

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau



(10) International Publication Number
WO 2012/113048 A8

(43) International Publication Date
30 August 2012 (30.08.2012)

- (51) International Patent Classification:
H02P 1/42 (2006.01) H02K 11/00 (2006.01)
H02P 4/00 (2006.01) H02K 17/06 (2006.01)
- (21) International Application Number:
PCT/BR2012/000039
- (22) International Filing Date:
24 February 2012 (24.02.2012)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
P11101882-8 25 February 2011 (25.02.2011) BR
- (71) Applicant (for all designated States except US): WHIRLPOOL. S.A [BR/BR]; Av. Das Nações Unidas, 12.995,32º andar, Brooklin Novo, 04578-000 São paulo SP (BR).

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KALLUF, Flavio J.H. [BR/BR]; Rua João Theis, 137 Apto. 203, Joinville, SC (BR). ESPINDOLA, Aleandro Armauri de [BR/BR]; Rua Henrique Miers, 203 Apto 223, 89218-600 Joinville, SC (BR).
- (74) Agent: DANNEMANN, SIEMSEN, BIGLER & IPANEMA MOREIRA; Caixa Postal 2142, Rua Marquês de Olinda, 70, 22251-040 - Rio de Janeiro - RJ (BR).
- (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,

[Continued on next page]

(54) Title: WINDING SWITCHING CIRCUIT AND THERMAL PROTECTION FOR DUAL VOLTAGE HERMETIC INDUCTION MOTOR OF HERMETIC COOLING COMPRESSOR

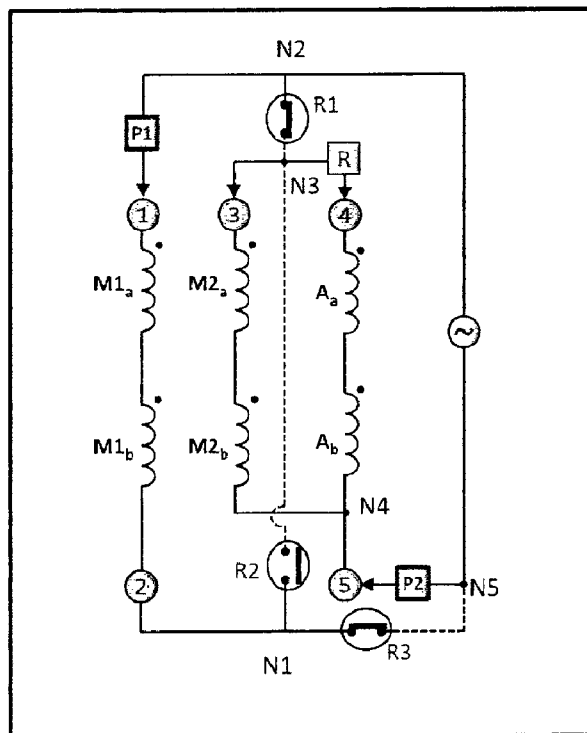


FIG. 3a

(57) Abstract: The present invention refers to a winding switching circuit and thermal protection for dual voltage hermetic induction motors used in hermetic cooling compressors, the circuit comprising two coils of the main winding (M1 and M2), an auxiliary winding (A), three switches (R1, R2 and R3) that are connected and disconnected based on the desired connections for each of the power arrangements (115V or 220V), a start-up relay (R) and thermal protection means that protect the two main windings (M1, M2) from overheating, and the circuit is operative in a first and in a second arrangements, where in the first arrangement, the first switch (R1) and the third switch (R3) are connected, the second switch (R2) is disconnected, and the first main winding (M1), and second main winding (M2) and the auxiliary winding (A) are connected in parallel; and in the second arrangement, the first switch (R1) and the third switch (R3) are disconnected, the second switch (R2) is connected, and the first main winding (M1) and the second main winding (M2) are connected in series and the auxiliary winding (A) is connected in parallel only to the second main winding (M2).

WO 2012/113048 A8

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).

Published:

— without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(48) Date of publication of this corrected version:

14 March 2013

(15) Information about Correction:

see Notice of 14 March 2013