

Title (en)
CROSS-FIELD INDUCTION HEATING DEVICE

Title (de)
QUERFELDINDUKTIONSHHEIZEINRICHTUNG

Title (fr)
DISPOSITIF DE CHAUFFAGE PAR INDUCTION À CHAMP TRANSVERSAL

Publication
EP 4073278 A1 20221019 (DE)

Application
EP 20851315 A 20201127

Priority
• DE 102019008622 A 20191213
• DE 2020000292 W 20201127

Abstract (en)
[origin: WO2021115508A1] The invention relates to a cross-field induction heating device for the induction heating of metal strip in a rolling mill. The device has a top inductor and a bottom inductor between which the metal strip to be heated is arranged. Each inductor is divided into two partial induction loops arranged adjacently to one another, which are connected in series and fed antivalently, so that the direct current which is supplied separately is aligned in the opposite direction in the two partial induction loops. Particularly good control of the edge heating of the strip can be achieved in this way.

IPC 8 full level
C21D 1/42 (2006.01); **B21B 1/34** (2006.01); **B21B 45/00** (2006.01); **C21D 1/10** (2006.01); **C21D 9/46** (2006.01); **C21D 9/60** (2006.01); **F27B 9/00** (2006.01); **F27D 99/00** (2010.01); **H05B 6/44** (2006.01)

CPC (source: EP US)
B21B 45/004 (2013.01 - EP); **C21D 1/10** (2013.01 - EP); **C21D 1/42** (2013.01 - EP); **C21D 9/46** (2013.01 - EP); **C21D 9/60** (2013.01 - EP); **F27B 9/36** (2013.01 - EP); **F27D 99/0006** (2013.01 - EP); **H05B 6/101** (2013.01 - US); **H05B 6/104** (2013.01 - EP); **H05B 6/145** (2013.01 - US); **H05B 6/362** (2013.01 - EP US); **Y02P 10/25** (2015.11 - EP)

Citation (search report)
See references of WO 2021115508A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
DE 102019008622 A1 20210617; CN 114981455 A 20220830; EP 4073278 A1 20221019; US 2023010580 A1 20230112; WO 2021115508 A1 20210617

DOCDB simple family (application)
DE 102019008622 A 20191213; CN 202080093375 A 20201127; DE 2020000292 W 20201127; EP 20851315 A 20201127; US 202017784754 A 20201127