GEARED TYPE 5 PHASE STEPPER MOTOR

INSTRUCTION MANUAL

Thank you for choosing our Autonics Product. Please read the following safety considerations before use.

Safety Considerations

When using the unit, the following instructions must be observed to prevent damage to the unit and injury to persons.

1. Installation condition

The installation condition must be in accordance with the specifications described in this catalog. Failure to follow these instructions may result in serious injury or death.

2. Do not carry the motor by the cable or rotor.

The motor cable has a high electric resistance. Failure to follow this instruction may result in fire, electronic shock, or severe burn.

3. Do not apply excessive force on the motor or the motor shaft when mounting motors.

When connecting a coupling or a pulley on the motor shaft, be sure of the allowable thrust load, radial load, and the center, tension of the belt, and parallel of the pulley.

4. Do not forcibly pull or insert the cable. It may cause poor connection or disconnection of the cable.

When connecting a coupling or a pulley on the motor shaft, be sure of the allowable thrust load, radial load, and the center, tension of the belt, and parallel of the pulley.

5. Do not disassemble or modify the unit.

Failure to follow this instruction may result in fire, electronic shock, or severe burn.

6. Do not disassemble or modify the unit.

Failure to follow this instruction may result in fire, electronic shock, or severe burn.

7. Do not touch the motor with bare hands.

The motor case may cause an electric shock. Failure to follow this instruction may result in electronic shock or severe burn.

8. Do not use the unit where flammable or explosive gas, corrosive material, water, or rain may get in contact with the motor.

Place a warning sign in conditions where someone may approach the operating motor.

9. Do not use the unit in environments where static electricity may occur.

There are cases where static electricity may occur due to the surrounding environment or the material of the cover of the motor. Failure to follow this instruction may result in electronic shock or severe burn.

10. Do not use the unit with flammable or explosive gas, corrosive material, water, or rain.

Failure to follow this instruction may result in fire, electronic shock, or severe burn.

Common Specifications

Frame size 40mm

Max. holding torque: 1kgf.cm (at 1/10 of the rated speed, 100% of the rated current)

Frame size 60mm

Max. holding torque: 1kgf.cm (at 1/10 of the rated speed, 100% of the rated current)

The above specifications are subject to change and some models may be discontinued without notice.

Motor mounting

When connecting heat radiation and vibration isolation, mount the motor as tight as possible against a rigid panel having high thermal conductivity such as aluminum or steel.

When mounting motor, use hexagon socket screw, thin washer, spring washer and flat washer.

The specified torque is the maximum holding torque of the motor and the load. If the motor is not mounted, it may cause severe vibration, shaft damage or shortened life of the bearings.

When connecting a coupling or a pulley on the motor shaft, be sure of damage of the motor shaft and the motor shaft bearing. Do not disassemble or modify motor shaft to connect with the load.

Please contact us if necessary.

Cautions During Use

1. Do not disassemble or modify the product.

Once disassembling the motor, its performance would significantly decline.

2. Do not impact the motor.

The air gap between the rotor and stator is processed at 0.05mm, but if it is impacted, the air gap of the rotor can be broken and it may cause a malfunction.

3. Using at low temperature

Using motors at low temperature may cause reducing maximum starting/driving characteristics of the motor due to decreased ball bearing grease consistency. Start the motor in a steady manner since motor temperature is not to be increased.

4. Temperature rise

The rated temperature rise of motor stator under 100°C and it can be significantly increased by operation conditions (ambient temperature, drive speed, drive duty ratio).

5. Wear of motor components

Wear of motor components may be caused by installation, mounting, and the difference between the minimum and maximum loadings of a stepper motor.

6. Do not use in a non-continuous vibration or severe shock environment.

The place where no continuous vibration or severe shock may be located.

7. Do not use in a place where water, oil, or other liquid are not touched.

The place where water, oil, or other liquid are not touched.

8. Do not use in a place without direct ray of light.

The place where easy heat dissipation could be made.

9. Do not use in a place where flammable or explosive gas, corrosive material, water, or rain may get in contact with the motor.

The place where no continuous vibration or severe shock may be located.

10. Do not use in a place where easy heat dissipation could not be made.

The place where water, oil, or other liquid are not touched.

11. Do not use in a place with water, oil, or other liquid on the surface.

The place where water, oil, or other liquid are not touched.

12. Do not use in a place where high electric field strength is applied.

The place where water, oil, or other liquid are not touched.

13. Do not use in a place where magnetic field could be induced.

The place where water, oil, or other liquid are not touched.

14. Do not use in a place where magnetic field is applied.

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