



# T

SERIES

## COMPACT QUARTER TURN ELECTRIC ACTUATORS



Service Unique Nice Youthful Energy Honesty



## Company Profile

Sun Yeh Electrical Ind. Co., Ltd. was established in 1986 and it is committed to continuous technical innovation, the most advanced product quality management, organizational excellence, and outstanding customer satisfaction.

Our sustainable development drives the product line extension to include quarter-turn actuators, spring return fail-safe actuators, linear actuators, multi-turn actuators, and explosion-proof actuators. Sun Yeh offers various products that can be widely applied to the control of industrial processes, fluid control, water treatment, HVAC, chemical engineering, food processing, etc.

Sun Yeh is dedicated to providing you with high-quality products, which have been certified with CE, CSA, TS, SIL, CCC, ATEX, IECEx, and CNEx approvals, as well as meet RoHS, REACH and China RoHS environmental regulations, in addition to ISO 9001, ISO 14001, ISO 45001, and AEO.





## Product Overview

The compact size T series comes with 6 N·m (53 in·lbs) and 15 N·m (132 in·lbs) output torque.

The compact actuators are designed for limited space and suitable for small valve or damper application.

## Product Features

- Compact size can fit into a small space.
- Aluminum alloy, dry-powder coated enclosure conforms to NEMA 4X outdoor use.
- Manual operation can be applied in case of power outage.
- Built-in thermal protection prevents motor burnout.
- Simple design, easy operation.



## Standard Specification

| Model                | T-6                                    |      |             |             | T-15                |        |  |
|----------------------|--|------|-------------|-------------|---------------------|--------|--|
| Torque               | 6 N·m (53 in·lbs)                      |      |             |             | 15 N·m (132 in·lbs) |        |  |
| Power Supply         | 100V                                   | 200V | 110-120V AC | 220-240V AC | 24V AC / DC         | 12V DC |  |
| Weight               | 1.5 kg (3.3 lbs)                       |      |             |             |                     |        |  |
| Mounting Flange      | F03 / F05 (ISO 5211)                   |      |             |             |                     |        |  |
| Manual Override      | √                                      |      |             |             |                     |        |  |
| Duty Cycle           | 30%                                    |      |             |             |                     |        |  |
| Control              | On / Off                               |      |             |             |                     |        |  |
| Top Cover            | Dry Power Coated Aluminum Alloy        |      |             |             |                     |        |  |
| Environmental Rating | NEMA 4X and 5, IP 67                   |      |             |             |                     |        |  |
| Ambient Temperature  | -30°C to +65°C (-22°F to 149°F )       |      |             |             |                     |        |  |
| Conduit Entry        | 1/4" PF ( Max. Internal Diameter: 8mm) |      |             |             |                     |        |  |

## Optional Items

| Mounting Flange                | F04 (ISO 5211)   |
|--------------------------------|--|
| Cable gland with 1m long cable |  <p>Note: The cable are only suitable for indoor usage.<br/>For outdoor use please replace suitable cable.</p> |

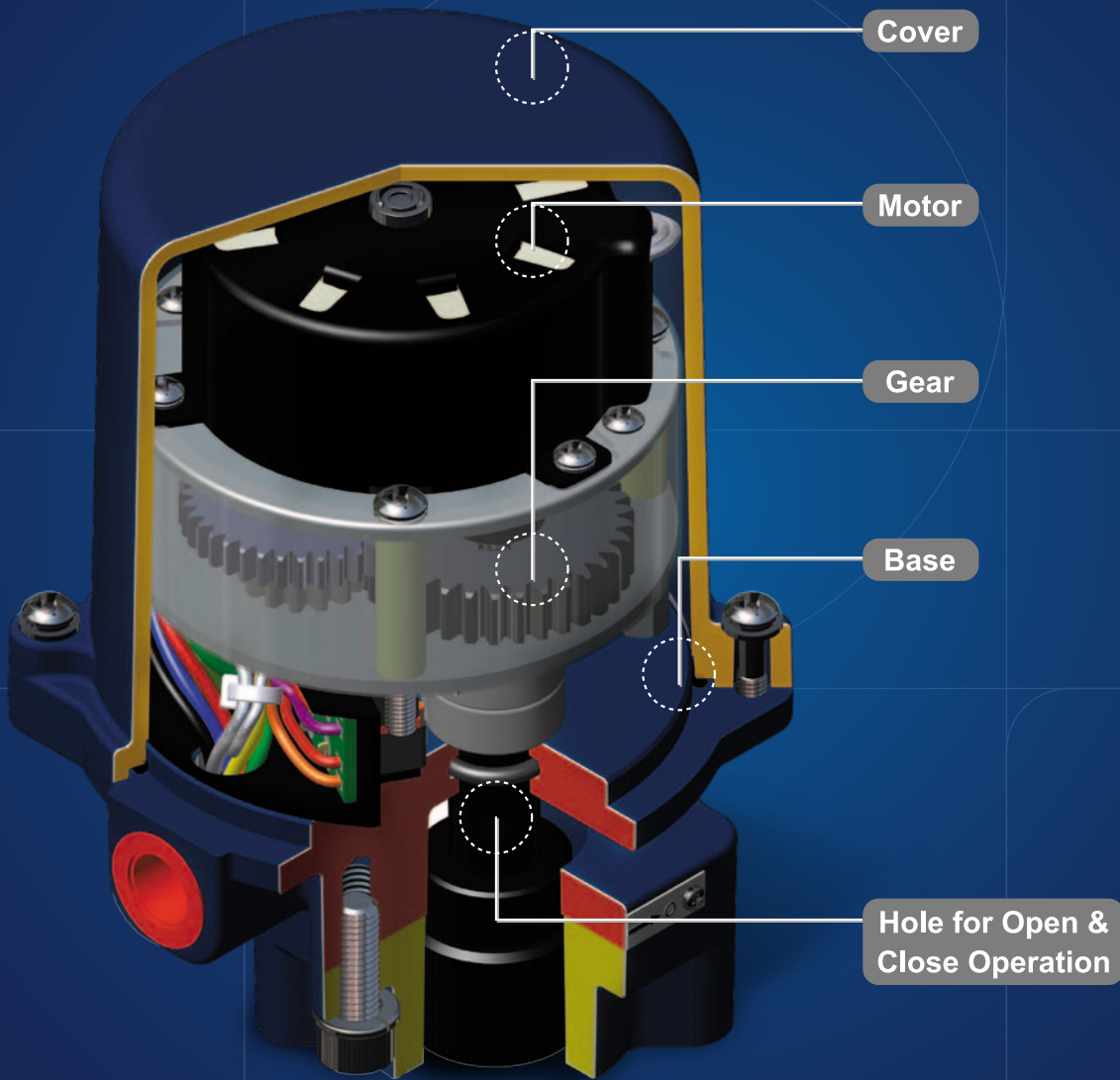
## Technical Data

| Voltage  | Model | Running Time (sec. / 90°) |      |      | Nominal Motor Power (watt) | Running Current (amp) |      |      | Start Current (amp) |      |      |
|----------|-------|---------------------------|------|------|----------------------------|-----------------------|------|------|---------------------|------|------|
|          |       | DC                        | 60Hz | 50Hz |                            | DC                    | 60Hz | 50Hz | DC                  | 60Hz | 50Hz |
| 12V      | T-6   | 8s                        | -    | -    | 5                          | 0.6A                  | -    | -    | 4A                  | -    | -    |
|          | T-15  | 18s                       |      |      |                            |                       |      |      |                     |      |      |
| 24V      | T-6   | 7s                        | 8s   | 9s   | 5                          | 0.3A                  | 0.6A | 0.8A | 3A                  | 1A   | 1A   |
|          | T-15  | 16s                       | 19s  | 23s  |                            |                       |      |      |                     |      |      |
| 100V     | T-6   | -                         | 8s   | 9s   | 5                          | -                     | 0.2A | 0.3A | -                   | 1A   | 1A   |
|          | T-15  | -                         | 19s  | 23s  |                            |                       |      |      |                     |      |      |
| 110-120V | T-6   | -                         | 8s   | 9s   | 5                          | -                     | 0.3A | 0.3A | -                   | 1A   | 1A   |
|          | T-15  | -                         | 19s  | 23s  |                            |                       |      |      |                     |      |      |
| 200V     | T-6   | -                         | 8s   | 9s   | 5                          | -                     | 0.2A | 0.2A | -                   | 1A   | 1A   |
|          | T-15  | -                         | 19s  | 23s  |                            |                       |      |      |                     |      |      |
| 220-240V | T-6   | -                         | 8s   | 9s   | 5                          | -                     | 0.2A | 0.2A | -                   | 1A   | 1A   |
|          | T-15  | -                         | 19s  | 23s  |                            |                       |      |      |                     |      |      |

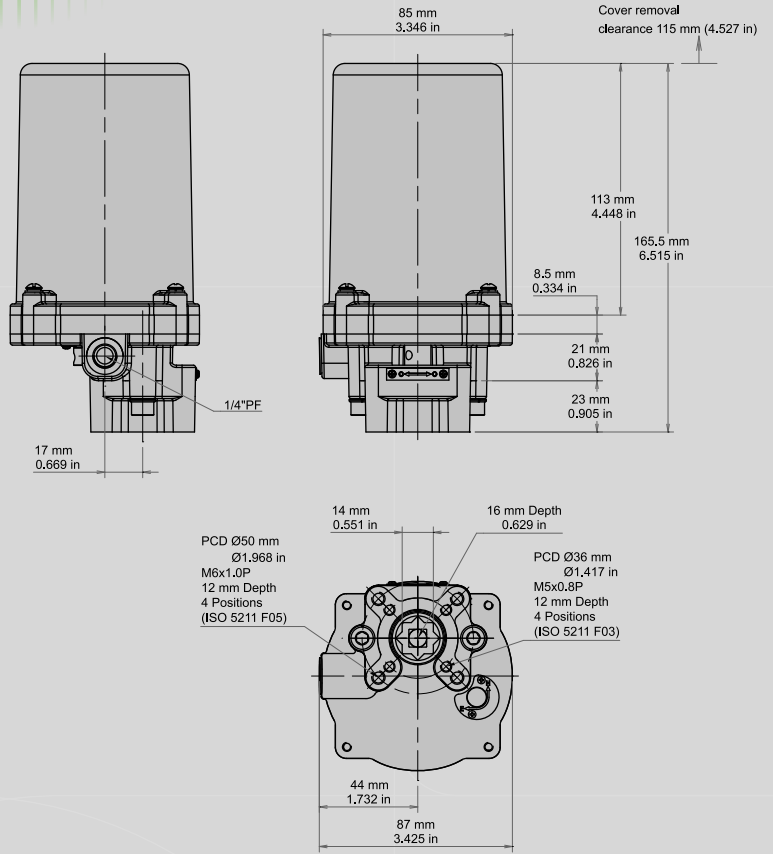
• Run: Full Load Ampere



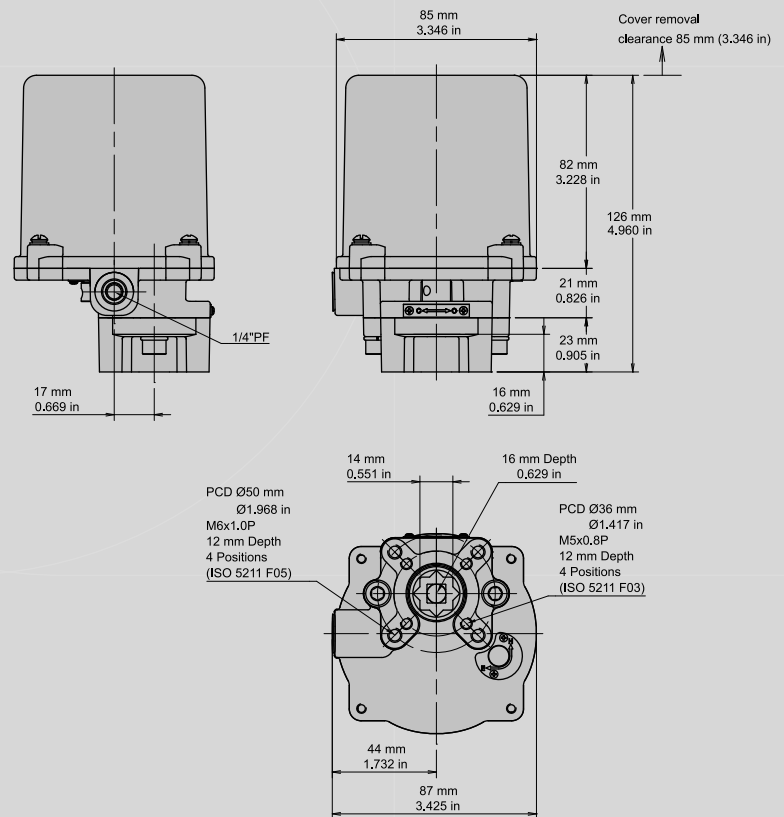
# Cutaway Drawing



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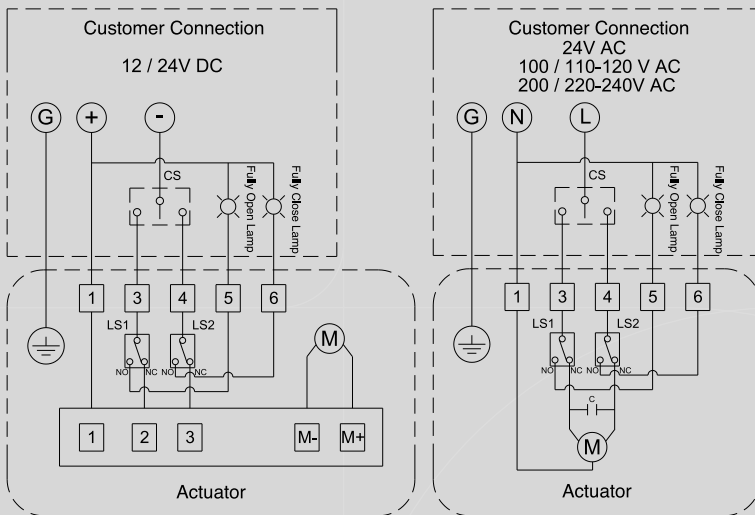


12V DC, 24V AC / DC



110-120V AC, 220-240V AC, 100 / 200V AC

## Wiring Diagram



- Use proper size of wire and fuse to prevent actuator failure. The following data is provided to assist on the selection of the proper wire and fuse.

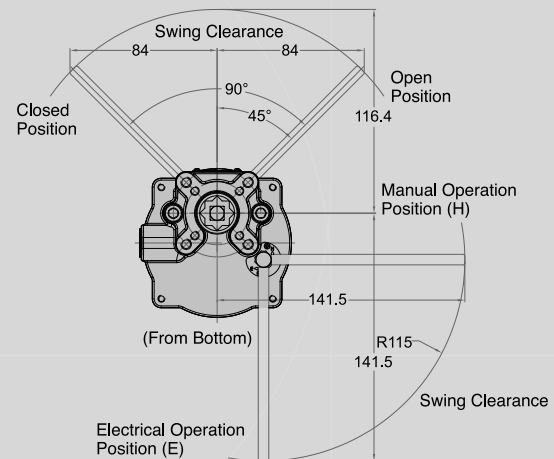
| Wire Gauge                 | Max. Current | Fuse |
|----------------------------|--------------|------|
| 24 (0.205mm <sup>2</sup> ) | 3A           | 2A   |

## Steps of Manual Operation

- Switch the manual / electrical device from electrical operation (E) to manual operation (H) with tool attached.
- Insert the tool into the hole for open & close operation.
- Switch the device back to electrical operation (E) mode after the manual operation is completed.

## Installation Steps

- Remove the actuator cover.  
CAUTION: Be sure power is off before removing cover.
- Please refer to wiring diagram inside cover for electrical connection.
- Assemble the cover and cover screws firmly per the required torque in the table after setting.
- Turn on power.  
CAUTION: Use extreme caution as live circuits can cause electrical shock or death.



| Screw Size | Torque (N·m / in·lb ) |
|------------|-----------------------|
| M4         | 1.3 / 12              |

## Receiving Inspection

- Carefully inspect the package for any damages resulting from shipping and report all damages to the freight carrier and seller.
- After unpacking the product and information packet, please keep the cartons and any packing materials in case of product return or replacement. Verify that the items on the packing slip or on the bill of lading are the same as what were ordered. If there is any discrepancy, please contact the seller.
- Verify if the technical data on nameplate is in accordance with what was ordered.

## Storage

- If your actuator won't be installed immediately, store it in a dry place, and protect from excess moisture, dust, and weather, until they are ready for wiring.
- If the actuators are installed without wiring, please don't remove the plastic transit conduit entry plug. It should be replaced with suitable water-proof cable gland with IP protection when wiring.



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