



AMERICAN PETROLEUM INSTITUTE

API Standard 541

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

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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 Wk2 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.

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.

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Contents

	Page
1 General	1
1.1 Scope	1
1.2 Alternative Designs	1
1.3 Dimensions and Standards	1
1.4 Conflicting Requirements	2
2 Normative References	2
3 Terms and Definitions	6
4 Basic Design	8
4.1 General	8
4.2 Electrical Design	10
4.3 Winding and Insulation Systems	14
4.4 Mechanical Design	16
5 Accessories	40
5.1 Terminal Boxes	40
5.2 Winding Temperature Detectors	42
5.3 Bearing Temperature Detectors	42
5.4 Space Heaters	42
5.5 Screens and Filters	43
5.6 Alarms and Control Devices for Motor Protection	43
5.7 Ground Connectors	44
5.8 Vibration Detectors	44
6 Inspection, Testing, and Preparation for Shipment	45
6.1 General	45
6.2 Inspection	46
6.3 Final Testing	47
6.4 Preparation for Shipment	61
7 Guarantee and Warranty	62
8 Vendor's Data	63
8.1 Proposals	63
8.3 Contract Data	65
8.5 Drawings	66
8.6 Final Data	68
8.7 Instruction Manuals	68
Annex A Datasheets	70
Annex B Vendor Drawing and Data Requirements	97
Annex C Datasheet Guide	101
Annex D Procedure for Determination of Residual Unbalance	144
Annex E Procedure and Guidance for Determining the Allowable Resultant Vector Change During a Heat Run Test	152
Annex F Alternate Criteria for Defining a Well Damped Resonance	155
Annex G AC Stator Form Coil Data	157
Bibliography	160

Contents

Page

Figures

1	Typical Rotor Mode Shapes	27
2	Shaft Vibration Limits (Metric Units, Relative to Bearing Housing Using Noncontact Vibration Probes) for All Hydrodynamic Sleeve Bearing Machines with the Machine Securely Fastened to a Massive Foundation.	49
3	Shaft Vibration Limits (U.S. Customary Units, Relative to Bearing Housing Using Noncontact Vibration Probes) for All Hydrodynamic Sleeve Bearing Machines with the Machine Securely Fastened to a Massive Foundation	49
4	Bearing Housing Radial and Axial Vibration Limits (Metric Units) for Sleeve and Antifriction Bearing Machines with the Machine Securely Fastened to a Massive Foundation	50
5	Bearing Housing Radial and Axial Vibration Limits (U.S. Customary Units) for Sleeve and Antifriction Bearing Machines with the Machine Securely Fastened to a Massive Foundation	50
6	Adjacent Core	57
D.1	(Blank) Residual Unbalance Worksheet	146
D.2	(Blank) Residual Unbalance Polar Plot Worksheet	147
D.3	Sample Residual Unbalance Worksheet for Left Plane	148
D.4	Sample Residual Unbalance Polar Plot Worksheet for Left Plane	149
D.5	Sample Residual Unbalance Worksheet for Right Plane	150
D.6	Sample Residual Unbalance Polar Plot Worksheet for Right Plan	151
E.1	Example of a Polar Plot Complying with 6.3.3.13	153
E.2	Example of a Polar Plot Not Complying with 6.3.3.13	153
E.3	Example of a Polar Plot Not Complying with 6.3.3.12	154
E.4	Possible Option if a Motor Fails Basic Specification Criteria	154
F.1	Evaluation of Amplification Factor (AF) from Speed Amplitude Plots	156

Tables

1	Voltage Ratings for Three Phase 60 Hz Systems	11
2	Voltage Ratings for Three Phase 50 Hz Systems (British Standards)	11
3	Voltage Ratings for Three Phase 50 Hz Systems (General)	11
4	Starting Capabilities	13
5	Machine Enclosures and Corresponding NEMA or IEC Specifications	17
6	Maximum Severity of Defects in Castings	47
7	DC Test Voltages for Insulation Resistance and Determination of Polarization Index	52
8	DC High-Potential Test Voltage Levels	59