

Title (en)
SWITCHING DEVICE FOR A WYE-DELTA SWITCH IN A MULTIPHASE MOTOR

Title (de)
SCHALTVORRICHTUNG FÜR EINE STERN-DREIECK-UMSCHALTUNG BEI EINEM MEHRPHASIGEN MOTOR

Title (fr)
DISPOSITIF DE COMMUTATION POUR UNE COMMUTATION ÉTOILE-DELTA DANS LE CAS D'UN MOTEUR POLYPHASÉ

Publication
EP 3132534 A2 20170222 (DE)

Application
EP 15706825 A 20150227

Priority
• DE 102014105579 A 20140417
• EP 2015054154 W 20150227

Abstract (en)
[origin: CA2945545A1] The invention relates to a switching device for a wye-delta switch in a multiphase motor with one motor winding per phase, each motor winding comprising a motor winding connection pair (U1, U2, V1, V2, W1, W2), and the switching device comprising the following: an electromagnetic drive (10, 11) for moving a drive axle (12) between three defined axial positions (14, 16, 18), and one contact device (20) per motor winding, said contact device comprising a first and a second motor winding connection contact (22, 24), a phase connection contact (26), and a movable contact bridge (28) that is coupled to said drive axle (12) and can be moved by same into the three defined positions (14, 16, 18). In a first position (14), lying axially between the two other positions, the movable contact bridge (28) is in an open position where none of the connection contacts (22, 24, 26) is electrically connected to any of the other connection contacts (22, 24, 26) by the contact bridge (28); in a second (16) of the three defined positions, said moveable contact bridge (28) is in a 'wye' contact position where the contact bridge (28) electrically connects the phase connection contact (26) to the first motor winding connection contact (22), and the second motor winding connection contact (24) is electrically connected to the second motor winding connection contacts of all of the other contact devices by means of a 'wye' contact (30) that is coupled to the drive axle (12); and in a third (18) of the three defined positions, the moveable contact bridge (28) is in a 'delta' contact position where said contact bridge (28) electrically connects the phase connection contact (26) to the first and the second motor winding connection contacts (22, 24).

IPC 8 full level
H01H 50/54 (2006.01); **H02P 1/32** (2006.01)

CPC (source: CN EP US)
H01H 50/002 (2013.01 - US); **H01H 50/546** (2013.01 - EP US); **H01H 51/2209** (2013.01 - CN EP US); **H02K 11/0094** (2013.01 - US); **H02P 1/32** (2013.01 - CN EP US); **H01H 50/546** (2013.01 - CN); **H01H 51/005** (2013.01 - CN EP US); **H01H 53/015** (2013.01 - CN EP US); **H01H 2051/2218** (2013.01 - CN EP US)

Citation (search report)
See references of WO 2015158457A2

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)
DE 102014105579 A1 20151022; CA 2945545 A1 20151022; CN 106233611 A 20161214; CN 106233611 B 20181204; EP 3132534 A2 20170222; US 10283297 B2 20190507; US 2017032916 A1 20170202; WO 2015158457 A2 20151022; WO 2015158457 A3 20160107

DOCDB simple family (application)
DE 102014105579 A 20140417; CA 2945545 A 20150227; CN 201580019781 A 20150227; EP 15706825 A 20150227; EP 2015054154 W 20150227; US 201515303740 A 20150227