

KH Series

BLDC Harmonic Actuators

Compact. Precise. Powerful.



High Torque Density

Maximum performance in a compact form factor



Precision Motion Control

Low backlash, high accuracy, smooth operation



Reliable by Design

Built for continuous operation in demanding environments



Versatile Integration

Ideal for robotic arms, humanoids, and advanced automation systems

PRODUCT PARAMETERS

		KH-14 (Frame 14)			KH-17 (Frame 17)			KH-20 (Frame 20)			KH-25 (Frame 25)		
Parameters	Unit	30 : 1	50 : 1	100 : 1	30 : 1	50 : 1	100 : 1	30 : 1	50 : 1	100 : 1	30 : 1	50 : 1	100 : 1
Gear Ratio	—	30	50	100	30	50	100	30	50	100	30	50	100
Input Voltage (DC)	V	48	48	48	48	48	48	48	48	48	48	48	48
Voltage Range (DC)	V	24 - 48	24 - 48	24 - 48	24 - 48	24 - 48	24 - 48	24 - 48	24 - 48	24 - 48	24 - 48	24 - 48	24 - 48
Rated Speed	RPM	110.0	70.0	35.0	110.0	70.0	35.0	110.0	70.0	35.0	110.0	70.0	35.0
Peak Speed	RPM	280.0	168.0	84.0	231.7	139.0	69.5	183.0	109.8	54.9	183.0	109.8	54.9
Rated Torque	N.m	6.8	9.0	14.0	12.0	34.0	51.0	20.0	44.0	64.0	38.0	72.0	140.0
Rated Power	W	83	66	51	147	249	187	244	323	235	405	405	405
Rated Current	A(rms)	4.2	4.2	4.2	10.4	10.4	10.4	13.5	13.5	13.5	13.5	13.5	13.5
momentary Peak Torque(5 sec)	N.m	17.0	46.0	70.0	30.0	91.0	143.0	50.0	127.0	191.0	95.0	242.0	369.0
Peak Current	A(rms)	7.3	7.3	7.3	18.3	18.3	18.3	21.9	21.9	21.9	21.9	21.9	21.9
Line Resistance	Ω	0.487	0.487	0.487	0.124	0.124	0.124	0.062	0.062	0.062	0.062	0.062	0.062
Line Inductance	mH	0.408	0.408	0.408	0.219	0.219	0.219	0.117	0.117	0.117	0.117	0.117	0.117
Backlash	Arcsec	≤ 40	≤ 40	≤ 40	≤ 40	≤ 40	≤ 40	≤ 40	≤ 40	≤ 40	≤ 40	≤ 40	≤ 40
Encoder Type	—	Single 15-Bit Multiturn with Battery Backup											
Repeat Position Accuracy	mm	± 0.01	± 0.01	± 0.01	± 0.01	± 0.01	± 0.01	± 0.01	± 0.01	± 0.01	± 0.01	± 0.01	± 0.01
Communication	—	CAN-FD 5 Mbps											
Weight	N (Without Brake)	Kg	~0.9	~0.9	~0.9	~1.36	~1.36	~1.36	~2.03	~2.03	~2.03	~2.75	~2.75
	B (With Brake)	Kg	~1.3	~1.3	~1.3	~1.79	~1.79	~1.79	~2.6	~2.6	~2.6	~3.45	~3.45

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Note:

All specifications are typical values at 25°C ambient.

Specifications are subject to change without prior notice.