

Title (en)

Short arc high intensity mercury discharge lamp

Title (de)

Kurzbogen-Quecksilber-Hochleistungsentladungslampe

Title (fr)

Lampe à arc court à décharge de mercure à haute intensité

Publication

**EP 1416518 A2 20040506 (EN)**

Application

**EP 03256860 A 20031030**

Priority

GB 0225254 A 20021030

Abstract (en)

A high pressure arc discharge lamp apparatus comprising a lamp (40) and an operating system (42, 44, 46) therefor. The lamp comprises an envelope forming a discharge chamber which contains a dose of mercury and a pair of electrodes with their tips spaced apart from one another to define an arc gap. An operating system for the lamp includes means for acting on the electrodes to prevent a mercury dose globule from forming between the electrode tips on shutdown of the lamp. The means for acting on the electrodes may comprise means (42, 46) for smoothly reducing the lamp voltage upon lamp shutdown; or means (42, 44, 46) for briefly re-igniting the arc one or more times following shutdown; or means for vibrating the lamp after shutdown.

The lamp (40) has an operating circuit acting on electrodes and/or lamp to ensure that a mercury dose globule does not form between the electrodes at shutdown or restarting of the lamp. The operating circuit includes a lamp driver (42), controller (46) and ignition circuit (44). The operating circuit produces a phased reduction of lamp power on shutdown so that the envelope cools before the arc is extinguished.

IPC 1-7

**H01J 61/86**; **H01J 61/54**; **H01J 61/20**

IPC 8 full level

**F21S 2/00** (2006.01); **G03B 21/14** (2006.01); **H01J 61/00** (2006.01); **H01J 61/20** (2006.01); **H01J 61/52** (2006.01); **H01J 61/54** (2006.01); **H01J 61/82** (2006.01); **H01J 61/86** (2006.01); **H05B 37/02** (2006.01); **H05B 41/292** (2006.01)

CPC (source: EP)

**H01J 61/20** (2013.01); **H01J 61/54** (2013.01); **H01J 61/86** (2013.01); **H05B 41/2928** (2013.01)

Cited by

CN104345529A; EP2829913A3; JP2015025865A; US9429827B2; US8008872B2; WO2008017980A3; WO2007132369A3

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

Designated extension state (EPC)

AL LT LV MK

DOCDB simple family (publication)

**EP 1416518 A2 20040506**; **EP 1416518 A3 20090701**; CN 100401452 C 20080709; CN 101165847 A 20080423; CN 1505092 A 20040616; GB 0225254 D0 20021211; JP 2004152768 A 20040527

DOCDB simple family (application)

**EP 03256860 A 20031030**; CN 200310104480 A 20031030; CN 200710193481 A 20031030; GB 0225254 A 20021030; JP 2003368208 A 20031029