

RCS Actuators Sure 100



NEMA 4/6/7 Enclosure

Approvals

A.C. Models Only

Canadian Standards Association

CSA NRTL/C—Enclosure 4/4X/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

Optional Manual Override Available

ATEX Ex db IIB T5 Gb; Explosive gas atmosphere / Flameproof enclosure / Gas group IIB / Temperature code T5 / Zone 1.

Ex tb IIIC T85°C Db; Explosive dust atmosphere / dust tight enclosure / Dust group IIIC / Temp code T85°C / Zone 21.

Ambient temperature range: -20°C to 65°C (-4°F to +150°F)

CE Certified.



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 and NFPA 502, 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.)	Spirit 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° 2 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°)		25% (1)	25% (1)	1.10	1.80	1.00	1.20
Sure 49-15	600 (68)	15 seconds/90° (18 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

**(CF) – Consult Factory 24 VAC

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

24 VDC

Model	Output Torque Inch Pounds	Electrical Speed of Operation 60 Hz. (50 Hz.)	Spring Speed of Operation	Duty Cycle Rating 115 VAC	Duty Cycle Rating	Current Ratings 12 VDC		Current Ratings 24 VDC	
	(N.m)				230 VAC	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.

RCS Actuators

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⁽L.R.A.) – Locked Rotor Ampere † – Approximate, Based on Load

^{(1) -} Open/Close Service

^{(2) -} Open/Close or Modulating Service