

RCS3-SA8C

ROBO Cylinder, Slider Type, Actuator Width 80mm, 200-V Servo Motor, Aluminum Base, Coupled

RCS3P-SA8C

ROBO Cylinder, Slider Type, Actuator Width 80mm, 200-V Servo Motor, Aluminum Base, Coupled
High-precision specification

Model Specification Items	Series	Type	Encoder type	Motor type	Lead	Stroke	Applicable controller	Cable length	Options
	RCS3: Standard specification RCS3P: High-precision specification	SA8C	I: Incremental A: Absolute	100: Servo motor, 100W 150: Servo motor, 150W	30: 30mm 20: 20mm 10: 10mm 5: 5mm	50: 50mm ? 1100: 1100mm (50mm pitch increments)	T1: XSEL-J/K T2: SCON MSCON SSEL XSEL-P/Q XSEL-R/S	N: None P: 1m S: 3m M: 5m X□□: Custom length R□□: Robot cable	See Options below. *Be sure to specify a code indicating your desired cable exit direction.

* See page Pre-47 for details on the model descriptions.



*CE compliance is optional.



Technical References Appendix P.5



- (1) When the stroke is increased, the maximum speed will drop to prevent reaching dangerous speeds of ball screws. Confirm the maximum speed at the desired stroke by referring to the table of strokes and maximum speeds below.
- (2) The payload represents a value when the actuator is operated at a horizontal acceleration of 0.3 G (lead 5: 0.2 G) and vertical acceleration of 0.2 G.
- (3) The payload drops when the acceleration is raised. For details, refer to the list of payloads by acceleration provided on page A-108.
- (4) See page A-71 for details on push motion.

Actuator Specifications

Leads and Payloads

Model number	Motor output (W)	Lead (mm)	Maximum payload		Rated thrust (N)	Stroke (mm)
			Horizontal (kg)	Vertical (kg)		
RCS3[RCS3P]-SA8C-①-100-30-②-③-④-⑤	100	30	8	2	56.6	50 to 1100 (every 50mm)
RCS3[RCS3P]-SA8C-①-100-20-②-③-④-⑤		20	20	4	84.9	
RCS3[RCS3P]-SA8C-①-100-10-②-③-④-⑤		10	40	8	169.8	
RCS3[RCS3P]-SA8C-①-100-5-②-③-④-⑤		5	80	16	339.7	
RCS3[RCS3P]-SA8C-①-150-30-②-③-④-⑤	150	30	12	3	85.1	
RCS3[RCS3P]-SA8C-①-150-20-②-③-④-⑤		20	30	6	127.6	
RCS3[RCS3P]-SA8C-①-150-10-②-③-④-⑤		10	60	12	255.3	

Stroke and Maximum Speed

Stroke Lead	50 to 650 (every 50mm)									
	700	750	800	850	900	950	1000	1050	1100	
30	1800	1610	1420	1260	1120	1010	910	830	760	690
20	1200	1070	940	840	750	670	610	550	500	460
10	600	530	470	410	370	340	310	270	250	230
5	300	260	230	200	180	170	150	135	120	110

Code explanation ① Encoder type ② Stroke ③ Applicable Controller ④ Cable length ⑤ Options *See page A-71 for details on push motion. (Unit: mm/s)

① Encoder Type / ② Stroke

② Stroke (mm)	Standard Prices							
	RCS3-SA8C				RCS3P-SA8C			
	① Encoder Type				① Encoder Type			
	Incremental		Absolute		Incremental		Absolute	
	Motor wattage	Motor wattage	Motor wattage	Motor wattage	Motor wattage	Motor wattage	Motor wattage	
	100W	150W	100W	150W	100W	150W	100W	150W
50/100	—	—	—	—	—	—	—	—
150/200	—	—	—	—	—	—	—	—
250/300	—	—	—	—	—	—	—	—
350/400	—	—	—	—	—	—	—	—
450/500	—	—	—	—	—	—	—	—
550/600	—	—	—	—	—	—	—	—
650/700	—	—	—	—	—	—	—	—
750/800	—	—	—	—	—	—	—	—
850/900	—	—	—	—	—	—	—	—
950/1000	—	—	—	—	—	—	—	—
1050/1100	—	—	—	—	—	—	—	—

④ Cable Length

Type	Cable symbol	Standard price
Standard type	P (1m)	—
	S (3m)	—
	M (5m)	—
Special length	X06 (6m) ~ X10 (10m)	—
	X11 (11m) ~ X15 (15m)	—
	X16 (16m) ~ X20 (20m)	—
Robot cable	R01 (1m) ~ R03 (3m)	—
	R04 (4m) ~ R05 (5m)	—
	R06 (6m) ~ R10 (10m)	—
	R11 (11m) ~ R15 (15m)	—
	R16 (16m) ~ R20 (20m)	—

* See page A-59 for cables for maintenance.

⑤ Options

Name	Option code	Page	Standard Price
Cables exit from back left	A1E	→ A-41	—
Cables exit from left side	A1S	→ A-41	—
Cables exit from back right	A3E	→ A-41	—
Cables exit from right side	A3S	→ A-41	—
Brake	B	→ A-42	—
CE compliance	CE	→ A-42	—
Non-motor end specification	NM	→ A-52	—

Actuator Specifications RCS3P specifications are shown in []. (Other items are the same.)

Item	Description
Drive method	Ball screw, ø16mm, rolled C10 (rolled C5)
Positioning repeatability	±0.02mm [±0.01mm]
Lost motion	0.1mm [0.05mm] or less
Base	Material: Aluminum, white alumite treatment
Allowable static moment	Ma: 113.5 N·m, Mb: 117 N·m, Mc: 266 N·m
Allowable dynamic moment (*)	Ma: 23.1 N·m, Mb: 32.9 N·m, Mc: 54.1 N·m
Overhang load length	390mm max. in Ma direction, 390mm max. in Mb/Mc directions
Ambient operating temperature/humidity	0 to 40°C, 85% RH max. (Non-condensing)

(*) When the traveling life is assumed as 10,000km. Direction of allowable load moment.



