

Title (en)

ELECTROMAGNETIC OPERATION MECHANISM DRIVE CIRCUIT

Title (de)

TREIBERSCHALTUNG FÜR ELEKTROMAGNETISCHEN BETRIEBSMECHANISMUS

Title (fr)

CIRCUIT DE COMMANDE DE MÉCANISME D'ACTIONNEMENT ÉLECTROMAGNÉTIQUE

Publication

**EP 3506330 A1 20190703 (EN)**

Application

**EP 16914221 A 20160826**

Priority

JP 2016074906 W 20160826

Abstract (en)

This electromagnetic operation mechanism drive circuit is constituted by: a movable core (1); a driving coil for contact closing (2) driving the movable core (1); a capacitor for contact closing (4) supplying power to the driving coil for contact closing (2); a driving switch element for contact closing (5) controlling the supply of power to the driving coil for contact closing (2); a protection relay (7) provided between the driving switch element for contact closing (5) and the driving coil for contact closing (2); an overvoltage suppression unit on the contact closing side connected in parallel to the driving switch element for contact closing (5) and configured so that a loop circuit switch element on the contact closing side (6) is connected in series to a loop circuit on the contact closing side (10); and a voltage detection circuit on the contact closing side (13) detecting the voltage of the loop circuit switch element on the contact closing side (6). In this manner, even if a switch element of an overvoltage suppression unit on the contact closing side in a drive circuit for switching on and off electric power equipment is suffering from an open circuit failure, the interruption operation of the protection switch element can be stopped so that the contact closing operation can be completed safely.

IPC 8 full level

**H01H 33/38** (2006.01)

CPC (source: EP)

**H01H 33/38** (2013.01); **H01H 33/6662** (2013.01); **H01H 47/226** (2013.01)

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)

**EP 3506330 A1 20190703**; **EP 3506330 A4 20190814**; **EP 3506330 B1 20200923**; CN 109690718 A 20190426; CN 109690718 B 20200424; WO 2018037547 A1 20180301

DOCDB simple family (application)

**EP 16914221 A 20160826**; CN 201680088639 A 20160826; JP 2016074906 W 20160826