

Title (en)

Method and apparatus for monitoring refrigerating-cycle systems

Title (de)

Verfahren und Vorrichtung zur Überwachung von Kühlkreissystemen

Title (fr)

Procédé et appareil pour la surveillance de systèmes à cycle de réfrigération

Publication

EP 1914482 A3 20080709 (EN)

Application

EP 07076044 A 20050627

Priority

- EP 05790996 A 20050627
- US 91622304 A 20040811
- US 91622204 A 20040811
- US 13056905 A 20050517
- US 13056205 A 20050517
- US 13087105 A 20050517
- US 13060105 A 20050517

Abstract (en)

[origin: EP1914483A2] A real-time monitoring system that monitors various aspects of the operation of a refrigerant-cycle system is described. In one embodiment, the system includes a processor that measures power provided to the refrigerant-cycle system and that gathers data from one or more sensors and uses the sensor data to calculate a figure of merit related to the efficiency of the system. In one embodiment, the sensors include one or more of the following sensors: a suction line temperature sensor, a suction line pressure sensor, a suction line flow sensor, a hot gas line temperature sensor, a hot gas line pressure sensor, a hot gas line flow sensor, a liquid line temperature sensor, a liquid line pressure sensor, a liquid line flow sensor. In one embodiment, the sensors include one or more of an evaporator air temperature input sensor, an evaporator air temperature output sensor, an evaporator airflow sensor, an evaporator air humidity sensor, and a differential pressure sensor. In one embodiment, the sensors include one or more of a condenser air temperature input sensor, a condenser air temperature output sensor, and a condenser air flow sensor, an evaporator air humidity sensor. In one embodiment, the sensors include one or more of an ambient air sensor and an ambient humidity sensor.

IPC 8 full level

F24F 11/00 (2006.01); **F25B 49/02** (2006.01)

CPC (source: EP US)

F24F 11/30 (2017.12 - EP); **F24F 11/47** (2017.12 - EP US); **F24F 11/52** (2017.12 - EP US); **F25B 49/005** (2013.01 - EP); **F25B 2500/18** (2013.01 - EP); **F25B 2500/19** (2013.01 - EP); **F25B 2700/151** (2013.01 - EP)

Citation (search report)

- [X] US 5596507 A 19970121 - JONES JEFFREY K [US], et al
- [X] WO 2004049088 A1 20040610 - RADAR HVAC REFRIGERATION INC [CA], et al

Cited by

US11466911B2; US10760842B2; WO2018102380A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 1914483 A2 20080423; **EP 1914483 A3 20080709**; EP 1914481 A2 20080423; EP 1914481 A3 20080723; EP 1914482 A2 20080423; EP 1914482 A3 20080709; MX 2007001671 A 20070423; RU 2007108788 A 20080920

DOCDB simple family (application)

EP 07076045 A 20050627; EP 07076043 A 20050627; EP 07076044 A 20050627; MX 2007001671 A 20050627; RU 2007108788 A 20050627