



HIGH PERFORMANCE DIGITAL SERVOS

**Servo Name/Number:** MGB8346HV 38.0kg/0.10s Brushless High Voltage Servo

**Environmental Conditions:**

Storage Temperature	-20°C ~ 60°C
Operating Temperature	-10°C ~ 50°C
Operating Voltage	5.0V ~ 8.4V

**Test Environment:**

Standard Test Environment	Each check must be a normal temperature and humidity measurement, temperature degree $25 \pm 5^\circ\text{C}$ , relative humidity $65 \pm 10\%$ , in accordance with this specification judge characteristics under standard test conditions.
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**Visual Inspection:**

Physical Dimensions	40.6 x 21 x 37.6mm
Exterior/Appearance	No damage, not allowed to affect the function
Lifetime	>1000000 times/load (on ultimate load)

**Electrical Specification:**

	<b>5.0V</b>	<b>6.0V</b>	<b>7.4V</b>	<b>8.4V</b>
Operating Speed (No load)	0.17s/60°	0.14s / 60°	0.11s / 60°	0.10s / 60°
Running Current (No load)	390mA	470mA	560mA	680mA
Stall Torque	22.6kg.cm	27.1kg.cm	33.5kg.cm	38.0kg.cm
Stall Current	4.5A	5.1A	5.8A	6.2A
Idle Current	10mA	10mA	10mA	10mA

**Mechanical Specification:**

Overall Dimensions	40.6 x 21 x 37.6mm
Limit Angle	180°
Weight	83.7g ±1g
Connector Wire Gauge	#22 AWG
Connector Wire Length	300 ±5 mm
Spline	Ø5.90 25T
Reduction Ratio	300:1
Motor	Brushless
Angle Sensor	Potentiometer
Bearing	2BB
Gear	Steel Gear
Case	Full Metal
Waterproof	Yes (IPX8 Grade)

**Mechanical Specification (Cont'd):**

Positive Pole	Red
Negative Electrode	Brown
Signal	Yellow

**Control Specification:**

Control System	Change the pulse width
Amplifier Type	Digital Controller
Operating Travel	90° (at 1000 → 2000μsec)
Neutral Position	1500μsec
Dead Band Width	2μsec
Rotating Direction	Counterclockwise (at 1500 → 2000μsec)
Pulse Width Range	800 → 2200μsec
Maximum Travel	About 150° (at 800 → 2200μsec)

