LEESON®

Platinum e™

INNOVATION—BEYOND EFFICIENCY

REGAL®

THE RIGHT MOTOR. THE PERFECT DRIVE. THE ULTIMATE **COMBINATION.**

PLATINUM e™ MOTORS. THEY DELIVER WHAT OTHER MOTORS ONLY PROMISE.

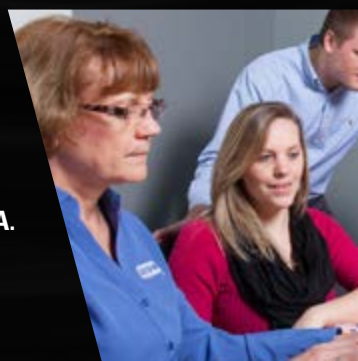
In Platinum e™ technology, LEESON® delivers the best of everything that our customers have been seeking: Efficiency, lower maintenance and greater uptime. "Platinum e" is a name that truly fits transitional motor design—one with value that continues to pay back with energy savings and reliability year after year.

FRACTIONAL AND INTEGRAL FRAME SIZE SOLUTIONS.

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 improves motor efficiency as well as specific output power. What's more, the compact design of Platinum e motors enables easier integration with existing machine designs and processes to optimize system efficiency.

IN-STOCK AT 23 DISTRIBUTION CENTERS NATIONWIDE.

LEESON® PROFESSIONALS DELIVER PERFORMANCE MATCHED SOLUTIONS™ ENGINEERED IN THE USA.



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- and variable-torque applications
- Reducing long-term maintenance

APPLICATIONS FOR PLATINUM e™ MOTORS

- Pumps
- Fans/blowers
- HVAC
- Compressors
- Conveyors
- Extruders
- Mixers
- Generators
- Hoist Drives
- Machine Tools
- Presses
- Process Applications
- Winders

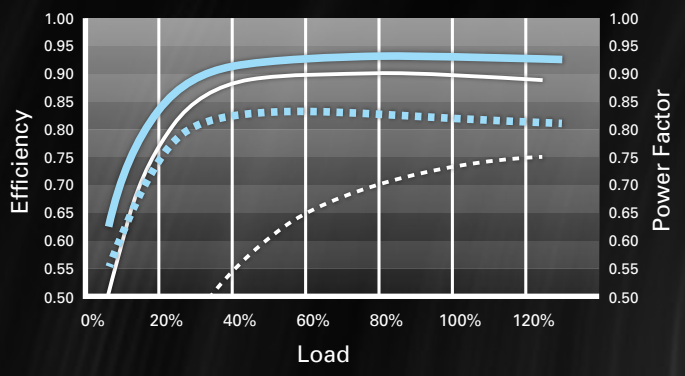
PLATINUM e™ MOTORS AND VARIABLE FREQUENCY DRIVES. PERFECTLY PAIRED.

Industrial applications consume 70% of electricity annually. That means motorized applications have tremendous potential for efficiency gains and corresponding savings. A Platinum e™ motor paired with a LEESON® VSD or VSD–Plus Series Variable Frequency Drive will help optimize your mechanical systems to achieve maximum output and reduce electrical energy consumption, all to minimize cost of operation.

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

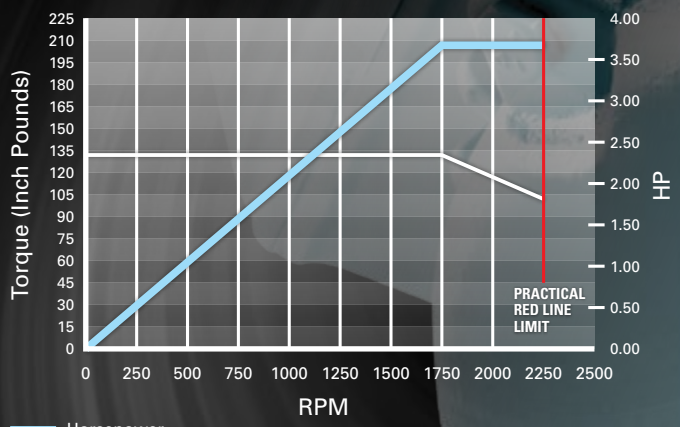
TYPICAL INTEGRAL HORSEPOWER INVERTER MOTOR PERFORMANCE



Platinum e™ Motor Eff.
Platinum e™ Motor PF
NEMA Prem. Eff.
NEMA Prem. PF

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

TYPICAL FRACTIONAL HORSEPOWER INVERTER MOTOR PERFORMANCE



Horsepower
Torque

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

SIMPLIFIED MOTOR AND VSD INTEGRATION.

What used to require an expensive visit from a manufacturer's representative to commission a PMAC motor and Variable Frequency Drive is now an auto-config operation—leave it to LEESON.

SAVE ENERGY—AT AND BELOW SPEED

Platinum e™ technology delivers more than torque.

- Lowers utility bill
- Uses less energy
- Suited for variable speed operation
- Average return on investment: 12–23 months

COMPACT, MODULAR AND SMART

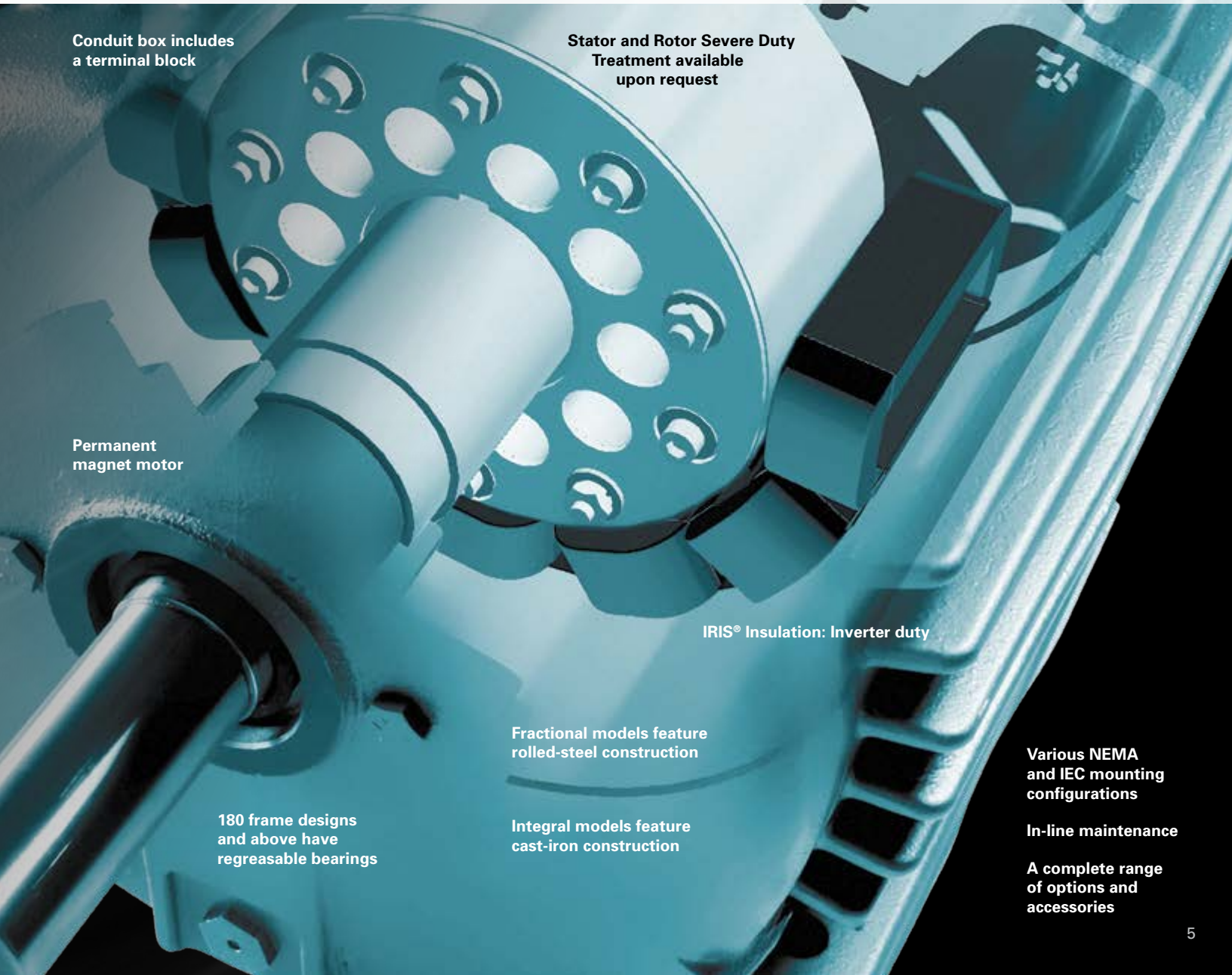
Significantly more compact and lighter than comparable AC induction motors.

- Contributes to lower overall machine weight
- Simplifies installation
- Easy to retrofit

COOL OPERATION REDUCES MAINTENANCE

Heat is a motor's worst enemy.

- Minimized rotor loss to reduce operating temperatures
- Increased service life



STREAMLINED DESIGN, SCALABLE FUNCTIONALITY, AND EXCEPTIONALLY USER-FRIENDLY.

SPACE-SAVING DESIGN

Our state-of-the-art inverter designs are just 2.36" (60mm) wide, 5.12" (130 mm) deep. What's more, with zero-clearance mounting control cabinet size and space is minimized.

START-UP AND DIAGNOSTICS CONTROL OPTIONS

LEESON® Easy Starter Module simplifies inverter configuration and parameter value monitoring from your PC.

Communicate wirelessly with LEESON® Easy Starter Module, and a free mobile app for Android devices.

Convenient keypad set up for quick parameter adjustments, such as acceleration time.

MAKE ADJUSTMENTS ONSITE WITH THE HOT-SWAPPABLE KEYPAD.

MIMIC KEYPAD CONTROL OPERATIONS VIA AN INTUITIVE, MOBILE UI.

STREAMLINE INVERTER CONFIGURATION FROM YOUR PC VIA USB.

FEWER ELEMENTS

- Scalable line voltage range, rated power and modular structure
- Supports most machine automation networks
- Diagnostics via keypad, USB or WLAN
- Flexible for individual customer requirements

COMPACT SIZE

- Side-by-side, zero-clearance mounting
- Smaller cabinet space—lower costs

LOWER ENGINEERING EXPENDITURES

- Intuitive menu structure and easy integration
- Saves time in engineering
- Reduction in potential error sources

LOWER INSTALLATION COST

- Keyhole mounting
- Pluggable terminals
- Out-of-the-box operability
- Plug-in memory module
- Save installation time
- Identify faults in English
- Lower service costs

LOWER ENERGY COST

- Lower inverter losses improve energy-efficiency
- Lowest energy costs
- Future-proof design DIN EN 50598

LESS DOWNTIME

- Robust single-board design
- Reduce quality assurance costs in manufacturing
- Reduce operational guarantee costs

CHOOSE THE RIGHT VSD SOLUTION MATCHED TO YOUR SPEED AND TORQUE CONTROL NEEDS.

	Platinum e™ VSD	Platinum e™ VSD–Plus
Design & Delivery	Monolithic single board design	Modular design (complete inverter or components)
Power Range	1/3–3 HP	1/3–30 HP
Hardware	• Memory module • IT-Grid compatible • Integrated EMC filters • Zero clearance mounting • Form C relay	**In addition to Platinum e™ VSD** • Brake chopper • DC bus sharing • Dedicated PTC
I/O	**Basic-I/O** • Spring loaded control terminals (fixed)	**Standard-I/O** • Pluggable control terminal • Bi-polar speed reference • 24V keep alive • Selectable PNP or NPN logic **Application-I/O (optional)** • Additional I/Os
Optional Communication	CANopen/Modbus	CANopen, Modbus, Profibus, EtherCAT, Profinet, EtherNet-I/P
Diagnostics	Hot-swappable options: Keypad, USB module, WLAN module, Remote keypad	
Motor Control	• V/Hz (VFC linear, square & eco) • Sensorless vector (SLVC) • Sensorless PMAC	**In addition to Platinum e™ VSD** Closed loop vector control (with 100kHz HTL)

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APPLICATION CONSIDERATIONS

The proper selection and application of power transmission products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending upon the use and application of such products and components. The scope of the technical and application information included in this publication is necessarily limited. Unusual operating environments and conditions, lubrication requirements, loading supports, and other factors can materially affect the application and operating results of the products and components and the customer should carefully review its requirements. Any technical advice or review furnished by Regal Beloit America, Inc. and its affiliates with respect to the use of products and components is given in good faith and without charge, and Regal assumes no obligation or liability for the advice given, or results obtained, all such advice and review being given and accepted at customer's risk.

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