

Title (en)  
COOLING ELEMENT FOR REFRIGERATOR

Title (de)  
KÜHLELEMENT FÜR EINEN KÜHLSCHRANK

Title (fr)  
ÉLÉMENT DE REFROIDISSEMENT POUR RÉFRIGÉRATEUR

Publication  
**EP 2751504 A4 20150603 (EN)**

Application  
**EP 13777943 A 20130415**

Priority  
• IN 1169DE2012 A 20120416  
• IB 2013000693 W 20130415

Abstract (en)  
[origin: WO2013156839A1] A direct cool refrigeration system (100) comprising a refrigerator compartment (101) and a freezer compartment (102); the freezer compartment (102) comprising an evaporator plate (106) in contact with a plurality of coils or tubes (113) with refrigerant circulating therewithin. A plurality of cooling elements are provided inside the refrigerator, at least one of them being in contact with the evaporator plate (106). The cooling element comprises a phase change material (PCM) having freezing point lower than 0°C and higher than the average evaporator plate temperature, enclosed in a flexible case (110).

IPC 8 full level  
**F25D 19/00** (2006.01); **F25D 3/00** (2006.01); **F25D 11/00** (2006.01); **F25D 25/00** (2006.01)

CPC (source: EP KR)  
**F25D 3/00** (2013.01 - KR); **F25D 11/006** (2013.01 - EP); **F25D 19/00** (2013.01 - KR); **F25D 25/02** (2013.01 - KR)

Citation (search report)  
• [XY] US 4748823 A 19880607 - ASANO HIDEO [JP], et al  
• [Y] EP 1939554 A1 20080702 - CANDY SPA [IT]  
• [Y] EP 0974794 B1 20060913 - WHIRLPOOL CO [US]  
• [X] US 4459826 A 19840717 - HIRANO YOSHIMI [JP], et al  
• [E] EP 2607820 A2 20130626 - LG ELECTRONICS INC [KR]  
• [A] US 2010170286 A1 20100708 - GHIRALDI ALBERTO [IT]  
• See references of WO 2013156839A1

Designated contracting state (EPC)  
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BA ME

DOCDB simple family (publication)  
**WO 2013156839 A1 20131024**; CN 103890508 A 20140625; CN 103890508 B 20160316; EP 2751504 A1 20140709; EP 2751504 A4 20150603; EP 2751504 B1 20180912; KR 101573592 B1 20151211; KR 20140015590 A 20140206

DOCDB simple family (application)  
**IB 2013000693 W 20130415**; CN 201380003527 A 20130415; EP 13777943 A 20130415; KR 20137034567 A 20130415