

Title (en)
CIRCUIT FOR A LATCHING RELAY

Title (de)
SCHALTUNGSANORDNUNG FÜR EIN EINRÜCKRELAIS

Title (fr)
CIRCUIT POUR UN RELAIS D'ENCLENCHEMENT

Publication
EP 0960276 A1 19991201 (DE)

Application
EP 97949879 A 19971106

Priority
• DE 9702599 W 19971106
• DE 19702932 A 19970128

Abstract (en)
[origin: DE19702932A1] The invention relates to a circuit for a latching relay engaging two toothed wheels in a starting device of an internal combustion engine, characterized by a control and regulating device (2) reducing the relay current after a first time interval (4) to a given current value during a second time interval (41) before both toothed wheels are engaged.

IPC 1-7
F02N 11/08

IPC 8 full level
F02N 11/08 (2006.01); **F02N 15/06** (2006.01)

CPC (source: EP US)
F02N 11/0851 (2013.01 - EP US); **F02N 11/087** (2013.01 - EP US); **F02N 15/067** (2013.01 - EP US); **F02N 2200/045** (2013.01 - EP US); **F02N 2200/047** (2013.01 - EP US); **F02N 2200/066** (2013.01 - EP US)

Citation (search report)
See references of WO 9832966A1

Cited by
EP2858085A1; WO2011117514A1; EP2858084A1; WO2016016585A1; US10153117B2; WO2011080010A1; DE102009055371A1

Designated contracting state (EPC)
DE FR GB IT SE

DOCDB simple family (publication)
DE 19702932 A1 19980730; BR 9714535 A 20000502; BR 9714535 B1 20110309; DE 59706819 D1 20020502; EP 0960276 A1 19991201; EP 0960276 B1 20020327; JP 2001508850 A 20010703; JP 4118344 B2 20080716; US 6323562 B1 20011127; WO 9832966 A1 19980730

DOCDB simple family (application)
DE 19702932 A 19970128; BR 9714535 A 19971106; DE 59706819 T 19971106; DE 9702599 W 19971106; EP 97949879 A 19971106; JP 53146498 A 19971106; US 35500799 A 19990721