

Title (en)

CORONA IGNITION WITH SELF-TUNING POWER AMPLIFIER

Title (de)

KORONAZÜNDUNG MIT SELBSTEINSTELLENDEN LEISTUNGSVERSTÄRKER

Title (fr)

ALLUMAGE À EFFET CORONA DOTÉ D'AMPLIFICATEUR DE PUISSANCE AUTORÉGLABLE

Publication

**EP 3497319 A1 20190619 (EN)**

Application

**EP 17754912 A 20170808**

Priority

- US 201615230927 A 20160808
- US 2017045820 W 20170808

Abstract (en)

[origin: WO2018031504A1] A power amplifier circuit for a corona ignition system is provided. The circuit includes an inductor and capacitor connected to one end of a secondary winding of an RF transformer. The other end of the secondary winding is connected to a current sensor which is connected to ground. The transformer also has a primary winding with one end connected to a voltage supply and the other end attached to a pair of switches. The windings are wound around a core. Current flowing from the DC voltage supply to the switches causes a magnetic flux in the core. A voltage is generated on the secondary winding by the current that flows through the igniter. This voltage is fed back to the switches, controlling on and off timing. Voltage is provided to the corona igniter or pulled from the igniter when the current traveling into or from the igniter is at zero.

IPC 8 full level

**F02P 23/04** (2006.01); **F02P 3/01** (2006.01); **F02P 9/00** (2006.01); **F23Q 3/00** (2006.01); **H01T 13/50** (2006.01); **H01T 19/00** (2006.01)

CPC (source: EP KR)

**F02P 3/01** (2013.01 - KR); **F02P 9/007** (2013.01 - KR); **F02P 23/04** (2013.01 - EP KR); **H01T 13/50** (2013.01 - EP KR); **H01T 19/00** (2013.01 - EP KR); **F02P 3/01** (2013.01 - EP); **F02P 9/007** (2013.01 - EP)

Citation (search report)

See references of WO 2018031504A1

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2018031504 A1 20180215**; CN 109964026 A 20190702; CN 109964026 B 20211001; EP 3497319 A1 20190619; JP 2019527793 A 20191003; JP 6975773 B2 20211201; KR 102394538 B1 20220504; KR 20190034579 A 20190402

DOCDB simple family (application)

**US 2017045820 W 20170808**; CN 201780062279 A 20170808; EP 17754912 A 20170808; JP 2019506655 A 20170808; KR 20197005383 A 20170808