Title (en)
METHOD FOR CONTROLLING THE REFRIGERANT MASS FLOW OF A COMPRESSOR

Title (de)
VERFAHREN ZUM REGELN DES KÄLTEMITTEL-MASSENSTROMS EINES VERDICHTERS

Title (fr)
PROCÉDÉ DE RÉGULATION DU FLUX MASSIQUE DE FLUIDE FRIGORIGÉNE D'UN COMPRESSEUR

Publication
EP 2021630 A1 20090211 (DE)

Application
EP 07723707 A 20070328

Priority
- EP 2007002762 W 20070328
- DE 102006024533 A 20060523
- DE 102006029874 A 20060628

Abstract (en)
[origin: WO2007134665A1] A method for controlling the refrigerant mass flow of a compressor, in particular of an axial piston compressor, in particular also for motor vehicle air conditioning systems, in particular also for CO_2 as refrigerant, which has a drive shaft and a pivoting plate which can be adjusted with regard to its inclination to the drive shaft and which is arranged in a motor chamber of the compressor essentially defined by a housing of said compressor and which by its angle of deflection relative to the drive shaft defines the piston stroke of the compressor, wherein approximately one balance of moments is obtained between a moment M_{sw} produced by masses moved in rotation and a moment $M_{k,ges}$ produced by masses moved in translation for at least one angle of deflection a_{gI} of the pivoting plate, and wherein the product of the compressor speed, of the suction gas density p, and of the piston stroke s for different compressor speeds n is automatically maintained more or less constant, at least locally, in particular for compressor speeds n between 600 and 9000 r.p.m., in particular for compressor speeds between 2500 and 7000 r.p.m., while a pressure p_c occurring in the motor chamber is likewise maintained approximately constant, as well as a compressor which is suitable for performing the method.

IPC 8 full level
F04B 27/18 (2006.01)

CPC (source: EP)
F04B 27/18 (2013.01)

Citation (search report)
See references of WO 2007134665A1

Designated contracting state (EPC)
DE FR GB

Designated extension state (EPC)
AL BA HR MK RS

DOCDB simple family (publication)
DE 102006029874 A1 20071129; DE 502007003864 D1 20100701; EP 2021630 A1 20090211; EP 2021630 B1 20100519; WO 2007134665 A1 20071129

DOCDB simple family (application)
DE 102006029874 A 20060628; DE 502007003864 T 20070328; EP 07723707 A 20070328; EP 2007002762 W 20070328