BRITISH STANDARD

BS 4999-144: 1987

Incorporating Amendment No. 1

General requirements for rotating electrical machines —

Part 144: Specification for the insulation of bars and coils of high voltage machines, including test methods

UDC 621.313-13:621.313.027.3:621.317.333

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

Document Sharing Hub

Full document details: BS 4999-144:1987

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Power Electrical Engineering Standards Committee (PEL/-) to Technical Committee PEL/1, upon which the following bodies were represented:

Association of Consulting Engineers
Association of Electrical Machinery Trades
Association of Manufacturers Allied to the Electrical and Electronic Industry (BEAMA Ltd.)
Association of Supervisory and Executive Engineers
British Coal
Bureau of Engineer Surveyors
ERA Technology Ltd.
Electricity Supply Industry in England and Wales
Engineer Surveyors Section of the ASTMS
Engineering Equipment and Materials Users' Association
Health and Safety Executive
Ministry of Defence
Power Generation Association (BEAMA Ltd.)
Rotating Electrical Machines Association (BEAMA Ltd.)
South of Scotland Electricity Board

This British Standard, having been prepared under the direction of the Power Electrical Engineering Standards Committee, was published under the authority of the Board of BSI and comes into effect on 27 February 1987

© BSI 02-1999

First published as BS 4999-61 February 1977
First revision as BS 4999-144 February 1987

The following BSI references relate to the work on this standard:
Committee reference PEL/1
Revision announced in *BSI News* October 1986

ISBN 0 580 15783 0

Amendments issued since publication

Amd. No.	Date of issue	Comments
6636	April 1991	Indicated by a sideline in the margin

Documents
Document Sharing Hub

Full document details: BS 4999-144:1987

Contents

		Page
Committees responsible		Inside front cover
Foreword		ii
Section 1. General		
1	Scope	1
2	Reference	1
Section 2. Tests on conductor bars and coils		
3	Tests	1
4	Routine test	1
5	Random test	2
Section 3. Tests on windings cured in the stator		
6	Test of conductor lamination insulation	3
7	Test of the winding	3
8	Tests on corresponding single winding elements	3
Figure 1 — Curve of tan delta against the ratio U/U_n (example of a series of measurements)		2
Table 1 — Number of bars or coil sides to be tested		1
Table 2 — Highest permissible values of loss tangent (rated voltage not exceeding 11 kV)		2
Publication referred to		Inside back cover

Documents
Document Sharing Hub
Full document details: BS 4999-144:1987