

Title (en)

Vapour compression device and method for performing an associated transcritical cycle

Title (de)

Dampfkompresseionsvorrichtung und Verfahren zur Umsetzung eines entsprechenden transkritischen Zyklusses

Title (fr)

Dispositif à compression de vapeur et procédé de réalisation d'un cycle transcritique associé

Publication

EP 1927816 B1 20160504 (FR)

Application

EP 07354062 A 20071116

Priority

FR 0610507 A 20061201

Abstract (en)

[origin: EP1927816A1] The device has a low pressure compressor connected to an outlet of an internal heat exchanger, and an isobaric gas cooler connected to an outlet of the low pressure compressor. Another isobaric gas cooler is connected to an outlet of a high pressure compressor and placed on a transcritical fluid cycle main circuit after the distribution of refrigerant such as carbon di oxide, and before the input of the refrigerant to the exchanger. Auxiliary and main release systems such as valves, are mechanically and electrically coupled to the compressors. An independent claim is also included for a method for performing a transcritical fluid cycle between a hot source temperature and a cold source temperature.

IPC 8 full level

F25B 1/10 (2006.01); **C01B 32/40** (2017.01); **F25B 9/00** (2006.01); **F25B 40/00** (2006.01); **F25B 9/06** (2006.01)

CPC (source: EP US)

F25B 1/10 (2013.01 - EP US); **F25B 9/008** (2013.01 - EP US); **F25B 40/00** (2013.01 - EP US); **F25B 9/06** (2013.01 - EP US); **F25B 2309/061** (2013.01 - EP US)

Cited by

EP2889218A1; US9739200B2

Designated contracting state (EPC)

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DOCDB simple family (publication)

EP 1927816 A1 20080604; **EP 1927816 B1 20160504**; FR 2909439 A1 20080606; FR 2909439 B1 20090213; JP 2008139014 A 20080619; JP 5231002 B2 20130710; US 2008127672 A1 20080605; US 7818978 B2 20101026

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EP 07354062 A 20071116; FR 0610507 A 20061201; JP 2007312177 A 20071203; US 98480007 A 20071121