

Title (en)

SOFT SWITCHING CIRCUITRY

Title (de)

SCHALTUNG ZUR SANFTEN UMSCHALTUNG

Title (fr)

CIRCUIT ASSURANT DES COMMUTATIONS EN DOUCEUR

Publication

**EP 0704144 A4 19961204 (EN)**

Application

**EP 94919015 A 19940614**

Priority

- NZ 9400060 W 19940614
- NZ 24791393 A 19930617

Abstract (en)

[origin: WO9501084A1] Switching circuitry for use with an autotransformer for the smooth transition of voltage output from a circuit of either d.c. or a.c., between a higher and a lower voltage. The circuit includes at least one, preferably two, variable resistors (13) comprising a first solid state switch (10), an inductor (11) and a resistor (12), in which the variable resistor (13) is connected to the conductance side of the switch and wherein the circuit is connected to the voltage output of an autotransformer. If the solid state switches used are FETs the variable resistor (13) is placed within a bridge rectifier (D2-D5). Transition time for movement of the voltage between two levels is approximately one second.

IPC 1-7

**H05B 41/18; H05B 41/232; H02M 5/257; H02P 7/06**

IPC 8 full level

**G05F 1/625** (2006.01); **H02M 5/293** (2006.01); **H02P 13/06** (2006.01); **H05B 41/36** (2006.01); **H05B 41/42** (2006.01)

CPC (source: EP)

**G05F 1/625** (2013.01); **H02M 5/293** (2013.01); **H02P 13/06** (2013.01); **H05B 41/36** (2013.01); **H05B 41/42** (2013.01)

Citation (search report)

- [A] GB 2242587 A 19911002 - MOLE VALLEY SYSTEMS LTD [GB]
- [A] US 4736268 A 19880405 - WAGONER ROBERT G [US]
- [A] US 4201938 A 19800506 - NEUMANN MANFRED E [US]
- [A] CH 650888 A5 19850815 - RUDOLF MUEHLING
- [A] US 4701645 A 19871020 - FERGUSON THOMAS F W [US]
- See references of WO 9501084A1

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**WO 9501084 A1 19950105**; AU 673612 B2 19961114; AU 7009794 A 19950117; CA 2164819 A1 19950105; CA 2164819 C 19981110; EP 0704144 A1 19960403; EP 0704144 A4 19961204; FI 956017 A0 19951214; FI 956017 A 19951214; IL 109986 A0 19941007; IL 109986 A 19990411; IN 184266 B 20000722; NO 955012 D0 19951211; NO 955012 L 19951211; NZ 247913 A 19960726; ZA 944282 B 19950210

DOCDB simple family (application)

**NZ 9400060 W 19940614**; AU 7009794 A 19940614; CA 2164819 A 19940614; EP 94919015 A 19940614; FI 956017 A 19951214; IL 10998694 A 19940610; IN 506MA1994 A 19940614; NO 955012 A 19951211; NZ 24791393 A 19930617; ZA 944282 A 19940616