

Title (en)
Current regulation circuit

Title (de)
Schaltungsvorrichtung zur Stromregelung

Title (fr)
Circuit de régulation de courant

Publication
EP 0901057 A3 19990512 (DE)

Application
EP 98114690 A 19980805

Priority
DE 29715925 U 19970905

Abstract (en)
[origin: EP0901057A2] A circuit (1) for controlling the current taken by the coil (14) of an electromagnetically operated relay energised from a bridge rectifier (6) has a regulator unit (26) which exercises pulse control of the excitation of the coil (14) via a MOSFET switch (15) in response to the module (29). During operation the coil current (15) is measured as a voltage (UM) across the resistor (16) and compared with recorded reference nouns to ensure conformity with the fundamentally different levels of excitation which characterise armature closing and holding. Evaluation and control of these phases of operation is exercised by the modules (20,21,25) and a flywheel circuit (13,17,18) protects against high induced voltages during pulse switching.

IPC 1-7
G05F 1/569

IPC 8 full level
G05F 1/56 (2006.01); **G05F 1/569** (2006.01); **H01F 7/18** (2006.01)

CPC (source: EP US)
G05F 1/56 (2013.01 - EP US); **H01F 7/1805** (2013.01 - EP US); **H01F 7/1844** (2013.01 - EP US)

Citation (search report)
• [XY] US 4492913 A 19850108 - ARNOLD WINFRIED [DE], et al
• [Y] EP 0417873 A1 19910320 - SIEMENS AG [DE]
• [Y] US 5311548 A 19940510 - NIKOLAUS HEINRICH [DE]
• [Y] DE 4113433 A1 19920109 - SIHN JR KG WILHELM [DE]
• [A] DE 3927972 A1 19910228 - HOENICKE HELMUT PROF DIPL ING [DE]

Cited by
CN105955393A; DE102004058159A1; DE102004058159B4; DE102015101778A1

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DOCDB simple family (application)
DE 29715925 U 19970905; DE 59807292 T 19980805; EP 98114690 A 19980805; US 14830398 A 19980904