

Title (en)

CONTROL DEVICE, CONTROL METHOD, AND PROGRAM

Title (de)

STEUERUNGSVORRICHTUNG, STEUERUNGSVERFAHREN UND PROGRAMM

Title (fr)

DISPOSITIF DE COMMANDE, PROCÉDÉ DE COMMANDE ET PROGRAMME

Publication

EP 3249321 A4 20171227 (EN)

Application

EP 16746478 A 20160127

Priority

- JP 2015018384 A 20150202
- JP 2016052273 W 20160127

Abstract (en)

[origin: EP3249321A1] A control device (216) is provided with a control unit (217). When operating a cooling cycle for cooling water using a water heat exchanger (201), the control unit controls the differential pressure determined by subtracting the pressure of the refrigerant in a refrigerant pipe between a compressor (209) and the water heat exchanger from the pressure of a refrigerant in a refrigerant pipe between the compressor and an air heat exchanger (101), so that the differential pressure is equal to or higher than a predetermined differential pressure at which the refrigerant circulates and at which the water does not freeze. When the cooling cycle operation is performed, if the outside air temperature would lower the temperature of the water to the freezing point or below, the control unit causes a chilling unit (1) to operate a reverse cycle of the cooling cycle before causing the chilling unit to start the operation of the cooling cycle.

IPC 8 full level

F25B 13/00 (2006.01); **F25B 47/02** (2006.01)

CPC (source: EP KR)

F25B 13/00 (2013.01 - KR); **F25B 47/02** (2013.01 - KR); **F25B 47/025** (2013.01 - EP); **F25B 49/02** (2013.01 - KR); **F25D 31/002** (2013.01 - KR); **F25B 2339/047** (2013.01 - EP); **F25B 2500/28** (2013.01 - KR); **F25B 2700/1931** (2013.01 - EP KR); **F25B 2700/1933** (2013.01 - EP); **F25B 2700/2103** (2013.01 - KR)

Citation (search report)

- [YA] JP 2009174769 A 20090806 - MIURA KOGYO KK, et al
- [Y] JP 2007170706 A 20070705 - SANYO ELECTRIC CO
- [A] WO 2014038470 A1 20140313 - YANMAR CO LTD [JP]
- [A] WO 2014102934 A1 20140703 - DAIKIN IND LTD [JP], et al
- [A] EP 1967801 A2 20080910 - MITSUBISHI ELECTRIC CORP [JP]
- See references of WO 2016125647A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3249321 A1 20171129; **EP 3249321 A4 20171227**; **EP 3249321 B1 20190123**; CN 107208942 A 20170926; ES 2717312 T3 20190620; JP 2016142452 A 20160808; JP 6501392 B2 20190417; KR 101980467 B1 20190520; KR 20170100019 A 20170901; WO 2016125647 A1 20160811

DOCDB simple family (application)

EP 16746478 A 20160127; CN 201680007793 A 20160127; ES 16746478 T 20160127; JP 2015018384 A 20150202; JP 2016052273 W 20160127; KR 20177020977 A 20160127