



台达交流伺服马达

⚠️ 安全预防措施



感谢您采用本公司交流伺服马达，台达交流伺服马达系设计为工业使用，操作马达前需对马达规格及操作使用手册有充分了解。为了操作者及机械设备的安全，并确保能够正确地使用本交流马达，请在装机之前，详细阅读本安全预防措施。

以下为特别需要注意的安全预防措施：

■ 拆封检查

客户在收到交流伺服马达後，请立即检查以下事项：

- 1) 请检查交流伺服马达外观是否有异常。
- 2) 请检查交流伺服马达是否有任何损伤。
- 3) 请检查配线是否有毁坏，是否可连接使用。
- 4) 请核对伺服马达机种型号是否与外箱登录资料相同。

如有任何登录资料与您订货资料不符或产品有任何问题，请您与接洽之代理商或经销商或台达当地业务代表联络。

■ 运送、安装及储存注意事项

- 1) 当取出或放置伺服马达时，不可只拉著线材拖曳马达或只握住旋转轴芯。
- 2) 请勿直接撞击轴芯，例如：敲击或捶打，此举可能会造成轴芯及附著於轴芯反侧之编码器的损坏。
- 3) 给予轴芯之负载，不论是轴向或是径向，请勿超过规格所规定之范围。
- 4) 伺服马达出轴端结构并非具防水性，亦不具防油性。因此，请勿使用及安装伺服马达於有水滴、油性液体或过度潮湿之场所和具腐蚀及易燃性气体之环境。
- 5) 请储存伺服马达於无潮湿、无灰尘及无有害、腐蚀之气、液体的场所。
- 6) 伺服马达轴芯材质不具防锈能力，出厂时虽已施加油脂做防锈保护，但如果储存时间超过六个月，为确保轴芯免於锈蚀，请每三个月定期检视轴芯状况并适时补充适当的防锈油脂。
- 7) 请勿储存伺服马达於超出规格规定振动量之场所。
- 8) 请确保伺服马达之储存环境符合说明书上所述之环境规格。
- 9) 由於伺服马达内含精密的编码器，请预备足够的采取措施，以预防电磁杂讯干扰、振动及异常温度变化。

■ 配线

- 1) 若电流流量超过规格书标示的容许最大电流，可能使马达内部磁性元件去磁，此时请您与接洽之代理商或经销商或台达当地业务代表联络。
- 2) 请检查马达配线及煞车电压是否正确，并且请务必特别确认连接至编码器之电源线及信号线是否正确。不正确的配线可能造成马达不正常运转，或导致马达故障及损坏。

- 3) 马达电源线必须与编码器之电源线及信号线分离，以防止电压耦合及避免杂讯(绝对不可将两者连接在同一回路)。
- 4) 交流伺服马达接地端子务必正确的接地。
- 5) 绝对不可让编码器端子进行耐压测试，这类的测试可能伤害编码器。
- 6) 当马达或煞车执行耐压测试时，请先切断外部控制器的电源。若无必要，请勿执行这一类测试，以免折损产品的寿命。

■ 运转注意事项

- 1) 交流伺服马达是藉由专用的驱动器运转。不可将商用电源(100/200V, 50/60Hz)直接连接至伺服马达的线路，否则伺服马达将会不正常运转并造成伺服马达永久的损坏。
- 2) 请於伺服马达规格规定范围内使用该产品，尤其特别注意马达温度须於规格规定范围内。
- 3) 伺服马达轴芯材质不具防锈能力，为确保长期使用，运转期间轴芯需施加适当防锈油脂。
- 4) 内建煞车皆为保持煞车，不可直接使用於停止马达运转。请注意：保持煞车并非可确保机械安全之停止装置，请於机器端安装一个安全停止机械装置。
- 5) 当侦测到任何不正常的异味、噪音、烟雾、热气或是异常的振动，请立即停止马达运转并关闭电源。

■ 其他注意事项

- 1) 台达交流伺服马达并无经常性耗损零件。
- 2) 请勿拆解伺服马达或更换马达零件。
- 3) 不得拆解伺服马达，否则产品保固将失效。
- 4) 擅自拆解伺服马达可能导致马达永久故障及损坏。
- 5) 请勿让任何水滴或油飞溅或滴到产品上。



警告! 确保正确使用台达交流伺服马达，请安装、操作及维修前，详细阅读本安全预防措施。



台达电子工业股份有限公司

ASIA
DELTA ELECTRONICS,
INC. TAOYUAN Plant/
333 桃园县龟山工业区兴邦路
31-1号
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/
DE WITBOGT 15, 5652 AG
EINDHOVEN,
THE NETHERLANDS
TEL: 31-40-259-2860
FAX: 31-40-259-2851

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 abnormal motor operation or even result in 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.



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/
DE WITBOGT 15, 5652 AG
EINDHOVEN,
THE NETHERLANDS
TEL: 31-40-259-2860
FAX: 31-40-259-2851