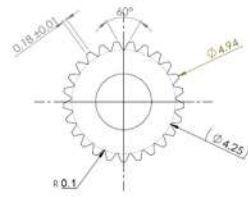
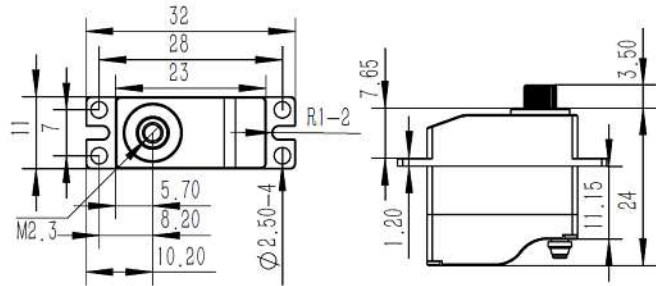


### CM509MG Technical Specification



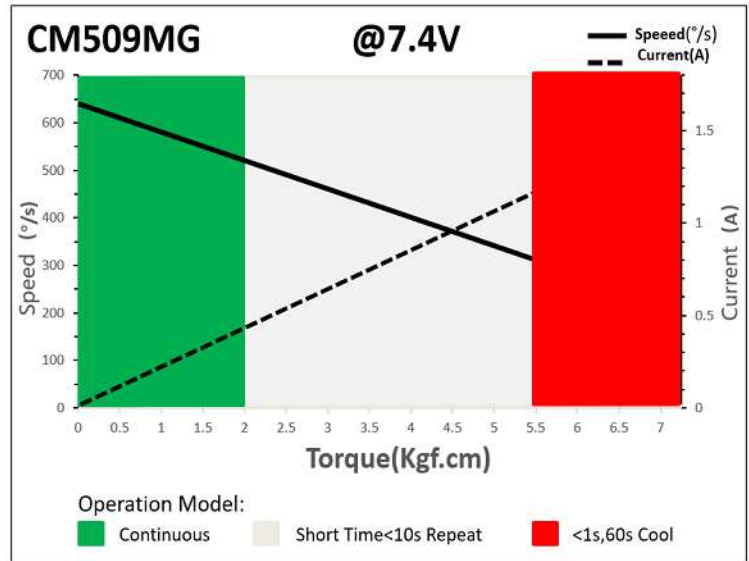
**25T- 5mm  
Output Shaft Spline**



### 1. Operating Data

### 2. Performance

Rated Voltage	DC7.4V
Voltage Range	DC4.8V-8.4V
Stalling Torque	3.6Kgf.cm@4.8V
	4.8Kgf.cm@6.0V
	5.5Kgf.cm@7.4V
	6.0Kgf.cm@8.4V
Speed	0.13sec/60°@4.8V
	0.11sec/60°@6.0V
	0.09sec/60°@7.4V
	0.08sec/60°@8.4V
Stalling Current	0.95A@4.8V
	1.15A@6.0V
	1.35A@7.4V
	1.60A@8.4V
Working Frequency	1520us/333Hz
Default Travel Angle	±50° =100° Total
Temperature Range	-10°C.....+65°C
Soft Start	Yes
Programmable	Yes
Motor Type	Coreless Motor
Case Material	Aluminum Alloy
Gear Set Material	Metal Gear
Position Sensor	Potentiometer
Ball Bearing	2BB
Case Dimensions	23mm*11mm*24mm±0.2mm
Weight	15g±10%



### 3. Command signal PWM Command Interface

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

### 4. Electrical Connection

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