

Title (en)

Control of a transcritical vapor compression system

Title (de)

Steuerung eines transkritischen Dampfverdichtersystems

Title (fr)

Contrôle de système de compression de vapeur transcritique

Publication

EP 2434232 A2 20120328 (EN)

Application

EP 11250667 A 20110720

Priority

US 88873310 A 20100923

Abstract (en)

A transcritical vapor compression system includes a compressor for compressing a refrigerant, a first heat exchanger for cooling the refrigerant, an expansion device for decreasing the pressure of the refrigerant, a second heat exchanger for absorbing heat into the refrigerant, and a controller programmed to calculate a first energy difference across the second heat exchanger and a second energy difference across the compressor, to calculate an energy ratio by dividing the first energy difference by the second energy difference, to compare the energy ratio to a previously calculated energy ratio, and to adjust operating parameters of the system based on the comparison of the energy ratio with respect to the previously calculated energy ratio.

IPC 8 full level

F25B 9/00 (2006.01)

CPC (source: EP US)

F25B 9/008 (2013.01 - EP US); **F25B 2309/061** (2013.01 - EP US); **F25B 2500/19** (2013.01 - EP US); **F25B 2600/17** (2013.01 - EP US); **F25B 2700/1931** (2013.01 - EP US); **F25B 2700/1933** (2013.01 - EP US); **F25B 2700/197** (2013.01 - EP US); **F25B 2700/2102** (2013.01 - EP US); **F25B 2700/21151** (2013.01 - EP US); **F25B 2700/21152** (2013.01 - EP US); **F25B 2700/21174** (2013.01 - EP US)

Cited by

US9933194B2; WO2014087168A1

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

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