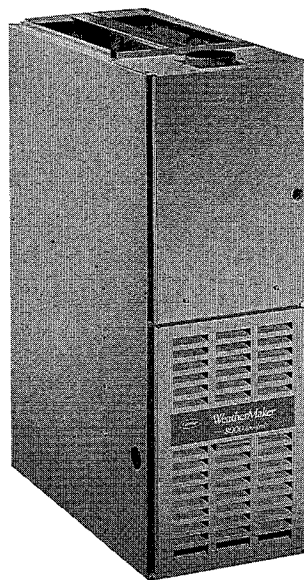




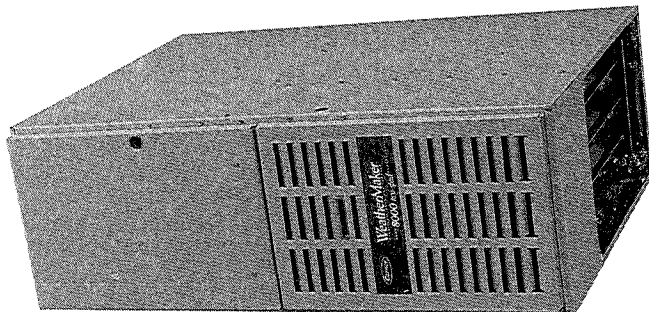
## Product Data

# 58TMA Weathermaker® 8000 Two-Speed Deluxe Mid-Efficiency Downflow/Horizontal Gas Furnace

Heating Inputs:  
84,000 Btuh



DOWNFLOW



HORIZONTAL

### Two-Speed Heating for Mid-Efficiency Gas Furnaces

Carrier continues to lead the industry with our new Weathermaker® 8000 Two-Speed Induced-Combustion Gas Furnace. Our furnace operates at 2 different speeds which provide outstanding home comfort. This furnace is built with the most advanced manufacturing equipment, processes, and technology available in order to ensure top quality. Packed into the cabinet are the industry's foremost dealer and homeowner features. The 58TMA Downflow/Horizontal Furnace is the latest addition to Carrier's list of product leadership in the gas furnace industry.

These 2-speed induced-combustion, gas-fired furnaces offer not only low installation costs, but fuel economy as well — delivering an Annual Fuel Utilization Efficiency (AFUE) rating of 80.0%. The Carrier Weathermaker® 8000 Two-Speed utilizes a hot surface, silicon carbide ignition system to save energy and increase reliability.

Our engineers have incorporated the patented S-shaped 4-pass heat exchanger, a soft mount 2-speed inducer assembly, and a 2 stage slow opening gas valve to minimize sound level. The Super-S heat exchanger provides better heat transfer while enabling us to make a compact furnace, providing more room in closet, utility room, and short basement installations. The heat exchanger is constructed of aluminized steel and is backed by a 20-year Limited Warranty.

The Carrier Weathermaker® 8000 Two-Speed Gas Furnace will meet

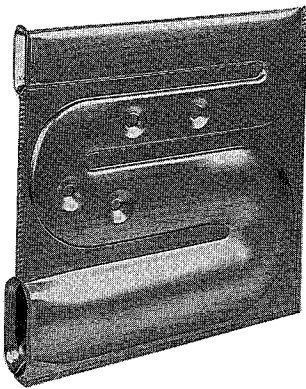
your home heating requirements. This furnace family provides the widest range of heating capacities available.

The superior attention to cabinet detail is obvious. The Carrier Weathermaker® 8000 Two-Speed features 1-piece, seamless, wrap-around construction. There are no spot welds on the exterior surfaces of the furnace. There is also double protection for the cabinet. First, a galvanized steel substrate provides resistance to rusting; then the cabinet is constructed of prepainted steel — the same high-quality finish found on refrigerators and dishwashers.

Perhaps the most advanced feature of the Carrier Weathermaker® 8000 Two-Speed is the state-of-the-art microprocessor control center which shows true leadership in furnace

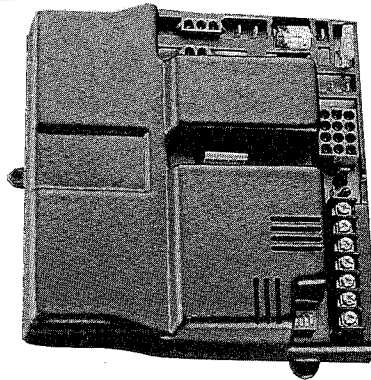
technology. The simplified electronics in this control provide high reliability while performing many of the functions of older, electro-mechanical devices in other furnaces. The control provides blower delay at start up and shut down, while monitoring furnace operations and functions. In the unlikely event of a service call, in less than a minute the technician can use the components-test feature to determine if a major component has failed. The control will check itself, then the low and high inducer, silicon carbide ignition, low-, medium- and high-speed blower, and the humidifier connections. Another benefit of the control is the 3-amp fuse that protects the transformer and control. Our control is backed by a 3-year Limited Warranty.

Best of all, the Carrier Weathermaker® 8000 Two-Speed is easily installed. Many features make this furnace the easy choice for replacement or new construction markets. Left and right connections are provided for gas and electrical supplies. An easy-to-remove bottom, blower speed selector, cased or uncased cooling coils, low-voltage, humidifier, and electronic air cleaner terminal connections are among other features. This furnace is designed for multipositioned downflow, right horizontal, or left horizontal applications. For added installation flexibility, these furnaces can be vented Category I (vertical) or, with a minor field modification kit, Category III (horizontal) using high temperature plastic pipe.



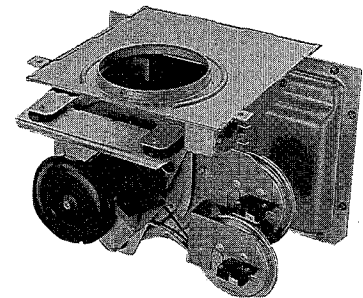
A89217

HEAT EXCHANGER



A93150

2-SPEED FURNACE CONTROL



A93149

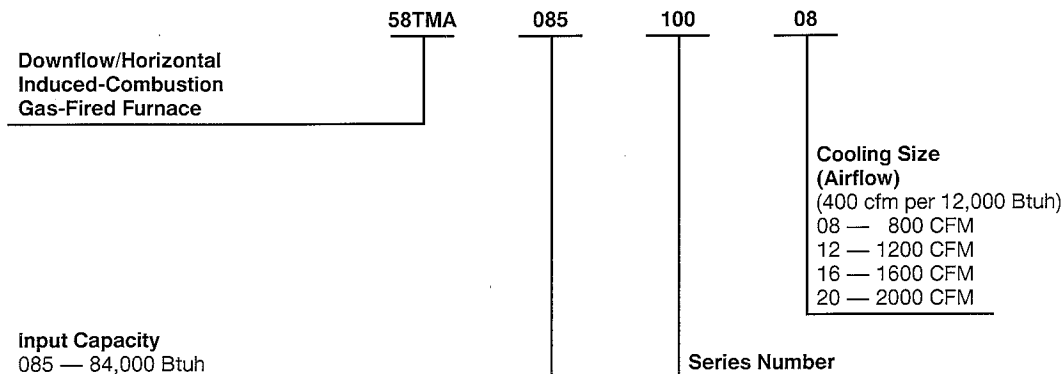
2-SPEED  
INDUCER BLOWER



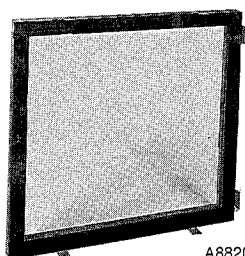
MEETS DOE RESIDENTIAL CONSERVATION SERVICES PROGRAM STANDARDS.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

## Model number nomenclature



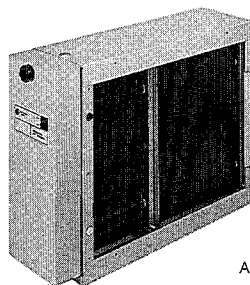
# Carrier accessories\*



A88202

## DOWNFLOW SUBBASE

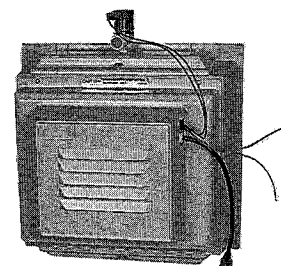
One base fits all furnace sizes. The base is designed to be installed between the furnace or coil box and a combustible floor. It is A.G.A. design certified for use with Carrier 58TMA furnaces.



A89239

## MODEL 31KAX ELECTRONIC AIR CLEANER

Cleans the air of smoke, dirt, and many pollens commonly found. Saves decorating and cleaning expenses.



A89459

## MODEL 49FH HUMIDIFIER

By adding moisture to winter-dry air, a Carrier humidifier can often improve the comfort and keep furniture, rugs and draperies in better condition. Moisturizing household air also helps to retain normal body heat and provides comfort at lower temperatures.

| UNIT SIZE                                  | 085-12 and 16          |
|--------------------------------------------|------------------------|
| ELECTRONIC AIR CLEANER                     | Model 31KAX            |
| HUMIDIFIER                                 | Model 49FH             |
| THERMOSTAT (1- or 2-stage)                 | See Master Price Pages |
| DOWNFLOW SUBBASE                           | KGASB0201ALL           |
| DUCT FLANGE KIT                            | KGARF0110ALL           |
| HIGH ALTITUDE PRESSURE SWITCH KIT†         | KGAHA5601PSW           |
| CATEGORY III VENT CONVERSION KIT           | KGASW01012SP           |
| GAS CONVERSION KIT —<br>NATURAL-TO-PROPANE | KGANP24012SP           |
| PROPANE-TO-NATURAL                         | KGAPN20012SP           |

\*Factory authorized and field installed. Gas conversion kits are A.G.A. recognized.

†5500 ft and above for Category I or 4000 ft and above for Category III vents.

## Physical data

| UNIT SIZE                          |                     | 085-12                     | 085-16        |
|------------------------------------|---------------------|----------------------------|---------------|
| OUTPUT CAPACITY† High/Low          | Nonweatherized ICS‡ | 67,000/43,000              | 67,000/43,000 |
| INPUT BTUH*                        | High/Low            | 84,000/54,000              | 84,000/54,000 |
| SHIPPING WEIGHT (lb)               |                     | 154                        | 154           |
| CERTIFIED TEMP RISE RANGE (°F)     | High Fire           | 40 — 70                    | 30 — 60       |
|                                    | Low Fire            | 25 — 55                    | 15 — 45       |
| CERTIFIED EXT STATIC PRESSURE      | Heating             | 0.15                       | 0.15          |
|                                    | Cooling             | 0.50                       | 0.50          |
| AIRFLOW CFM                        | Heating High/Low    | 1165/965                   | 1355/1170     |
|                                    | Cooling             | 1395                       | 1580          |
| SECONDARY LIMIT CONTROL            |                     | Manual Reset               |               |
| LIMIT CONTROL                      |                     | SPST                       |               |
| HEATING BLOWER CONTROL             |                     | Solid-State Time Operation |               |
| BURNERS (Monoport)                 |                     | 4                          |               |
| GAS CONNECTION SIZE                |                     | 1/2-in. NPT                |               |
| GAS VALVE (Redundant) Manufacturer |                     | White-Rodgers              |               |
| Minimum Inlet Pressure (in. wc)    |                     | 4.5 (Natural Gas)          |               |
| Maximum Inlet Pressure (in. wc)    |                     | 13.6                       |               |
| MAIN BURNER IGNITER                |                     | Hot Surface                |               |

\* Gas input ratings are certified for elevations to 2000 ft. For elevations above 2000 ft, reduce ratings 4% for each 1000 ft above sea level.

† Tentative capacity in accordance with U.S. Government DOE test procedures.

‡ ICS — Isolated Combustion System



# Dimensions

## CLEARANCES (In.)

| DOWNFLOW (Alcove or Closet)   |  | 085 |
|-------------------------------|--|-----|
| Sides — Single-Wall Vent      |  | 0   |
| Type B-1 Double-Wall Vent     |  | 0   |
| Special Gas Vents* — Diameter |  | 3   |
| Clearance                     |  | 0   |
| Back                          |  | 0   |
| Top                           |  | 1   |
| Front† — Single-Wall          |  | 6   |
| Type B-1 Double-Wall Vent     |  | 3   |
| Special Gas Vents* — Diameter |  | 3   |
| Clearance                     |  | 5   |
| Vent — Single-Wall            |  | 6   |
| Type B-Double-Wall            |  | 1   |
| Special Gas Vents* — Diameter |  | 3   |
| Clearance                     |  | 5   |

\*Listed for Category III appliances per UL1738 (high temperature plastic pipe).

†Minimum 18-in. clearance is required for alcove applications.

### NOTES:

1. Provide 30-in. front clearance for servicing. An open door in front of the furnace can meet this requirement.
2. A minimum clearance of 3 in. must be provided in front of the furnace for combustion air and proper operation.

| HORIZONTAL (In Alcove, Attic, or Crawlspace) |  | 085 |
|----------------------------------------------|--|-----|
| Sides*                                       |  | 1   |
| Back                                         |  | 0   |
| Top — Single-Wall Vent                       |  | 1   |
| Type B-1 Double-Wall Vent                    |  | 1   |
| Special Gas Vents† — Diameter                |  | 3   |
| Clearance                                    |  | 1   |
| Front‡ — Single-Wall Vent                    |  | 6   |
| Type B-1 Double-Wall Vent                    |  | 3   |
| Special Gas Vents† — Diameter                |  | 3   |
| Clearance                                    |  | 5   |
| Vent — Single-Wall                           |  | 6   |
| Type B-1 Double-Wall                         |  | 1   |
| Special Gas Vents† — Diameter                |  | 3   |
| Clearance                                    |  | 5   |

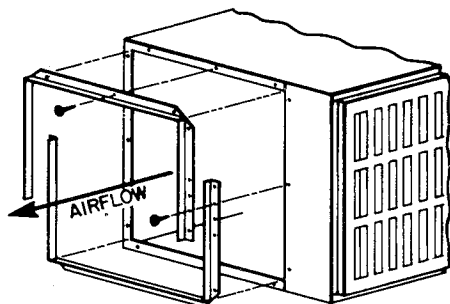
| HORIZONTAL (In Closet)        |  |   |
|-------------------------------|--|---|
| Sides*                        |  | 1 |
| Back                          |  | 3 |
| Top — Single-Wall Vent        |  | 2 |
| Type B-1 Double-Wall Vent     |  | 2 |
| Special Gas Vents† — Diameter |  | 3 |
| Clearance                     |  | 2 |
| Front — Single-Wall Vent      |  | 6 |
| Type B-1 Double-Wall Vent     |  | 3 |
| Special Gas Vents† — Diameter |  | 3 |
| Clearance                     |  | 5 |
| Vent — Single-Wall            |  | 6 |
| Type B-1 Double-Wall          |  | 1 |
| Special Gas Vents† — Diameter |  | 3 |
| Clearance                     |  | 5 |

\*Indicates supply or return sides when furnace is in the horizontal position. Clearance shown is for the outlet end. The inlet end must maintain 6-in. clearance from vent pipe to combustible material when using single-wall vent.

†Listed for Category III appliances per UL1738 (high temperature plastic pipe).

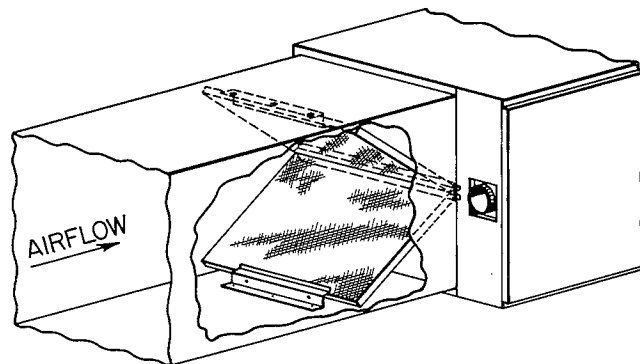
‡Minimum 18-in. clearance required for alcove applications.

## DUCT FLANGES and FILTER ARRANGEMENT



Duct Flanges  
(Accessory)

A82172



Filter Retainers  
(Field Supplied)

A82173

## Performance data

| UNIT SIZE                           | 085-12          | 085-16 |
|-------------------------------------|-----------------|--------|
| DIRECT-DRIVE MOTOR<br>HP (PSC)      | 1/3             | 1/2    |
| MOTOR FULL LOAD AMPS                | 5.8             | 7.9    |
| RPM (Nominal)—SPEEDS                | 1075—4          | 1075—4 |
| BLOWER WHEEL DIAMETER x WIDTH (in.) | 10 x 7          | 10 x 8 |
| FILTER SIZE (in.)—(WASHABLE)        | (2) 14 x 20 x 1 |        |

PSC — Permanent Split Capacitor

## ENERGY EFFICIENCY

| UNIT SIZE                                     | 085-12        | 085-16        |
|-----------------------------------------------|---------------|---------------|
| CAPACITY BTUH* (Low/High) Nonweatherized ICS† | 43,000/67,000 | 43,000/67,000 |
| AFUE %* Nonweatherized ICS†                   | 80.0          | 80.0          |

\* Tentative capacity and AFUE in accordance with U.S. Government DOE test procedures.

† ICS — Isolated Combustion System

## AIR DELIVERY (CFM)

| FURNACE<br>SIZE | SPEED    | EXTERNAL STATIC PRESSURE (in. wc) |      |      |      |      |      |      |      |
|-----------------|----------|-----------------------------------|------|------|------|------|------|------|------|
|                 |          | 0.1                               | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  |
| 085-12          | High     | —                                 | 1575 | 1515 | 1455 | 1395 | 1325 | 1230 | 1120 |
|                 | Med-High | —                                 | 1380 | 1340 | 1285 | 1230 | 1165 | 1095 | 1005 |
|                 | Med-Low  | 1165                              | 1145 | 1130 | 1090 | 1055 | 1005 | 940  | 870  |
|                 | Low      | 965                               | 955  | 940  | 910  | 885  | 840  | 785  | 705  |
| 085-16          | High     | 1855                              | 1765 | 1710 | 1665 | 1580 | 1570 | 1410 | 1310 |
|                 | Med-High | 1595                              | 1570 | 1530 | 1485 | 1410 | 1355 | 1280 | 1200 |
|                 | Med-Low  | 1355                              | 1345 | 1305 | 1270 | 1220 | 1170 | 1110 | 1025 |
|                 | Low      | 1170                              | 1170 | 1140 | 1110 | 1075 | 1025 | 965  | 890  |

— Indicates unstable operating conditions.

## Electrical data

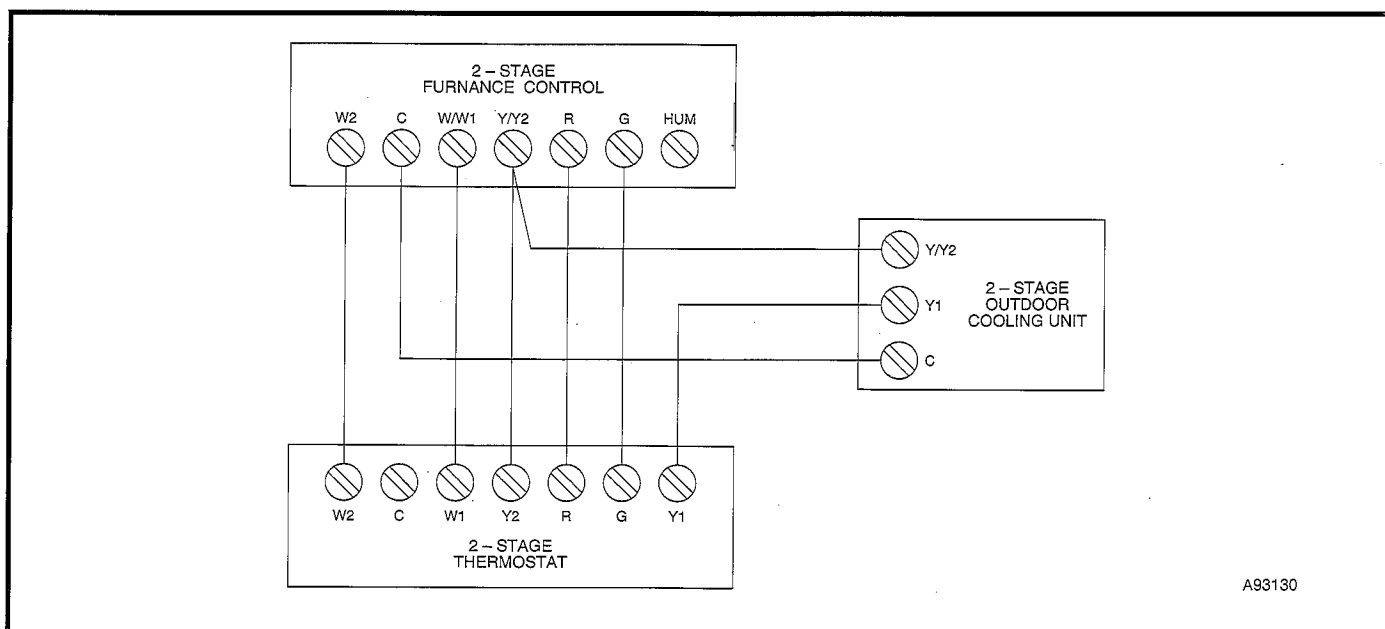
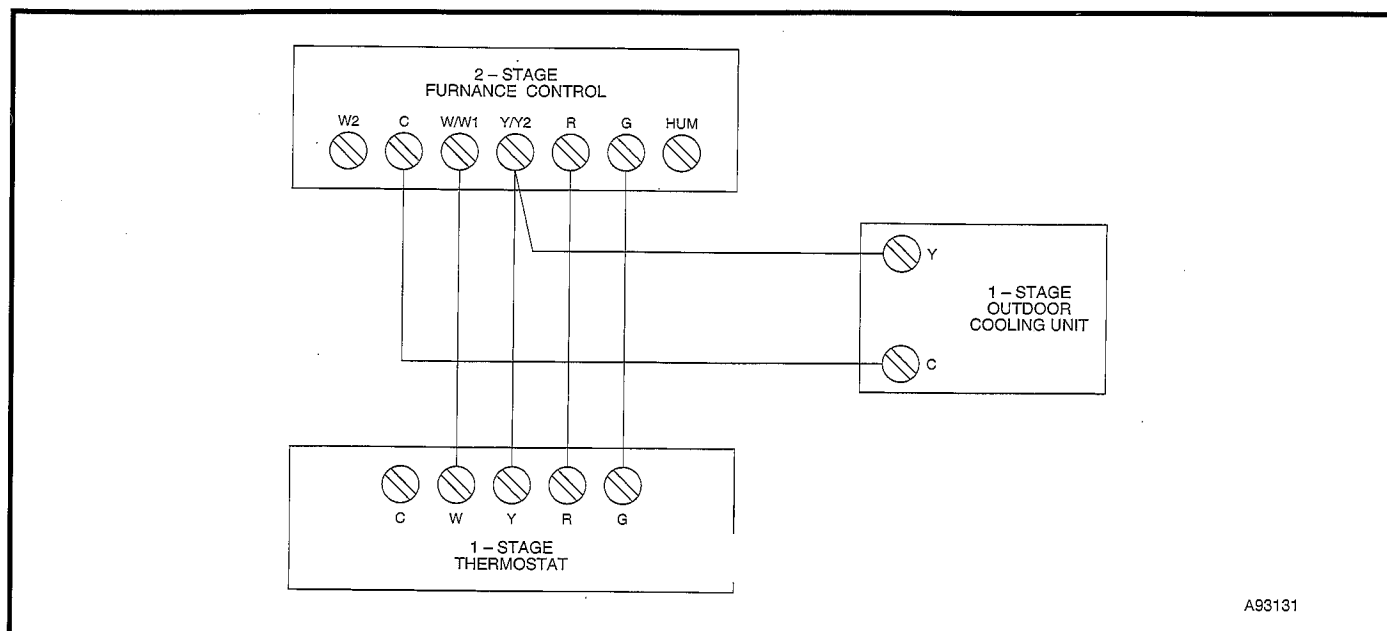
| UNIT SIZE                                      | 085-12   | 085-16 |
|------------------------------------------------|----------|--------|
| UNIT VOLTS—HERTZ—PHASE                         | 115—60—1 |        |
| MINIMUM WIRE SIZE                              | 14       | 14     |
| MAXIMUM WIRE LENGTH* (Ft)                      | 30       | 27     |
| MAXIMUM UNIT AMPS                              | 9.4      | 10.4   |
| OPERATING VOLTAGE RANGE† (Min—Max)             | 104—127  |        |
| MAXIMUM FUSE SIZE OR HACR-TYPE CKT BRK‡ (Amps) | 15       | 15     |
| TRANSFORMER (24v)                              | 40VA     |        |
| EXTERNAL CONTROL POWER AVAILABLE               | Heating  | 19VA   |
|                                                | Cooling  | 35VA   |
| AIR CONDITIONING BLOWER RELAY                  | Standard |        |

\* Length shown is as measured 1 way along wire path between unit and service panel for maximum 2% voltage drop.

† Permissible limits of the voltage range at which the unit will operate satisfactorily.

‡ Time-delay fuse is recommended.

# Typical wiring schematic



# Typical installation

