

1 Motor Manufacturer Specifications

1.1 RS-775126000E7 Motor

PG27 RS775-125 Motor with Encoder

The test motor was purchased here: www.andymark.com (PG27 RS775-125 Motor with Encoder)

Product Overview

This motor is the same motor included in our PG27 Gearmotor, and is being sold with the intention of replacing the motor without having to purchase the gearbox as well. This motor comes with the pinion gear and encoder attached and also includes the 2 mounting screws.

The back shaft of this motor features our Hall Effect Encoder, which can be removed if your application needs the long back shaft.

This motor, without the encoder, is am-2766, and is similar to am-2194, (same motor slightly shorter shaft). Both of these base motors are called out in the FIRST Robotics Competition manual as being legal for use in 2022.

Encoder Pinout:

- Pin 1: 5V DC
- Pin 2: Ground
- Pin 3: Channel A Output
- Pin 4: Channel B Output

Specifications

- Back Shaft Diameter: 0.2 in.
- Back Shaft Length: 0.45 in.
- No Load RPM: 5700 RPM
- Pulses Per Revolution: 7
- Shaft Diameter: 0.125 in.
- Stall Current: 15-20 AMPs
- Stall Torque: 35 oz-in
- Teeth: 11
- Voltage: 12 Volts DC
- Wattage: 44
- Weight: 0.86 lbs.

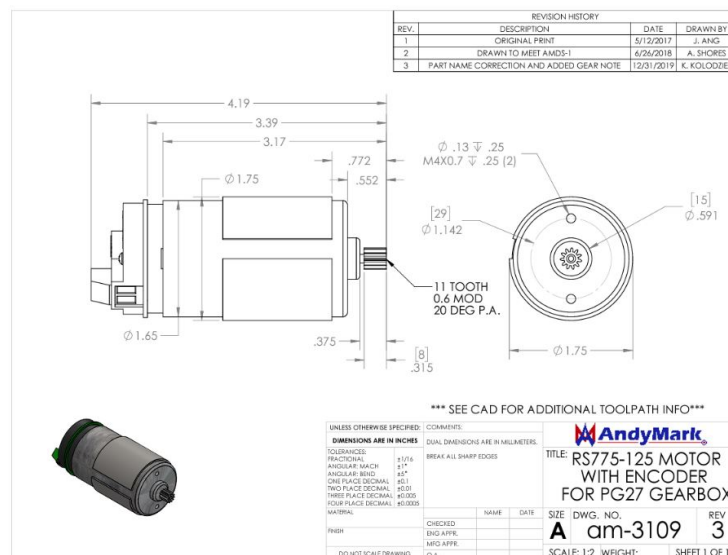


Figure 1: RS-775126000E7 Dimensions

Motor dimensions pdf can be downloaded here: andymark.com (layout prints PG27 RS775-125 Motor with Encoder)

1.2 TS-25GA370H-20 Motor

Encoder Metal Gearmotor 12V DC High Speed 300RPM Gear Motor with Encoder for Arduino and 3D Printers

The test motor was purchased here: www.amazon.com (Encoder Metal Gearmotor 12V DC High Speed 300RPM Gear Motor with Encoder for Arduino and 3D Printers)

DC Mini Gear Motor	TS-25GA370	Voltage	DC 12V/24V
No-load Speed	10-600rpm	Power	2.5W
No-load Current	0.1-0.15A	Continuous working time	24 Hours
Motor Size	25*51/59mm	Output Shaft	4*11mm
Adjustment Speed	Yes	CW/CCW	Yes
Application	Office automation, home automation, production automation, medical equipment, toilet lid, toilet gear box pump, home smart rotating camera, air conditioner, rice cooker, turntable, electric pen, electric toothbrush, etc.		

Figure 2: TS-25GA370H-20 Motor Specifications

Wiring Diagram

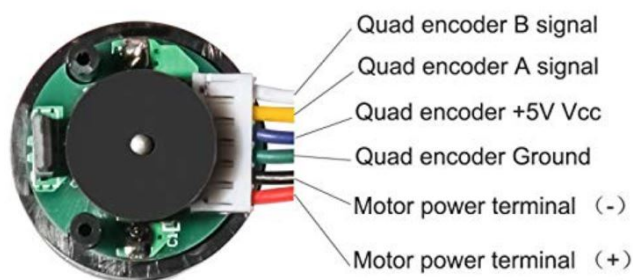


Figure 3: TS-25GA370H-20 Wiring

Dimensional drawing



Figure 4: TS-25GA370H-20 Dimensions