



Europäisches Patentamt
European Patent Office
Office européen des brevets



⑪ Publication number: 0 587 142 A3

⑫

EUROPEAN PATENT APPLICATION

⑬ Application number: 93114422.4

⑮ Int. Cl. 5: H01F 31/00

⑭ Date of filing: 08.09.93

⑯ Priority: 09.09.92 JP 240528/92
21.09.92 JP 250988/92

⑰ Date of publication of application:
16.03.94 Bulletin 94/11

⑲ Designated Contracting States:
DE FR GB

⑳ Date of deferred publication of the search report:
30.03.94 Bulletin 94/13

⑷ Applicant: MATSUSHITA ELECTRIC
INDUSTRIAL CO., LTD.
1006, Ohaza Kadoma
Kadoma-shi, Osaka 571(JP)

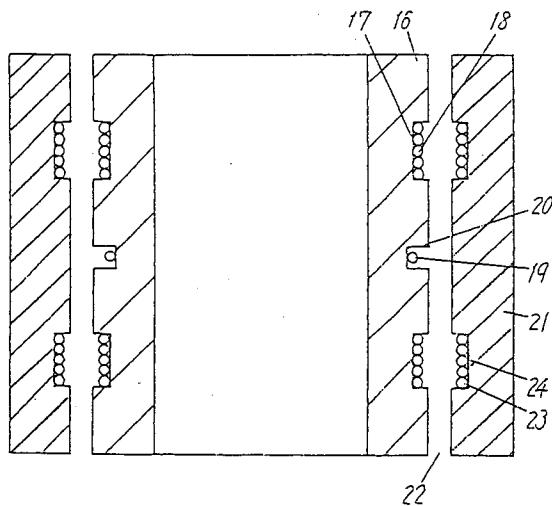
⑸ Inventor: Takeuchi, Toshinobu
5-3-7, Gakuen
Sanda-shi, Hyogo-ken(JP)

⑹ Representative: Marx, Lothar, Dr. et al
Patentanwälte Schwabe, Sandmair, Marx
Stutzstrasse 16
D-81677 München (DE)

⑻ A rotary transformer.

⑻ The rotary transformer of this invention includes a cylindrical inner magnetic core portion and a cylindrical outer magnetic core portion enclosing the inner magnetic core portion. The inner magnetic core portion and the outer magnetic core portion are rotatable with respect to each other about a common axis. The inner magnetic core portion has windings as a first coil on the outside surface, and the outer magnetic core portion has windings as a second coil on the inside surface. The inside surface opposes the outside surface of the inner magnetic core portion with a predetermined distance therebetween. Either the outer magnetic core portion or the inner magnetic core portion can be made from a resin ferrite, or both outer and inner magnetic core portions can be made from the same resin ferrite.

Fig. 1





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 93 11 4422

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
Y	PATENT ABSTRACTS OF JAPAN vol. 16, no. 120 (E-1182) 26 March 1992 & JP-A-03 289 113 (MATSUSHITA ELECTRIC) * abstract *	1	H01F31/00
X A	---	3,4,7 2	
Y	PATENT ABSTRACTS OF JAPAN vol. 8, no. 99 (E-243)(1536) 10 May 1984 & JP-A-59 016 314 (NIHON FERRITE) * abstract *	1,13	
Y	PATENT ABSTRACTS OF JAPAN vol. 13, no. 220 (E-762)(3568) 23 May 1989 & JP-A-01 031 404 (MATSUSHITA ELECTRIC) * abstract *	13	
X A	---	15,16,19 14	
A	US-A-4 939 400 (NIHON SYSTEM KENKYUSHO) * figures 2,3 *	9,10	TECHNICAL FIELDS SEARCHED (Int.Cl.5)
A	PATENT ABSTRACTS OF JAPAN vol. 16, no. 505 (E-1281) 19 October 1992 & JP-A-04 186 711 (MATSUSHITA ELECTRIC) 3 July 1992 * abstract *		H01F
A	PATENT ABSTRACTS OF JAPAN vol. 12, no. 35 (E-579)(2882) 2 February 1988 & JP-A-62 188 303 (SHIGEO FUKUDA) * abstract *		
	---	-/--	
<p>The present search report has been drawn up for all claims</p>			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	4 February 1994	Vanhulle, R	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 93 11 4422

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
A	PATENT ABSTRACTS OF JAPAN vol. 11, no. 314 (E-549)(2761) 13 October 1987 & JP-A-62 109 304 (CANON ELECTRONICS) * abstract * -----	
CLASSIFICATION OF THE APPLICATION (Int.Cl.5)		
TECHNICAL FIELDS SEARCHED (Int.Cl.5)		
The present search report has been drawn up for all claims		
Place of search	Date of completion of the search	Examiner
THE HAGUE	4 February 1994	Vanhulle, R
CATEGORY OF CITED DOCUMENTS		
X : particularly relevant if taken alone	T : theory or principle underlying the invention	
Y : particularly relevant if combined with another document of the same category	E : earlier patent document, but published on, or after the filing date	
A : technological background	D : document cited in the application	
O : non-written disclosure	L : document cited for other reasons	
P : intermediate document	& : member of the same patent family, corresponding document	