

Title (en)

FINNED BODY FOR A POWER LED LIGHTING APPARATUS AND LIGHTING APPARATUS THEREWITH

Title (de)

GERIPPTER KÖRPER FÜR HOCHLEISTUNGS-LED-LEUCHTE UND LEUCHTE DAMIT

Title (fr)

CORPS À AILETTES POUR APPAREIL D'ÉCLAIRAGE LED ET APPAREIL D'ÉCLAIRAGE EN COMPORTANT

Publication

EP 2547957 A2 20130123 (EN)

Application

EP 11729675 A 20110318

Priority

- IT PI20100029 A 20100317
- IB 2011000581 W 20110318

Abstract (en)

[origin: WO2011114226A2] A finned body (100) comprises a plurality of fins (Ai) at a distance (d_i) from one another, and each fin Ai extends from a root of material (3) that has a circular cross section of diameter (F?). The root (3) extends from a support base (1) with a housing support (2) for a power LED chip (20). The method for making the finned body (100) comprises the steps of prearranging a raw block (10) on the front face of which (1a) is formed the housing support (2) for a power LED chip (20), then on the element (10) fins (A1), (A2), (A3),... (An), (Ai), are made starting at a measured distance (D) from the front seat (2), in order to form the support base (1) of thickness (D). The first plane slit (F1) and the subsequent slits are made by progressively moving the cutting tool (42) until the finned body (100) is obtained. The root (3) of the fins (Ai) may have a decreasing conical shape in order to optimize the cooling step. A power LED chip (20) and a reflector body (110) may be mounted on the finned body (100), at the front seat (2). Through holes (8a or 8b) may be made on the front seat (2), such holes crossing the finned body (100) starting from the front seat (2) towards last fin An, which is arranged to receive electrical supply wires of the power LED chip (20) and/or to allow an axial air circulation and to assist heat exchange.

IPC 8 full level

F21V 29/00 (2006.01); **F21K 99/00** (2010.01)

CPC (source: EP US)

F21V 29/75 (2015.01 - EP); **F21V 29/767** (2015.01 - EP); **F21V 29/83** (2015.01 - EP); **F21V 29/89** (2015.01 - EP US);
F21K 9/00 (2013.01 - EP US); **F21S 2/005** (2013.01 - EP); **F21S 6/007** (2013.01 - EP); **F21S 8/02** (2013.01 - EP); **F21S 8/061** (2013.01 - EP);
F21V 29/745 (2015.01 - EP); **F21Y 2105/10** (2016.07 - EP US); **F21Y 2115/10** (2016.07 - EP US); **F28F 3/02** (2013.01 - EP)

Citation (search report)

See references of WO 2011114226A2

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)

WO 2011114226 A2 20110922; WO 2011114226 A3 20130404; EP 2547957 A2 20130123; EP 2547957 B1 20181003; IT 1398867 B1 20130321;
IT PI20100029 A1 20110918

DOCDB simple family (application)

IB 2011000581 W 20110318; EP 11729675 A 20110318; IT PI20100029 A 20100317