

Title (en)

METHOD AND APPARATUS FOR CONTROLLING OPERATION OF A THERMOSTATIC EXPANSION VALVE.

Title (de)

VERFAHREN UND VORRICHTUNG ZUR STEUERUNG DES BETRIEBS EINES THERMOSTATISCHEN AUSDEHNUNGSVENTILS.

Title (fr)

PROCEDE ET APPAREIL DE COMMANDE DU FONCTIONNEMENT D'UNE SOUPAPE D'EXPANSION THERMOSTATIQUE.

Publication

EP 0079331 A1 19830525 (EN)

Application

EP 81901773 A 19810520

Priority

US 8100682 W 19810520

Abstract (en)

[origin: WO8204142A1] Method and apparatus for improving the superheat control of a thermostatic expansion valve metering refrigerant into a refrigeration system evaporator coil is disclosed in one exemplar embodiment having a superheat setting means (48) for establishing a required superheat, superheat determination means for measuring the superheat of the valve across the evaporator coil (32 and 34), differential means for comparing the measured superheat with the established superheat (56 or 66), and heating means (40) cooperating with the differential means for applying heat to the fluid-charged bulb of the valve when the measured superheat exceeds the established superheat. A heating control means (38) may also be included to control the heating means for increasing the rate of heating by the heating means when the measured superheat exceeds the required superheat, and for decreasing the rate of heating by the heating means when the required superheat exceeds the measured superheat.

Abstract (fr)

Procede et appareil d'amelioration de la commande de surchauffe d'une soupape d'expansion thermostatique de mesure d'un refrigerant dans un serpentin d'evaporation d'un systeme de refrigeration, decrits dans un mode de realisation ayant des moyens de reglage de surchauffe (48) pour etablir une surchauffe requise, des moyens de determination de la surchauffe pour mesurer la surchauffe de la soupape sur le serpentin d'evaporation (32 et 34), des moyens differentiels pour comparer la surchauffe mesuree a la surchauffe etablie (56 ou 66), et des moyens de chauffage (40) cooperant avec les moyens differentiels pour appliquer de la chaleur aux bulbes charges de fluide de la soupape lorsque la surchauffe mesuree depasse la surchauffe etablie. Un moyen de commande de chauffage (38) peut egalement etre inclus pour commander les moyens de chauffage et augmenter la vitesse de chauffage a l'aide des moyens de chauffage lorsque la surchauffe mesuree depasse la surchauffe requise, et diminuer la vitesse de chauffage a l'aide des moyens de chauffage lorsque la surchauffe requise depasse la surchauffe mesuree.

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