



(43) International Publication Date
20 September 2012 (20.09.2012)

- (51) International Patent Classification:
H02P 6/16 (2006.01)
- (21) International Application Number:
PCT/US2012/024940
- (22) International Filing Date:
14 February 2012 (14.02.2012)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
13/050,406 17 March 2011 (17.03.2011) US
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,

CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

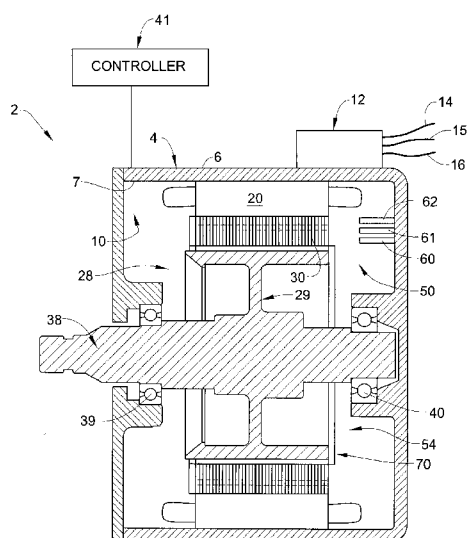
Published:

- with international search report (Art. 21(3))

[Continued on next page]

(54) Title: POSITION SENSING SYSTEM FOR A THREE (3) PHASE ELECTRIC MOTOR

FIG. 1



(57) Abstract: A multi-phase electric motor including a housing, a stator mounted to the housing, a rotor rotatably mounted relative to the stator, and a position sensing system configured and disposed to output a signal representing a position of the rotor relative to the stator. The position sensing system includes a rotating member mounted relative to the rotor and a plurality of digital sensors mounted relative to the rotating member. At least two of the plurality of digital sensors are configured and disposed to generate a quadrature output signal. The plurality of digital sensors being configured and disposed to sense discrete portions of the rotating member to detect a position of the rotor relative to the stator.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
29 November 2012

A. CLASSIFICATION OF SUBJECT MATTER***H02P 6/16(2006.01)i***

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H02P 6/16; G01D 5/36; H02K 7/116; H02K 21/14; H02K 11/00; G01D 5/245

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: motor, encoder, incremental, case, house, rotor, stator, position, detection

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	JP 2005-051969 A (YASKAWA ELECTRIC CORP.) 24 February 2005 See the abstract and figures 1-4.	1-6, 10-12, 14-19 7-9, 13, 20
Y A	JP 2000-275066 A (ONO SOKKI CO., LTD.) 06 October 2000 See the abstract, paragraphs 15-18, and figures 1-11.	1-6, 10-12, 14-19 7-9, 13, 20
A	JP 2009-128246 A (YASKAWA ELECTRIC CORP.) 11 June 2009 See the abstract and figures 1-6.	1-20
A	JP 2005-274198 A (SAYAMA PRECISION IND. CO.) 06 October 2005 See the abstract and figures 1-6.	1-20

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

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"&" document member of the same patent family

Date of the actual completion of the international search

24 SEPTEMBER 2012 (24.09.2012)

Date of mailing of the international search report

25 SEPTEMBER 2012 (25.09.2012)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
189 Cheongsa-ro, Seo-gu, Daejeon Metropolitan
City, 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

Song Hong Seok

Telephone No. 82-42-481-5661



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/024940Patent document
cited in search reportPublication
datePatent family
member(s)Publication
date

JP 2005-051969 A

24.02.2005

None

JP 2000-275066 A

06.10.2000

None

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11.06.2009

None

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06.10.2005

JP 4460048 B2

12.05.2010