

Title (en)
RECIPROCATING-PISTON COMPRESSOR AND CONTROL METHOD THEREFOR

Title (de)
HUBKOLBENVERDICHTER UND REGELVERFAHREN HIERFÜR

Title (fr)
COMPRESSEUR À PISTON ALTERNATIF ET PROCÉDÉ DE RÉGULATION DUDIT COMPRESSEUR

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Application
EP 15722044 A 20150329

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Abstract (en)
[origin: WO2015149926A1] The invention relates to a reciprocating-piston compressor (10), comprising a control device (12), which control device is designed to control a flow rate of the reciprocating-piston compressor (10), in particular in a continuously variable manner, and which control device has an input (18) for feeding input information, in particular suction pressure or high pressure of a corresponding compressor (10), and has at least one output (20) for controlling a control element (16), wherein the control device (12) is designed to generate a digital output signal, wherein the control element has a digitally controllable control valve (16), wherein the reciprocating-piston compressor (10) has at least one suction-gas volume (22) and at least one high-pressure volume (24), wherein a connection (26) is formed between the at least one suction-gas volume (22) and the at least one high-pressure volume (24) of the reciprocating-piston compressor (10), wherein the digitally controllable control valve (16) is arranged in the connection (26), wherein the reciprocating-piston compressor (10) has a shut-off device, in particular a valve, further in particular a check valve (28), which is arranged downstream of the high-pressure volume (24), as regarded in a flow direction of the refrigerant during normal operation of the reciprocating-piston compressor (10), wherein the at least one suction-gas volume and the at least one high-pressure volume and the control valve (16) are integrated into the reciprocating-piston compressor (10). The invention further relates to a refrigerating or air-conditioning installation or heat pump having a corresponding compressor (10), and to a corresponding control method.

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KARL BREIDENBACH: "DER KÄLTEANLAGENBAUER BAND 2: GRUNDLAGEN DER KÄLTEANWENDUNG", January 2014, VDE VERLAG GMBH, BERLIN, ISBN: 978-3-8007-3556-3, pages: 286 - 287

Citation (opposition)
Opponent : GEA Bock GmbH
• WO 2011005367 A2 20110113 - CARRIER CORP [US], et al
• US 6047556 A 20000411 - LIFSON ALEXANDER [US]
• DE 102004048940 A1 20060413 - TEKNO GES FUER KÄLTETECHNIK MB [DE]

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