

Title (en)
TRANSFORMER FOR VEHICLE

Title (de)
TRANSFORMATOR FÜR FAHRZEUG

Title (fr)
TRANSFORMATEUR DESTINÉ À UN VÉHICULE

Publication
EP 3514812 B1 20220921 (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 27/02 (2006.01); **H01F 27/12** (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)

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

DOCDB simple family (publication)
EP 3514812 A1 20190724; EP 3514812 A4 20190904; EP 3514812 B1 20220921; JP 6180684 B1 20170816; JP WO2018051403 A1 20180913; WO 2018051403 A1 20180322

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