

Title (en)
LUBRICATION-FREE CENTRIFUGAL COMPRESSOR

Title (de)
SCHMIERMITTELFREIER ZENTRIFUGALVERDICHTER

Title (fr)
COMPRESSEUR CENTRIFUGE SANS LUBRIFICATION

Publication
EP 3847372 A4 20220727 (EN)

Application
EP 19888086 A 20191120

Priority
• US 201862769323 P 20181119
• US 2019062465 W 20191120

Abstract (en)
[origin: WO2020106879A1] A gas compression compact device comprised of: a) one or more centrifugal compressors; and b) a high speed axial flow permanent magnet synchronous electric motor. The electric motor and the compressor are directly coupled on a single axis and supported by passive magnetic and electrodynamic bearings, free of lubrication. The equipment does not use mechanic seals since the rotor is placed inside the pressure containment of the gas. The equipment does not require auxiliary systems for cooling, filtration, separation or feeding of lubricant fluids.

IPC 8 full level
F04D 17/10 (2006.01); **F04D 17/12** (2006.01); **F04D 25/06** (2006.01); **F04D 29/058** (2006.01)

CPC (source: EP US)
F04D 17/10 (2013.01 - EP US); **F04D 17/122** (2013.01 - EP); **F04D 25/06** (2013.01 - US); **F04D 25/0653** (2013.01 - EP US); **F04D 29/0413** (2013.01 - US); **F04D 29/058** (2013.01 - EP)

Citation (search report)
• [XYI] US 2009127956 A1 20090521 - OZAKI TAKAYOSHI [JP], et al
• [XY] WO 2008108063 A1 20080912 - NTN TOYO BEARING CO LTD [JP], et al
• [Y] WO 2012058069 A2 20120503 - DRESSER RAND CO [US], et al
• [Y] US 2017146271 A1 20170525 - HASEGAWA YASUSHI [JP], et al
• See references of WO 2020106879A1

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

DOCDB simple family (publication)
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DOCDB simple family (application)
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