

Title (en)

Measuring circuit for an ionic current in ignition devices for internal combustion engines

Title (de)

Schaltungsanordnung zur Ionenstrommessung in Zündvorrichtungen für Brennkraftmaschinen

Title (fr)

Circuit de mesure pour courant ionique dans des dispositifs d'allumages pour moteurs à combustion interne

Publication

EP 0790409 B1 20030820 (DE)

Application

EP 97101843 A 19970206

Priority

DE 19605803 A 19960216

Abstract (en)

[origin: EP0790406A2] The method requires using a control unit (1) which predetermines the generation of sparks at the plugs (Zk1-Zk4) by ignition coils (e.g. Tr1) whose primary windings (P1) are switched by semiconductor output stages (E1) of a regulator (2). The charging of each primary is terminated when its current exceeds a specified value. During the remainder of the ignition cycle successive charging processes are performed until the ignition current (Isek) is interrupted. The recharging is terminated likewise when the primary current has attained its limit.

IPC 1-7

F02P 17/12

IPC 8 full level

F02P 3/045 (2006.01); **F02P 15/10** (2006.01); **F02P 17/12** (2006.01)

CPC (source: EP US)

F02P 3/0456 (2013.01 - EP US); **F02P 15/10** (2013.01 - EP US); **F02P 17/12** (2013.01 - EP US); **F02P 2017/125** (2013.01 - EP US)

Cited by

CN102713551A; US8713992B2

Designated contracting state (EPC)

DE ES FR GB IT SE

DOCDB simple family (publication)

EP 0790406 A2 19970820; EP 0790406 A3 19990127; EP 0790406 B1 20030702; DE 19605803 A1 19970821; DE 59705316 D1 20011220; DE 59710359 D1 20030807; DE 59710592 D1 20030925; EP 0790408 A2 19970820; EP 0790408 A3 19990120; EP 0790408 B1 20011114; EP 0790409 A2 19970820; EP 0790409 A3 19990120; EP 0790409 B1 20030820; ES 2166479 T3 20020416; US 5758629 A 19980602; US 5914604 A 19990622; US 6043660 A 20000328

DOCDB simple family (application)

EP 97101844 A 19970206; DE 19605803 A 19960216; DE 59705316 T 19970206; DE 59710359 T 19970206; DE 59710592 T 19970206; EP 97101842 A 19970206; EP 97101843 A 19970206; ES 97101842 T 19970206; US 80288997 A 19970218; US 80289697 A 19970218; US 80289897 A 19970218