

Title (en)
LED SYSTEM WITHOUT HEAT SINK

Title (de)
LED-SYSTEM OHNE KÜHLKÖRPER

Title (fr)
SYSTÈME LED SANS DISSIPATEUR THERMIQUE

Publication
EP 4115120 B1 20240327 (FR)

Application
EP 21709802 A 20210223

Priority
• FR 2002246 A 20200305
• IB 2021051511 W 20210223

Abstract (en)
[origin: WO2021176302A1] The invention relates to a light-emitting-diode lighting system that is at once powerful, robust, durable and has a protection index of up to IP69, while still keeping a low production cost. It consists of an insulated metal substrate, on which at least one light-emitting diode is deposited, and supplied with power via a cable or a connector. The circuit obtained is then enclosed within a heat-shrinkable sheath, which will remove the air and will dissipate the heat from the substrate and the diodes in an optimal manner, its heat-dissipation capability being of the order of ten times that of air. Each of the ends will then be overmolded, in order to make the system sealtight and robust. It is possible to take advantage of the overmolding to add a sealing lip around the connector, and specific voids allowing various modes of attachment, individually or per group. The device according to the invention is intended for domestic, industrial or horticultural lighting, depending on whether a translucent or transparent substrate is used.

IPC 8 full level
F21V 29/87 (2015.01); **F21Y 105/16** (2016.01)

CPC (source: EP US)
F21S 4/28 (2016.01 - US); **F21V 29/87** (2015.01 - EP US); **F21Y 2105/16** (2016.08 - EP US); **F21Y 2115/10** (2016.08 - EP US)

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 2021176302 A1 20210910; EP 4115120 A1 20230111; EP 4115120 B1 20240327; EP 4115120 C0 20240327; FR 3107944 A1 20210910; FR 3107944 B1 20220211; US 11732880 B2 20230822; US 2023123362 A1 20230420

DOCDB simple family (application)
IB 2021051511 W 20210223; EP 21709802 A 20210223; FR 2002246 A 20200305; US 202117908251 A 20210223