Platinum e™

Innovation—Beyond Efficiency

LEESON®

Performance Matched Solutions™

Clearwater Tech - Phone: 800.894.0412 - Fax: 208.368.0415 - Web: www.clrwtr.com - Email: info@clrwtr.com

It's the motor you weren't quite expecting.

It's more.

Platinum e™

Platinum e.™ It delivers what other motors only promise.

Give it a casual glance and you might miss that you're looking at a technical wonder. Because in Platinum e™ LEESON delivers the best of everything that our customers have been seeking. Platinum e™ is a name that truly fits transitional motor design—one with value that continues to pay back year after year.

Platinum e™ series exceeds the efficiency of traditional AC induction motors.

- Energy efficiency over a wide speed range
- Desired output power in smaller frame sizes
- Variable speed operation in constant-torque and variable-torque applications
- Lower routine and long-term maintenance

A product line in fractional and integral frame sizes.

Platinum e™ permanent magnet technology provides energy savings across a broad range of fractional and integral horsepower motors. By reducing rotor losses, the patent-pending radial magnet design greatly improves motor efficiency and specific output power. What's more, the compact design of Platinum e™ motors enables easy integration with existing machine designs and processes to optimize system efficiency.

The people of LEESON design and build Performance Matched Solutions™ in the USA

Platinum e™ motors and variable frequency drives. The perfect combination.

Today, industry is responsible for more than 70% of electricity consumption. And that means motorized applications have tremendous potential for efficiency gains and corresponding savings. While a Platinum e™ motor must be matched with a variable frequency drive, the combination will help optimize mechanical systems to achieve maximum output and lowest total cost of operation.

Platinum e™ makes sense

- Pumps
- Fans/blowers
- HVAC
- Compressors
- Conveyors
- Extruders
- Presses
- Process applications
- Generators, and more

Guaranteed efficiency and torque over wide speed ranges

- High Speed with Low Power Density
- High Speed with High Power Density
- Low Speed/High Torque with Low Power Density
- Low Speed/High Torque with High Power Density

Save energy—at and below speed

Platinum e™ delivers more than torque. It also delivers a lower utility bill. Because throughout the speed range, Platinum e™ motors use less energy—far less than "high-efficiency" AC induction motors. And below rated speed? That's where efficiency becomes even more significant, making Platinum e™ ideally suited for variable speed applications. That means return on investment typically occurs in 12 to 24 months.

Compact, modular, and smart

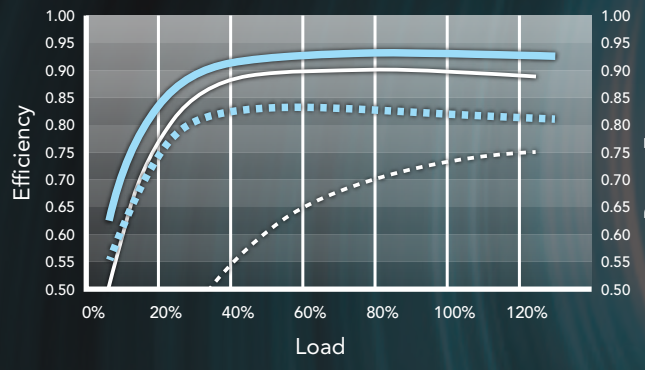
Significantly more compact and lighter than comparable AC induction motors, Platinum e™ solutions contribute to lower overall machine weight and smaller dimensions. This helps simplify installation, minimize lifting equipment needs, reduce transport costs, and more. A range of accessories ensures the modular Platinum e™ series is easy to retrofit where conventional motors are installed.

Cool operation reduces maintenance

Heat is a motor's worst enemy. But with the permanent magnet design of Platinum e™ motors, rotor loss is minimized, which significantly reduces operating temperature. You'll also see longer maintenance intervals as well, and increased service life of the entire drive system since power transmission devices such as pulleys, belts, and gear reducers have been simplified or removed.

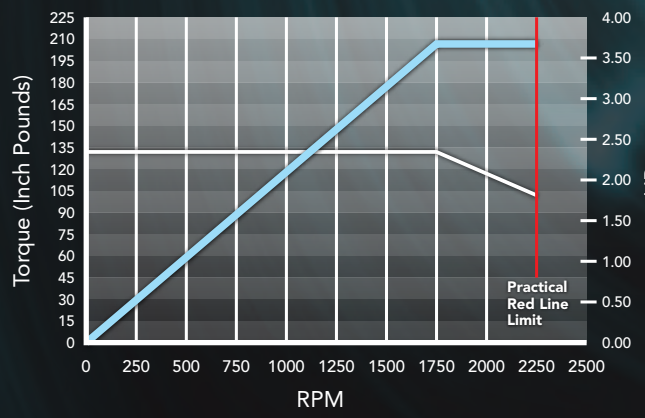
Guaranteed efficiency and torque over wide speed ranges

Typical Integral Horsepower Inverter Motor Performance



ASSUMPTIONS:
10 HP @ 1800 RPM
150 Hz, 215 T Frame

Typical Fractional Horsepower Inverter Motor Performance



ASSUMPTIONS:
3-phase
.82 Passive Power Factor Correction
<87% System Efficiency
200% Starting Torque
230 Volts 9.6 Amps
460 Volts 4.8 Amps

Conduit box includes a terminal block

IP-55 Protection against the elements

Bearings for 180 frames and larger may be greased

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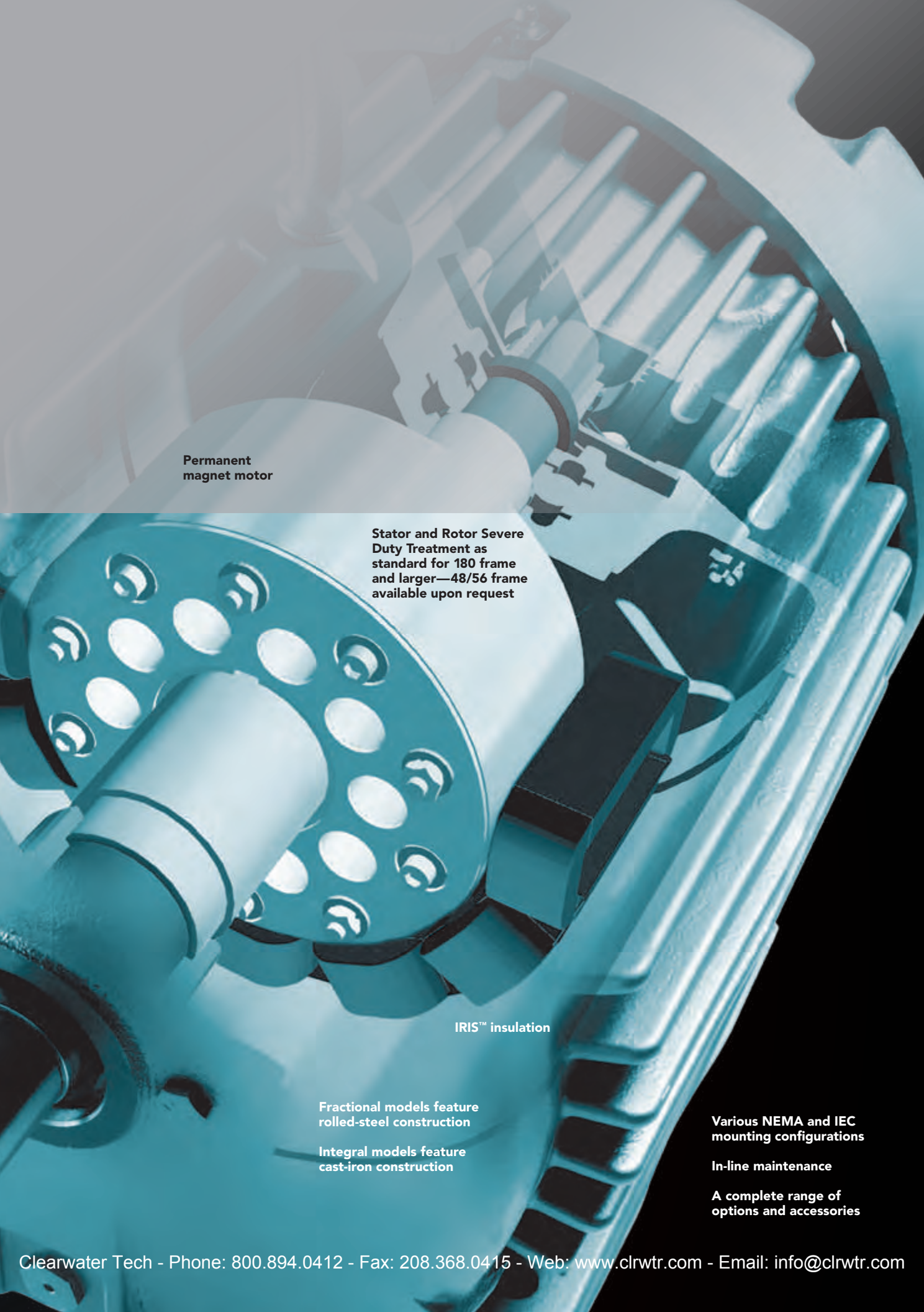

Permanent magnet motor

Stator and Rotor Severe Duty Treatment as standard for 180 frame and larger—48/56 frame available upon request

IRIS™ insulation

Fractional models feature rolled-steel construction

Integral models feature cast-iron construction

Various NEMA and IEC mounting configurations

In-line maintenance

A complete range of options and accessories

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Sustainability—a LEESON commitment
LEESON Electric is doing its part to reduce carbon emissions through innovative designs.

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REGAL BELOIT

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Platinum e™

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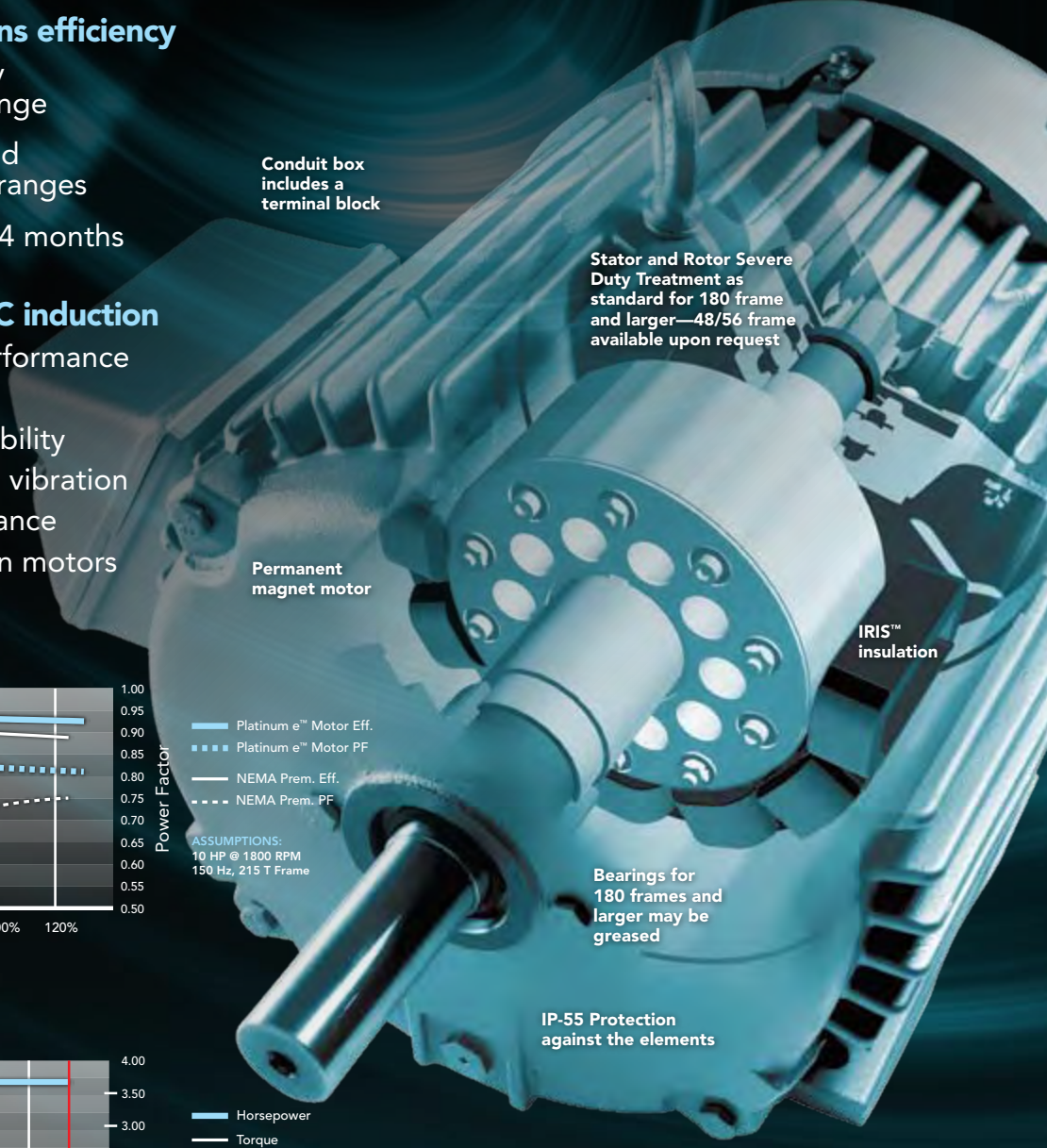
Permanent Magnet Technology delivers across a broad range of fractional and integral HP motors.

Platinum e™ Series means efficiency

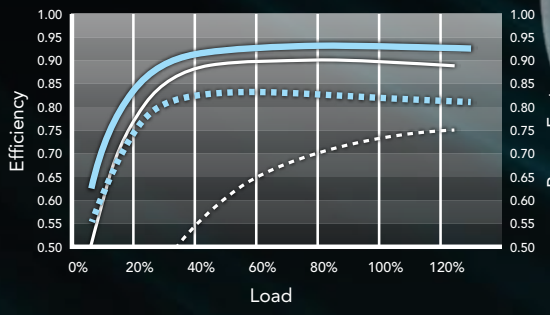
- Greater system efficiency throughout the speed range
- Guaranteed efficiency and torque over wide speed ranges
- Payback typically 12 to 24 months

Platinum e™ Series vs. AC induction

- Higher speed, better performance
- Direct retrofit—globally
- Maximum mounting flexibility
- High reliability—reduced vibration
- Longer life, less maintenance
- Lighter than AC induction motors

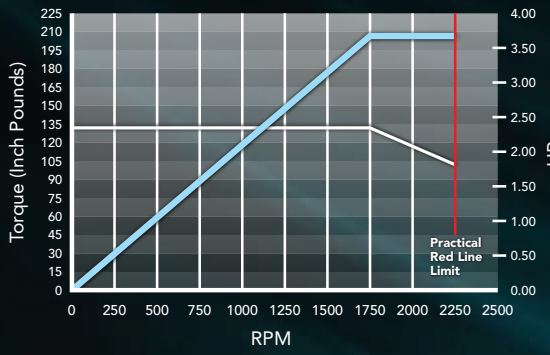


Typical Integral Horsepower Inverter Motor Performance



ASSUMPTIONS:
10 HP @ 1800 RPM
150 Hz, 215 T Frame

Typical Fractional Horsepower Inverter Motor Performance



ASSUMPTIONS:
3-phase
.82 Passive Power Factor Correction
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The next

American innovation.

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Platinum e™

Features

- Ultra-efficient design
- CI Severe Duty construction
- IRIS insulation system
- Power density
- Reduce/eliminate shaft current
- Interior Permanent Magnet design
- NEMA & IEC designs
- Performance matched to PM drive
- Wide speed range
- Precision balanced (0.08"/sec)
- Angle Mount: Horizontal, Vertical Up/Down

Benefits

- Energy/utility savings
- Suitable for harsh environment
- High reliability
- Weight, torque, performance
- Longer life, less maintenance
- Higher speed, better performance
- Direct retrofit—globally
- Flexibility, customer-centric
- Optimal performance
- Reduced vibration
- Maximum mounting flexibility

Guaranteed efficiency and torque over wide speed ranges

High Speed with Low Power Density

- Common AC induction motor speeds (3600, 1800, 1200)
- Normal NEMA/IEC frame size per power rating
- Higher than NEMA Premium Efficiency

High Speed with High Power Density

- Common AC induction motor speeds (3600, 1800, 1200)
- Higher & Same/Similar Power rating in same frame vs. AC induction motors
- Higher than NEMA Premium Efficiency

Low Speed / High Torque with Low Power Density

- High torque at a low base speed
- Normal NEMA/IEC frame size per power/torque rating

Low Speed / High Torque with High Power Density

- High torque at a low base speed
- Higher torque in a given frame size vs. AC induction motor
- Same torque in a smaller frame size vs. AC induction motor

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