

Title (en)

PRESSURE CONTROL AND AIR CONDITIONING OF A MULTI-STORY BUILDING

Title (de)

DRUCKREGELUNG UND KLIMATISIERUNG EINES MEHRGESCHOSSIGEN GEBÄUDES

Title (fr)

CLIMATISATION D'AIR ET COMMANDE DE PRESSION D'UN BÂTIMENT À ÉTAGES MULTIPLES

Publication

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Application

EP 12803997 A 20120614

Priority

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- FI 2012050599 W 20120614

Abstract (en)

[origin: WO2013001155A1] This publication describes a pressure control and air conditioning of a multi-story building, such that replacement air is supplied into an apartment (13) through a staircase (6). The replacement air comes into the staircase (6) through an air inlet pipe (2) on the roof of the building by means of a fan (3). The fan (3) increases the pressure of the replacement air, which pressure causes a downward airflow in an all the way down extending vertical pipe (7), which airflow discharges through ventilation diffusers (22) into space of the staircase (6). By means of the fan (3) and of the control thereof, a pressure that is a preset value higher than atmospheric pressure of the ambient air (12) is provided into the staircase (6) by a differential pressure meter (9) or by differences of pressure gauges (10) and (11). The replacement air may flow from the staircase (6) into the department (13) through a valve (16), which is without or provided with a fire damper and which has a constant or variable orifice and which is arranged in a partition wall (14). The over-pressure existing in the department (13) prevents contaminated air from entering the apartment (13). The over-pressure in the staircase (6) prevents the contaminated ambient air from entering into the staircase (6) when opening entrance door (20). A humidifier apparatus and possibly an air drying apparatus can be connected in series with the fan (3). The condensate accumulates on the bottom (30) of the vertical pipe (7) and can be removed there from through a valve (31). There is tried to maintain a constant temperature in the staircase (6).

IPC 8 full level

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CPC (source: EP FI US)

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Citation (search report)

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Designated contracting state (EPC)

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