

Title (en)  
Waterproof christmas light bulb

Title (de)  
Wasserdichte Weihnachtslampe

Title (fr)  
Ampoule de noel étanche

Publication  
**EP 1384942 B1 20060405 (EN)**

Application  
**EP 02016603 A 20020725**

Priority  
EP 02016603 A 20020725

Abstract (en)  
[origin: EP1384942A1] A waterproof Christmas light bulb includes a connection tube (22) formed on top of the socket (20) and having a diameter smaller than a diameter of the socket (20) so that a step (23) is formed at a joint between the socket (20) and the connection tube (22), a bulb (30) partially received in the connection tube (22), an O ring (34) resting on and supported by the step (23), an enclosure (40) securely connected to the connection tube (22) by a securing device so that the O ring (34) is securely clamped between the enclosure (40) and the step (23) of the socket (20), and a plug (50) received in the socket (20) to have a waterproof engagement with the cables (21) and the inner periphery of the hollow socket (20). <IMAGE>

IPC 8 full level  
**F21V 19/00** (2006.01); **F21S 4/00** (2006.01); **F21V 15/01** (2006.01); **F21V 31/00** (2006.01); **H01R 33/09** (2006.01); **F21V 27/02** (2006.01); **H01R 33/965** (2006.01)

CPC (source: EP)  
**F21S 4/10** (2016.01); **F21V 15/01** (2013.01); **F21V 19/0005** (2013.01); **F21V 31/00** (2013.01); **H01R 33/09** (2013.01); **F21V 27/02** (2013.01); **H01R 33/965** (2013.01)

Cited by  
EP1972849A1; AU2010100308B4; CN112432100A; US10887961B2; EP3246626A1; US2017336063A1; CN107401701A; US7556520B2; US10533738B2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)  
**EP 1384942 A1 20040128**; **EP 1384942 B1 20060405**; AT E322648 T1 20060415; DE 60210442 D1 20060518; DE 60210442 T2 20060907; ES 2261562 T3 20061116

DOCDB simple family (application)  
**EP 02016603 A 20020725**; AT 02016603 T 20020725; DE 60210442 T 20020725; ES 02016603 T 20020725