

Title (en)
ELECTRIC DEVICE OR MACHINE

Publication
EP 0018352 B1 19840801 (DE)

Application
EP 80890040 A 19800403

Priority
AT 255179 A 19790405

Abstract (en)
[origin: US4479103A] In an electromagnetic device a magnet arrangement is provided having an electromagnet and a permanent magnet, with the pole faces of the permanent magnet abutting the core of the electromagnet on both sides of the end portions of the coil of the electromagnet and the end portions of the core of the electromagnet forming or supporting the pole pieces of the magnet arrangement. The poles of the permanent magnet are adjacent the like poles of the electromagnet when the electromagnet is energized, and the maximum value of the energizing current of the electromagnet is sufficient but not greater than necessary for reaching the first practical saturation value of flux density in the pole ends of the core of the magnet arrangement with the permanent magnet removed therefrom.

IPC 1-7
H01F 7/06; **H01F 7/20**

IPC 8 full level
H01F 7/06 (2006.01); **H01F 7/20** (2006.01)

CPC (source: EP US)
H01F 7/06 (2013.01 - EP US); **H01F 7/206** (2013.01 - EP US); **H01F 2007/208** (2013.01 - EP US)

Citation (examination)

- US 4132911 A 19790102 - GARRON CARLOS S
- US 4064442 A 19771220 - GARRON CARLOS SUBIETA
- DE 2424131 B2 19780907

Cited by
US5071267A; EP1862624A3; DE102011014192A1; DE102011014192B4; US9214267B2; US7615905B2; WO2005107356A3

Designated contracting state (EPC)
AT CH DE FR GB IT LI SE

DOCDB simple family (publication)
EP 0018352 A1 19801029; **EP 0018352 B1 19840801**; DE 3068769 D1 19840906; US 4479103 A 19841023

DOCDB simple family (application)
EP 80890040 A 19800403; DE 3068769 T 19800403; US 13722980 A 19800404