SPECIFICATION OF MAIN BEARING
主轴承的规格

HC/ YC系列规格表 Specification of HC/ YC series

每个产品都组装有精密交叉滚子轴承用于直接支撑外部负载（输出法兰部）。

Each product is assembled with precise cross roller bearing for supporting external loading(Output flange).

系列 Series	型号 Type	基本额定负载 Basic rated load				容许静力矩Mc Allowable static moment Mc		重量 Weight
		基本额定动负载Cr Basic rated dynamic load Cr		基本额定静负载Cr Basic rated static load Cr				
		KN	kgf	KN	kgf	Nm	Kgfm	kg
HC series	14	4.7	480	6.07	620	41	4.2	0.22
	17	5.3	540	7.55	770	64	6.5	0.3
	20	5.8	590	9.0	920	91	9.3	0.38
	25	9.6	980	15.1	1540	156	16	0.6
	32	15	1530	25.0	2550	313	32	1.1
YC series	20	5.8	590	9.0	920	91	9.3	0.38
	25	9.6	980	15.1	1540	156	16	0.6
	32	15	1530	25.0	2550	313	32	1.1

※基本额定动负载是指，使轴承的基本动态额定寿命达到100万转的一定的静止径向负载。
※基本额定静负载是指，在承受最大负载的转动体和轨道的接触部中央位置，施加一定水平的接触应力（4kN/mm²）的静态负载。
※容许静力矩是指，对输出轴承可能施加最大的力矩载荷，如在此范围内，能够保持基本性能并可工作的数值。

※Basic rated dynamic load refers to static radial load that makes dynamic rated life of bearing reach up to 1 million rotations.
※Basic rated static load refers to static load that exerts a certain level of contact stress(4K/mm²) on the central location between rotor of bearing maximum load and contact part of pathway.
※Allowable static moment refers to the value of the maximum torque exerting on output bearing, within the scope of which, it's workable and the basic performance is possible.

HC/ YC系列启动转矩 Starting torgue of HC/ YC series

单位unit：cNm

减速比 Reduction ratio \ 型号 Type	HC series						YC series		
	11	14	17	20	25	32	20	25	32
50	2.0	4.1	6.1	7.8	15	31	7.8	15	31
80	1.8	2.8	4	4.9	9.2	19	4.9	9.2	19
100	1.5	2.5	3.4	4.3	8	18	4.3	8	18
120	-	2.3	3.1	3.8	7.3	15	3.8	7.3	15
160	-	-	-	3.3	-	-	3.3	-	-

HS/ YT系列规格表 Specification of HS/ YT series

型号 Type	基本额定负载 Basic rated load				容许静力矩Mc Allowable static moment Mc		重量 Weight
	基本额定动负载Cr Basic rated dynamic load Cr		基本额定静负载Cr Basic rated static load Cr				
	KN	kgf	KN	kgf	Nm	Kgfm	kg
14	5.8	590	8.6	880	74	7.6	0.39
17	10.4	1060	16.3	1670	124	12.6	0.56
20	14.6	1490	22	2250	187	19.1	0.73
25	21.8	2230	35.8	3660	258	26.3	1.23
32	38.2	3900	65.4	6680	580	59.1	2.54
40	43.3	4410	81.6	8330	849	86.6	7.2

※基本额定动负载是指，使轴承的基本动态额定寿命达到100万转的一定的静止径向负载。
※基本额定静负载是指，在承受最大负载的转动体和轨道的接触部中央位置，施加一定水平的接触应力（4kN/mm²）的静态负载。
※容许静力矩是指，对输出轴承可能施加最大的力矩载荷，如在此范围内，能够保持基本性能并可工作的数值。

※Basic rated dynamic load refers to static radial load that makes dynamic rated life of bearing reach up to 1 million rotations.
※Basic rated static load refers to static load that exerts a certain level of contact stress(4K/mm²) on the central location between rotor of bearing maximum load and contact part of pathway.
※Allowable static moment refers to the value of the maximum torque exerting on output bearing, within the scope of which, it's workable and the basic performance is possible.

SPECIFICATION OF MAIN BEARING
主轴承的规格

中空型(HS-III)启动转矩 Starting torgue of hollow type(HS-III)

单位unit：cNm

减速比 Reduction ratio \ 型号 Type	14	17	20	25	32	40
50	8.8	27	36	56	85	136
80	7.5	25	33	50	74	117
100	6.9	24	32	49	72	112
120	6.9	24	31	48	68	110
160	-	-	31	-	-	-

中空型(HS-III)同步带紧张力矩推荐值 Hollow type(HS-III) timing belt tension torque recommended value

单位unit：Nm

发生器承载扭矩 Generator load torque	型号 Model	14	17	20	25	32	40
最大Maximum	HS-III	25	25	52	52	87	87

轴输入型(HS-IV)启动转矩 Starting torque of input axial type(HS-IV)

单位unit：cNm

减速比 Reduction ratio \ 型号 Type	14	17	20	25	32	40
50	5.7	9.7	14	22	41	72
80	4.4	7.2	11	15	29	52
100	3.7	6.5	9.9	14	27	47
120	3.4	6.2	9.3	13	24	44
160	-	-	8.6	-	-	-

输轴入型(HS-IV)同步带紧张力矩推荐值 Axial input(HS-IV)timing belt tension torgue recommended value

单位unit：Nm

发生器承载扭矩 Generator load torque	型号 Model	14	17	20	25	32
最大Maximum	HS-IV	13	19	25	25	52

MOMENT LOAD TABLE
弯矩负载表

CS/ CN/ CG/ YC系列谐波减速器弯矩负载表 Moment load table

型号 Model	设计值 Design value	启动停止允许值 Permissible value at start and stop	瞬间允许值 Instant permissible value
CS/ CN/ CG-14	M b di 20Nm	M b peak 40Nm	M b max 80Nm
	F t di 180N	F t peak 320N	F t max 560N
	F a di 180N	F a peak 320N	F a max 560N
CS/ CN/ CG-17	M b di 30Nm	M b peak 60Nm	M b max 120Nm
	F t di 230N	F t peak 400N	F t max 700N
	F a di 230N	F a peak 400N	F a max 700N
CS/ CN/ CG/ YC-20	M b di 42Nm	M b peak 80Nm	M b max 168Nm
	F t di 270N	F t peak 480N	F t max 830N
	F a di 270N	F a peak 480N	F a max 830N
CS/ CN/ CG/ YC-25	M b di 80Nm	M b peak 160Nm	M b max 313Nm
	F t di 440N	F t peak 770N	F t max 1320N
	F a di 440N	F a peak 770N	F a max 1320N
CS/ CN/ CG/ YC-32	M b di 220Nm	M b peak 440Nm	M b max 890Nm
	F t di 900N	F t peak 1600N	F t max 2700N
	F a di 900N	F a peak 1600N	F a max 2700N
CS/ CN/ CG/-40	M b di 320Nm	M b peak 650Nm	M b max 1260Nm
	F t di 1000N	F t peak 1750N	F t max 3000N
	F a di 1000N	F a peak 1750N	F a max 3000N

ST/ SN/ SG/ YT系列谐波减速器弯矩负载表 Moment load table

型号 Model	设计值 Design value	启动停止允许值 Permissible value at start and stop	瞬间允许值 Instant permissible value
ST/ SN/ SG/ YT-14	M b di 41Nm	M b peak 80Nm	M b max 160Nm
	F t di 270N	F t peak 490N	F t max 830N
	F a di 270N	F a peak 490N	F a max 830N
ST/ SN/ SG/ YT-17	M b di 72Nm	M b peak 140Nm	M b max 290Nm
	F t di 400N	F t peak 700N	F t max 1200N
	F a di 400N	F a peak 700N	F a max 1200N
ST/ SN/ SG/ YT-20	M b di 140Nm	M b peak 280Nm	M b max 560Nm
	F t di 650N	F t peak 1150N	F t max 1980N
	F a di 650N	F a peak 1150N	F a max 1980N
ST/ SN/ SG/ YT-25	M b di 243Nm	M b peak 480Nm	M b max 974Nm
	F t di 900N	F t peak 1600N	F t max 2800N
	F a di 900N	F a peak 1600N	F a max 2800N
ST/ SN/ SG/ YT-32	M b di 460Nm	M b peak 900Nm	M b max 1860Nm
	F t di 1350N	F t peak 2300N	F t max 4000N
	F a di 1350N	F a peak 2300N	F a max 4000N
ST/ SN/ SG/ YT-40	M b di 600Nm	M b peak 1200Nm	M b max 3000Nm
	F t di 2000N	F t peak 3500N	F t max 6000N
	F a di 2000N	F a peak 3500N	F a max 6000N

备注：输出端负载M b——弯矩，F t—径向力，F a——轴向力
Note: Output load M b-bending moment, F t-radial force, F a-axial force

MOMENT LOAD TABLE
弯矩负载表

CD系列谐波减速器弯矩负载表 Moment load table of CD series

型号 Model	设计值 Design value	启动停止允许值 Permissible value at start and stop	瞬间允许值 Instant permissible value
CD-14	M b di 20Nm	M b peak 40Nm	M b max 80Nm
	F t di 180N	F t peak 320N	F t max 560N
	F a di 180N	F a peak 320N	F a max 560N
CD-17	M b di 30Nm	M b peak 60Nm	M b max 120Nm
	F t di 230N	F t peak 400N	F t max 700N
	F a di 230N	F a peak 400N	F a max 700N
CD-20	M b di 42Nm	M b peak 80Nm	M b max 168Nm
	F t di 270N	F t peak 480N	F t max 830N
	F a di 270N	F a peak 480N	F a max 830N
CD-25	M b di 80Nm	M b peak 160Nm	M b max 313Nm
	F t di 440N	F t peak 770N	F t max 1320N
	F a di 440N	F a peak 770N	F a max 1320N
CD-32	M b di 220Nm	M b peak 440Nm	M b max 890Nm
	F t di 900N	F t peak 1600N	F t max 2700N
	F a di 900N	F a peak 1600N	F a max 2700N

SD系列谐波减速器弯矩负载表 Moment load table of SD series

型号 Model	设计值 Design value	启动停止允许值 Permissible value at start and stop	瞬间允许值 Instant permissible value
SD-14	M b di 41Nm	M b peak 800Nm	M b max 160Nm
	F t di 270N	F t peak 490N	F t max 830N
	F a di 270N	F a peak 490N	F a max 830N
SD-17	M b di 59Nm	M b peak 140Nm	M b max 239Nm
	F t di 330N	F t peak 570N	F t max 990N
	F a di 330N	F a peak 570N	F a max 990N
SD-20	M b di 117Nm	M b peak 230Nm	M b max 468Nm
	F t di 550N	F t peak 975N	F t max 1680N
	F a di 550N	F a peak 975N	F a max 1680N
SD-25	M b di 213Nm	M b peak 420Nm	M b max 855Nm
	F t di 790N	F t peak 1400N	F t max 2450N
	F a di 790N	F a peak 1400N	F a max 2450N
SD-32	M b di 400Nm	M b peak 800Nm	M b max 1600Nm
	F t di 1240N	F t peak 2100N	F t max 3680N
	F a di 1240N	F a peak 2100N	F a max 3680N
SD-40	M b di 600Nm	M b peak 1200Nm	M b max 2520Nm
	F t di 1530N	F t peak 2670N	F t max 4600N
	F a di 1530N	F a peak 2670N	F a max 4600N

备注：输出端负载M b——弯矩，F t—径向力，F a——轴向力
Note: Output load M b-bending moment, F t-radial force, F a-axial force

C SERIES

C系列谐波减速器
C series harmonic reducer

低噪音 Low noise
大扭力 Large torque
高精度 High-precision
耐磨耐用 Wear resistance and durability
使用寿命长 Long service life





SERIES INTRODUCTION
系列介绍

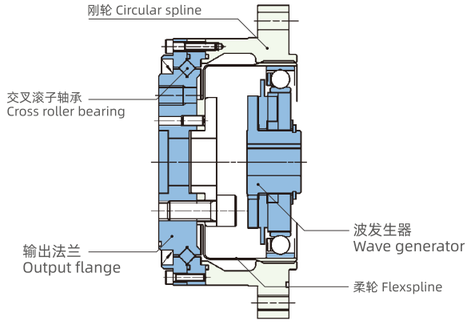


应用领域
Application

- 工业机器人 Industrial robot
- 服务机器人 Service robots
- 金属机床 Metal machine tools
- 医疗器械 Medical Devices
- 测定、分析、试验设备 Analysis, Test, Equipmen
- 能源相关设备 Energy Related equipment
- 造纸设备 Papermaking Equipment

CS/ CN-I系列组合型结构
Combinative structure of CS/ CN-I series

标准型（ CS/ CN-I） Standard type (CS/ CN-I)



CS 系列Series

易于操作的组合化产品。每个型号都有用于支撑外部负载，具有高刚性的交叉滚子轴承。

A combination product which is easy to operate. Each model has a cross-roller bearing that with high rigidity to support externa loads.

CN 系列Series

轻量型产品，在不改变性能的前提下，相比标准品，重量减少了30%。

A light weight product . Compare with standard product that with the same performance , CN series is 30% lighter .

CS/ CN-I系列额定参数表 Rated parameter table of CS/ CN-I series

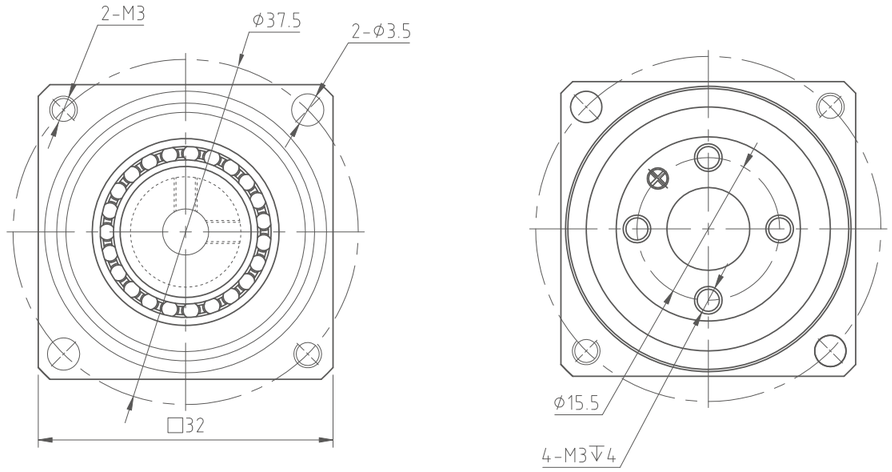
型号 Model	速比 Reduction ratio	输入2000r/min时的额定转矩 Rated torque at 2000r/min input	起动停止时的容许峰值转矩 Permissible peak torque at start and stop	平均负载转矩的容许最大值 Permissible maximum value for average load torque	瞬间容许最大转矩 Permissible maximum momentary torque	容许最高输入转速(脂润滑) Permissible maximum input rotational speed (Grease)	容许平均输入转速(脂润滑) Permissible average input rotational speed (Greaae)	转动惯量 Moment of inertia
		Nm	Nm	Nm	Nm	r/min	r/min	$kgcm^2$
8	50	1.8	3.3	2.3	6.6	8500	3500	$1.4x10^{-2}$ $1.2x10^{-2}$
	100	2.4	4.8	3.3	9.0			
11	50	3.5	8.3	5.5	17.0	8500	3500	
	80	4.5	9.9	8.0	22.5			
	100	5.0	11	8.9	25.0			

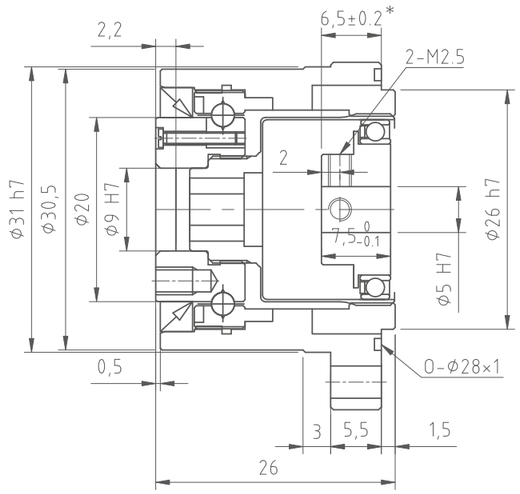
型号 Model	速比 Reduction ratio	输入2000r/min时的额定转矩 Rated torque at 2000r/min input		起动停止时的容许峰值转矩 Permissible peak torque at start and stop		平均负载转矩的容许最大值 Permissible maximum value for average load torque		瞬间容许最大转矩 Permissible maximum momentary torque		容许最高输入转速(脂润滑) Permissible maximum input rotational speed (Grease)	容许平均输入转速(脂润滑) Permissible average input rotational speed (Greaae)	背隙 Backlash	设计寿命 Desian life
		Nm	kgfm	Nm	kgfm	Nm	kgfm	Nm	kgfm	r/min	r/min	Arc Sec	Hour
14	50	5.4	0.55	18	1.8	6.9	0.70	35	3.6	8500	3500	≤20	10000
	80	7.8	0.80	23	2.4	11	1.1	47	4.8				15000
	100	7.8	0.80	28	2.9	11	1.1	54	5.5				15000
	120	7.8	0.80	28	2.9	11	1.1	54	5.5				15000
17	50	16	1.6	34	3.5	26	2.6	70	7.1	7300	3500	≤20	10000
	80	22	2.2	43	4.4	27	2.7	87	8.9				15000
	100	24	2.4	54	5.5	39	4.0	108	11				15000
	120	24	2.4	54	5.5	39	4.0	86	8.8				15000
20	50	25	2.5	56	5.7	34	3.5	98	10	6500	3500	≤20	10000
	80	34	3.5	74	7.5	47	4.8	127	13				15000
	100	40	4.1	82	8.4	49	5.0	147	15				15000
	120	40	4.1	87	8.9	49	5.0	147	15				15000
	160	40	4.1	92	9.4	49	5.0	147	15				15000
25	50	39	4.0	98	10	55	5.6	186	19	5600	3500	≤20	10000
	80	63	6.4	137	14	87	8.9	255	26				15000
	100	67	6.8	157	16	108	11	284	29				15000
	120	67	6.8	167	17	108	11	304	31				15000
32	50	76	7.8	216	22	108	11	382	39	4800	3500	≤20	10000
	80	118	12	304	31	167	17	568	58				15000
	100	137	14	333	34	216	22	647	66				15000
	120	137	14	353	36	216	22	686	70				15000
40	50	137	14	402	41	196	20	686	70	4000	3000	≤20	10000
	80	206	21	519	53	284	29	980	100				15000
	100	265	27	568	58	372	35	1080	110				15000
	120	294	30	617	63	451	46	1180	120				15000

CS/ CN-8-XX-U-I

8型谐波减速器 8 harmonic reducer

结构图 STRUCTURE CHART

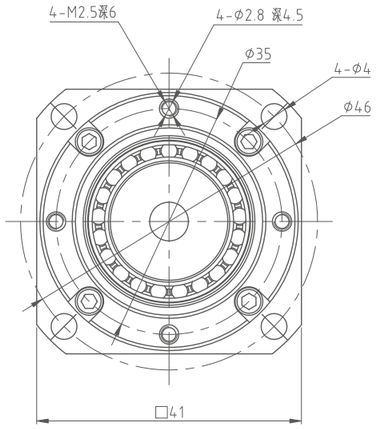


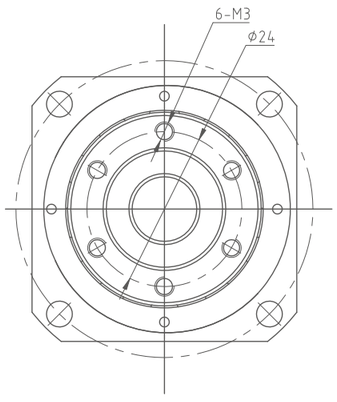


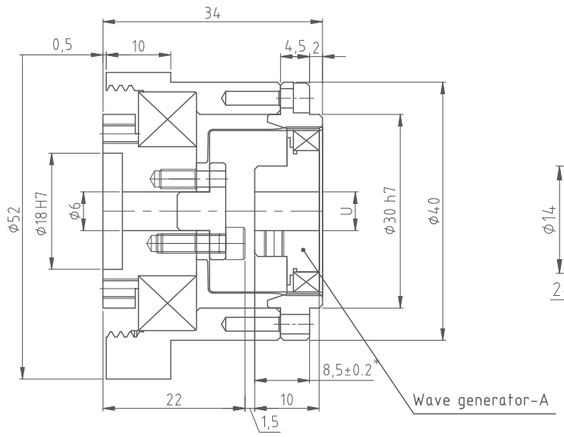
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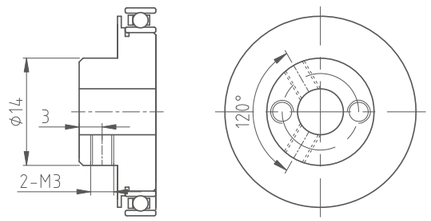
11型谐波减速器 11 harmonic reducer

结构图 STRUCTURE CHART







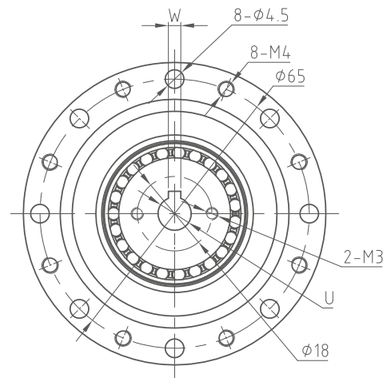


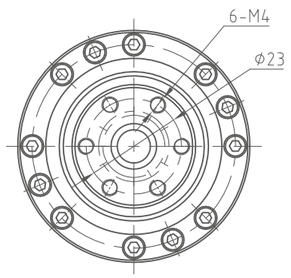
型号/MODEL	U	T	W
Wave generator-A φ5	φ5H7		
Wave generator-A φ6	φ6H7		

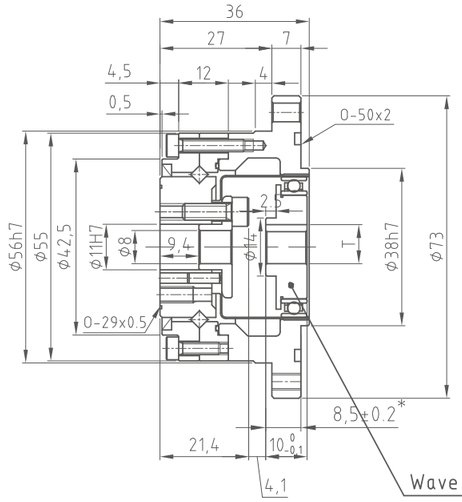
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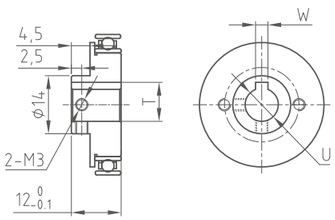
14型谐波减速器 14 harmonic reducer

结构图 STRUCTURE CHART









型号/MODEL	U	T	W
Wave generator-A φ6	φ6H7	7 +0.1 0	2JS9/P9
Wave generator-A φ8	φ8H7	9.4 +0.1 0	3JS9/P9