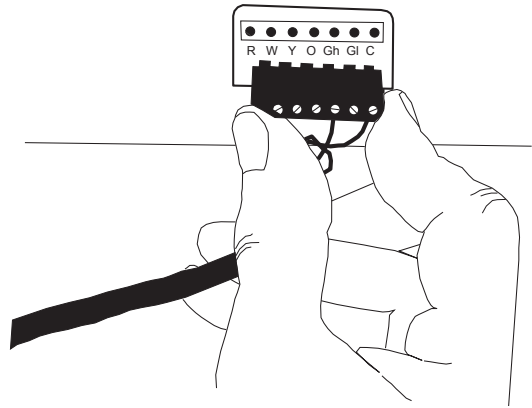
1. Accessory subbase is required for applications where:
  - Wall sleeve extends 4 inches (101.6 mm) or more into the room.
  - Wall thickness is less than 2 inches (50.8 mm).
  - All 265-v cord-connected applications.
2. For all applications with an accessory subbase:
  - Wall sleeve must extend 4 in. (101.6 mm) into the room and 3-1/4 in. (82.6 mm) minimum above the floor
  - Subbase height is adjustable from 3-1/4 in. (82.6 mm) to 5-1/2 in. (139.7 mm) maximum above floor (including carpeting). Refer to wall sleeve installation instructions.

A07389

# WALL THERMOSTAT CONNECTIONS



NOTES:  
 1. Use terminal "O" for heat pump connection only.  
 2. Terminal "C" (common) is typically only required for digital thermostats.

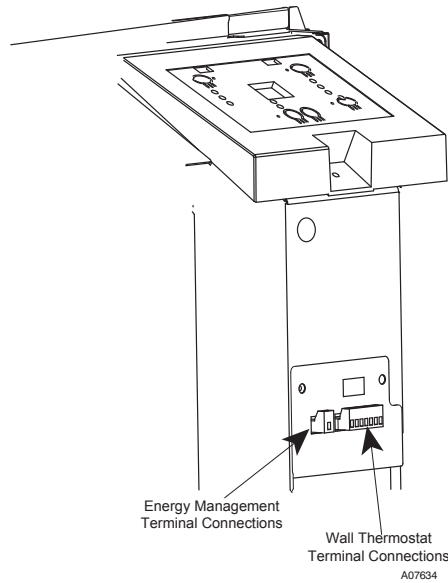


A07073

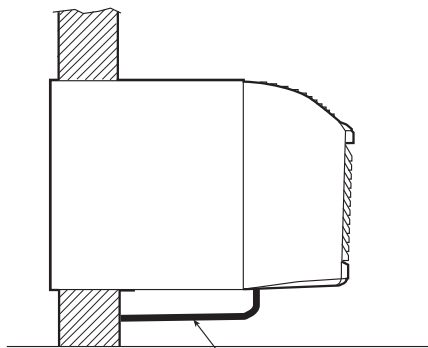
## Terminal Connector Removal and Replacement

A07059

## Control Box Wire Terminal for Wall Thermostat Models



## Terminal Connections



THERMOSTAT WIRE ROUTING  
 (UNDER SLEEVE, BEHIND FRONT PANEL)

## Terminal Wire Routing

A07074

**NOTE:** Thermostat wire is field supplied. Recommended wire gage is 18 to 20 gage solid thermostat wire. Thermostat wire should always be routed around or under, NEVER through, the wall sleeve. The wire should then be routed behind the front panel to the easily accessible terminal connector.

# PERFORMANCE AND ELECTRICAL DATA

## 208/230V HEAT/COOL MODEL

MODEL NUMBER E-TAC-	CAPACITY* (Btuh)			HEATER KW	EER	COP†	VOLTAGE RANGE	AMPS		WATTS	
	Cooling	Heating						Cooling	Heating**	Cooling	Heating
		Rev. Cyc.	Electric								
07HC230V20A-A	7,600/7,700	N/A	8,300/10,200	2.4/3.0	12.2/12.2	NA	187-253	3.0/2.8	12.2/13.2	620/640	2,496/3,036
09HC230V20A-A	8,800/9,000	N/A	8,300/10,200	2.4/3.0	11.4/11.3	NA		3.9/3.7	12.2/13.2	770/800	2,496/3,036
12HC230V20A-A	11,800/12,000	N/A	8,300/10,200	2.4/3.0	10.5/10.7	NA		5.3/5.1	12.2/13.2	1,120/1,120	2,496/3,036
12HC230V30A-A	11,800/12,000	N/A	13,900/17,000	4.1/5.0	10.5/10.7	NA		5.3/5.1	20.5/21.5	1,120/1,120	4,118/5,037
15HC230V20A-A	14,600/15,000	N/A	8,300/10,200	2.4/3.0	9.8/9.7	NA		7.5/6.7	12.2/13.2	1,510/1,530	2,496/3,036
15HC230V30A-A	14,600/15,000	N/A	13,900/17,000	4.1/5.0	9.8/9.7	NA		7.5/6.7	20.5/21.5	1,510/1,530	4,118/5,037

MODEL NUMBER E-TAC-	POWER FACTOR (%)	INDOOR FAN			MAX FUSE SIZE (Amps)	MIN. CIRCUIT AMP.	RECEP- TACLE TYPE	R-410A CHARGE (oz.)	DEHUMIDIFI- CACTION (Pints/Hr)	SENSIBLE HEAT FACTOR	APPROX. CHASSIS SHIP WT. (lbs)
		Horsepower	Full Load Amps	CFM HI Speed							
07HC230V20A-A	97%	0.024	0.1	280/300	20	16.5	B	18	1.7	84%	126
09HC230V20A-A	99%	0.028	0.2	280/300	20	16.5	B	21.5	2.1	81%	128
12HC230V20A-A	99%	0.031	0.2	290/310	20	16.5	B	26.8	2.7	67%	132
12HC230V30A-A	99%	0.031	0.2	290/310	30	27.2	C	26.8	2.7	67%	132
15HC230V20A-A	98%	0.031	0.2	320/340	30	16.5	B	38.09	3.5	65%	141
15HC230V30A-A	98%	0.031	0.2	320/340	30	27.2	C	38.09	3.5	65%	141

\*Rated in accordance with ARI Standard 380-93.

†Coefficient of Performance (COP) at 47 F outdoor ambient temperature.







\*\*Electric resistance heater power and fan motor power.

LEGEND

EER — Energy Efficiency Ratio

COP — Coefficient of performance

CFM — Cubic feet per minute

RECEPTACLE	A	B	C	D	E	F
						
<b>NEMA CONFIGURATION</b>	<b>6-15R</b>	<b>6-20R</b>	<b>6-30R</b>	<b>7-15R</b>	<b>7-20R</b>	<b>7-30R</b>
<b>AMPS</b>	<b>15</b>	<b>20</b>	<b>30</b>	<b>15</b>	<b>20</b>	<b>30</b>
<b>RATED VOLTS</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>277</b>	<b>277</b>	<b>277</b>
<b>TIME-DELAY TYPE FUSE (or HACR Circuit Breaker)</b>	<b>15</b>	<b>20</b>	<b>30</b>	<b>15</b>	<b>20</b>	<b>30</b>



E-TAC

# PERFORMANCE AND ELECTRICAL DATA (CONT.)

## 265 V HEAT/COOL MODELS

MODEL NUMBER ETAC-	CAPACITY* (Btuh)			HEATER KW	EER	COP†	VOLTAGE RANGE	AMPS		WATTS	
	Cooling	Heating						Cooling	Heating**	Cooling	Heating
		Rev. Cyc.	Electric								
07HC265V20A-A	7,200	N/A	10,200	3.0	11.0	NA	239-292	2.6	11.32	655	3,036
09HC265V20A-A	9,000	N/A	10,200	3.0	11.3	NA		3.2	11.32	800	3,036
12HC265V20A-A	12,000	N/A	10,200	3.0	10.7	NA		4.6	11.32	1,120	3,036
12HC265V30A-A	12,000	N/A	17,000	5.0	10.7	NA		4.6	18.87	1,120	5,037
15HC265V20A-A	15,000	N/A	10,200	3.0	9.8	NA		4.6	11.32	1,120	3,036
15HC265V30A-A	15,000	N/A	17,000	5.0	9.8	NA		5.9	18.87	1,530	5,037

E-TAC

MODEL NUMBER ETAC-	POWER FACTOR (%)	INDOOR FAN			MAX FUSE SIZE (Amps)	MIN. CIRCUIT AMP	RECEP- TACLE TYPE	R-410A CHARGE (oz)	DEHUMIDIFI- CACTION (Pints/Hr)	SENSIBLE HEAT FACTOR	APPROX. CHASSIS SHIP WT. (lbs)
		Horsepower	Full Load Amps	CFM HI Speed							
07HC265V20A-A	97%	0.028	0.1	300	20	16.5	E	19.75	1.7	84%	124
09HC265V20A-A	99%	0.028	0.2	300	20	16.5	E	19.40	2.1	81%	126
12HC265V20A-A	99%	0.031	0.2	310	20	16.5	E	25.04	2.7	67%	132
12HC265V30A-A	99%	0.031	0.2	310	30	27.2	F	25.04	2.7	67%	132
15HC265V20A-A	98%	0.031	0.2	320	20	16.5	E	40.21	3.5	65%	141
15HC265V30A-A	98%	0.031	0.2	320	30	27.2	F	40.21	3.5	65%	141

\*Rated in accordance with ARI Standard 380-93.

†Coefficient of Performance (COP) at 47 F outdoor ambient temperature.







\*\*Electric resistance heater power and fan motor power.

### LEGEND

EER — Energy Efficiency Ratio

COP — Coefficient of performance

CFM — Cubic feet per minute

RECEPTACLE	A	B	C	D	E	F
						
<b>NEMA CONFIGURATION</b>	<b>6-15R</b>	<b>6-20R</b>	<b>6-30R</b>	<b>7-15R</b>	<b>7-20R</b>	<b>7-30R</b>
<b>AMPS</b>	<b>15</b>	<b>20</b>	<b>30</b>	<b>15</b>	<b>20</b>	<b>30</b>
<b>RATED VOLTS</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>277</b>	<b>277</b>	<b>277</b>
<b>TIME-DELAY TYPE FUSE (or HACR Circuit Breaker)</b>	<b>15</b>	<b>20</b>	<b>30</b>	<b>15</b>	<b>20</b>	<b>30</b>





# PERFORMANCE AND ELECTRICAL DATA

## 208/230V HEAT PUMP MODELS

MODEL NUMBER- ETAC-	CAPACITY* (Btuh)			HEATER KW	EER	COP†	VOLTAGE RANGE	AMPS		WATTS	
	Cooling	Heating						Cooling	Heating**	Cooling	Heating
		Rev. Cyc.	Electric								
07HP230V20A-A	7,600/7,700	6,100/6,300	8,300/10,200	2.4/3.0	12.2/12.2	3.4/3.4	187-253	3.0/2.8	12.2/13.2	620/640	2,496/3,036
09HP230V20A-A	8,800/9,000	7,900/8,100	8,300/10,200	2.4/3.0	11.4/11.3	3.3/3.3		3.9/3.7	12.2/13.2	770/800	2,496/3,036
12HP230V20A-A	11,800/12,000	10,500/10,700	8,300/10,200	2.4/3.0	10.5/10.7	3.1/3.1		5.3/5.1	12.2/13.2	1,120/1,120	2,496/3,036
12HP230V30A-A	11,800/12,000	10,500/10,700	13,900/17,000	4.1/5.0	10.5/10.7	3.1/3.1		5.3/5.1	20.5/21.5	1,120/1,120	4,118/5,037
15HP230V20A-A	14800/15000	13600/13800	8,300/10,200	2.4/3.0	9.7/9.8	2.9/2.9		6.9/6.7	12.2/13.2	1,510/1,530	2,496/3,036
15HP230V30A-A	14800/15000	13600/13800	13,900/17,000	4.1/5.0	9.7/9.8	2.9/2.9		6.9/6.7	20.5/21.5	1,510/1,530	4,118/5,037

MODEL NUMBER ETAC-	POWER FACTOR (%)	INDOOR FAN			MAX FUSE SIZE (Amps)	MIN. CIRCUIT AMP.	RECEP- TACLE TYPE	R-410A CHARGE (oz)	DEHUMIDIFI- CACTION (Pints/Hr)	SENSIBLE HEAT FACTOR	APPROX. CHASSIS SHIP WT. (lbs)
		Horsepower	Full Load Amps	CFM Hi Speed							
07HP230V20A-A	97%	0.028	0.1	280/300	20	16.5	B	20.46	1.7	84%	126
09HP230V20A-A	99%	0.028	0.2	280/300	20	16.5	B	25	2.1	81%	131
12HP230V20A-A	99%	0.031	0.2	290/310	20	16.5	B	26.8	2.7	67%	135
12HP230V30A-A	99%	0.031	0.2	290/310	30	27.2	C	26.8	2.7	67%	135
15HP230V20A-A	98%	0.031	0.2	320/340	20	16.5	B	38.09	3.5	65%	144
15HP230V30A-A	98%	0.031	0.2	320/340	30	27.2	C	38.09	3.5	65%	144

\*Rated in accordance with ARI Standard 380-93.

†Coefficient of Performance (COP) at 47 F outdoor ambient temperature.







\*\*Electric resistance heater power and fan motor power.

### LEGEND

EER — Energy Efficiency Ratio

COP — Coefficient of performance

CFM — Cubic feet per minute

RECEPTACLE	A	B	C	D	E	F
						
<b>NEMA CONFIGURATION</b>	<b>6-15R</b>	<b>6-20R</b>	<b>6-30R</b>	<b>7-15R</b>	<b>7-20R</b>	<b>7-30R</b>
<b>AMPS</b>	<b>15</b>	<b>20</b>	<b>30</b>	<b>15</b>	<b>20</b>	<b>30</b>
<b>RATED VOLTS</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>277</b>	<b>277</b>	<b>277</b>
<b>TIME-DELAY TYPE FUSE (or HACR Circuit Breaker)</b>	<b>15</b>	<b>20</b>	<b>30</b>	<b>15</b>	<b>20</b>	<b>30</b>



E-TAC

# PERFORMANCE AND ELECTRICAL DATA (CONT.)

## 265V HEAT PUMP MODELS

MODEL NUMBER ETAC-	CAPACITY* (Btuh)			HEATER KW	EER	COP†	VOLTAGE RANGE	AMPS		WATTS	
	Cooling	Heating						Cooling	Heating**	Cooling	Heating
		Rev. Cyc.	Electric								
07HP265V20A-A	7,200	6,100	10,200	3.0	11.0	3.3	239-292	2.6	11.32	655	3,036
09HP265V20A-A	9,300	8,100	10,200	3.0	11.3	3.3		3.4	11.32	825	3,036
12HP265V20A-A	12,000	10,700	10,200	3.0	10.7	3.1		4.6	11.32	1,120	3,036
12HP265V30A-A	12,000	10,700	17,000	5.0	10.7	3.1		4.6	18.87	1,120	5,037
15HP265V20A-A	15,000	13,800	10,200	3.0	9.8	2.9		5.9	11.32	1,530	3,036
15HP265V30A-A	15,000	13,800	17,000	5.0	9.8	2.9		5.9	18.87	1,530	5,037

E-TAC

MODEL NUMBER ETAC-	POWER FACTOR (%)	INDOOR FAN			MAX FUSE SIZE (Amps)	MIN. CIRCUIT AMP	RECEP- TACLE TYPE	R-410A CHARGE (oz)	DEHUMIDIFI- CACTION (Pints/Hr)	SENSIBLE HEAT FACTOR	APPROX. CHASSIS SHIP WT. (lbs)
		Horsepower	Full Load Amps	CFM HI Speed							
07HP265V20A-A	97%	0.028	0.1	300	20	16.5	E	21.16	1.7	84%	126
09HP265V20A-A	99%	0.028	0.2	300	20	16.5	E	23.63	2.1	81%	131
12HP265V20A-A	99%	0.031	0.2	310	20	16.5	E	27.16	2.7	67%	135
12HP265V30A-A	99%	0.031	0.2	310	30	27.2	F	27.16	2.7	67%	135
15HP265V30A-A	98%	0.031	0.2	320	20	16.5	E	39.50	3.5	65%	144
15HP265V30A-A	98%	0.031	0.2	320	30	27.2	F	39.50	3.5	65%	144

\*Rated in accordance with ARI Standard 380-93.

†Coefficient of Performance (COP) at 47 F outdoor ambient temperature.







\*\*Electric resistance heater power and fan motor power.

LEGEND

EER — Energy Efficiency Ratio

COP — Coefficient of performance

CFM — Cubic feet per minute

RECEPTACLE	A	B	C	D	E	F
						
<b>NEMA CONFIGURATION</b>	<b>6-15R</b>	<b>6-20R</b>	<b>6-30R</b>	<b>7-15R</b>	<b>7-20R</b>	<b>7-30R</b>
<b>AMPS</b>	<b>15</b>	<b>20</b>	<b>30</b>	<b>15</b>	<b>20</b>	<b>30</b>
<b>RATED VOLTS</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>277</b>	<b>277</b>	<b>277</b>
<b>TIME-DELAY TYPE FUSE (or HACR Circuit Breaker)</b>	<b>15</b>	<b>20</b>	<b>30</b>	<b>15</b>	<b>20</b>	<b>30</b>



# EXPANDED RATING DATA

## COOLING PERFORMANCE - HEAT/COOL MODELS

ALL 7,000 NORMAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	8062	8709	9055
	Kw	536	531	522
	Amps	2.4	2.3	2.3
	SHR	0.96	0.72	0.53
85	BtuH	7500	8131	8624
	Kw	582	575	569
	Amps	2.5	2.5	2.5
	SHR	0.98	0.74	0.54
95	BtuH	6815	7700	8285
	Kw	640	640	640
	Amps	2.8	2.8	2.8
	SHR	0.99	0.77	0.54
105	BtuH	6075	6892	7762
	Kw	693	691	692
	Amps	3.0	3.0	3.0
	SHR	0.99	0.81	0.55
110	BtuH	5251	5944	6907
	Kw	758	755	755
	Amps	3.3	3.3	3.3
	SHR	0.99	0.87	0.58

ALL 9,000 NORMAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	9423	10179	10584
	Kw	670	663	653
	Amps	3.1	3.1	3.1
	SHR	0.89	0.66	0.49
85	BtuH	8766	9504	10080
	Kw	727	718	711
	Amps	3.3	3.3	3.3
	SHR	0.91	0.69	0.5
95	BtuH	7965	9000	9684
	Kw	800	800	800
	Amps	3.7	3.7	3.7
	SHR	0.91	0.71	0.5
105	BtuH	7101	8055	9072
	Kw	866	864	865
	Amps	4.0	4.0	4.0
	SHR	0.92	0.75	0.51
110	BtuH	6138	6948	8073
	Kw	947	943	943
	Amps	4.4	4.3	4.3
	SHR	0.91	0.8	0.54

ALL 12,000 NORMAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	12564	13572	14112
	Kw	939	928	914
	Amps	4.3	4.2	4.2
	SHR	0.89	0.66	0.49
85	BtuH	11688	12672	13440
	Kw	1018	1006	996
	Amps	4.6	4.6	4.5
	SHR	0.91	0.69	0.5
95	BtuH	10620	12000	12912
	Kw	1120	1120	1120
	Amps	5.1	5.1	5.1
	SHR	0.91	0.71	0.5
105	BtuH	9468	10740	12096
	Kw	1213	1210	1211
	Amps	5.5	5.5	5.5
	SHR	0.92	0.75	0.51
110	BtuH	8184	9264	10764
	Kw	1326	1320	1320
	Amps	6	6	6
	SHR	0.91	0.8	0.54

ALL 15,000 NORMAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	15705	16965	17640
	Kw	1282	1268	1248
	Amps	5.6	5.6	5.5
	SHR	0.85	0.63	0.47
85	BtuH	14610	15840	16800
	Kw	1391	1374	1360
	Amps	6	6	6
	SHR	0.87	0.66	0.48
95	BtuH	13275	15000	16140
	Kw	1530	1530	1530
	Amps	6.7	6.7	6.7
	SHR	0.87	0.68	0.48
105	BtuH	11835	13425	15120
	Kw	1657	1652	1654
	Amps	7.2	7.2	7.2
	SHR	0.88	0.72	0.49
110	BtuH	10230	11580	13455
	Kw	1812	1804	1804
	Amps	7.9	7.9	7.9
	SHR	0.87	0.77	0.51

### LEGEND

- EWB - Entering Wet Bulb
- D.B. - Dry Bulb
- AMP - Total Current
- Kw - Total Power
- BtuH - Total Cooling Capacity

E-TAC

# EXPANDED RATING DATA

## COOLING PERFORMANCE - HEAT PUMP MODELS

ALL 7,000 NORMAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	8062	8709	9055
	Kw	536	531	522
	Amps	2.4	2.3	2.3
	SHR	0.96	0.72	0.53
85	BtuH	7500	8131	8624
	Kw	582	575	569
	Amps	2.5	2.5	2.5
	SHR	0.98	0.74	0.54
95	BtuH	6815	7700	8285
	Kw	640	640	640
	Amps	2.8	2.8	2.8
	SHR	0.99	0.77	0.54
105	BtuH	6075	6892	7762
	Kw	693	691	692
	Amps	3.0	3.0	3.0
	SHR	0.99	0.81	0.55
110	BtuH	5251	5944	6907
	Kw	758	755	755
	Amps	3.3	3.3	3.3
	SHR	0.99	0.87	0.58

ALL 9,000 NORMAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	9423	10179	10584
	Kw	670	663	653
	Amps	3.1	3.1	3.1
	SHR	0.89	0.66	0.49
85	BtuH	8766	9504	10080
	Kw	727	718	711
	Amps	3.3	3.3	3.3
	SHR	0.91	0.69	0.5
95	BtuH	7965	9000	9684
	Kw	800	800	800
	Amps	3.7	3.7	3.7
	SHR	0.91	0.71	0.5
105	BtuH	7101	8055	9072
	Kw	866	864	865
	Amps	4.0	4.0	4.0
	SHR	0.92	0.75	0.51
110	BtuH	6138	6948	8073
	Kw	947	943	943
	Amps	4.4	4.3	4.3
	SHR	0.91	0.8	0.54

ALL 12,000 NORMAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	12564	13572	14112
	Kw	939	928	914
	Amps	4.3	4.2	4.2
	SHR	0.89	0.66	0.49
85	BtuH	11688	12672	13440
	Kw	1018	1006	996
	Amps	4.6	4.6	4.5
	SHR	0.91	0.69	0.5
95	BtuH	10620	12000	12912
	Kw	1120	1120	1120
	Amps	5.1	5.1	5.1
	SHR	0.91	0.71	0.5
105	BtuH	9468	10740	12096
	Kw	1213	1210	1211
	Amps	5.5	5.5	5.5
	SHR	0.92	0.75	0.51
110	BtuH	8184	9264	10764
	Kw	1326	1320	1320
	Amps	6	6	6
	SHR	0.91	0.8	0.54

ALL 15,000 NORMAL BTUH MODELS

Evaporator entering air temp (D.B.) = 80 deg F

TEMP (DEG F) AIR ENT COND (40%RH)		Temp EVAP AIR-EWB (DEG F)		
		62	67	72
75	BtuH	15182	16400	17052
	Kw	1240	1227	1208
	Amps	5.5	5.5	5.4
	SHR	0.88	0.65	0.48
85	BtuH	14123	15312	16240
	Kw	1345	1329	1316
	Amps	5.9	5.9	5.9
	SHR	0.89	0.68	0.49
95	BtuH	12833	14500	15602
	Kw	1480	1480	1480
	Amps	6.6	6.6	6.5
	SHR	0.9	0.7	0.49
105	BtuH	11441	12978	14616
	Kw	1603	1598	1600
	Amps	7.1	7.1	7.1
	SHR	0.9	0.74	0.5
110	BtuH	9889	11194	13007
	Kw	1752	1745	1745
	Amps	7.7	7.7	7.7
	SHR	0.9	0.79	0.53

### LEGEND

- EWB - Entering Wet Bulb
- D.B. - Dry Bulb
- AMP - Total Current
- Kw - Total Power
- BtuH - Total Cooling Capacity
- RH - Relative Humidity

# EXPANDED RATING DATA

## HEAT PUMP HEATING PERFORMANCE

NORNIMAL BtuH SIZE		OUTDOOR TEMP D.B (DEG F)				
		37	42	47	52	57
7,000	BtuH	5250	5540	6300	6900	7620
	Kw	509	518	540	549	580
	Amps	2.3	2.4	2.4	2.5	2.6
9,000	BtuH	6005	6399	8100	8647	9245
	Kw	647	656	720	725	735
	Amps	3.3	3.3	3.4	3.4	3.5
12,000	BtuH	7726	8531	10700	11278	12234
	Kw	883	917	1010	1039	1073
	Amps	4	4.1	4.5	4.7	4.9
15,000	BtuH	10530	10850	13300	14550	15940
	Kw	1197	1212	1300	1377	1439
	Amps	5.3	5.4	5.8	6.1	6.3

Based on 70 Deg F Indoor Temperature

### LEGEND

- D.B. - Dry Bulb
- AMP - Total current
- Kw - Total Power
- BtuH - Total Cooling Capacity
- RH - Relative Humidity

## INDOOR FAN PERFORMANCE DATA

Model	Voltage	Dry CFM*			Wet CFM*		
		Low	Medium	High	Low	Medium	High
7000 BTUH Heat / Cool 7000 BTUH Heat Pump	208	235	250	270	220	235	250
	230	260	280	300	240	260	280
7000 BTUH Heat / Cool 7000 BTUH Heat Pump	265	260	280	300	240	260	280
9000 BTUH Heat / Cool 9000 BTUH Heat Pump	208	235	250	270	220	235	250
	230	260	280	300	240	260	280
9000 BTUH Heat / Cool 9000 BTUH Heat Pump	265	260	280	300	240	260	280
12,000 BTUH Heat / Cool 12,000 BTUH Heat Pump	208	245	260	280	225	240	260
	230	270	290	310	250	270	290
12,000 BTUH Heat / Cool 12,000 BTUH Heat Pump	265	270	290	310	250	270	290
15,000 BTUH Heat / Cool	208	270	290	305	250	270	290
	230	300	320	340	280	300	320
15,000 BTUH Heat Pump	230	300	320	340	280	300	320
15,000 BTUH Heat / Cool 15,000 BTUH Heat Pump	265	300	320	340	280	300	320

\* Dry = Heat Mode or Fan Only Mode – Indoor Standard CFM  
Wet = Cool Mode – Indoor Standard CFM

# INDOOR SOUND POWER DATA

Indoor Sound Estimating Table (dBA and BELS)

Operating Mode	Volts	NOMINAL SIZES (dBA)						NOMINAL SIZES (BELS)							
		HEAT PUMP			HEAT / COOL			HEAT PUMP			HEAT / COOL				
		7000	9000	12000	15000	7000	9000	12000	15000	7000	9000	12000	15000		
Low Cool	208	55.2	NA	NA	NA	55.6	NA	NA	61.0	5.5	NA	NA	5.6	NA	6.1
	230	56.5	60.2	60.7	60.5	57.1	60.9	61.8	62.0	5.7	6.0	6.1	5.7	6.1	6.2
	265	60.7	57.9	59.9	60.0	57.6	61.6	61.7	61.2	6.1	5.8	6.0	5.8	6.2	6.1
Medium Cool	208	55.4	NA	NA	NA	55.9	NA	NA	61.8	5.5	NA	NA	5.6	NA	6.2
	230	56.8	60.6	60.8	61.0	57.3	60.7	61.8	62.3	5.7	6.1	6.1	5.7	6.1	6.2
	265	60.9	58.7	60.3	60.0	57.9	62.0	62.4	61.9	6.1	5.9	6.0	5.8	6.2	6.2
High Cool	208	55.9	NA	NA	NA	55.9	NA	NA	62.3	5.6	NA	NA	5.6	NA	6.2
	230	57.6	61.1	61.2	61.4	57.8	61.2	61.9	62.7	5.8	6.1	6.1	5.8	6.1	6.3
	265	61.1	59.5	61.2	62.0	58.3	62.3	62.8	62.9	6.1	5.9	6.1	5.8	6.2	6.3
Low Fan	208	46.9	NA	NA	NA	47.4	NA	NA	54.7	4.7	NA	NA	4.7	NA	5.5
	230	49.9	53.3	55.4	57.1	49.0	53.4	54.5	57.7	5.0	5.3	5.5	4.9	5.3	5.8
	265	51.1	51.4	53.6	56.0	51.9	51.9	53.5	56.6	5.1	5.1	5.4	5.2	5.2	5.7
Medium Fan	208	49.3	NA	NA	NA	50.2	NA	NA	57.4	4.9	NA	NA	5.0	NA	5.7
	230	52.1	54.3	56.0	58.1	51.2	54.6	55.8	59.1	5.2	5.4	5.6	5.1	5.5	5.9
	265	52.7	53.9	55.6	57.0	53.5	55.1	55.6	58.0	5.3	5.4	5.6	5.4	5.5	5.8
High Fan	208	51.3	NA	NA	NA	51.9	NA	NA	59.4	5.1	NA	NA	5.2	NA	5.9
	230	53.6	55.7	57.3	59.2	53.2	55.9	56.7	60.4	5.4	5.6	5.7	5.3	5.6	6.0
	265	54.1	55.6	57.1	59.0	54.4	56.3	57.4	60.2	5.4	5.6	5.7	5.4	5.6	6.0
Low Heat	208	55.3	NA	NA	NA	51.9	NA	NA	56.2	5.5	NA	NA	5.2	NA	5.6
	230	56.6	61.4	61.1	62.1	55.5	54.6	56.0	58.8	5.7	6.1	6.1	5.6	5.5	5.9
	265	59.0	62.2	60.7	61.0	52.6	53.2	53.5	57.0	5.9	6.2	6.1	5.3	5.3	5.7
Medium Heat	208	55.2	NA	NA	NA	54.2	NA	NA	57.9	5.5	NA	NA	5.4	NA	5.8
	230	56.7	61.2	61.1	62.0	55.6	55.9	57.1	59.7	5.7	6.1	6.1	5.6	5.6	6.0
	265	59.8	62.5	60.9	60.0	53.6	55.8	55.6	58.4	6.0	6.3	6.1	5.4	5.6	5.8
High Heat	208	55.8	NA	NA	NA	54.6	NA	NA	59.7	5.6	NA	NA	5.5	NA	6.0
	230	57.5	61.8	61.5	62.3	55.8	56.6	57.4	60.8	5.8	6.2	6.2	5.6	5.7	6.1
	265	60.2	62.7	61.5	62.0	55.0	57.2	57.9	60.4	6.0	6.3	6.2	5.5	5.7	6.0

See notes on page 38

# OUTDOOR SOUND POWER DATA

Outdoor Sound Estimating Table (dBA and BELS)

Operating Mode	Volts	NOMINAL SIZES (dBA)												NOMINAL SIZES (BELS)											
		HEAT PUMP				HEAT / COOL				HEAT PUMP				HEAT / COOL											
		7000	9000	12000	15000	7000	9000	12000	15000	7000	9000	12000	15000	7000	9000	12000	15000								
Low Cool	208	67.4	NA	NA	NA	68.0	NA	NA	72.0	68.0	NA	NA	72.0	6.8	NA	NA	7.2								
	230	69.3	71.3	72.0	73.0	69.6	71.3	72.4	73.1	69.6	71.3	72.4	73.1	7.0	7.1	7.2	7.3								
	265	69.9	70.7	72.9	73.0	69.4	72.2	72.5	73.3	69.4	72.0	72.5	73.3	6.9	7.2	7.3	7.3								
Medium Cool	208	67.4	NA	NA	NA	68.0	NA	NA	72.0	68.0	NA	NA	72.0	6.8	NA	NA	7.2								
	230	69.3	71.3	72.0	73.0	69.6	71.3	72.4	73.1	69.6	71.3	72.4	73.1	7.0	7.1	7.2	7.3								
	265	69.9	70.7	72.9	73.0	69.4	72.2	72.5	73.3	69.4	72.0	72.5	73.3	6.9	7.2	7.3	7.3								
High Cool	208	67.4	NA	NA	NA	68.0	NA	NA	72.0	68.0	NA	NA	72.0	6.8	NA	NA	7.2								
	230	69.3	71.3	72.0	73.0	69.6	71.3	72.4	73.1	69.6	71.3	72.4	73.1	7.0	7.1	7.2	7.3								
	265	69.9	70.7	72.9	73.0	69.4	72.2	72.5	73.3	69.4	72.0	72.5	73.3	6.9	7.2	7.3	7.3								
Low Heat	208	67.8	NA	NA	NA	---	---	---	---	---	---	---	---	---	---	---	---								
	230	70.2	72.4	72.7	73.8	---	---	---	---	---	---	---	---	---	---	---	---								
	265	70.6	71.7	73.2	74.0	---	---	---	---	---	---	---	---	---	---	---	---								
Medium Heat	208	67.8	NA	NA	NA	---	---	---	---	---	---	---	---	---	---	---	---								
	230	70.2	72.4	72.7	73.8	---	---	---	---	---	---	---	---	---	---	---	---								
	265	70.6	71.7	73.2	74.0	---	---	---	---	---	---	---	---	---	---	---	---								
High Heat	208	67.8	NA	NA	NA	---	---	---	---	---	---	---	---	---	---	---	---								
	230	70.2	72.4	72.7	73.8	---	---	---	---	---	---	---	---	---	---	---	---								
	265	70.6	71.7	73.2	74.0	---	---	---	---	---	---	---	---	---	---	---	---								

## Sound Transmission Coefficient (STC) = 23

**NOTES:**

- The tables above indicate the approximate indoor and outdoor sound levels of a 52M unit. Tests were conducted in the Carrier Sound Testing Laboratory according to AHRI (Air Conditioning, Heating and Refrigeration Institute) Noise Rating Standard 300 for non-ducted indoor air conditioning equipment.
- NA = Not Available

# FIELD-INSTALLED ACCESSORIES

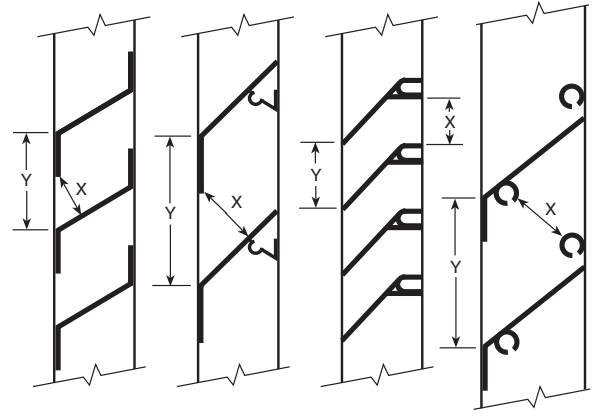
## OUTDOOR GRILLE SIZING

**IMPORTANT: If you wish to use a grille not made for the Gree E-TAC contact Gree Application Engineering.**

The following guidelines must be followed in the initial selection of any alternate exterior grille or louver:

1. The louver must have a minimum of 65% free area. Free area is the minimum area of the opening in an air inlet or outlet in which air can pass. Free Area (%) =  $X/Y$ .
2. The louver should be attached to the wall sleeve in a manner that will prevent recirculation of condenser discharge air into the inlet. In most applications, baffles, splitters, and/or gasket will be required between the chassis tube end sheets and the louver to prevent air recirculation.

The above criteria must be followed, since a louver that is restrictive or allows re-circulation will result in a reduction of the unit's capacity and efficiency and will ultimately shorten the compressor life.



**Louver Dimensional Reference**

### Sample Calculations

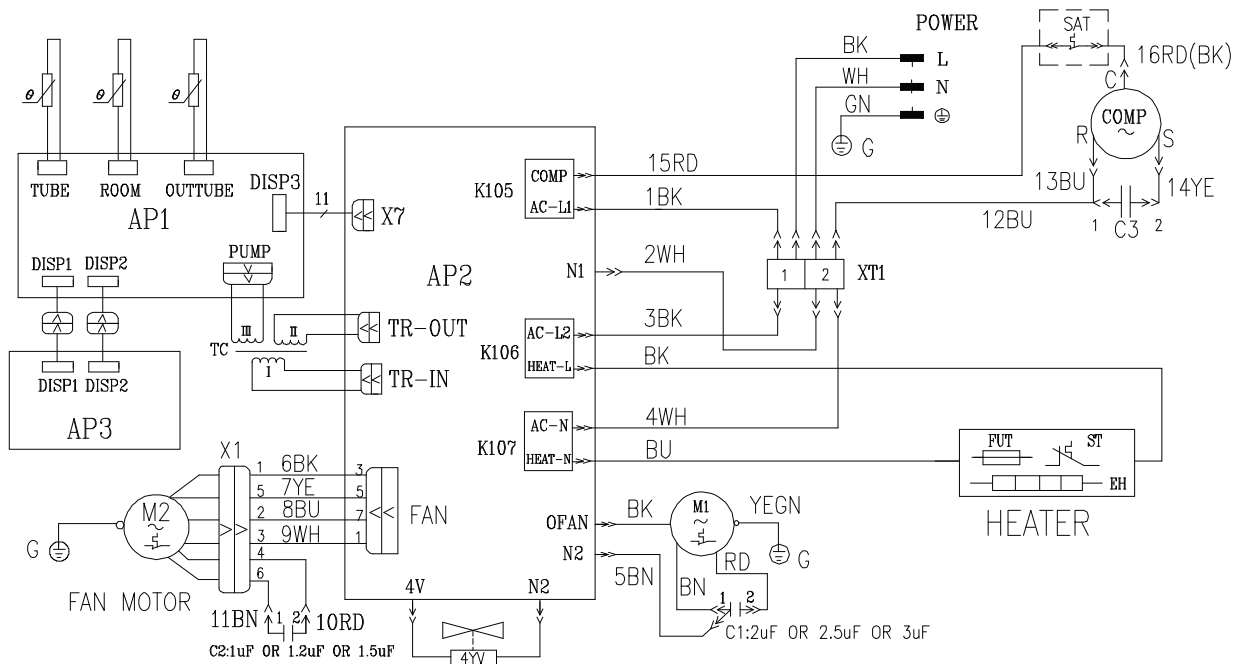
$$\text{Free Area (\%)} = \frac{X}{Y} \times 100$$

$$x = 1$$
$$y = 1.5$$

$$\text{F.A. (\%)} = \frac{1}{1.5} \times 100 = 66.7\%$$



# WIRING SCHEMATIC



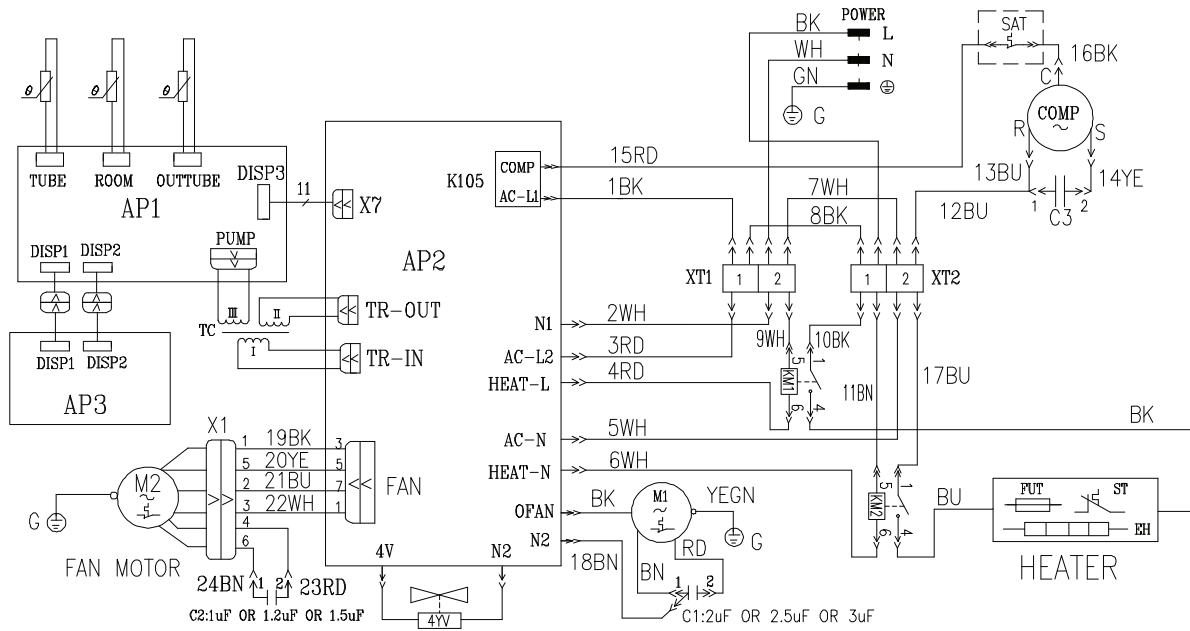
E-TAC

LEGEND	
AP1	Main Circuit Board
AP2	Relay Circuit Board
AP3	Display Circuit Board
C1	Compressor Capacitor
C2	Fan Motor Capacitor
L1, L2	Electric Heater Relay
L3	Compressor Relay
M1	Compressor Motor
M2	Outdoor Fan Motor
M3	Indoor Fan Motor
OUTTUBE	Outdoor Coil Sensor
ROOM	Room Air Temp. Sensor
SAT	Compressor Overload
TC	Transformer
TRIN-24V	Transformer 24 Volt Connector
TUBE	Indoor Coil Sensor
X1	Main Power Connector
X2	Heater Connector
X3	Heater Limit Connector
X4	Indoor Fan Motor Connector
X5,X6	Transformer Connector
X7,X8	Board Jumper Connector
XT1	Terminal Block (White)
XT2	Terminal Block (Black)
YV	Reversing Valve (Heat Pump Units)

**E-TAC – Typical Wiring Schematic for Standard Units  
(Except Models with 5KW Elec. Heaters)**

# WIRING SCHEMATIC

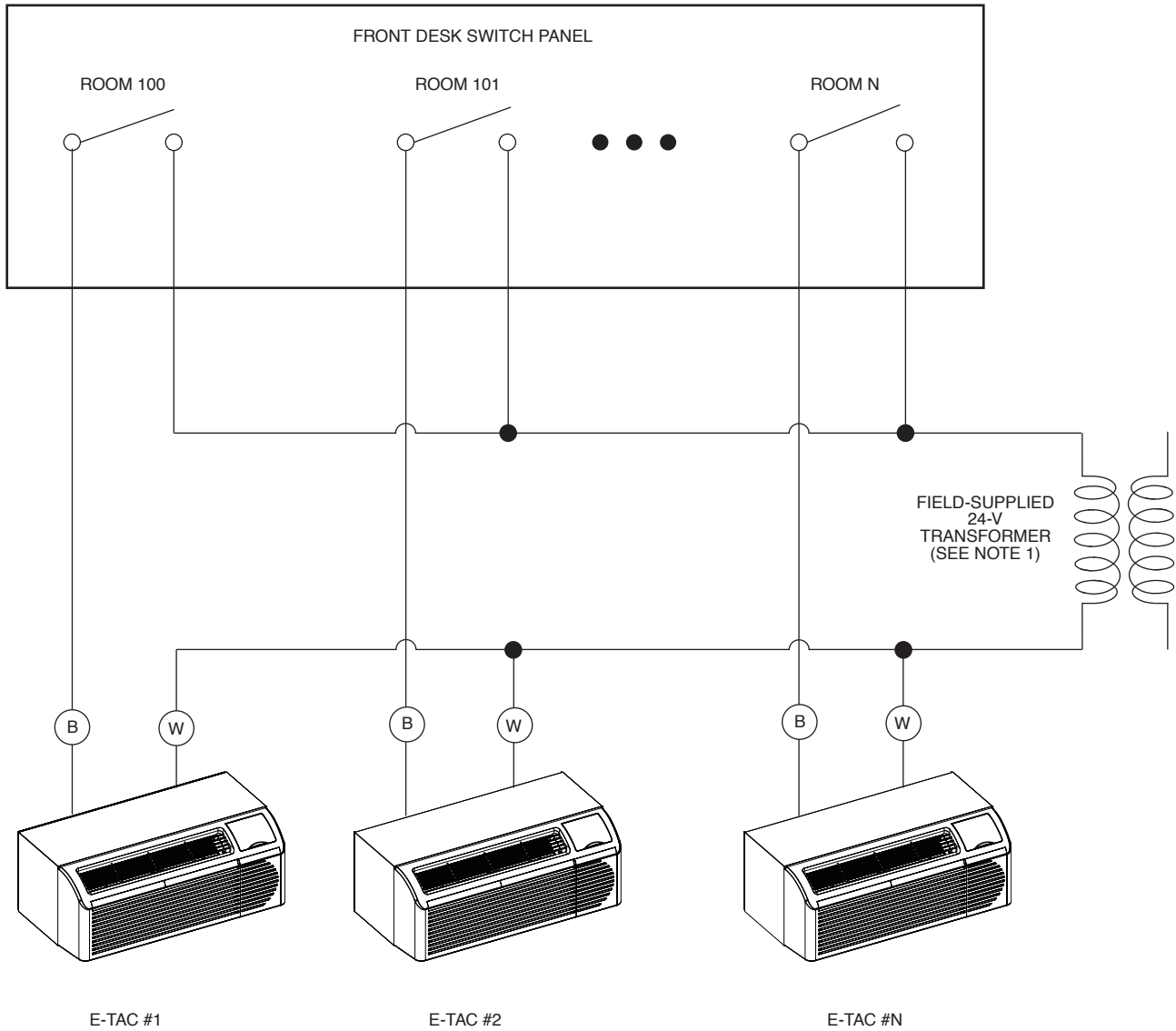
E-TAC



LEGEND	
AP1	Main Circuit Board
AP2	Relay Circuit Board
AP3	Display Circuit Board
C1	Compressor Capacitor
C2	Fan Motor Capacitor
L1, L2	Electric Heater Relay
L3	Compressor Relay
M1	Compressor Motor
M2	Outdoor Fan Motor
M3	Indoor Fan Motor
OUTTUBE	Outdoor Coil Sensor
ROOM	Room Air Temp. Sensor
SAT	Compressor Overload
TC	Transformer
TRIN-24V	Transformer 24 Volt Connector
TUBE	Indoor Coil Sensor
X1	Main Power Connector
X2	Heater Connector
X3	Heater Limit Connector
X4	Indoor Fan Motor Connector
X5,X6	Transformer Connector
X7,X8	Board Jumper Connector
XT1	Terminal Block (White)
XT2	Terminal Block (Black)
YV	Reversing Valve (Heat Pump Units)

E-TAC – Typical Wiring Schematic for Models with 5KW Elec. Heaters

# TYPICAL WIRING SCHEMATIC FOR ENERGY MANAGEMENT INTERFACE



## LEGEND

- AWG** — American Wire Gage
- B** — Black
- PTAC** — Packaged Terminal Air Conditioner
- W** — White

## NOTES:

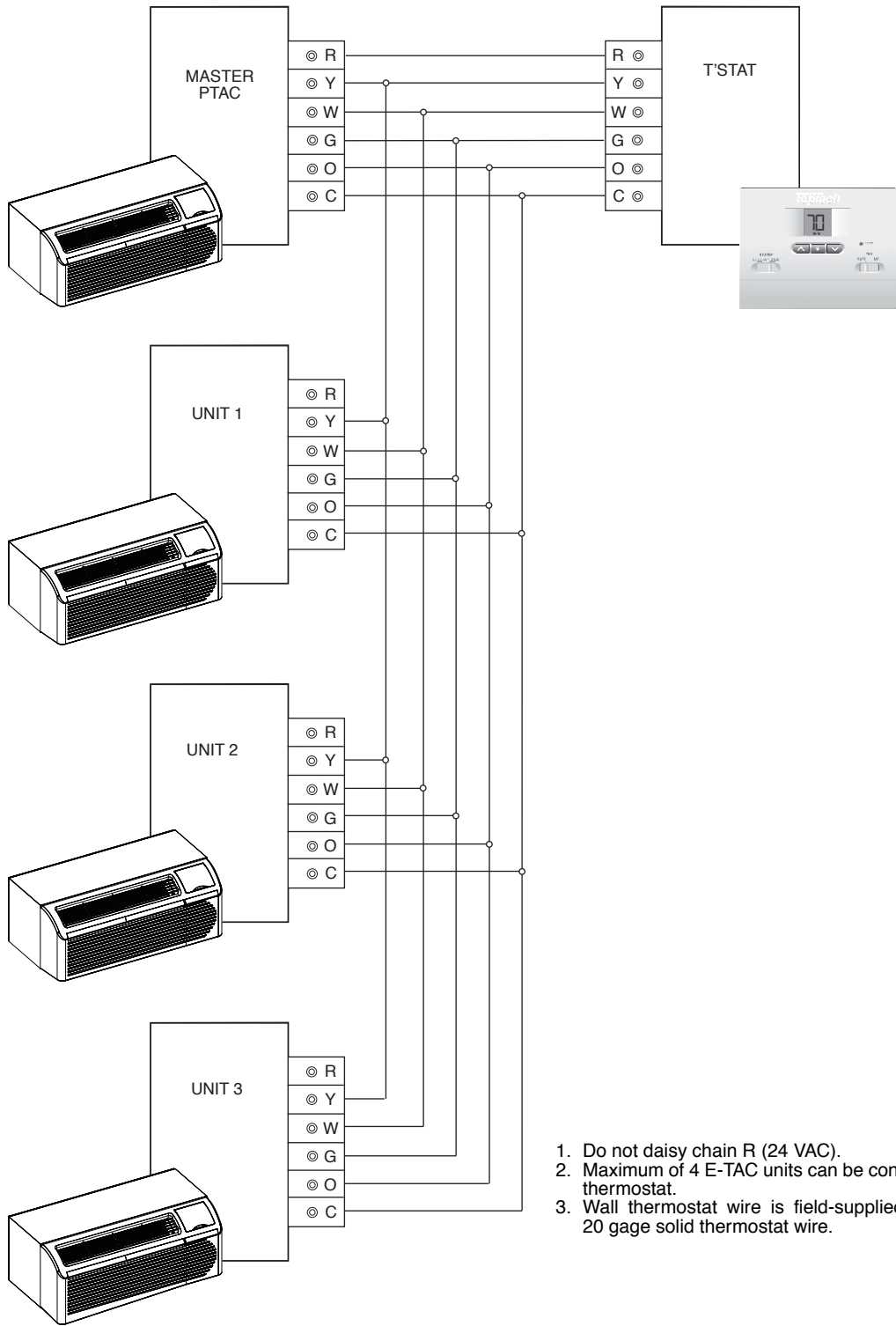
1. To size transformer, use the following equation:  
Quantity of PTAC units x 12 va = Transformer Size (va)  
Example: 110 PTAC Units x 12 va = 1320 va Transformer

2. Following are recommended wire sizes:

AWG WIRE SIZE NO.	MAXIMUM LENGTH ft (m)
24	400 (121.9)
22	600 (182.9)
20	900 (274.3)
18	1500 (457.2)
16	2000 (609.6)

# TYPICAL WIRING SCHEMATIC FOR MULTIPLE E-TACS CONNECTED TO A SINGLE WALL THERMOSTAT

E-TAC



1. Do not daisy chain R (24 VAC).
2. Maximum of 4 E-TAC units can be connected to one single wall thermostat.
3. Wall thermostat wire is field-supplied and should be 18 to 20 gage solid thermostat wire.

# PACKAGED TERMINAL COOLING UNIT WITH HEAT PUMP OR ELECTRIC HEATING

## HVAC Guide Specifications

### Size Range:

Cooling: 7,200 to 15,000 Btuh

Electrical Heating: 5,600 to 17,100 Btuh

Heat Pump: 6,100 to 13,800 Btuh

### Model Numbers:

Cooling with Electric Heat

Heat Pump with Electric Heat

## Part 1 — System Description

Packaged Terminal Air Conditioners shall be of the sizes and capacities as shown on the contract drawing schedule and in the specifications.

System shall be tested to insure no water infiltration into the room, when tested at eight inches of rain per hour with 40 mph (64.4 KPh) wind.

### The complete system shall consist of the following:

- A. **Packaged Terminal Heat Pump or Heat/Cool Chassis** : See section 2 - Chassis Description
- B. **Power Cord or Hardwire Kit** shall provide the power connection to the unit.
- C. **Insulated Polymer Wall Sleeve** shall provide excellent thermal insulation, be textured to hide scratches and prevent shine, will have superior outdoor noise absorption and shall be corrosion free for the life of the product. The Wall Sleeve must have dimensions of 42" (1067 mm) width x 16" (406 mm) height x 14-7/8" (377.8 mm) depth and be shipped with a rear weather barrier installed.
- D. **Wall Sleeve Molding** shall trim the wall sleeve to the existing wall, to hide wall imperfections and irregularities due to the sleeve opening.
- E. **Outdoor Polymer Louvered Grille** shall resist corrosion, breakage and match the color specified on drawing schedule and specifications.
- F. **Subbase** will support the wall sleeve when it extends into the room more than 4" (101.6 mm). Subbase must come from the factory pre-assembled, with a receptacle (size as specified on drawing schedule and specifications).

## Part 2 — Chassis Description

### 2.1 General:

The chassis shall be a factory-assembled, single-piece heating and/or cooling unit, that is simple to install and operate. Just slide the chassis into a wall sleeve, plug it into an outlet, and operate after installation. The chassis dimensions shall not exceed 42" (1067 mm) wide and 16" (406 mm) high with room cabinet in place. The chassis shall consist of the following functional sections and components:

#### A. Certifications:

System shall be approved and certified by UL & UL, Canada. Chassis shall meet ASHRAE Standard 90.1 for minimum energy efficiency.

#### B. Operating Characteristics:

Chassis shall be capable of starting and running at 115° F (46.1° C) ambient outdoor temperature per maximum load criteria of ARI Standard 310/380.

#### C. Electrical:

The power cord will be 58" (1473 mm) for 208/230v models or 15" (381 mm) for 265v models. The Hardwire kit accessory will provide 36" (914 mm) of flexible conduit. The chassis current draw shall be specified on the chassis nameplate and match electrical requirements specified on the Contract drawing schedule and specifications.

The power cord plug configuration shall conform to NEMA standards and the rating shall support the current draw of the electric resistance heater.

For 265v installations, UL codes require the use of an electrical equipped subbase for power cord usage or hardwire conduit for non-corded installations.

#### D. Safeties:

Compressor shall have automatic reset, over temperature and over current protection. The fan motors shall have an inherent, automatic reset over temperature protection. The electric heater shall have two over temperature protectors.

**E. Air Flow System:**

For superior sound and comfort, the airflow system shall consist of two, direct-drive permanently lubricated fan motors. The outdoor fan motor will be single speed, with a dynamically balanced, corrosion resistant, multi-blade axial flow design, with integrated slinger ring. The indoor fan motor will three speeds, with a dynamically balanced, aluminum, tangential blower wheel, to assure uniform air distribution and optimal sound. Both Fan Motors shall be of an enclosed design to reduce the effects of moisture and corrosion.

**F. Compressor & Refrigerant:**

The rotary-type Compressor shall be fully hermetic with internal and external vibration isolation. The refrigeration system will be sealed and contain a full refrigerant charge (R410A).

**G. Coils:**

Condenser and evaporator coils to be constructed of high-efficiency copper and aluminum, necessary to achieve EER and COP rating, as specified on the chassis name plate.

**H. Factory-Installed Electric Heater:**

The factory-installed, open coil type, electric heater is standard in heat/cool and heat pump chassis. The electric heater shall contain both an automatic reset and a one-shot over temperature protection device. The heating capacity of the electric heater shall be as identified on the Contract drawing schedule and in the specifications.

**I. Controls:**

All standard models shall be equipped with electronics, for added features and improved reliability of the unit.

The chassis shall have an easy to operate, user friendly, electronic display with simple to push, large digital buttons. All will be easily accessible and covered by a hinged door.

The mode selection control shall consist of OFF, FAN ONLY, HEAT, COOL and DRY operations. There will be 3 optional Fan Speed Options, LOW, MED or HIGH. The temperature selection will be controlled by color coded, simple to operate warmer and cooler buttons. The upper and lower setpoint temperature limits, can be easily configured.

All models shall have a configuration dipswitch, easily accessible for optimal comfort settings, CONTINUOUS or CYCLE fan mode in HEATING, CONTINUOUS or CYCLE fan mode in COOLING, FREEZE GUARD enabled or disabled, WALL

THERMOSTAT enabled or disabled, EMERGENCY HEAT (for heatpumps), and 4 optional SETPOINT LIMIT selections.

Fan cycle configuration switches, will allow continuous fan operation for maximum comfort or cycle operation for maximum energy savings. Settings can be different for both heating and cooling operations, for maximum comfort and efficiency.

All standard models shall have Temperature Limiting control, with four easy to configure settings. Temperature limiting allows a room temperature range to be set, to avoid extreme temperature settings, to maximize energy savings.

Emergency Heat Switch (Heat Pump Models Only) shall disable the compressor in heating mode and only allow the use of electric heat during heating cycles. The Emergency Heat switch is active at all outdoor ambient temperatures.

All units shall be capable of interfacing to a wall thermostat; have a blank out label to cover the control panel for wall thermostat applications; and have a removable wall thermostat terminal block, to simplify field wiring. No additional field-installed kits shall be required.

Wall thermostat interface shall provide two fan speed selections to maximize comfort.

Compatible with 2 wire central desk control systems.

Freeze Guard to automatically activate the electric heater and indoor fan to warm the room, to prevent damage from freezing temperatures. Freeze guard will be active as long as there is power supplied to the unit. Unit shall have the ability to disable Freeze guard, if needed.

Unit shall have the option to display temperature in °F or °C.

Unit will have memory; in case power is lost, unit will return to all previous settings.

Unit will have a random compressor restart after a power outage, to prevent power surges due to many units turning on at the same time.

Room temperature sensing shall use a Solid state thermostat control.



- J. Front Panel (supplied with chassis):** Front panel shall be constructed of a polymer material to resist breakage and corrosion. It shall have a front louvered surface with integrated control door and air filters. The air filters shall be easily accessible without removing the front panel from the chassis.
- K. Air Filters:** The chassis shall contain air filters, with a minimum of 40% arrestance per ASHRAE Standard 52.1. Two easily accessible front access supply air filters, shall be interchangeable, washable and permanent type. The vent filter shall be a one-piece, removable and washable type filter.
- L. Bi-Directional Discharge Grille:** Bi-directional polymer discharge grille shall resist corrosion and breakage. It shall be easily set to direct air at 40 degrees from horizontal or 80 degrees from horizontal. This non-metallic discharge grille shall be cool to the touch during the heating cycle.
- M. Ventilation:** The chassis shall have a manual adjustable fresh air vent with a concealed manual control. The vent control shall allow a maximum of up to 65 CFM of fresh air to be drawn into the room when the indoor fan is operating and the door is open.
- N. High Efficiency Condensate Removal System:** The chassis shall have a condensate removal system consisting of a slinger ring integrated in the outdoor fan, to disperse condensate onto the condenser coil to be evaporated.
- O. Accessories:**
1. **Hardwire kit** (PN: HARDWIRE-KIT-xxA) shall be required if an accessory power cord is not used. The hardwire kit provides a permanent connection to the unit and shall have 36" (914 mm) of flexible steel conduit and a plug-in connector for easy connect/disconnect.
  2. **Insulated Polymer Wall Sleeve** (PN: SLEEVE-INSUL-1PK) shall be made from a molded polymer, with factory installed insulation and a minimum flammability rating of UL94-5V. The sleeve surface shall be textured to prevent shine and hide scratches.
  3. **Deep Wall Metal Wall Sleeve** (up to 28" / 711.2 mm.) (PN: SLEEVE-EXTxx-1PK) shall be a one-piece, extended wall sleeve, with factory installed insulation and deep wall baffles integrated.
  4. **Sleeve Molding** (PN: SLEEVE-MOLDING) shall trim the wall sleeve to the existing wall to hide wall joints and irregularities due to the sleeve opening.
  5. **Architectural Grille** (PN:GRILLE-PLA-xxxxx or GRILLE-ALU-xxxxx) shall be polymeric for long durable life or painted aluminum for a superior color match to the building.
  6. **Subbase** (PN: PTAC-SUBBASE-A) shall be pre-assembled from the factory and UL listed. Subbase options include:
    - **Non-electrical subbase:** The non-electrical subbase shall be pre-assembled and provides mechanical support and requires no wiring.
    - **Electrical subbase:** The electrical subbase shall have electrical junction box containing a receptacle for corded units.
  7. **Drain kit** (PN: DRAIN-KIT-1PK): This universal drain kit shall be used internally or externally to route excess condensate to a drainage system. It can be field-installed on any wall sleeve. The drain kit shall be attached to the to the exterior right or left side of the wall sleeve for external draining or may be mounted to the bottom of the wall sleeve for internal draining. The drain kit shall include both a straight tube and a 90° bend tube.
  8. **Wall Thermostats**
    - A. **Wireless Wall Thermostat** (PN: TT-N-631W) The wireless digital wall thermostat and receiver module provide maximum temperature control without pulling wires. The non-programmable wall thermostat comes complete with LCD display, backlighting and two speed fan control.
    - B. **Wired Wall Thermostats** (PN: TT-N-411 & PN: TT-N-421) The digital wall thermostat shall have a large LCD display with backlighting, operate with 24VAC, be non-programmable, easy to use and provide maximum guest comfort.

### **3.0 DELIVERY, STORAGE, AND HANDLING**

The packaging of the chassis shall be sufficient to protect the chassis from damage during shipment via an enclosed truck. Chassis must also be able to withstand an impact force of 8 g's and a random continuous force of 1g, during shipping.

Chassis, wall sleeves, and grilles shall be shipped in separate cartons. Universal handling instructions shall be defined and visible on the carton, from front, back and sides.

Chassis shall be capable of withstanding temperatures from -40°F to 155°F (-40°C to 68.3°C), at 5 to 95 percent RH, non-condensing, during shipment and storage, without component failure.





