

# (11) **EP 3 385 966 A3**

(12)

# **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3: **21.11.2018 Bulletin 2018/47** 

(51) Int Cl.: H01F 41/084 (2016.01)

(43) Date of publication A2: 10.10.2018 Bulletin 2018/41

(21) Application number: 18165244.7

(22) Date of filing: 29.03.2018

(84) Designated Contracting States:

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

**Designated Extension States:** 

**BA ME** 

**Designated Validation States:** 

KH MA MD TN

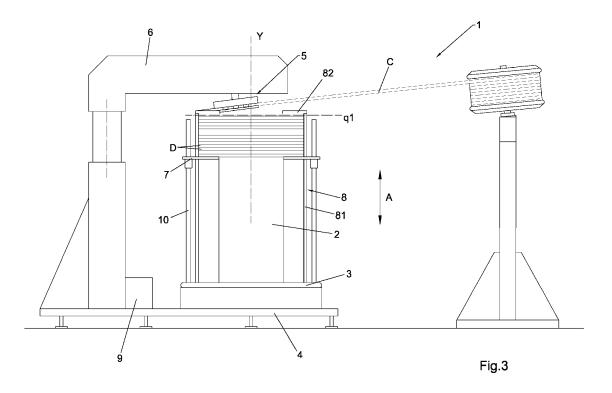
(30) Priority: 07.04.2017 IT 201700038584

- (71) Applicant: Silmek S.R.L. 36040 Brendola (VI) (IT)
- (72) Inventor: GONELLA, Gianfranco 36100 VICENZA (IT)
- (74) Representative: Marchioro, Paolo Studio Bonini S.r.l.
  Corso Fogazzaro, 8
  36100 Vicenza (IT)

#### (54) AN AUTOMATIC MACHINE FOR TRANSFORMER DISC WINDINGS

(57) A winding machine (1) with radial and longitudinal stratification of an electrical conductor (C) for the realisation of windings for electrical transformers, comprising: a winding cylinder (2) whereon the electrical conductor (C) is adapted to be wound; a calendering set (5) for forming each of the discs (D) on the winding cylinder (2); a resting plane (7) of the discs (D) arranged externally

to the winding cylinder (2) and configured to be moved along the direction defined by the vertical axis of rotation (Y); an electronic control set (9) configured to control the movement of the winding cylinder (2), of the calendering set (5) and of the resting plane (7) for realising the windings.





#### **EUROPEAN SEARCH REPORT**

**DOCUMENTS CONSIDERED TO BE RELEVANT** 

**Application Number** 

EP 18 16 5244

0	

Category	Citation of document with in of relevant passa	dication, where appropriate, ges	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Α		3-08-21)	1-10	INV. H01F41/084
Α	US 1 406 215 A (0'B 14 February 1922 (1 * figures 1,2,4,6 * * page 1, line 10 - * page 3, line 2 - * page 3, line 64 -	line 13 * line 39 *	1-10	
A	* figures 1,3,4,10, * column 1, line 10 * column 4, line 27 * column 6, line 1	ch 1964 (1964-03-17) 11,14 * - line 32 * - line 75 *	1-10	TECHNICAL FIELDS SEARCHED (IPC)
	The present search report has b	een drawn up for all claims	_	
	Place of search Munich	Date of completion of the search  14 September 201	8 Tar	Examiner no, Valeria
X : part Y : part docu A : tech O : non	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with anoth iment of the same category inological background -written disclosure rmediate document	T : theory or principl E : earlier patent do after the filling da' er D : document cited f L : document cited f	e underlying the i cument, but publi te n the application or other reasons	nvention shed on, or

## EP 3 385 966 A3

### ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 18 16 5244

5

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

14-09-2018

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
15	EP 2629310	A1 21-08-2013	CN 103247436 A EP 2629310 A1 JP 5858575 B2 JP 2013162107 A US 2013206893 A1	14-08-2013 21-08-2013 10-02-2016 19-08-2013 15-08-2013
	US 1406215	A 14-02-1922	NONE	
20	US 3125133	A 17-03-1964	NONE	
25				
30				
35				
40				
45				
50				
55 55				

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82