

Title (en)

Airflow regulation device and method

Title (de)

Vorrichtung und Verfahren zur Luftstromregelung

Title (fr)

Dispositif et procédé de régulation du courant d air

Publication

EP 1843106 A3 20101027 (EN)

Application

EP 07102278 A 20070213

Priority

SE 0600749 A 20060403

Abstract (en)

[origin: EP1843106A2] Device for regulating the flow (Q) of air supplied to an isolated cell (10,12) comprising a duct (28) having an air inlet (30) and two air outlets (32) located on opposite sides/parts of the duct (28) or a plurality of such pairs of outlets (32). The device also includes a damper that comprises a displaceable element (36) that is arranged to move over said at least two air outlets (32) in order to adjust the cross sectional area (A) of said at least two air outlets (32). The device further comprises means to determine the pressure of air upstream of the damper (p 1), means to determine the pressure of air downstream of the damper (p 2), means to determine the cross sectional area (A) of said at least two outlets (32), means to calculate the air flow (Q) or pressure that is supplied to the isolated cell (10,12) through said at least two outlets (32) of the duct (28) and actuation means (38,40) to displace the displaceable element (36) in order to obtain a desired air flow. The displaceable element (36) comprises two opposing gates whereby one of said gates (42) is arranged to open, partly obstruct or close one or more air outlets (32) located on one side/part of the duct (28) and the other gate (44) is arranged to open, partly obstruct or close one or more air outlets (32) located on the opposing side/part of the duct (28) in order to achieve the desired air flow.

IPC 8 full level

F24F 11/04 (2006.01)

CPC (source: EP US)

F24F 11/74 (2017.12 - EP US)

Citation (search report)

- [A] WO 0175374 A1 20011011 - FEDERSPIEL CLIFFORD C [US]
- [AD] SE 510211 C2 19990503 - SANHEM KONSULTIT OY [FI]
- [A] US 4749000 A 19880607 - RING H KENNETH [US], et al
- [A] WO 9949284 A1 19990930 - YORK INT CORP [US]
- [A] EP 0721089 A1 19960710 - LANDIS & GYR POWERS INC [US]

Cited by

CN108534308A; US2015226449A1; WO2014042588A1

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 LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

EP 1843106 A2 20071010; EP 1843106 A3 20101027; EP 1843106 B1 20110511; AT E509240 T1 20110515; DK 1843106 T3 20110627

DOCDB simple family (application)

EP 07102278 A 20070213; AT 07102278 T 20070213; DK 07102278 T 20070213