

Title (en)

Non-grain oriented electrical steel or sheet metal, component produced from same and method for producing non-grain oriented electrical steel or sheet metal

Title (de)

Nicht kornorientiertes Elektroband oder -blech, daraus hergestelltes Bauteil und Verfahren zur Erzeugung eines nicht kornorientierten Elektrobands oder -blechs

Title (fr)

Bande ou tôle électrique non orientée vers la corne, composant ainsi fabriqué et procédé de production d'une bande ou tôle électrique non orientée vers la corne

Publication

EP 2612942 B1 20141015 (DE)

Application

EP 12150315 A 20120105

Priority

EP 12150315 A 20120105

Abstract (en)

[origin: EP2612942A1] The non grain-oriented electrical steel strip or sheet comprises a steel in addition to iron and unavoidable impurities, silicon (2.4-3.4 wt.%), aluminum (2 wt.%), manganese (1 wt.%), carbon (0.006 wt.%), nitrogen (0.006 wt.%), sulfur (0.006 wt.%), titanium (0.1-0.5 wt.%), and phosphorus (0.1-0.3 wt.%), where a ratio of titanium to phosphorus is 1.43:1.67. The electrical steel strip or sheet has a hysteresis loss P(1/400) at a polarization of 1 tesla and a frequency of 400 Hz at a thickness of the electrical steel strip or sheet of 0.5 mm of 65 W/kg and at a thickness of 0.35 mm of 45 W/kg. Independent claims are included for: (1) a component for electrotechnical applications; and (2) a method for producing a non grain-oriented electrical steel strip or sheet.

IPC 8 full level

C21D 8/12 (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **H01F 1/147** (2006.01)

CPC (source: EP KR US)

C21D 8/0273 (2013.01 - EP KR US); **C21D 8/12** (2013.01 - EP US); **C21D 8/1272** (2013.01 - EP KR US); **C22C 38/00** (2013.01 - EP US); **C22C 38/001** (2013.01 - EP KR US); **C22C 38/004** (2013.01 - EP KR US); **C22C 38/02** (2013.01 - EP KR US); **C22C 38/04** (2013.01 - EP KR US); **C22C 38/06** (2013.01 - EP KR US); **C22C 38/14** (2013.01 - EP KR US); **H01F 1/14775** (2013.01 - KR); **H01F 1/16** (2013.01 - EP KR US); **C21D 2201/05** (2013.01 - EP KR US); **H01F 1/14775** (2013.01 - EP US)

Cited by

DE102018201618A1; DE102017208146B4; DE102017208146A1; WO2018210690A1; US11041222B2; WO2020233840A1; WO2020094230A1; WO2020094787A1; WO2019149582A1; US11795530B2; DE102018201622A1; WO2019149593A1; US11788168B2; US11811278B2

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EP 12150315 A 20120105; AU 2012364385 A 20121218; BR 112013020464 A 20121218; CA 2825852 A 20121218; CN 201280019922 A 20121218; EP 2012075966 W 20121218; JP 2014523348 A 20121218; KR 20137025479 A 20121218; MX 2013009017 A 20121218; PL 12150315 T 20120105; RU 2013144581 A 20121218; US 201214118720 A 20121218