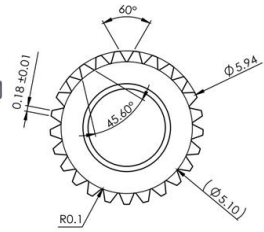
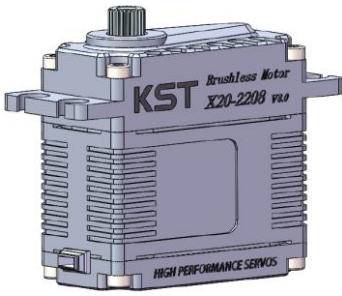
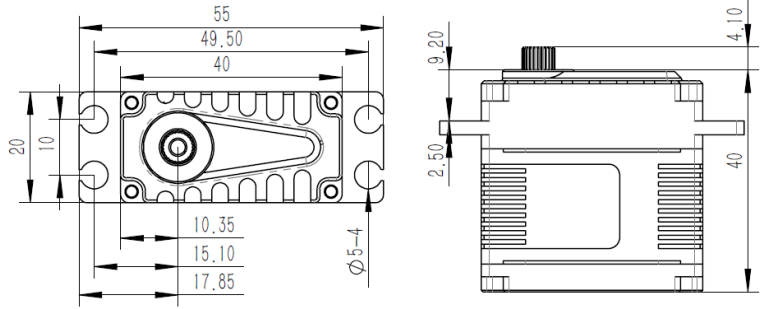


## X20-2208 V8.0 Technical Specification



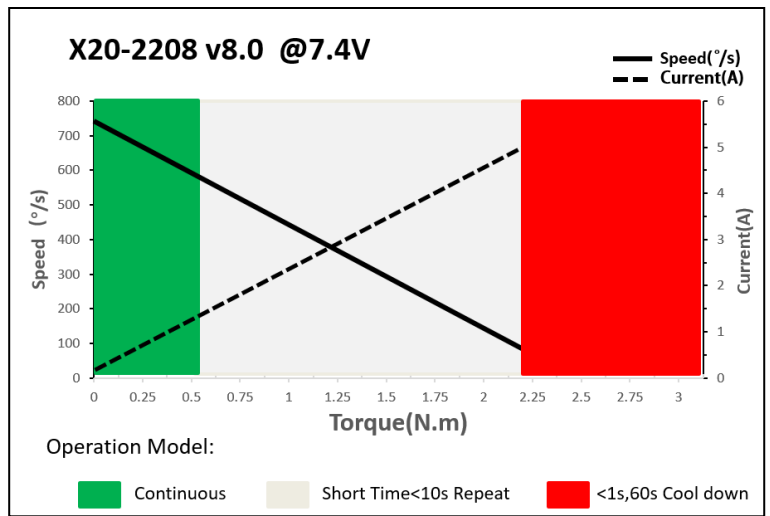
25T-6mm  
Output Shaft Spline



### 1. Operating Data

|                      |                      |
|----------------------|----------------------|
|                      | X20-2208 V8.0        |
| Rated Voltage        | DC7.4V               |
| Voltage Range        | DC6.0V-8.4V          |
| Torque               | 1.8N.m@6.0V          |
|                      | 2.2N.m@7.4V          |
|                      | 2.5N.m@8.4V          |
| Speed                | 0.09sec/60°@6.0V     |
|                      | 0.08sec/60°@7.4V     |
|                      | 0.07sec/60°@8.4V     |
| Working Frequency    | 1520us/333Hz         |
| Default Travel Angle | ± 50°=100°Total      |
| Temperature Range    | -10°C.....+65°C      |
| Case Material        | Aluminum Alloy       |
| Motor Type           | Brushless DC Motor   |
| Gear Set Material    | Hardened Steel       |
| Position Sensor      | Potentiometer        |
| Case Dimensions      | 40mm*20mm*40mm±0.2mm |
| Weight               | 72g±10%              |
| Ball Bearing         | 6 BB                 |

### 2. Performance



### 3. Command signal

#### 3.1. PWM Command Interface

|   |   |
|---|---|
| Signal Voltage                            | TTL-level:<br>HIGH: min.3.3V, max.5.0V<br>Low: min.0.0V, max.1.5V |
| Pulse Lengths                             | 900us-2100us  |
| Pulse Lengths for Position<br>-50° 0°+50° | 1000us/1500us/2000us  |

### 4. Electrical Connection

|  | Pin Assignment (PWM) |        |          |                              |
|--|----------------------|--------|----------|------------------------------|
|  | 1                    | Yellow | SIG      | Command Signal               |
|  | 2                    | Red    | DC+      | Supply Voltage               |
|  | 3                    | Brown  | DC-(GND) | Supply Ground, Signal Ground |