

RCSD/RCSD-ST Series of Harmonic reducer

RCSD Series



RCSD is a ultra thin cup shaped structure design, the whole machine adopts an ultra-flat structure, light in weight and small in size, which is very suitable for use in robot joints, aerospace industry, and semiconductor Industry.

RCSD - ST Series



RCSD-ST is a ultra thin cup shaped structure design. The advantages in size and weight will be more obvious than RCSD.

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Start Torque of RCSD series (cNm)						
Ratio \ Model	14	17	20	25	32	40
50	4.5	6.5	8.5	16	32	56
80	3.5	4.5	5.5	10	20	38
100	3.2	3.5	5	9	19	32
120	-	3.5	4	8	16	30
160	-	-	3.8	7	15	25

Start Torque of RCSD-ST series (cNm)						
Ratio \ Model	14	17	20	25	32	40
50	4.5	6.5	8.5	16	32	56
80	3.5	4.5	5.5	10	20	-
100	3.2	3.5	5	9	19	32
120	-	3.5	4	8	16	-
160	-	-	3.8	7	15	25

Rigidity of RCSD-ST series ($\times 10^4 \text{N} \cdot \text{m/rad}$)							
Ratio \ Model	14	17	20	25	32	40	
50	K1	0.28	0.64	1.05	1.90	4.47	8.80
	K2	0.35	0.84	1.24	2.57	5.80	11.00
	K3	0.45	1.14	1.90	3.52	7.98	15.00
80 and above	K1	0.38	0.80	1.24	2.57	5.80	11.00
	K2	0.42	0.89	1.62	3.52	7.41	14.00
	K3	0.58	1.24	2.38	4.47	10.45	20.00

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Buckling torque (Nm)

Model	14	17	20	25	32	40
All ratio	190	330	560	1000	2200	4300

Pawl torque (Nm)

Model Ratio	14	17	20	25	32	40
50	88	150	220	450	980	1800
80	110	200	350	680	1400	2100
100	84	160	260	500	1000	2100
120	-	120	240	470	980	2100
160	-	-	220	450	980	1800

Hysteresis loss (arc min)

Model Ratio	14	17	20	25	32	40
50	2.5	1.5	1.5	1.5	1.5	1.5
80 and above	2	1	1	1	1	1

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Model	Reduction Ratio	Rated torque at 2000r/min	Allowable peak torque at start and stop	Allowable average torque	Allowable Max. Momentary torque	Max. input Speed	Allowable average input speed	Back lash (arc sec)	Transmission accuracy (arc sec)	Noise (Db)
		Nm	Nm	Nm	Nm	r/min	r/min	≤	≤	≤
14	50	3.5	11.4	4.6	23	8000	3500	20	90	60
	80	5.1	15	6.2	29			20	90	60
	100	5.1	18	7.3	33			20	90	60
17	50	10.4	22	17	46	7000	3500	20	90	60
	80	14	29	21	54			20	90	60
	100	15	35	26	67			20	90	60
	120	15	35	26	67			20	90	60
20	50	16	37	23	66	6000	3500	20	60	60
	80	23	49	28	78			20	60	60
	100	27	54	32	90			20	60	60
	120	27	57	32	90			20	60	60
	160	27	61	32	90			20	60	60
25	50	26	66	36	121	5500	3500	20	60	60
	80	42	91	62	157			20	60	60
	100	45	104	71	175			20	60	60
	120	45	111	71	187			20	60	60
	160	45	118	71	195			20	60	60
32	50	50	143	71	255	4500	3500	20	60	60
	80	79	202	126	350			20	60	60
	100	91	221	144	399			20	60	60
	120	91	235	144	423			20	60	60
	160	91	240	144	435			20	60	60
40	50	91	267	130	456	4000	3000	20	60	60
	100	176	387	247	665			20	60	60
	160	196	430	300	727			20	60	60