

Title (en)  
FREE PISTON LINEAR MOTOR COMPRESSOR AND ASSOCIATED SYSTEMS OF OPERATION

Title (de)  
FREIKOLBENLINEARMOTORVERDICHTER UND ZUGEHÖRIGE SYSTEME ZUM BETRIEB

Title (fr)  
COMPRESSEUR À MOTEUR LINÉAIRE À PISTON LIBRE ET SYSTÈMES DE FONCTIONNEMENT ASSOCIÉS

Publication  
**EP 3698046 B1 20230419 (EN)**

Application  
**EP 18869166 A 20181016**

Priority  
• US 201715785963 A 20171017  
• US 2018056103 W 20181016

Abstract (en)  
[origin: WO2019079312A1] A linear motor compressor including a compressor housing and a cylinder housing having a plurality of opposing compression chambers. A piston freely reciprocates within the cylinder housing using a linear electric motor. A piston position feedback control system provides adaptive current output as a function of position feedback and/or velocity feedback from the piston and/or the electric motor, to directly power and control the electric motor, wherein the piston reciprocates without assistance from a mechanical spring or other equivalent centering force.

IPC 8 full level  
**F04B 35/04** (2006.01); **F04B 25/02** (2006.01); **F04B 31/00** (2006.01); **F04B 49/06** (2006.01)

CPC (source: EP)  
**F04B 25/02** (2013.01); **F04B 31/00** (2013.01); **F04B 35/045** (2013.01); **F04B 49/065** (2013.01); **F04B 2201/0201** (2013.01); **F04B 2201/0202** (2013.01); **F04B 2203/0401** (2013.01); **F04B 2203/0409** (2013.01)

Cited by  
GB2627206A

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 2019079312 A1 20190425**; AU 2018352528 A1 20200423; AU 2018352528 B2 20240118; EP 3698046 A1 20200826; EP 3698046 A4 20210428; EP 3698046 B1 20230419

DOCDB simple family (application)  
**US 2018056103 W 20181016**; AU 2018352528 A 20181016; EP 18869166 A 20181016