

Title (en)

RAIL VEHICLE SWITCHABLE BETWEEN WINTER AND SUMMER OPERATION

Title (de)

SCHIENENFAHRZEUG MIT UMSCHALTUNG ZWISCHEN WINTER- UND SOMMERBETRIEB

Title (fr)

VÉHICULE FERROVIAIRE POUVANT ÊTRE COMMUTÉ ENTRE UN MODE HIVER ET UN MODE ÉTÉ

Publication

EP 2318251 B1 20120208 (DE)

Application

EP 09781994 A 20090819

Priority

- EP 2009060724 W 20090819
- DE 102008045952 A 20080904

Abstract (en)

[origin: WO2010026049A1] The invention relates to a rail vehicle (1) comprising a cooling apparatus for components disposed in a sub-floor area (2), such as an energy supply block, a power converter, a transformer or a drive motor (4), said components cooled either directly or by way of an associated cooler, wherein the cooling apparatus comprises at least one first inlet opening for fresh air used as cooling air, said opening being disposed in the sub-floor area (2), and at least one fan (5) for feeding the cooling air in the direction of at least one of the components (4), and wherein the cooling apparatus comprises at least one second inlet opening for fresh air used as cooling air, said second inlet opening being fluidically connected to the fan (5) and disposed above lateral skirts (8) of the rail vehicle (1) and being connected to the sub-floor area (2) by way of an air channel (13), wherein the first inlet opening is equipped with a snow filter (16).

IPC 8 full level

B61C 5/02 (2006.01); **B61C 3/00** (2006.01); **B61C 17/00** (2006.01); **B61C 17/04** (2006.01)

CPC (source: EP)

B61C 3/00 (2013.01); **B61C 17/00** (2013.01)

Cited by

DE102022207794A1; WO2024022770A1

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

WO 2010026049 A1 20100311; AT E544651 T1 20120215; CN 102143874 A 20110803; CN 102143874 B 20131016; DE 102008045952 A1 20100325; EP 2318251 A1 20110511; EP 2318251 B1 20120208; ES 2379693 T3 20120430; PT 2318251 E 20120411; RU 2011112799 A 20121010; RU 2501685 C2 20131220

DOCDB simple family (application)

EP 2009060724 W 20090819; AT 09781994 T 20090819; CN 200980134587 A 20090819; DE 102008045952 A 20080904; EP 09781994 A 20090819; ES 09781994 T 20090819; PT 09781994 T 20090819; RU 2011112799 A 20090819