marathon®
Motors

FIRE PUMP MOTORS

REGAL®

FIRE PUM

Regal® offers a range of high efficiency Marathon® fire pump motors in NEMA®* and IEC®* construction for low and medium voltages.

FIRE PUMP SYSTEM

A fire pump system is part of a fire sprinkler system's water supply either connected to the public underground water supply piping, or a static water source. A fire pump system is tested and listed for its use specifically for fire service by a third-party accredited testing and listing laboratory, such as FM®*, LPCB®*, UL®*, VdS®*. Additionally, installation of fire pump systems is coordinated by Comité Européen Des Assurances in Europe and the National Fire Protection Code in the U.S.

Firemen's most trusted friend in an emergency offering protection, high performance and reliability for over 100 years.

*The following trademarks are not owned by or under the control of Regal Beloit Corporation: NEMA is a trademark or tradename of National Electrical Manufacturers Association; UL is a trademark or trade name of Underwriters Laboratories; IEC is a trademark of International Electrotechnical Commission; FM is a trademark of Factory Mutual; LPCB is a trademark of Loss Prevention Certification Board; VDS is a trademark of VdS Schadenverhütung GmbH.

TABLE OF CONTENTS

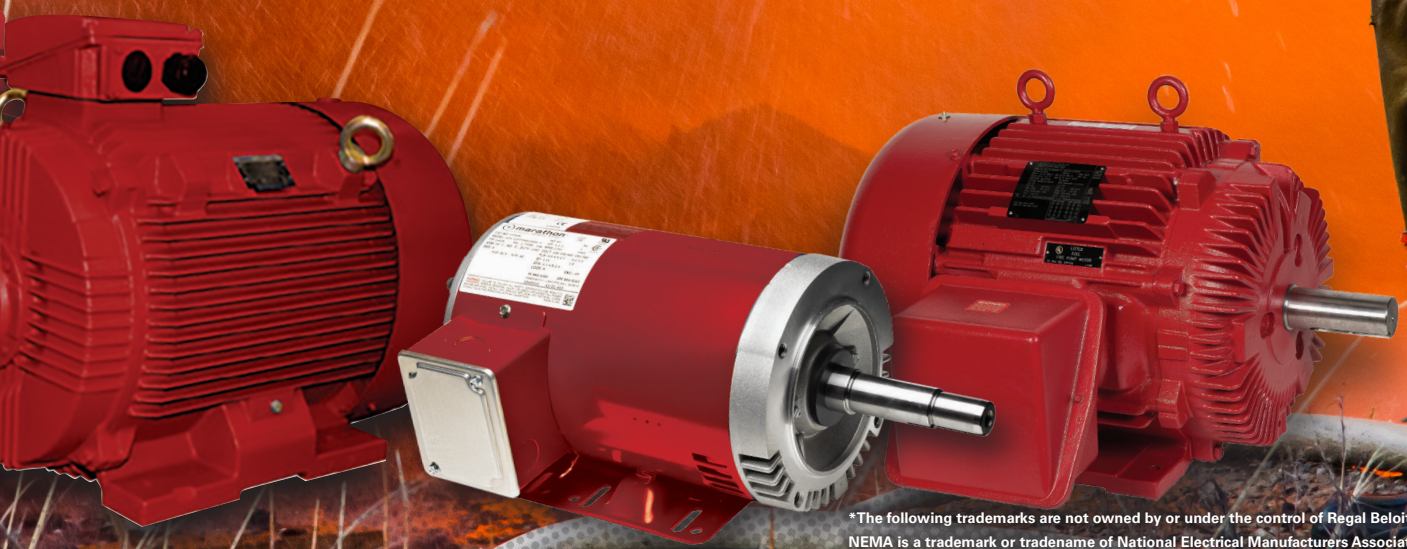
MP MOTORS

MARATHON® FIRE PUMP MOTORS

The Marathon fire pump motors are definite purpose motors designed to meet UL®* Standard of Safety 1004-1 Rotating Electrical Machines - General Requirements - and UL® 1004-5 Fire Pump Motors. These motors are designed and built with a low KVA code to reduce inrush currents, offer extended life, and are tested to meet the highest standards in the industry.

Fire pump motors consist of low voltage NEMA®* Open Dripproof motors, NEMA® JM/JMV/JP/JPV Close-Coupled pump motors, NEMA® vertical solid shaft P-base motors, NEMA® vertical hollow shaft motors, and NEMA® Totally Enclosed motors. We manufacture a line of low voltage IEC®* Totally Enclosed motors and Marine Duty IEC Totally Enclosed motors. These motors carry the UL® mark and file number for fire pump motors. Additionally, we manufacture a line of low voltage IEC® non-UL® motors in IE1, IE2, and IE3 efficiencies for Europe, certain areas of the Middle East, Asia, Africa, and portions of Latin America.

UL® also defines requirements for fire pump motors above 500 HP and greater than 600 volts, Regal® markets a line of Marathon® high efficiency 2300V, 4160V and 7.2kV NEMA® and IEC® open motors for fire pump applications. These motors meet the same high standards as Marathon® low voltage UL® listed motor



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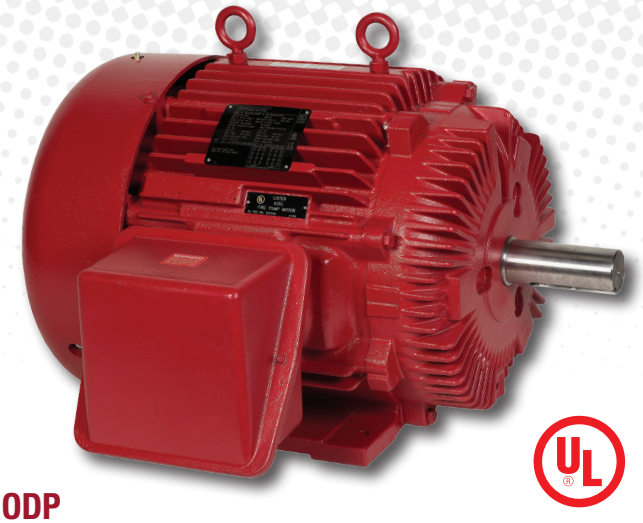
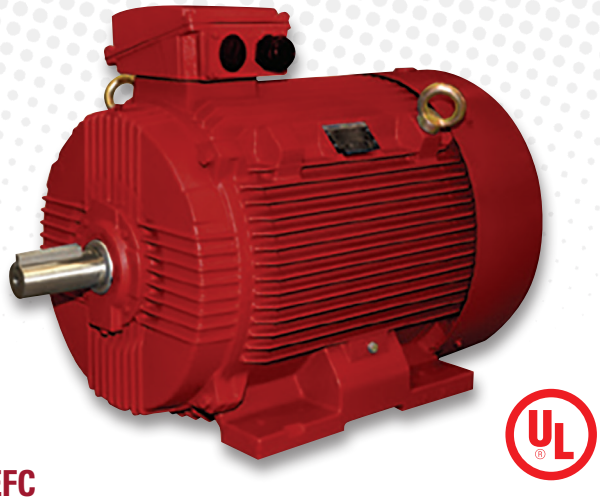
FIRE PUMP DEFINITE



ODP

Available in NEMA®* or IEC®* construction these motors are ideal for in-door applications. Lower cost and longer product life due to lower temperature windings make these a best value option.

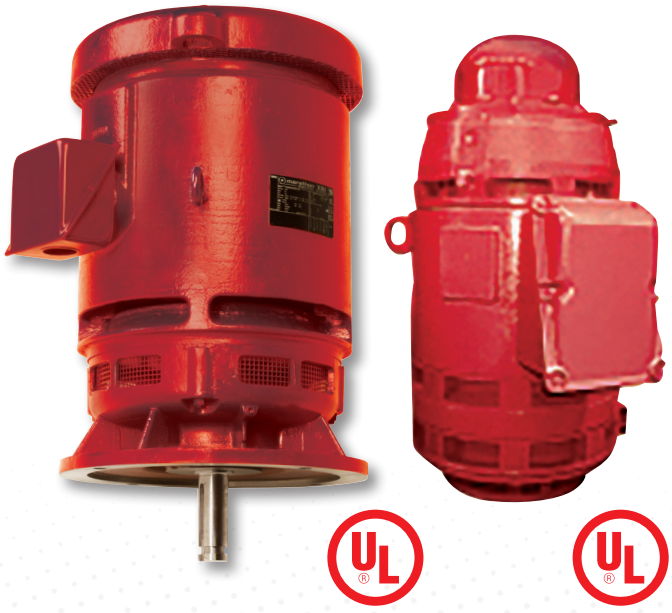
These motors are available from 25-500HP, 2 and 4 poles, Epact Efficiency. All motors are 12 leads for wye-delta or across-the-line start, part winding start is available in single voltage or at lower voltage for dual voltage motors. All motors have 1.15 service factor for all voltages.



TEFC

Available in NEMA or IEC construction, TEFC motors are ideal for applications in tough environments.

These motors are available from 25-500HP, 2 and 4 poles, Epact Efficiency. All motors are 12 leads for wye-delta or across the line start, part winding start is available in single voltage or at lower voltage for duo voltage motors. All motors have 1.15 service factor for all voltages.



VSS AND VHS

Vertical solid shaft and hollow shaft constructions are ideal for deep well applications with turbine pumps. These motors are designed to handle the highest thrust loads of this system.

VSS motors are available from 3-400 HP, 2 to 8 poles and are designed for normal and medium thrust, Epact Efficiency.

All motors are 12 leads for wye-delta or across the line start, part winding start is available in single voltage or at lower voltage for duo voltage motors. All motors have 1.15 service factor for all voltages.

VHS motors are available from 7.5HP to 300HP, 2 and 4 poles, WP1, Epact Efficiency.

All motors are 12 leads for wye-delta or across-the-line start, part winding start is available in single voltage or at lower voltage for dual voltage motors. All motors have 1.15 service factor for all voltages.

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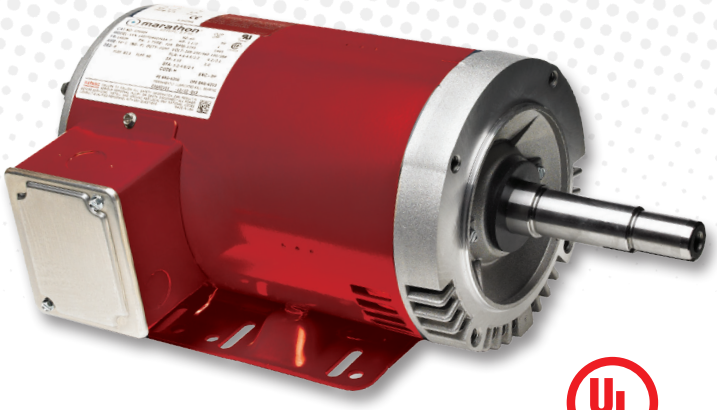
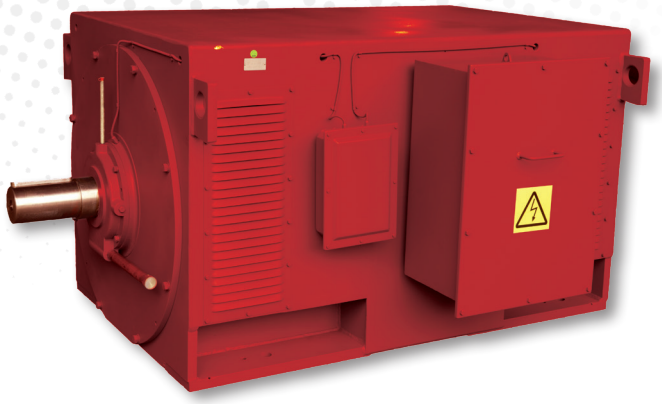
E PURPOSE MOTORS



CLOSE COUPLED PUMP

Available as JP or JM constructions, these motors are ideal when space is an issue. This integrated design enables a lower system cost.

2 and 4 poles, Epact Efficiency. Horizontal or vertical ODP construction. All motors have 1.15 service factor for all voltages.



MEDIUM VOLTAGE

Regal also offers Medium Voltage products in NEMA®* and IEC®* constructions designed specifically for Fire Pump Applications.

NEMA Construction, from 200 to 700HP, 2300V & 4000V 50/60HZ, 2 and 4 poles, IP22, 1.15 service factor. IEC Construction, from 185kW to 2800kW, 3kV through 10kV 50HZ & 4kV through 13.8kV 60HZ, 4 poles, IP23.

UL®* LISTED MOTORS

NAMEPLATES

Fire pump motors have two nameplates, the normal nameplate with UL label and special fire pump nameplate with the UL listing for fire pumps.

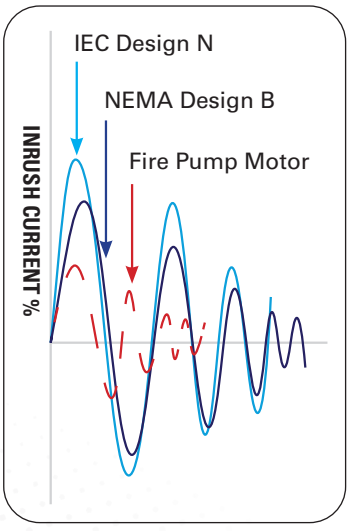
FIRE PUMP

62EL
EX5190
LISTED Fire Pump Motor

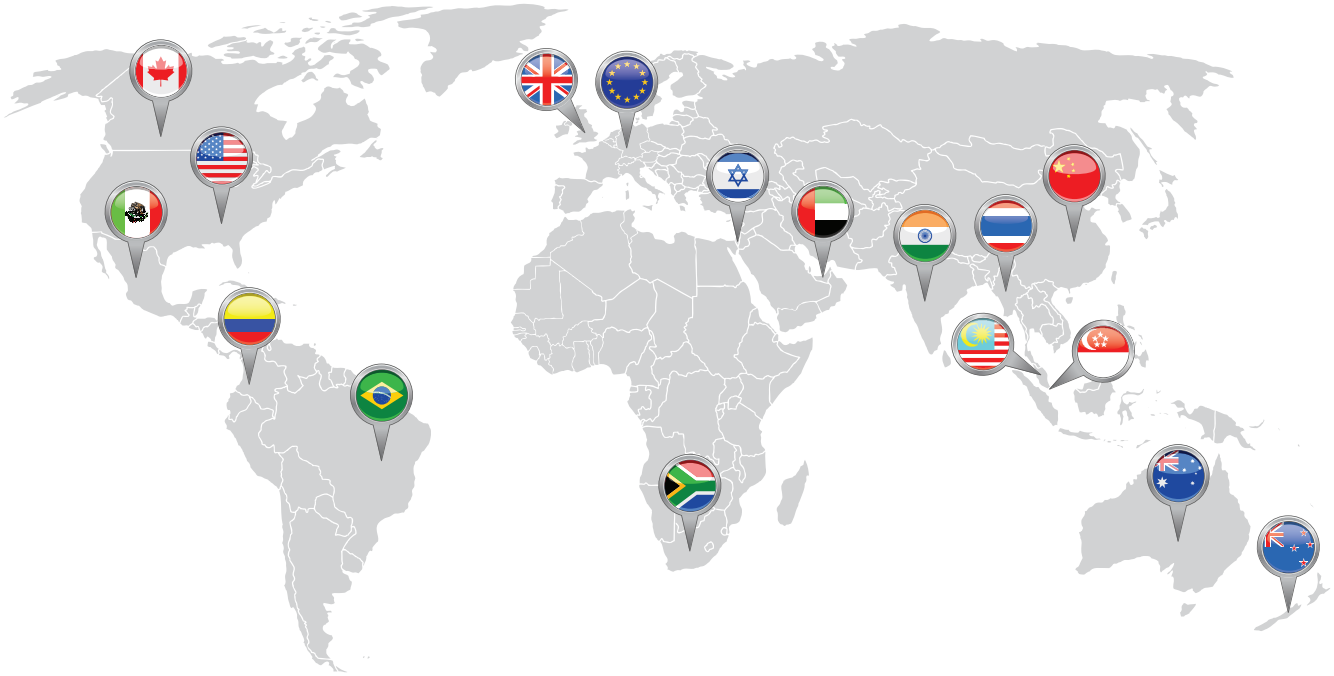
FIRE PUMP MOTOR INRUSH CURRENTS

Classification	Locked-Rotor Torque (% Rated-Load Torque)	Breakdown Torque (% Rated-Load Torque)	Locked-Rotor Current (% Rated-Load Torque)
UL Fire Pump Motor	70-275*	175-300*	300-600
Design B – Normal locked- rotor torque and normal locked-rotor current	70-275*	175-300*	600-700
IEC 34-12 Design N locked-rotor torques and currents	75-190*	160-200*	800-1000

*Higher values are for motors having lower horsepower ratings.



REGAL WORLD FOOTPRINT



CODES & CERTIFICATIONS

COMITÉ EUROPÉEN DES ASSURANCES (CEA) – Insurance Europe (known as *Comité Européen des Assurances* until March 2012) is the European insurance and reinsurance federation. Through its 34 member bodies — the national insurance associations — it represents all types of insurance and reinsurance undertakings. *Standard CEA 4046 – CEA Rules for the approval of Installers of Fire Fighting Systems in accordance with CEA 4046* covers the installation of fire pump systems.

FACTORY MUTUAL (FM) – Factory Mutual specializes in loss prevention services throughout the world in the Highly Protected Risk (HPR) property insurance market sector. The company employs a business model whereby risk and premiums are determined by engineering analysis as opposed to historically based actuarial calculations. FM engineering personnel regularly visit insured locations to evaluate hazards and recommend improvements.

FM Approved fire pump packages are produced using components that have been subjected to rigorous tests to ensure that they will perform when called upon throughout the duration of a fire event. A FM Approved fire pump system will test the driver (motor, diesel or steam), pump and controller as a system to assure the performance characteristics of the system meet the protection requirements for the property.

LOSS PREVENTION CERTIFICATION BOARD (LPCB) – The LPCB has been working with industry and government for more than 100 years to set the standards necessary to ensure that fire and security products and services work effectively.

In that time the LPCB Mark has become an internationally recognized mark of trust. Under the LPCB label, third-party certification and listing of fire and security products and services are available, so that: architects and specifiers can be sure that those they select will perform as required, and manufacturers and suppliers can demonstrate the quality of their products and services.

NATIONAL FIRE PROTECTION CODE 20 (NFPA™ 20) – *NFPA 20 – The Standard for Installation of Stationary Pumps for Fire Protection* codifies the requirements for safe electrical installations of a fire pump system into a single, standardized source. The NFPA 20 code covers water supply requirements, pump requirements, pump sizing, pump types, pump drivers, and accessory equipment such as values and flow meters used in a fire pump system. It is part of the National Fire Codes series published by the National Fire Protection Association (NFPA), and while not itself a U.S. law, NEC use is commonly mandated by state or local law.

UNDERWRITERS LABORATORY – Underwriters Laboratories (UL) is a global independent safety science company with more than a century of expertise innovating safety solutions. UL helps safeguard people, products and places by certifying, validating, testing, inspecting, auditing, advising, and educating. *The UL Mark is the single most accepted certification for fire pump systems and motors in the world.*

VDS 2095 – VdS is an independent institution which has been ensuring safety and trust in the fields of fire protection and security for many decades. The activities of VdS in the field of fire protection are targeted at the effectiveness and reliability of installed fire protection systems. The basis of the VdS approval process are the coordinated European specifications for installers of fire protection and security systems (CEA 4048 and CEA 4049) of the Comité Européen des Assurances (CEA). Furthermore, the approval process takes full account of the requirements of DIN 14675 with regard to the proof of competence of the installers (described in DIN 14675 as specialist companies). VdS is accredited for the certification of BMA installers by Deutsche Akkreditierungs GmbH (DAkkS) according to DIN EN 45011.

marathon® Motors

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APPLICATION CONSIDERATIONS

The proper selection and application of 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/or its affiliates ("Regal") 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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