

Title (en)

Method and apparatus for integrating operation of a heat pump and a separate heating source and preventing simultaneous operation of a heat pump and a separate heating source.

Title (de)

Verfahren und Gerät zum kombinierten Betrieb einer Wärmepumpe und einer separaten Wärmequelle und zur Verhinderung des gleichzeitigen Gebrauchs einer Wärmepumpe und einer separaten Wärmequelle.

Title (fr)

Méthode et appareil combinant le fonctionnement d'une pompe à chaleur et d'une source de chaleur séparée et évitant le fonctionnement simultané d'une pompe à chaleur et d'une source de chaleur séparée.

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Application

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- US 39457882 A 19820702

Abstract (en)

A method and apparatus for preventing simultaneous operation of a heat pump and a separate heating source are disclosed. A thermal sensing element is mounted to the compressor discharge line adjacent the indoor coil of the heat pump when the heat pump is in the heating mode of operation to sense the refrigerant discharge temperature. Based upon the temperature sensed, simultaneous operation of the furnace and the heat pump may be prevented such that the heat pump is not cycled on a compressor overload designed to avoid compressor operation under abusive conditions. Additionally, by the selection of the location of the high temperature sensor, the sensor is not responsive to operation of the heat pump in the cooling mode since the operating temperatures in cooling are significantly below the setpoint to prevent simultaneous operation during heating. The combination of a heating lockout relay and an interlock relay are utilized to provide for fail safe integrated operation including providing for selected control functions and for isolating other functions to prevent a failed electrical component from operating the system in an undesirable manner.

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