Australian Standard®

Rotating electrical machines—General requirements

Part 30: Preferred outputs and frame sizes

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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 Standards Australia on 21 February 1997 and published on 5 July 1997.

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Australian British Chamber of Commerce

Australian Chamber of Commerce and Industry

Australian Electrical and Electronic Manufacturers Association

Bureau of Steel Manufacturers of Australia

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Electricity Supply Association of Australia

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PREFACE

This Standard was prepared by the Standards Australia Committee EL/9, Rotating Electrical Machinery, to supersede, in part, AS 1359.30—1987, *Rotating electrical machines—General requirements*, Part 30: *Duty and rating.*

The remainder of AS 1359.30—1987 has been superseded by AS 1359.101 —1997, Part titled, *Rating and performance.*

This Standard is a Part of the AS 1359 series listed in AS 1359.0, Part titled, *Introduction and list of Parts*.

The objective of this Standard is to provide the rotating electrical machine industry with preferred machine outputs, and preferred allocations of outputs to standard frame sizes for certain three-phase induction motors.

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Part 30: Preferred outputs and frame sizes

1 SCOPE This Standard specifies preferred rated outputs for machines, and preferred allocations of outputs to standard frame sizes for certain three-phase induction motors.

2 APPLICATION This Standard is intended to be read in conjunction with AS 1359.2, AS 1359.10, AS 1359.20, AS 1359.101, and AS 1359.106.

3 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

1359	Rotating electrical machines—General requirements
1359.2	Part 2: Dimensional symbols
1359.10	Part 10: Designations and dimensions
1359.20	Part 20: Classification of types of enclosure
1359.101	Part 101: Rating and performance
1359.106	Part 106: Methods of cooling (IC Code)
1939	Degrees of protection provided by enclosures for electrical equipment (IP Code)

CENELEC

HD 231 S1	Dimensions of three-phase induction motors

4 PREFERRED OUTPUT RATINGS Preferred output ratings are as follows:

(a) For generators . . . . . Table 1.

(b) For motors . . . . . Table 2.

5 PREFERRED ALLOCATIONS OF OUTPUT TO FRAME SIZE

NOTE: The terms 'enclosed-ventilated', 'totally enclosed fan-cooled', and 'frame-surface-airstream-cooled' are imprecise and are used herein because of widespread use in the industry. Where there is any possibility of confusion, the more precise IC Code and IP Code should be used. The IC Code is specified in AS 1359.106. The IP Code is specified in AS 1359.20 which refers, in the main, to AS 1939.

5.1 Three-phase 'enclosed-ventilated' induction motors Preferred outputs relative to frame size of three-phase 'enclosed-ventilated' induction motors, with duty rating S1 and voltage rating up to 690 V, 50 Hz, are specified as follows:

(a) For cage-rotor motors . . . . . Table 3.

(b) For wound-rotor motors . . . . . Table 4.

NOTE: Two sets of allocations are specified from different sources —see footnotes to the tables.

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