

NEMA MOTORS

# Product overview

**BALDOR • RELIANCE**



- Broadest line of NEMA low voltage motors in the industry





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# 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 petrochemical 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



<b>Product description</b>	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.
<b>Sizes</b>	0.09 - 298 kW, 0.125 - 400 Hp
<b>Features</b>	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.
<b>Suggested applications</b>	Fans, pumps, blowers, conveyors, compressors, industrial machines and other general industrial equipment

### Single phase enclosed



<b>Product description</b>	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.
<b>Sizes</b>	0.06 - 11 kW, 0.08 - 15 Hp
<b>Features</b>	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.
<b>Suggested applications</b>	Air handling, material handling, gear reducers, machine tools, conveyors, pumps and fans

### Three phase open



<b>Product description</b>	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.
<b>Sizes</b>	0.18 - 335 kW, 0.25 - 450 Hp
<b>Features</b>	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.
<b>Suggested applications</b>	Fans, pumps, blowers, conveyors, compressors, industrial machines and other general industrial equipment

**Single phase open**



<b>Product description</b>	Designed to meet various torque loads for an array of small horsepower single phase applications in environments where water and dust exposure is moderate.
<b>Sizes</b>	0.12 - 7.5 kW, 0.17 - 10 Hp
<b>Features</b>	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.
<b>Suggested applications</b>	Air handling, material handling, gear reducers, machine tools, conveyors, pumps and fans

**Single and three phase enclosed brake motors**



<b>Product description</b>	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.
<b>Sizes</b>	0.18 - 335 kW, 0.25 - 450 Hp
<b>Features</b>	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.
<b>Suggested applications</b>	Conveyors, unit handling, machine tools, door operators, speed reducers, packaging equipment and other general industrial equipment

**Three phase open brake motors**



<b>Product description</b>	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.
<b>Sizes</b>	0.18 - 335 kW, 0.25 - 450 Hp
<b>Features</b>	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.
<b>Suggested applications</b>	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



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

### RPM XE - extreme efficient motors



<b>Product description</b>	Innovative, NEMA drop-in replacement motor achieves leading efficiency and lower lifetime operational costs.
<b>Sizes</b>	7.5 - 74.5 kW, 10 - 100 Hp totally enclosed - fan cooled, three phase
<b>Features</b>	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.
<b>Suggested applications</b>	Centrifugal pumps (DOL or VFD) or centrifugal fans (VFD)

### IEEE 841 motors



<b>Product description</b>	Premium severe duty motor designed for harsh environments and a low total cost of ownership
<b>Sizes</b>	0.75 - 186 kW, 1 - 250 Hp totally enclosed, three phase
<b>Features</b>	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.
<b>Suggested applications</b>	Pumps, fans, compressors, material handling, machine tools, general industrial equipment.

### IEEE 841 / 661 XL motors



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



**Crusher duty motors**

<b>Product description</b>	High torque NEMA design A motor that exceeds NEMA design C torques.
<b>Sizes</b>	3.7 - 373 kW, 5 - 500 Hp totally enclosed, three phase
<b>Features</b>	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
<b>Suggested applications</b>	Aggregate/cement crushers, belt conveyors, screens, above ground mining equipment

**Quarry duty motors**

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

**Oil well pump - design D**

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

**Dirty duty plus**

<b>Product description</b>	Designed for use where additional protection is required against wet and washdown environments, corrosive environments and marine applications.
<b>Sizes</b>	0.37 - 7.5 kW, 0.5 - 10 Hp totally enclosed, three phase
<b>Features</b>	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
<b>Suggested applications</b>	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



<b>Product description</b>	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.
<b>Sizes</b>	0.37 - 29 kW, 0.5 - 30 Hp, three phase 0.37 - 0.75 kW, 0.5 - 1 Hp, single phase
<b>Features</b>	Fully welded individual feet to enhance cleanability, fully welded and rotatable conduit box, smooth stainless hardware
<b>Suggested applications</b>	Food processing where reliability in intense, caustic cleaning environments is of utmost importance.

### Stainless steel motors



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

### Paint free motors



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

### White washdown motors




<b>Product description</b>	Designed for environments where washdown cleaning occurs.
<b>Sizes</b>	0.25 - 15 kW, 0.33 - 20 Hp, single & three phase
<b>Features</b>	300 series stainless steel hardware, neoprene gaskets, double sealed ball bearings and electrostatically applied epoxy finish makes the motor corrosion resistant.
<b>Suggested applications</b>	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	
	<b>Product description</b> Jet pump motor for residential and industrial applications
	<b>Sizes</b> 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
	<b>Features</b> 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.
	<b>Suggested applications</b> Residential and industrial pumps

Close-coupled motors	
	<b>Product description</b> Close coupled pump motors include over-sized ball bearings with locked drive end construction to minimize endplay.
	<b>Sizes</b> 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
	<b>Features</b> 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.
	<b>Suggested applications</b> Residential and industrial applications requiring JM, JP and West Coast Fit

# Pump motors

## Keep your fluid flowing

### Vertical p-base motors



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

### Submersible motors



<b>Product description</b>	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.
<b>Sizes</b>	0.75 - 74.57 kW, 1 - 100 Hp totally enclosed, three phase 0.75 - 3.73 kW, 1 - 5 Hp totally enclosed, single phase
<b>Features</b>	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.
<b>Suggested applications</b>	Wet and dry pit pump applications; slurry pumps, aerators, mixers

### Immersible motors



<b>Product description</b>	Custom Immersible motors are designed for use in non-hazardous area dry pit applications where the possibility of flooding exists.
<b>Sizes</b>	3.73 - 186 kW, 5 - 250 Hp totally enclosed, three phase
<b>Features</b>	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.
<b>Suggested applications</b>	Dry pit pump applications; slurry pumps

### Fire pump



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



<b>Product description</b>	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.
<b>Sizes</b>	0.18 - 224 kW, 0.25 - 300 Hp totally enclosed, single and three phase
<b>Features</b>	Super-E motors have NEMA Premium efficiency with a 3 year warranty.
<b>Suggested applications</b>	Pumps, fans, conveyors in customer specified Division 1 hazardous locations.

### Severe duty



<b>Product description</b>	UL & CSA listed for Class I (gas), Group D, Class II (dust), Group E, F, & G with a T3C temperature code.
<b>Sizes</b>	2.2 - 111 kW, 3 - 150 Hp totally enclosed, three phase
<b>Features</b>	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.
<b>Suggested applications</b>	Pumps, fans, conveyors in customer specified Division 1 hazardous locations.

### Drill rig duty



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

### Explosion proof pump



<b>Product description</b>	UL & CSA listed for Class I, Group D; Class I, Group C & D; Class I, Group D, Class II, Group F & G.
<b>Sizes</b>	0.37 - 7.5 kW, 0.5 - 10 Hp totally enclosed, three phase
<b>Features</b>	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.
<b>Suggested applications</b>	Pumps in customer specified Division 1 hazardous locations.

### Explosion proof, inverter duty



<b>Product description</b>	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.
<b>Sizes</b>	0.24 - 186 kW, 0.33 - 250 Hp totally enclosed, inverter duty
<b>Features</b>	Approval listings are available for Class I (gas) and or Class II (dust) hazardous environments with up to a T3C temp code.
<b>Suggested applications</b>	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



<b>Product description</b>	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.
<b>Sizes</b>	1.5 - 900 kW, 2 - 1200 Hp; DPFV, TEFC, TEBC, TEFC, three phase
<b>Features</b>	NEMA and IEC designs available in standard induction and ultra high-density interior permanent magnet designs, and unique caged - IPM (Hybrid) rotor.
<b>Suggested applications</b>	Centrifugal pumps and fans; plastic extruders, winders, crane and hoists, traction, oil drilling, test stands

### AC V\*S master motors



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

### AC inverter / vector duty motors



<b>Product description</b>	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.
<b>Sizes</b>	0.25 - 150 kW, 1/3 - 200 Hp totally enclosed, three phase
<b>Features</b>	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.
<b>Suggested applications</b>	Conveyors, pumps, fans, metal processing; compressors, test stands, material handling; process lines running open loop

### Direct drive cooling tower motors



<b>Product description</b>	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.
<b>Sizes</b>	5.6 - 186 kW, 7.5 - 250 Hp totally enclosed, three phase
<b>Features</b>	Laminated finned frame motor with flange mounting dimensions
<b>Suggested applications</b>	Wet and dry cooling towers, air cooled condensers, air cooled heat exchangers

### RPM EX - extreme efficient motors



<b>Product description</b>	Innovative, NEMA drop-in replacement motor achieves leading efficiency and lower lifetime operational costs.
<b>Sizes</b>	7.5 - 74.5 kW, 10 - 100 Hp totally enclosed - fan cooled, three phase
<b>Features</b>	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.
<b>Suggested applications</b>	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. Whether 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



<b>Product description</b>	Designed for direct drive centrifugal blower applications with little to no shelter
<b>Sizes</b>	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
<b>Features</b>	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
<b>Suggested applications</b>	High pressure grain drying, storage and farm equipment

## Grain dryer / vane axial fan motors



<b>Product description</b>	Designed as dual rated for either in or out of air stream vane axial fan applications
<b>Sizes</b>	1.12 - 11.2 kW, 1.5 - 15 Hp open air over, totally enclosed, single and three phase
<b>Features</b>	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.
<b>Suggested applications</b>	Direct drive or belt driven vane axial fan crop dryers

## Aeration fan motor



<b>Product description</b>	Motors designed for direct drive fan applications
<b>Sizes</b>	0.6 - 2.2 kW, 0.75 - 3 Hp totally enclosed, single and three phase
<b>Features</b>	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
<b>Suggested applications</b>	Aeration fans for livestock, exhaust fans, air handling systems

## Direct drive fan motors



<b>Product description</b>	Motors designed for grille or resilient base mount direct drive fan applications
<b>Sizes</b>	0.18 - 0.6 kW, 0.25 - 0.75 Hp totally enclosed, single phase
<b>Features</b>	Double sealed ball bearings, rugged steel frame, resilient mount base, 1" extended thru bolts, corrosion resistant epoxy finish
<b>Suggested applications</b>	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



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

### Direct drive



<b>Product description</b>	Direct drive motor for HVAC applications
<b>Sizes</b>	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
<b>Features</b>	Suitable for mounting in any position. Single phase designs include automatic thermal overloads.
<b>Suggested applications</b>	Blowers, fans, condensers, unit heaters, air circulation, ventilation, freezers

### Chiller / cooling tower motors



<b>Product description</b>	HVAC motors designed for wet, high humidity environments
<b>Sizes</b>	3.7 - 111 kW, 5 - 150 Hp totally enclosed, three phase
<b>Features</b>	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.
<b>Suggested applications</b>	Belted or drive shaft chiller/cooling towers

### Shaft grounding motors



<b>Product description</b>	Shaft grounding motor for HVAC applications
<b>Sizes</b>	0.75 - 398 kW, 1 - 400 Hp totally enclosed, open drip proof, three phase
<b>Features</b>	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.
<b>Suggested applications</b>	Fans, pumps, blowers, unit handling, HVAC systems, variable speed applications

### EC Gold



<b>Product description</b>	Highly efficient Synchronous PM motor
<b>Sizes</b>	0.5 - 7.5 Hp
<b>Features</b>	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
<b>Suggested applications</b>	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.

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### Ammonia refrigeration compressor motors



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

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### Two speed foot mounted motors in TEFC & ODP designs



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

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### Single phase pressure washer motors



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

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### U-frame motors



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

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# 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



<b>Product description</b>	Motors designed for general unit handling applications
<b>Sizes</b>	0.37 - 5.6 kW, 0.5 - 7.5 Hp totally enclosed, single and three phase
<b>Features</b>	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
<b>Suggested applications</b>	Conveyors, baggage handling, unit handling, packaging, door operators, elevators, hoists

### High cycle brake motors



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

### D-series brake motors



<b>Product description</b>	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
<b>Sizes</b>	0.37 - 7.45 kW, 0.5 - 10 Hp totally enclosed, three phase
<b>Suggested applications</b>	Conveyors, baggage handling, unit handling, packaging, door operators, elevators, hoists

### Short series brake motors



<b>Product description</b>	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
<b>Sizes</b>	0.37 - 3.7 kW, 1/2 - 5 Hp totally enclosed, three phase
<b>Features</b>	Single phase brake, inverter ready
<b>Suggested applications</b>	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



<b>Product description</b>	HDS series features neodymium magnets for improved performance and less than 2% cogging torque.
<b>Sizes</b>	0.6 - 48 Nm continuous torque
<b>Features</b>	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
<b>Suggested applications</b>	Cut-to-length, flying shear, machining, labeling, material handling, winding, 3D printing, robotics

### AC brushless N-series motors



<b>Product description</b>	Motors designed with high performance neodymium magnets and low inertia rotor for faster acceleration.
<b>Sizes</b>	0.4 - 40 Nm continuous torque
<b>Features</b>	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
<b>Suggested applications</b>	Cut-to-length, flying shear, machining, labeling, material handling, winding, 3D printing, robotics

### AC brushless C-series motors



<b>Product description</b>	Motors designed with bonded neodymium magnets and medium inertia rotor for load inertia matching
<b>Sizes</b>	1.2 - 134 Nm continuous torque
<b>Features</b>	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
<b>Suggested applications</b>	Cut-to-length, flying shear, machining, labeling, material handling, winding, robotics

# Servo motors

## Positioning, speed, and efficiency

### AC brushless stainless steel motors (SSBSM)



<b>Product description</b>	All stainless steel construction and laser marked nameplate makes SSBSM suitable for pharmaceutical and food processing industries.
<b>Sizes</b>	0.45 - 3.6 Nm continuous torque
<b>Features</b>	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
<b>Suggested applications</b>	Packaging, food handling, bakery machinery, beverage equipment, measuring dispensing equipment

### DC brush servo motors



<b>Product description</b>	DC servo motors have a high inertia skewed rotor for load inertia matching and smooth rotation (no cogging).
<b>Sizes</b>	0.2 - 6.3 Nm continuous torque
<b>Features</b>	Totally enclosed, CE/cURus Multiple feedback types to fit a range of applications
<b>Suggested applications</b>	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

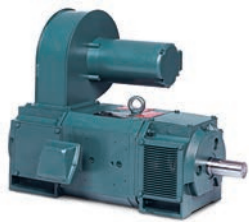
**Features**

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



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

### DMI motors



<b>Product description</b>	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.
<b>Sizes</b>	22 - 1305 kW, 30 - 1,751 Hp IEC
<b>Features</b>	All enclosure types (DPBV, TEDC-AA, TEDC-AW), self monitoring brush wear system, rotatable rocker ring for easy brush change, reduced maintenance design technologies.
<b>Suggested applications</b>	Pulp and paper processing, extruders, conveyors, test stands, stamping press, crane and hoist, rolling mills, machine tools, ski lift, etc.

### RPM PD DC



<b>Product description</b>	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.
<b>Sizes</b>	93 - 895 kW, 125 - 1,250 Hp NEMA
<b>Features</b>	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
<b>Suggested applications</b>	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



<b>Product description</b>	Right angle and parallel shaft designs for industrial applications precision matched AC motor and gear ratios for optimized performance
<b>Sizes</b>	0.56 - 124 Nm, 5 - 1,100 in.-lbs., output torque
<b>Features</b>	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.
<b>Suggested applications</b>	Material handling, packaging machinery, machine tools, conveyors, printing presses, commercial ovens, car washes

### DC gearmotors



<b>Product description</b>	Right angle and parallel shaft designs for industrial applications with precision matched DC motor and gear ratios for optimized performance
<b>Sizes</b>	0.85 - 124 Nm, 7.5 - 1,100 in.-lbs., output torque
<b>Features</b>	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.
<b>Suggested applications</b>	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



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

### Buffers



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

### Polishing lathes



<b>Product description</b>	Industrial polishing lathes
<b>Sizes</b>	0.19 - 0.56 kW, 0.25 - 0.75 Hp, single phase
<b>Features</b>	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.
<b>Suggested applications</b>	Polishing - dental labs, jewelers, lapidary

### Belt sanders



<b>Product description</b>	Industrial belt sanders
<b>Sizes</b>	0.25 - 1.12 kW, 0.25-1.5 Hp, three phase
<b>Features</b>	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.
<b>Suggested applications</b>	Sanding



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**ABB Motors and Mechanical Inc.**

5711 R.S. Boreham, Jr. Street

Fort Smith, AR 72901

Ph: 1.479.646.4711

**[new.abb.com/motors-generators](http://new.abb.com/motors-generators)**

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