

Title (en)  
VENTILATION SYSTEM FOR ROAD TUNNELS

Title (de)  
BELÜFTUNGSSYSTEM FÜR STRASSENTUNNEL

Title (fr)  
SYSTÈME DE VENTILATION POUR TUNNELS ROUTIERS

Publication  
**EP 4102028 A1 20221214 (EN)**

Application  
**EP 22176519 A 20220531**

Priority  
IT 202100015140 A 20210610

Abstract (en)  
A ventilation system (1) for road tunnels, which comprises at least one fan (90) and a power supply and actuation apparatus (10) which is connected to an electric power supply line (41) and supplies electric power to the fan (90), wherein the power supply and actuation apparatus (10) comprises an electronic control system configured to control the speed and the direction of rotation of the fan (90) and comprises an electrical conversion device (30) interposed between the power supply line (41) and the fan (90); and further comprising at least one temperature detection device; the power supply and actuation apparatus (10) comprises a motorized switching unit (20) which is configured to change, as a function of the temperature detected by the temperature detection device, the configuration of the power supply and actuation apparatus (10) from an ordinary configuration, in which the power supply and actuation apparatus (10) powers the fan (90) by means of the electrical conversion device (30), to an emergency configuration, in which the motorized switching unit (20) isolates the electrical conversion device (30), creating an electrical bypass so as to power the fan (90) directly from the electrical line (41), the electrical bypass being thermally isolated, and vice versa.

IPC 8 full level  
**E21F 1/00** (2006.01); **E21F 11/00** (2006.01); **H04L 67/12** (2022.01)

CPC (source: EP)  
**E21F 1/003** (2013.01)

Citation (applicant)  
IT 202100015140 A 20210610

Citation (search report)  
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• [Y] JP 2010265655 A 20101125 - SOHATSU SYSTEM KENKYUSHO KK  
• [A] EP 3000663 A1 20160330 - TALLERES ZITRÓN S A [ES]  
• [A] GB 191016309 A 19110710 - WAYGOOD & COMPANY LTD R [GB], et al  
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• [A] JAVIER LUIS ET AL: "Variable Pitch Fans Evolution Proofing Underground Works", 1 December 2020 (2020-12-01), pages 1 - 23, XP055894612, Retrieved from the Internet <URL:https://tunnel-graz.at> [retrieved on 20220223]

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

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
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