

# CAST IRON THREE PHASE MOTORS



150 & 170 SERIES • RIGID BASE • GENERAL PURPOSE

For reliable performance in heavy-duty industrial applications, nothing beats the LEESON Heavyweights. With their cast iron construction and 1.15 Service Factor, they are ideal for “tough to handle” applications.

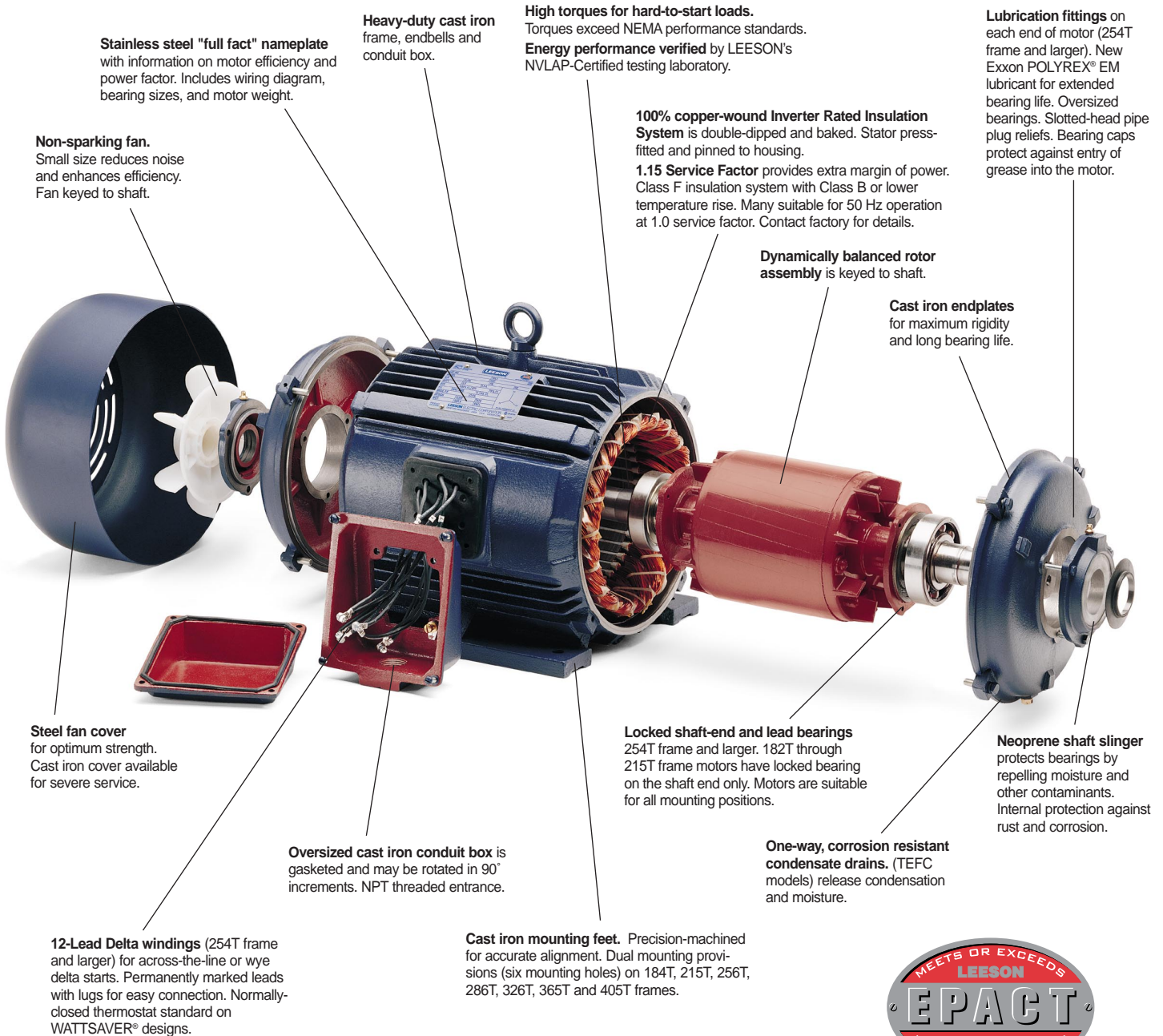
But that's only part of the story. LEESON 150 and 170-series cast iron motors are extremely versatile and can be field converted in minutes to a number of different configurations, including:

- Severe Duty TEFC (using cast iron fan guard kit)
- F2 mounting (by reassembly)
- C face with rigid base (from stock or using C face kit)
- D flange with base (using D flange kit)

CSA certified under report number LR62104  
 CSA Energy Efficiency Verification report number EEV78720-1

### 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. All this plus second generation, spike-resistant magnet wire. The IRIS™ *total insulation system* is standard at no extra cost in all LEESON stock NEMA three-phase motors, 1 HP and larger.



**Stainless steel "full fact" nameplate** with information on motor efficiency and power factor. Includes wiring diagram, bearing sizes, and motor weight.

**Non-sparking fan.** Small size reduces noise and enhances efficiency. Fan keyed to shaft.

**Heavy-duty cast iron frame, endbells and conduit box.**

**High torques for hard-to-start loads.** Torques exceed NEMA performance standards.  
**Energy performance verified** by LEESON's NVLAP-Certified testing laboratory.

**Lubrication fittings** on each end of motor (254T frame and larger). New Exxon POLYREX® EM lubricant for extended bearing life. Oversized bearings. Slotted-head pipe plug reliefs. Bearing caps protect against entry of grease into the motor.

**100% copper-wound Inverter Rated Insulation System** is double-dipped and baked. Stator press-fitted and pinned to housing.  
**1.15 Service Factor** provides extra margin of power. Class F insulation system with Class B or lower temperature rise. Many suitable for 50 Hz operation at 1.0 service factor. Contact factory for details.

**Dynamically balanced rotor assembly** is keyed to shaft.

**Cast iron endplates** for maximum rigidity and long bearing life.

**Steel fan cover** for optimum strength. Cast iron cover available for severe service.

**Locked shaft-end and lead bearings** 254T frame and larger. 182T through 215T frame motors have locked bearing on the shaft end only. Motors are suitable for all mounting positions.

**Neoprene shaft slinger** protects bearings by repelling moisture and other contaminants. Internal protection against rust and corrosion.

**Oversized cast iron conduit box** is gasketed and may be rotated in 90° increments. NPT threaded entrance.

**One-way, corrosion resistant condensate drains.** (TEFC models) release condensation and moisture.

**12-Lead Delta windings** (254T frame and larger) for across-the-line or wye delta starts. Permanently marked leads with lugs for easy connection. Normally-closed thermostat standard on WATTSaver® designs.

**Cast iron mounting feet.** Precision-machined for accurate alignment. Dual mounting provisions (six mounting holes) on 184T, 215T, 256T, 286T, 326T, 365T and 405T frames.

