

Title (en)
TRANSFORMER FOR VEHICLE

Title (de)
TRANSFORMATOR FÜR FAHRZEUG

Title (fr)
TRANSFORMATEUR DESTINÉ À UN VÉHICULE

Publication
EP 3514812 A4 20190904 (EN)

Application
EP 16916188 A 20160913

Priority
JP 2016076946 W 20160913

Abstract (en)
[origin: EP3514812A1] A traction transformer (10), which is to be installed on a roof (2) of a vehicle (1), includes: a main pipe (12), which forms a circulation passage for refrigerant; a transformer tank (13), which is arranged midway of the circulation passage, and is configured to accommodate a winding wire and store the refrigerant; a circulation pump (14), which is arranged midway of the circulation passage, and is configured to circulate the refrigerant in the circulation passage; and a cooler (15), which is arranged midway of the circulation passage and arranged on an upper surface of the transformer tank (13), and is configured to cool the refrigerant by heat exchange with air through use of traveling wind generated by traveling of the vehicle (1). The cooler (15) includes: a cooling-pipe mechanism, which is formed of a plurality of cooling pipes, and is arranged in a Z direction from the upper surface of the transformer tank (13); an inlet header (16a), which is configured to allow the refrigerant to flow into the cooling-pipe mechanism from the circulation pump side; and an outlet header (16b), which is configured to allow the refrigerant having flowed through the cooling-pipe mechanism to flow out to the transformer tank (13) side.

IPC 8 full level
H01F 27/12 (2006.01); **H01F 27/02** (2006.01); **H01F 38/00** (2006.01)

CPC (source: EP)
H01F 27/025 (2013.01); **H01F 27/12** (2013.01); **H01F 38/00** (2013.01)

Citation (search report)

- [XDYI] JP 2007273777 A 20071018 - TOSHIBA CORP, et al
- [Y] JP S5412817 U 19790127
- [Y] JP S5660765 A 19810525 - MITSUBISHI ELECTRIC CORP
- [A] JP 2013178018 A 20130909 - SUMITOMO PRECISION PROD CO
- [A] US 2013048260 A1 20130228 - MATSUMOTO YUUICHI [JP], et al
- [A] US 2008282730 A1 20081120 - SANADA RYOUICHI [JP]
- See references of WO 2018051403A1

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)
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DOCDB simple family (application)
EP 16916188 A 20160913; JP 2016076946 W 20160913; JP 2017511357 A 20160913