

Title (en)

Displacement control valve for variable displacement compressor

Title (de)

Regelventil für einen Kompressor mit veränderlicher Verdrängung

Title (fr)

Soupape de contrôle pour compresseur à capacité variable

Publication

**EP 1612420 B1 20090819 (EN)**

Application

**EP 05013509 A 20050622**

Priority

- JP 2004291724 A 20041004
- JP 2004253450 A 20040831
- JP 2004190005 A 20040628

Abstract (en)

[origin: EP1612420A2] A displacement control valve for a variable displacement compressor includes a first valve hole (36) forming a part of a supply passage and a second valve hole (37) forming a part of a discharge passage. Displacement of a reciprocating body is transmitted to each of first (39) and second (40) valve bodies so that each valve body opens or closes the corresponding valve hole. When the reciprocating body is within a predetermined displacement range, a double closing state occurs, in which the first valve body closes the first valve hole (36) and the second valve hole closes the second valve hole (37). When the reciprocating body is out of the displacement range, a single closing state occurs. Therefore, the control valve prevents the first valve hole (36) from opening concurrently with the second valve hole (37).

IPC 8 full level

**F04B 27/18** (2006.01)

CPC (source: EP US)

**F04B 27/1804** (2013.01 - EP US); **F04B 2027/1813** (2013.01 - EP US); **F04B 2027/1827** (2013.01 - EP US); **F04B 2027/1831** (2013.01 - EP US); **F04B 2027/1854** (2013.01 - EP US)

Cited by

EP1895162A4

Designated contracting state (EPC)

DE FR IT

DOCDB simple family (publication)

**EP 1612420 A2 20060104**; **EP 1612420 A3 20061122**; **EP 1612420 B1 20090819**; DE 602005016046 D1 20091001; JP 2006097665 A 20060413; US 2005287014 A1 20051229

DOCDB simple family (application)

**EP 05013509 A 20050622**; DE 602005016046 T 20050622; JP 2004291724 A 20041004; US 16770805 A 20050627