

Title (en)
COMPRESSION DEVICE AND METHOD AND REFRIGERATION MACHINE

Title (de)
KOMPRESSIONSVORRICHTUNG UND -VERFAHREN UND KÄLTEMASCHINE

Title (fr)
DISPOSITIF ET PROCÉDÉ DE COMPRESSION ET MACHINE DE RÉFRIGÉRATION

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Abstract (en)
[origin: KR20190042463A] A centrifugal compression device for a working gas comprises: a plurality of centrifugal compressors (1, 3) forming a plurality of compression stages; and a plurality of drive motors (5, 6) for driving the compressors (1, 3). The device includes a gas circuit having a first pipe (16) for supplying gas to be compressed into the first compressor (1), the circuit includes a second pipe (14) for discharging the gas compressed in the first compressor, the second pipe (14) is connected to an inlet of a second compressor (3) to carry out a second compression, the circuit includes a third cooling pipe (10) for transferring a fraction of the gas compressed in the compressor (1) into the at least one first motor (6) to limit heating thereof, and the circuit includes a fourth pipe (12) for recovering the gas that has circulated in the first motor (6) and a downstream end connected to an inlet of a second motor (5) for transferring the gas thereto to limit the heating of the second motor (5). The present invention has a simple and cheap structure, and can efficiently cool a plurality of the motors of the compression device.

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