

Title (en)
COOLING SYSTEM AND HEATING SYSTEM

Title (de)
KÄLTEANLAGE UND HEIZSYSTEM

Title (fr)
SYSTÈME DE REFROIDISSEMENT ET SYSTÈME DE CHAUFFAGE

Publication
EP 2977691 A4 20160608 (EN)

Application
EP 13881452 A 20130930

Priority
CN 2013084749 W 20130930

Abstract (en)
[origin: EP2977691A1] A refrigerating system (100) and a heating system (200) are provided. The refrigerating system (100) includes a low back pressure rotary compressor (1), a four-way valve (2), an outdoor heat exchanger (3), an indoor heat exchanger (4), a throttling element (4) and a control valve assembly (6). A shell of the low back pressure rotary compressor (1) is formed with an upper gas suction pipe (S1), a middle gas suction pipe (S2) and an exhaust pipe (D). The control valve assembly (6) is connected with a gas suction valve port (21), the upper gas suction pipe (S1) and the middle gas suction pipe (S2) via a first pipeline (G), a second pipeline (F) and a third pipeline (E) respectively. When the refrigerating system is in a refrigerating mode, the control valve assembly (6) controls a gas suction flow of the third pipeline (E) to be larger than that of the second pipeline (F); when the refrigerating system is in a heating mode, the control valve assembly (6) controls the gas suction flow of the second pipeline (F) to be larger than that of the third pipeline (E).

IPC 8 full level
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CPC (source: EP US)
F25B 1/04 (2013.01 - EP); **F25B 13/00** (2013.01 - EP); **F25B 31/006** (2013.01 - EP US); **F25B 41/20** (2021.01 - EP US)

Citation (search report)

- [X] WO 2007070060 A1 20070621 - CARRIER CORP [US], et al
- [X] EP 1553365 A2 20050713 - SAMSUNG ELECTRONICS CO LTD [KR]
- [I] US 2013098092 A1 20130425 - WAKAMOTO SHINICHI [JP], et al
- [I] CN 102678572 A 20120919 - ZHUHAI GREE ELEC APPLIANCES
- See references of WO 2015042970A1

Cited by
CN109690209A

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
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