

Title (en)
HEAT TREATMENT OF RAPIDLY QUENCHED FE-6.5 WT SI RIBBON

Publication
EP 0254932 A3 19890719 (EN)

Application
EP 87109970 A 19870710

Priority
US 89413986 A 19860801

Abstract (en)
[origin: EP0254932A2] A rapidly quenched Fe-Si alloy containing 6 to 7 wt% Si is heat treated to promote and control any order-disorder reaction, thereby improving its ac core loss and exciting power at induction levels above B=1.2 T. The alloy has a substantially <100> texture, a grain size of about 1 to 2 mm, a B2 domain size of 100 to 850 nm, a DO3 domain size of about 5 to 25 nm, an ac core loss of about 1.2 to 1.6 W/kg and an exciting power of about 15 to 46 VA/kg, the core loss and exciting power being measured at an induction level of B=1.4 T and a frequency of f=60 Hz.

IPC 1-7
C21D 6/00; H01F 1/16

IPC 8 full level
C21D 1/26 (2006.01); **C21D 6/00** (2006.01); **C21D 8/12** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **H01F 1/147** (2006.01); **H01F 1/153** (2006.01)

CPC (source: EP)
C21D 1/26 (2013.01); **C21D 6/008** (2013.01); **H01F 1/14775** (2013.01); **H01F 1/15341** (2013.01)

Citation (search report)
• [A] DE 3021224 A1 19801218 - SONY CORP
• [Y] PATENT ABSTRACTS OF JAPAN, vol. 7, no. 97 (C-163)[1242], 23rd April 1983; & JP-A-58 22 331 (PIONEER K.K.) 09-02-1983
• [Y] IEEE TRANSACTIONS ON MAGNETICS, vol. MAG-20, no. 4, July 1984, pages 553-558, IEEE, New York, US; C.F. CHANG et al.: "Texture and magnetic properties of rapidly quenched Fe-6.5wt%Si ribbon

Cited by
CN112281060A; EP0601549A1

Designated contracting state (EPC)
DE FR GB

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