



# Surface Protection

JIE Total Drive Solutions Provider

[www.jie-drives.com](http://www.jie-drives.com)

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## Internal And External Solutions

The ideal mix of internal and external protective features to keep your JIE unit operating in all environmental conditions

- Internal protection of standard components with anti-corrosion treatment
- Multiple external surface protection options (JS1 - JS4) for a variety of ambient conditions

Standard treatment for	
All products	Rust-resistant breathers Rust prevention coatings added to all flange connection surfaces and shaft extensions Utilization of rust-proof fasteners and internal surface of housings sprayed to prevent oxidation
Anti-corrosion treatment for	
Motors	External fasteners and nameplates made of rust-proof materials Internal coating with special enamel Corrosion-resistant alloy material housing Moisture-resistant varnish impregnated windings
IP56 motors	2RS bearings utilized on both drive-end and non-drive end Additional condensation drain hole Protective coating on rotor Waterproof metal cable glands
Brakes and backstops	Rubber sealing collars fastened with clamping straps Pressure plates made of non-corrosive material
Special protection design for output shafts	
Hardening treatment of the output shaft	Special heat treatment at the oil seal shoulder of the output shaft Great for particularly demanding applications
Output shaft made of stainless steel	Premium quality shaft materials Great for particularly demanding applications

## Online Support

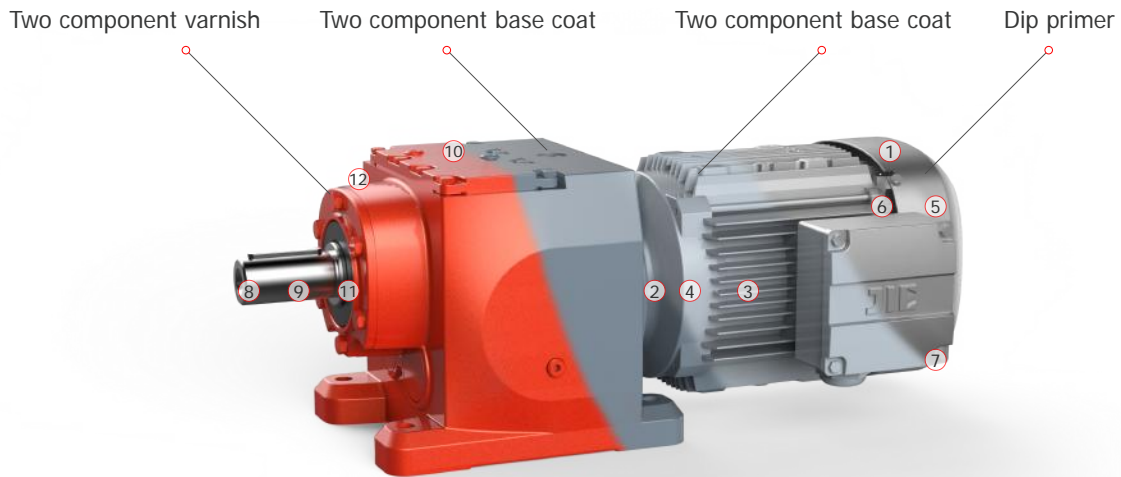
Our basic protection comes as standard on all products and can be customized to meet all your specific requirements.

By choosing optional JIE protection measures based on your application demands, you can ensure long-lasting and trouble-free operation.



**Corrosion Protection**

Different layers of varnish on gearmotors with JS4 coating



**Two-component epoxy primer**

- Excellent adhesion to steel, stainless steel, galvanized steel and aluminum etc.
- Advanced corrosion resistance
- Superior abrasion and impact resistance
- Gloss: 15-40 degree

**polyurethane topcoat**

- Smooth dry film
- Excellent protection performance in marine Environments
- Excellent physical property and chemical resistance
- Various color options(solid to metallic) and sheen(matte to high gloss)
- Smooth-film coating provides hydrophobic anti-condensation properties.



Brakes with pressure plate made of non-corrosive materials



RS bearing for IP56



Special interior surface coating



Special interior surface coating



Special interior surface coating



Special interior surface coating



Stainless Steel Fasteners



Output shafts made of stainless steel



Anti-Seize paste



Rustproof nameplates



Fluorine rubber oil seal



Rust resistant breather valves

\* Options

## Colors Standards

JIE DRIVE provides a range of standard colors as well as preferred colors that are available globally. Custom paint colors are also available to ensure perfect alignment with your company's branding and corporate design.



**RAL7031**  
Blue Grey



**RAL5010**  
Gentian Blue



Other options include special colors according to RAL, BS, Munsell and Pantone.

## Application Standards

Surface protection	Application Standards	Ambient Conditions Sample Applications
Standard		<p><b>Standard C1 (Standard)</b> For heated building interiors, clean air, offices, stores, schools, hotels, and more. Comparable to corrosion category: C1(very low)</p> <p><b>Sample applications</b> Machines and systems in the automobile industry Conveyor systems in logistics areas Conveyor belts at airports</p>
JS1		<p><b>C2(JS1)</b> Suitable for low atmosphere pollution, mostly rural areas (outdoor); cold space may occur in unheated buildings, warehouses, gymnasiums, etc. (indoor). Comparable to corrosion category: C2 (low).</p> <p><b>Sample applications</b> Woodworking machinery</p>
JS2		<p><b>C3(JS2)</b> Suitable for urban and industrial atmospheres, moderate sulfur dioxide pollution and low salinity coastal areas (outdoor); high humidity and some air pollution in production plants, such as food processing plants, laundries, distilleries, dairy factories, etc. (outdoor). Comparable to corrosion category: C3 (medium)</p> <p><b>Sample applications</b> Livestock breeding industry</p>
JS3		<p><b>C4-L(JS3), C4-H(JS3)</b> Suitable for industrial and coastal areas with medium fog salinity (outdoor); chemical plants, swimming pools, coastal ships and shipyards, etc. (outdoor). Comparable to corrosion category: C4 (high)</p> <p><b>Sample applications</b> Port Cranes</p>
JS4		<p><b>C5-M(JS4)</b> Suitable for industrial areas with high humidity spaces, harsh atmospheres spaces, and coastal areas with high salinity (outdoor); buildings and areas where cold and high levels of pollution persist and exist (outdoor). Comparable to corrosion category: C5 (very high)</p> <p><b>Sample applications</b> Chemical processing plants Beer production lines</p>

## Ingress Protection

Corrosion protection	Application Standards	Ambient conditions sample applications
IP55		<p><b>Protection from foreign objects and dust</b> Complete protection against foreign objects. Incomplete protection against dust. Note: the amount of dust intrusion will not affect the normal operation of the appliance.</p> <p><b>Resistance to immersion in sprayed water</b> Protection against low-pressure water jets for at least 3 minutes.</p>
IP56		<p><b>Protection from foreign objects and dust</b> Complete protection against foreign objects. Incomplete protection against dust. Note: the amount of dust intrusion will not affect the normal operation of the appliance.</p> <p><b>Protection against large waves</b> Protection against large amounts of water spray for at least 3 minutes.</p>
IP65		<p><b>Protection from foreign objects and dust</b> Complete protection against foreign objects and dust.</p> <p><b>Resistance to immersion in sprayed water</b> Protection against low-pressure water jets for at least 3 minutes.</p>
IP66		<p><b>Protection from foreign objects and dust</b> Complete protection against foreign objects and dust.</p> <p><b>Protection against large waves</b> Protection against large amounts of water spray for at least 3 minutes.</p>

## Additional Options



Condensation drain hole(DH)



X2  
Reinforced winding insulation(RI)



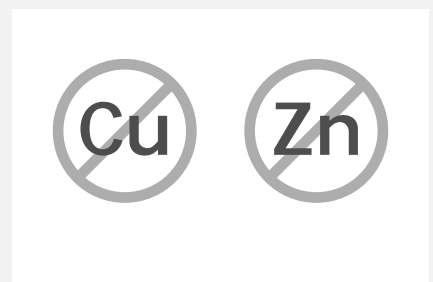
Motor Canopy / Drip Cover



Strip heater(STH)



Stainless steel gearmotors



Copper and Zinc free gearmotors

**JRT GEAR UNITS & GEARMOTORS**



**JRTR**  
**Helical Inline Gearmotors**  
**Size:** 09-189  
**Ratio:** 3.37-289.74  
**Input power:** 0.16-340HP  
**Output torque:** 21-499633 lb-in



**JRTF**  
**Parallel Shaft Helical Gearmotors**  
**Size:** 29-169  
**Ratio:** 3.77-281.71  
**Input power:** 0.16-340HP  
**Output torque:** 31-328333 lb-in

**JRH INDUSTRIAL GEAR UNITS**



**JRHH**  
**Parallel Shaft Gear Units**  
**Size:** 3-28  
**Ratio:** 1.25-450  
**Input power:** 5.85-14306HP  
**Output torque:** 20341-12381600 lb-in



**JRHB**  
**Helical Bevel Gear Units**  
**Size:** 4-28  
**Ratio:** 5-400  
**Input power:** 3.81-6677HP  
**Output torque:** 48642-12381600 lb-in

**JRP PLANETARY GEAR UNITS**



**JRP**  
**Planetary Gear Units**  
**Size:** 9-36  
**Ratio:** 25-4000  
**Input power:** 0.54-17597HP  
**Output torque:** 194568-229994400 lb-in



**JRP**  
**Planetary Gear Units**  
**Size:** 01-8  
**Ratio:** 3.08-3460  
**Input power:** 0.03-261HP  
**Output torque:** 8844-114972 lb-in

**JRW WORM GEAR UNITS**



**JRSTD**  
**IEC Worm Gear Units**  
**Size:** 25-150  
**Ratio:** 5-100  
**Input power:** 0.08-20HP  
**Output torque:** 115-13716 lb-in



**JRWND**  
**NEMA Worm Gear Units**  
**Size:** 30-150  
**Ratio:** 5-100  
**Input power:** 0.08-20HP  
**Output torque:** 115-13716 lb-in

**JD THREE PHASE ASYNCHRONOUS MOTORS**



**JDC, JCS Servo Motors & Drives**  
**Power:** 0.54-10HP  
**Output Torque:** 11-425 lb-in  
**Input power:** 1AC 220V/3AC 380V  
**Communication:** Pulse, EtherCAT, Profinet



**JDL**  
**Asynchronous Servo Motor**  
**Torque:** 22-1770N.m  
**Speed:** 1200r/min-3000r/min

**JC INTELLIGENT DRIVE SOLUTIONS**



**JC**  
**Intelligent Drive Solutions**  
 Industrial Drive Solutions incl Reducers, Motors, Converters, Sensors, Internet of Things, etc.



**JCMC VFD Gearmotors**  
**Size:** 175-255  
**Power:** 1-7HP  
**Input Power:** 3AC 380-440V  
**Output Frequency:** 0-200Hz  
**Communication:** ModbusRTU, Profinet, ASi

**MORE OPTIONS**



**JRES(R, K)**  
**Stainless Steel Helical Gearmotors**  
**Size:** 37-67  
**Ratio:** 3.41-199.81  
**Input power:** 0.24-10HP  
**Output torque:** 106-8048 lb-in



**JRES**  
**Stainless Steel Worm Gearmotors**  
**Size:** 30-90  
**Ratio:** 7.5-100  
**Input power:** 0.08-5.4HP  
**Output torque:** 23-4053 lb-in



**JRGC**  
**Transfer Case**  
**Size:** 0401, 1501  
**Ratio:** 0.589, 0.659, 0.756, 0.825  
**Max. Output Torque(Pump):** 12303 lb-in  
**Max. Output Torque(Working Shift)** 353760 lb-in



**JN**  
**Agricultural Machinery Gear Units**  
**Ratio:** 0.364-2.33  
**Input Speed:** 800r/min  
**Efficiency:** ≥96%



**JRTK**  
**Helical-Bevel Gearmotors**  
**Size:** 39-189  
**Ratio:** 3.98-197.37  
**Input power:** 0.16-272HP  
**Output torque:** 88-555403 lb-in



**JRTS**  
**Helical-Worm Gearmotors**  
**Size:** 39-99  
**Ratio:** 3.97-288  
**Input power:** 0.16-30HP  
**Output torque:** 88-43336 lb-in



**JRTW**  
**Helical Face Gearmotor**  
**Size:** 10-30  
**Ratio:** 6.57-75  
**Input power:** 0.12-1.5HP  
**Output torque:** 221-619 lb-in



**JRHD**  
**Bucket Elevator Gear Units**  
**Size:** 5-16  
**Ratio:** 25-71  
**Input power:** 21.8-1775HP  
**Output torque:** 97284-1530012 lb-in



**JRHO**  
**Palm Oil Gear Units**  
**Size:** 310  
**Ratio:** 56, 80  
**Input power:** 144, 191HP  
**Output torque:** 663300 lb-in



**JRHA**  
**Cooling Tower Gear Units**  
**Size:** 166  
**Ratio:** 14  
**Input power:** 310HP  
**Output torque:** 185724 lb-in



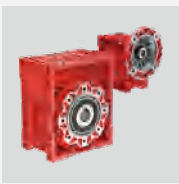
**JRPH**  
**Rotary Planetary Gear Units**  
**Size:** 08-100  
**Ratio:** 3.4-2000  
**Input power:** 102-340HP  
**Output torque:** 70752-884400 lb-in



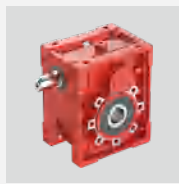
**JRP RV**  
**Inline Planetary Gear Units**  
**Ratio:** 3-100  
**Backlash:** 1-3/3-5/5-7arc-min  
**Torque:** 53-29185 lb-in



**JRP RE**  
**Right Angle Planetary Gear Units**  
**Ratio:** 3-100  
**Backlash:** 4-9/6-11arc-min  
**Torque:** 106-16980 lb-in



**JRWNE**  
**Double Reduction Units**  
**Size:** 25/30-63/150  
**Ratio:** 100-5000  
**Input power:** 0.08-2HP  
**Output torque:** 257-23628 lb-in



**JRKM, JRKB**  
**Hypoid Gear Units**  
**Size:** 28-68  
**Ratio:** 7.5-300  
**Input power:** 0.1-15HP  
**Output torque:** 708-6637 lb-in



**WPA**  
**Worm Gears**  
**Size:** 40-250  
**Ratio:** 10-60  
**Input power:** 0.16-45HP  
**Output torque:** 168-24292 lb-in



**JD-IEC**  
**IEC Standard Motors**  
**Size:** 63-315  
**Power:** 0.16-272HP  
**Efficiency:** IE3 IE4 IE5



**JD-NEMA**  
**NEMA Standard Motors**  
**Size:** 56C-365TC  
**Power:** 0.16-30HP  
**Efficiency:** NEMA Premium



**JD-B**  
**Explosion-Proof Motors**  
**Size:** 80-315  
**Power:** 0.75-272HP  
**Explosion-Proof Grade:** Exib II BT4  
**Efficiency:** IE3 IE4 IE5



**JCI Intelligent Monitoring System**  
**Power:** AC220V, DC24V  
**Communication:** Wifi, 4G, RS485  
**Items:** Vibration, Temperature, Pressure, Current  
**Deployment:** Public Cloud, Private Cloud



**JCME Distributed VFDS**  
**Size:** 175-255  
**Power:** 1-7HP  
**Input power:** 3\*AC380-440V  
**Output Frequency:** 0-200Hz  
**Communication:** Profinet, ModbusRTU, ASI



**JCF VFDS**  
**Size:** 175-355  
**Power:** 1-74HP  
**Input power:** 1\*AC220/3\*AC400V  
**Communication:** Profinet, EtherCAT, CANOPEN



**JRTH, JRTV**  
**Front&Rear Roller Gearboxes**  
**Size:** 18-60  
**Ratio:** 3-1800  
**Input power:** 0.13-10HP  
**Output torque:** 14-29136 lb-in



**JRSS**  
**Screw Lifters**  
**Size:** 35-150  
**Ratio:** 5-40  
**Input power:** 0.26-22HP  
**Lift Capacity:** 1102-57431 lb-in



**JRTM**  
**Spiral Bevel Right Angle Units**  
**Size:** 2-25  
**Ratio:** 1-5  
**Input power:** 0.019-455HP  
**Input Speed:** 10-1450r/min



**JPF**  
**Front&Rear Roller Gearboxes**  
**Size:** 1706-2012  
**Ratio:** 3.04-33.568  
**Input power:** 2-4HP  
**Output torque:** 974-2407 lb-in



**JEC**  
**Escalator Units**  
**Size:** 2-15, 2-25  
**Ratio:** 24.5  
**Efficiency:** ≥96%  
**Working Life:** 146000h  
**Output torque:** 31219-45547 lb-in



**JIE Intelligent Drive Solutions Provider**  
 For more products, please contact JIE.  
 (Inch)



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