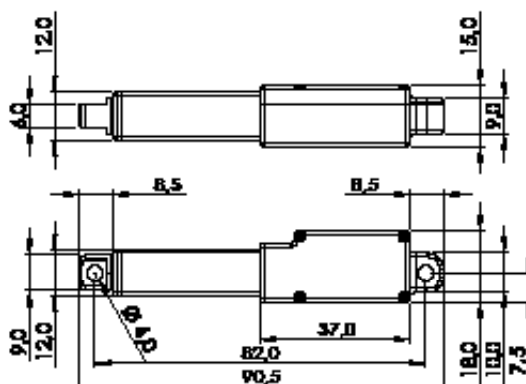


HLS12-3050, HLS12-30210, HLS12-30380

#1-02453, #1-02454, #1-02455



| General Specification | | HLS12-30XXX | | | | | | | |
|-------------------------------|--|-------------|---------|--------------------|---------|---------|--------------------|---------|---------|
| Control System | Pulse Width Modulation (PWM) 1000usec ~ 2000usec | | | | | | | | |
| Position Sensor Type | - | | | | | | | | |
| Operating Voltage Range | 4.0 ~ 8.4V | | | | | | | | |
| Motor Type | Cored Metal Brush | | | | | | | | |
| Controller (MCU) | 32Bits Programmable Digital | | | | | | | | |
| Lead Screw | Lead 5mm | | | | | | | | |
| Stroke Option | 30mm | | | | | | | | |
| Repeatability | ±0.2mm | | | | | | | | |
| Gear Ratio | 50:1 | | | 210:1 | | | 380:1 | | |
| Voltage | At 7.4V | | | At 7.4V | | | At 7.4V | | |
| No Load Speed | 30.9mm/s | | | 7.5mm/s | | | 4.1mm/s | | |
| No Load Running Current | 130mA | | | 130mA | | | 130mA | | |
| Load Spec | Load | Speed | Current | Load | Speed | Current | Load | Speed | Current |
| Maximum Efficiency Point | 1.2kg (12.1N) | 23.5mm/s | 250mA | 4.4kg (43.6N) | 5.6mm/s | 250mA | 8.0kg (78.7N) | 3.1mm/s | 250mA |
| Peak Power Point | 2.1kg (20.6N) | 17.3mm/s | 370mA | 7.7kg (75.1N) | 4.0mm/s | 370mA | 12.4kg (121.1N) | 2.3mm/s | 370mA |
| Max Force (Lifted) | 2.7kg (26.6N) | 8.2mm/s | 490mA | 9.9kg (96.9N) | 2.8mm/s | 490mA | 14.8kg (145.3N) | 1.5mm/s | 490mA |
| Stall Torque | 3.1kg (30.3N) | | | 12.4kg (121.1N) | | | 22.2kg (218.0N) | | |
| Stall Current | 620mA | | | | | | | | |
| Max Static Force | 247N (above) | | | | | | | | |
| Max Side Load (Extended) | 40N | | | | | | | | |
| Operating Temperature Range | -10°C ~ +50°C (14°F ~ +122°F) | | | | | | | | |
| Storage Temperature Range | -30°C ~ +80°C (-31°F ~ +176°F) | | | | | | | | |
| Vibrations at No Load | - | | | | | | | | |
| Connector Wire Length | 160mm | | | | | | | | |
| Connector Wire Gauge | - | | | | | | | | |
| Outline Dimensions | 82.0 x 15.0 x 18.0mm | | | | | | | | |
| Weight | 34.0g | | | | | | | | |
| Ball Bearing | Flange Bearing | | | | | | | | |
| Case Material | Engineering Plastic & Aluminum Pipe | | | | | | | | |
| Gear Material | 4 Metal Gears | | | | | | | | |
| Dust & Water Protection class | IP4X | | | | | | | | |
| Revision | Rev. 1.0 / 16.03.2022 | | | | | | | | |
| Changelog | - | | | | | | | | |

*of the servo only w/o horns and accessories