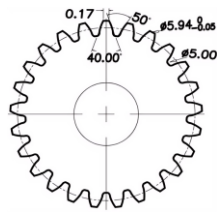
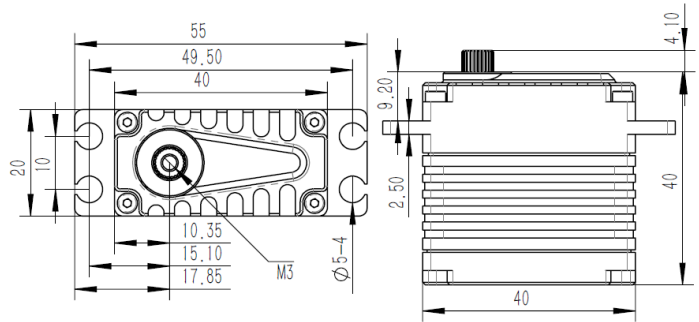


X20-xx-M-805-1 Technical Specification



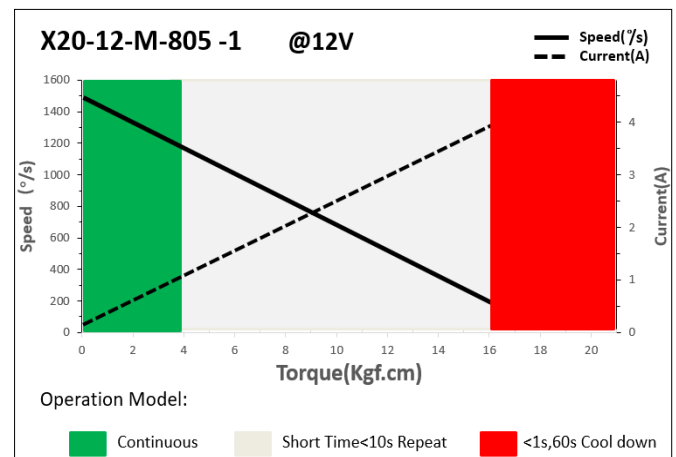
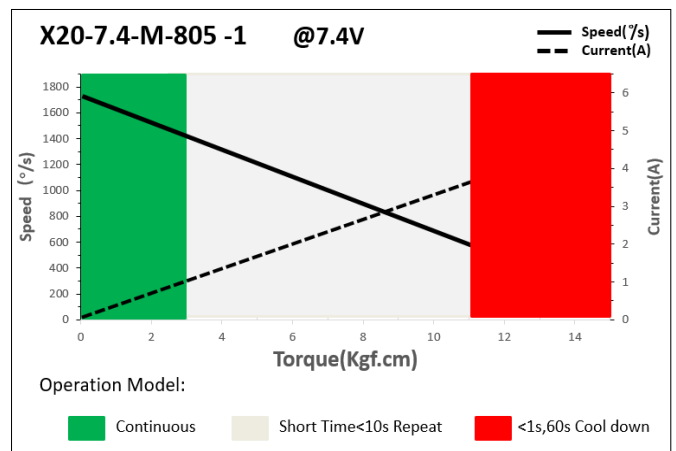
25T 6mm Output Shaft Spline



1. Operating Data

| | X20-7.4-M-805-1 | X20-12-M-805-1 |
|-------------------|----------------------|--------------------|
| Rated Voltage | DC7.4V | DC12V |
| Voltage Range | DC6.0V-8.4V | DC9.0V-13V |
| Torque | 9.0Kgf.cm@6.0V | 14.0Kgf.cm@9.0V |
| | 11.0Kgf.cm@7.4V | 16.0Kgf.cm@12V |
| | 12.0Kgf.cm@8.4V | 18.0Kgf.cm@13V |
| Speed | 0.040sec/60°@6.0V | 0.050sec/60°@9.0V |
| | 0.035sec/60°@7.4V | 0.040sec/60°@12.0V |
| | 0.030sec/60°@8.4V | 0.035sec/60°@13.0V |
| Working Frequency | 760us/560Hz | 1520us/333Hz |
| Temperature Range | -20°C.....+65°C | |
| Case Material | Aluminum Alloy | |
| Motor Type | Brushless DC Motor | |
| Gear Set Material | Hardened Steel | |
| Position Sensor | Contactless | |
| Ball Bearing | 6 BB | |
| Case Dimensions | 40mm*20mm*40mm±0.2mm | |
| Weight | 75g±10% | |

2. Performance



3. Command signal

PWM Command Interface

| | | |
|-------------------|---|--------------|
| Signal Voltage | HIGH: min.3.3V, max.5.0V Low: min.0.0V, max.1.5V | |
| Pulse Lengths | X20-7.4-M-805-1 | 450us-1050us |
| | X20-12-M-805-1 | 900us-2100us |
| Working Frequency | X20-7.4-M-805-1 | 760us/560Hz |
| | X20-12-M-805-1 | 1520us/333Hz |

4. Electrical Connection

| Pin Assignment | | | |
|----------------|--------|--------|----------------|
| 1 | Orange | Signal | PWM Command |
| 2 | Red | DC+ | Supply Voltage |
| 3 | Brown | DC- | Supply Ground |