



AC SERVO MOTOR

Safety Precautions



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

■ 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 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 distributor or the local Delta sales representative.

■ Transportation, Installation and Storage

- 1) 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.
- 2) Do not hit the motor or shaft. Such shock can damage the encoder inside the motor.
- 3) Do not apply axial or radial loads to the motor shaft that are in excess of the specified value.
- 4) The shaft opening of 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.
- 5) Do not store the motor where it will come into contact with water, dust, corrosive gases and liquids.
- 6) 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 in 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 resupply with the proper and sufficient antirust oil on the motor shaft at least once three months.
- 7) Do not store the servo motor where it will be subjected to vibration or shock in excess of the specified limits.
- 8) Ensure that the storage of the motor meets the environmental specification as stated on the motor data sheet.
- 9) Protect the motor and encoder from high electrical noise.

■ Wiring

- 1) Higher than maximum specified current may cause demagnetization of magnetic components inside the motor.
- 2) Before operation ensure that the motor, brake and encoder are connected correctly. Incorrect wiring will cause permanent damage to one or more of the

components.

- 3) To eliminate electrical noise on the encoder ensure adequate separation of the motor power wires and the encoder wires.
- 4) Ensure that the motor ground wire is connected to the ground terminal on the servo drive.
- 5) Do not perform a dielectric voltage-withstand test on any encoder terminal.
- 6) Disconnect the motor from the drive before performing the dielectric voltage-withstand test on the motor.

■ Operation

- 1) The AC servo motor is designed to operate through a dedicated Delta servo drive. Do not connect it directly to a commercial power source (100/200V AC or DC, 50/60Hz). The motor will not operate correctly and may be permanently damaged.
- 2) The motor must be operated within its specified range. Attention should given to ensure adequate cooling and ventilation of the motor during operation.
- 3) The material of the motor shaft is not totally rust-proof. For long term use, the motor shaft should be resupplied with the proper and sufficient antirust oil during the period of operation.
- 4) 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.
- 5) 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.

■ Cautions

- 1) There are no field serviceable parts on the motor.
- 2) Do not disassemble the motor.
- 3) Any disassembly will void the factory warranty.
- 4) Disassembly will cause permanent damage to the motor.
- 5) 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 it's drive, the machine to which it is installed, or operator injury.



DELTA ELECTRONICS, INC.

ASIA
DELTA ELECTRONICS,
INC. TAOYUAN Plant/
31-1, Shien Pan Road
Kuei San Industrial Zone
Taoyuan Hsien 333, Taiwan
Tel: 886-3-3626301
Fax: 886-3-3627267
Internet: <http://www.delta.com.tw>

NORTH/SOUTH AMERICA
DELTA PRODUCTS
CORPORATION
Sales Office/
P.O. BOX 12173
5101 DAVIS DRIVE
RTP, NC 27709 U. S. A.
TEL: 1-919-767-3813
FAX: 1-919-767-3969

EUROPE
DELTRONICS (Netherlands)
B.V.
Sales Office/
Industriegebied Venlo Nr. 9031
Columbusweg 20
NL-5928 LC Venlo
The Netherlands
TEL: 31-77-324-1930
FAX: 31-77-324-1931