

Title (en)
Electric heating device

Title (de)
Elektrische Heizvorrichtung

Title (fr)
Dispositif de chauffage électrique

Publication
EP 2017103 B1 20160504 (DE)

Application
EP 07014118 A 20070718

Priority
EP 07014118 A 20070718

Abstract (en)
[origin: EP2017103A1] The device has a set of cross-ties (20) extending right angle to layers of a heat outputting unit (12) and a heat producing unit (10), where the cross-ties cover frame openings (16) are provided at a housing (2). Another set of cross-ties (43) extends parallel to the layers, are formed by a heating block (8) and covers the openings. The cross-ties (43) is extend between the cross-ties (20) in such a manner that the cross-ties (20) are fixed between sections of the cross-ties (20) in a form-fit manner, so that the cross-ties (20, 43) form a grid arrangement for reinforcing the housing.

IPC 8 full level
F24H 9/18 (2006.01); **B60H 1/22** (2006.01); **F24H 3/04** (2006.01)

CPC (source: EP KR US)
F24H 3/0405 (2013.01 - EP US); **F24H 3/0429** (2013.01 - EP US); **F24H 3/0435** (2013.01 - EP US); **F24H 3/0441** (2013.01 - EP US);
F24H 3/0447 (2013.01 - EP US); **F24H 3/0464** (2013.01 - EP US); **F24H 3/0476** (2013.01 - EP US); **F24H 9/1863** (2013.01 - EP US);
F24H 9/1872 (2013.01 - EP US); **H05B 3/06** (2013.01 - KR); **H05B 3/14** (2013.01 - KR)

Citation (examination)
US 2005175328 A1 20050811 - PIERRON FREDERIC [FR], et al

Cited by
DE102018200433A1; EP3296660A1; EP2637475A1; EP2266823A1; CN111263475A; FR3101510A1; EP3511645A1

Designated contracting state (EPC)
DE ES FR GB IT

DOCDB simple family (publication)
EP 2017103 A1 20090121; EP 2017103 B1 20160504; CN 101348067 A 20090121; CN 101348067 B 20110323; EP 2025541 A1 20090218;
EP 2025541 B1 20130102; JP 2009043716 A 20090226; JP 4939490 B2 20120523; KR 100960748 B1 20100601; KR 20090009138 A 20090122;
US 2009026194 A1 20090129; US 8362406 B2 20130129

DOCDB simple family (application)
EP 07014118 A 20070718; CN 200810131644 A 20080718; EP 08015712 A 20070718; JP 2008181638 A 20080711;
KR 20080069770 A 20080717; US 17517308 A 20080717