

Title (en)

Dry transformer cooled by means of a compact thermosyphon air to air heat exchanger

Title (de)

Trockentransformator, der mittels eines kompakten Thermosiphon-Luft-zu-Luft-Wärmetauschers gekühlt wird

Title (fr)

Transformateur sec refroidi au moyen d'un échangeur thermique air/air à thermosiphon compact

Publication

EP 2284846 A1 20110216 (EN)

Application

EP 09167770 A 20090813

Priority

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Abstract (en)

The present invention is concerned with the cooling of electrical heat sources, in particular for improving the cooling of a transformer. A power unit (200) with a heat producing unit (203) comprising at least one heat source (202) and with a cooling unit comprising at least one heat exchanger device (100) and at least a portion of a secondary chamber (209) is provided. The at least one heat source (202) is thermally connected to the at least one heat exchanger device (100). The heat producing unit (203) and the cooling unit (201) are attached to one another such that a substantially closed primary chamber (211) with at least one heat source (202) is formed. The primary chamber (211) is structurally separated from the secondary chamber (209), and the primary chamber (211) and the secondary chamber (209) are thermally connected to one another by the at least one heat exchanger device (100) in an operating state of the power unit (200).

IPC 8 full level

H01F 27/18 (2006.01); **H01F 27/08** (2006.01)

CPC (source: EP)

F28D 1/05383 (2013.01); **F28D 15/0233** (2013.01); **F28D 15/0275** (2013.01); **F28F 1/126** (2013.01); **H01F 27/18** (2013.01); **H01F 27/085** (2013.01)

Citation (applicant)

- US 3887759 A 19750603 - STAUB FRED W, et al
- EP 2031332 A1 20090304 - ABB RESEARCH LTD [CH]

Citation (search report)

- [XY] JP H11283844 A 19991015 - DAIHEN CORP
- [YD] EP 2031332 A1 20090304 - ABB RESEARCH LTD [CH]
- [A] US 2007247266 A1 20071025 - YARGOLE ARUN D [IN], et al
- [A] US 1551029 A 19250825 - HANSON ROY E

Citation (examination)

US 6575230 B1 20030610 - KADOTA SHIGERU [JP], et al

Cited by

EP3196586A1; EP2667137A1; WO2013174470A1; CN110391068A; EP3886547A4; CN109256263A; US9894815B1; US10638648B2; US10714256B2; US9097467B2; EP2645040A1; CN103363818A; WO2016004999A1; EP3407693A1; US2018338392A1; CN108955327A; US11147188B2; US11910582B2

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Designated extension state (EPC)

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