Australian Standard®

GENERAL REQUIREMENTS FOR ROTATING ELECTRICAL MACHINES

Part 2—DIMENSIONAL SYMBOLS

This part of the standard, prepared by Committee EL/9, Rotating Electrical Machinery, was approved on behalf of the Council of the Standards Association of Australia on 19 January 1981, and was published on 1 May 1981.

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PREFACE

This part of the standard was prepared by Committee EL/9, Rotating Electrical Machinery.

Most of the substance of this part of the standard is presently to be found in AS 1360, Parts 10 and 11* where it was located pending the publication of this Part 2 of AS 1359. At the appropriate time the duplicated material will be deleted from the Parts of AS 1360.

In the preparation of this part of the standard, reference was made to BS 4999: Part 2† and to IEC 72‡. Acknowledgment is made of the assistance received from these sources.

This part of the standard differs from the British and IEC publications in the following minor matters:

(a) The letter symbol AC refers to width, rather than diameter, of frame.

(b) The Greek letter symbol α is introduced to specify an angle.

(c) Letter symbols for shaft extensions cover flats as well as keyways.

The drafting committee is aware of an early draft proposal within IEC Sub-committee 2B for a new all-embracing alphanumeric system of dimensional symbols, but that proposal does not appear to have wide acceptance at this time.

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*AS 1360, Rotating electrical machines of particular types of four particular applications
Part 10— Dimensions and outputs of standard single-speed three-phase general purpose motors.
Part 11— Dimensions and performance of small power electrical machines.
†BS 4999, General requirements for rotating electrical machines.
Part 2 — Symbols.
‡IEC 72, Dimensions and Output Ratings for Rotating Electrical Machines.

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STANDARDS ASSOCIATION OF AUSTRALIA

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GENERAL REQUIREMENTS FOR ROTATING ELECTRICAL MACHINES

PART 2—DIMENSIONAL SYMBOLS

2.1 SCOPE. This Part of this standard specifies the symbols for the principal dimensions of machines and slide rails. The use of dimensional symbols is illustrated by typical sketches.

NOTE: The allocation of symbols is somewhat arbitrary, being derived from past practice in relation to the smaller sizes of a.c. industrial motors. Nevertheless the symbols should be applied to all cases that they can adequately cover.

2.2 SYMBOLS FOR DIMENSIONS OF MACHINES AND SLIDE RAILS. Symbols for dimensions of machines and slide rails shall be as specified in Tables 2.1 and 2.2.

2.3 ILLUSTRATIVE SKETCHES. Figs 2.1 to 2.9 illustrate the definitions given in Tables 2.1 and 2.2 but are not part of the definitions. In particular, in Figs 2.2 to 2.5, the angle α should not be inferred to be 45 degrees; its value is specified elsewhere, e.g. in AS 1360.

TABLE 2.1

SINGLE-LETTER SYMBOLS FOR DIMENSIONS OF MACHINES

Letter symbol	Dimension description
A	Distance between centrelines of fixing holes (end view)
B	Distance between centrelines of fixing holes (side view)
C	Distance from centreline of fixing holes at driving end of machine to shoulder of shaft
D	Diameter of shaft extension
E	Length of shaft extension from shoulder or end of useful shaft
F	Width of keyway
G	Distance from bottom of keyway or flat to opposite side of shaft extension
H	Distance from centreline of shaft to bottom of feet
J	Radius of circle to which mounting pads (or faces for rods) are tangential
K	Diameter of holes or width of closed slots in the feet or mounting pads (or faces)
L	Overall length with single shaft extension
M	Pitch circle diameter of fixing holes
N	Diameter of spigot
P	Outside diameter of flange
R	Distance from surface of mounting flange to shaft shoulder or end of useful shaft
S	Diameter of fixing holes in flange
T	Depth of spigot
α	Angle between mounting hole and centreline of terminal box.