

Title (en)
CONTROL VALVE FOR VARIABLE DISPLACEMENT COMPRESSOR

Title (de)
REGELVENTIL FÜR EINEN VERDICHTER MIT VARIABLER VERDRÄNGUNG

Title (fr)
SOUPAPE DE COMMANDE POUR COMPRESSEUR À DÉPLACEMENT VARIABLE

Publication
EP 3239520 B1 20181212 (EN)

Application
EP 17167043 A 20170419

Priority
JP 2016084535 A 20160420

Abstract (en)
[origin: EP3239520A1] A control valve (1) includes a solenoid (4) mounted on a body (5), and a pressure sensor (8) to detect a predetermined refrigerant pressure to be referred to for power supply control of the solenoid (4). The solenoid (4) includes a solenoid body integrally mounted on the body (5) in an axial direction, an electromagnetic coil (54) held by the solenoid body and having a working space on an inner side thereof, a core (46) fixed to the solenoid body coaxially with the electromagnetic coil (54), a plunger (50) supported in the working space such that the plunger (50) is displaceable in the axial direction, and a power supply line connected to the electromagnetic coil (54) and drawn out from a side of the solenoid body opposite to the body (5). The pressure sensor (8) includes a pressure sensing part that senses the refrigerant pressure and is displaced by the sensed refrigerant pressure, and an output line to output a detection signal depending on a displacement of the pressure sensing part. The pressure sensor (8) is positioned on a side of the electromagnetic coil (54) opposite to the body (5).

IPC 8 full level
F04B 27/18 (2006.01)

CPC (source: EP KR)
F04B 27/14 (2013.01 - KR); **F04B 27/1804** (2013.01 - EP); **F04B 35/045** (2013.01 - KR); **F04B 49/06** (2013.01 - KR);
F04B 2027/1813 (2013.01 - EP); **F04B 2027/1827** (2013.01 - EP); **F04B 2027/1831** (2013.01 - EP); **F04B 2027/1854** (2013.01 - EP);
F04B 2205/02 (2013.01 - EP)

Cited by
CN112982202A; WO2023183587A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 3239520 A1 20171101; **EP 3239520 B1 20181212**; JP 2017194113 A 20171026; JP 6719043 B2 20200708; KR 102226722 B1 20210311;
KR 20170120023 A 20171030

DOCDB simple family (application)
EP 17167043 A 20170419; JP 2016084535 A 20160420; KR 20170036270 A 20170322