

Title (en)  
ELECTRICAL HEATING DEVICE FOR VEHICLES

Title (de)  
ELEKTRISCHE ERWÄRMUNGSVORRICHTUNG FÜR FAHRZEUGE

Title (fr)  
DISPOSITIF DE CHAUFFAGE ÉLECTRIQUE POUR VÉHICULES

Publication  
**EP 2462339 A1 20120613 (EN)**

Application  
**EP 10806705 A 20100726**

Priority  
• SE 0901057 A 20090804  
• SE 2010000197 W 20100726

Abstract (en)  
[origin: WO2011016763A1] Electrical heating device for heating a liquid in a vehicle, consisting of a container (15) and a heating plate (24), where the container (15) is produced from a thermoplastic material such as PA66 and where the heating plate (24) contains a number of PTC elements which are connected to an electrical energy source. The container (15) is connected to the system for the liquid with connection nipples (16, 17) arranged on the intermediate sides (37, 40) of the container (15).

IPC 8 full level  
**F01M 5/02** (2006.01); **F02N 19/10** (2010.01); **F24H 1/12** (2006.01); **H05B 3/40** (2006.01)

CPC (source: EP SE)  
**F01M 5/001** (2013.01 - SE); **F01M 5/021** (2013.01 - SE); **F02N 19/10** (2013.01 - EP SE); **H05B 3/28** (2013.01 - EP); **H05B 3/40** (2013.01 - SE); **H05B 3/82** (2013.01 - EP); **F01M 2013/0455** (2013.01 - EP); **F01P 11/04** (2013.01 - EP)

Cited by  
WO2015137818A1; WO2015137822A1; WO2015137817A1; EP3594468A1

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 SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2011016763 A1 20110210**; EP 2462339 A1 20120613; EP 2462339 A4 20170510; SE 0901057 A1 20101019; SE 533533 C2 20101019

DOCDB simple family (application)  
**SE 2010000197 W 20100726**; EP 10806705 A 20100726; SE 0901057 A 20090804