

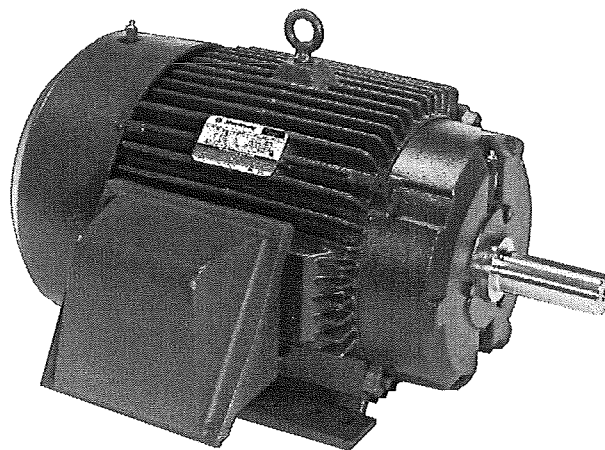
IEEE 841 Specification Variable-Speed AC Motors



Bulletin 1329R 841XL™ Motors, 1.5 to 500 HP

Motors that Meet and Exceed IEEE 841 Requirements

Bulletin 1329R 841XL™ variable-speed AC motors are designed to help meet your application requirements in harsh operating conditions. Motor users and manufacturers teamed-up to create the IEEE (Institute of Electrical and Electronic Engineers) 841 Standards for sine wave conditions. The result was a set of rigorous design and manufacturing standards to significantly improve motor reliability, energy efficiency and performance. These standards were the starting point in the development of this line of extended life variable-speed AC motors for the petroleum/chemical and pulp and paper industries.



Bulletin 1329R 841XL variable-speed AC motors are available in a wide range of ratings to help meet your application and performance requirements.

Five-Year Warranty – Confidence in the design and manufacture of these motors is why Rockwell Automation will repair or replace any properly installed Bulletin 1329R 841XL motor that fails within 5 years of shipment.

Guaranteed Higher Efficiencies – When you choose a Bulletin 1329R 841XL motor, it's guaranteed to be within a 10% watts loss variance of the standard nameplate sine wave efficiency. That's 50% better than you'll receive from other motors with nameplate ratings that follow a standard which allows a 20% watts loss variance. More energy savings for your dollar.

Conforms to Energy Efficiency Standards – Each motor meets or exceeds 1997 U.S. Energy Policy regulations. It also meets CSA Efficiency Verification program requirements.

Meets or Exceeds World Standards – Whenever you need variable-speed performance you can trust, the clear choice is an Allen-Bradley Control-Matched™ drive and motor solution. Each motor is designed to meet tough standards such as those from the U.S. Department of Energy, CSA, NEMA, IEC, IEEE, UL® and more.

ISO 9001 Certification – The Allen-Bradley quality promise is backed by ISO 9001 certification of Rockwell Automation facilities that manufacture variable-speed motors from 0.25 through 20,000 HP.



Bringing Together Leading Brands in Industrial Automation

Bulletin 1329R 841XL

Variable-Speed Motors, 1.5 to 500 HP

Inverter Grade Insulation System

- Non-hygroscopic, chemical and humidity resistant Class F insulation.
- Class F insulation consists of Class F and H materials for higher temperature resistance, including phase and slot insulation.
- Coil heads are laced on both ends for mechanical strength.
- Insulation system meets and exceeds NEMA standard MG1 Part 31.40.4.2 and has a minimum rating of 1600 volts CIV (Rockwell Automation test method) at rated operating temperature.

Reduced Vibration

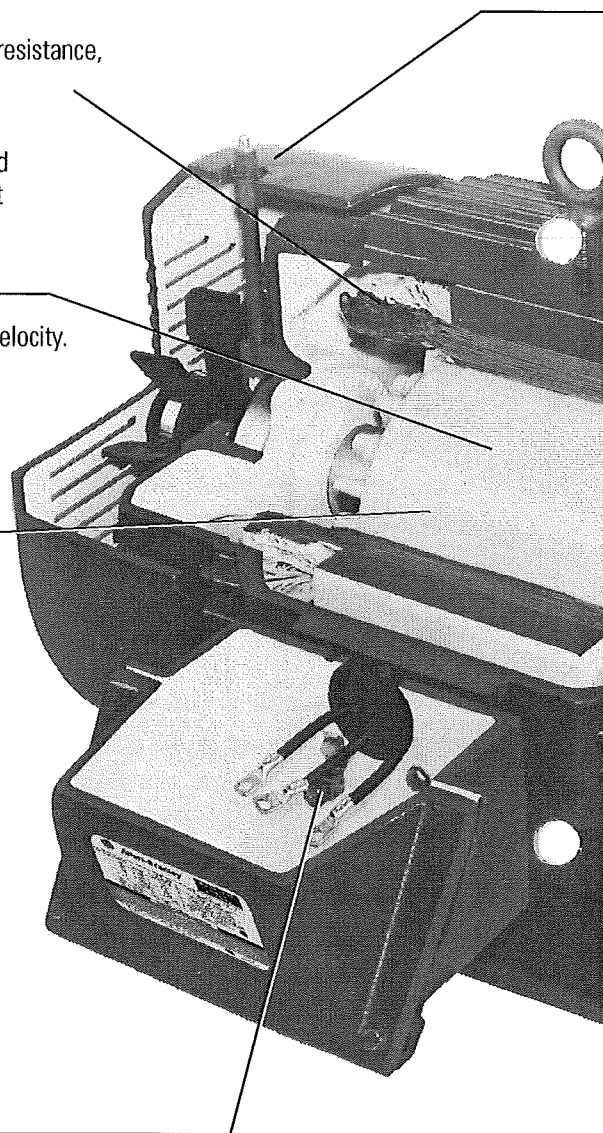
- Rotors are dynamically balanced not to exceed 0.08 inches-per-second peak velocity.
- Every motor is guaranteed to meet IEEE 841 vibration standards.
A vibration test report is shipped with each motor.
- Precision cast conductor bars on the rotor minimize vibration and help extend service life.

Increased Energy Efficiency

- Motor sine wave efficiency meets or exceeds the requirements of the 1992 U.S. Energy Policy Act.
- Motor efficiency meets or exceeds Canadian Federal Efficiency Levels defined in CSA C390-93.
- Energy-saving features:
 - Optimized winding design, precision manufacturing and strict quality control procedures minimize magnetic stray load losses.
 - A unique fan design provides optimum cooling while reducing friction and windage losses.
 - Larger conductor bars in the rotor minimize resistance and slip losses.
 - A longer core with thinner gauge laminations reduces eddy current losses while lowering operating flux densities.
 - Added copper and larger conductor in the stator lowers resistance in the windings to reduce current flow losses.

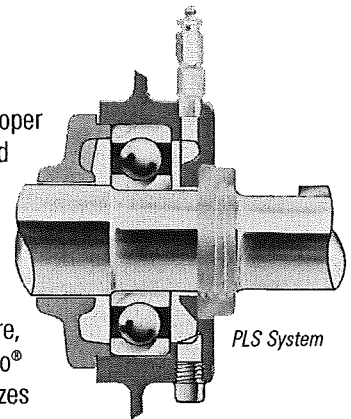
Protected Electrical Connections

- Corrosion-resistant cast iron conduit box has twice the volume required by NEMA standards.
- Neoprene conduit box gaskets guard against the entry of moisture and contaminants.
- All motor leads have lugs to help assure integrity of electrical connections.
- A drilled and tapped hole for a ground lug is provided on the frame.



Longer Bearing Life

- Grease reservoir drain plug with spring-loaded relief extends out of the fan cover for easy access.
- Bearings designed to run cooler for extended life.
- They are sized to provide high load capacities and degassed for improved durability.
- Exclusive PLS® Plus (Positive Lubrication System Plus) assures proper bearing lubrication in all mounting positions. Grease is channeled directly into the bearing tract. Easily accessible lubrication fittings are positioned in the front and back end shields.
- Cast iron bearing inner-caps provide a grease reservoir which is functional in any mounting position.
- Bearings protected against contamination from moisture, dust, dirt, or other material with the installation of Inpro® bearing isolators on both ends of the motor in frame sizes 180 and above.



Closer Shaft Tolerances Make Alignment Easier

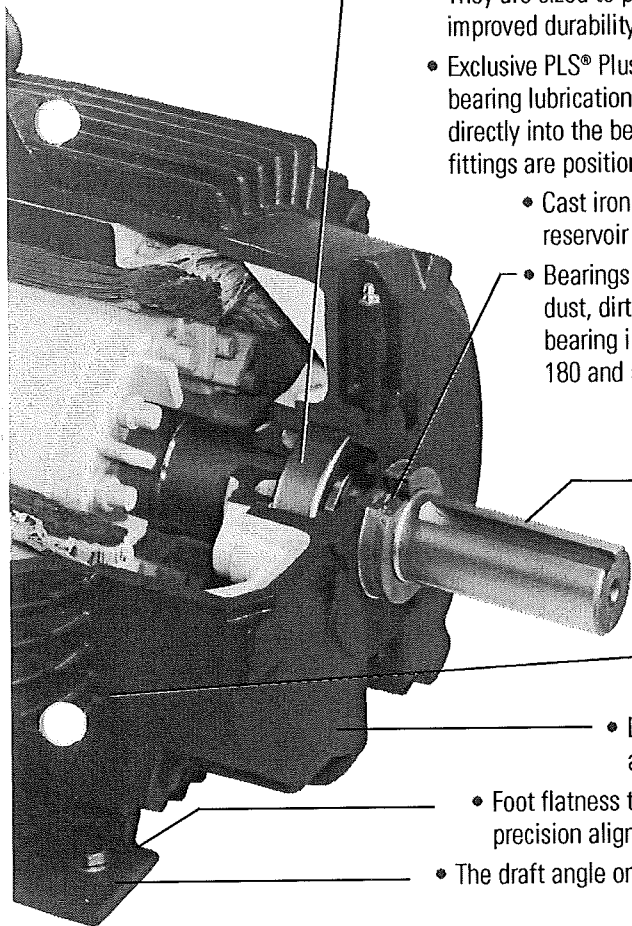
- Permissible shaft runout is reduced by 50% of previous standards – 0.001 inch (T.I.R.) for shaft diameters to 1.625 inches, and 0.0015 inch (T.I.R.) for larger shafts.

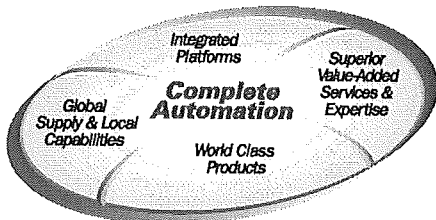
Increased Structural Integrity

- High strength cast iron frame is designed to reduce vibration and assure accurate mounting dimensions.
- Durable cast iron end shields are machined to close tolerances for exacting alignment of bearings and rotor.
- Foot flatness tolerance is designed to meet a foot pad planity within 0.005 inches for precision alignment to driven equipment and smooth operation.
- The draft angle on top of all mounting feet is 1.5° or less to make proper mounting easier.

Improved Corrosion Resistance

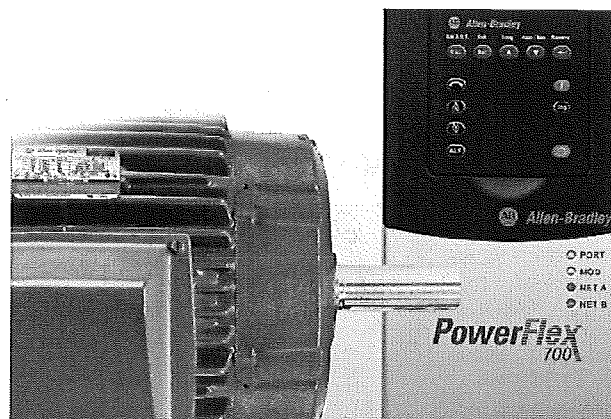
- All hardware is hex head, high strength and zinc-plated.
- All internal rotor, stator and shaft surfaces are epoxy coated.
- Laser-etched stainless steel nameplates include all required NEMA data plus actual motor weight and guaranteed minimum efficiency.





A Complete Automation™ Solution for Variable-Speed Performance

You can depend on Allen-Bradley products and services as your single source for a Complete Automation solution. These products are designed to deliver integrated performance and are backed by comprehensive support services. This total capability from a single source offers you savings and flexibility to ensure optimum value from your investment.



For more information, reference our Variable Speed Motors Catalog or visit our web-site at www.controlmatched.com



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841XL and PLS are trademarks of Rockwell.
UL is a registered trademark of Underwriters' Laboratories, Inc.
Inpro is a registered trademark of Inpro, Inc.

For additional information refer to our web site:
www.controlmatched.com

Reach us now at www.rockwellautomation.com

Wherever you need us, Rockwell Automation brings together leading brands in industrial automation including Allen-Bradley controls, Reliance Electric power transmission products, Dodge mechanical power transmission components, and Rockwell Software. Rockwell Automation's unique, flexible approach to helping customers achieve a competitive advantage is supported by thousands of authorized partners, distributors and system integrators around the world.

Americas Headquarters, 1201 South Second Street, Milwaukee, WI 53201-2496, USA, Tel: (1) 414 382-2000, Fax: (1) 414-382-4444
European Headquarters SA/NV, Boulevard du Souverain 36, 1170 Brussels, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640
Asia Pacific Headquarters, 27/F Citicorp Centre, 18 Whitfield Road, Causeway Bay, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

