Title (en)

METHOD FOR OPERATING A REFRIGERATION SYSTEM WITH A HEAT PUMP FUNCTION AND A REGENERATION FUNCTION FOR HEAT SOURCES, REFRIGERATION SYSTEM, AND MOTOR VEHICLE COMPRISING SUCH A REFRIGERATION SYSTEM

Title (de)

VERFAHREN ZUM BETREIBEN EINER KÄLTEANLAGE MIT WÄRMEPUMPENFUNKTION UND REGENERATIONSFUNKTION FÜR WÄRMEQUELLEN, KÄLTEANLAGE UND KRAFTFAHRZEUG MIT EINER SOLCHEN KÄLTEANLAGE

Title (fr)

PROCÉDÉ DE FONCTIONNEMENT D'UN SYSTÈME DE RÉFRIGÉRATION À FONCTION DE POMPE À CHALEUR ET FONCTION DE RÉGÉNÉRATION POUR SOURCES DE CHALEUR, SYSTÈME DE RÉFRIGÉRATION ET VÉHICULE À MOTEUR COMPRENANT UN TEL SYSTÈME DE RÉFRIGÉRATION

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Application

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Abstract (en)

[origin: WO2022084322A1] The invention relates to a method (500) for operating a refrigeration system (10) with a heat pump function for a motor vehicle, said refrigeration system (10) comprising: a refrigerant compressor (12) which is connected or can be connected to a primary section (14) and a secondary section (16); an external heat exchanger (18) which operates directly or indirectly and which is arranged in the primary section (14); a compressor (22) which is arranged in the primary section (14); at least one additional heat exchanger, in particular a heat register (26), which constitutes a heat source and is arranged in the secondary section (16); a primary section valve (A4) which is arranged between the refrigerant compressor (12) and the external heat exchanger (18); a secondary section valve (A3) which is arranged between the refrigerant compressor (12) and the additional heat exchanger that constitutes a heat source; and a third heat exchanger (28), in particular a chiller, which functions as a water heat pump and operates directly or indirectly. The method (500) has the following steps: setting (S502) a heat pump operation in which the refrigerant is conducted from the refrigerant compressor (12) into the secondary section (16); adjusting (S503) an expansion valve (AE1) which is paired with the third heat exchanger (28) such that the total mass flow of refrigerant flows through the third heat exchanger (28); and detecting (S504) the temperature (Tkw) of the refrigerant in the third heat exchanger (28), wherein the total mass flow of refrigerant is conducted through the third heat exchanger (28) if the temperature (Tkw) of the refrigerant is higher than an upper threshold temperature (Tgo).

IPC 8 full level

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