

Title (en)

LOW GWP CASCADE REFRIGERATION SYSTEM

Title (de)

KASKADENKÄLTEANLAGE MIT GERINGEM ERDERWÄRMUNGSPOTENZIAL

Title (fr)

SYSTÈME FRIGORIFIQUE EN CASCADE À FAIBLE PRG

Publication

EP 3433547 A4 20191002 (EN)

Application

EP 17771233 A 20170324

Priority

- US 201662313177 P 20160325
- US 2017024010 W 20170324

Abstract (en)

[origin: CN108779940A] Disclosed are cascade refrigerant systems for providing cooling of air located in an enclosure that is occupied by or which will be exposed to humans or other animals during normal use, wherein systems includes; (1) a first, relatively low temperature heat transfer circuit having a first evaporator located within the enclosure and a first heat transfer fluid in the low temperature heat transfer circuit; (2) a second heat transfer circuit located substantially outside the enclosure comprising a second heat transfer fluid; (3) a heat exchanger which serves as the condenser in the low temperature circuit thermally coupled with the high temperature circuit by virtue of rejecting heat into the second heat transfer fluid; and (4) in the high temperature loop of a heat exchanger which transfers heat from the second heat transfer fluid exiting from a high temperature condenser to the portion of the second heat transfer fluid which is traveling to the suction side of the compressor.

IPC 8 full level

F25B 7/00 (2006.01); **F25B 9/00** (2006.01)

CPC (source: CN EP US)

C09K 5/045 (2013.01 - CN); **F25B 7/00** (2013.01 - CN EP); **F25B 9/006** (2013.01 - CN); **F25B 9/008** (2013.01 - CN EP US); **F25B 9/10** (2013.01 - US); **F25B 40/00** (2013.01 - EP); **F25B 2400/121** (2013.01 - EP US)

Citation (search report)

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- [Y] JP 5717584 B2 20150513
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Designated contracting state (EPC)

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CN 108779940 A 20181109; CN 114526561 A 20220524; EP 3433547 A1 20190130; EP 3433547 A4 20191002

DOCDB simple family (application)

CN 201780019272 A 20170324; CN 202111609565 A 20170324; EP 17771233 A 20170324