

Title (en)
LED MODULE WITH PROTECTION ELEMENT

Title (de)
LED-MODUL MIT BERÜHRUNGSSCHUTZELEMENT

Title (fr)
MODULE LED AVEC ELEMENT DE PROTECTION

Publication
EP 3008381 B1 20171101 (DE)

Application
EP 14722582 A 20140422

Priority
• DE 202013101814 U 20130426
• EP 2014058109 W 20140422

Abstract (en)
[origin: WO2014173881A1] An LED module has an LED printed circuit board (2) having a flat surface region (21), an LED (3) for generating a light, wherein the LED (3) is arranged on the surface region (21) of the LED printed circuit board (2), and a shock-hazard protection element (4) for providing protection from touching contact being made with the surface region (21) of the LED printed circuit board (2) or the LED (3), wherein the shock-hazard protection element (4) has a flat surface region (41), which is arranged so as to be oriented parallel to the flat surface region (21) of the LED printed circuit board (2), wherein the shock-hazard protection element (4) furthermore has at least one light-influencing region (42) for optically influencing the light, which light-influencing region is configured so as to protrude from the flat surface region (41) of the shock-hazard protection element (4).

IPC 8 full level
F21V 17/00 (2006.01); **F21V 25/00** (2006.01); **F21Y 105/00** (2016.01); **F21Y 115/10** (2016.01)

CPC (source: EP US)
F21K 9/00 (2013.01 - EP US); **F21V 17/108** (2013.01 - EP US); **F21V 19/003** (2013.01 - US); **F21V 25/00** (2013.01 - US);
F21Y 2105/10 (2016.07 - EP US); **F21Y 2115/10** (2016.07 - EP US)

Citation (examination)
WO 2012029002 A1 20120308 - KONINKL PHILIPS ELECTRONICS NV [NL], et al

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 202013101814 U1 20140729; CN 105143767 A 20151209; EP 3008381 A1 20160420; EP 3008381 B1 20171101;
US 2016076752 A1 20160317; WO 2014173881 A1 20141030

DOCDB simple family (application)
DE 202013101814 U 20130426; CN 201480021414 A 20140422; EP 14722582 A 20140422; EP 2014058109 W 20140422;
US 201414786892 A 20140422