

Title (en)

LOW BACKPRESSURE ROTARY COMPRESSOR

Title (de)

ROTATIONSVERDICHTER MIT GERINGEM GEGENDRUCK

Title (fr)

COMPRESSEUR ROTATIF À FAIBLE CONTRE-PRESSION

Publication

EP 3018350 A1 20160511 (EN)

Application

EP 13888730 A 20130704

Priority

CN 2013078815 W 20130704

Abstract (en)

A low backpressure rotary compressor comprises a housing, a motor and a compressing mechanism. A chamber is provided inside the housing. An air suction pipe is provided on the top of the housing. The motor is arranged in the chamber, and the chamber is divided into an upper chamber and a lower chamber by the motor. Channels are formed between an outer surface of the motor and an inner surface of the housing, and/or in the motor. One end of each channel is communicated with the upper chamber, and the other end of each channel is communicated with the lower chamber. The exhaust volume of the compressor is V , the flow area of the channels is S , the rotating speed of the motor is F , and the flow rate of air passing through the channels is v , so that $v=(V \cdot F)/S$. Wherein, when $F \leq 60$ rad/s, $2 \text{ (m/s)} \leq v \leq 25 \text{ (m/s)}$; when $F > 60$ rad/s, $8 \text{ (m/s)} \leq v \leq 40 \text{ (m/s)}$.

IPC 8 full level

F04C 18/356 (2006.01); **F04C 29/04** (2006.01)

CPC (source: EP)

F04C 18/356 (2013.01); **F04C 23/008** (2013.01); **F04C 29/045** (2013.01); **F04C 2270/20** (2013.01)

Cited by

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Designated extension state (EPC)

BA ME

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EP 3018350 A1 20160511; **EP 3018350 A4 20170329**; **EP 3018350 B1 20200624**; AU 2013393765 A1 20151217; AU 2013393765 B2 20160929; WO 2015000162 A1 20150108

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