

Title (en)

IGNITION DEVICE FOR IGNITING AN AIR-FUEL MIXTURE IN A COMBUSTION CHAMBER

Title (de)

ZÜNDVORRICHTUNG ZUM ZÜNDEN EINES LUFT-KRAFTSTOFFGEMISCHES IN EINEM BRENNRAUM

Title (fr)

DISPOSITIF D'ALLUMAGE POUR ENFLAMMER UN MÉLANGE AIR-CARBURANT DANS UNE CHAMBRE DE COMBUSTION

Publication

**EP 3436688 A1 20190206 (DE)**

Application

**EP 17713161 A 20170323**

Priority

- DE 102016003791 A 20160329
- EP 2017000362 W 20170323

Abstract (en)

[origin: WO2017167437A1] The invention relates to an ignition device (10) for igniting an air-fuel mixture in a combustion chamber, in particular an internal combustion engine, having a spark plug (12), which has a first electrode (18) and a second electrode (19), and a high voltage source (14) for generating an electrical high voltage impulse on an output (22) of the high voltage source and having a high frequency voltage source (16) for generating an electrical high frequency alternating voltage on an output (26) of the high frequency voltage source (16), wherein the output (22) of the high voltage source (14) is electrically connected to the first electrode (18) of the spark plug (12) via a first electrical conductor path (24) such that the high voltage impulse is applied to the first electrode (18), wherein the second electrode (19) is connected to an electrical ground potential, wherein the spark plug (12) has a third electrode (20), wherein the output (26) of the high frequency voltage source (16) is electrically connected to the third electrode (20) via a second electrical conductor path (28), such that the high frequency alternating voltage is applied to the third electrode (20).

IPC 8 full level

**F02P 9/00** (2006.01); **F02P 3/01** (2006.01); **F02P 3/04** (2006.01); **F02P 15/08** (2006.01); **H01T 13/46** (2006.01)

CPC (source: EP KR US)

**F02P 3/01** (2013.01 - EP KR US); **F02P 3/0407** (2013.01 - KR); **F02P 9/007** (2013.01 - EP KR US); **F02P 15/08** (2013.01 - EP KR US); **H01T 2/02** (2013.01 - KR); **H01T 13/46** (2013.01 - KR); **H01T 15/00** (2013.01 - KR); **F02P 3/0407** (2013.01 - EP US); **F02P 3/055** (2013.01 - EP); **H01T 2/02** (2013.01 - EP US); **H01T 13/46** (2013.01 - EP US); **H01T 15/00** (2013.01 - EP US)

Citation (search report)

See references of WO 2017167437A1

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)

**WO 2017167437 A1 20171005**; CN 109196221 A 20190111; DE 102016003791 A1 20171005; EP 3436688 A1 20190206; JP 2019511671 A 20190425; KR 20180122667 A 20181113; TW 201734303 A 20171001; US 10753336 B2 20200825; US 2019113016 A1 20190418

DOCDB simple family (application)

**EP 2017000362 W 20170323**; CN 201780033096 A 20170323; DE 102016003791 A 20160329; EP 17713161 A 20170323; JP 2018550706 A 20170323; KR 20187028986 A 20170323; TW 106110379 A 20170328; US 201716088575 A 20170323