

Title (en)  
Linear compressor and control method thereof

Title (de)  
Linearkompressor und Verfahren zu deren Steuerung

Title (fr)  
Compresseur linéaire et son procédé de commande

Publication  
**EP 1486670 A2 20041215 (EN)**

Application  
**EP 04250885 A 20040219**

Priority  
KR 20030037589 A 20030611

Abstract (en)  
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.

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**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

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