# **SURESERVO2 MOTOR OVERVIEW**

Thank you very much for purchasing an AutomationDirect SureServo2 AC servo motor. Installation and operation of this servo motor must be in accordance with the SureServo2 user manual. Failure to read, fully understand and implement these safety instructions and precautions may result in damage to the servo motor or its drive, the machine to which it is installed, or operator injury.

### **CAUTIONS**

- There are no field serviceable parts on the motor.
- Do not disassemble the motor.
- Any disassembly will void the factory warranty.
- Disassembly will cause permanent damage to the motor.
- Protect the motor from any splashing or airborne liquids.



WARNING: FAILURE TO READ, FULLY UNDERSTAND AND IMPLEMENT THESE SAFETY INSTRUCTIONS AND PRECAUTIONS MAY RESULT IN DAMAGE TO THE SERVO MOTOR OR ITS DRIVE, THE MACHINE TO WHICH IT IS INSTALLED, OR OPERATOR INJURY.

#### MISES EN GARDE

- Il n'y a pas de pièces réparables sur le moteur.
- Ne démontez pas le moteur.
- Tout démontage annulera la garantie du fabricant.
- Le démontage causera des dommages permanents au moteur.
- Protégez le moteur contre les éclaboussures ou les liquides en suspension dans l'air.

# UNPACKING

Upon receipt of the motor, please perform the following:

- 1) Examine the appearance of the motor for any unusual marks.
- 2) Inspect the motor for any shipment damage.
- 3) Inspect the motor and ensure encoder leads have not been damaged.
- 4) Verify the part number indicated on the nameplate corresponds with the part number ordered.

If any items are damaged or incorrect, please contact your shipper or AutomationDirect.

# TRANSPORTATION, INSTALLATION, AND STORAGE

- Do not carry or hold the motor by it's wire harness or shaft. Incorrect handling may cause damage to the motor or personal injury.
- Do not hit the motor or shaft. Such shock can damage the encoder inside the motor.
- Do not apply axial or radial loads to the motor shaft that are in excess of the specified value.
- The shaft opening of the motor is not waterproof or oil-proof. Do not install the motor where harmful gases or liquid are present, or in an environment containing excessive moisture or water vapor.
- Do not store the motor where it will come into contact with water, dust, corrosive gases or liquids.
- The material of the motor shaft is not totally rust-proof. To protect the motor shaft and prevent rust formation, the motor shaft is coated with antirust oil at the factory before shipping. However, if the motor storage time has exceeded six months, in order to ensure the motor shaft will not be rusted, please inspect and examine the motor shaft and recoat with proper and sufficient antirust oil on the motor shaft at least once every three months.
- Do not store the servo motor where it will be subjected to vibration or shock in excess of the specified limits.
- Ensure that the storage of the motor meets the environmental specification as stated in the User Manual.
- Protect the motor and encoder from high electrical noise



# WIRING

- Higher than maximum specified current may cause demagnetization of components inside the motor.
- Before operation ensure that the motor, brake and encoder are connected correctly. Incorrect wiring will cause abnormal motor operation or result in permanent damage to one or more of the components.
- To eliminate electrical noise on the encoder ensure adequate separation of the motor power wires and the encoder wires.
- Ensure that the motor ground wire is connected to the ground terminal on the servo drive.
- Do not perform a dielectric voltage-withstand test on any encoder terminal.
- Disconnect the motor from the drive before performing a dielectric voltage-withstand test on the motor.

### **OPERATION**

- The AC servo motor is designed to operate through a dedicated SureServo2 servo drive. Do not connect it directly to a commercial power source (120/240/480V AC or DC, 50/60Hz). The motor will not operate correctly and may be permanently damaged.
- The motor must be operated within its specified range. Attention should be given to ensure adequate cooling and ventilation of the motor during operation.
- The material of the motor shaft is not totally rust-proof. For long term use, the motor shaft should be recoated with proper and sufficient antirust oil during the period of operation.
- The built-in brake is designed to hold the motor shaft when stationary. It must not be used to dynamically brake or slow down the motor during rotation. The motor brake is not designed as a safety feature for the attached mechanism or machine. A separate safety device must be installed on the machine to ensure adequate safety measures are undertaken. When the brake is holding the motor shaft, rotational backlash still remains. The maximum angle of rotational backlash is 1 to 2 degrees. In addition, during the operation of the motor with brake, the brake lining sometimes produces noise, such as a clicking or rustling sound, etc. The noise is caused by the brake module, not because of malfunction. It will not affect the function of the motor.
- Should any abnormal odor, noise, smoke, temperature rise or vibration be detected, stop the motor immediately, remove power from the servo drive and isolate the motor.

# ADDITIONAL HELP

For additional information, please see the full SureServo2 User Manual, available on our website at <a href="https://www.automationdirect.com/manuals">www.automationdirect.com/manuals</a>.

By Telephone: 800-633-0405 (Mon.-Fri., 9:00 a.m.-6:00 p.m. E.T.)
On the Web: www.automationdirect.com

Our technical support group is glad to work with you in answering your questions. If you cannot find the solution to your particular application, or, if for any reason you need additional technical assistance, please call Technical Support at 800-633-0405. We are available weekdays from 9:00 a.m. to 6:00 p.m. Eastern Time.

We also encourage you to visit our web site where you can find technical and non-technical information about our products and our company. Visit us at <a href="https://www.automationdirect.com">www.automationdirect.com</a>.

