

Title (en)

Safety device for electrical transformers and related electrical transformer

Title (de)

Sicherheitsvorrichtung für elektrische Transformatoren und zugehöriger elektrischer Transformator

Title (fr)

Dispositif de sécurité pour transformateurs électriques et transformateur électrique associé

Publication

EP 2669910 A1 20131204 (EN)

Application

EP 12425103 A 20120531

Priority

EP 12425103 A 20120531

Abstract (en)

Safety device for electrical transformers, comprising: - a casing provided with an internal chamber suitable to be connected in hydraulic communication with an oil-containing vessel and an oil-containing conservator of an associated electrical transformer, for oil flowing through said internal chamber between the vessel and the conservator; - a first oil outflow detecting vane which is movably connected to the casing and is arranged along the path of the oil flow, the first oil outflow detecting vane being suitable to move from a rest position when oil outflows from the vessel with an oil speed greater than an alarm oil speed threshold; - a second oil outflow detecting vane which is movably connected to the casing and is arranged along the path of the oil flow, the second oil outflow detecting vane being suitable to move from a rest position when oil outflows from the vessel with an oil speed greater than a safety oil speed threshold, wherein the safety oil speed threshold being greater the said alarm oil speed threshold; - first detection means for detecting a movement of the first oil outflow detecting vane from its rest position, the first detection means being suitable to be connected to alarm means for signalling when the detected movement of the first oil outflow detecting vane from its rest position exceeds the alarm oil speed threshold; - second detection means for detecting a movement of the second oil outflow detecting vane from its rest position, the second detection means being suitable to cause the intervention of a circuit breaker device suitable to disconnect the electrical transformer from an associated power grid when the detected movement of the second oil outflow detecting vane from its rest position exceeds the safety oil speed threshold.

IPC 8 full level

H01F 27/40 (2006.01)

CPC (source: EP)

H01F 27/12 (2013.01); **H01F 27/402** (2013.01); **H01H 33/555** (2013.01); **H01H 35/40** (2013.01); **H01F 2027/404** (2013.01)

Citation (search report)

- [IA] EP 0944150 A2 19990922 - COMEM SPA [IT]
- [A] WO 03098763 A1 20031127 - WILLIAMS JOHN OWEN [AU]
- [A] US 1642397 A 19270913 - MAX BUCHHOLZ

Cited by

CN109166755A; CN106093636A; EP3098827A1

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 2669910 A1 20131204; **EP 2669910 B1 20150701**; BR 112014030054 A2 20170627; BR 112014030054 A8 20171226; CN 104380400 A 20150225; CN 104380400 B 20170808; PL 2669910 T3 20160429; WO 2013178447 A1 20131205; ZA 201407960 B 20151125

DOCDB simple family (application)

EP 12425103 A 20120531; BR 112014030054 A 20130508; CN 201380027646 A 20130508; EP 2013059671 W 20130508; PL 12425103 T 20120531; ZA 201407960 A 20141031