

Title (en)

Use of a fine crystalline iron-based alloy as a magnet core in an interface transformer

Title (de)

Verwendung einer feinkristallinen Eisen-Basis-Legierung als Magnetkernmaterial für einen Schnittstellen-Übertrager

Title (fr)

Application d'un alliage à base de fer, à cristallinité fine comme noyau magnétique pour un transformateur d'interface

Publication

**EP 0392202 B1 19960612 (DE)**

Application

**EP 90104796 A 19900314**

Priority

DE 3911618 A 19890408

Abstract (en)

[origin: EP0392202A2] In the new digital ISDN communication system, transformation between the mains terminal (2) and terminal units (3) takes place via the so-called S0 interface by means of interface transformers (6, 11). Since the power supply to the terminal units also takes place partly via said transformers, a current imbalance in the conductors (7, 8) or (9, 10) results in a premagnetisation of the transformers. The ISDN requirements imposed on the transformers consequently have to be met even with direct current premagnetisation. Compact transformers with a simple winding structure which meet the ISDN requirements have, according to the invention, a magnet core material consisting of a fine crystalline iron-based alloy containing more than 60 atomic % of iron, more than 50% of whose structure consists of fine crystalline grains with a grain size of less than 100 nm and which has a remanence ratio of less than 0.2 and a permeability in the range from 20,000 to 50,000. <IMAGE>

IPC 1-7

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IPC 8 full level

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CPC (source: EP US)

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