

Title (en)

Control valve of variable displacement compressor

Title (de)

Regelventil für einen Verdichter mit variabler Verdrängung

Title (fr)

Soupape de contrôle pour compresseur de déplacement variable

Publication

EP 2119913 A2 20091118 (EN)

Application

EP 09160018 A 20090512

Priority

JP 2008126099 A 20080513

Abstract (en)

A control valve of a variable displacement compressor is disclosed. The control valve includes a valve housing, a valve body, a valve opening spring, an electromagnetic actuator, and an urging plate. The valve housing has a valve chamber that forms a part of a supply passage. The valve body can selectively contact and separate from a valve seat in the valve chamber. The valve opening spring urges the valve body away from the valve seat. The electromagnetic actuator changes electromagnetic urging force acting on the movable iron core through control of externally supplied current. In a state where the electromagnetic actuator is not energized and the valve body is held at a position separated from the valve seat by the urging force of the valve opening spring, the urging plate deforms in such a manner as to urge the valve body toward the valve seat when the temperature of the urging plate reaches a predetermined temperature. The urging force of the urging plate when the temperature reaches the predetermined temperature is set to be greater than the urging force of the valve opening spring in a state where the electromagnetic actuator is not energized.

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