

Title (en)  
COOLING AND HOLDING DEVICE FOR HEATING-ELEMENTS, HEATER AND METHOD FOR PRODUCING A COOLING AND HOLDING DEVICE

Title (de)  
KÜHL- UND HALTEKÖRPER FÜR HEIZELEMENTE, HEIZGERÄT UND VERFAHREN ZUR HERSTELLUNG EINES KÜHL- UND HALTEKÖRPERS

Title (fr)  
CORPS DE REFROIDISSEMENT ET DE RETENUE POUR ÉLÉMENTS CHAUFFANTS, APPAREIL DE CHAUFFAGE ET PROCÉDÉ DE FABRICATION D'UN CORPS DE REFROIDISSEMENT ET DE RETENUE

Publication  
**EP 2772116 B1 20180117 (DE)**

Application  
**EP 12787386 A 20121022**

Priority  
• DE 102011054752 A 20111024  
• EP 2012070871 W 20121022

Abstract (en)  
[origin: WO2013060647A1] The invention relates to a cooling and holding device for heating-elements (10), more particularly PTC heating-elements, comprising a flat housing (11) having at least one heating shaft (12) in which there is at least one heating-element (10), wherein the heating shaft (12) has opposing shaft walls (13a, 13b) between which the heating-element (10) is clamped, and at least one side slit (14) that separates the shaft walls (13a, 13b) such that the distance between the shaft walls (13a, 13b) can be varied for installation of the heating-element (10), wherein at least one clamping section (15) outwardly protruding from the flat housing (11), grips the flat housing, spanning the side slit (14), and is elastically deformed in the mounted state of the heating-element (10) so as to provide a pressing force of the shaft walls (13a, 13b) on the heating-element (10) in the assembled state.

IPC 8 full level  
**H05B 3/50** (2006.01)

CPC (source: EP RU US)  
**H05B 3/06** (2013.01 - EP US); **H05B 3/50** (2013.01 - RU); **H05B 2203/02** (2013.01 - EP US); **Y10T 29/49863** (2015.01 - EP US)

Citation (examination)  
• DE 4010620 A1 19911010 - PETZ ELEKTRO WAERME TECHN [DE]  
• DE 2804818 A1 19790809 - EICHENAUER FA FRITZ  
• DE 20120281 U1 20020228 - DAMMANN & WESTERKAMP [DE]  
• EP 2053902 A1 20090429 - CALSONIC KANSEI CORP [JP]

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)  
**DE 102011054752 A1 20130425; DE 102011054752 B4 20140904**; BR 112014009640 A2 20170613; CN 103891399 A 20140625; CN 103891399 B 20160120; EP 2772116 A1 20140903; EP 2772116 B1 20180117; ES 2665304 T3 20180425; IN 2579CHN2014 A 20150626; JP 2014534573 A 20141218; JP 6075801 B2 20170208; PL 2772116 T3 20180731; RU 2014120902 A 20151210; RU 2599530 C2 20161010; TW 201325424 A 20130616; TW I606777 B 20171121; US 2014299293 A1 20141009; US 9661689 B2 20170523; WO 2013060647 A1 20130502

DOCDB simple family (application)  
**DE 102011054752 A 20111024**; BR 112014009640 A 20121022; CN 201280052012 A 20121022; EP 12787386 A 20121022; EP 2012070871 W 20121022; ES 12787386 T 20121022; IN 2579CHN2014 A 20140404; JP 2014536280 A 20121022; PL 12787386 T 20121022; RU 2014120902 A 20121022; TW 101139054 A 20121023; US 201214354006 A 20121022