Title (en)
EXPLOSION-PROOF LED MODULE

Title (de)
EXPLOSIONSGESCHÜTZTES LED-MODUL

Title (fr)
MODULE DEL PROTÉGÉ CONTRE LES EXPLOSIONS

Publication
EP 2697565 A1 20140219 (DE)

Application
EP 12716238 A 20120404

Priority
- DE 102011017162 A 20110415
- EP 2012001496 W 20120404

Abstract (en)
[origin: CA2833063A1] The invention relates to an explosion-proof LED module (1) that has at least one light-emitting diode (2), a heat sink (3) connected to said diode and an LED cover (5) that covers the LED at least in the emission direction. The LED cover (5) extends into an insertion recess (6) of the heat sink (3). In this insertion recess, the LED cover is surrounded by a casting compound (7) sealing the LED relative to an external and potentially explosive atmosphere. Thus, an explosion-proof LED module can be provided, which can be produced relatively simply and cost-effectively from prefabricated parts in a short time. At the same time, the explosion-proof LED module is further characterised in that sufficient cooling is provided according to the ignition protection class "intrinsically safe" and embedding of the component is provided according to the ignition protection class "cast encapsulation."

IPC 8 full level
F21V 25/12 (2006.01)

CPC (source: EP US)
F21S 4/28 (2016.01 - EP US); **F21V 3/00** (2013.01 - EP US); **F21V 5/04** (2013.01 - EP US); **F21V 17/164** (2013.01 - EP US); **F21V 25/12** (2013.01 - EP US); **F21V 29/70** (2015.01 - US); **F21V 29/713** (2015.01 - EP US); **F21V 29/76** (2015.01 - EP US); **F21V 31/04** (2013.01 - EP US); F21Y 2103/10 (2016.07 - EP US); F21Y 2115/10 (2016.07 - EP US)

Citation (search report)
See references of WO 2012139728A1

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 102011017162 A1 20121018; AU 2012242213 A1 20131107; AU 2012242213 B2 20140925; BR 112013026477 A2 20161227; BR 112013026477 B1 20200227; CA 2833063 A1 20121018; CA 2833063 C 20160823; CN 103562630 A 20140205; CN 103562630 B 20160330; EP 2697565 A1 20140219; EP 2697565 B1 20190306; JP 2014515191 A 20140626; JP 2015222832 A 20151210; JP 5952473 B2 20160713; KR 101666707 B1 20161017; KR 101692664 B1 20170103; KR 20140002022 A 20140107; KR 20150129038 A 20151118; MY 158914 A 20161130; RU 2013147916 A 20150520; RU 2568426 C2 20151120; SA 112330448 B1 20170215; US 2014204570 A1 20140724; US 9541272 B2 20170110; WO 2012139728 A1 20121018

DOCDB simple family (application)
DE 102011017162 A 20110415; AU 2012242213 A 20120404; BR 112013026477 A 20120404; CA 2833063 A 20120404; CN 201280026897 A 20120404; EP 12716238 A 20120404; EP 2012001496 W 20120404; JP 2014504201 A 20120404; JP 2015153324 A 20150803; KR 20137029060 A 20120404; KR 20157030457 A 20120404; MY PI2013003773 A 20120404; RU 2013147916 A 20120404; SA 112330448 A 20120411; US 201214111761 A 20120404