NEMA MOTORS

Product overview

BALDOR • RELIANCE

- Broadest line of NEMA low voltage motors in the industry

Industry’s broadest line of NEMA low voltage motors

For nearly 100 years, we have strived to provide customers with the best value and reliability in industrial electric motors. ABB has what it takes to help every industry and application reach new levels of efficiency and energy savings even under the most demanding conditions. Baldor-Reliance® motors are designed to operate reliably no matter how challenging the process or application, and to have low life cycle costs.

Whether it’s a motor for harsh, outdoor conditions at a petro-chemical plant, or for continuous duty in a distribution center, customers have a variety of choices either from stock or designed to fit specific requirements.

We know there are many options when it comes to buying the products you need. To help maintain your competitive edge, we offer the latest technologies to improve process reliability while driving operating costs to a minimum.

Industry’s best product information. ABB offers customers easy and fast access to product information and support via the web, with in-depth product literature, specific model number information packets; complete with spare parts lists, drawings, speed/torques curves and connection diagrams. You may also talk with a customer service representative at your local sales office.

General purpose motors
Proven, reliable, available

Baldor-Reliance general purpose motors provide the longest life and best availability to lower overall operating costs and reduce operational downtime. General purpose motors have high reliability with proven, robust motor construction and are available at local stocking locations around the globe. Offered in open drip-proof and totally enclosed construction in both single and three phase ratings. 50 hertz ratings are also available.

Three phase enclosed

Product description	Meets or exceed energy efficiency requirements, while delivering high starting torque, overload capability and superior reliability in environments where exposure to water, dust and corrosives exist.
Sizes	0.09 - 298 kW, 0.125 - 400 Hp
Features	Heavy gauge steel or cast-iron frames, and gasketed conduit boxes. Standard foot mount configurations, as well as C-face foot mounted and C-face footless. Suitable for mounting in any position, IP44 & IP54
	Super-E® motors have NEMA Premium® efficiency with 3 year warranty, Class F insulation, 1.15 service factor, and are inverter ready with wide variable torque speed ranges as standard.
Suggested applications	Fans, pumps, blowers, conveyors, compressors, industrial machines and other general industrial equipment

Single phase enclosed

Product description	Designed to meet various torque loads for an array of small horsepower single phase applications in environments where exposure to water, dust and corrosives exist.
Sizes	0.06 - 11 kW, 0.08 - 15 Hp
Features	Heavy gauge steel frames. Standard foot mount configurations are available, as well as C-face foot mounted and C-face footless.
	NEMA Premium efficient motors available.
Suggested applications	Air handling, material handling, gear reducers, machine tools, conveyors, pumps and fans

Three phase open

Product description	Meets or exceed energy efficiency requirements, while delivering high starting torque, overload capability and superior reliability in environments where water and dust exposure is moderate.
Sizes	0.18 - 335 kW, 0.25 - 450 Hp
Features	Heavy gauge steel or cast-iron frames, IP22 & IP23.
	Super-E motors have NEMA Premium efficiency with 3 year warranty, Class F insulation, 1.15 service factor, and are inverter ready with wide variable torque speed ranges as standard.
Suggested applications	Fans, pumps, blowers, conveyors, compressors, industrial machines and other general industrial equipment

Single phase open

Product description	Designed to meet various torque loads for an array of small horsepower single phase applications in environments where water and dust exposure is moderate.
Sizes	0.12 - 7.5 kW, 0.17 - 10 Hp
Features	Heavy gauge steel frames. Standard foot mount configurations are available, as well as C-face foot mounted and C-face footless.
	NEMA Premium efficient motors available.
Suggested applications	Air handling, material handling, gear reducers, machine tools, conveyors, pumps and fans

Single and three phase enclosed brake motors

Product description	Motor with a mounted brake to aid in the deceleration of the driven load with the ability to hold in the event of interrupted power supply for environments where exposure to water, dust and corrosives exist.
Sizes	0.18 - 335 kW, 0.25 - 450 Hp
Features	Manual release, spring-set brake, C-face or fan on drive end, easily accessible brake leads, vibration damping base.
	Super-E motors have NEMA Premium efficiency with 3 year warranty, Class F insulation, 1.15 service factor, and are inverter ready with wide variable torque speed ranges as standard.
Suggested applications	Conveyors, unit handling, machine tools, door operators, speed reducers, packaging equipment and other general industrial equipment

Three phase open brake motors

Product description	Motor with a mounted brake to aid in the deceleration of the driven load with the ability to hold in the event of interrupted power supply for environments where water and dust exposure is moderate.
Sizes	0.18 - 335 kW, 0.25 - 450 Hp
Features	Heavy gauge steel or cast-iron frames, IP22 & IP23. Manual release, spring-set brake, vibration damping base, dynamically balanced rotor.
	Super-E motors have NEMA Premium efficiency with 3 year warranty, Class F insulation, 1.15 service factor, and are inverter ready with wide variable torque speed ranges as standard.
Suggested applications	Conveyors, unit handling, machine tools, door operators, speed reducers, packaging equipment and other general industrial equipment

Severe duty motors

Exceptional performance and long life in harsh industrial processing applications

Baldor-Reliance severe duty motors include features designed to protect against contamination, moisture, vibration and corrosion. These motors use Super-E premium efficient electrical designs which are built to handle demanding duty cycles, provide high starting and peak torques, and operate over wide speed ranges. Severe Duty motors provide safe, long operating life, reliable performance, and reduced energy consumption in the toughest applications.

General severe duty motors

Product description	Designed to protect against contamination, moisture, vibration and corrosion in severe environments.
Sizes	0.18 - 298 kW, 0.25 - 400 Hp totally enclosed, three phase
Features	Premium efficient electrical designs enable motor to handle demanding duty cycles, provide high starting and peak torques, and operate over wide speed ranges.
Suggested applications	Pumps, fans, compressors, material handling, machine tools, general industrial equipment

RPM XE - extreme efficient motors

Product description	Innovative, NEMA drop-in replacement motor achieves leading efficiency and lower lifetime operational costs.
Sizes	7.5 - 74.5 kW, 10 - 100 Hp totally enclosed - fan cooled, three phase
Features	Synchronous motor that starts across the line and offers IE4+ efficiencies.
	Capable of operating on a standard inverter without feedback in standard V/Hz or Scalar control.
	NEMA mounting dimensions and design B currents, allow installation without additional or non-standard equipment.
Suggested applications	Centrifugal pumps (DOL or VFD) or centrifugal fans (VFD)

IEEE 841 motors

Product description	Premium severe duty motor designed for harsh environments and a low total cost of ownership
Sizes	0.75 - 186 kW, 1 - 250 Hp totally enclosed, three phase
Features	Meets and exceeds the requirements of IEEE Std. 841 - 2009 & IEEE 45 on the nameplate.
	IP56 enclosure designed with patented PLS lubrication system for bearing longevity.
Suggested applications	Pumps, fans, compressors, material handling, machine tools, general industrial equipment.

IEEE 841 / 661 XL motors

Product description	Motor that meets and exceeds the requirements of IEEE Std. 841 - 2009 with the exception of using Mobility grease for exceptional roller bearing performance.
Sizes	3.7 - 60 kW, 5 - 75 Hp totally enclosed, three phase
Features	IP56 enclosure designed with patented PLS lubrication system for bearing longevity.
	Vertical lifting provisions
	Roller bearings for belted applications with 40,000 hours L_{10} life per API661
Suggested applications	Heat exchangers & belt driven applications

Crusher duty motors

Product description	High torque NEMA design A motor that exceeds NEMA design C torques.
Sizes	3.7 - 373 kW, 5 - 500 Hp totally enclosed, three phase
Features	Premium efficient designs
	IP55 enclosure designed to protect against contamination, moisture, vibration & corrosion in severe environments
	1.25 Service Factor on 100 Hp designs and smaller, 1.15 Service Factor above 100 Hp
Suggested applications	Aggregate/cement crushers, belt conveyors, screens, above ground mining equipment

Quarry duty motors

Product description	High torque design C, steel band frame and fan cover
Sizes	1.5 - 7.5 kW, 2 - 10 Hp totally enclosed, three phase
Features	IP55 enclosure includes gasketed conduit box, cover and a shaft seal.
	Quarry duty motors are inverter ready.
Suggested applications	Above ground mining, belt conveyors, bulk material handling

Oil well pump - design D

Product description	High slip design for high cycle applications
Sizes	2.2 - 112 kW, 3 - 150 Hp totally enclosed, three phase
	2.2 - 93 kW, 3 - 125 Hp open drip proof, three phase
Features	IP55 enclosure, F2 conduit box location
	3 normally enclosed thermostats.
Suggested applications	Beam pumps, punch presses, high cycle industrial applications

Dirty duty plus

Product description	Designed for use where additional protection is required against wet and washdown environments, corrosive environments and marine applications.
Sizes	0.37 - 7.5 kW, 0.5 - 10 Hp totally enclosed, three phase
Features	300 series stainless steel shaft extension. Finished with a 2 part epoxy paint system, passes 2,000+ hours fog test per ASTM B 117.
	Meets IEEE 45 on the nameplate
Suggested applications	Pumps, conveyors, marine

Washdown duty motors
Designed to perform reliably in washdown environments

All food processing equipment should be designed, used, and maintained with food safety principles in mind. Violations of these practices can cost companies thousands, if not millions, to resolve. It is important that companies consider not only the initial purchase price, but also the total cost of ownership (TCO), including the cleanability and reliability of the equipment, provided by suppliers who understand the principles of sanitary design. Baldor-Reliance food safe, washdown duty, and paint-free washdown are suited for applications requiring high-pressure cleaning with caustic solution. These choices allow you to select the right motor for the amount of protection required for the specific application

Food safe stainless steel motors

Product description	Baldor-Reliance food safe motors, designed with smooth contours and advanced sealing, exceed IP69K for water to maximize motor life in high pressure, sanitary cleaning environments.
Sizes	0.37 - 29 kW, 0.5 - 30 Hp, three phase
	0.37 - 0.75 kW, 0.5 - 1 Hp, single phase
Features	Fully welded individual feet to enhance cleanability, fully welded and rotatable conduit box, smooth stainless hardware
Suggested applications	Food processing where reliability in intense, caustic cleaning environments is of utmost importance.

Stainless steel motors

Product description	Stainless steel motors designed for harsh food processing environments
Sizes	0.25 - 15 kW, .33 - 20 Hp
Features	300 series stainless steel motor frame, endplates, conduit box, shaft, base and hardware
Suggested applications	Food processing, wet environments, packaging, pumps and wastewater where high pressure cleaning occurs

Paint free motors

Product description	Designed for environments where washdown cleaning occurs with caustic solutions and high-pressure sprays.
Sizes	0.37 - 11 kW, 0.5 - 15 Hp totally enclosed, three phase
Features	300 series hardware, with seal on drive end shaft extension.
Suggested applications	Food processing packaging equipment where washdown conditions occur with high-pressure spray.

White washdown motors

Product description	Designed for environments where washdown cleaning occurs.
Sizes	0.25 - 15 kW, 0.33 - 20 Hp, single & three phase
Features	300 series stainless steel hardware, neoprene gaskets, double sealed ball bearings and electrostatically applied epoxy finish makes the motor corrosion resistant.
Suggested applications	Food processing packaging equipment where washdown conditions occur.

Pump motors
Keep your fluid flowing

ABB's line of Baldor-Reliance pump motor products serve customer needs from swimming pool to very demanding water/ wastewater and petrochemical applications. The motors are available locally in a variety of enclosures and ratings. These motors are designed to the same reliable industrial standards that ABB customers have come to expect.

Jet pump		
	**Product description**	Jet pump motor for residential and industrial applications
	Sizes	0.18 - 5.6 kW, 0.25 - 7.5 Hp totally enclosed, three phase
		0.18 - 5.6 kW, 0.25 - 7.5 Hp open drip proof, three phase
		0.09 - 3.7 kW, 0.13 - 5 Hp totally enclosed, single phase
		0.09 - 5.6 kW, 0.13 - 7.5 Hp open drip proof, single phase
	Features	Construction features include a sturdy steel frame, cast aluminum end plates with steel bearing seat inserts for mechanical reliability.
		Opposite drive end shaft is slotted for convenience.
		Motor construction can be tailored for specific applications and industries such as food processing, washdown applications or explosion proof enclosures for pumps in hazardous areas.
	Suggested applications	Residential and industrial pumps

Close-coupled motors		
	**Product description**	Close coupled pump motors include over-sized ball bearings with locked drive end construction to minimize endplay.
	Sizes	0.37 - 56 kW, 0.5 - 75 Hp totally enclosed, three phase
		0.37 - 74.5 kW, 0.5 - 100 Hp open drip proof, three phase
		0.33 - 11 kW, 0.33 - 15 Hp totally enclosed, single phase
		0.37 - 11 kW, 0.5 - 15 Hp open drip proof, single phase
	Features	Motor flange and shaft are designed to support the pump unit.
		Motors have a corrosion resistant finish and are suitable to mount in any position.
		Super-E motors meet NEMA Premium efficiency requirements.
		Motor construction can be tailored for specific applications and industries such as food processing, washdown applications or explosion proof enclosures for pumps in hazardous areas.
	Suggested applications	Residential and industrial applications requiring JM, JP and West Coast Fit

Pump motors
Keep your fluid flowing

Vertical p-base motors

Product description	Motors designed and manufactured for normal, medium and high thrust applications.
Sizes	1.11 - 56 kW, 1.5 - 75 Hp totally enclosed
	1.49 - 45 kW, 2 - 60 Hp open drip proof
Features	Severe duty construction with corrosion-resistant epoxy finish, cast-iron construction, with vertical mounting with two lifting lugs for balanced lifting.
Suggested applications	Centrifugal pumps, sump pumps, turbine pumps, in-line pumps, fans, aerators, mixers, autoclaves

Submersible motors

Product description	Available for both wet & dry pit applications. Wet pit motors use effluent for cooling and can run 15 minutes in air. Dry pit motors are designed to run continuously in air or submerged when properly applied.
Sizes	0.75 - 74.57 kW, 1 - 100 Hp totally enclosed, three phase
	0.75 - 3.73 kW, 1 - 5 Hp totally enclosed, single phase
Features	Cast iron frame and end shield with stainless steel hardware and shaft provide reliability in harsh environments.
	Additionally, submersible motors are UL listed and CSA certified for Class 1 Division 1 Groups C & D.
Suggested applications	Wet and dry pit pump applications; slurry pumps, aerators, mixers

Immersible motors

Product description	Custom Immersible motors are designed for use in non-hazardous area dry pit applications where the possibility of flooding exists.
Sizes	3.73 - 186 kW, 5 - 250 Hp totally enclosed, three phase
Features	The motor features totally enclosed, blower-cooled enclosures and are designed with a unique sealing system that exceeds IP67 enclosure requirements. This system allows reliable operation for a period of two weeks while submerged under a maximum depth of thirty feet of water.
Suggested applications	Dry pit pump applications; slurry pumps

Fire pump

Product description	Motors designed to meet the requirements for fire pumps.
Sizes	7.45 - 398 kW, 1 - 400 Hp open drip proof, three phase
Features	All motors meet UL requirements (File# E481231) in open drip proof enclosures designed for relatively clean, dry environments.
Suggested applications	Fire pumps installed per NFPA-20

Explosion proof motors
Designed for explosive environments

Baldor-Reliance explosion proof motors are certified for use in hazardous locations or potentially hazardous environments where concentrations of combustible gases, vapors and or dust may be present. These motors meet UL and CSA standards for use in division based hazardous locations per NFPA70 National Electric Code and C22.1, the Canadian Electric Code.

Explosion proof motors

Product description	UL & CSA approved for Class I, Group D; Class I, Group D, Class II, Group F & G; Class I, Group C & D, Class II Group F & G.
Sizes	0.18 - 224 kW, 0.25 - 300 Hp totally enclosed, single and three phase
Features	Super-E motors have NEMA Premium efficiency with a 3 year warranty.
Suggested applications	Pumps, fans, conveyors in customer specified Division 1 hazardous locations.

Severe duty

Product description	UL & CSA listed for Class I (gas), Group D, Class II (dust), Group E, F, & G with a T3C temperature code.
Sizes	2.2 - 111 kW, 3 - 150 Hp totally enclosed, three phase
Features	Motors have a Class F insulation system and a 1.15 service factor.
	Super-E motors have NEMA Premium efficiency with a 3 year warranty.
Suggested applications	Pumps, fans, conveyors in customer specified Division 1 hazardous locations.

Drill rig duty

Product description	UL & CSA listed for Class I (gas), Group C & D with a T3C temperature code.
Sizes	0.37 - 150 kW, 0.25 - 200 Hp totally enclosed, three phase
Features	UL listed explosion proof breather drain
	Super-E motors have NEMA Premium efficiency with a 3 year warranty.
Suggested applications	Pumps, fans, conveyors, on and off shore rig service bulk fuel terminals, transfer stations in customer specified Division 1 hazardous locations.

Explosion proof pump

Product description	UL & CSA listed for Class I, Group D; Class I, Group C & D; Class I, Group D, Class II, Group F & G.
Sizes	0.37 - 7.5 kW, 0.5 - 10 Hp totally enclosed, three phase
Features	Flange and shaft designs suitable for jet pump and close coupled (JM and JP) pump mounting
	Super-E motors have NEMA Premium efficiency with a 3 year warranty.
Suggested applications	Pumps in customer specified Division 1 hazardous locations.

Explosion proof, inverter duty

Product description	Suitable for operation on adjustable speed (PWM inverter type) input power. 10:1 variable torque speed range, up to 10:1 constant torque speed range.
Sizes	0.24 - 186 kW, 0.33 - 250 Hp totally enclosed, inverter duty
Features	Approval listings are available for Class I (gas) and or Class II (dust) hazardous environments with up to a T3C temp code.
Suggested applications	Pumps, fans, conveyors in customer specified Division 1 hazardous locations

Variable speed motors
Designed for variable speed control

Baldor-Reliance variable speed motors are specifically designed for variable speed control. The platform provides constant torque across the entire operating speed range in traditional NEMA and IEC designs or a power dense laminated steel square frame. Controlling a motor with variable frequency power has never been easier.

AC laminated frame - RPMAC motors

Product description	RPM AC product line provides the ultimate in power density performance in either totally enclosed or open construction. RPM AC motors provide continuous Constant Torque performance (1000:1) from zero speed to base speed.
Sizes	1.5 - 900 kW, 2 - 1200 Hp; DPFV, TEFC, TEBC, TEFC, three phase
Features	NEMA and IEC designs available in standard induction and ultra high-density interior permanent magnet designs, and unique caged - IPM (Hybrid) rotor.
Suggested applications	Centrifugal pumps and fans; plastic extruders, winders, crane and hoists, traction, oil drilling, test stands

AC V*S master motors

Product description	V*S master motors provide continuous constant torque performance (1000:1) across the entire speed range from zero speed to base speed.
Sizes	0.25 - 372 kW, 1/3 - 500 Hp totally enclosed, three phase
Features	Available in standard TEFC & TENV NEMA frame sizes
Suggested applications	Extruders, conveyors, crane and hoist, winders, web processing, process control, test stands drilling, test stands

AC inverter / vector duty motors

Product description	Inverter duty motors for open loop control and vector duty motors for closed loop control are available in standard NEMA frame totally enclosed non-vent and blower cooled designs.
Sizes	0.25 - 150 kW, 1/3 - 200 Hp totally enclosed, three phase
Features	Motors are designed for constant torque (1000:1) as well as variable torque applications and are suitable for across the line operation in drive bypass mode.
Suggested applications	Conveyors, pumps, fans, metal processing; compressors, test stands, material handling; process lines running open loop

Direct drive cooling tower motors

Product description	The Baldor-Reliance RPM AC direct drive cooling tower motor eliminates the maintenance and failure of mechanical components associated with traditional cooling tower systems by directly coupling the motor to the fan and controlling it with a unique drive.
Sizes	5.6 - 186 kW, 7.5 - 250 Hp totally enclosed, three phase
Features	Laminated finned frame motor with flange mounting dimensions
Suggested applications	Wet and dry cooling towers, air cooled condensers, air cooled heat exchangers

RPM EX - extreme efficient motors

Product description	Innovative, NEMA drop-in replacement motor achieves leading efficiency and lower lifetime operational costs.
Sizes	7.5 - 74.5 kW, 10 - 100 Hp totally enclosed - fan cooled, three phase
Features	Synchronous motor that starts across the line and offers IE4+ efficiencies.
	Capable of operating on a standard inverter without feedback in standard V/Hz or Scalar control.
	NEMA mounting dimensions and design B currents, allow installation without additional or non-standard equipment.
Suggested applications	Centrifugal pumps (DOL or VFD) or centrifugal fans (VFD)

Farm duty motors

Designed to protect your crops and livestock

ABB's line of Baldor-Reliance Farm Duty motors boast a maintenance free industrial design with industry leading reliability. Rather you are cooling or feeding your livestock or drying, transferring, or storing your harvest, Baldor-Reliance Farm Duty motors is the brand you can count on to protect your investment.

Grain dryer / centrifugal fan motors

Product description	Designed for direct drive centrifugal blower applications with little to no shelter
Sizes	2.2 - 74 kW, 5 - 100 Hp totally enclosed, three phase
	3.7 - 22 kW, 5 - 30 Hp open drip proof, three phase
	3.7 - 12 kW, 5 - 16 Hp open drip proof, single phase
Features	Sealed bearings on both ends of motor
	TEFC models include a drive end seal and V-ring slinger to prevent moisture and contamination ingress.
	Screens on ODP models to protect against debris entry
	Shaft length is 1" longer than NEMA standard
Suggested applications	High pressure grain drying, storage and farm equipment

Grain dryer / vane axial fan motors

Product description	Designed as dual rated for either in or out of air stream vane axial fan applications
Sizes	1.12 - 11.2 kW, 1.5 - 15 Hp open air over, totally enclosed,single and three phase
Features	TENV/TEAO models have sealed bearings, drive end seal and v-ring slinger to prevent moisture and contamination ingress.
	Shaft 3/4" longer than NEMA standard, 1/4 - 20 tap and keyed shaft
	Epoxy finish withstands outdoor environments.
	Available with thermostat.
Suggested applications	Direct drive or belt driven vane axial fan crop dryers

Aeration fan motor

Product description	Motors designed for direct drive fan applications
Sizes	0.6 - 2.2 kW, 0.75 - 3 Hp totally enclosed, single and three phase
Features	1/4 - 20 tap and keyed shaft, double shielded maintenance free bearings
	Automatic thermal overload protection on single phase motors
	Normally-closed thermostats on three phase motors
Suggested applications	Aeration fans for livestock, exhaust fans, air handling systems

Direct drive fan motors

Product description	Motors designed for grille or resilient base mount direct drive fan applications
Sizes	0.18 - 0.6 kW, 0.25 - 0.75 Hp totally enclosed, single phase
Features	Double sealed ball bearings, rugged steel frame, resilient mount base, 1" extended thru bolts, corrosion resistant epoxy finish
Suggested applications	Confinement houses, exhaust fans, air handling fans, unit heaters

HVAC motors
Keep the air flowing

Baldor-Reliance air moving motors are specifically engineered with industry-driven designs to keep your air handling systems running smoothly, quietly, and efficiently, which means better system reliability and performance, with less maintenance.

General HVAC

Product description	Super E NEMA Premium efficient HVAC motors in ODP and TEFC designs with ball bearings and plugged grease packages
Sizes	0.75 - 74.57 kW, 1 - 100 Hp totally enclosed, open drop proof, three phase
Features	Includes bar-coded spec number label.
	Mounting holes on drive endplate enable field conversion to add bearing isolaters if desired.
Suggested applications	Heating, ventilation, air conditioning blower and fan motors

Direct drive

Product description	Direct drive motor for HVAC applications
Sizes	0.18 - 1.11 kW, 0.25 - 1.5 Hp open drip proof, single phase
	0.19 - 7.5 kW, 0.25 - 10 Hp totally enclosed, open drip proof, three phase
Features	Suitable for mounting in any position.
	Single phase designs include automatic thermal overloads.
Suggested applications	Blowers, fans, condensers, unit heaters, air circulation, ventilation, freezers

Chiller / cooling tower motors

Product description	HVAC motors designed for wet, high humidity environments
Sizes	3.7 - 111 kW, 5 - 150 Hp totally enclosed, three phase
Features	Corrosion resistant epoxy paint, double sealed bearings filled with moisture resistant grease, shaft seal/slinger
	Super-E motors have NEMA Premium efficiency and 3 year warranty.
Suggested applications	Belted or drive shaft chiller/cooling towers

Shaft grounding motors

Product description	Shaft grounding motor for HVAC applications
Sizes	0.75 - 398 kW, 1 - 400 Hp totally enclosed, open drip proof, three phase
Features	Motors are fitted with bearing current mitigation devices mounted internally or externally to minimize stray shaft currents.
	Super-E motors have NEMA Premium efficiency and 3 year warranty.
Suggested applications	Fans, pumps, blowers, unit handling, HVAC systems, variable speed applications

EC Gold

Product description	Highly efficient Synchronous PM motor
Sizes	0.5 - 7.5 Hp
Features	Meets or exceeds IE4 efficiency
	Maintains higher efficiencies over a wider range of speeds and loads than traditional induction motors
	Standard NEMA frame sizes for ease of induction motor replacement
	Totally enclosed, CE/cURus
	Excellent speed regulation with no feedback
Suggested applications	Pumps, fans, compressors, conveyor applications

Definite purpose motors

Definite purpose motors for a host of applications

The definite purpose family of motors captures a host of variety demanded by the marketplace. These motors include TEFC and ODP two-speed motors, as well as single phase pressure washer motors. Automotive approved motors are available in cast iron designs and meet all requirements for sound power levels. A number of motors are available for specific pressure washer applications including face-mounted designs as well as standard NEMA mounting, in ODP and TEFC designs.

Ammonia refrigeration compressor motors

Sizes	112 - 745 kW, 150 - 1,000 Hp
Suggested applications	Ammonia refrigeration compressors, particularly in food processing facilities

Two speed foot mounted motors in TEFC & ODP designs

Sizes	0.37 - 19 kW, 1/2 - 25 Hp
Suggested applications	Designed for specific applications requiring multi-speed operation. Variety of torque and voltage ratings available.

Single phase pressure washer motors

Sizes	1.1 - 4 kW, 1-1/2 - 5 Hp
Suggested applications	Specifically designed for operation on pressure washers and steam cleaners

U-frame motors

Sizes	0.55 - 15 kW, 3/4 - 20 Hp
Suggested applications	U-frame mounting dimensions for three-phase and single phase applications

Unit handling motors
Designed for unit handling applications

Baldor-Reliance unit handling motors are designed for a wide variety of applications in baggage handling, conveyors, packaging equipment, machine tools, hoists, elevators and door openers. These motors are available from stock in ratings of 0.37 - 7.5 kW (½ - 10 Hp) - (56 thru 215T frames) with or without Dodge® D-series brakes. Features include an oversized top mounted conduit box on 56 & 140T frames that provide easy access for making connections. Footed frames include slotted feet for easy mounting.

General unit handling, motor only

Product description	Motors designed for general unit handling applications
Sizes	0.37 - 5.6 kW, 0.5 - 7.5 Hp totally enclosed, single and three phase
Features	Motors feature an oversized low profile top mounted conduit box on 56 and 140T frames that provides easy access for making connections.
	Footed frames include slotted feet for easy mounting on OEM conveyors.
	UL/CSA recognized and CE certified
Suggested applications	Conveyors, baggage handling, unit handling, packaging, door operators, elevators, hoists

High cycle brake motors

Product description	Low inertia, high efficient motor with fast action DC brake with an integral rectifier
Sizes	0.37 - 2.2 kW, 0.5 - 3 Hp totally enclosed, three phase
Features	Aluminum frame engineered for increased thermal heat dissipation
Suggested applications	Frequent start/stop applications, conveyors, baggage handling, unit handling, packaging, door operators, elevators, hoists

D-series brake motors

Product description	Featuring a Dodge "D" series brake which are spring set, magnetically released power off type brakes flange mounted to the motor with a manual release lever
Sizes	0.37 - 7.45 kW, 0.5 - 10 Hp totally enclosed, three phase
Suggested applications	Conveyors, baggage handling, unit handling, packaging, door operators, elevators, hoists

Short series brake motors

Product description	Featuring Dodge short series brakes which are spring set, magnetically released power off type brakes integrally mounted to the motor for the most compact design
Sizes	0.37 - 3.7 kW, 1/2 - 5 Hp totally enclosed, three phase
Features	Single phase brake, inverter ready
Suggested applications	Conveyors, baggage handling, unit handling, packaging, door operators, elevators, hoists

Servo motors
Positioning, speed, and efficiency

ABB offers a variety of AC and DC servo motors for industrial, automated applications such as packaging, labeling, wrapping and cutting. We not only design our motors for durability in harsh environments, but we also provide a wide choice of high or low inertia motors with winding options, feedback devices and gearheads to match.

HDS series

Product description	HDS series features neodymium magnets for improved performance and less than 2% cogging torque.
Sizes	0.6 - 48 Nm continuous torque
Features	3x continuous torque
	Totally enclosed, CE/cURus
	A compact segmented lamination design decreases overall length of the motor.
	A completely encapsulated winding allows heat to dissipate while protecting internal components from contamination.
	IP65 rated enclosure with optional shaft seal installed
Suggested applications	Cut-to-length, flying shear, machining, labeling, material handling, winding, 3D printing, robotics

AC brushless N-series motors

Product description	Motors designed with high performance neodymium magnets and low inertia rotor for faster acceleration.
Sizes	0.4 - 40 Nm continuous torque
Features	4x continuous torque
	Totally enclosed, CE/cURus
	A completely encapsulated winding allows heat to dissipate while protecting internal components from contamination.
	Multiple feedback types to fit a range of applications
Suggested applications	Cut-to-length, flying shear, machining, labeling, material handling, winding, 3D printing, robotics

AC brushless C-series motors

Product description	Motors designed with bonded neodymium magnets and medium inertia rotor for load inertia matching
Sizes	1.2 - 134 Nm continuous torque
Features	3x continuous torque
	Totally enclosed, CE/cURus
	A completely encapsulated winding allows heat to dissipate while protecting internal components from contamination.
	Multiple feedback types to fit a range of applications
Suggested applications	Cut-to-length, flying shear, machining, labeling, material handling, winding, robotics

Servo motors

Positioning, speed, and efficiency

AC brushless stainless steel motors (SSBSM)	
	
Product description	All stainless steel construction and laser marked nameplate makes SSBSM suitable for pharmaceutical and food processing industries.
Sizes	0.45 - 3.6 Nm continuous torque
Features	3 - 4x continuous torque
	Totally enclosed, CE/cURus
	A completely encapsulated winding allows heat to dissipate while protecting internal components from contamination.
	IP67 rated enclosure for washdown conditions
	BISSC - complies with Baking Industry Sanitation Standards Committee
Suggested applications	Packaging, food handling, bakery machinery, beverage equipment, measuring dispensing equipment

DC brush servo motors	
	
Product description	DC servo motors have a high inertia skewed rotor for load inertia matching and smooth rotation (no cogging).
Sizes	0.2 - 6.3 Nm continuous torque
Features	Totally enclosed, CE/cURus
	Multiple feedback types to fit a range of applications
Suggested applications	X-ray tables, coil winders, labeling equipment, machine tool, robotics, pick and place, packaging

DC motors
Designed for DC power operation

Available in round frame and unique laminated square frames, Baldor-Reliance DC motors offer performance and reliability in tough applications. Round frame DC motors utilize permanent magnet technology optimizing the commutator, brushes, and inertia to assure the best performance possible. Wound field motors are designed with superior commutation through the speed range to ensure trouble-free operation and the insulation system is designed with extra margin of safety to eliminate performance-limiting hot spots.

Fractional DC

Product description	For adjustable speed operation from SCR controls, two designs are available - wound field and permanent magnet. 20:1 constant torque speed range with 90 to 180 VDC armatures.
Sizes	0.01 - 2.23 kW, 0.02 - 3 Hp wound field NEMA & IEC
	0.18 - 3.73 kW, 0.02 - 5 Hp permanent magnet NEMA & IEC
Features	Motor construction and features can be tailored for specific applications and industries.
Suggested applications	Conveyors, extruders, packaging equipment, mixers, winders, printing presses, and metering pumps

RPM III

Product description	Laminated frame design provides more power, reliability and serviceability in a smaller package. A larger armature allows optimum power generation and better ventilation for heat dissipation than standard round frame motors.
Sizes	3.7 - 372 kW, 5 - 500 Hp NEMA & IEC
Features	A variety of enclosure styles are available to meet customer environmental conditions.
Suggested applications	Mill drives, tube mills, coating lines, winders, printing presses, extruders, mixers, spindle drives

Super RPM

Product description	The largest of the DC product family - a laminated construction with removable pole assemblies that promote serviceability and robustness for the most demanding applications.
Sizes	372 - 2237 kW, 500 - 3,000 Hp NEMA
Features	A variety of thermal protections, speed feedback devices, all enclosure styles, vibration detection, VPI, air flow monitoring, water flow monitoring, etc.
Suggested applications	Pulp and paper processing, extruders, conveyors, test stands, stamping press, crane and hoist, rolling mills, machine tools, ski lift, etc.

DC motors
Designed for DC power operation

Round frame motors

Product description	Rolled steel round body frame construction constructed for easy drop in replacement opportunities.
Sizes	3.7 - 372 kW, 5 - 500 Hp NEMA
Features	A variety of thermal protections, speed feedback devices, vibration detection, and non ventilated or ventilated enclosure types.
Suggested applications	Pulp and paper processing, extruders, conveyors, test stands, stamping press, crane and hoist, machine tools, etc.

DMI motors

Product description	IEC platform - highest power producing DC motor product available. The power dense low profile design makes it easy to displace the competition and integrate into almost any existing application.
Sizes	22 - 1305 kW, 30 - 1,751 Hp IEC
Features	All enclosure types (DPBV,TEDC-AA, TEDC-AW), self monitoring brush wear system, rotatable rocker ring for easy brush change, reduced maintenance design technologies.
Suggested applications	Pulp and paper processing, extruders, conveyors, test stands, stamping press, crane and hoist, rolling mills, machine tools, ski lift, etc.

RPM PD DC

Product description	NEMA platform --highest power producing DC motor product available. The power dense low profile design makes it easy to displace the competition and integrate into almost any existing application.
Sizes	93 - 895 kW, 125 - 1,250 Hp NEMA
Features	Compensated windings provide linear torque per amp and better commutating during overload conditions. self monitoring brush wear system, rotatable rocker ring for easy brush change, reduced maintenance design technologies
Suggested applications	Pulp and paper processing, extruders, conveyors, test stands, stamping press, crane and hoist, rolling mills, machine tools, ski lift, etc.

Gearmotors
Designed for precision and performance

Baldor-Reliance gearmotors are designed and built to withstand rugged industrial applications with precision matched motor and gear ratios for optimized performance, ensuring adequate power and torque are provided for the application. Each gearmotor is factory filled with synthetic oil, and lubricated for life for maximum efficiency and reduced maintenance.

AC gearmotors

Product description	Right angle and parallel shaft designs for industrial applications precision matched AC motor and gear ratios for optimized performance
Sizes	0.56 - 124 Nm, 5 - 1,100 in.-lbs., output torque
Features	Each unit is factory filled with synthetic oil and lubricated for life maximum efficiency and reduced maintenance.
	Right angle configurations feature exclusive internal expansion bladder to keep lubrication in and contamination out.
Suggested applications	Material handling, packaging machinery, machine tools, conveyors, printing presses, commercial ovens, car washes

DC gearmotors

Product description	Right angle and parallel shaft designs for industrial applications with precision matched DC motor and gear rations for optimized performance
Sizes	0.85 - 124 Nm, 7.5 - 1,100 in.-lbs., output torque
Features	Armature / rotor is dynamically balanced for vibration free operation.
	Each unit is factory filled with synthetic oil and lubricated for life maximum efficiency and reduced maintenance.
Suggested applications	Material handling, packaging machinery, machine tools, conveyors, printing presses, commercial ovens, car washes

Engineered products
Designed and built to critical specifications

Underground mining

Product description	Totally-enclosed, XP motors designed for underground coal mining, coal preparation, or transportation of mined coal.
Sizes	AC: 2-225 kW, 5-300 Hp, 230-1000 VAC, TEFC, TENV, or TEWC; NEMA & IEC frame sizes
	DC: 20-50 Hp, 110-460 VDC, TENV or TEWC, NEMA frame sizes
Features	Designed and certified for hazardous mining atmospheres. Meets or exceeds global high efficiency energy standards. Special shaft configurations, double shaft extensions, and flange mounting configurations available. Global certifications include MSHA, ATEX, ANZEx, and IECEx.
Suggested applications	Pumps, fans, conveyors, and traction motors for continuous and longwall miners, feeder breakers, roof bolters, and haulers/scoops.

Navy

Product description	Motors designed for optimized performance and longer life on critical above deck and below deck applications.
Sizes	.2-500Hp, .1-375kW: 115-690 VAC, TEFC, TENV, DPP, or TEWC: Spraytight, Watertight, Explosion Proof, Submersible Enclosures: NEMA & IEC frame sizes
Features	Motors meet all pertinent military specifications for fractional and integral AC motors including critical specifications pertaining to energy efficiency, sealed insulation, reduced weight, low airborne noise, and low structure-borne noise requirements. Specifications include: Mil-M-17059A, Mil-DTL-17060, Mil-S-901, Mil-STD-167-1, Mil-STD-740, Mil-STD-2037
Suggested applications	Pumps, fans & air handling, deck equipment, underway replenishment equipment, thrusters, auxiliary propulsion, winches, capstans

Marine

Product description	Specially modified motors designed for above deck and offshore (wet environments) and below deck (dry environments) capable of meeting multiple Marine agency certifications and requirements.
Sizes	.2-1,500Hp, .1-1,120kW: 115-4000 VAC, TEFC, TENV, DPP, or TEWC: NEMA & IEC frame sizes
Features	Marine duty epoxy paint, corrosion resistant hardware, commercial VPI windings, steel, casting iron, or ductile iron construction, spraytight, watertight, explosion proof enclosures. Certifications include: ABS, Lloyd's Registry, DNV, USCG-256, IEEE-45-2002, and NEMA MG1
Suggested applications	Pumps, fans, deck equipment, thrusters, auxiliary propulsion, winches, capstans

Grinders, buffers and lathes
Heavy-duty, smooth, powerful

Industrial quality, single and three phase, bench and pedestal grinders are available having wheel diameters of from 6 to 14 inches. This well known line also includes diamond wheel and carbide tool grinders and abrasive belt grinders. Some designs of the abrasive belt grinders are supplied with a three position tilt able belt.

Grinders

Product description	Grinder designed for industrial applications with cast aluminum or cast iron wheel guards and tool rests.
Sizes	152 - 355 mm, 6 - 14 in. wheel diameters, single and three phase
Features	A base mounted on/off switch or starter with overload protection and three year warranty
Suggested applications	Grinding

Buffers

Product description	Buffer designed for use with soft cloth wheels, guards and tool rests.
Sizes	0.19 - 536 kW, 0.25 - 7.5 Hp, 0.25 - 7.5 Hp
Features	Steel frame enclosure and base
Suggested applications	Buffing

Polishing lathes

Product description	Industrial polishing lathes
Sizes	0.19 - 0.56 kW, 0.25 - 0.75 Hp, single phase
Features	All lathes are supplied with 8-foot cord with plug, rubber feet and heavy construction to minimize vibration.
	Provisions for mounting to a laboratory bench are provided.
Suggested applications	Polishing - dental labs, jewelers, lapidary

Belt sanders

Product description	Industrial belt sanders
Sizes	0.25 - 1.12 kW, 0.25-1.5 Hp, three phase
Features	There are several industrial belt sander options, fixed and tiltable belts, grinder/sanders and even an adjustable speed sander for increased flexibility.
	All units come with a base mounted on/off switch.
	602E-MT equipped with 2x36" 100 grit belt, all others 2x48" 80 grit belt.
Suggested applications	Sanding

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Additional information
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