Title (en)

Linear compressor and control method thereof

Title (de)

Linearkompresseur und Verfahren zu deren Steuerung

Title (fr)

Compresseur linéaire et son procédé de commande

Publication

EP 1486670 A3 20060315 (EN)

Application

EP 04250885 A 20040219

Priority

KR 20030037589 A 20030611

Abstract (en)

[origin: EP1486670A2] Disclosed is a linear compressor having a core (4) combined to one end of a piston to detect a position of the piston reciprocally moving up and down. A first sensor coil (2a) and a second sensor coil (2b) detect the position of the core (4). The core has an upper core (4a) having a length shorter than one half of the length of the first sensor coil and a lower core (4b) having a length shorter than one half of the length of the second sensor coil in series. Also disclosed is a method of controlling the operation of the linear compressor including timing the upper core and the lower core driven by the piston through a stroke cycle, receiving the time and calculating a top dead center position based on the time or an offset value respectively, and controlling a piston stroke by varying the power driving the linear compressor according to the calculated top dead center or offset value.

IPC 8 full level

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CPC (source: EP KR US)

F04B 17/04 (2013.01 - KR); **F04B 35/045** (2013.01 - EP US); F04B 2201/0201 (2013.01 - EP US); F04B 2203/0402 (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

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

DOCDB simple family (publication)

EP 1486670 A2 20041215; **EP 1486670 A3 20060315**; CN 100375844 C 20080319; CN 1573108 A 20050202; JP 2005002990 A 20050106; JP 4125693 B2 20080730; KR 100520071 B1 20051011; KR 20040106753 A 20041218; US 2005069417 A1 20050331

DOCDB simple family (application)

EP 04250885 A 20040219; CN 200410006698 A 20040225; JP 2004101444 A 20040330; KR 20030037589 A 20030611; US 82268604 A 20040413