HK / HKM WITH PART-TURN GEARBOX

HKJ / HKJM PART-TURN

HK / HKM MULTI-TURN

HK / HKM WITH DOUBLE-STAGE GEARBOX

HKML / HKEL LINEAR

GEARBOX

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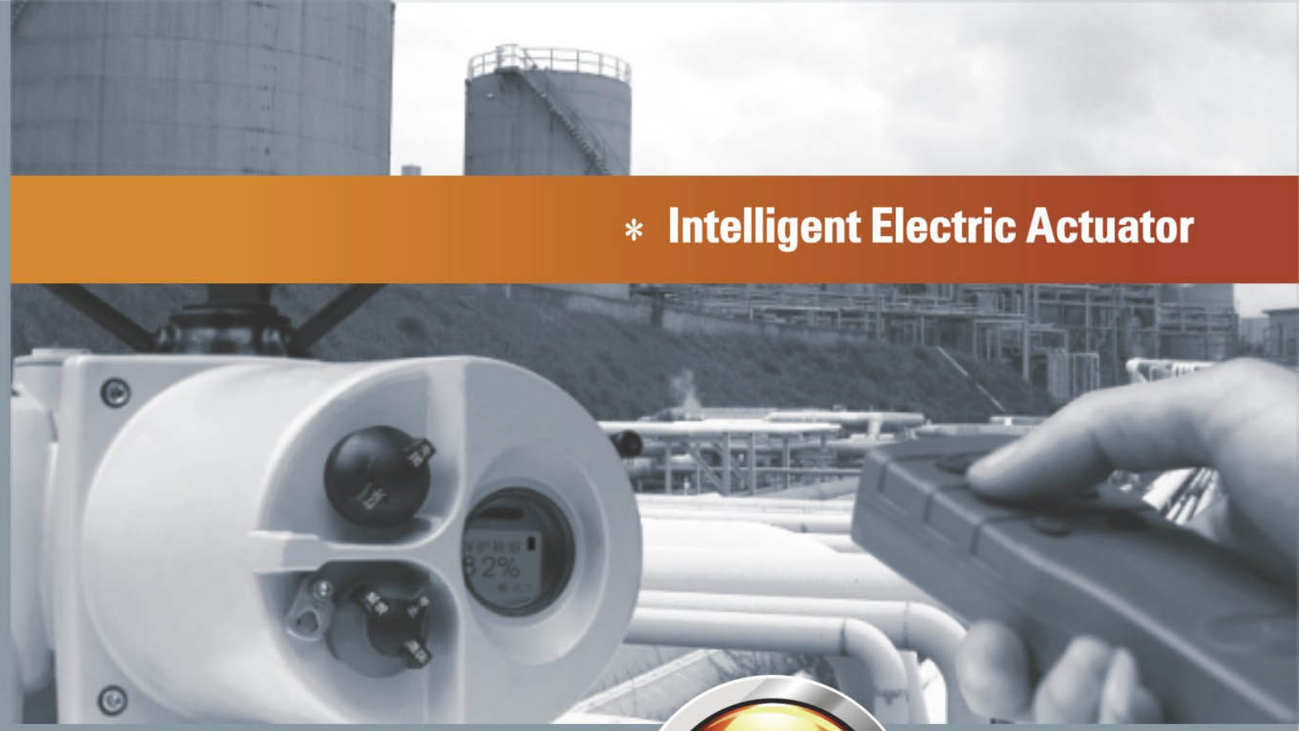
TAURUS GRAPHY DESIGN CO.,LTD. 0577-88655541 88655542 (designcaibiao)



* Intelligent Electric Actuator

HURKO

中国·浙江华控科技有限公司
CHINA HURKO SCIENCE AND TECHNOLOGY CO.,LTD.

About US

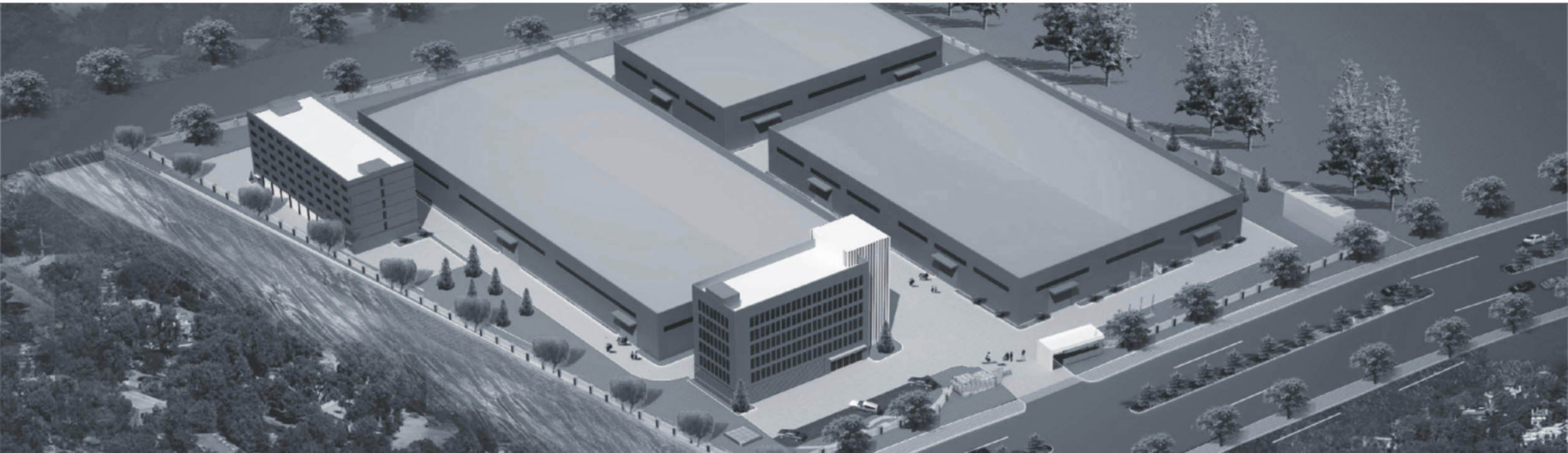
www.hurko-actuator.com

With an emphasis on supreme technology, the HURKO Science and Technology CO.,LTD is a manufacturer of the intelligent electric actuator that focuses on research & development, production, sales and customer service. We have abundant technology strength, advanced manufacture technics, and perfect machining and test equipment. Our intelligent actuators are provided with excellent quality, high capability & low price and simple manipulation. In the all-over world actuator domain our product is in the one-up status. It is introduced into from the foreign techniques. By our abstraction and amelioration our electric actuator is excogitated. It is a supernal, pithy and top end intelligent product nowadays. It adopts the super large-scale integration, so it has powerful functions and steady performance. Our actuator has the LCD of the Chinese or English menu. It is the mechanical and electric integrative product assembled with intelligent, efficient and human performance.

Our company has the advanced machining equipments and a lot of professional persons with ability in automatization, instrumetation, machine design, motor design and so on. These offer powerful sustainment and guarantee for the quality and performance of the "HURKO" electrical actuator. Our electric actuator is widely used in the domain of the power station, petroleum, paper-making, chemical plant, refinery, water disposal and so on.

HURKO

CREATS INTELLIGENT ELECTRIC ACTUATOR NEW ERA



MAIN TECHNIQUE PARAMETERS

1.1 Input signals:4mA~20mA: 1VDC~5VDC: 2mA~10mA: 0.5VDC~2.5VDC: 24VDC pulse or electrical level

1.2 Power supply:

3-phase AC current

Voltages(V)	Frequency(Hz)
220：230：240：380：400：415：500	50
440：460：480	60

1-phase AC current

Voltages(V)	Frequency(Hz)
220-250	50
110：115：120：240	60

1.3 Basic error: ≤±1.0%

1.4 Repeatability error: ≤1%(Range HKM、HKE、HKJM),≤3%(Range HK、HKC、HKJ)

1.5 Deadband: 0.1%~9.9%(Range HKM、HKE、HKJM)

1.6 Ambient temperature: -40℃~+70℃

1.7 Ambient humidity: ≤95%

1.8 Insulation resistance: >50MΩ between power supply terminals and main case ; >50MΩ between input terminals and main case; >50MΩ between power supply terminals and input terminals

1.9 Insulation intensity: To the 380VAC power supply, there is no breakdown or flash-over when respectively affected 2000V/50Hz between input terminals and power supply terminals or 500V/50Hz between input terminals and main case over 60 seconds.

1.10 Infra-red setting tool accords with explosion proof sign: Exia II CT4

MAIN CHARACTERS

(1) Non-intrusive design
(2) Non-intrusive debugging
(3) Double sealed structure
(4) Torque protection
(5) Limit protection
(6) Lose phase protection
(7) Electronic latching protection
(8) Motor over temperature protection
(9) Input and output channels with photoelectricity insulation
(10) Detect valve position by Hoare switchs
(11) Automatical phase order adjustment
(12) Display valve position real time by the LCD
(13) Self diagnosis function
(14) Manipulation by the hand-wheel
(15) Explosion proof structure with Exd II CT4
(16) Enclosure is IP68
(17) Low inertia and high torque motor with F degree
(18) Worm and turbine operates in an oil bath
(19) Standard drive interface
(20) Non-thrust bearing configuration
(21) Accept voltage, current and pulse signals

Application

For detailed information, please refer to:
Http//www.hurko-actuator.com

1.1.HKM/HKE Series Multi-turn Modulating Duty Actuator Performance Table (220VAC/50Hz 1-Ph)

Output speed(rpm)		18	24	36	48	72	96	144	192
HKM03 HKE03	Modulation torque N.m	12	12	10	10				
	Max torque N.m	24	24	21	20				
	Motor power kW	0.06	0.08	0.08	0.1				
	Locked rotor currency A	6.5	7.3	7.3	7.9				
	Rated currency A	1.6	1.8	1.8	1.9				
HKM05 HKE05	Modulation torque N.m	20	18	15	13				
	Max torque N.m	42	38	33	27				
	Motor power kW	0.12	0.12	0.12	0.12				
	Locked rotor currency A	8.5	8.5	8.5	8.5				
	Rated currency A	2.0	2.0	2.0	2.0				
HKM10 HKE10	Modulation torque N.m	40	32	26	25	18			
	Max torque N.m	85	77	58	55	38			
	Motor power kW	0.19	0.21	0.23	0.25	0.28			
	Locked rotor currency A	9.5	10.2	11.6	13	14.1			
	Rated currency A	2.3	2.45	2.8	3.2	3.4			
HKM20 HKE20	Modulation torque N.m	70	70	55	42	42			
	Max torque N.m	133	133	107	89	89			
	Motor power kW	0.28	0.35	0.32	0.35	0.37			
	Locked rotor currency A	14.1	17.2	16.5	17.2	18.1			
	Rated currency A	3.4	3.72	3.6	3.75	3.9			
HKM55 HKE55	Modulation torque N.m	180	150	130	102	72			
	Max torque N.m	343	328	265	204	142			
	Motor power kW	0.8	0.8	0.75	0.8	0.8			
	Locked rotor currency A	36	36	32	36	36			
	Rated currency A	7.8	7.8	7	7.8	7.8			

1.2.HKM/HKE Series Multi-turn Modulating Duty Actuator Performance Table (380VAC/50Hz 3-Ph)

Output speed(rpm)		18	24	36	48	72	96	144	192
HKM03 HKE03	Modulation torque N.m	17	17	15.6	13.6				
	Max torque N.m	34	34	30	27				
	Motor power kW	0.07	0.07	0.13	0.14				
	Locked rotor currency A	2.3	2.3	3.6	3.7				
	Rated currency A	0.75	0.75	1	1.1				
HKM05 HKE05	Modulation torque N.m	34	34	30	27				
	Max torque N.m	61	54	54	48				
	Motor power kW	0.12	0.13	0.19	0.23				
	Locked rotor currency A	2.7	3.6	4.7	6.4				
	Rated currency A	0.85	1.0	1.0	2.1				
HKM10 HKE10	Modulation torque N.m	81	81	68	54	47			
	Max torque N.m	122	109	81	68	54			
	Motor power kW	0.3	0.3	0.35	0.35	0.47			
	Locked rotor currency A	6.8	6.8	9.25	9.25	10.25			
	Rated currency A	2.3	2.3	2.8	2.8	3.6			
HKM20 HKE20	Modulation torque N.m	152	152	129	102	102			
	Max torque N.m	204	204	163	136	136			
	Motor power kW	0.47	0.47	0.58	0.68	0.70			
	Locked rotor currency A	10.25	10.25	13.4	16	16			
	Rated currency A	3.6	3.6	4.6	5.5	5.5			

1.2.HKM/HKE Series Multi-turn Modulating Duty Actuator Performance Table (380VAC/50Hz 3-Ph)

Output speed(rpm)		18	24	36	48	72	96	144	192
HKM55 HKE55	Modulation torque N.m	271	271	253	203	203			
	Max torque N.m	544	544	408	313	218			
	Motor power kW	0.9	1.05	1.27	1.2	1.35			
	Locked rotor currency A	18	25	28	27.6	29			
	Rated currency A	6	7	9	7.8	8.2			

2.1.HKML/HKEL Series Linear Actuator Performance Table (220VAC/50Hz 1-Ph)

Model	Output speed(rpm)	18	24	36	48	72
HKML03 HKEL03	Driving stem diameter/thread pitch mm	26/3				
	Max linear travel mm	115				
	Flange type (ISO 5210)	F10				
	Modulation stroke KN	6.50	6.50	5.42	5.42	
	Linear speed mm/sec	0.9	1.2	1.8	2.4	
	Rated close stroke KN	13.00	13.00	11.38	10.84	
HKML05 HKEL05	Driving stem diameter/thread pitch mm	26/3				
	Max linear travel mm	115				
	Flange type (ISO 5210)	F10				
	Modulation stroke KN	10.84	9.76	8.13	7.05	
	Linear speed mm/sec	0.9	1.2	1.8	2.4	
	Rated close stroke KN	22.76	20.60	17.89	14.63	
HKML10 HKEL10	Driving stem diameter/thread pitch mm	32/6				
	Max linear travel mm	115				
	Flange type (ISO 5210)	F14				
	Modulation stroke KN	15.37	12.29	9.99	9.60	6.91
	Linear speed mm/sec	1.8	2.4	3.6	4.8	7.2
	Rated close stroke KN	32.65	29.58	22.28	21.19	14.60
HKML10 HKEL10	Driving stem diameter/thread pitch mm	38/14				
	Max linear travel mm	115				
	Flange type (ISO 5210)	F14				
	Modulation stroke KN	9.34	7.47	6.07	5.84	4.20
	Linear speed mm/sec	4.2	5.6	8.4	11.2	16.8
	Rated close stroke KN	19.85	17.98	13.54	12.84	8.87
HKML20 HKEL20	Driving stem diameter/thread pitch mm	32/6				
	Max linear travel mm	115				
	Flange type (ISO 5210)	F14				
	Modulation stroke KN	26.89	26.89	21.13	16.13	16.13
	Linear speed mm/sec	1.8	2.4	3.6	4.8	7.2
	Rated close stroke KN	51.09	51.09	41.10	34.19	34.19
HKML20 HKEL20	Driving stem diameter/thread pitch mm	38/14				
	Max linear travel mm	115				
	Flange type (ISO 5210)	F14				
	Modulation stroke KN	16.35	16.34	12.84	9.81	9.81
	Linear speed mm/sec	4.2	5.6	8.4	11.2	16.8
	Rated close stroke KN	31.06	31.06	24.99	20.78	20.78

2.2.HKML/HKEL Series Linear Actuator Performance Table (380VAC/50Hz 3-Ph)

Model	Output speed(rpm)	18	24	36	48	72
HKML03 HKEL03	Driving stem diameter/thread pitch mm	26/3				
	Max linear travel mm	115				
	Flange type (ISO 5210)	F10				
	Modulation stroke KN	9.20	9.20	8.45	7.37	
	Linear speed mm/sec	0.9	1.2	1.8	2.4	
	Rated close stroke KN	18.43	18.43	16.26	14.63	
HKML05 HKEL05	Driving stem diameter/thread pitch mm	26/3				
	Max linear travel mm	115				
	Flange type (ISO 5210)	F10				
	Modulation stroke KN	18.43	18.43	16.26	14.63	
	Linear speed mm/sec	0.9	1.2	1.8	2.4	
	Rated close stroke KN	33.06	29.27	29.27	26.02	
HKML10 HKEL10	Driving stem diameter/thread pitch mm	32/6				
	Max linear travel mm	115				
	Flange type (ISO 5210)	F14				
	Modulation stroke KN	31.15	31.15	26.12	20.74	18.06
	Linear speed mm/sec	1.8	2.4	3.6	4.8	7.2
	Rated close stroke KN	46.87	41.87	31.15	26.12	20.74
HKML10 HKEL10	Driving stem diameter/thread pitch mm	38/14				
	Max linear travel mm	115				
	Flange type (ISO 5210)	F14				
	Modulation stroke KN	18.91	18.91	15.88	12.61	10.97
	Linear speed mm/sec	4.2	5.6	8.4	11.2	16.8
	Rated close stroke KN	28.49	25.45	18.91	15.88	12.61
HKML20 HKEL20	Driving stem diameter/thread pitch mm	32/6				
	Max linear travel mm	115				
	Flange type (ISO 5210)	F14				
	Modulation stroke KN	58.39	58.39	49.56	39.18	39.18
	Linear speed mm/sec	1.8	2.4	3.6	4.8	7.2
	Rated close stroke KN	78.37	78.37	62.62	52.25	52.25
HKML20 HKEL20	Driving stem diameter/thread pitch mm	38/14				
	Max linear travel mm	115				
	Flange type (ISO 5210)	F14				
	Modulation stroke KN	35.49	35.49	30.12	23.82	23.82
	Linear speed mm/sec	4.2	5.6	8.4	11.2	16.8
	Rated close stroke KN	47.64	47.64	38.06	31.76	31.76

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3.1.HK/HKC Series Multi-turn ON-OFF Duty Actuator Performance Table (220VAC/50Hz 1-Ph)

Output speed(rpm)		18	24	36	48	72	96	144	192
HK03 HKC03	Rated torque N.m	20	20	17	15				
	Motor power kW	0.08	0.08	0.08	0.08				
	Locked rotor currency A	7.3	7.3	7.3	7.3				
	Rated currency A	1.8	1.8	1.8	1.8				
HK08 HKC08	Rated torque N.m	24	24	20	17				
	Motor power kW	0.1	0.1	0.1	0.1				
	Locked rotor currency A	8.2	8.2	8.2	8.2				
	Rated currency A	2.1	2.1	2.1	2.1				
HK14 HKC14	Rated torque N.m	32	28	22					
	Motor power kW	0.12	0.12	0.12					
	Locked rotor currency A	8.8	8.8	8.8					
	Rated currency A	2.4	2.4	2.4					
HK20 HKC20	Rated torque N.m	81	81	81	63	63			
	Motor power kW	0.23	0.23	0.28	0.28	0.32			
	Locked rotor currency A	11.6	13	14.1	14.1	16.5			
	Rated currency A	2.8	3.2	3.4	3.4	3.6			
HK40 HKC40	Rated torque N.m	142	142	127	108				
	Motor power kW	0.35	0.37	0.37	0.37				
	Locked rotor currency A	17.2	18.1	18.1	18.1				
	Rated currency A	3.75	3.9	3.9	3.9				
HK60 HKC60	Rated torque N.m	252	232	184	147	109			
	Motor power kW	0.8	0.8	0.75	0.8	0.8			
	Locked rotor currency A	36	36	32	36	36			
	Rated currency A	7.8	7.8	7	7.8	7.8			

3.2.HK/HKC Series Multi-turn ON-OFF Duty Actuator Performance Table (380VAC/50Hz 3-Ph)

Output speed(rpm)		18	24	36	48	72	96	144	192
HK03 HKC03	Rated torque N.m	34	34	34	34	34	34		
	Motor power kW	0.05	0.05	0.07	0.10	0.13	0.17		
	Locked rotor currency A	1.4	1.8	2.3	3	3.6	3.6		
	Rated currency A	0.45	0.6	0.75	1	1	1.3		
HK08 HKC08	Rated torque N.m	81	81	81	81	61	47		
	Motor power kW	0.12	0.14	0.19	0.23	0.24	0.24		
	Locked rotor currency A	2.7	3.7	4.7	6.4	6.4	6.4		
	Rated currency A	0.85	1.1	1.5	2.1	2.1	2.1		
HK14 HKC14	Rated torque N.m	108	136	102					
	Motor power kW	0.15	0.23	0.23					
	Locked rotor currency A	3.7	6.4	6.4					
	Rated currency A	1.1	2.1	2.1					
HK20 HKC20	Rated torque N.m	203	203	203	203	176	142	120	
	Motor power kW	0.30	0.35	0.47	0.58	0.70	0.70	0.72	
	Locked rotor currency A	6.8	9.25	10.25	13.4	16	16	16.5	
	Rated currency A	2.3	2.8	3.6	4.6	5.5	5.5	5.6	
HK30 HKC30	Rated torque N.m	350	300	250					
	Motor power kW	0.55	0.55	0.58					
	Locked rotor currency A	12.5	12.5	13.4					
	Rated currency A	4.3	4.3	4.6					

3.2.HK/HKC Series Multi-turn ON-OFF Duty Actuator Performance Table (380VAC/50Hz 3-Ph)

Output speed(rpm)		18	24	36	48	72	96	144	192
HK40 HKC40	Rated torque N.m	400	400	298	244				
	Motor power kW	0.58	0.68	0.68	0.68				
	Locked rotor currency A	13.4	16	16	16				
	Rated currency A	406	5.5	5.5	5.5				
HK60 HKC60	Rated torque N.m	610	610	542	474	474	366	275	
	Motor power kW	0.90	1.05	1.27	1.35	1.90	1.80	2.00	
	Locked rotor currency A	18	25	28	29	41	37	43	
	Rated currency A	6	7	9	8.2	12.5	12	13	
HK100 HKC100	Rated torque N.m	1020	1020	845	680	680	542	406	
	Motor power kW	2.10	2.10	2.10	3.7	3.7	3.7	3.7	
	Locked rotor currency A	45	45	45	61	61	61	61	
	Rated currency A	11	11	11	16.5	16.5	16.5	16.5	
Hk150 HKC150	Rated torque N.m	1490	1490	1290	1020	1020	745	645	542
	Motor power kW	2.75	2.75	4.80	4.80	4.80	480	4.80	4.80
	Locked rotor currency A	61	61	95	95	95	95	95	95
	Rated currency A	15	15	25	25	25	25	25	25
HK200 HKC200	Rated torque N.m	2030	2030	1700	1355	1355	1020	865	730
	Motor power kW	4.5	4.5	4.5	7.5	7.5	7.5	3.5	7.5
	Locked rotor currency A	78	78	78	138	138	138	138	138
	Rated currency A	21	21	21	35	35	35	35	35
HK201 HKC201	Rated torque N.m							1355	1355
	Motor power kW							10.2	13
	Locked rotor currency A							218	218
	Rated currency A							88	88
HK300 HKC300	Rated torque N.m		3000						
	Motor power kW		4.8						
	Locked rotor currency A		78						
	Rated currency A		22						

4.1 Part-turn Actuator Performance Table (220VAC/50Hz 1-Ph)

4.1.1 HKJ Series ON-OFF Duty Actuator

Model	Max output torque	Rated torque	Travel time	Max stem of valve	Motor power	Rated currency	Hand wheel number	Weight
	N.m	N.m	s	mm	W	A	n	kg
HKJ06	60	50	17	22	15	0.53	8.5	11
HKJ09	90	75	17	22	25	0.60	8.5	11
HKJ15	150	125	20	22	40	0.80	10	12
HKJ19	190	160	20	22	45	1.10	10	13
HKJ28	280	235	25	32	50	1.20	12.5	17
HKJ38	380	320	25	32	60	1.40	12.5	18
HKJ50	500	420	25	32	90	1.70	12.5	19
HKJ60	600	500	29	42	90	1.70	14.5	22
HKJ80	800	670	29	42	140	2.00	14.5	23
HKJ100	1000	840	29	42	180	2.40	14.5	25
HKJ150	1500	1250	87	75	90	1.70	43.5	68
HKJ200	2000	1670	87	75	140	2.00	43.5	70
HKJ250	2500	2100	87	75	180	2.40	43.5	70

4.1.2 HKJM Series Modulating Duty Actuator

Model	Max output torque	Modulation torque	Travel time	Max stem of valve	Motor power	Rated currency	Hand wheel number	Weight
	N.m	N.m	s	mm	W	A	n	kg
HKJM06	50	25	17	22	15	0.45	8.5	11
HKJM09	80	40	17	22	25	0.58	8.5	11
HKJM15	130	70	20	22	40	0.95	10	12
HKJM19	160	85	20	22	45	0.95	10	13
HKJM28	260	130	25	32	50	0.95	12.5	17
HKJM38	350	175	25	32	60	1.30	12.5	18
HKJM50	420	230	25	32	90	1.50	12.5	19
HKJM60	520	270	29	42	90	1.50	14.5	22
HKJM80	700	360	29	42	140	2.15	14.5	23
HKJM100	880	450	29	42	180	2.45	14.5	25
HKJM150	1350	720	87	75	90	1.50	43.5	68
HKJM200	1800	950	87	75	140	2.15	43.5	70
HKJM250	2300	1100	87	75	180	2.45	43.5	70

Notice: The motor starting currency of HKJ,HKJM actuator is around two times of rated currency .
HKJM 's max torque is around 1.2times of rated torque.

4.2 Part-turn Actuator Performance Table (380VAC/50Hz 3-Ph)

Model	Max output torque	Modulation torque	Travel time	Max stem of valve	Motor power	Rated currency	Hand wheel number	Weight
	N.m	N.m	s	mm	W	A	n	kg
HKJ/HKJM06	60	50	17	22	15	0.25	8.5	11
HKJ/HKJM09	90	75	17	22	25	0.28	8.5	11
HKJ/HKJM15	150	125	20	22	40	0.39	10	12
HKJ/HKJM19	190	160	20	22	45	0.50	10	13
HKJ/HKJM28	280	235	25	32	50	0.40	12.5	17
HKJ/HKJM38	380	320	25	32	60	0.45	12.5	18
HKJ/HKJM50	500	420	25	32	90	0.73	12.5	19
HKJ/HKJM60	600	500	29	42	90	0.73	14.5	22
HKJ/HKJM80	800	670	29	42	140	0.80	14.5	23
HKJ/HKJM100	1000	840	29	42	180	0.98	14.5	25
HKJ/HKJM150	1500	1250	87	75	90	0.73	43.5	68
HKJ/HKJM200	2000	1670	87	75	140	0.80	43.5	70
HKJ/HKJM250	2500	2100	87	75	180	0.98	43.5	70

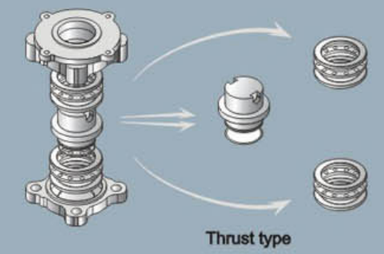
Notice: The motor starting currency of HKJ,HKJM actuator is around two times of rated currency .
HKJM 's max torque is around 1.2times of rated torque.

HKM/HK/HKC/HKE Drive connection

There are two kinds of base for HK/HKM actuator. Hk100, Hk150, Hk200, HK201 and HK300 are integral type. HKM03, HKM05, HKM10, HKM20, HKM55 are disassemble type.

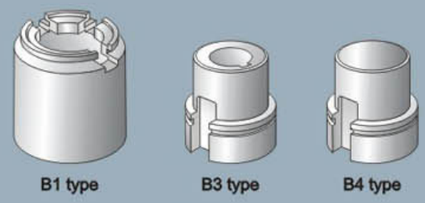
These two kinds of base are including flange and driving bush that comply with ISO 5210 or MSS SP-102 standard.

Disassemble base



Thrust type

Non-thrust type disassemble base

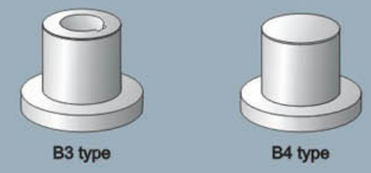


B1 type B3 type B4 type

Non-thrust type

Drive bush can be machined according to stem of valve so that simplify the connection with valve and easy to disassembly. The design of base and drive bush of HK/HKM comply with ISO5211 or MSS SP-101 standard.

Non-thrust type undetachable base



B3 type B4 type

Non-thrust type

B3 suitable for HK100-HK250 HKC100-HKC250 actuator with fixed shaft hole,the hole and key way are comply with ISO5210 standard.
B4 suitable for HK100-HK250 actuator without shaft hole ,which need to be machined by user.

Model—interface dimensions table.

Actuator model	HKC 03-14 HK 03-14 HKM 03-05	HKC 20-40 HK 20-40 HKM 10-20	HKC 60 HK 60 HKM 55	HKC 100 HK 100	HKC 150 HK 150	HKC 200 HK 200	HKC 250 HK 250	HKC 300 HK 300
A type interface(thrust type) rated thrust .								
Rated thrust	44	100	150	220	220	334	-	445
rising stem(max)	32	51	67	73	83	83	-	83
hiding stem(max)	26	38	51	57	73	73	-	73
B type interface(non-thrust) rated thrust								
B1 type(fixed hole) mm	42	60	80	-	-	-	-	-
B3 type(fixed hole) mm	20	30	40	50	50	50	50	-
B4 type(max) mm	20	30	44	50	60	60	60	-
Hand wheel ratio	Direct	Direct	Direct	Direct	60:1	60:1	60:1	60:1
Standard type	-	-	-	15:1	180:1	180:1	180:1	180:1
Choice type	-	-	-	60:1	15:1	15:1	15:1	15:1
Flange sizes	F10	F14	F16	F25	F25	F30*	F25	F30
Net weight (kg)	33	55	80	235	258	258	238	258