

Title (en)

Transformer with controlled interwinding coupling and controlled leakage inductances and circuit using such transformer

Title (de)

Transformator mit kontrollierter Zwischenwicklungskupplung und kontrollierten Streufeldrosselspulen und solchen Transformator verwendende Schaltung

Title (fr)

Transformateur à couplage entre bobines et inductances de fuite contrôlées et circuit utilisant un tel transformateur

Publication

**EP 0855723 A3 19981111 (EN)**

Application

**EP 98102797 A 19920914**

Priority

- EP 92308315 A 19920914
- US 75951191 A 19910913

Abstract (en)

[origin: EP0855723A2] A transformer in which a magnetic medium provides flux paths within the medium, two or more windings enclose the flux paths at separated locations along the paths, and an electrically conductive medium, arranged in the vicinity of the magnetic medium and the windings, defines a boundary within which flux emanation from the magnetic medium and the windings is confined and suppressed. In a transformer constructed in accordance with the present invention, both controlled values of leakage inductance and the benefits of separated windings can be achieved. The conductive medium can be configured to reduce the leakage inductance of a controlled-leakage inductance transformer (e.g. for use in a zero-current switching power converter), having separately located windings, by at least 25%, and can be configured to reduce the leakage inductance of a low-leakage inductance transformer (e.g. for use in a PWM power converter), having separately located windings, by at least 75%.  
<IMAGE>

IPC 1-7

**H01F 27/34**; **H01F 27/36**

IPC 8 full level

**H01F 27/34** (2006.01); **H01F 27/36** (2006.01)

CPC (source: EP US)

**H01F 27/346** (2013.01 - EP); **H01F 27/36** (2013.01 - EP); **H01F 27/363** (2020.08 - EP US)

Citation (search report)

- [Y] US 4891620 A 19900102 - CHENG BRUCE C H [TW]
- [Y] FR 2558639 A1 19850726 - THOMSON CSF MAT TEL [FR]
- [A] DE 516309 C 19310122 - KOCH & STERZEL AG

Cited by

CN113380516A; US12100542B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 0855723 A2 19980729**; **EP 0855723 A3 19981111**

DOCDB simple family (application)

**EP 98102797 A 19920914**