

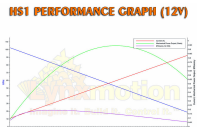
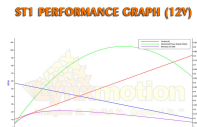
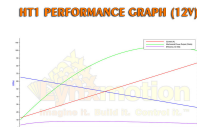
🏠 (/info/wiki/lynxmotion/view/Lynxmotion%20Wiki%20-%20Landing/) ▾ / Lynxmotion Smart Servo (LSS) (/info/wiki/lynxmotion/view/lynxmotion-smart-servo/) ▾  
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# LSS - Specifications

Last modified by Brahim Daouas (/info/bin/view/XWiki/BDaouas) on 2019/07/26 09:53

	Specification	HS1	ST1	HT1
<b>Voltage</b>				
	Absolute minimum operating voltage	6V	6V	6V
	Minimum operating voltage	6.5V	6.5V	6.5V
	Recommended operating voltage	12V	12V	12V
	Maximum operating voltage	12.6V	12.6V	12.6V
	Absolute maximum operating voltage	15.2V	15.2V	15.2V
<b>Torque</b>				
	Max. static holding torque 12V (stall)	8 Kg-cm	14 Kg-cm	29 Kg-cm
	Max. dynamique torque 12V (~25%)	1.6 Kg-cm	2.8 Kg-cm	5.8 Kg-cm
<b>RPM</b>				
	Kv Value	8.35 RPM / V	5 RPM / V	5 RPM / V
	No load RPM at 6V (Serial or RC)	50 RPM	30 RPM	30 RPM
	No load RPM at 12V (Serial or RC)	100 RPM	60 RPM	60 RPM
	RPM at 12V under 20% dynamic load	75 RPM	50 RPM	50 RPM
<b>Accuracy</b>				
	No load accuracy at 6V	±0.4°	±0.40°	±0.15°
	No load accuracy at 12V	±0.25°	±0.25°	±0.15°
	25% dynamic load at 12V	±1.75°	±0.50°	±1.50°

	Angular deflection at 6V (Max. holding torque)	7.00°	2.00°	2.50°
	Angular deflection at 12V (Max. holding torque)	2.00°	1.50°	2.00°
<b>Current</b>				
	Standby current at 6V	60mA	60mA	60mA
	Standby current at 12V	70mA	70mA	70mA
	Free-running current at 6V	140mA	140mA	90mA
	Free-running current at 12V	180mA	180mA	320mA
	Peak current at 12V (25% dynamic load)	650mA	650mA	1200mA
	Current at 6V under max. holding torque	350mA	350mA	550mA
	Current at 12V under max. holding torque	300mA	300mA	800mA
<b>Temperature</b>				
	Operating temperature range	45°C~75°C	45°C~75°C	45°C~90°C
	Environmental temperature range	0~35°C	0~35°C	0~35°C
<b>Resolution</b>				
	Position	1/10°	1/10°	1/10°
	RPM	1 RPM	1 RPM	1 RPM
	Voltage	1/10 V	1/10 V	1/10 V
	Current	1/10 A	1/10 A	1/10 A
	Temperature	1/10°C	1/10°C	1/10°C
<b>Communication</b>				
	Communication Type	TTL Full Duplex Async Serial / RC PWM (5V)	TTL Full Duplex Async Serial / RC PWM (5V)	TTL Full Duplex Async Serial / RC PWM (5V)
	Baudrate range	9600bps~921600bps	9600bps~921600bps	9600bps~921600bps
	Suggested Baudrate	115200bps	115200bps	115200bps
	Serial Protocol	LSS Protocol	LSS Protocol	LSS Protocol
	Connector Type (both sides)	Molex 4-pin, 2.54mm Low Profile	Molex 4-pin, 2.54mm Low Profile	Molex 4-pin, 2.54mm Low Profile

Servo Pinout	Rx   Vcc   GND   Tx	Rx   Vcc   GND   Tx	Rx   Vcc   GND   Tx
<b>Angle</b>			
Operating angle (Serial)	Up to 360° & Multi-turn	Up to 360° & Multi-turn	Up to 360° & Multi-turn
Operating angle (RC)	Up to 360°	Up to 360°	Up to 360°
Continuous rotation / Wheel Mode (Serial & RC)	Yes	Yes	Yes
<b>General</b>			
Weight	58.0g	58.0g	80.0g
Size / Dimensions	38.3 x 26 x 51 mm	38.3 x 26 x 51 mm	38.3 x 26 x 51 mm
Gear Ratio	1 : 146	1 : 253	1 : 320
Case Material	3-part ABS plastic	3-part ABS plastic	ABS plastic top / bottom Aluminum center
Gear Material	Brass	Brass	Stainless steel
Output spline	24T	24T	24T
Motor Type	Cored DC Motor	Cored DC Motor	Coreless DC Motor
Hardware (Mounting)	2-56 x 1/4"	2-56 x 1/4"	2-56 x 1/4"
Horn Material (Driven & Idler)	Aluminum	Aluminum	Aluminum
<b>Performance</b>			
Maximum mechanical power output	1W	1W	2.4W
Performance Graph	 <a href="/info/wiki/lynxmotion/download/lynxmotion-smart-servo/lss-specifications/WebHome/HS1-Performance-Graph-12V.jpg">(/info/wiki/lynxmotion/download/lynxmotion-smart-servo/lss-specifications/WebHome/HS1-Performance-Graph-12V.jpg)</a>	 <a href="/info/wiki/lynxmotion/download/lynxmotion-smart-servo/lss-specifications/WebHome/ST1-Performance-Graph-12V.jpg">(/info/wiki/lynxmotion/download/lynxmotion-smart-servo/lss-specifications/WebHome/ST1-Performance-Graph-12V.jpg)</a>	 <a href="/info/wiki/lynxmotion/download/lynxmotion-smart-servo/lss-specifications/WebHome/HT1-Performance-Graph-12V.jpg">(/info/wiki/lynxmotion/download/lynxmotion-smart-servo/lss-specifications/WebHome/HT1-Performance-Graph-12V.jpg)</a>

Values provided are based on test results. Actual values may vary slightly.

Tags: LSS (</info/wiki/lynxmotion/view/Main/Tags?do=viewTag&tag=LSS>) specifications (</info/wiki/lynxmotion/view/Main/Tags?do=viewTag&tag=specifications>) LSS-Ref (</info/wiki/lynxmotion/view/Main/Tags?do=viewTag&tag=LSS-Ref>)

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