

Title (en)
COMPRESSOR, AND REFRIGERATION DEVICE

Title (de)
VERDICHTER UND KÜHLVORRICHTUNG

Title (fr)
COMPRESSEUR ET DISPOSITIF DE RÉFRIGÉRATION

Publication
EP 3971420 A4 20220803 (EN)

Application
EP 20836964 A 20200601

Priority
• JP 2019129494 A 20190711
• JP 2020021574 W 20200601

Abstract (en)
[origin: EP3971420A1] A compressor (1) includes: a compression mechanism (15) housed in a casing (10), a housing (18) that forms a crank chamber (19); and a first oil return passage (31) that guides lubricating oil flowing into the crank chamber (19) downward. The first oil return passage (31) is provided with an oil return guide (32) that contracts a flow of the lubricating oil. An upper portion of the casing (10) constitutes an oil separation space (S2) in which the lubricating oil is separated from a high-pressure refrigerant discharged from the compression mechanism (15). The compressor (1) further includes a second oil return passage (33) that guides the lubricating oil separated in the oil separation space (S2) downward. An outlet of the second oil return passage (33) is disposed near an outlet of the oil return guide (32).

IPC 8 full level
F04C 29/02 (2006.01); **F04B 39/02** (2006.01); **F04C 23/00** (2006.01)

CPC (source: EP US)
F04B 39/02 (2013.01 - EP); **F04B 39/0284** (2013.01 - EP); **F04B 39/121** (2013.01 - EP); **F04B 39/123** (2013.01 - EP);
F04C 23/008 (2013.01 - EP); **F04C 29/026** (2013.01 - EP); **F25B 31/026** (2013.01 - US); **F25B 43/02** (2013.01 - US);
F04C 18/0215 (2013.01 - EP); **F04C 2240/30** (2013.01 - EP)

Citation (search report)
• [XYI] JP 2016113901 A 20160623 - JOHNSON CONTROLS HITACHI AIR CONDITIONING TECH (HONGKONG) LTD
• [Y] JP S56165788 A 19811219 - HITACHI LTD
• [Y] JP 2015098785 A 20150528 - DAIKIN IND LTD
• See references of WO 2021005918A1

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)
EP 3971420 A1 20220323; **EP 3971420 A4 20220803**; CN 114072583 A 20220218; JP 2021014812 A 20210212; US 2022128280 A1 20220428;
WO 2021005918 A1 20210114

DOCDB simple family (application)
EP 20836964 A 20200601; CN 202080049262 A 20200601; JP 2019129494 A 20190711; JP 2020021574 W 20200601;
US 202217572151 A 20220110