Title (en)

AXIAL PISTON REFRIGERANT COMPRESSOR

Title (de)

AXIALKOLBEN-KÄLTEMITTELVERDICHTER

Title (fr)

COMPRESSEUR A REFRIGERANT

Publication

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Application

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Abstract (en)

[origin: WO0071896A1] The invention relates to a refrigerant compressor comprising at least one piston-cylinder unit and one valve plate (2) that has at least one outlet opening (11). The piston (1) has a projection (10) which projects into the outlet opening (11) when the piston (1) is located near the upper dead center thereof. The aim of the invention is to increase the efficiency and to reduce the noise level. To these ends, the invention provides that the outlet opening (11), piston projection (10), valve plate (2) and piston (1) delimit a flow-through channel (12), and provides that the free cross-sectional area of the flow-through channel (12) is determined by the smallest cross-sectional area of the outlet opening (11) until the piston (1), during its pressure stroke at at least the height (H) of the outlet opening (11), is located underneath the upper dead center. The invention also provides that, during the remainder of the pressure stroke of the piston (1), the relative reduction of the free cross-sectional area of the flow-through channel (12) is less than the relative reduction in volume of the pressure chamber, and provides that at least 45 % of the volume of the outlet opening (11) is occupied by the projection when the piston is located in the upper dead center thereof.

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