

Title (en)
MAGNET COUPLER HAVING ENHANCED ELECTROMAGNETIC TORQUE

Title (de)
MAGNETKUPPLUNG MIT VERBESSERTEM ELEKTROMAGNETISCHEM DREHMOMENT

Title (fr)
COUPLEUR MAGNETIQUE AVEC COUPLE ELECTROMAGNETIQUE ACCRU

Publication
EP 0976191 A1 20000202 (EN)

Application
EP 98920841 A 19980414

Priority

- US 9807500 W 19980414
- US 4298697 P 19970414
- US 4999497 P 19970505
- US 4728497 P 19970520
- US 4963097 P 19970613
- US 5110197 P 19970627

Abstract (en)
[origin: WO9847215A1] A magnet coupler (10) includes a first shaft (12) having a first axis (14). A second shaft (16) is separated from the first shaft, and the second shaft has a second axis (18) that is aligned with the first axis. A rotary magnet unit (20) is mounted to rotate about the first shaft. The rotary magnet unit includes an array of U-shaped permanent magnet assemblies (22) radially located at a first distance (R1) from the first shaft wherein each of permanent magnet assemblies has an opening that is oriented toward the second shaft. A rotary electroconductive unit (24) is mounted to rotate about the second shaft. The rotary electroconductive unit includes a U-shaped conductor assembly (26) radially located at a second distance (R2) from the second shaft which distance is less than the first distance for the purpose of increasing magnetic moment arm and hence increasing torque over levels achievable in comparable couplers.

IPC 1-7
H02K 5/16; **H02K 21/26**; **H02K 49/00**; **H02K 49/02**

IPC 8 full level
H02K 1/27 (2006.01); **H02K 1/30** (2006.01); **H02K 49/04** (2006.01); **H02K 1/02** (2006.01); **H02K 3/02** (2006.01)

CPC (source: EP US)
H02K 1/27 (2013.01 - EP); **H02K 1/2795** (2022.01 - EP US); **H02K 1/30** (2013.01 - EP); **H02K 49/04** (2013.01 - EP); **H02K 49/043** (2013.01 - EP); **H02K 49/046** (2013.01 - EP); **H02K 1/02** (2013.01 - EP); **H02K 3/02** (2013.01 - EP)

Citation (search report)
See references of WO 9847215A1

Cited by
WO2011018014A1; WO2011018009A1

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

DOCDB simple family (publication)
WO 9847215 A1 19981022; AU 7358998 A 19981111; CA 2286717 A1 19981022; EP 0976191 A1 20000202

DOCDB simple family (application)
US 9807500 W 19980414; AU 7358998 A 19980414; CA 2286717 A 19980414; EP 98920841 A 19980414