

Single axis robots Robonity Basic model Low-Profile type ABFS

Contributes to equipment downsizing with a structure that minimizes overall height.

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Specification

Model		ABFS03			ABFS04			ABFS05				ABFS06				
Compatible Motor (W)		50			50			100				100				
Drive System (Ball screw)		Φ6 Rolled C7			Φ10 Rolled C7			Φ10 Rolled C7				Φ10 Rolled C7				
Lead (mm)		8	4	2	12	6	2	20	12	6	2	20	12	6		
Maximum Speed (mm/sec)		480	240	100	720	360	120	1200	800	400	120	1333	800	400		
Maximum Payload (kg)		Horizontal		10	10	13	12	20	25	10	22	25	30	18	30	45
		Vertical		2	4	5	3	5	8	3	4	6	10	6	9	12
Rated Thrust (N)*3		88	143	352	71	141	424	85	142	285	854	85	142	285		
Stroke (mm)		50 - 300			50 - 500			50 - 800				50 - 800				

Model		ABFS03	ABFS04	ABFS05		ABFS06	
Repeatability (\pm mm) ^{*1}		± 0.005					
Static Permissible Moment (My, Mp, Mr)		13/13/15	47/47/64	73/73/115		99/99/176	
Frame Width		30	40	52		60	
Slider Top Height		30	40	40		44	
Maximum Body Cross-section (mm)		W42.3 x H35	W50xH42.5	W58 x H46		W65xH43	
Overall length (mm)	Straight	ST+224.5	ST+286	ST+288.5		ST+317	
	Folding	ST+143	ST+203.5	ST+195		ST+237.5	
Motor Type		200 V AC Servo Motor					
Position Detection		Absolute Encoder/Battery-less Absolute Encoder					
Resolution		23 bits					
Battery-less		Selection:					
Robot Cable (m)		3 · 5 · 10					
Critical Speed		—	—	700st-	600st-	650st-	550st-
Degree of Cleanliness ^{*1}		Equivalent to ISO Class 4 (ISO 14644-1)					
Model		ABFS07	ABFS08	ABFS08H	ABFS10		ABFS10H
Compatible Motor (W)		100	200	400	200		400
Drive System (Ball screw)		$\Phi 12$ Rolled C7	$\Phi 14$ Rolled C7				

Model		ABFS07			ABFS08				ABFS08H			ABFS10				ABFS10H			
Lead (mm)		20	10	5	24	12	6	36	24	12	6	24	12	6	36	24	12	6	
Maximum Speed (mm/sec)		1333	666	333	1440	720	360	1800	1440	720	360	1440	720	360	1800	1440	720	360	
Maximum Payload (kg)	Horizontal	25	45	85	40	80	100	35	50	95	115	40	80	100	35	50	95	115	
	Vertical	4	10	16	8	18	30	4	15	28	37	8	18	30	4	15	28	37	
Rated Thrust (N) ^{*3}		84	169	339	142	284	569	189	289	578	1156	142	284	569	189	289	578	1156	
Stroke (mm)		50 - 1050			50 - 1250														
Repeatability (±mm) ^{*1}		±0.005																	
Static Permissible Moment (My, Mp, Mr)		130/130/238			249/249/393						350/350/626								
Frame Width		70			80						100								
Slider Top Height		48			56						60								
Maximum Body Cross-section (mm)		W70xH48			W80 x H62.5						W100xH62.5								
Overall length (mm)	Straight	ST+315.5			ST+375.5						ST+372.5								
	Folding	ST+224			ST+291.5						ST+278.5								
Motor Type		200 V AC Servo Motor																	
Position Detection		Absolute Encoder/Battery-less Absolute Encoder																	
Resolution		23 bits																	

Model	ABFS07	ABFS08	ABFS08H	ABFS10	ABFS10H
Robot Cable (m)	3 · 5 · 10				
Critical Speed	550st-	650st or more			
Degree of Cleanliness ^{*1}	Equivalent to ISO Class 4 (ISO 14644-1)				

*1: Precautions regarding bending: Repeatability is $\pm 0.01..01$

*2: Precautions regarding bending: ISO CLASS 4 excludes bending
