

Title (en)
COMMUTATOR WITH REINFORCING RING

Title (de)
KOMMUTATOR MIT ARMIERUNGSRING

Title (fr)
COMMULATEUR MUNI D'UNE BAGUE D'ARMATURE

Publication
EP 0944938 B1 20020508 (DE)

Application
EP 96943938 A 19961212

Priority
• EP 9605576 W 19961212
• FR 9715463 A 19971208

Abstract (en)
[origin: US6157108A] A commutator (10, 110, 210) with a reinforcing system comprising a stepped insulating ring (20, 120, 220) with a support piece (22, 122, 222) and a center or flange piece (24, 124, 224) and a metal ring (18, 118, 218) which has a rectangular cross-section and is fitted into the stepped shape of the insulating ring such that part of the radial outer surface of the metal ring abuts the radial inner surface of the center or flange piece, and the end inner surface of the metal ring completely abuts the end outer surface of the support piece.

IPC 1-7
H01R 43/06; **H01R 39/06**

IPC 8 full level
H01R 43/06 (2006.01); **H01R 39/06** (2006.01)

CPC (source: EP KR US)
H01R 39/06 (2013.01 - EP US); **H01R 43/06** (2013.01 - EP KR US)

Designated contracting state (EPC)
AT CH DE DK ES FR GB IT LI NL SE

DOCDB simple family (publication)
US 6157108 A 20001205; AT E217457 T1 20020515; BR 9612814 A 20000502; DE 59609195 D1 20020613; DK 0944938 T3 20020701; EP 0944938 A1 19990929; EP 0944938 B1 20020508; ES 2175172 T3 20021116; FR 2772196 A3 19990611; FR 2772196 B3 19991015; HK 1023856 A1 20000922; JP 2001505713 A 20010424; JP 3382253 B2 20030304; KR 100386008 B1 20030609; KR 20000057492 A 20000915; SI 0944938 T1 20021031; WO 9826478 A1 19980618

DOCDB simple family (application)
US 32981199 A 19990610; AT 96943938 T 19961212; BR 9612814 A 19961212; DE 59609195 T 19961212; DK 96943938 T 19961212; EP 9605576 W 19961212; EP 96943938 A 19961212; ES 96943938 T 19961212; FR 9715463 A 19971208; HK 00102895 A 20000516; JP 52611798 A 19961212; KR 19997005167 A 19990610; SI 9630490 T 19961212