

STEFFES COMFORT PLUS FEATURES

1. NORTH AMERICAN MADE:

Steffes, located in Dickinson, ND, is the only North American manufacturer of a family of Electric Thermal Storage (ETS) heating products, i.e., Room Units, Centrally Ducted Systems, Heat Pump Boosters, Hydronic Systems and Load Management Controls.

2. VERSATILITY:

The versatility of the Comfort Plus systems allows them to fit almost any application. They are designed for use as either the sole heating source (“stand alone” furnace) or as a supplement to ducted heating systems such as heat pumps. The Comfort Plus units can accommodate standard auxiliary devices such as an air conditioner, electronic air filter, central humidifying system, etc.

3. HEAT PUMP APPLICATIONS:

In heat pump applications, the Comfort Plus allows the heat pump’s efficiency to be fully utilized while eliminating the cool discharge air temperatures that are often associated with a heat pump. The Comfort Plus unit can interface with almost any heat pump system.

4. MULTI-FUNCTION MICROPROCESSOR:

- ◆ The microprocessor technology incorporated into the Comfort Plus units allows for customization to individual power company and end-user immediate needs as well as the possible adaptation to their future needs.
- ◆ Allows for diagnostic testing of such things as brick core temperature, room temperature, outdoor temperature, and power line carrier operation from the digital display panel.
- ◆ Built-in security lock out allows the power company to limit access to the units functions and programming.
- ◆ User selectable control panel digital display options provide information to indicate unit operation.

5. AUTOMATIC CORE CHARGING:

The amount of heat stored in the brick core is automatically regulated based on outdoor temperature and/or the heating requirements of the application from previous hours. The charging parameters can be set to the user's specific comfort needs.

6. CHARGE CONTROL OVERRIDE:

Allows the user to manually initiate a full core charge level during an off-peak time regardless of any other charge control settings. An override only lasts for the duration of the current off-peak (charge) period or until the unit achieves its full (maximum) charge at which time it will then automatically reset, or it can be cancelled manually.

7. SELECTABLE DISCHARGE AIR TEMPERATURE:

Allows for minimum and maximum discharge air temperatures to be selected.

8. CHARGE DELAY (SOFT START):

Allows the heating elements to be staged on at the end of an on-peak control period or power interruption to minimize voltage fluctuation.

9. DEMAND BASED INPUT (kW) LOADING:

Minimum number of heating elements are energized during off-peak hours to achieve core charging requirements based on outdoor temperature and/or heating requirements of the home. This minimizes transformer overloading and reduces shoulder peaking situations at the start of off-peak periods.

10. POWER LINE CARRIER COMMUNICATION (15-CHANNEL CAPABILITY):

A built-in Power Line Carrier Receiver allows for quick, wireless reception of information such as the on-peak and/or off-peak control signal, outdoor temperature information and room temperature set back, from the optional Steffes Power Line Carrier Transmitting device (transceiver) on one of 15 selectable frequency channels. (This can reduce the overall installation and equipment costs.)

11. VARIABLE-SPEED CORE DISCHARGE BLOWER:

Blower(s) automatically adjust to the speed needed to ensure constant comfort and optimum performance.

12. VARIOUS SIZES:

- ◆ Several sizes in different element wattage choices are available to meet various heating requirements. In standard configuration, Comfort Plus units can be connected to 208V or 240V. Units specifically rated for 277V are also available as special factory orders.
- ◆ All heating elements are incoloy sheathed, low watt density for long life.

13. COMFORT OVERRIDE (POWER COMPANY PERMITTING):

If enabled, this feature allows for the automatic override of an on-peak control signal if the brick core storage is depleted during the on-peak period and the room temperature falls a predetermined number of degrees below the set point. (This feature works well in time-of-use applications and can be enabled or disabled at the power company's discretion.)

14. FREEZE PROTECTION (POWER COMPANY PERMITTING):

With the addition of the optional freeze protection temperature sensor; this feature will maintain a minimum temperature in the home. It allows the heating elements to come on during a peak control period and deliver heat only if the room temperature falls below a predetermined set point. (This feature works well in time-of-use applications and can be enabled or disabled at the power company's discretion.)

15. EASY TROUBLESHOOTING:

- ◆ On-board self-diagnostics with many codes for detecting operational errors.
- ◆ Computer (Windows 95 and 98 software) and Palm Pilot interfacing ability for monitoring unit operation, troubleshooting the system, and programming heaters to specific user/application settings.

16. CONSTRUCTION FEATURES:

- ◆ Outside cabinet is manufactured with powder painted, heavy-duty steel.
- ◆ By using insulation that contains no organic binders, start-up odors are minimized. The insulation retains its integrity for years to come.
- ◆ Super insulated to ensure low surface temperature and to minimize static heating of the area.
- ◆ Built-in circuit breakers eliminate the need for a service disconnect.
- ◆ Built-in auxiliary load control system for devices such as an air conditioner, water heater, etc.
- ◆ Dual zone electronic core temperature ensures maximum efficiency and long element life.
- ◆ Double wall cabinet design reduces static heat transfer into the area where the unit is located.

17. QUALITY CONTROL AND DIELECTRIC TESTING:

To ensure each Comfort Plus unit meets high quality and performance standards; all units are tested prior to packaging and shipping. All full production Comfort Plus units are UL and cUL safety listed.

18. QUALITY PACKAGING:

Each heater is packaged in a box, protected with styrofoam, and secured to its own custom designed wooden pallet to help ensure the product arrives damage free.

19. OPTIONAL CONTROLS AND ACCESSORIES:

Power line carrier transmitter and receiver devices (transceivers), relay panels, time clock module for peak control signaling purposes, low voltage wall thermostats, freeze protection thermostats, and remote communication devices.

19. FACTORY SUPPORT:

A toll free telephone number **1-888-STEFFFES (783-3337)**, training, promotional literature, technical assistance, and sizing support is offered. Replacement parts are readily available for quick and prompt shipment. A newsletter is published 3-4 times per year with ETS news, technology updates, and service issues.

20. RESEARCH:

Steffes has their own ETS Research & Development experts who lead the industry in developing innovative, reliable, and quality products.

21. WARRANTY:

Five-year limited parts warranty, from date of installation, on all heater components. A product registration card and owner's manual is supplied with each heater.