

Title (en)  
SYSTEM CONTAINING A REFRIGERANT COMPRESSOR, AND METHOD FOR OPERATING THE REFRIGERANT COMPRESSOR

Title (de)  
SYSTEM UMFASSEND EINEN KÄLTEMITTELKOMPRESSOR UND VERFAHREN ZUM BETREIBEN DES KÄLTEMITTELKOMPRESSORS

Title (fr)  
SYSTÈME COMPRENANT UN COMPRESSEUR D'AGENT DE REFROIDISSEMENT ET PROCÉDÉ DE FONCTIONNEMENT DU COMPRESSEUR D'AGENT DE REFROIDISSEMENT

Publication  
**EP 3534000 B1 20200805 (DE)**

Application  
**EP 18159462 A 20180301**

Priority  
EP 18159462 A 20180301

Abstract (en)  
[origin: WO2019166326A1] The invention relates to a system, comprising a refrigerant compressor and an electronic control device (13) for the refrigerant compressor (1). The refrigerant compressor (1) at least comprises a drive unit (16) and a compression mechanism (5), which can be driven by means of the drive unit (16) and which has a piston (9), which can be driven by means of a crankshaft (6). The electronic control device (13) is designed to capture and control, in an open-loop and/or closed-loop manner, the rotational speed ( $\omega$ ) of the crankshaft (6) and to at least approximately capture the piston position of the piston (9). According to the invention, the electronic control device (13) is designed to determine an energy evaluation variable difference (W) while the drive unit (16) is switched off, which energy evaluation variable difference is proportional to the energy required to perform one crankshaft revolution; at a measurement rotational speed ( $\omega$ ), to determine an energy evaluation variable (E ( $\omega$ )) proportional to the rotational energy at the measurement rotational speed ( $\omega$ ); to determine the number of crankshaft revolutions (N) remaining, while the drive unit (16) is switched off, until a standstill of the compression mechanism (5); and to check whether the remaining crankshaft revolutions (N) upon switch-off of the drive unit (16) at a reference piston position enable stopping of the compression mechanism (5) in the suction phase thereof.

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

CPC (source: EP US)  
**F04B 35/04** (2013.01 - EP US); **F04B 49/02** (2013.01 - EP); **F04B 49/06** (2013.01 - EP US); **F04B 39/0005** (2013.01 - US); **F04B 39/12** (2013.01 - US); **F04B 49/02** (2013.01 - US); **F04B 2201/0201** (2013.01 - US); **F04B 2203/0209** (2013.01 - US)

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)  
**EP 3534000 A1 20190904**; **EP 3534000 B1 20200805**; CN 111836960 A 20201027; US 2021062797 A1 20210304; WO 2019166326 A1 20190906

DOCDB simple family (application)  
**EP 18159462 A 20180301**; CN 201980015814 A 20190221; EP 2019054361 W 20190221; US 201916977146 A 20190221