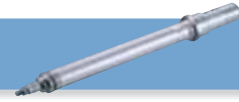


Model Selection

ER03 ROBO CYLINDER RCP3

3 Check Specifications

Rod Type



For the rod type, the criteria for selection are different, depending on whether it will be used for [positioning](#) or for [pushing](#).

[Positioning]

For positioning motions, the criteria for selection are: (1) stroke; (2) load capacity; and (3) speed. From the table below, select a model that meets your requirements for the stroke, load capacity, and speed.

For [RCP3](#) and [RCP2](#), which use a pulse motor, [the load capacity changes with speed](#). See the "[Speed vs. Load Capacity](#)" chart on each respective page to check if your desired speed and load capacity are supported.

[Pushing]

For pushing motions, the criteria for selection are: (1) stroke and (2) maximum pushing force. From the table below, select a model that meets your requirements for the stroke and pushing force. We recommend our [pulse motor models \(RCP3 and RCP2\)](#) for push operation, because of the motor's characteristics. Moreover, the pushing force is adjustable between 20% to 70% (max. pushing force at 70%).

[How to Read the Table]

Rod Type		Stroke (mm) and Maximum Speed (mm/sec)									Rated Thrust (N)	Maximum Push Force (N)	Load Capacity (kg)		Encoder Type	Controller Input Power	Model	See Page
Type		25mm	30	50	75	100	150	200	250	300			H	V				
RA2		180	200								-	6.6-16.1	0.25	0.125			RCP3-RA2A□-I-20P-4S-***	P.131
		100									-	13.2-28.3	0.5	0.25			RCP3-RA2A□-I-20P-2S-***	
		50									-	26.4-39.5	1	0.5			RCP3-RA2A□-I-20P-1S-***	
		180	280	300							-	4.4-11.9	0.25	0.125	I	⊕24V	RCP3-RA2B□-I-20P-6S-***	P.133
		180	200								-	6.6-16.1	0.5	0.25			RCP3-RA2B□-I-20P-4S-***	
		100									-	13.2-28.3	1	0.5			RCP3-RA2B□-I-20P-2S-***	
		25									-	100	7	2.5			RCP2-RA2C-I-20P-1-***	

→ Maximum Speed (points to 180, 200, 280, 300)
→ Stroke Range (points to 25, 30, 50, 75, 100, 150, 200, 250, 300)
→ Maximum Push Force (points to 6.6-16.1, 13.2-28.3, 26.4-39.5, 4.4-11.9, 6.6-16.1, 13.2-28.3)
→ Vertical Load Capacity (points to 0.25, 0.5, 1)
→ Horizontal Load Capacity (points to 0.125, 0.25, 2.5)

Rod Type

Rod Type		Stroke (mm) and Maximum Speed (mm/sec)									Rated Thrust (N)	Maximum Push Force (N)	Load Capacity (kg)		Encoder Type	Controller Input Power	Model	See Page
Type		25mm	30	50	75	100	150	200	250	300			H	V				
RA2		180	200								-	6.6-16.1	0.25	0.125			RCP3-RA2A□-I-20P-4S-***	P.131
		100									-	13.2-28.3	0.5	0.25			RCP3-RA2A□-I-20P-2S-***	
		50									-	26.4-39.5	1	0.5			RCP3-RA2A□-I-20P-1S-***	
		180	280	300							-	4.4-11.9	0.25	0.125	I	⊕24V	RCP3-RA2B□-I-20P-6S-***	P.133
		180	200								-	6.6-16.1	0.5	0.25			RCP3-RA2B□-I-20P-4S-***	
		100									-	13.2-28.3	1	0.5			RCP3-RA2B□-I-20P-2S-***	
		25									-	100	7	2.5			RCP2-RA2C-I-20P-1-***	

I = Incremental

A = Absolute

⊕ = DC

⊙ = AC

Rod Type		Stroke(mm) and Maximum Speed (mm/sec)								Rated Thrust (N)	Maximum Push Force (N)	Load Capacity (kg)		Encoder Type	Controller Input Power	Model	See Page	
Type		25mm	30	50	75	100	150	200	250			300	H					V
RN3		200									25.1	-	0.25	0.125			RCA2-RN3N-I-10-4S-30	P.177
		100									50.3	-	0.5	0.25			RCA2-RN3N-I-10-2S-30	
		50									100.5	-	1	0.5			RCA2-RN3N-I-10-1S-30	
RN4		270	<220>								33.8	-	2	0.5			RCA2-RN4N-I-20-6-30	P.179
		200									50.7	-	3	0.75	I	⊖24V	RCA2-RN4N-I-20-4-30	
		100									101.5	-	6	1.5			RCA2-RN4N-I-20-2-30	
		220									19.9	-	0.25	0.125			RCA2-RN4N-I-20-6S-30	
		200									29.8	-	0.5	0.25			RCA2-RN4N-I-20-4S-30	
		100									59.7	-	1	0.5			RCA2-RN4N-I-20-2S-30	
RP3		200									25.1	-	0.25	0.125			RCA2-RP3N-I-10-4S-30	P.181
		100									50.3	-	0.5	0.25			RCA2-RP3N-I-10-2S-30	
		50									100.5	-	1	0.5			RCA2-RP3N-I-10-1S-30	
RP4		270	<220>								33.8	-	2	0.5			RCA2-RP4N-I-20-6-30	P.183
		200									50.7	-	3	0.75	I	⊖24V	RCA2-RP4N-I-20-4-30	
		100									101.5	-	6	1.5			RCA2-RP4N-I-20-2-30	
		220									19.9	-	0.25	0.125			RCA2-RP4N-I-20-6S-30	
		200									29.8	-	0.5	0.25			RCA2-RP4N-I-20-4S-30	
		100									59.7	-	1	0.5			RCA2-RP4N-I-20-2S-30	
GS3		200									25.1	-	0.25	0.125			RCA2-GS3N-I-10-4S-30	P.185
		100									50.3	-	0.5	0.25			RCA2-GS3N-I-10-2S-30	
		50									100.5	-	1	0.5			RCA2-GS3N-I-10-1S-30	
GS4		270	<220>								33.8	-	2	0.5			RCA2-GS4N-I-20-6-30	P.187
		200									50.7	-	3	0.75	I	⊖24V	RCA2-GS4N-I-20-4-30	
		100									101.5	-	6	1.5			RCA2-GS4N-I-20-2-30	
		220									19.9	-	0.25	0.125			RCA2-GS4N-I-20-6S-30	
		200									29.8	-	0.5	0.25			RCA2-GS4N-I-20-4S-30	
		100									59.7	-	1	0.5			RCA2-GS4N-I-20-2S-30	
GD3		200									25.1	-	0.25	0.125			RCA2-GD3N-I-10-4S-30	P.189
		100									50.3	-	0.5	0.25			RCA2-GD3N-I-10-2S-30	
		50									100.5	-	1	0.5			RCA2-GD3N-I-10-1S-30	
GD4		270	<220>								33.8	-	2	0.5			RCA2-GD4N-I-20-6-30	P.191
		200									50.7	-	3	0.75	I	⊖24V	RCA2-GD4N-I-20-4-30	
		100									101.5	-	6	1.5			RCA2-GD4N-I-20-2-30	
		220									19.9	-	0.25	0.125			RCA2-GD4N-I-20-6S-30	
		200									29.8	-	0.5	0.25			RCA2-GD4N-I-20-4S-30	
		100									59.7	-	1	0.5			RCA2-GD4N-I-20-2S-30	
SD3		200		200							25.1	-	0.25	0.125			RCA2-SD3N-I-10-4S-***	P.193
		100		100							50.3	-	0.5	0.25			RCA2-SD3N-I-10-2S-***	
		50		50							100.5	-	1	0.5			RCA2-SD3N-I-10-1S-***	
SD4		240	<200>		300						33.8	-	2	0.5			RCA2-SD4N-I-20-6-***	P.195
		200			200						50.7	-	3	0.75	I	⊖24V	RCA2-SD4N-I-20-4-***	
		100			100						101.5	-	6	1.5			RCA2-SD4N-I-20-2-***	
		200			300						19.9	-	0.25	0.125			RCA2-SD4N-I-20-6S-***	
		200			200						29.8	-	0.5	0.25			RCA2-SD4N-I-20-4S-***	
		100			100						59.7	-	1	0.5			RCA2-SD4N-I-20-2S-***	

Small Size ↑ Large Size ↓

* < > is for vertical use

I = Incremental A = Absolute ⊖ = DC ⊕ = AC

Model Selection

ER03 CYLINDER
RCP3

Rod Type

Type	Image	Stroke (mm) and Maximum Speed (mm/sec)								Rated Thrust (N)	Maximum Push Force (N)	Load Capacity (kg)		Encoder Type	Controller Input Power	Model	See Page						
		* Length of bar = stroke * Number inside bar = max. speed by stroke, < > denotes vertical use										H	V										
		25mm	30	50	75	100	150	200	250									300					
RA3		187								-	73.5	-15	-6	I	24V	RCP2-RA3C-I-28P-5-***	P.141						
		114								-	156.8	-30	-10			RCP2-RA3C-I-28P-2.5-***							
		500								36.2	-	4	1.5			RCA-RA3C-I-20-10-***							
		250								72.4	-	9	3			RCA-RA3C-I-20-5-***							
RA4		458								-	150	-25	-4.5	I	24V	RCP2-RA4C-I-42P-10-***	P.143						
		250								-	284	-40	-12			RCP2-RA4C-I-42P-5-***							
		125<114>								-	358	40	-19			RCP2-RA4C-I-42P-2.5-***							
		RA4		600								18.9	-	3	1	A	24V	RCA-RA4C-○-20-12-***	P.199				
				300								37.7	-	6	2			RCA-RA4C-○-20-6-***					
				150								75.4	-	12	4			RCA-RA4C-○-20-3-***					
				RA4		600								28.3	-	4	1.5	I	24V	RCA-RA4C-○-30-12-***	P.199		
						300								56.6	-	9	3			RCA-RA4C-○-30-6-***			
						150								113.1	-	18	6.5			RCA-RA4C-○-30-3-***			
						RA4		600								18.9	-	3	1	A	100V	RCS2-RA4C-○-20-12-***	P.235
								300								37.7	-	6	2			RCS2-RA4C-○-20-6-***	
								150								75.4	-	12	4			RCS2-RA4C-○-20-3-***	
RA4								600								28.3	-	4	1.5	I	200V	RCS2-RA4C-○-30-12-***	P.235
								300								56.6	-	9	3			RCS2-RA4C-○-30-6-***	
								150								113.1	-	18	6.5			RCS2-RA4C-○-30-3-***	
		SRA4						250								-	90	-25	-9	I	24V	RCP2-SRA4R-I-35P-5-***	P.149
								125								-	170	-35	-15			RCP2-SRA4R-I-35P-2.5-***	
								250								41	-	9	3	I	24V	RCA-SRA4R-I-20-5-***	P.209
				125								81	-	18	6.5	RCA-SRA4R-I-20-2.5-***							
		RA5		800								63.8	-	12	2	I	100V	RCS2-RA5C-○-60-16-***	P.237				
				400								127.5	-	25	5			RCS2-RA5C-○-60-8-***					
				200								255.1	-	50	11.5			RCS2-RA5C-○-60-4-***					
				RA5		800								105.8	-	15	3.5	A	200V	RCS2-RA5C-○-100-16-***	P.237		
						400								212.7	-	30	9			RCS2-RA5C-○-100-8-***			
200								424.3	-	60	18	RCS2-RA5C-○-100-4-***											
RA6		450<400>								-	240	-40	-5	I	24V	RCP2-RA6C-I-56P-16-***	P.145						
		210								-	470	-50	-17.5			RCP2-RA6C-I-56P-8-***							
		130								-	800	-55	-26			RCP2-RA6C-I-56P-4-***							
		600								-	78	-25	-4.5			ERC2-RA6C-I-PM-12-***							
RA6		300								-	157	-40	-12	I	24V	ERC2-RA6C-I-PM-6-***	P.165						
		150								-	304	40	-18			ERC2-RA6C-I-PM-3-***							
		450<400>								-	220	-40	-5			ERC2-RA7C-I-PM-16-***							
		250<200>								-	441	-50	-17.5			ERC2-RA7C-I-PM-8-***							
RA7		125								-	873	-55	-25	I	24V	ERC2-RA7C-I-PM-4-***	P.167						
		800								63	-	5	2			RCS2-SRA7BD-I-60-16-***							
		400								127	-	10	5			RCS2-SRA7BD-I-60-8-***							
SRA7		200								254	-	20	10	I	100V	RCS2-SRA7BD-I-60-4-***	P.241						
		800								103	-	10	3.5			RCS2-SRA7BD-I-100-16-***							
		400								207	-	22	9			RCS2-SRA7BD-I-100-8-***							
		SRA7		200								414	-	40	19.5	I	200V	RCS2-SRA7BD-I-100-4-***	P.241				
				800								157	-	15	6.5			RCS2-SRA7BD-I-150-16-***					
				400								314	-	35	14.5			RCS2-SRA7BD-I-150-8-***					
				200								628	-	55	22.5	RCS2-SRA7BD-I-150-4-***							
				800								157	-	15	6.5	RCS2-SRA7BD-I-150-16-***							
				400								314	-	35	14.5	RCS2-SRA7BD-I-150-8-***							
				200								628	-	55	22.5	RCS2-SRA7BD-I-150-4-***							
RA10		250<167>								-	1500	-80	-80	I	24V	RCP2-RA10C-I-86P-10-***	P.147						
		125								-	3000	150	-100			RCP2-RA10C-I-86P-5-***							
		63								-	6000	300	-150			RCP2-RA10C-I-86P-2.5-***							
RA13		85								5106	9800	400	200	I	100V	RCS2-RA13R-○-750-2.5-***	P.247						
		62								10211	19600	500	300			A		200V	RCS2-RA13R-○-750-1.25-***				

* < > is for vertical use

I = Incremental

A = Absolute

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⊗ = AC