

Title (en)

Reactive cooling and heating control system.

Title (de)

Reaktives Kühlungs- und Heizungsregelsystem.

Title (fr)

Système de commande réactive pour une installation de réfrigération et de chauffage.

Publication

EP 0632234 A1 19950104 (EN)

Application

EP 94304776 A 19940630

Priority

- US 8357593 A 19930630
- US 8359993 A 19930630

Abstract (en)

In a variable air volume system, chilled air is supplied from a cooler (10) to a number of zones (14, 16, 18). Zone controllers (30, 32, 34) send the supply air temperature detected by sensors (48, 50, 52) to a master controller (12) which issues a warning to all of the sensors when at least one of these temperatures drops too low, e.g. passed a trip temperature of one of the stages of the cooler (10). On receiving the warning, each zone controller (30, 32, 34) compensates by adjusting the air flow to its zone (14, 16, 18) using dampers (42, 44, 46). Different adjustments occur depending on whether the zone temperature is above or below a zone setpoint. The invention is also applicable to a heating system and to the monitoring of too great a rise in the temperature of supplied heated air. <IMAGE>

IPC 1-7

F24F 11/053; **F24F 3/044**

IPC 8 full level

F24F 3/044 (2006.01); **F24F 11/00** (2006.01); **F24F 11/053** (2006.01); **F24F 11/76** (2018.01)

CPC (source: EP US)

F24F 3/044 (2013.01 - EP); **F24F 11/30** (2017.12 - EP); **F24F 11/54** (2017.12 - EP US); **F24F 11/61** (2017.12 - EP US); **F24F 11/76** (2017.12 - EP US); **F24F 11/88** (2017.12 - EP US); **F24F 11/63** (2017.12 - EP)

Citation (search report)

- [A] CH 672851 A5 19891229 - CARRIER CORP
- [A] US 5025638 A 19910625 - YAMAGISHI KATSUAKI [JP], et al

Cited by

EP2102568A4; CN107121991A; CN101952665A; EP1852660A1; EP1736714A1; WO2008082398A1; US8020777B2; WO2006137731A3; WO2006041599A3; US7455236B2; US7156316B2; US7455237B2; US7163156B2; US10732651B2; US9798979B2; US10853733B2; US7025672B2; US7987023B2; WO2009105516A3; WO2005012806A1; US7168627B2; US8033479B2; US9618223B2; US9995497B2; US10126011B2; US10215437B2; US9846443B2; US10126009B2; US10151502B2; US10242129B2; US10915669B2; US11692730B2; EP2102568B1

Designated contracting state (EPC)

ES FR GB IT

DOCDB simple family (publication)

EP 0632234 A1 19950104; **EP 0632234 B1 19980304**; ES 2114660 T3 19980601

DOCDB simple family (application)

EP 94304776 A 19940630; ES 94304776 T 19940630