

Title (en)  
COOLING ARRANGEMENT

Title (de)  
KÜHLANORDNUNG

Title (fr)  
AGENCEMENT DE REFROIDISSEMENT

Publication  
**EP 2340558 A1 20110706 (EN)**

Application  
**EP 09740987 A 20091012**

Priority  
• IB 2009054468 W 20091012  
• EP 08166854 A 20081017  
• EP 09740987 A 20091012

Abstract (en)  
[origin: WO2010044047A1] A cooling arrangement for cooling a heat generating electrical component is disclosed, which arrangement comprises a heat spreading element (2) having a mounting surface (3) adapted to be thermally connected to the heat generating electrical component (1), and a heat rejection surface (4). The arrangement further comprises an enclosure (5) arranged to cover the heat rejection surface (4) and form an essentially closed compartment; an opening (13) leading into the compartment; an annular member (11) coaxially aligned with the opening; and an actuator connected to the annular member (11), and arranged to move the annular member (11) reciprocating away from/toward the opening (13). The annular member (11) hence generates a jet directed through the opening (13) toward the outside of the enclosure (5).

IPC 8 full level  
**H01L 23/433** (2006.01); **H01L 23/467** (2006.01)

CPC (source: EP KR US)  
**F21V 29/83** (2015.01 - EP US); **H01L 23/433** (2013.01 - KR); **H01L 23/4336** (2013.01 - EP US); **H01L 23/467** (2013.01 - EP KR US); **H01L 33/642** (2013.01 - US); **F21Y 2115/10** (2016.07 - EP US); **H01L 2924/0002** (2013.01 - EP US)

Citation (search report)  
See references of WO 2010044047A1

Designated contracting state (EPC)  
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

Designated extension state (EPC)  
AL BA RS

DOCDB simple family (publication)  
**WO 2010044047 A1 20100422**; CN 102187457 A 20110914; EP 2340558 A1 20110706; JP 2012506141 A 20120308; KR 20110073582 A 20110629; RU 2011119607 A 20121127; TW 201027023 A 20100716; US 2011240260 A1 20111006

DOCDB simple family (application)  
**IB 2009054468 W 20091012**; CN 200980141135 A 20091012; EP 09740987 A 20091012; JP 2011531610 A 20091012; KR 20117011227 A 20091012; RU 2011119607 A 20091012; TW 98134818 A 20091014; US 200913124427 A 20091012