

Title (en)

HIGH-CAPACITY THREE-PHASE COMBINED TYPE PHASE-SHIFT TRANSFORMER

Title (de)

DREIPHASIGER KOMBINIRTER PHASENVERSCHIEBUNGSWANDLER MIT HOHER KAPAZITÄT

Title (fr)

TRANSFORMATEUR DÉPHASEUR TRIPHASÉ DU TYPE COMBINÉ DE FORTE CAPACITÉ

Publication

**EP 3232452 A4 20180131 (EN)**

Application

**EP 15868363 A 20151204**

Priority

- CN 201410744863 A 20141209
- CN 2015096443 W 20151204

Abstract (en)

[origin: EP3232452A1] The present invention relates to a high-capacity three-phase combined type phase-shift transformer, comprising: three single-phase transformers, which are respectively used as a phase A, a phase B and a phase C and are combined with one another to form a three-phase transformer. Each single-phase transformer comprises a series transformer and an excitation transformer that are arranged in a same oil tank and are two devices independent of each other. A series transformer of each phase comprises a series coil and an excitation coil. The excitation transformer comprises a voltage regulation excitation coil and a voltage regulation coil. A head end of the voltage regulation excitation coil is connected to a center tap of a series coil of a series transformer of a same phase, and a tail end is used as a neutral point to be led out of the oil tank. A head end of the voltage regulation coil is led out of the oil tank to be connected to an angular joint of excitation coils of the other two phases, and a tail end is used as a neutral point to be led out of the oil tank. The present invention is simple in structure, can reduce the voltage level of a tap switch, can simplify a connection structure between various devices, reduces the mounting difficulty, and has high practicality in high-capacity and high-voltage-level phase-shift transformers.

IPC 8 full level

**H01F 29/00** (2006.01); **H01F 27/28** (2006.01); **H01F 27/29** (2006.01); **H01F 27/40** (2006.01); **H01F 27/42** (2006.01); **H01F 30/12** (2006.01); **H02P 13/06** (2006.01)

CPC (source: EP)

**H01F 27/28** (2013.01); **H01F 27/29** (2013.01); **H01F 27/40** (2013.01); **H01F 27/42** (2013.01); **H01F 29/00** (2013.01); **H01F 30/12** (2013.01); **H01F 2029/143** (2013.01)

Citation (search report)

- [A] US 5166597 A 19921124 - LARSEN EINAR V [US], et al
- [A] CN 101354957 A 20090128 - BAODING TIANWEI GROUP CO LTD [CN]
- [A] CN 101692398 A 20100407 - BAODING TIANWEI GROUP CO LTD
- See references of WO 2016091123A1

Cited by

EP3937198A1; WO2022008227A1; WO2023099047A1

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 3232452 A1 20171018**; **EP 3232452 A4 20180131**; **EP 3232452 B1 20200520**; CN 104465053 A 20150325; CN 104465053 B 20160803; WO 2016091123 A1 20160616

DOCDB simple family (application)

**EP 15868363 A 20151204**; CN 201410744863 A 20141209; CN 2015096443 W 20151204