LEESON CANADA HAS THOUSANDS OF STOCK POWER TRANSMISSION SOLUTIONS

LEESON's off-the-shelf product offering is one of the widest in the industry and includes nearly 4,000 stock motors, gearmotors, gear reducers and drives. All are built for industrial use and have numerous features making them easy to install in replacement applications.

MOTORS OF ALL TYPES

Stock motors include both AC and DC designs, from sub-fractional horsepower through hundreds of horsepower for general-use and specific-purpose applications. All popular enclosures and configurations are available, along with some not-so-easy-to-find items. Standard at no extra cost on all stock NEMA three phase motors (1 HP and larger) is LEESON's Inverter-Rated Insulation System (IRIS™), which provides an extra margin of protection from inverter-induced voltage spikes.

RELATED PRODUCTS AND SERVICES

As a wide-ranging source for electro-mechanical solutions, LEESON Canada offers contactors, switches, sensors and other industrial control products; clutches and brakes, sheaves, cables and connectors, and more. Services include design and assembly of application-specific motor control panels as well as our unique Custom PDQ program for delivering specially wound motors in small lots. Contact your nearest LEESON Canada branch for more information.

GE COMMERCIAL MOTORS By Regal-Beloit

LEESON is proud to offer a full line of Swim Pool, Jet Pump and Spa motors in this catalogue. Other GE Commercial Motors by Regal-Beloit such as HVAC, Direct Drive, Condenser Fan, Unit Heater, etc. are available from LEESON Canada through authorized distributors.

GE Commercial Motors

By Regal-Beloit

Strategically located LEESON Canada branches offer sales and application support for a wide range of power transmission needs.

LEESON CANADA®

Inverter-Duty Motors For Every Need!

General Purpose, Inverter-Rated EPACT Motors 1 to 200 HP Pages 13-22

All LEESON stock NEMA three-phase motors, 1 HP and larger, feature the IRIS™ insulation system, which provides superior protection against voltage spikes induced by variable frequency drives. Many ratings have been designated as EPACT motors, meaning that they have efficiencies that meet or exceed EPACT standards. Suitable for use with an inverter at speed ranges of 10:1 for variable torque and 10:1 for constant torque. With blower kit, and proper inverter setup, suitable for use up to 20:1 variable torque and 20:1 constant torque.

WATTSAVER® Premium Efficiency Motors 1/3 to 125 HP Pages 13-22

Premium efficiency motors with the IRIS™ insulation system for extra spike protection. These motors are designed for superior performance in PWM and vector-drive service. Efficiencies meet or exceed NEMA Premium efficiency requirements, most utility rebate programs, and have been independently verified to IEEE 112B standards. Meets requirements for NEMA MG-1, part 30. Suitable for use with an inverter at speed ranges of 10:1 for variable torque and 10:1 for constant torque. With blower kit, and proper inverter setup, suitable for use up to 20:1 variable torque and 20:1 constant torque. Also suitable for vector-duty (full rated torque at zero speed) with blower and encoder kits.

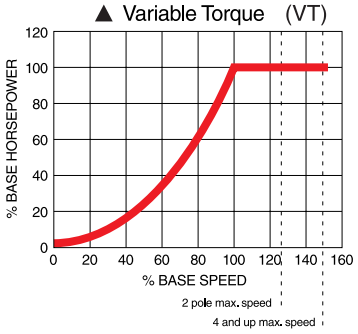
SPEEDMASTER® Extreme-Duty Inverter Motors 1 to 350 HP Call Factory

Specially designed for inverter applications, these motors have 2000:1 constant torque speed range with blower cooling and vector-input IRIS™ voltage spike protection. Cast iron frame, endplates and fan cover. Provisions for encoder mounting. Meets requirements for NEMA MG-1, part 30 and 31.
For inverter-duty use up to 2000:1 variable torque and constant torque. Vector duty with the addition of an encoder kit.

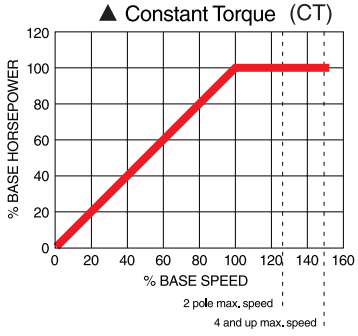
Inverter-Duty Motor Speed Ranges*

Construction Type		NEMA Frame	Safe Hertz Range CT▲	VT▲	CHP**	Safe Hertz Range With Forced Ventilation Mod
General Purpose Inverter-Rated EPACT Motors						
Steel Frame,	TEFC	56-210T	6-60 Hz	6-60 Hz	to 90 Hz	Full torque at low speed
	ODP	56-210T	6-60 Hz	20-60 Hz	to 90 Hz	with vector control
Cast Iron Frame, TEFC		180-440T	6-60 Hz	6-60 Hz	to 90 Hz	Full torque at low speed with vector control
Cast Iron Frame, ODP		180-440T	6-60 Hz	6-60 Hz	to 90 Hz	Full torque at low speed with vector control
WATTSAVER® Premium Efficiency Motors						
Steel Frame		56-180T	6-60 Hz	6-60 Hz	to 90 Hz	
Cast Iron Frame, TEFC		180-280T	6-60 Hz	6-60 Hz	to 90 Hz	0-90 with full torque at zero speed with vector control
		320-440T	6-60 Hz	6-60 Hz	to 90 Hz	0-90 with full torque at zero speed with vector control
Cast Iron Frame, ODP		180-280T	6-60 Hz	6-60 Hz	to 90 Hz	
		320-440T	6-60 Hz	6-60 Hz	to 90 Hz	
SPEEDMASTER® Extreme-Duty Inverter Motors						
TENV		143TC-256TC	0-60 Hz	0-60 Hz	0-120 Hz	
TEBC		284T-449T	0-60 Hz	0-60 Hz	0-90 Hz	

▲ Variable Torque (VT)



▲ Constant Torque (CT)



* General information is given because each application is unique with its own unique set of application characteristics. Successful motor/drive applications require proper setup and installation (in accordance with all applicable electrical codes and regulations) by personnel familiar with the installation, setup, and operation of adjustable speed drives. Proper adjustment of the adjustable speed drive, in accordance with the Installation and Operation manual that comes with it, must be performed to ensure that the motor/drive setup is complete and appropriate for the application. Failure to perform proper setup can lead to substandard performance and/or failure of system components.

** For constant Horsepower operation, the maximum speed for 2 pole (3600 RPM) motors is 75Hz, not 90Hz. Contact LEESON for application analysis if 90Hz is required.

Look Inside the LEESON 182-4T Frame Motor

Fan guard, fan and endshield work together to provide frame-hugging airflow for maximum cooling and overload capacity. Vents in fan guard meet UL 1/4" articulated probe standard for safe operation.

Cooler running temperatures are achieved by using air guides on the endshield to straighten airflow over the frame for improved heat dissipation and longer insulation life.

Large capacitor housing (single phase) with large MFD capacitors, one molded gasket/joint and simplified wiring.

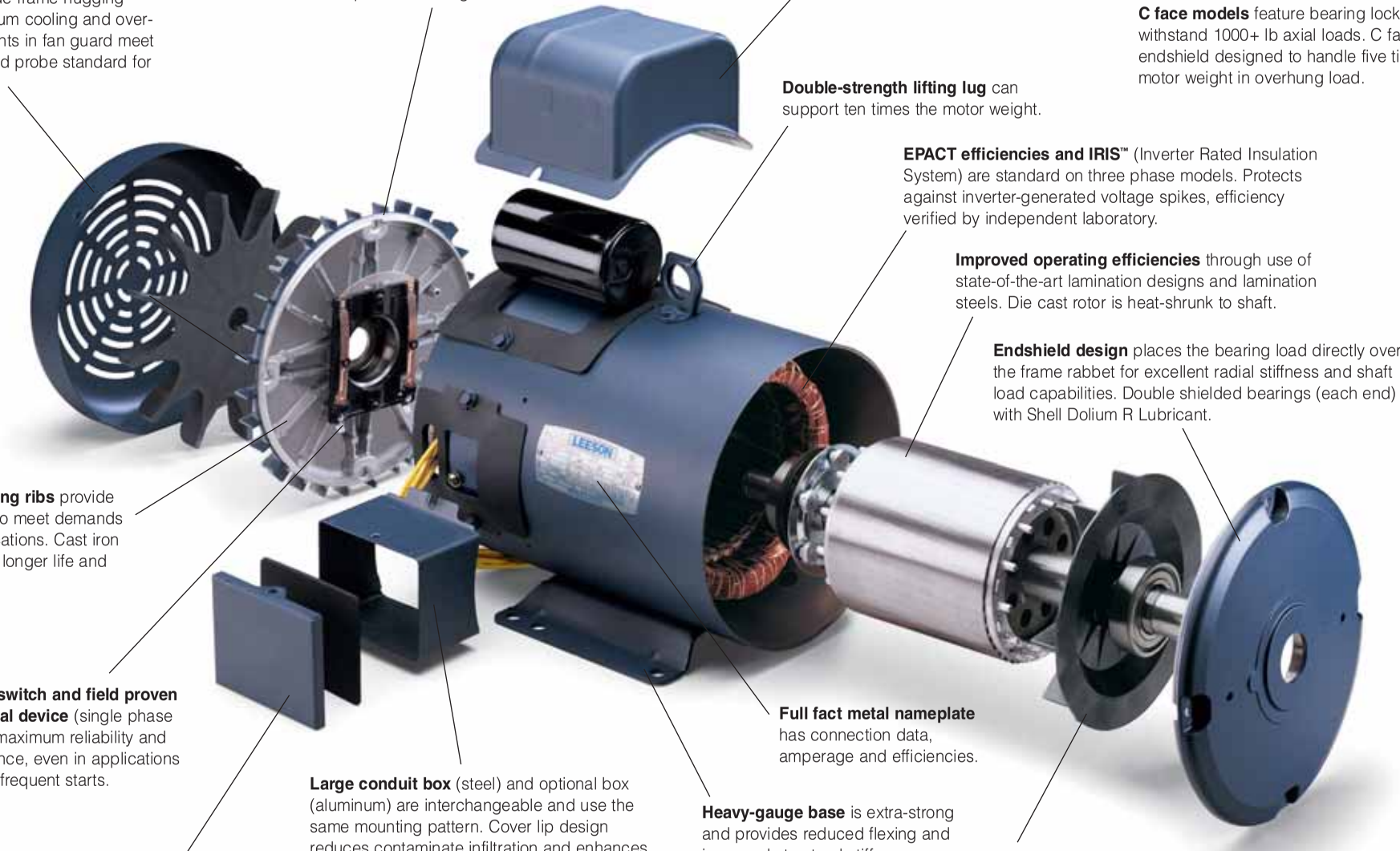
C face models feature bearing lock to withstand 1000+ lb axial loads. C face endshield designed to handle five times motor weight in overhung load.

Double-strength lifting lug can support ten times the motor weight.

EPACT efficiencies and IRIS™ (Inverter Rated Insulation System) are standard on three phase models. Protects against inverter-generated voltage spikes, efficiency verified by independent laboratory.

Improved operating efficiencies through use of state-of-the-art lamination designs and lamination steels. Die cast rotor is heat-shrunk to shaft.

Endshield design places the bearing load directly over the frame rabbet for excellent radial stiffness and shaft load capabilities. Double shielded bearings (each end) with Shell Dolium R Lubricant.



Endshield stiffening ribs provide increased rigidity to meet demands of high load applications. Cast iron bearing inserts for longer life and quieter operation.

Starting switch and field proven centrifugal device (single phase only) for maximum reliability and performance, even in applications requiring frequent starts.

"Full-opening conduit box" cover makes for easier access to connections. Standard steel box features one 1-3/8" and three 1-1/8" knockouts.

Large conduit box (steel) and optional box (aluminum) are interchangeable and use the same mounting pattern. Cover lip design reduces contaminate infiltration and enhances dust-tight gasket seal. Box volume exceeds new NEC requirements.

Full fact metal nameplate has connection data, amperage and efficiencies.

Heavy-gauge base is extra-strong and provides reduced flexing and improved structural stiffness.

Internal fan of high temperature, glass-filled nylon remains secure–even during the highest temperatures–and provides improved airflow. Reduces "hot spots" and increases insulation life.

LEESON…Industrial Quality From the Inside Out

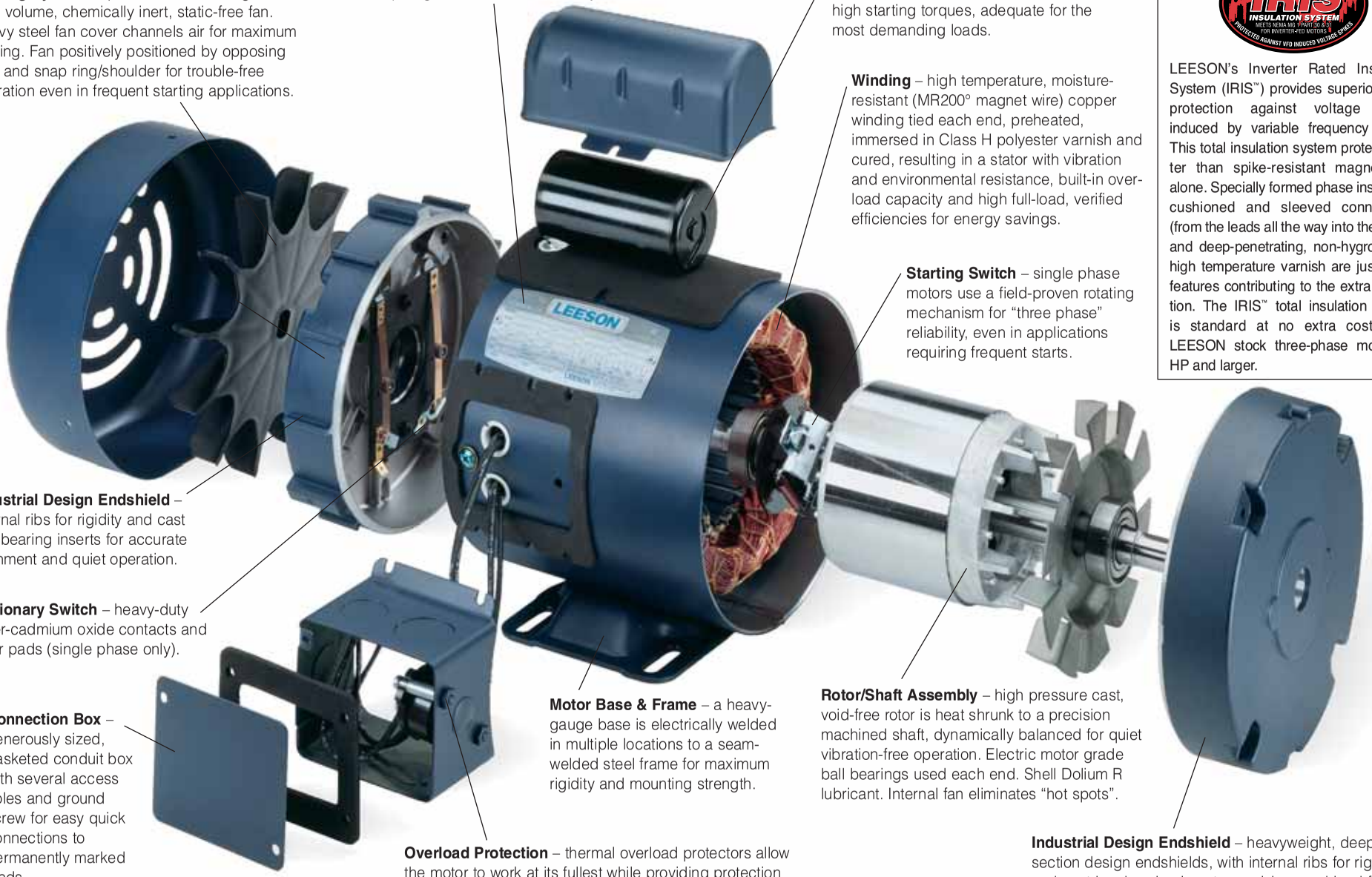
Cooling System – quiet, efficient cooling with high volume, chemically inert, static-free fan. Heavy steel fan cover channels air for maximum cooling. Fan positively positioned by opposing flats and snap ring/shoulder for trouble-free operation even in frequent starting applications.

Data Plate – "full fact" metal nameplate has complete information including connection data, amperage and full load efficiency.

Capacitor – molded-case starting capacitor in single phase motors assures high starting torques, adequate for the most demanding loads.

Winding – high temperature, moisture-resistant (MR200° magnet wire) copper winding tied each end, preheated, immersed in Class H polyester varnish and cured, resulting in a stator with vibration and environmental resistance, built-in overload capacity and high full-load, verified efficiencies for energy savings.

Starting Switch – single phase motors use a field-proven rotating mechanism for "three phase" reliability, even in applications requiring frequent starts.



Industrial Design Endshield – internal ribs for rigidity and cast iron bearing inserts for accurate alignment and quiet operation.

Stationary Switch – heavy-duty silver-cadmium oxide contacts and wear pads (single phase only).

Connection Box – generously sized, gasketed conduit box with several access holes and ground screw for easy quick connections to permanently marked leads.

Motor Base & Frame – a heavy-gauge base is electrically welded in multiple locations to a seam-welded steel frame for maximum rigidity and mounting strength.

Overload Protection – thermal overload protectors allow the motor to work at its fullest while providing protection against stall conditions and excessive overload.

Rotor/Shaft Assembly – high pressure cast, void-free rotor is heat shrunk to a precision machined shaft, dynamically balanced for quiet vibration-free operation. Electric motor grade ball bearings used each end. Shell Dolium R lubricant. Internal fan eliminates "hot spots".

Industrial Design Endshield – heavyweight, deep cross section design endshields, with internal ribs for rigidity and cast iron bearing inserts precision machined for accurate alignment and quiet operation.

INVERTER-RATED INSULATION SYSTEM
"NO-POKE"
IRIS
INSULATION SYSTEM
MEETS NEMA MG 1 PART 30 & 31 FOR INVERTER-FED MOTORS
PROTECTED AGAINST VFD INDUCED VOLTAGE SPIKES

LEESON's Inverter Rated Insulation System (IRIS™) provides superior motor protection against voltage spikes induced by variable frequency drives. This total insulation system protects better than spike-resistant magnet wire alone. Specially formed phase insulation, cushioned and sleeved connections (from the leads all the way into the turns), and deep-penetrating, non-hygroscopic, high temperature varnish are just a few features contributing to the extra protection. The IRIS™ total insulation system is standard at no extra cost in all LEESON stock three-phase motors, 1 HP and larger.