

# RCS Actuators Sure 100

## NEMA 4/6/7 Enclosure

Optional Manual Override Available

### Approvals

A.C. Models Only

Canadian Standards Association

CSA NRTL/C—Enclosure 4 and 6

CSA NRTL/C—Class I, Divisions 1 and 2,  
Groups C and D

CSA NRTL/C—Class II, Divisions 1 and 2, Groups E,  
F and G

CSA NRTL/C—Approved to UL standard  
No. 429, Electrically  
Operated Valves

CSA NRTL/C—Approved to UL Standard No. 1203,  
Electrical Equipment for use in  
Explosion-proof

And Dust-Ignition-proof

Hazardous (Classified) Locations



### Model

Sure 100

### Typical Application

For on/off and modulating control of:

- Part turn ball, butterfly, plug valves or rotary dampers when emergency shutdown or shutoff capability is required in the event of a loss of power.

### Temperature Range

Standard: -40°F to +150°F

-40°C to +65°C

Optional: -60°F to +150°F

-50°C to +65°C

Optional: Compliance to NFPA 130, capable of operation after exposure to ambient temperature of 482°F (250°C) for a minimum of 1 hour.

### Voltage

115 VAC, 1 Phase, 50/60 Hz

230 VAC, 1 Phase, 50/60 Hz

### Torque Range

1200 pound inches spring end (136 newton meters)

### Speed Range

10 and 30 seconds for 90° revolution, motor operation

5 to 7 seconds, spring operation

### Spring

Helical torsion spring, spring steel, XYLAN® coated

### Special Features

AC Voltages

4 – SPDT Switches,  
PTC Heater, Motor Brake



# 115 and 230 VAC, 1 Phase, 50/60 Hz

Model	Output Torque Inch Pounds (N.m)	Electrical Speed of Operation 60 Hz. (50 Hz.)	Spring Speed of Operation	Duty Cycle Rating 115 Vac	Duty Cycle Rating 220 Vac	Current Ratings 115 VAC		Current Ratings 220 VAC	
						N.L.A.*	L.R.A.*	N.L.A.*	L.R.A.*
Sure 25-5	300 (34)	5 seconds/90° (6 seconds/90°)	2 seconds/90°	50% (1)	50% (1)	1.40	2.15	CF**	CF**
Sure 25-10	300 (34)	10 seconds/90° (12 seconds/90°)	2 seconds/90°	50% (2)	50% (2)	1.00	1.55	CF**	CF**
Sure 24-10	300 (34)	10 seconds/90° (12 seconds/90°)	2 seconds/90°	25% (1)	25% (1)	0.70	1.05	0.45	0.65
Sure 49-5	600 (68)	5 seconds/90° (6 seconds/90°)	2 seconds/90°	25% (1)	25% (1)	1.10	1.80	1.00	1.20
Sure 49-15	600 (68)	15 seconds/90° (18 seconds/90°)	2 seconds/90°	25% (1)	25% (1)	0.55	1.55	0.35	0.90
Sure 49-30	600 (68)	30 seconds/90° (35 seconds/90°)	2 seconds/90°	50% (2)	50% (2)	0.65	0.70	0.30	0.35
Sure 100-10	1200 (136)	10 seconds/90° (12 seconds/90°)	5 seconds/90° (max)†	25% (1)	25% (1)	1.90	2.90	0.90	1.35
Sure 100-30	1200 (136)	30 seconds/90° (35 seconds/90°)	7 seconds/90° (max)†	50% (2)	50% (2)	0.65	0.95	0.35	0.45

\*(N.L.A.) – No Load Ampere (L.R.A.) – Locked Rotor Ampere (1) - Open/Close Service (2) - Open/Close or Modulating Service  
 \*\*(CF) – Consult Factory † – Approximate, Based on Load

## 24 VAC

Model	Output Torque Inch Pounds (N.m)	Electrical Speed of Operation 60 Hz. (50 Hz.)	Spring Speed of Operation	Duty Cycle Rating 24 VAC	Current Ratings 24 VAC	
					N.L.A.*	L.R.A.*
Sure 49-30	600 (68)	30 seconds/90° (35 seconds/90°)	2 seconds/90°	25% (2)	4.50	5.00

## 24 VDC

Model	Output Torque Inch Pounds (N.m)	Electrical Speed of Operation 60 Hz. (50 Hz.)	Spring Speed of Operation	Duty Cycle Rating 115 VAC	Duty Cycle Rating 230 VAC	Current Ratings 12 VDC		Current Ratings 24 VDC	
						N.L.A.*	L.R.A.*	N.L.A.*	L.R.A.*
Sure 49-5	600 (68)	5 seconds/90° (6 seconds/90°)	2 seconds/90°	50% (1)	50% (1)	1.00	22.00	1.00	12.30

### Limit Switches (Sure 24 and 25)

Standard: Two-single-pole, double throw type (SPDT) with an option: for 2 or 4 additional.

### Limit Switches (24 VDC Models)

Ratings: UL and CSA listed.  
 MIL-PRF-8805 Qualified Listing.  
 25 amp at 277 VAC; 1 H.P. at 125 VAC;  
 2 H.P. at 250 VAC

### Isolation Relays

To operate multiple actuators in parallel from a single signal requires isolating relays in the field wiring. Consult factory.

### Limit Switches (Sure 49 and 100)

Standard: Four-single-pole, double throw type (SPDT) with an option: for 2 additional  
 Ratings: UL and CSA listed.  
 15 amp and 1/2 H.P. at 125 or 250 VAC;  
 1/2 amp at 125 VDC; 1/4 amp at 250 VDC;  
 Lamp Load – 5 amp at 120 VAC  
 Optional: All double-pole, double throw type (DPDT).  
 Ratings: UL and CSA listed.  
 10 amp at 125/250 VAC (form ZZ);  
 1/2 H.P. at 125 VDC; 3/4 H.P. at 250 VAC

### Heater

PTC (Positive Temperature Coefficient)  
 Heater Standard in all AC Voltage Models

### Duty Cycle

The percentage of time the electric motor is energized vs. the time it is at rest, in reversing duty and with the actuator running at its rated load – maximum published torque.

### Standard Modulating Duty Rating

- 12 motor starts (corrections) per minute.
- At the rated duty cycle for that model.
- With the speed of operation a minimum of 15 seconds for 90° or slower.
- With positioning accuracy of (+/-) 1% of total span.

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