

Title (en)

METHOD FOR REGULATING THE COOLANT MASS FLOW RATE OF A COMPRESSOR

Title (de)

VERFAHREN ZUM REGELN DES KÄLTEMITTEL-MASSENSTROMS EINES VERDICHTERS

Title (fr)

PROCÉDÉ DE RÉGULATION DU DÉBIT MASSIQUE DE FLUIDE FRIGORIGÈNE D'UN COMPRESSEUR

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Abstract (en)

[origin: WO2007134760A1] Disclosed is a method for regulating the coolant mass flow rate of a compressor, especially an axial piston compressor, particularly for motor vehicle air conditioners, comprising a drive shaft (2) and a swash plate (1) whose inclination relative to the drive shaft is adjustable and which is disposed in a gear unit compartment of the compressor, said gear unit compartment being essentially defined by a compressor housing. The swash plate (1) defines the piston stroke of the compressor by means of the angle of deflection thereof relative to the drive shaft (2). An approximate equilibrium between a moment M_{SW} generated by rotationally moved masses and a moment $M_{k,ges}$ generated by translationally moved masses ($M_{SW} = M_{k,ges}$) is created for at least one angle of deflection of the swash plate (1), and/or moment M_{sw} is made to exceed moment $M_{k,ges}$ ($M_{SW} = M_{k,ges}$) in at least one range of the possible angles of deflection of the swash plate. The product of the compressor speed n , the suction gas density p , and the piston stroke s is automatically kept approximately constant for different compressor speeds n , at least in some ranges, especially for compressor speeds n ranging from 600 to 9000 rpm, particularly from 2500 to 7000 rpm, while a pressure p_c prevailing in the gear unit compartment is also kept approximately constant. Also disclosed is a compressor suitable for carrying out the inventive method.

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