


HLS12 General Specification.



Common Spec

Control System	PWM	Motor Type	Cored Metal Brush	At the Max voltage, it is recommended to be used only for a short time duration.
Lead Screw	LEAD 5mm	Operating Voltage Range	4.0 ~ 8.4V	
Bearing Type	Flange bearing	Operating Temperature Range	-10°C ~ +50°C(+14°F ~ +122°F)	
Case Material	Engineering Plastic & Aluminum Pipe	Storage Temperature Range	-30°C ~ +80°C (-22°F ~ +176°F)	
Gear Material	4 Metal Gears	Connector Wire Length	160mm(6.294inch)	
IP-Rating	IP4X	Connector Wire Gauge	24AWG	 <ul style="list-style-type: none"> 1. SIGNAL 2. VCC 3. GND
Servo Amplifier Type	32bit programmable Digital			

Stroke Spec

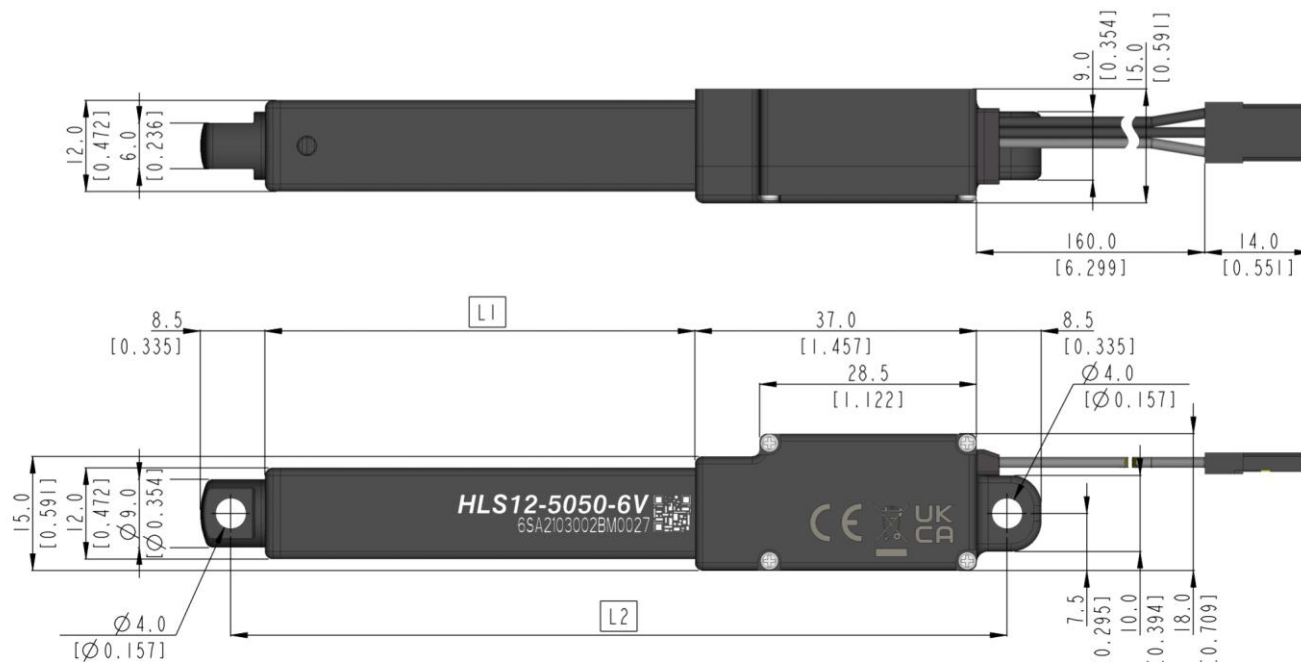
Stroke	30mm	50mm	100mm	-
Repeatability	±0.2mm	±0.3mm	±0.5mm	-
Max Side Load (Extended)	4.08kgf (40N)	3.06kgf (30N)	1.53kgf (15N)	-
Outline Dimensions	82.0mm x 15.0mm x 18.0mm (3.228inch x 0.591inch x 0.709inch)	102.0mm x 15.0mm x 18.0mm (4.016inch x 0.591inch x 0.709inch)	152.0mm x 15.0mm x 18.0mm (5.984inch x 0.591inch x 0.709inch)	General Tolerance ±0.1mm
Weight	34g (1.199oz)	40g (1.411oz)	56g (1.975oz)	Excluding the weight of Horn

Gear Spec

Gear Ratio	50:1			100:1			210:1			380:1			At 25°C(±10%), 45%RH(±10%) measurement environment	
	Voltage	4.8V	6.0V	7.4V	4.8V	6.0V	7.4V	4.8V	6.0V	7.4V	4.8V	6.0V		7.4V
No Load	Speed	20.0mm/s	25.0mm/s	30.9mm/s	10.4mm/s	13.0mm/s	16.1mm/s	4.9mm/s	6.1mm/s	7.5mm/s	2.6mm/s	3.3mm/s		4.1mm/s
	Current	80mA	100mA	130mA	80mA	100mA	130mA	80mA	100mA	130mA	80mA	100mA		130mA
Stall Force	2.0kgf (19.61N)	2.5kgf (24.52N)	3.1kgf (30.40N)	4.0kgf (39.23N)	5.0kgf (49.03N)	6.2kgf (60.80N)	8.0kgf (78.45N)	10.0kgf (98.07N)	12.4kgf (121.60N)	14.4kgf (141.22N)	18.0kgf (176.52N)	22.2kgf (217.71N)		
	Stall Current	400mA	500mA	620mA	400mA	500mA	620mA	400mA	500mA	620mA	400mA	500mA		620mA
Maximum Efficiency Point	Load	0.8kgf (7.85N)	1.0kgf (9.81N)	1.2kgf (11.77N)	1.4kgf (13.73N)	1.7kgf (16.67N)	2.1kgf (20.59N)	2.9kgf (28.44N)	3.6kgf (35.30N)	4.4kgf (43.15N)	5.2kgf (50.99N)	6.5kgf (63.74N)		8.0kgf (78.45N)
	Speed	15.2mm/s	19.0mm/s	23.5mm/s	8.2mm/s	10.3mm/s	12.7mm/s	3.6mm/s	4.5mm/s	5.6mm/s	2.0mm/s	2.5mm/s		3.1mm/s
	Current	160mA	200mA	250mA	160mA	200mA	250mA	160mA	200mA	250mA	160mA	200mA		250mA
Peak Power Point	Load	1.4kgf (13.73N)	1.7kgf (16.67N)	2.1kgf (20.59N)	2.5kgf (24.52N)	3.1kgf (30.40N)	3.8kgf (37.27N)	5.6kgf (54.92N)	7.0kgf (68.65N)	8.6kgf (84.34N)	10.0kgf (78.45N)	12.4kgf (98.07N)		14.4kgf (141.22N)
	Speed	11.2mm/s	14.0mm/s	17.3mm/s	5.6mm/s	7.0mm/s	8.6mm/s	2.6mm/s	3.2mm/s	4.0mm/s	1.5mm/s	1.9mm/s	2.3mm/s	
	Current	240mA	300mA	370mA	240mA	300mA	370mA	240mA	300mA	370mA	240mA	300mA	370mA	
Max Force (Lifted)	Load	1.8kgf (17.65N)	2.2kgf (21.57N)	2.7kgf (26.48N)	3.2kgf (31.38N)	4.2kgf (41.19N)	5.2kgf (50.99N)	6.4kgf (62.76N)	8.0kgf (78.45N)	9.9kgf (97.09N)	12.0kgf (94.14N)	14.8kgf (117.68N)	18.0kgf (145.14N)	
	Speed	5.3mm/s	6.7mm/s	8.2mm/s	2.6mm/s	3.2mm/s	4.0mm/s	1.8mm/s	2.3mm/s	2.8mm/s	1.0mm/s	1.2mm/s	1.5mm/s	
	Current	320mA	400mA	490mA	320mA	400mA	490mA	320mA	400mA	490mA	320mA	400mA	490mA	

HLS12-XXXX-XX [EX, HLS12-5050-6V]
 └── VOLTAGE OPTION
 └── GEARING OPTION
 └── STROKE OPTION

	L1	L2
HLS12-30-XX	36.5[1.437]	82.0[3.228]
HLS12-50-XX	56.5[2.224]	102.0[4.016]
HLS12-100-XX	106.5[4.193]	152.0[5.984]



1:1 scale (Unit : mm[inch])

- This product should not be used directly on the human body for medical purposes.
- This product should not be used for war weapons.
- All specifications are subject to change without notice.

