

Description

This spur gearbox is designed for high torque open loop controlled motion. Applications span from a drive for robotics to general hobbyist use. The included dual shaft 8 lead bipolar stepping motor may be driven from a wide range of inexpensive drivers. The output shaft can accommodate side loads to 100 (lbf), and the output torque ranges beyond 55 (in·lbf).

Features

- Non-repeating gear reduction ratio of 72:17 is optimized for continuous motion and long life
- Included 8 wire bipolar stepping motor is compatible with popular drivers
- 1/2" diameter stainless steel output shaft is keyed and threaded
- Rugged construction with heavy duty output bearings
- Permanently lubricated and shielded from the elements
- Perimeter 1/4-20 tapped holes for robust and flexible mounting
- 6061 anodized aluminum housing
- 1/4" face machined steel gears
- Manufactured in USA

PRELIMINARY

Optional Accessories

- 6" drive wheel HMDW6151

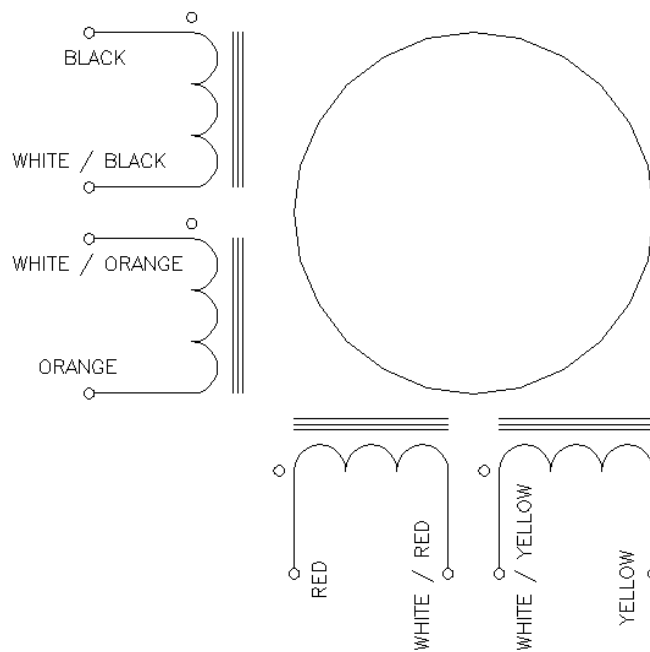
Tested Drives

Geckodrive Motor Controls #G213V
Anaheim Automation #MBC12101

Note – Best performance from this product is obtained with drives that can deliver 5A continuously from a 24V or higher bus.

Motor Wiring Diagram

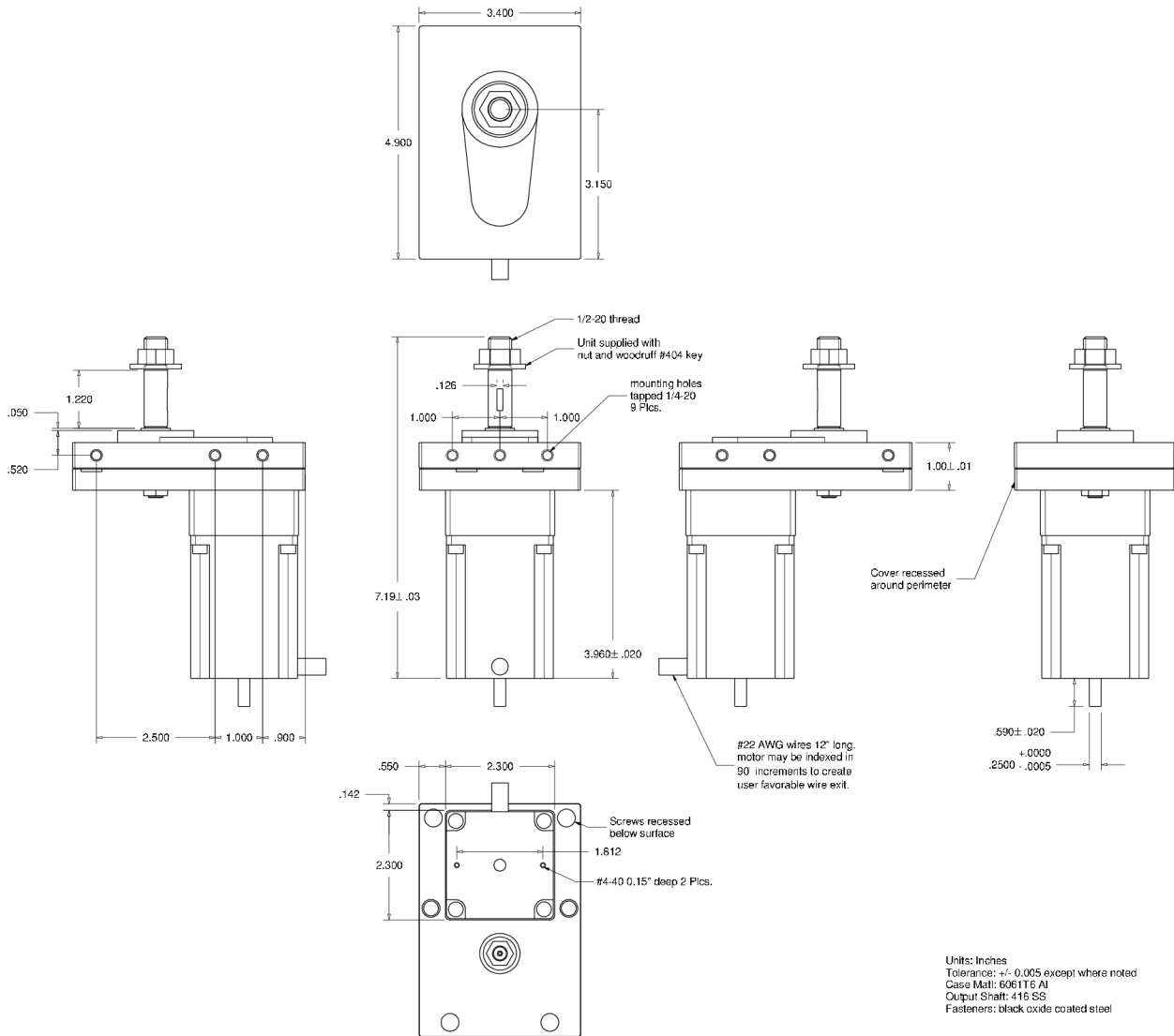
Please see the motor data sheet for more complete information



For four wire SERIES operation:
Connect WHITE/BLACK to WHITE/ORANGE and insulate connection.
Connect WHITE/RED to WHITE/YELLOW and insulate connection.
Use BLACK as A, use ORANGE as /A
Use RED as B, YELLOW as /B.

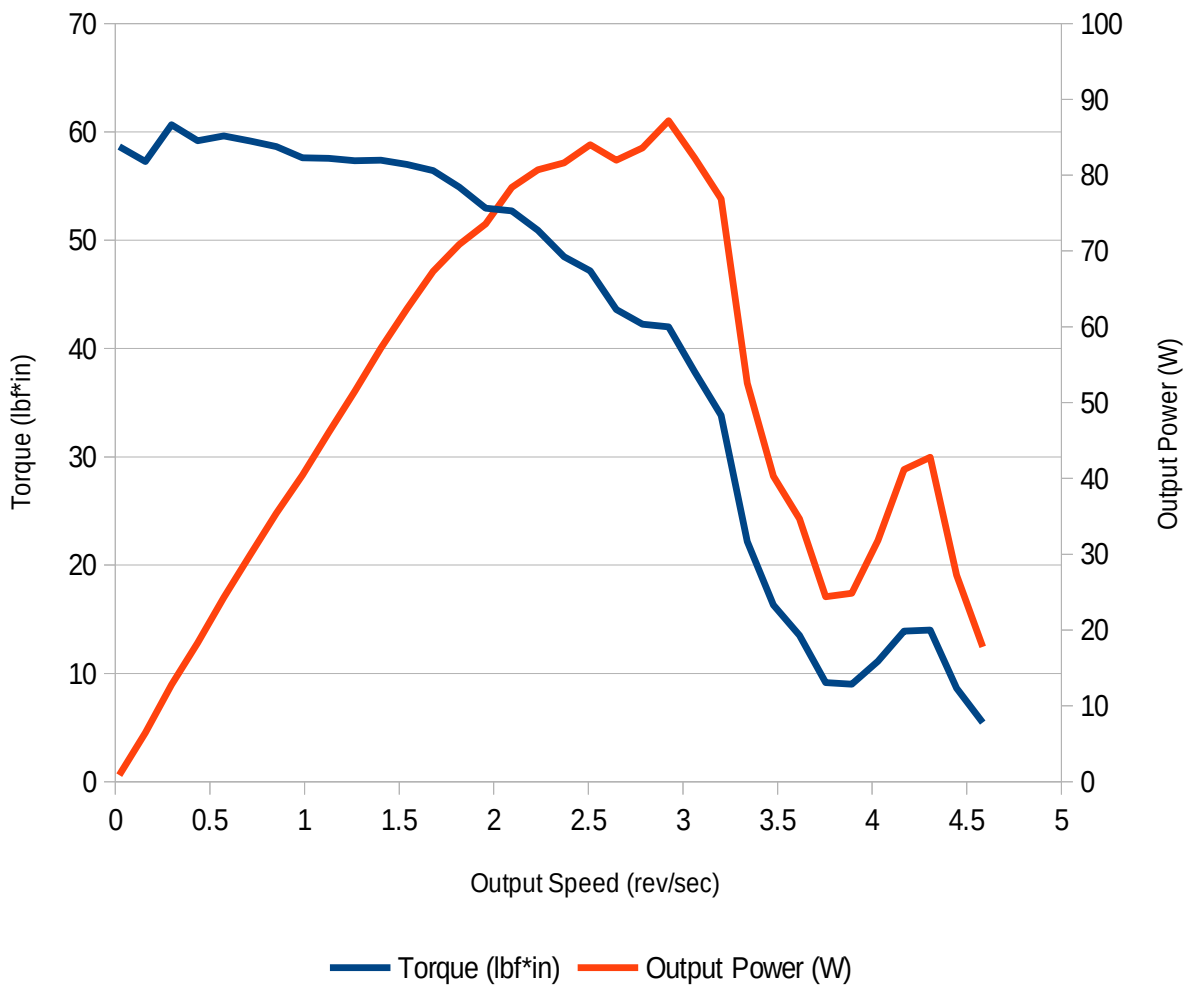
For four wire PARALLEL operation:
Connect BLACK to WHITE/ORANGE and use this node as A
Connect WHITE/BLACK TO ORANGE and use this node as /A
Connect RED to WHITE/YELLOW and use this node as B
Connect WHITE/RED to YELLOW and use this node as /B

Mechanical Drawing



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Torque and Power Performance Data



Notes: Performance data obtained using parallel motor winding, a 24V supply, and an Anaheim Automation MBC12101 drive configured for 10A current. Different drive models and configurations can have notably different torque/power curves.

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Important Notes

Specifications may change at any time

Motor is Anaheim Automation Model # 23Y210D-LW8

Impact forces or shock loads on the output shaft will damage the output shaft bearings.

Product is intended for an indoor office or light industrial environment. Do not allow contact with liquids.

Gearbox is factory lubricated with Bel-Ray Molyube 126 EP Grease 0

Gearbox has been assembled using a medium strength thread locking compound. If the user reorients the drive motor, do not allow cured residue to enter the gear case volume.

PRODUCT WARNINGS

THIS PRODUCT CAN GENERATE EXTREMELY HIGH FORCES. Be cautious of creating pinch points when integrating into user devices.

THE MOTOR CAN BECOME HOT ENOUGH TO BURN DURING NORMAL OPERATION.

Inherent to the operation of the integrated motor type is its output torque behavior. At any given operating speed (including holding a fixed position), the torque applied may be increased until the motor will 'skip' steps. At this point the torque provided by the motor and gearbox will collapse down to a small value.

NEVER USE THIS PRODUCT TO SUSPEND OR HOLD LOADS OVER PEOPLE OR WHERE LOSS OF CONTROL, MECHANICAL OR ELECTRICAL FAILURE CAN DO DAMAGE OR HARM.

PROPER UNDERSTANDING, GUARDING AND LABELING OF HAZZARDS IS CRITICAL TO SAFE OPERATION.

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