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(11) **EP 0 918 341 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
02.08.2000 Bulletin 2000/31

(51) Int. Cl.⁷: **H01F 27/02**, H01F 27/04

(43) Date of publication A2:
26.05.1999 Bulletin 1999/21

(21) Application number: **98203863.0**

(22) Date of filing: **18.11.1998**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

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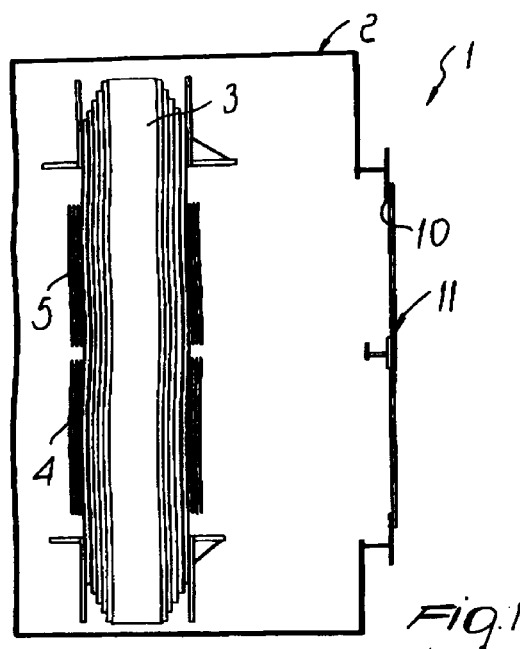
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(30) Priority: **19.11.1997 IT MI972576**

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(54) **Electric transformer for high- and very high-intensity currents, particularly for furnaces and rectifiers**

(57) An electric transformer for high- and very high-intensity currents, particularly for furnaces and rectifiers, comprising a tank (2) which contains a magnetic core (3) with the corresponding windings (4,5). The low-voltage feedthroughs for high- and very high-intensity currents protrude hermetically from the tank (2). The particularity of the invention is constituted by the fact that at least the portion of the wall of the tank that is affected by the low-voltage feedthroughs is made of aluminum and/or alloys thereof and forms openings for the hermetic passage of the low-voltage feedthroughs.



EP 0 918 341 A3



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EUROPEAN SEARCH REPORT

Application Number
EP 98 20 3863

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.6)
X	EP 0 348 131 A (MITSUBISHI ELECTRIC CORP) 27 December 1989 (1989-12-27)	1-4	H01F27/02 H01F27/04
A	* column 4, line 17 - column 6, line 2; figures 4-6 * * column 1, line 3,4 *	5	
X	DE 26 23 156 A (TRANSFORMATOREN UNION AG) 1 December 1977 (1977-12-01) * page 3, paragraph 1; claims 1,5; figure 1 * * page 6, line 4-30 *	1-4	
A	DE 25 01 937 A (TRANSFORMATOREN UNION AG) 22 July 1976 (1976-07-22) * page 4, paragraph 2; claims 1,7; figure 1 *	1	
A	US 3 883 680 A (KEEN JR WILLIAM A) 13 May 1975 (1975-05-13) * column 3, line 27-47; figure 3 *	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			H01F
Place of search THE HAGUE		Date of completion of the search 9 June 2000	Examiner Durville, G
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

EPO FORM 1503 (03.02 (P04C01))

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

EP 98 20 3863

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09-06-2000

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0348131	A	27-12-1989	JP 1319918 A	26-12-1989
			JP 2013319 C	02-02-1996
			JP 7044116 B	15-05-1995
			CA 1334855 A	21-03-1995
			DE 68915620 D	07-07-1994
			DE 68915620 T	12-01-1995
			PT 90921 A, B	29-12-1989
			US 4980515 A	25-12-1990
DE 2623156	A	01-12-1977	JP 52143497 A	30-11-1977
DE 2501937	A	22-07-1976	NONE	
US 3883680	A	13-05-1975	CA 1007312 A	22-03-1977
			JP 50107498 A	23-08-1975

EPO FORM P0460

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