

Title (en)

COMPRESSOR CAPACITY MODULATION SYSTEM FOR MULTIPLE COMPRESSORS

Title (de)

VERDICHTERKAPAZITÄTSMODULATIONSSYSTEM FÜR MEHRERE VERDICHTER

Title (fr)

SYSTÈME DE MODULATION DE CAPACITÉ DE COMPRESSEUR POUR COMPRESSEURS MULTIPLES

Publication

EP 3417218 A4 20191023 (EN)

Application

EP 17753972 A 20170217

Priority

- US 201662297680 P 20160219
- US 201715424352 A 20170203
- US 2017018475 W 20170217

Abstract (en)

[origin: WO2017143261A1] A system includes a plurality of compressors, an evaporator, an expansion device, and a system controller. The compressors may be linked in parallel. The system controller may: determine a saturated evaporator temperature, a saturated condensing temperature, and a target capacity demand; determine an estimated system capacity and an estimated power consumption for each compressor operating configuration; compare the estimated system capacity with the target capacity demand and an error tolerance value; select an optimum operating mode based on the comparisons and based on the estimated power consumption; and command activation and deactivation of the plurality of compressors to achieve the selected optimum operating mode. The optimum operating mode may be selected after the normal system logic achieves a steady state and may be selected from a group having the estimated system capacity within the error tolerance of the target capacity demand and a lowest associated power consumption value.

IPC 8 full level

F25B 49/02 (2006.01); **F25B 1/04** (2006.01)

CPC (source: EP US)

F04C 18/0215 (2013.01 - EP US); **F04C 23/001** (2013.01 - EP US); **F04C 28/02** (2013.01 - EP US); **F04C 28/08** (2013.01 - EP US); **F04C 28/18** (2013.01 - US); **F04C 28/28** (2013.01 - EP US); **F04C 29/0085** (2013.01 - EP US); **F25B 1/10** (2013.01 - US); **F25B 49/022** (2013.01 - EP US); **F04C 28/26** (2013.01 - EP US); **F25B 1/10** (2013.01 - EP); **F25B 2400/061** (2013.01 - US); **F25B 2400/0751** (2013.01 - EP US); **F25B 2500/19** (2013.01 - EP US); **F25B 2600/0251** (2013.01 - EP US); **F25B 2600/0253** (2013.01 - EP US); **F25B 2700/151** (2013.01 - EP US); **F25B 2700/1931** (2013.01 - EP US); **F25B 2700/1933** (2013.01 - EP US); **F25B 2700/195** (2013.01 - EP US); **F25B 2700/197** (2013.01 - EP US); **F25B 2700/21151** (2013.01 - EP US); **F25B 2700/21152** (2013.01 - EP US); **F25B 2700/2116** (2013.01 - EP US); **F25B 2700/2117** (2013.01 - EP US); **Y02B 30/70** (2013.01 - EP)

Citation (search report)

- [A] WO 9634238 A1 19961031 - TYLER REFRIGERATION CORP [US]
- [A] WO 0169147 A1 20010920 - HUSSMANN CORP [US], et al
- [A] WO 2006132626 A1 20061214 - CARRIER CORP [US], et al
- See references of WO 2017143261A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

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DOCDB simple family (application)

US 2017018475 W 20170217; CN 201780013453 A 20170217; EP 17753972 A 20170217; US 201715424352 A 20170203