

Title (en)

Control valve for variable displacement compressor

Title (de)

Kontrollventil für variablen Verdrängungskompressor

Title (fr)

Soupape de contrôle pour compresseur à capacité variable

Publication

EP 1033490 A2 20000906 (EN)

Application

EP 00104151 A 20000229

Priority

JP 5249599 A 19990301

Abstract (en)

A displacement control valve for controlling the amount of gas flowing through a bleed passage (27A, 27B) of a compressor to adjust pressure in a crank chamber (5) of the compressor. The control valve includes a housing (60), a pressure sensitive member, or diaphragm (57), which is arranged in the housing (60), and an actuator (54) extending from the diaphragm (57) and arranged in the housing (60). A valve body (51) is formed integrally with the distal end of the actuator (54). A pressure receiving body (53) is provided at the proximal end of the actuator (54). The diaphragm (57) drives the actuator (54) in accordance with a suction pressure. The pressure receiving body (53) urges the diaphragm (57) in a single direction in accordance with a discharge pressure. The diameter (or cross-sectional area) of the actuator (54) decreases in a stepped-like manner in the axial direction. This simplifies manufacture of the actuator (54) and facilitates assembly. <IMAGE>

IPC 1-7

F04B 27/18

IPC 8 full level

F04B 27/14 (2006.01); **F04B 27/18** (2006.01); **F04B 49/00** (2006.01)

CPC (source: EP)

F04B 27/1804 (2013.01); **F04B 2027/1813** (2013.01); **F04B 2027/1831** (2013.01); **F04B 2027/185** (2013.01)

Citation (applicant)

JP H0552182 A 19930302 - TAIHEIYO KOGYO KK

Cited by

FR2836521A1; EP1479907A3; EP1522728A3; US7806666B2; US6715995B2

Designated contracting state (EPC)

DE FR IT

DOCDB simple family (publication)

EP 1033490 A2 20000906; **EP 1033490 A3 20010110**; JP 2000249051 A 20000912

DOCDB simple family (application)

EP 00104151 A 20000229; JP 5249599 A 19990301