Baldor-Reliance® motors
For farm, agriculture and grain handling

Baldor-Reliance premium motors for farm, agriculture and grain applications are built to perform in demanding outdoor environments. Designed with features for rugged conditions, these locally made motors provide reliability to keep your operations up and running.

Grain dryer motors

<table>
<thead>
<tr>
<th>Product / offering</th>
<th>Specifications</th>
<th>Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centrifugal fans</td>
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<td>Grain dryer centrifugal fan motors are available in ODP and TEFC, single and three-phase designs. Ideal for high-pressure grain drying and farm building fans.</td>
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</tbody>
</table>
| 3 – 50 Hp (2.2 - 37 kW) | • Shaft length 1” longer than NEMA standard  
• Lubed for life double sealed ball bearings  
• Lip seal and v-ring slinger on DE for increased moisture resistance  
• Screens on ODP to protect against trash and debris | |
| Vane axial fans     |               | Vane axial fan grain dryer motors come in OPAO and TEAO, single and three-phase designs and are used for crop dryers. |
| 1.5 – 15 Hp (1.12 - 11.2 kW) | • Shaft length is 3/4” longer than NEMA standard  
• 1/4 – 20 tapped and keyed shaft  
• Convenient lead location for ease of conduit connectivity  
• Normally closed winding thermostats to protect against overheating  
• Lubed for life double sealed ball bearings on TEAO motors  
• Lip seal and v-ring slinger on DE for increase moisture resistance on TEAO motors | |
| Universal crop dryer|               | Single phase permanent split capacitor (switchless) design available in Open Air Over (OPAO) for vane axial fan crop dryers |
| 5 – 15 Hp (3.7 - 11.2 kW) | • Shaft length is 3/4” longer than NEMA standard  
• 1/4 – 20 tapped and keyed shaft  
• Convenient lead location for ease of conduit connectivity  
• Switchless design for increased reliability  
• Lubed for life double sealed ball bearing  
• Normally closed winding thermostats to protect against overheating | |
| Aeration fan motors |               | Aeration fan, single and three-phase, TEAO, foot mounted. Ideal for aeration fans, exhaust fans and air handling systems used throughout grain facilities. |
| Single phase       |               |         |
| • 1/2 – 3 Hp (.37 - 2.2 kW) | • 1/4 – 20 tapped and keyed shaft  
• Terminal panel for ease of connectivity  
• Automatic thermal overload protection (single phase)  
• Normally closed winding thermostats to protect against overheating (three phase)  
• Lubed for life double shielded ball bearings | |
| Three phase        |               |         |
| • 3/4 – 3 Hp (.56 - 2.2 kW) | | |
### Grain dryer motors continued

<table>
<thead>
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<th>Specifications</th>
<th>Overview</th>
</tr>
</thead>
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| Auger drive motors | • Mechanically protected centrifugal switch from over speeding  
• Extended ODE shaft for manual jog  
• Gasketed manual reset thermal overload protection  
• Lubed for life double shielded ball bearing  
• NEMA 56N flange for industry standard drive/gear connection | Specifically manufactured with NEMA 56N flange for easy replacement and reducing downtime. Also used in poultry feed auger drive systems. |
| Grain stirrer motors | • Slotted fan cover on DE to prevent clogging  
• Gasketed manual reset thermal overload protection  
• Lubed for life double shielded ball bearings | Used for grain stirring that has slotted fan cover to protect the motor. |

### General farm/agriculture motors

<table>
<thead>
<tr>
<th>Product / offering</th>
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<th>Overview</th>
</tr>
</thead>
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| General farm duty motors | • Lubed for life double sealed ball bearings  
• V-ring slinger and contact seal  
• IP54  
• Three-phase suitable for inverter use per NEMA MG1 Part 31.4.4.2 | Farm duty motors are designed and engineered for the demanding indoor and outdoor environments of a wide variety of agricultural and industrial applications. |

### Application specific motors

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<thead>
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</tr>
</thead>
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| Dairy/vacuum pump motor | • Gasketed manual reset thermal overload protection  
• Oversized conduit/capacitor box for ease of connectivity  
• Aluminum heat sync fan on DE for increased bearing life  
• 50° C ambient-continuous duty. | These vacuum pump motors contain all the necessary thermal protection to extend drive end bearing life and overall system reliability. |
| (PSC) direct drive fan motor | • Switchless design for increased reliability  
• 1” extended through bolts for grille mounting  
• Terminal panel for ease of connectivity  
• Automatic thermal overload protection  
• Lubed for life double shielded ball bearings | These (PSC), or permanent split capacitor motors are used for commercial duty wall-mounted fans, used in confinement houses, exhaust fans and unit heaters. |
| Yoke/pedestal fan | • Robust stamped steel pedestal mount  
• 1” extended through-bolts for grille mounting  
• Terminal panel for ease of connectivity  
• Automatic thermal overload protection  
• Lubed for life double shielded bearings  
• Switchless design for increased reliability | Designed to meet manufacturers requirements for air circulators where the permanent split capacitor motor is mounted directly to the fan column. For direct drive exhaust and vent fans in HVAC and poultry. Designed for continuous air-over applications. |
| Incubator/hatchery vent fan motors | • Normally closed winding thermostats to protect against overheating  
• 1” extended through bolts for grille mounting  
• Terminal panel for ease of connectivity  
• Flat slinger on DE for improved moisture protection  
• Lubed for life double shielded ball bearings | Incubator/hatchery vent fan, single phase, TEAO. Also used for HVAC condensers and grille mount vent fan applications |
| Instant reversing motors | • High starting torque  
• Electrically designed for optimal performance in instant reversing applications  
• Gasketed manual reset thermal overload protection  
• Lubed for life double shielded ball bearings | Instant reversing, single phase, TEFC, foot mounted. Common applications include barn cleaners, bulk feeders and other industrial applications. |
| Irrigation tower drives | • Sealed fit at endplate  
• Sheds water  
• Conduit box is cast into the ODE endplate  
• High overload capabilities  
• 50/60Hz | Irrigation tower drive motors. Three-phase, totally enclosed non ventilated (TENV). |
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| **Metering pump motors** | • F3 conduit box location for optimal mounting clearance  
• Lubed for life double shielded ball bearings  
• 50/60Hz data included for connection at either frequency | Metering pump, three-phase, TEFC, foot mounted |
| **Other motors** | | |
| **General purpose motors** | • Baldor-Reliance general purpose motors meet or exceed all efficiency requirements in North America  
• Suitable for inverter use per NEMA MG1 Part 31.4.4.2  
• Designed for longevity with 3-year warranty | Designed for “general purpose” use means that these motors can be used in many applications. #1 trusted NEMA premium brand in the industry. |
| **Inverter-duty motors** | • Shaft grounding brush installed internally (-BG) or AEGIS® bearing protection ring (-G)  
• Class H insulation system meets NEMA MG1 Part 31.4.4.2 | Suitable for variable speed applications such as fans, pumps, blowers and compressors. |
| **XT severe duty motors** | • Division 2, Class I, Groups A,B,C,D  
• IP54 ingress protection  
• Sealed bearings up to 250 frame  
• Suitable for inverter use per NEMA MG1 Part 31.4.4.2 | XT motors are designed and built in the U.S. by the world’s #1 NEMA motor manufacturer, so they’re available now for fast delivery and installation. |
| **XEX severe duty motors** | • Division 2, Class I, Groups A,B,C and D  
• Division 2, Class II, Groups F&G, T4 on 586-8 frames  
• IP55 on 143T-L449 frames, IP66 on 586-8 frames  
• Suitable for inverter use per NEMA MG1 Part 31.4.4.2  
• Heavy duty ALL cast iron construction (frame, endplates, conduit box and fan covers) | These premium construction motors include features designed to protect against contamination, moisture, vibration and demanding duty cycles |
| **Explosion proof motors** | • Robust steel and cast-iron frame designs  
• UL & CSA approved  
• Class I, Group C & D; Class II, Group F & G  
• Suitable for inverter use per NEMA MG1 Part 31.4.4.2 for 1Hp and larger  
• IP54 ingress protection | Designed for safe operation in a wide variety of applications where hazardous gases or dust is or may be present. Inverter-duty electrical designs allow for flexible operations and energy savings. |
| **Dirty Duty Plus** | • Cast iron endplates and conduit box  
• 300 series stainless steel shaft extensions  
• ASTM B 117 salt fog test of 2000+ hours  
• IP56 enclosure includes labyrinth shaft seals, gasketed conduit box and cover  
• Inverter duty and IEEE 45 on nameplate | Used in grain handling and coastal marine applications, this severe duty motor is designed for use where additional protection is required. |
| **Accessories** | | |
| **ABB Ability™ Smart Sensor for motors** | • Motor smart sensor with 2 year subscription and mounting hardware for either finned/rib cooled or rolled steel motors. | The ABB Ability Smart Sensor converts traditional motors into smart, wirelessly connected devices. It enables users to monitor the health of their motors and to plan maintenance in advance. Unplanned downtime can be avoided, efficiency optimized and safety improved. |
| **ABB Ability Smart Sensor for motors** | • 1 year, 2 year or 5 year subscription  
• Motor smart sensor for hazardous areas with aluminum bracket mounting tool for ribbed cooled or finned motors  
• Motor smart sensor for hazardous locations with flat mounting tool for rolled steel motors | |