

Title (en)
SWASH PLATE-TYPE VARIABLE DISPLACEMENT COMPRESSOR FOR SUPERCRITICAL REFRIGERATION CYCLE

Title (de)
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Title (fr)
COMPRESSEUR A CYLINDREE VARIABLE DE TYPE A PLATEAU OSCILLANT CONCU POUR UN CYCLE DE REFRIGERATION SUPERCRITIQUE

Publication
EP 1586774 A4 20110309 (EN)

Application
EP 03789631 A 20031224

Priority

- JP 0316638 W 20031224
- JP 2002380867 A 20021227

Abstract (en)
[origin: EP1586774A1] A swash plate type variable capacity compressor which is a compressor (10) to be used for a supercritical refrigerating cycle (1) and provided with a swash plate (400) which is disposed rotatably, a piston (500) which is coupled with the swash plate and a cylinder (600) which holds the piston movably, the cylinder is provided with a suction valve (150) for sucking a refrigerant of the supercritical refrigerating cycle and a discharge valve (160) for discharging the refrigerant, wherein the suction valve has valve bodies (152) having flexibility attached to suction ports (141) for sucking the refrigerant, and the swash plate type variable capacity compressor has the valve bodies press-contacted in an elastically deformed state against the valve seats of the suction ports to decrease the number of rotations of the swash plate when the refrigerant is started to be compressed. <IMAGE>

IPC 8 full level
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CPC (source: EP US)
F04B 27/1009 (2013.01 - EP US); **F04B 39/1073** (2013.01 - EP US)

Citation (search report)

- [X] EP 1054157 A2 20001122 - TOYODA AUTOMATIC LOOM WORKS [JP]
- [X] US 4730987 A 19880315 - KAWAI KATSUNORI [JP], et al
- [X] WO 0206672 A2 20020124 - BRASIL COMPRESSORES SA [BR], et al
- [Y] EP 0797000 A1 19970924 - SANDEN CORP [JP]
- [Y] JP H07180662 A 19950718 - TOYODA AUTOMATIC LOOM WORKS
- [Y] JP H07167058 A 19950704 - TOYODA AUTOMATIC LOOM WORKS
- See references of WO 2004061306A1

Cited by
FR2869956A1; WO2006069883A1; WO2009027001A1

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