

Title (en)
SELF-CENTRING ASSEMBLY FOR A VACUUM TUBE AND VACUUM TUBE

Title (de)
SELBSTZENTRIERENDE EINHEIT FÜR VAKUUMRÖHRE, UND ENTSPRECHENDE VAKUUMRÖHRE

Title (fr)
ENSEMBLE AUTOCENTRÉ POUR AMPOULE À VIDE ET AMPOULE À VIDE

Publication
EP 2960921 B1 20170412 (FR)

Application
EP 15173577 A 20150624

Priority
FR 1456057 A 20140627

Abstract (en)
[origin: CN105221955A] The invention relates to a self-centering assembly (20, 30, 40) for vacuum bulb (1) comprising a bulb element (21, 31, 41) to be centered relative to the axis of at least a portion of bulb body (11, 12) and a centering system adapted for centering the element (21, 31, 41) with relative to the bulb portion (11, 12) of the bulb body. The centering system comprises at least one coil spring (25, 35, 45) whose coils are distributed along a center line of the spring (25, 35, 45). The spring (25, 35, 45) and the center line are adapted, so that when the bulb element is arranged in the bulb body, a plurality of spring coils (25, 35, 45) are inserted between the bulb element (21, 31, 41) and the bulb portion (11, 12) through the contact of the bulb element and the bulb portion.

IPC 8 full level
H01H 33/662 (2006.01)

CPC (source: CN EP)
F21S 2/00 (2013.01 - CN); **F21V 19/0065** (2013.01 - CN); **H01H 33/66207** (2013.01 - EP); **H01H 33/66261** (2013.01 - EP);
H01H 2033/66276 (2013.01 - EP)

Citation (opposition)
Opponent : ABB AG
• US 6657149 B1 20031202 - FIEBERG KLEMENS [DE], et al
• JP S522260 U 19770108
• JP 2001297666 A 20011026 - MITSUBISHI ELECTRIC CORP
• JP S6358440 U 19880419
• JP S63261639 A 19881028 - TOSHIBA CORP
• JP S6337043 U 19880310

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)
EP 2960921 A1 20151230; EP 2960921 B1 20170412; CN 105221955 A 20160106; CN 105221955 B 20190212; FR 3023056 A1 20160101;
FR 3023056 B1 20160722

DOCDB simple family (application)
EP 15173577 A 20150624; CN 201510521117 A 20150626; FR 1456057 A 20140627