

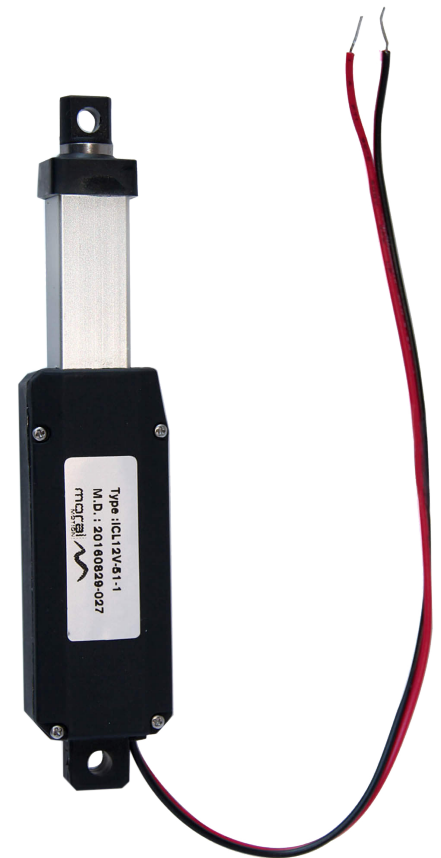


## **Inline Nexus Micro Linear Actuator**

The Inline Nexus Micro Linear Actuator series is the first set in Morai Motion’s new line of electric micro linear and track actuators.

Developed to fit an ever growing need for small scale linear motion that is precise, durable and affordable, the Inline Nexus is the perfect fit for all your micro automation needs.

| <b>SPECIFICATIONS</b>   |                                |
|-------------------------|--------------------------------|
| Model No.               | ICL12V-51-X                    |
| Input Voltage           | 12V DC                         |
| Stroke                  | 1-6 inch (25-150 mm)           |
| Speed                   | 0.51 in/sec (13 mm/sec)        |
| Push/Pull Force         | 4.4 lbs                        |
| Static Load Push        | 25N                            |
| No-load Current         | ≤0.2A                          |
| Current (20N load)      | ≤0.23A                         |
| Peak Power Point        | 2.48W/204 rpm                  |
| Peak Efficiency Point   | 57.2%/340 rpm                  |
| Back Drive Force        | 20N                            |
| Mechanical Backlash     | < 0.02 in (0.5 mm)             |
| Feedback Potentiometer  | No                             |
| Stall Current           | 1.1A                           |
| Protection Class        | IP65                           |
| Operational Temperature | +40 ~ +104 F (+5 C ~+ 40 C)    |
| Noise                   | 65 db                          |
| Duty Cycle              | 10%, max 2 min. continuous use |
| Limit Switch            | Built-In, Non-Adjustable       |
| Screw Type              | Trapezoidal Screw              |
| Clevis Holes            | Top Clevis/End clevis 4/4.2mm  |
| Clevis Mounting         | H-Type                         |
| Housing Material        | PA66 + 33% GF                  |
| Inner Tube              | Stainless Steel                |
| Wire Length             | 7.87 in                        |
| Unit Weight             | 0.13-0.26 lbs                  |
| Mounting Brackets       | Not included                   |
| Warranty                | 24 Months                      |



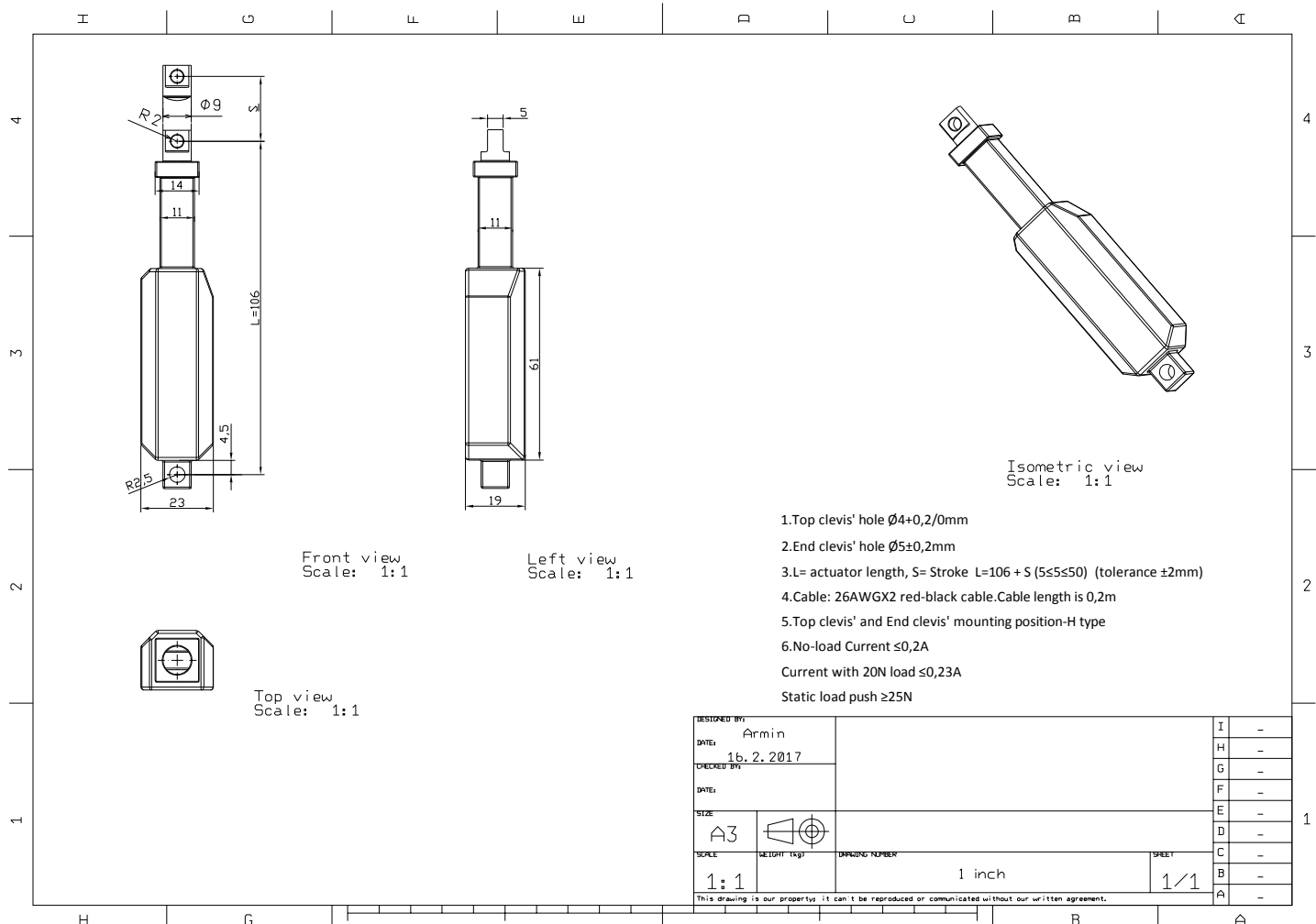
### **Morai Motion**

For ordering inquiries  
email us:

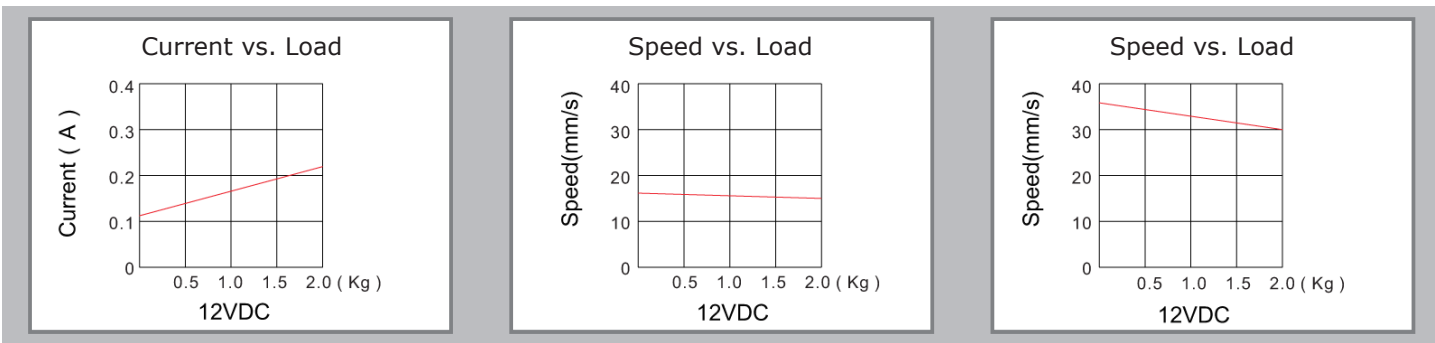
[sales@microlinearactuator.com](mailto:sales@microlinearactuator.com)



## 1" Stroke Inline Nexus Micro Linear Actuator



## Performance

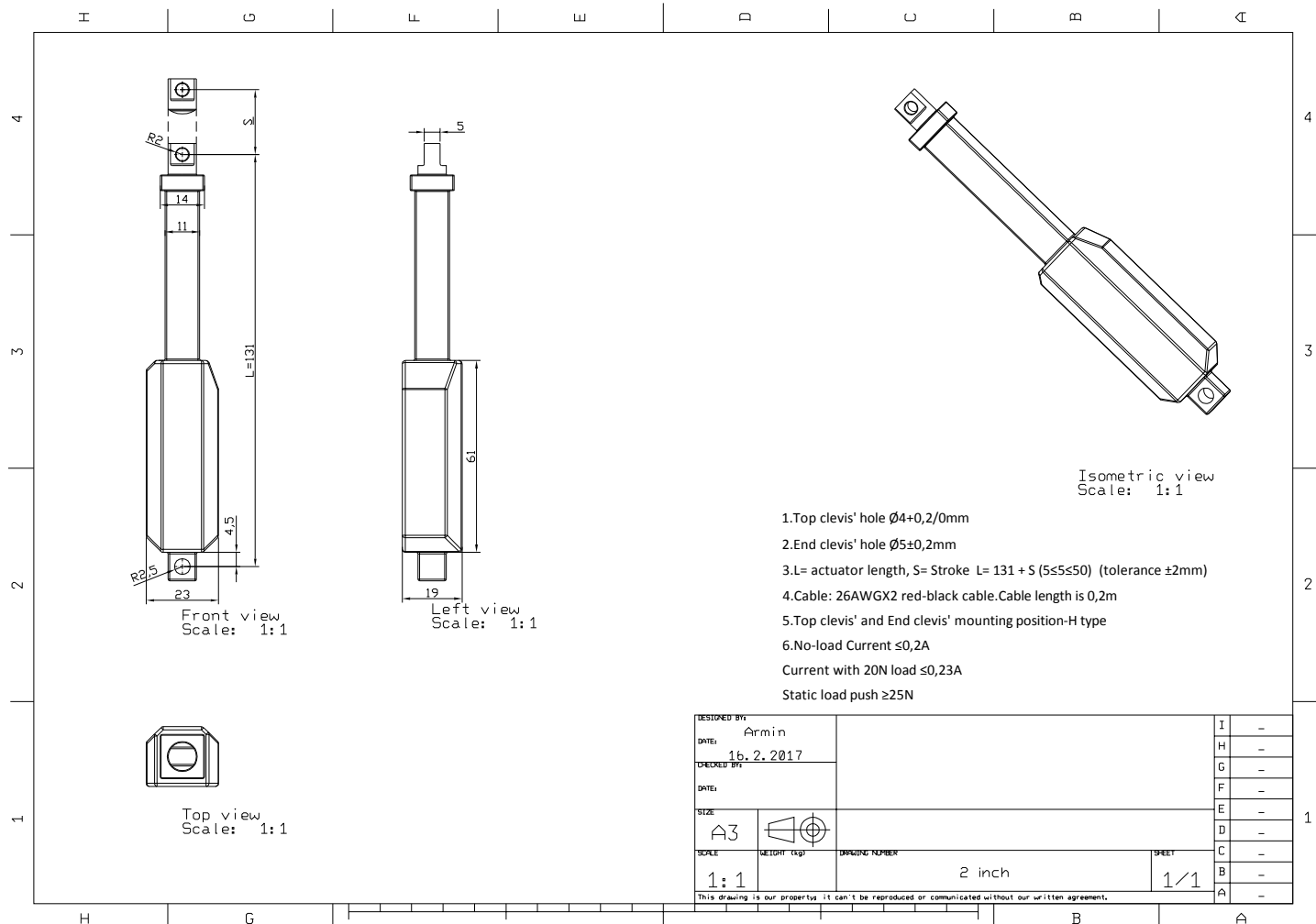


**Morai Motion**

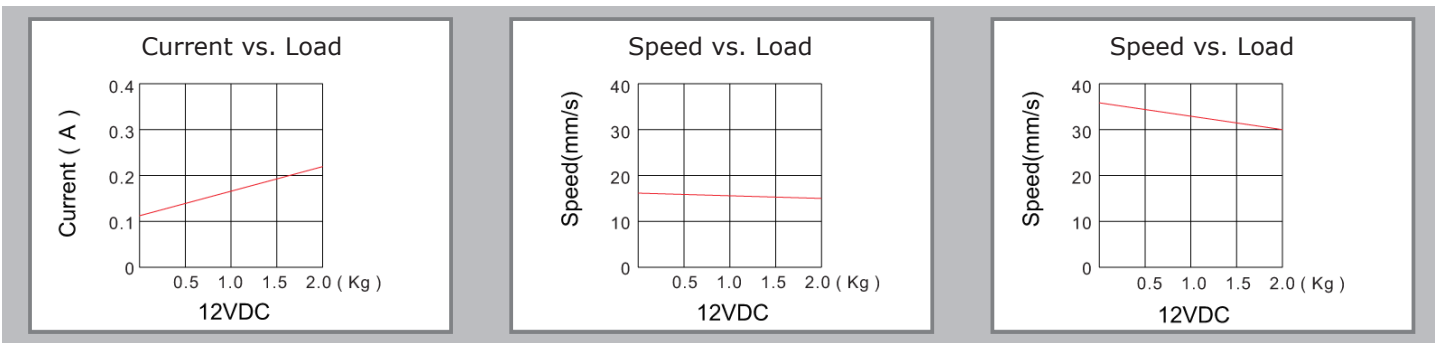
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## 2" Stroke Inline Nexus Micro Linear Actuator



### Performance

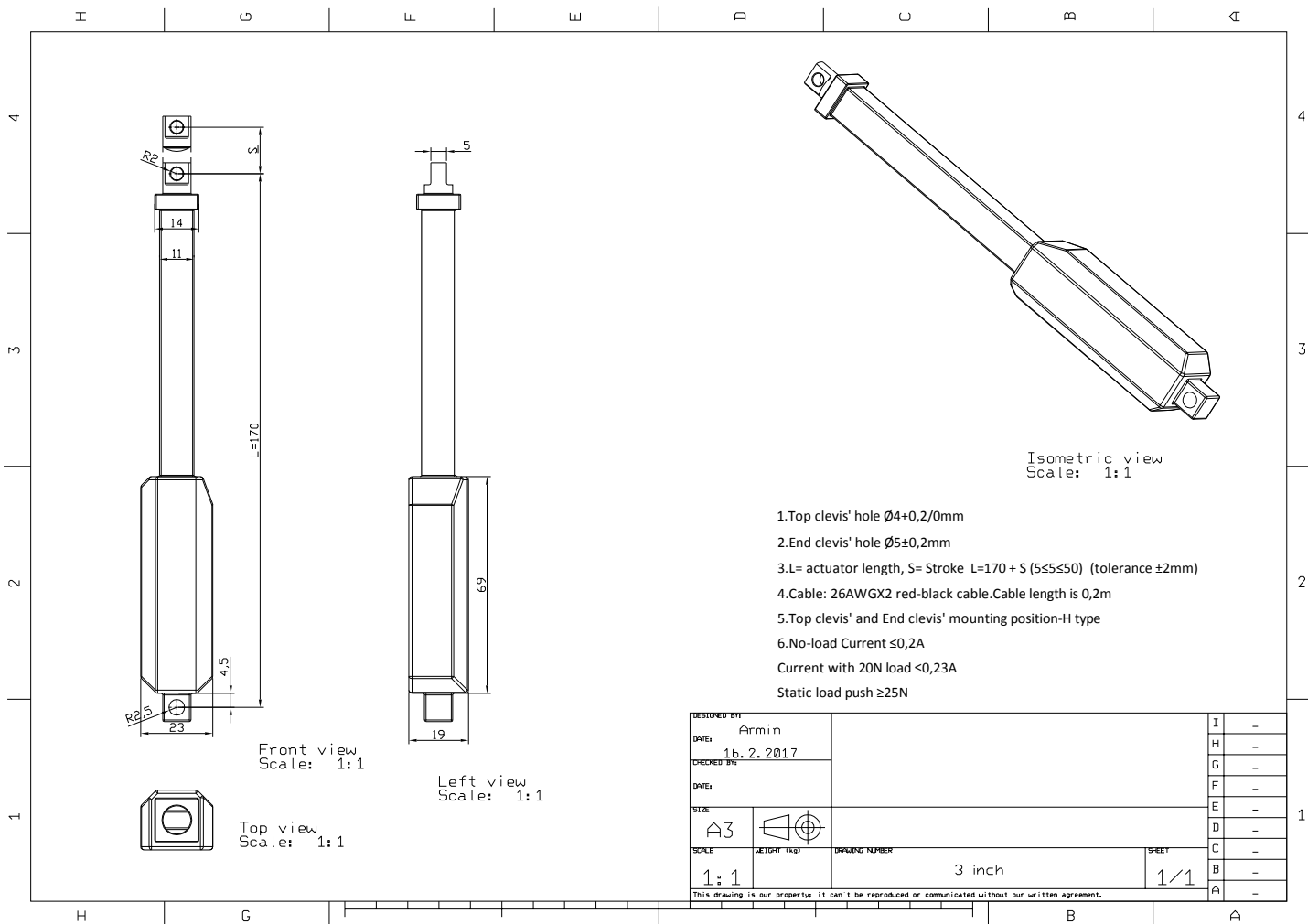


**Morai Motion**

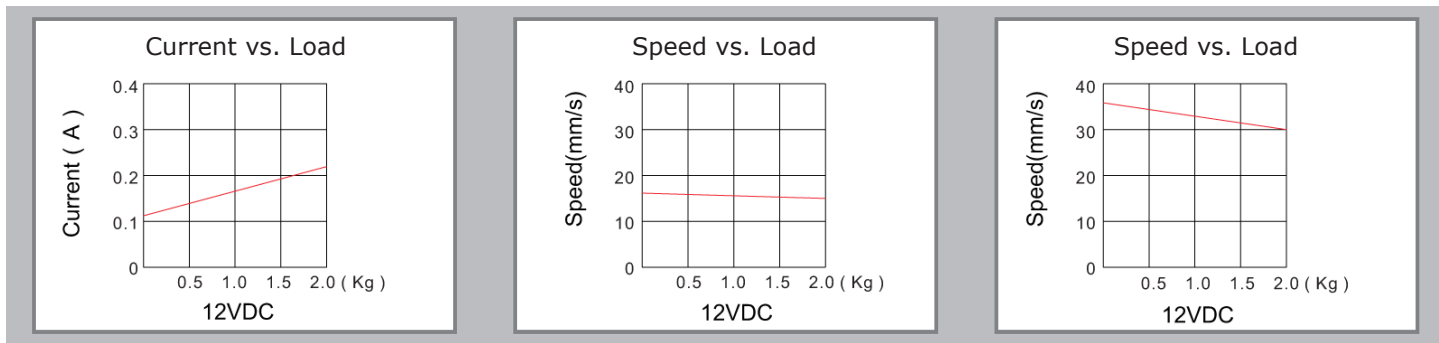
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## 3" Stroke Inline Nexus Micro Linear Actuator



## Performance

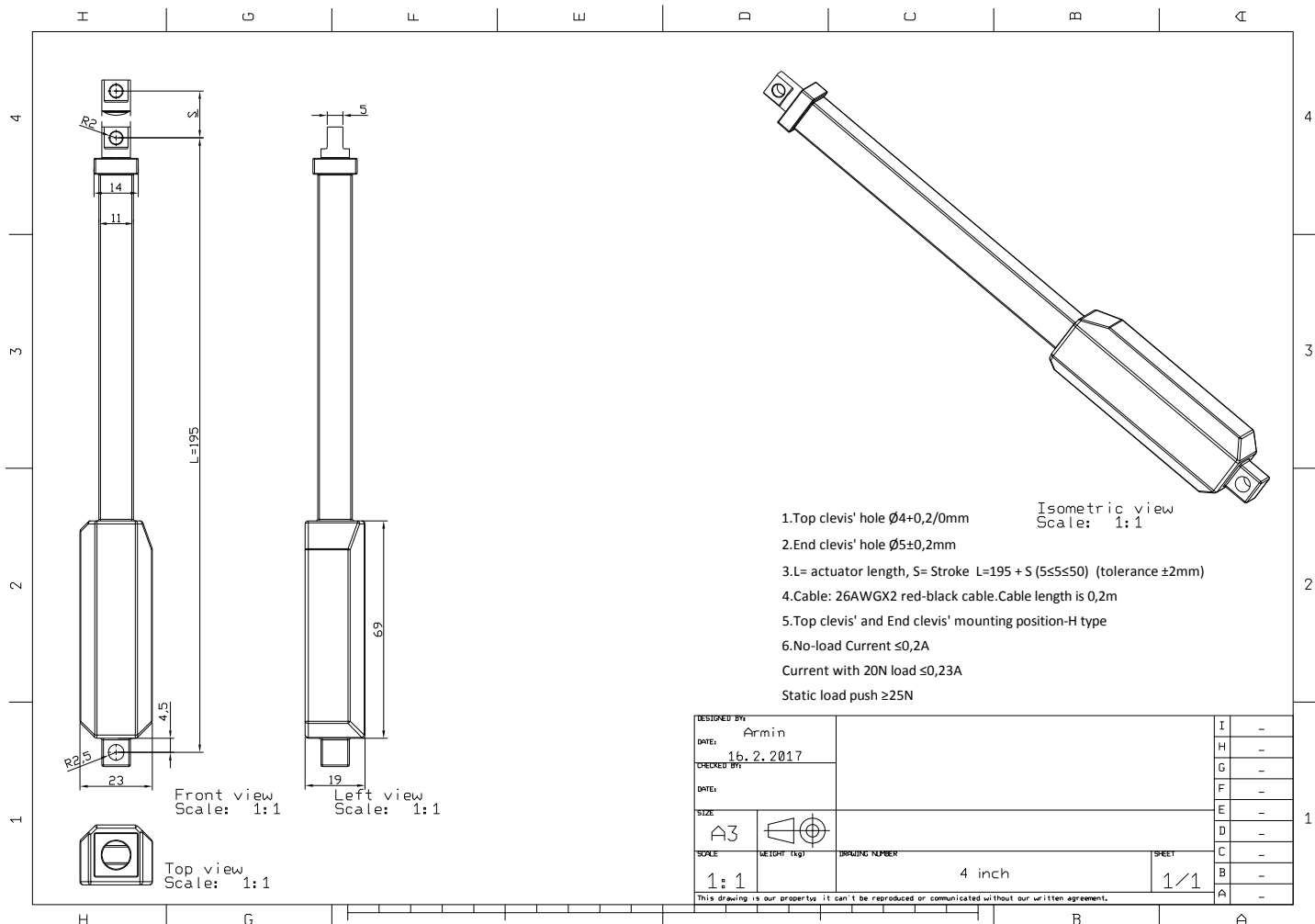


**Morai Motion**

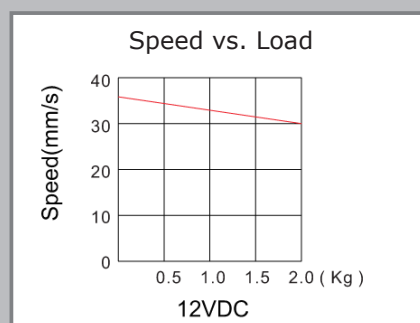
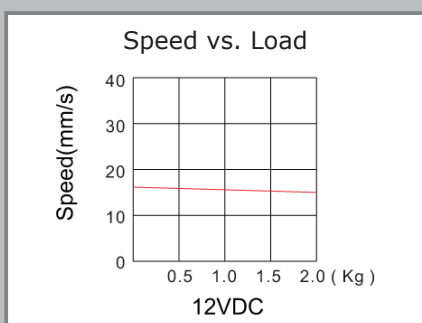
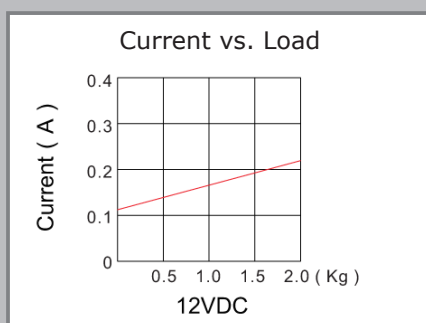
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## 4" Stroke Inline Nexus Micro Linear Actuator



### Performance

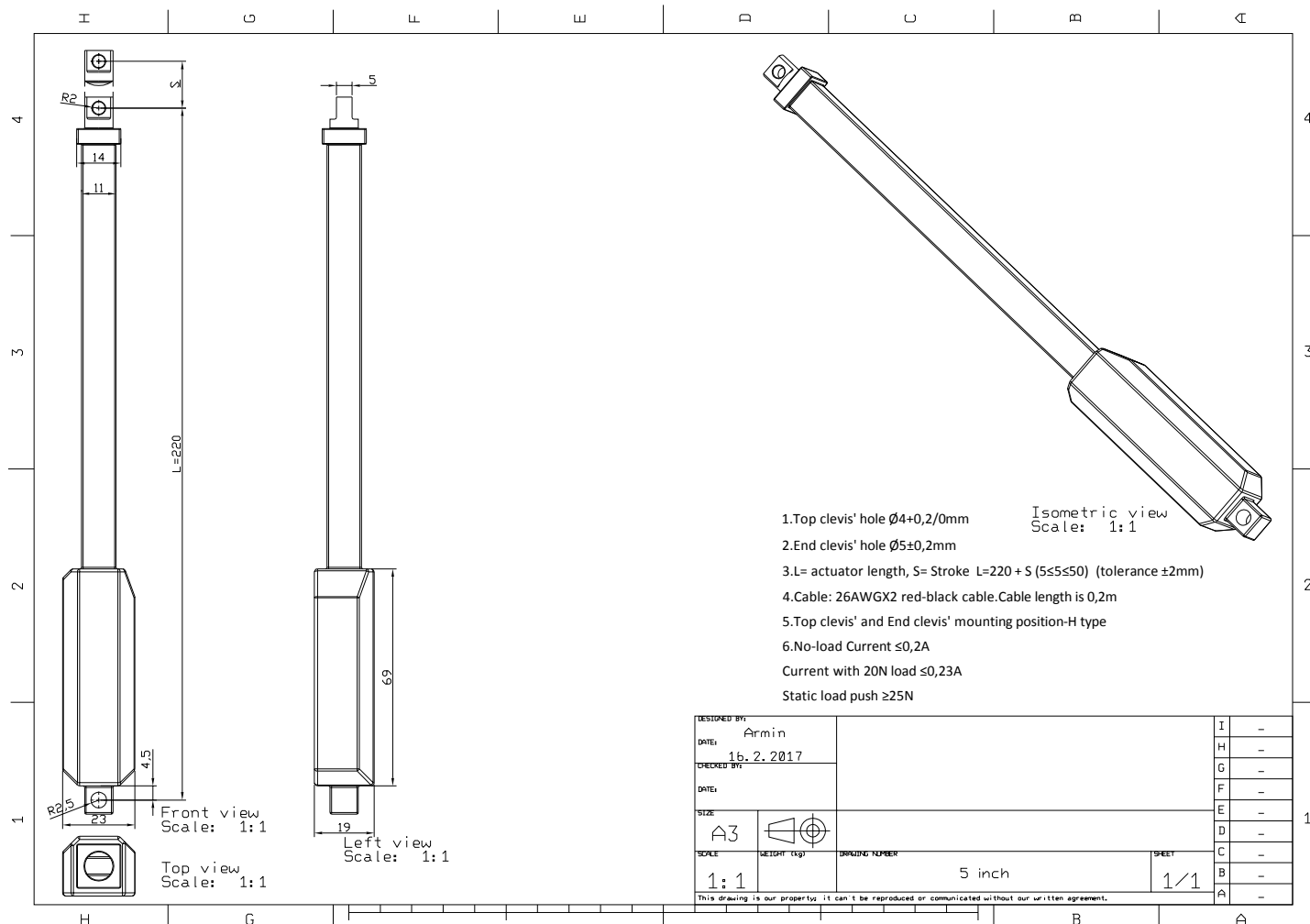


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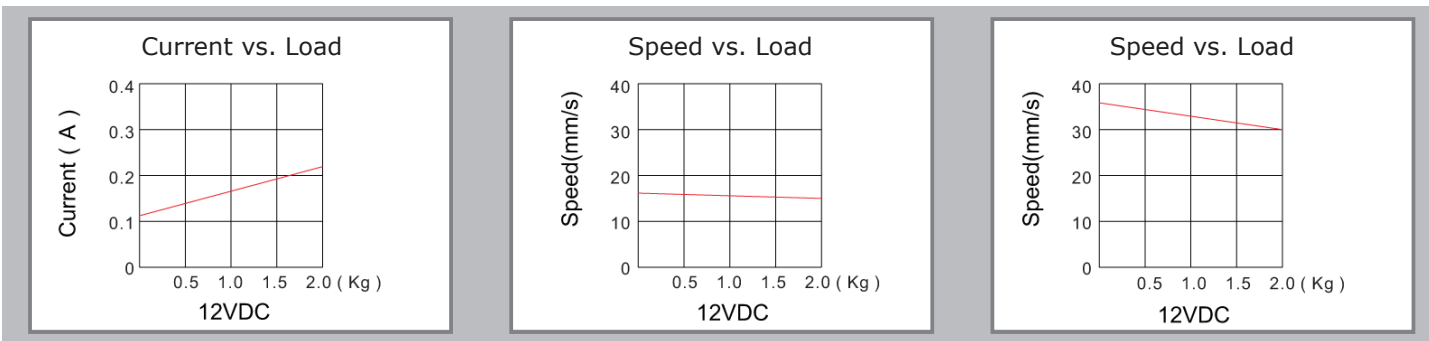
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## 5" Stroke Inline Nexus Micro Linear Actuator



## Performance

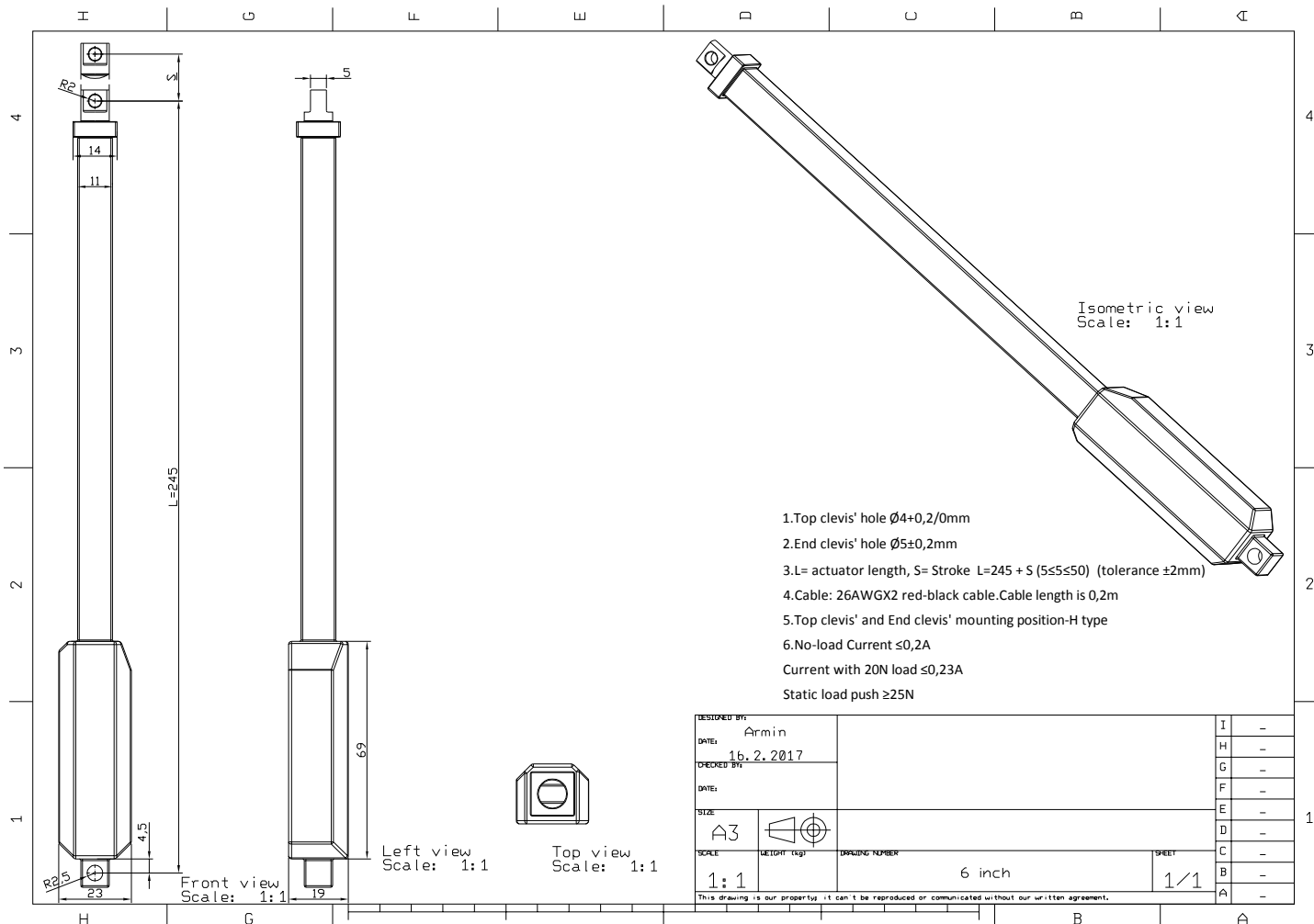


**Morai Motion**

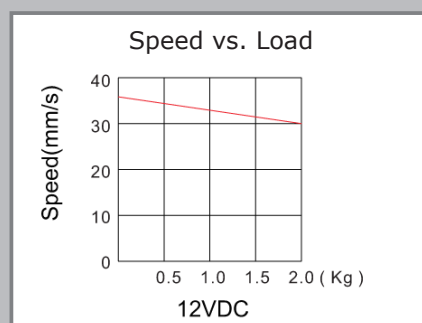
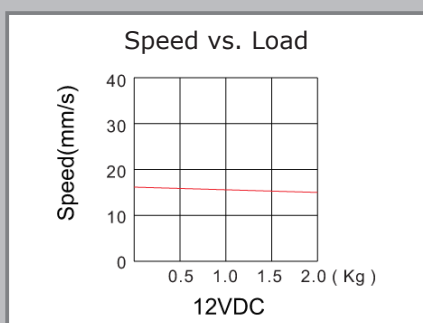
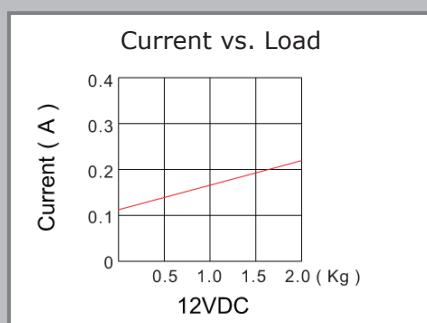
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## 6" Stroke Inline Nexus Micro Linear Actuator



## Performance

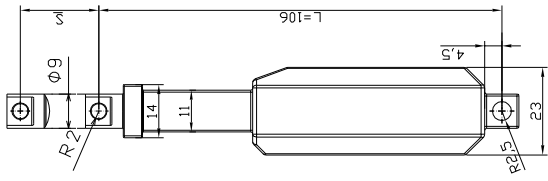


**Morai Motion**

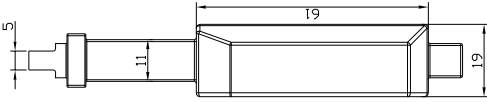
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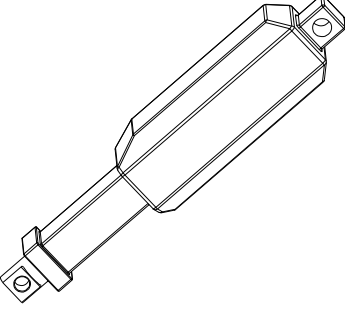
## 1" Stroke Inline Nexus Micro Linear Actuator



Top view  
Scale: 1:1



Front view  
Scale: 1:1



Isometric view  
Scale: 1:1

1. Top clevis' hole  $\varnothing 4 \pm 0.2/0\text{mm}$
2. End clevis' hole  $\varnothing 5 \pm 0.2\text{mm}$
3. L= actuator length, S= Stroke L=106 + S (555550) (tolerance  $\pm 2\text{mm}$ )
4. Cable: 26AWGX2 red-black cable. Cable length is 0.2m
5. Top clevis' and End clevis' mounting position-H type
6. No-load Current  $\leq 0.2\text{A}$   
Current with 20N load  $\leq 0.23\text{A}$   
Static load push  $\geq 25\text{N}$

|                |           |   |
|----------------|-----------|---|
| DESIGNED BY:   | Armin     | I |
| DATE:          | 16.2.2017 | H |
| CHECKED BY:    |           | G |
| DATE:          |           | F |
| SIZE:          | A3        | E |
| SCALE:         | 1:1       | D |
| WEIGHT (kg)    |           | C |
| WORKING NUMBER | 1 inch    | B |
|                | 1/1       | A |

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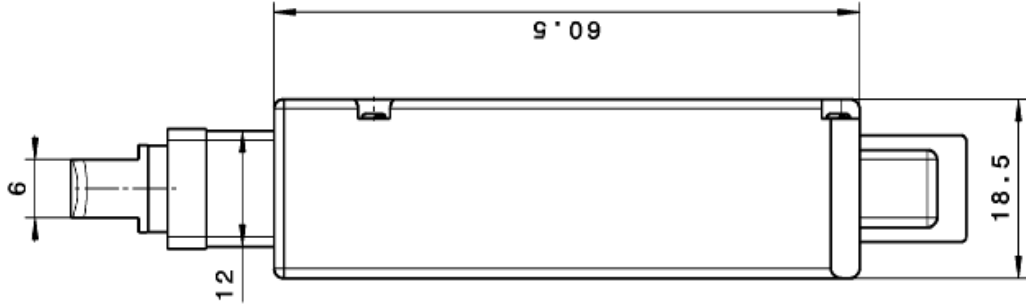
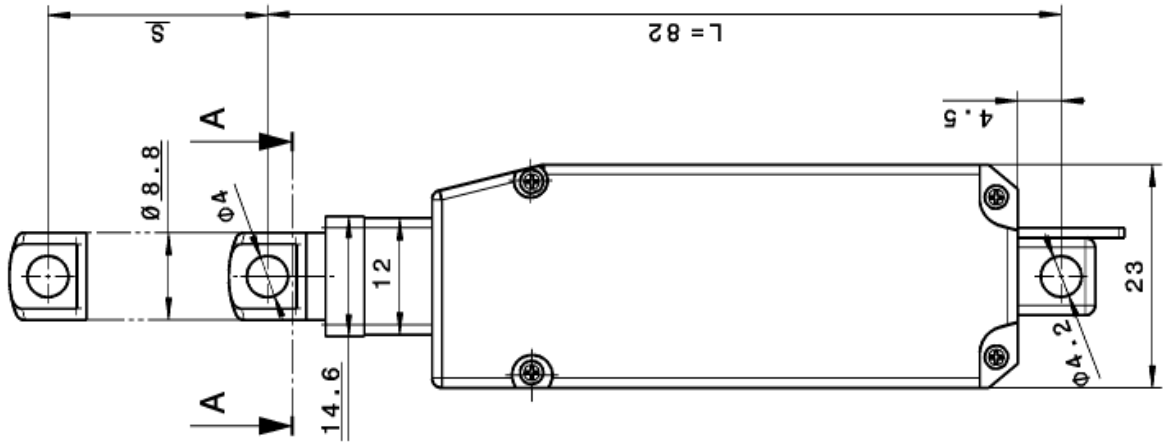
**MORAI MOTION**  
For ordering inquiries email us: [sales@microlinearactuator.com](mailto:sales@microlinearactuator.com)



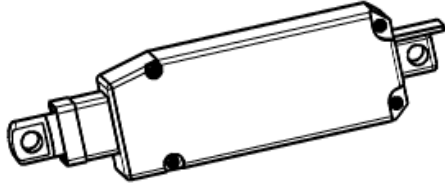
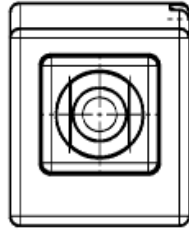
| <b>SPECIFICATIONS</b>   |                                |
|-------------------------|--------------------------------|
| Model No.               | ICL12V-51-X                    |
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| Stroke                  | 1-6 inch (25-150 mm)           |
| Speed                   | 0.51 in/sec (13 mm/sec)        |
| Push/Pull Force         | 4.4 lbs                        |
| Static Load Push        | 25N                            |
| No-load Current         | ≤0.2A                          |
| Current (20N load)      | ≤0.23A                         |
| Peak Power Point        | 2.48W/204 rpm                  |
| Peak Efficiency Point   | 57.2%/340 rpm                  |
| Back Drive Force        | 20N                            |
| Mechanical Backlash     | < 0.02 in (0.5 mm)             |
| Feedback Potentiometer  | No                             |
| Stall Current           | 1.1A                           |
| Protection Class        | IP65                           |
| Operational Temperature | +40 ~ +104 F (+5 C ~+ 40 C)    |
| Noise                   | 65 db                          |
| Duty Cycle              | 10%, max 2 min. continuous use |
| Limit Switch            | Built-In, Non-Adjustable       |
| Screw Type              | Trapezoidal Screw              |
| Clevis Holes            | Top Clevis/End clevis 4/4.2mm  |
| Clevis Mounting         | H-Type                         |
| Housing Material        | PA66 + 33% GF                  |
| Inner Tube              | Stainless Steel                |
| Wire Length             | 7.87 in                        |
| Unit Weight             | 0.13-0.26 lbs                  |
| Mounting Brackets       | Not included                   |
| Warranty                | 24 Months                      |

|                        |               |
|------------------------|---------------|
| Model No.              | ICL12V-51     |
| Input Voltage          | 12V DC        |
| Stroke                 | 1-6 inch      |
| Speed                  | 0.51 in/sec   |
| Force                  | 4.4 lbs       |
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| No-load Current        | ≤0.2A         |
| Current (20N load)     | ≤0.23A        |
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| Stall Current          | 1.1A          |

|                         |                               |
|-------------------------|-------------------------------|
| Protection Class        | IP65                          |
| Operational Temperature | +5 C ~+ 40 C                  |
| Noise                   | 65 db                         |
| Duty Cycle              | 10 %                          |
| Limit Switch            | Built-In, Non-Adjustable      |
| Screw Type              | Trapezoidal Screw             |
| Clevis Holes            | Top Clevis/End clevis 4/4.2mm |
| Clevis Mounting         | H-Type                        |
| Housing Material        | PA66 + 33% GF                 |
| Inner Tube              | Stainless Steel               |
| Wire Length             | 7.87 in                       |
| Unit Weight             | 0.13-0.26 lbs                 |
| Warranty                | 24 Months                     |



A-A  
2:1



1. Top clevis' hole  $\Phi 4 \pm 0.2 / 0 \text{mm}$
2. End clevis' hole  $\Phi 4.2 \pm 0.1 \text{mm}$
3. L=actuator length, S=Stroke  $L = 82 + S$  ( $5 \leq S \leq 50$ ) (tolerance  $\pm 2 \text{mm}$ )
4. Cable: 26AWGX2 red-black cable. Cable length is 0.2m.
5. Top clevis' and End clevis' mounting position-H type
6. No-load Current  $\leq 0.2 \text{A}$   
Current with 20N load  $\leq 0.23 \text{A}$   
Static load push  $\geq 25 \text{N}$

CHECKED BY: Ben

DATE: 13.07.2016

SIZE: A3

SCALE: 2:1  
(1:1)



WETBIFT (1/3)

0,03

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