

Title (en)

RECIPROCATING COMPRESSOR OF REFRIGERATING MACHINE

Title (de)

HUBKOLBENVERDICHTER EINER KÜHLMASCHINE

Title (fr)

COMPRESSEUR À PISTON DE MACHINE FRIGORIGÈNE

Publication

EP 2088322 A4 20091230 (EN)

Application

EP 07849947 A 20071130

Priority

- JP 2007073169 W 20071130
- JP 2006325544 A 20061201

Abstract (en)

[origin: EP2088322A1] The present invention provides a reciprocating compressor for a refrigerator capable of restraining an increase in temperature of a refrigerant discharged and increasing refrigerant compression efficiency. The compressor according to the present invention includes a housing (16) having cylinder bores (30), pistons (32) fitted in the respective cylinder bores (30) and each capable of reciprocating motion in the bore (30), an intermediate pressure chamber (68) arranged in the housing (16) and supplied with the refrigerant at a low temperature from a gas-liquid separator (10) of the refrigerator, and a rotary valve (78) arranged between the chambers (33,68). The rotary valve (78) is rotated in association with a main shaft (34) of the compressor and opened to inject the low-temperature refrigerant into each compression chamber (33) from the intermediate pressure chamber (68) while the compression chamber (33) is in a process of compressing the refrigerant.

IPC 8 full level

F04B 39/06 (2006.01); **F04B 27/08** (2006.01); **F04B 39/10** (2006.01); **F16K 3/26** (2006.01)

CPC (source: EP US)

F04B 27/1018 (2013.01 - EP US); **F04B 27/1081** (2013.01 - EP US); **F04B 39/06** (2013.01 - EP US); **F04B 39/062** (2013.01 - EP US);
F25B 1/02 (2013.01 - EP US); **F25B 1/10** (2013.01 - EP US); **F25B 2400/13** (2013.01 - EP US); **F25B 2400/23** (2013.01 - EP US)

Citation (search report)

- [XY] US 5207078 A 19930504 - KIMURA KAZUYA [JP], et al
- [AY] EP 1207300 A2 20020522 - TOYOTA JIDOSHOKKI KK [JP]
- [A] US 2004118149 A1 20040624 - TSUNODA MASATAKA [JP]
- See references of WO 2008066156A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 2088322 A1 20090812; EP 2088322 A4 20091230; CN 101535646 A 20090916; JP 2008138589 A 20080619; JP 5118340 B2 20130116;
US 2010068085 A1 20100318; WO 2008066156 A1 20080605

DOCDB simple family (application)

EP 07849947 A 20071130; CN 200780042432 A 20071130; JP 2006325544 A 20061201; JP 2007073169 W 20071130;
US 51671807 A 20071130