

Title (en)

Three-dimension symmetrical vertical transformer

Title (de)

Dreidimensionaler symmetrischer vertikaler Transformator

Title (fr)

Transformateur vertical symétrique en trois dimensions

Publication

EP 2966661 A2 20160113 (EN)

Application

EP 14196615 A 20141205

Priority

US 201462022205 P 20140709

Abstract (en)

First and second paths of the primary-coil of the transformer are located at different sides of the symmetry-line. First terminals of the first and second paths are first and second ports of the primary-coil. Second terminals of the first and second paths are connected to each other. Two partial paths of the first path are connected to each other by TSV. Two partial paths of the second path are connected to each other by TSV. Third and fourth paths of the secondary-coil of the transformer are located on different sides of the symmetry-line. First terminals of the third and fourth paths are first and second ports of the secondary-coil. Second terminals of the third and fourth paths are connected to each other. Two partial paths of the third path are connected to each other by TSV. Two partial paths of the fourth path are connected to each other by TSV.

IPC 8 full level

H01F 27/28 (2006.01); **H01L 23/64** (2006.01)

CPC (source: EP)

H01F 27/2804 (2013.01); **H01F 2027/2809** (2013.01); **H01L 2924/0002** (2013.01)

Cited by

EP4239870A4; US11942428B2

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2966661 A2 20160113; **EP 2966661 A3 20160120**; CN 105304607 A 20160203; CN 105304607 B 20181123; TW 201603067 A 20160116; TW I590269 B 20170701

DOCDB simple family (application)

EP 14196615 A 20141205; CN 201410530860 A 20141010; TW 103130990 A 20140909