

Title (en)  
LINEAR COMPRESSOR

Title (de)  
LINEARER VERDICHTER

Title (fr)  
COMPRESSEUR LINÉAIRE

Publication  
**EP 2511527 A4 20130612 (EN)**

Application  
**EP 10836180 A 20101206**

Priority  
• KR 20090121292 A 20091208  
• KR 2010008672 W 20101206

Abstract (en)  
[origin: WO2011071284A2] The present invention relates to a linear compressor, comprising: a sealed container providing a sealed space and including a suction tube and a discharge tube through which a refrigerant is suctioned and discharged; a cylinder installed in the sealed container and providing a compressing space; a piston reciprocating linearly in the cylinder so as to compress the refrigerant in the compressing space; a linear motor operating at a preset operation frequency so as to apply a driving force to the piston; a plurality of support springs configured so as to support an assembly including the cylinder, the piston, and the linear motor with respect to a bottom surface of the sealed container; and a loop pipe through which the refrigerant compressed in the compressing space is guided to the discharge tube. Since the phase of an exiting force applied from the loop pipe to the sealed container is opposite the phase of shell exiting forces of the support springs, vibrations of a main body and of the loop pipe cancel each other out, and thus overall vibrations can be reduced.

IPC 8 full level  
**F04B 17/04** (2006.01); **F04B 35/04** (2006.01); **F04B 39/00** (2006.01)

CPC (source: EP KR US)  
**F04B 17/04** (2013.01 - KR); **F04B 35/045** (2013.01 - EP US); **F04B 39/0044** (2013.01 - EP US); **F04B 39/0072** (2013.01 - EP US)

Citation (search report)  
• No further relevant documents disclosed  
• See references of WO 2011071284A2

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)  
**WO 2011071284 A2 20110616; WO 2011071284 A3 20111110**; CN 102439311 A 20120502; CN 102439311 B 20151014;  
EP 2511527 A2 20121017; EP 2511527 A4 20130612; KR 101681322 B1 20161130; KR 20110064610 A 20110615;  
US 2012034114 A1 20120209

DOCDB simple family (application)  
**KR 2010008672 W 20101206**; CN 201080014322 A 20101206; EP 10836180 A 20101206; KR 20090121292 A 20091208;  
US 201013259382 A 20101206