

Australian Standard<sup>®</sup>

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**ROTATING  
ELECTRICAL MACHINES—  
GENERAL REQUIREMENTS**

**Part 47—BRUSHES AND  
BRUSH-HOLDERS—  
DIMENSIONS**

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This Australian Standard was prepared by Committee EL/9, Rotating Electrical Machinery. It was approved on behalf of the Council of the Standards Association of Australia on 30 March 1988 and published on 17 June 1988.

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The following interests are represented on Committee EL/9:

Australian British Chamber of Commerce  
Australian Electrical and Electronic Manufacturers' Association  
Bureau of Steel Manufacturers of Australia  
Confederation of Australian Industry  
Department of Defence  
Electricity Supply Association of Australia  
Institution of Engineers, Australia

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(endorsement of BS 96—1954 without amendment).  
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## PREFACE

This Standard was prepared by the Association's Committee on Rotating Electrical Machinery to supersede AS C43—1957, *Carbon brushes (parallel-sided) for use on commutator and slip-ring machines*. It is identical with and has been reproduced from IEC 136 (1986), *Dimensions of brushes and brush-holders for electrical machinery*. However typographical errors have been corrected in Note 2 to Table 1 and in the text of Clause 7.2, and the layout of Appendix B has been adjusted.

For the purposes of this Australian Standard, the cross references to other publications should be replaced by references to Australian Standards as shown below except where the words 'No Australian equivalent' are used. It should be noted that this statement applies only at the time of publication of this Standard.

The page references in the text apply to the IEC page numbers which are given on the bottom left corner of each page.

| <i>Reference to IEC or ISO Publication</i>   | <i>Appropriate Australian Standard</i>       |
|--|--|
| IEC 228 Conductors of insulated cables   | No Australian equivalent                     |
| ISO 68 General purpose screw threads—<br>Basic profile                                   | AS 1721 General purpose metric screw threads |
| ISO/R 286 ISO system of limits and fits<br>Part 1: General tolerances and<br>deviations  | AS 1654 Limits and fits for engineering      |
| ISO/R 388 ISO metric series for basic<br>thicknesses of sheet and dia-<br>meters of wire | No Australian equivalent                     |

IEC has published two other publications which are not referred to in this Standard, but may be of interest to those dealing with the subject matter.

IEC 356 (1971) Dimensions for commutators and slip-rings

IEC 778 (1984) Brush-holders for slip-rings Group R—Type RA.

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## STANDARDS ASSOCIATION OF AUSTRALIA

## Australian Standard

## ROTATING ELECTRICAL MACHINES—GENERAL REQUIREMENTS

## PART 47: BRUSHES AND BRUSH-HOLDERS—DIMENSIONS

## 1. Scope

This standard applies to brushes and brush-holders for electrical machinery. For the present it applies only to brushes and brush-holders for cylindrical commutators and slip rings.

## 2. Letter symbols for the principal dimensions of brushes for cylindrical commutators and slip rings

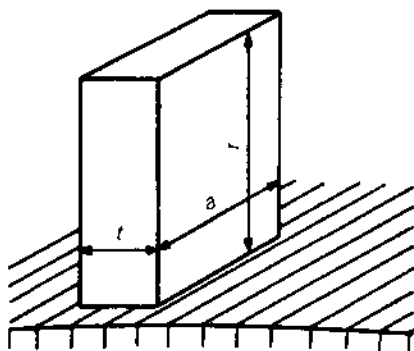


FIG. 1. — Brushes for cylindrical commutators.

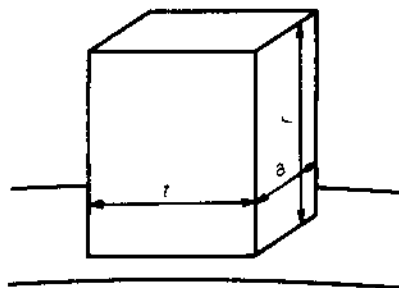


FIG. 2. — Brushes for cylindrical slip rings.

$t$  = tangential dimension

$a$  = axial dimension

$r$  = radial dimension

Note. — See Sub-clause 7.5.

The dimensions should be stated in the following sequence:

$$t \times a \times r$$

The sign  $\times$  is to be placed between the symbols.

## 3. Standard dimensions

*Dimensions in millimetres*

|      |     |
|------|-----|
| 1.6  | 16  |
| 2    | 20  |
| 2.5  | 25  |
| 3.2  | 32  |
| 4    | 40  |
| 5    | 50  |
| 6.3  | 64  |
| 8    | 80  |
| 10   | 100 |
| 12.5 | 125 |