

Title (en)
Multipolar electromagnetic switching module

Title (de)
Mehrpölgiger elektromagnetischer Schaltmodul

Title (fr)
Module de commutation multipolaire

Publication
EP 1061541 B1 20060913 (FR)

Application
EP 00401668 A 20000613

Priority
• FR 9907879 A 19990618
• FR 0005670 A 20000502

Abstract (en)
[origin: EP1061541A1] The commutation poles (C1,C2,C3) and the current lines are arranged within the module housing to realise a motor control function of reverse, star-delta, or distributor type. The pole control unit constituted by an electromagnet (E1) and its control circuit, displaced relative to the commutation poles and current lines in a direction perpendicular to the rear mounting wall of the module. The size of the module is thus reduced and approximately equal to that of the main associated apparatus.

IPC 8 full level
H01F 7/06 (2006.01); **H01H 1/54** (2006.01); **H01H 51/00** (2006.01); **H01H 9/26** (2006.01); **H01H 47/00** (2006.01); **H01H 51/24** (2006.01); **H02P 1/30** (2006.01); **H02P 1/40** (2006.01); **H02P 3/20** (2006.01); **H02P 5/00** (2006.01); **H01H 89/06** (2006.01)

CPC (source: EP US)
H01H 1/54 (2013.01 - EP US); **H01H 51/005** (2013.01 - EP US); **H01H 89/06** (2013.01 - EP US)

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Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

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EP 1061542 A1 20001220; EP 1061542 B1 20060510; AR 024383 A1 20021002; AT E339772 T1 20061015; AU 4090100 A 20001221; AU 770846 B2 20040304; BR 0002689 A 20010130; BR PI0002689 B1 20160531; CA 2312254 A1 20001218; CA 2312254 C 20081007; CN 1148766 C 20040505; CN 1291780 A 20010418; DE 60027819 D1 20060614; DE 60027819 T2 20061102; DE 60030627 D1 20061026; DE 60030627 T2 20070913; DZ 3054 A1 20040327; EP 1061541 A1 20001220; EP 1061541 B1 20060913; ES 2267474 T3 20070316; FR 2795227 A1 20001222; FR 2795227 B3 20010720; HU 0002283 D0 20000828; HU 223173 B1 20040329; HU P0002283 A2 20010228; HU P0002283 A3 20010628; ID 26375 A 20001221; JP 2001057798 A 20010227; JP 4472123 B2 20100602; MA 25289 A1 20011231; MY 125529 A 20060830; NO 20003152 D0 20000616; NO 20003152 L 20001219; NO 318941 B1 20050530; RU 2219616 C2 20031220; TN SN00135 A1 20020530; TR 200001848 A2 20010122; TR 200001848 A3 20010122; TW 484155 B 20020421; US 6304049 B1 20011016; US 6472837 B1 20021029

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EP 00401709 A 20000616; AR P000103003 A 20000616; AT 00401668 T 20000613; AU 4090100 A 20000616; BR 0002689 A 20000619; CA 2312254 A 20000616; CN 00118982 A 20000618; DE 60027819 T 20000616; DE 60030627 T 20000613; DZ 000109 A 20000614; EP 00401668 A 20000613; ES 00401668 T 20000613; FR 0005670 A 20000502; HU P0002283 A 20000616; ID 20000490 D 20000614; JP 2000182947 A 20000619; MA 26004 A 20000614; MY PI20002657 A 20000613; NO 20003152 A 20000616; RU 2000116240 A 20000616; TN SN00135 A 20000616; TR 200001848 A 20000615; TW 89111815 A 20000616; US 59778300 A 20000619; US 62596400 A 20000726