

Title (en)

Control valve for variable capacity compressors

Title (de)

Kontrollventil für Kompressoren mit variabler Fördermenge

Title (fr)

Souape de contrôle pour compresseur à capacité variable

Publication

EP 1712792 A3 20110119 (EN)

Application

EP 06007464 A 20060408

Priority

JP 2005114428 A 20050412

Abstract (en)

[origin: EP1712792A2] There is provided a control valve for a variable capacity compressor, which is applicable to a compressor of large capacity. This control valve comprises a valve main body (20) equipped with a valve rod (15) having a valve body (15a), with a valve chamber (21) having a guide hole (19) in which the valve rod is enabled to slide and a valve aperture (22) for the valve body, with a cooling medium inlet port (25) disposed on an upstream side of the valve aperture for introducing a cooling medium from the compressor, and with a cooling medium outlet port (26) disposed on a downstream side of the valve aperture and communicated with a crank chamber; an electromagnetic actuator (30) for driving the valve rod to move in the direction of opening or closing the valve aperture; and a pressure sensitive moving member (40) for driving the valve rod to move in response to a sucking pressure of the compressor; which is characterized in that a contracted hole portion is formed at an upper portion of the guide hole, that a diametrically reduced rod portion (15b) to be inserted into the contracted hole portion (19b) is formed at an upper portion of the valve rod, and that the valve rod is provided with an equalizing hole (51) for introducing a cooling medium pressure of the cooling medium outlet port into an equalizing pressure introducing chamber (52).

IPC 8 full level

F04B 27/18 (2006.01)

CPC (source: EP US)

F04B 27/1804 (2013.01 - EP US); **F04B 2027/1827** (2013.01 - EP US); **F04B 2027/1854** (2013.01 - EP US); **F04B 2027/1859** (2013.01 - EP US)

Citation (search report)

- [XY] EP 1503077 A2 20050202 - DELPHI TECH INC [US]
- [XY] EP 0992684 A2 20000412 - TGK CO LTD [JP]
- [YD] EP 1247981 A2 20021009 - FUJIKOKI CORP [JP]

Cited by

CN111699318A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

EP 1712792 A2 20061018; **EP 1712792 A3 20110119**; JP 2006291867 A 20061026; JP 4504243 B2 20100714; US 2006228227 A1 20061012

DOCDB simple family (application)

EP 06007464 A 20060408; JP 2005114428 A 20050412; US 40274606 A 20060411