

Form-wound Squirrel Cage Induction Motors—375 kW (500 Horsepower) and Larger

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1 General

1.1 Scope

1.1.1 This standard covers the minimum requirements for special purpose form-wound squirrel cage induction motors 375 kW (500 hp) and larger for use in petroleum, chemical, and other industry applications. This standard can also be used for induction generators by substituting “generator” for “motor” where applicable.

Notes following a paragraph in Sections 1 through 8 are informational only and are not enforceable as part of this standard.

NOTE A special purpose machine typically has one or more of the following characteristics:

- 1) is in an application for which the equipment is designed for uninterrupted, continuous operation in critical service, and for which there is usually no installed spare equipment;
- 2) is larger than 2250 kW (3000 hp) for speeds 1800 rpm and below;
- 3) is rated 600 kW (800 hp) or greater for two pole (3000 rpm or 3600 rpm) machines of totally enclosed construction, or rated 930 kW (1250 hp) or greater for two pole machines of open or guarded construction (including machines with WP-I or WP-II type enclosures);
- 4) drives a high-inertia load (in excess of the load Wk^2 listed in NEMA MG 1, Part 20);
- 5) uses an adjustable speed drive (ASD) as a source of power;
- 6) is an induction generator;
- 7) is a vertical machine rated 375 kW (500 hp) or greater; or
- 8) operates in abnormally hostile environments.

A round bullet (●) at the beginning of a paragraph indicates that either a decision is required or further information is to be provided by the purchaser. This information shall be indicated on the datasheets (see Annex A); otherwise, it shall be stated in the quotation request or in the order.

A diamond bullet (◆) at the start of a paragraph indicates additional requirements for motors applied with ASDs.

1.1.2 This standard requires the purchaser to specify details and features. The purchaser shall complete the datasheets in Annex A.

NOTE Guidance for completion of the datasheets is provided in Annex C.

1.2 Alternative Designs

The vendor may offer alternative designs (see 8.1.9).

1.3 Dimensions and Standards

- **1.3.1** Both the metric (SI) and U.S. customary (USC) system of units and dimensions are used in this standard. Data, drawings, and hardware (including fasteners) related to equipment supplied to this standard shall use the