

# Series 92 120 VAC & 220 VAC Explosion Proof Electric Actuator

## Standard Features

- **UL1203 Certified (CL.I, DIV. 1&2)**
- **Motor:** Reversing, brushless, capacitor run 120 VAC 50/60 Hz, single phase
- **Overload protection:** Integral thermal overload protection for motor windings with automatic reset
- **Gear train:** Permanently lubricated, solid gear that is Rockwell hardened
- **Corrosion Resistant Enclosure:** Thermally bonded polyester powder coat finish with stainless steel trim
- **ISO mounting configuration (FO7/17 star)**
- **Conduit:** Two 1/2" FNPT conduit entries to eliminate cross feed between control, feedback, and power signals
- **Position indication:** Highly visible beacon position indicator for positive position of valve, even at a distance
- **Decutchable manual override:** Pull up on indicator knob, insert 5/8" wrench on to flats and rotate in the appropriate direction (CCW for open, CW for close). Models with handwheel override do not require a wrench. Simply push down on handwheel until engaged with cam and rotate
- **Limit switches:** Standard end of travel limit switches can be used for light indication (not to be use with PLC for position confirmation)
- **UL1203 Enclosure:** Combination weather proof & explosion proof (CL.I, Div. 1&2) enclosure for use in various environments
- **Captivated SS hexhead slotted enclosure screws**
- **CE compliant motor:** All 120 VAC and 220 VAC motors are CE compliant stamped as such
- **Extended duty cycles:** Our extended duty cycles are ideal for modulating and high cycling applications
- **Output torque:** Series 92 Electric Actuators have an output torque range from 400 in/lbs to 2000 in/lbs

## Options

- Auxiliary limit switches
- Mechanical brake
- DC control relay
- 220 VAC
- Hand wheel manual override
- No manual override
- TYPE 7 breather
- Custom wiring configurations



## Engineering Specifications

Size: S92, A92, B92, C92  
 Torque: 400-2000 in/lbs  
 Voltage: 120 VAC 1Ph 50/60 Hz  
 Amp Draw: S92, B92 .5A, A92 .8A, C92 1.0A  
 Conduit Entry: Two (2) 1/2" FNPT  
 Max Ambient Temperature: 150° F  
 Switches: Two (2) single pole, double throw (2-SPDT) 15 amp rated  
 Cycle Time per 90°: S92, A92: 15 seconds  
 B92, C92: 32 seconds  
 Enclosure: UL1203 CL.I, Div. 1&2

## Engineering Data

| Model | Torque (in/lbs) | 120/1 VAC |            | 220/1 VAC |            | Cycle Time per 90 Degrees (seconds)* | Weight (lbs) |
|-------|-----------------|-----------|------------|-----------|------------|--------------------------------------|--------------|
|       |                 | Amp Draw  | Duty Cycle | Amp Draw  | Duty Cycle |                                      |              |
| S92   | 400             | 0.5       | 100%       | 0.4       | 100%       | 15                                   | 15.3         |
| A92   | 700             | 0.8       | 75%        | 0.6       | 75%        | 15                                   | 15.3         |
| B92   | 1100            | 0.5       | 100%       | 0.4       | 100%       | 32                                   | 15.3         |
| C92   | 2000            | 1.0       | 50%        | 0.6       | 50%        | 32                                   | 18.3         |

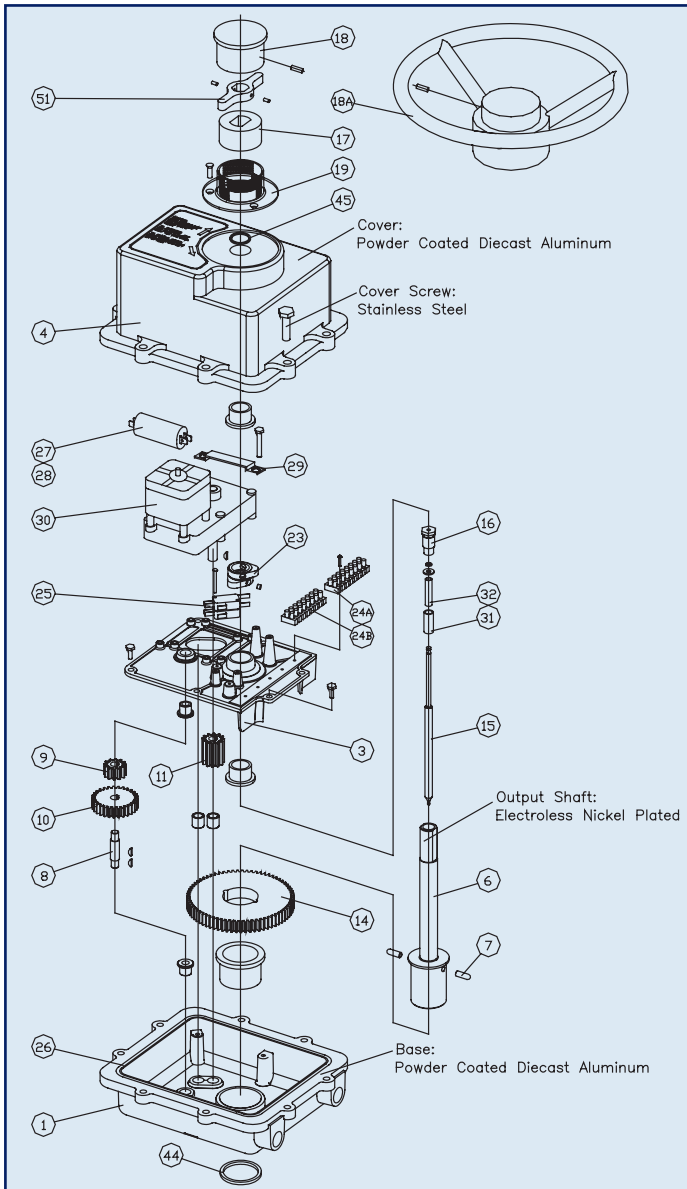
Note: Amp rating is considered locked rotor.

Duty cycles are for ambient temperature (73° F).

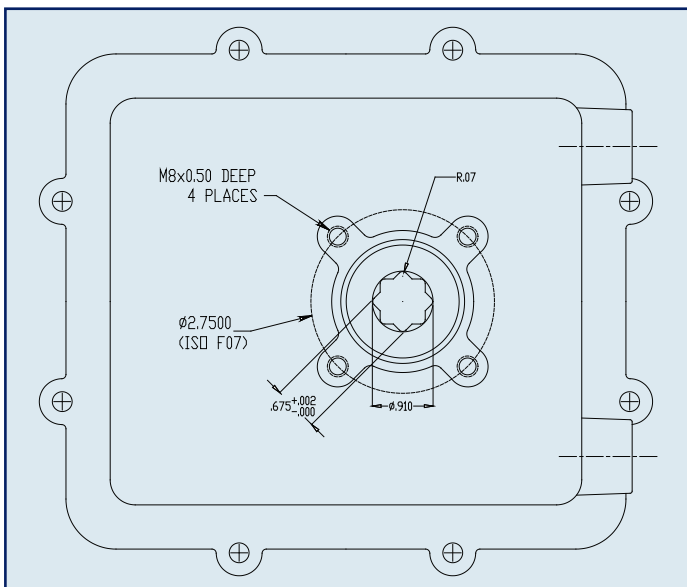
\* Cycle times are approximate and will vary depending on load.

# Series 92 120 VAC & 220 VAC Explosion Proof Electric Actuator

## Parts List



|     |             | PARTS LIST |     |     |     | Description |                     |
|-----|-------------|------------|-----|-----|-----|-------------|---------------------|
| NO. | Part Number | PCS.       | S92 | A92 | B92 |             | C92                 |
| 1   | 7401920     | 1          | 1   | 1   | 1   | 1           | Base                |
| 3   | 7401060     | 1          | 1   | 1   | 1   | 1           | Base Plate          |
| 4   | 7401940     | 1          | 1   | 1   | 1   | 1           | Cover               |
| 6   | 7401900     | 1          | 1   | 1   | 1   |             | Shaft Main          |
| 6A  | 7401905     |            |     |     |     | 1           | Shaft Main          |
| 7   | 7401360     | 2          | 2   | 2   | 2   |             | Pin                 |
| 8   | 7401280     |            |     | 1   | 1   |             | Shaft Stub          |
| 9   | 7402003     |            |     | 1   | 1   |             | Spur Gear B1        |
| 10  | 7402002     |            |     | 1   | 1   |             | Spur Gear A1        |
| 11  | 7401400     | 1          | 1   | 1   | 1   |             | Gear Pinion         |
| 14  | 7401380     | 1          | 1   | 1   | 1   |             | Gear Main           |
| 15  | 7401200     | 1          | 1   | 1   |     |             | Shaft Inner         |
| 15A | 7401210     |            |     |     |     | 1           | Shaft Inner         |
| 16  | 7401180     | 1          | 1   | 1   | 1   |             | Shaft Retainer      |
| 17  | 7401300     | 1          | 1   | 1   | 1   |             | Knob Lower          |
| 18  | 7401320     | 1          | 1   | 1   |     |             | Knob Upper          |
| 18A | 7401995     |            |     |     |     | 1           | Handwheel           |
| 19  | 7401260     | 1          | 1   | 1   | 1   |             | Collar              |
| 23  | 7401480     | 2          | 2   | 2   | 2   |             | Cam                 |
| 24A | 7401420     | 1          | 1   | 1   | 1   |             | Terminal Block 1-8  |
| 24B | 7401425     | 1          | 1   | 1   | 1   |             | Terminal Block 9-16 |
| 25  | 7401460     | 2          | 2   | 2   | 2   |             | Switch              |
| 26  | 7401560     | 1          | 1   | 1   | 1   |             | O-Ring Base/Cover   |
| 27  | 7402948     | 1          |     | 1   | 1   |             | Capacitor 4.2 mFD   |
| 27A | 7402004     |            | 1   |     |     |             | Capacitor 6.7 mFD   |
| 28  | 7403008     |            |     |     |     | 1           | Capacitor 7.6 mFD   |
| 29  | 7401520     | 1          | 1   | 1   | 1   |             | Capacitor Bracket   |
| 30  | 7401340     | 1          | 1   | 1   | 1   |             | 120 VAC Motor       |
| 31  | 7401250     | 1          | 1   | 1   | 1   |             | Shell               |
| 32  | 7401220     | 1          | 1   | 1   |     |             | Spring              |
| 32A | 7401230     |            |     |     |     | 1           | Spring              |
| 44  | 7401040     | 1          | 1   | 1   | 1   |             | Seal Base           |
| 45  | 7401140     | 1          | 1   | 1   | 1   |             | Seal Cover          |
| 51  | 7401485     |            |     |     |     | 1           | Handwheel Cam       |



## Sample Specification

All Series 92 120 VAC & 220 VAC Explosion Proof electric actuators shall be UL1203 Certified for Class I, Division 1 & 2 locations, have a thermally protected, bi-directional (reversing type), capacitor run motor with a permanently lubricated gear train. Motors shall conform to CE and be indicated on motor housing. Actuators shall have solid, heat-treated alloy steel gearing encompassed in a die cast aluminum enclosure that has a thermally bonded polyester powder coat finish, with stainless steel trim. Actuator enclosure shall conform to weather proof and explosion proof criteria set forth by UL Standard 1203, and bear the UL1203 plaque for CL.I Div. 1 locations. Each actuator shall have a declutchable manual override, visual position indication, and an ISO mounting configuration as manufactured by Asahi/America.