

Title (en)  
REFRIGERANT COMPRESSOR

Title (de)  
KÜHLKOMPRESSOR

Title (fr)  
COMPRESSEUR DE RÉFRIGÉRANT

Publication  
**EP 2064305 B1 20200603 (EN)**

Application  
**EP 08740528 A 20080410**

Priority  
• JP 2008057458 W 20080410  
• JP 2007233780 A 20070910

Abstract (en)  
[origin: WO2009034738A1] A refrigerant compressor includes a hermetic container storing refrigerant oil an electrically-driven element and a compressing element driven by the electrically-driven element. The compressing element includes a cylinder block having a cylindrical compression chamber and a cylindrical piston reciprocating in the compression chamber. The compression chamber and the piston have a diameter difference in the range of not shorter than 4 micrometers to not longer than 15 micrometers. The refrigerant oil has viscosity of 8 mm<sup>2</sup>/s or less at 40 degrees Celsius and is prepared by mixing a first refrigerant oil having viscosity of less than 8 mm<sup>2</sup>/s at 40 degrees Celsius with a second refrigerant oil having viscosity of 20 mm<sup>2</sup>/s or more at 40 degrees Celsius.

IPC 8 full level  
**C10M 171/00** (2006.01); **F04B 39/02** (2006.01)

CPC (source: EP KR US)  
**C10M 171/008** (2013.01 - EP KR US); **F04B 39/0215** (2013.01 - EP KR US); **C10M 2203/06** (2013.01 - EP KR US);  
**C10M 2203/065** (2013.01 - EP KR US); **C10M 2203/10** (2013.01 - EP US); **C10M 2203/1006** (2013.01 - EP US);  
**C10M 2207/28** (2013.01 - EP KR US); **C10M 2207/2805** (2013.01 - EP KR US); **C10N 2020/02** (2013.01 - EP US);  
**C10N 2020/101** (2020.05 - EP US); **C10N 2020/103** (2020.05 - EP US); **C10N 2030/02** (2013.01 - EP US); **C10N 2040/30** (2013.01 - EP US)

Citation (examination)  
• WO 2007029884 A1 20070315 - MATSUSHITA ELECTRIC IND CO LTD [JP], et al  
• H BUKAC ET AL: "Optimum Piston-Bore Fit for Maximum Compressor Efficiency OPTIMUM PISTON-BORE FIT FOR MAXIMUM COMPRESSOR EFFICIENCY", INTERNATIONAL COMPRESSOR ENGINEERING CONFERENCE. PAPER, 1 January 2000 (2000-01-01), XP055310537, Retrieved from the Internet <URL:http://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=2429&context=icec> [retrieved on 20161013]

Designated contracting state (EPC)  
DE IT

DOCDB simple family (publication)  
**WO 2009034738 A1 20090319**; CN 101541935 A 20090923; CN 101541935 B 20120606; EP 2064305 A1 20090603; EP 2064305 B1 20200603; JP 2009540170 A 20091119; JP 4905464 B2 20120328; KR 20090057175 A 20090604; US 2010236282 A1 20100923

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**JP 2008057458 W 20080410**; CN 200880000422 A 20080410; EP 08740528 A 20080410; JP 2008555550 A 20080410; KR 20087032043 A 20081230; US 37472508 A 20080410