

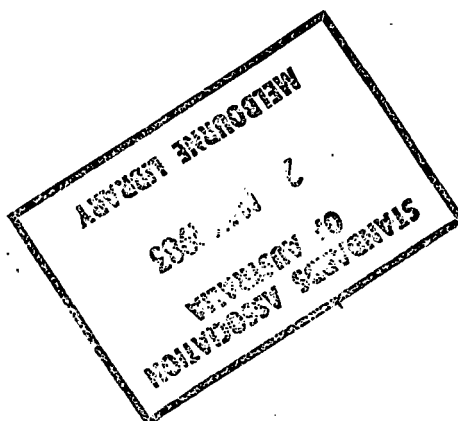
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GENERAL REQUIREMENTS FOR ROTATING ELECTRICAL MACHINES Part 4—Rating Plate Markings



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PREFACE

This part of the standard on rotating electrical machinery is based on IEC Publication 34-1 and the appropriate part of BS 4999, and acknowledgement is made of the assistance therefrom.

This part specifies the general information to be included on the rating plates of rotating electrical machines, which include d.c. generators, d.c. motors, a.c. generators, a.c. synchronous compensators, a.c. synchronous motors, a.c. synchronous induction motors, a.c. salient-pole induction motors, induction motors and a.c. commutator motors. Any necessary additional information to be given on the rating plates of machines of a particular type or for a particular purpose will be specified in the appropriate part of AS 1360.

This second edition does not require the marking of the number AS 1359 on the rating plate. However it includes a warning note on the subject. On the other hand, the machine frame reference (see Clause 4.2(b)) might need to be identified by the number of the relevant standard (see AS 1360, Parts 10 and 11).

This edition also specifies marking of the IP designation (see Clause 4.2(l)) and the power factor (see Clause 4.7(g)).

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

for

GENERAL REQUIREMENTS FOR ROTATING ELECTRICAL MACHINES

PART 4—RATING PLATE MARKINGS

4.1 SCOPE. This Part of this standard specifies the general information to be included on the rating plates of rotating electrical machines. Any necessary additional information to be given on the rating plates of machines of a particular type or for a particular purpose will be specified in the standard applicable to those machines.

4.2 GENERAL INFORMATION ON RATING PLATE OF MACHINE HAVING A SINGLE RATING EITHER CONTINUOUS OR SHORT TIME.

The rating plate of a machine shall contain the following information:

- (a) The name of the manufacturer.
- (b) The manufacturer's machine number and frame reference.
- (c) The class of rating (see AS 1359.30, Clause 30.4) or classes if the machine is intended to be operated under more than one class, with qualifying terms and other relevant information. If reactors or capacitors are included this should be indicated on the rating plate.
- (d) The additional information required by Clauses 4.3 to 4.7 where applicable.
- (e) The class of insulation and designed temperature rise if other than that applicable to the class of insulation.
- (f) The designed ambient temperature (to be included if other than 40°C).
- (g) Coolant quantity and temperature, if necessary.
- (h) For gas cooled machines, the gas pressure at rated output, if necessary.
- (j) The permissible overspeed, if applicable (e.g. water-turbine driven generators).
- (k) The altitude when in excess of 1000 m.
- (l) The IP designation (see AS 1359.20) and, if this is conditional on mounting, the IM designation (see AS 1359.22).

NOTE: Manufacturers who place the number of this Australian standard on rotating electrical machines, on packaging or on literature related thereto should ensure that the machines are manufactured to comply with the standard.

4.3 ADDITIONAL INFORMATION ON RATING PLATE OF D.C. GENERATOR. The rating plate of a direct current generator shall contain the following particulars in addition to the requirements of Clause 4.2:

- (a) Generator.
- (b) Direct current (d.c.) and whether shunt, series, compound or separately excited and compensated where applicable.
- (c) Rated output (kW).

- (d) Rated voltage.
- (e) Rated current (A).
- (f) Speed at rated output (r/min).
- (g) Excitation voltage, if separately excited, at rated output.
- (h) Excitation current, if separately excited, at rated output.

4.4 ADDITIONAL INFORMATION ON RATING PLATE OF D.C. MOTOR. The rating plate of a direct current motor shall contain the following particulars in addition to the requirements of Clause 4.2:

- (a) Motor.
- (b) Direct current (d.c.) and whether shunt, series, compound or separately excited and compensated where applicable.
- (c) Rated output (kW) and peak kW (if any).
- (d) Rated voltage.
- (e) Current, approximate at rated output (A).
- (f) Speed at rated output (r/min).
- (g) Excitation voltage, if separately excited, at rated output.
- (h) Excitation current, if separately excited, at rated output.
- (j) In the case of adjustable speed machines, the range of speeds and corresponding outputs at the extremes of the range.

4.5 ADDITIONAL INFORMATION ON RATING PLATE OF A.C. GENERATOR OR SYNCHRONOUS COMPENSATOR. The rating plate of an a.c. generator or synchronous compensator shall contain the following particulars in addition to the requirements of Clause 4.2:

- (a) A.C. generator or synchronous compensator.
- (b) Frequency (Hz).
- (c) Number of phases.
- (d) Rated output, or rating (kV.A or MV.A).
- (e) Rated voltage.
- (f) Rated current (A).
- (g) Power factor.
- (h) Speed (r/min).
- (j) Excitation voltage at rated output, where applicable.
- (k) Excitation current at rated output, where applicable.
- (l) Primary winding connection.