

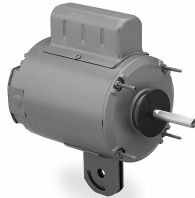
Food Processing Motors

These all stainless steel motors are designed for extended service in washdown service applications that you would find in the food processing, bakery, beverage, chemical processing and pharmaceutical industries. All external surfaces are 300-grade stainless steel and the full fact nameplate is laser etched into the motor frame.



Fan and Blower Motors

These fan and blower duty motors are designed for dependable, energy saving performance in applications where the fan is mounted on the shaft of the motor. These PSC type motors do not require a centrifugal switch, resulting in higher reliability and because of their low amp design, they are energy efficient. 48 frame models have a baked-on powder coat for extra corrosion resistance in tough applications. Features include quiet ball bearings and a resilient cradle base and auto reset buttons for motor overload protection. Pedestal Fan motors are designed with a heavy-gauge yoke base that is welded to the motor frame and they have extended mounting studs for mounting of the fan shroud.



12 Volt DC Motors

Suitable for applications having battery or solar powered operations, or generator supplied low voltage DC. These motors are high torque, continuous duty designs.

Applications range from pumps to electric carts. Motors have a base speed of 1750 RPMs and have a removable base.



Woodworking Motors

Motors designed for wood-working equipment such as table saws, planers and more. Totally enclosed designs prevent motor problems caused by wood dust and shavings. Motors operate at 3450 RPMs and have a manual reset button for overload protection. 5/8 and 7/8 shaft sizes are available and the HP ranges are 1, 1.5 and 3 HP.



Industrial – 3-Phase Motors

For use where exposure to water, dust and corrosives exists. Ideally suited for use on pumps, compressors, blowers, fans, conveyors, machine tools and other direct or belt-driven applications. All 230/460V ratings nameplated for 208 Volt operation. Most 60Hz models nameplated for 50Hz. Motors are Inverter rated to meet EPACT efficiency mandates.



Learn How to....



Select a Replacement Motor

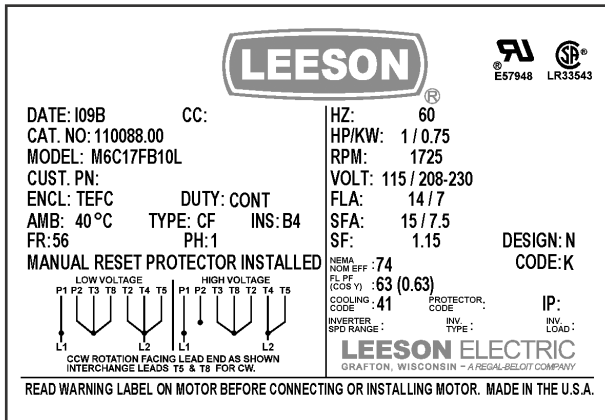
Electric motors are the workhorse of the industry. Many applications exist where more than one motor can be used or the exact replacement is not available. LEESON makes every effort to maximize interchangeability, mechanically and electrically, where compromise does not interfere with reliability and safety standards. If you are not certain of a replacement condition, contact your local Northern Tool & Equipment location.

Motor Selection:

Identifying a motor for replacement purposes or specifying a motor for new applications can be done easily if the following information is known:

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Nameplate Data:

Nameplate data is the most important first step in determining motor replacement. Much of the information needed can be generally obtained from the nameplate of the motor to be replaced. Take time to record nameplate information because it can save time, avoid confusion and misapplication.

Important Nameplate Data includes:

Catalog Number – In many cases, for stock motors, there are cross-reference charts created by motor manufacturers to cross their competitor’s motors to their catalog numbers.

Frame – Motor manufacturers follow NEMA Frame size dimensions so that motors, having the same NEMA frame size are “Drop-in” replacements.

Type: (classification varies from manufacturer to manufacturer.)

Phase: Three basic types - single-phase, three-phase or DC (Direct current).

HP: horsepower rated at full load speed.

HZ: Frequency in cycles per second. Usually 60 Hz in USA, 50 Hz overseas.

RPM: Revolutions per minute of the shaft at Full load speed. Approximate motor speeds would be: 3450, 1750, 1125, and 850RPM.

Voltage: Incoming voltage rating of motor, such as 115volts, 230 volts, 460 volts, etc...

Amperage (F.L.A): Full load motor current.

Maximum ambient operating temperature in centigrade: usually +40° C (104° F).

Duty: Most motors are rated continuous. Some applications however may use motors designed for intermittent, special, 15, 30 or 60 minute duty.

Code: Indicated locked rotor kVA per horsepower. (Electricians use this information to properly size what wire they need to use and what size breaker is needed)

ENCL (Enclosure Type): Describes motor enclosure. TEFC = Totally enclosed fan cooled, TENV = Totally enclosed non-vent, ODP = Open drip-proof, TEAO = Totally enclosed air over. DP = Drip-Proof.

Other important nameplate information includes: Motor service factor, Insulation class and Design (NEMA Design)

Other important non-nameplate information would include: Mounting Type – verify how motor is mounted - base mount (rigid or resilient type) take measurements from old motor. Face mount – describe bolt-hole size and bolt circle and hub dimensions. If extended bolts used to mount motor, verify length and thread-size. Describe shaft size, length and keyway size or flat length and depth and if shaft has any tapped holes. Verify motor shaft rotation. CW, CCW, or REV.

Application Information:

Single-Phase General Purpose Motors

ODP Models: For use where water and dust exposure is moderate. They are ideally suited for use on pumps, compressors, blowers, fans, and other direct or belt-driven applications.



TEFC Models: For use where exposure to water, dust and corrosives exists. Typical applications include pumps, compressors, blowers, fans, conveyors, machine tools and other direct or belt-driven applications.

Single-Phase Farm Duty Motors



Our line of single-phase Farm Duty / Agricultural Duty Series of motors are designed and built for the tough applications found in the agricultural industry.

Mechanical Features include:

Gasketed capacitor housing and conduit boxes provide protection in all environments. Double sealed ball bearings are pre-lubricated with Exxon POLYREX® EM grease having operating temperature range of -20°F to +350°F. Rubber boot over manual protector reset button provides weather protection.

Applications include: Feeders, conveyors, fans, compressors, spray washers, grinders, elevators, pumps and other demanding applications that require high starting torque.

Compressor Duty Motors

Motors designed for compressor duty applications, which require high break-down torque and rugged mechanical construction. Motors are re-connectable for both CW and CCW rotation and have a manual reset button for motor overload protection.

