

Title (en)

SYSTEM FOR DISTRIBUTING REFRIGERANT TO A HEAT EXCHANGER AND METHOD FOR OPERATION THEREOF

Title (de)

KÄLTEMITTELVERTEILSYSTEM FÜR EINEN WÄRMETAUSCHER UND BETRIEBSVERFAHREN DESSELBEN

Title (fr)

SYSTÈME DE DISTRIBUTION DE RÉFRIGÉRANT À UN ÉCHANGEUR DE CHALEUR ET MÉTHODE DE FONCTIONNEMENT DE CELUI-CI

Publication

EP 4269909 A1 20231101 (EN)

Application

EP 23169935 A 20230425

Priority

- PL 44102022 A 20220426
- PL 44455223 A 20230424

Abstract (en)

A system (1) for supplying cooling medium to a heat exchanger (10) of a heat machine (5) with j-th sections (11, 12, 13, 14) of the heat exchanger (10) and additionally comprising a compressor (4), a condenser (7) and flow lines connecting the j-th sections (11, 12, 13, 14) of the heat exchanger (10) with mentioned units as well as a power supply and control system (2), the system (1) further comprises a set (40) of controlled input shut-off or throttling or expansion valves (41, 42, 43, 44), one of each in the assigned supply flow line (21, 22, 23, 24) of the j-th section (11, 12, 13, 14) of the heat exchanger (10) or a set of controlled output cut-off valves (46, 47, 48, 49), whereas the power and control system (2) has a control system (50) with a controller (70) communicating with the controlled input shut-off valves or throttling or expansion valves (41, 42, 43, 44) and a set (80) of units (81, 82, 83, 84) determining the ratio of evaporation of the cooling medium as well as a set (30) of temperature sensors (31, 32, 33, 34), one of each located nearby an output of the assigned outflowing flow line (26, 27, 28, 29) of the j-th section (11, 12, 13, 14) communicating with the controller (70) and receiving distribution of temperature difference at the output of the outflowing flow lines (26, 27, 28, 29) of the j-th sections (11, 12, 13, 14) of the cooling medium for the purpose of controlling the controlled input shut-off valves (41, 42, 43, 44).

IPC 8 full level

F25B 41/385 (2021.01); **F25B 49/02** (2006.01)

CPC (source: EP)

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Citation (search report)

- [XYI] JP H07229655 A 19950829 - SANYO ELECTRIC CO
- [XYI] JP H04208363 A 19920730 - MATSUSHITA SEIKO KK
- [Y] EP 3660494 A1 20200603 - DANFOSS AS [DK]
- [XYI] DK 201970446 A1 20200213 - HB PRODUCTS AS [DK]

Designated contracting state (EPC)

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