Title (en)

ELECTROMAGNET WITH YOKES AND AN ARMATURE HAVING A PERMANENT MAGNET WITH POLE PIECES AT ITS POLE FACES PROTECTING BEYOND THE MAGNET AXIS, THIS AXIS BEING PERPENDICULAR TO THE DIRECION OF MOVEMENT

Publication

EP 0146421 B1 19871202 (FR)

Application

EP 84402036 A 19841010

Priority

FR 8318184 A 19831116

Abstract (en)

[origin: US4604599A] The electromagnet comprises the yokes (31, 32a) which are moveable in relation to an armature (21a) and a winding (25) surrounding a part of the magnetic circuit, this armature (21a) comprised of a magnet (22a) fitted with two pole pieces (23a, 24a) projecting past both extremities of this magnet, at least one of the said pole pieces having its extremities bent at right angles in order to define the air gap inducing counter forces following a direction perpendicular to the axis of the permanent magnet (22a). A second armature (21b) identical to the first (21a) is located parallel to and facing the first. Two yokes (31; 32a, 32b) join the air gap zones of the two armatures located facing each other in such a way that the magnetic circuit constitutes a sequence of armature and yoke forming a rectangle. Two windings (25, 28) are located on opposite sides of the above-mentioned rectangle. Application primarily in the construction of electromagnets of low inertia, small volume and low leakage flux.

IPC 1-7

H01H 51/22; H01H 51/00; H01F 7/08

IPC 8 full level

H01F 7/16 (2006.01); **H01F 7/08** (2006.01); **H01F 7/14** (2006.01); **H01H 51/22** (2006.01)

CPC (source: EP US)

H01F 7/08 (2013.01 - EP US); **H01F 7/1646** (2013.01 - EP US); **H01H 51/2209** (2013.01 - EP US); H01H 2051/2218 (2013.01 - EP US)

Cited by

EP0248272A3; DE19509195B4; EP0568028A1; GB2180099A; GB2180099B

Designated contracting state (EPC)

CH DE GB IT LI SE

DOCDB simple family (publication)

FR 2554960 A1 19850517; **FR 2554960 B1 19870626**; CA 1222540 A 19870602; DE 3467951 D1 19880114; EP 0146421 A1 19850626; EP 0146421 B1 19871202; ES 292049 U 19870316; ES 292049 Y 19871016; JP H0332898 B2 19910515; JP S60123006 A 19850701; SU 1349706 A3 19871030; US 4604599 A 19860805

DOCDB simple family (application)

FR 8318184 A 19831116; CA 467038 A 19841105; DE 3467951 T 19841010; EP 84402036 A 19841010; ES 292049 U 19841016; JP 23769584 A 19841113; SU 3812577 A 19841115; US 66816484 A 19841101