

许多人孜孜以求，但迄今无人能及...
Everybody strives for, nobody has achieved yet.



Rigid drive Low ratio

RL series





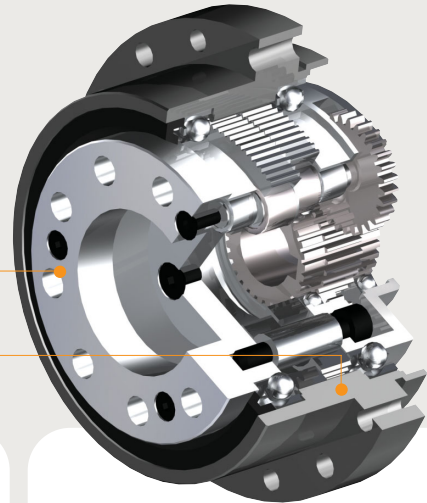
SEJNiGB 超精密减速箱

SEJNiGB has progressed and expanded its business to keep pace with engineering innovations in advanced transmission technology.

RL-series

输出端封闭 (不需O形圈)
[Enclosed output shaft (No O-ring required)]

TTS专利齿形和iGB专利结构
[Patented TTS & iGB structure]



Rigid drive Low ratio

B



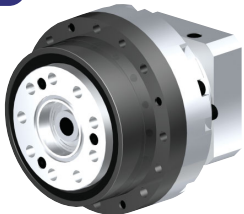
基本型 [Basic]

A2



紧凑短小型 [Compact & Short length]

C2



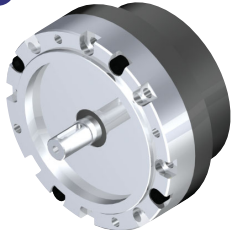
易用型 (IP65) [Easy to use (IP65)]

S



紧凑带输入轴型
[Compact with input shaft]

S2



带输入轴型 (IP65)
[IP65 with input shaft]

EP



直角输入型 [Compact right angle]
(Elbow Pancake™)

- 低速比/速比10~30
- 高刚性
- 采用全新的TTS齿形/齿面接触率高
- 抗冲击能力强/额定输出扭矩的700%
- 精度高/传动回差小于1分
- 减小了高速运转时的振动
- 箱体防护等级高/IP65
- 多种输入方式可供选择
- 输入功率/0.1~30kW
- 额定输出扭矩/24~2400Nm
- 连续工作制

- Low ratio for high speed / Ratio 10~30
- High rigidity
- New-TTS tooth shape applied / Improved tooth contact ratio
- Shock resistance / 700%
- High precision / Lost motion less than 1 arc min.
- Reducing the vibration in high speed operation
- High safety levels due to closed housing / IP65 available product
- Various design or choice of input structure
- Input capacity / 0.1~30kW
- Rated output torque / 24~2400Nm
- Continuous operation duty available

● RL 系列 订货信息 [Ordering Information]

RL □□□ - □□□ - S/A - B/A2/C2/S/S2/EP - □□□

系列名 [Model name] 规格 [Frame No.] 速比 [Speed ratio] 材料 [Material] 输入形式 [Input style] 所配电机或输入轴径 [Applied motor or Input shaft Dia]

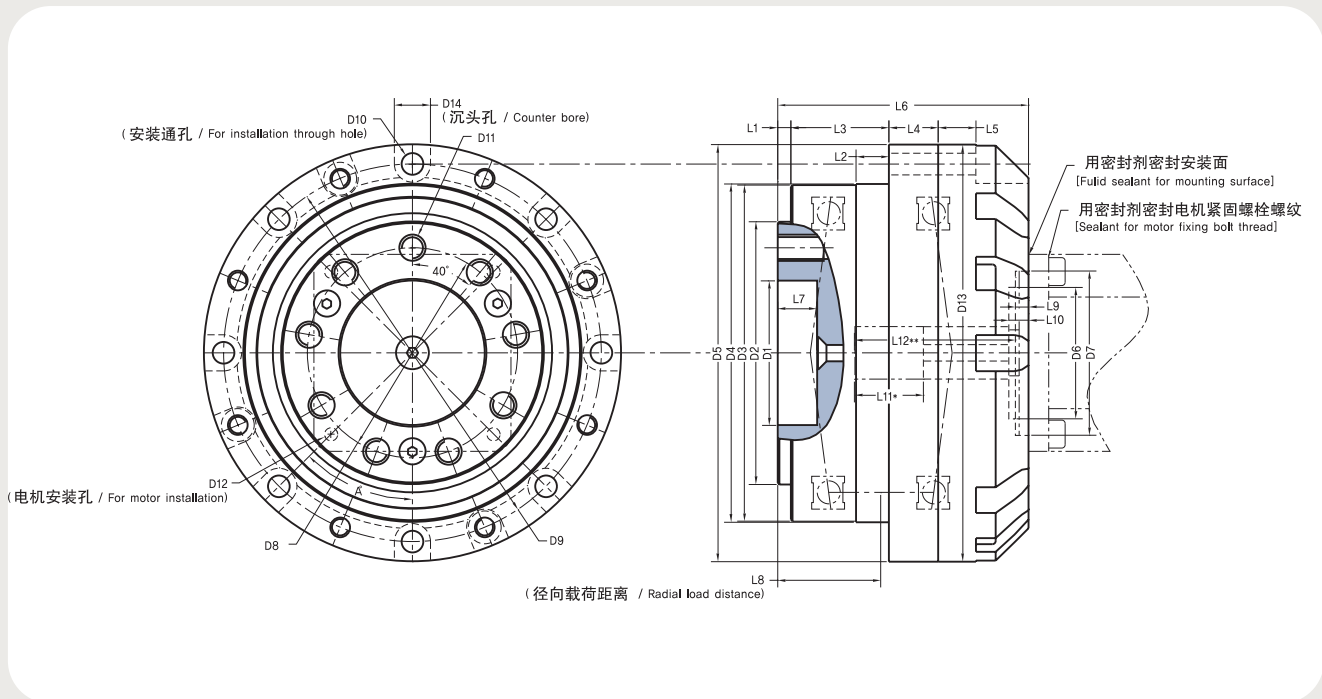
详细外形尺寸请从网站www.gear-box.com下载 / Visit www.gear-box.com to download detail external dimension.

RL-A2 type

■RL-A2 型 外形尺寸表 [RL-A2 type External dimension table]

	D1 (H7)	D2 (h7)	D3	D4 (h7)	D5	D6	D7	D8 (PCD)	D9 (PCD)	D10	D11	D12	D13	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11*	L12**	A°
004	27	55	74.5	75	93	24	50	43	85	8-ø4.5	9-M5X8	4-M4X10(PCD70)	93	4	10	23	8	6	61.5	11	26.5	4	5.5	18	38	22.5°
006	33	63	87.5	88	107	28	50	50	98	8-ø5.5	9-M5X8	4-M4X10(PCD70)	107	3.5	10	29.5	16	13.5	75	8.5	32	4	6	22	48	45°
010	38	70	94.5	95	119	34	50	55	107	8-ø5.5	9-M6X12	4-M4X10(PCD70)	119	3.5	10	29	15	10	75.5	12	32	4	5.5	22	49	45°
015	44	80	102.5	103	127	40	50	64	115	8-ø6.6	9-M8X13	4-M4X10(PCD70)	127	4	10	30	15	11.5	76.5	12	31.5	4	6	21	49	45°
030	53	100	129.5	130	156	43	95	80	143	16-ø6.6	9-M10X13	4-M8X12(PCD115)	156	6	12	34	15	11	91.5	12	40.5	4.5	6.5	26.5	56	33.75°
050	63	125	164	165	195	55	110	100	180	16-ø9	9-M12X17	4-M8X12(PCD145)	195	7	15	45	23	10	115	22.5	50.5	5	7.5	25.5	69	45°
100	81	150	189	190	222	72	114.3	115	206	16-ø9	9-M14X24	4-M12X20(PCD200)	233	10	20	48	25	12	140	23	60	5	8	34.5	89	33.75°
150	91	170	219	220	256	74	114.3	136	238	16-ø11	9-M16X24	4-M12X20(PCD200)	256	9	20	59	25	12	146	24.5	63	5	8	37	93	33.75°
200	96	190	239	240	280	82	114.3	150	260	16-ø13	9-M16X25	4-M12X20(PCD200)	280	8.5	20	70	25	36	170	25	68.5	5	8.5	44.5	112	45°
400	116	240	283	284	325	92	114.3	-	304	16-ø13	9-M12X25(PCD149) 9-M16X25(PCD195)	4-M12X20(PCD200)	325	8	30	80	30	51	198	24.5	80	10	14	60.5	133	45°

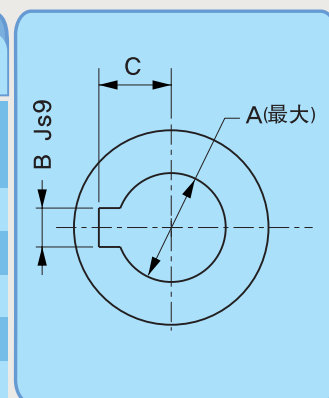
- ▶ * 输入轴伸长范围 / * is input shaft relief depth
- ▶ ** 输入轴可插入的深度 / ** is input shaft insertable depth
- ▶ *** 有双PCD的输出法兰 / *** has dual PCD for output flange.
- ▶ A° 电机法兰安装螺栓孔与齿轮箱安装通孔间的特征夹角 / A represents phase angle between motor installation tap and gearbox installation through hole.
- ▶ 连接尺寸适配所有通用伺服电机。 / Motor connection dimensions for all common servomotors are available.

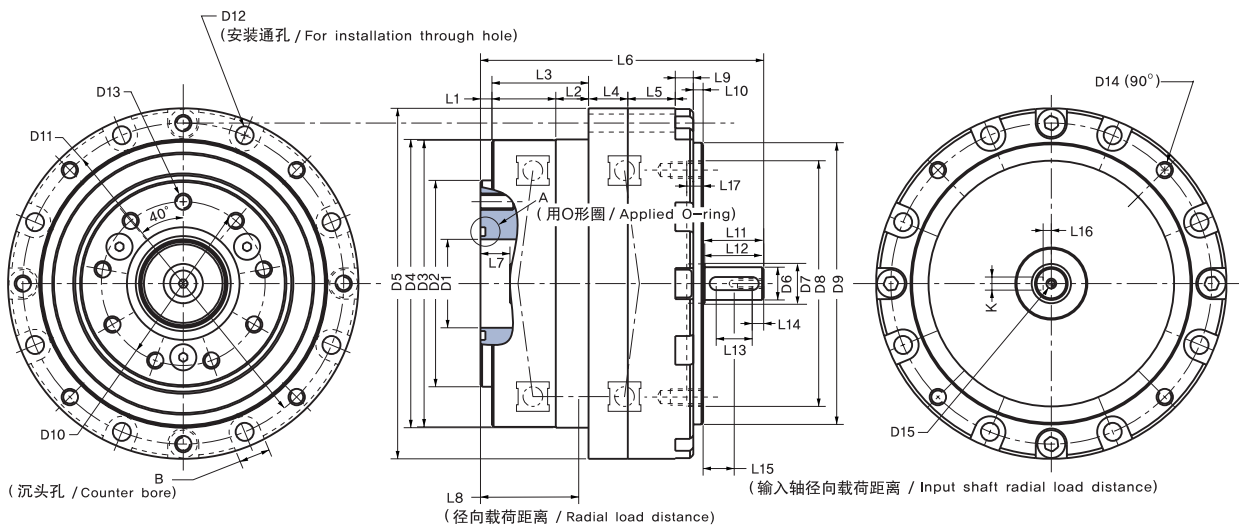
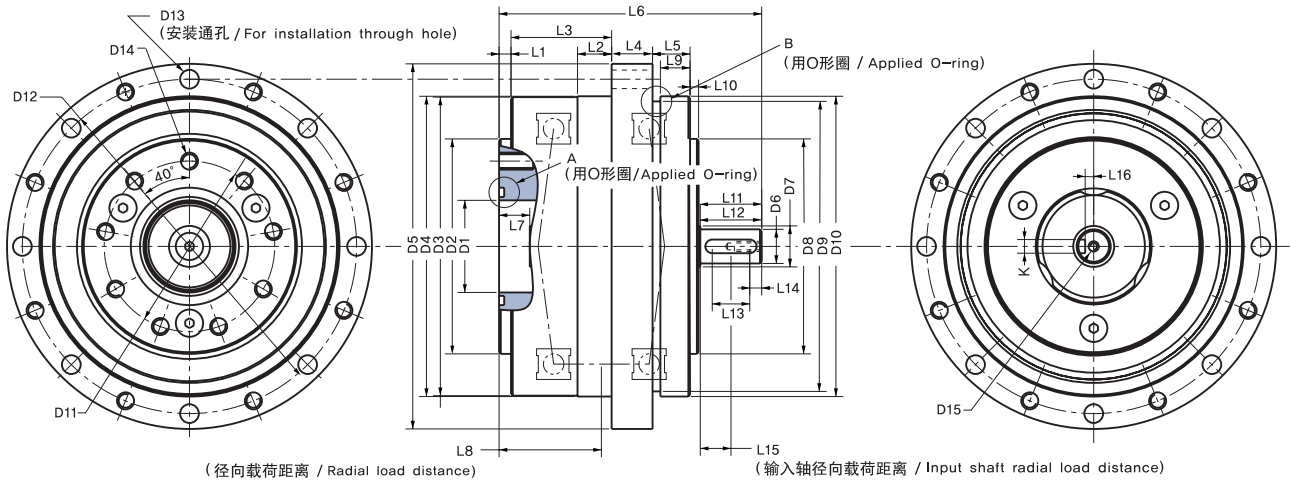
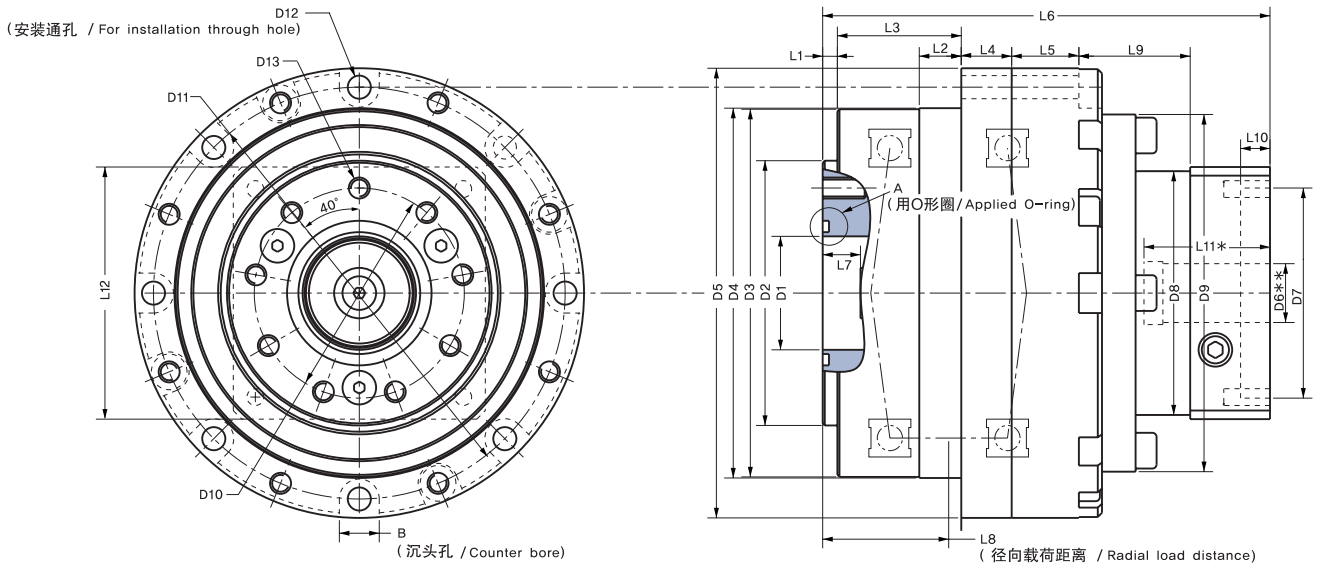


■RL-A2 型 输入端详细资料 [RL-A2 type detail of input side]

	速比 [Ratio]			øA	B	C
	()	()	()			
004	(10.375)/12/16			11	4	7.1
	18.5/25			8	3	5.3
006	12.2/15.7/25.5/17.8			11	4	7.2
010	11.4/13.6/17/			14	5	9.3
	17.8/21/25			11	4	7.2
015	(11.5)/14/19/28			19	5	12.3
	20.5/23			16	5	10.3
030	(9)/10.6/14.2			22	8	14.3
	17/27			19	6	12.3
050	12/15/17/25			28	8	17.3
100	11.5/14.2/17.5/(18)/20/23.8			35	10	20.8
150	(10.6)/12/17/24			35	10	20.8
	(10.6)/17.5/20/25.7			35	10	20.8
400	20/24.56			42	12	24.3

▶ () 可选速比 / () is optional ratio.



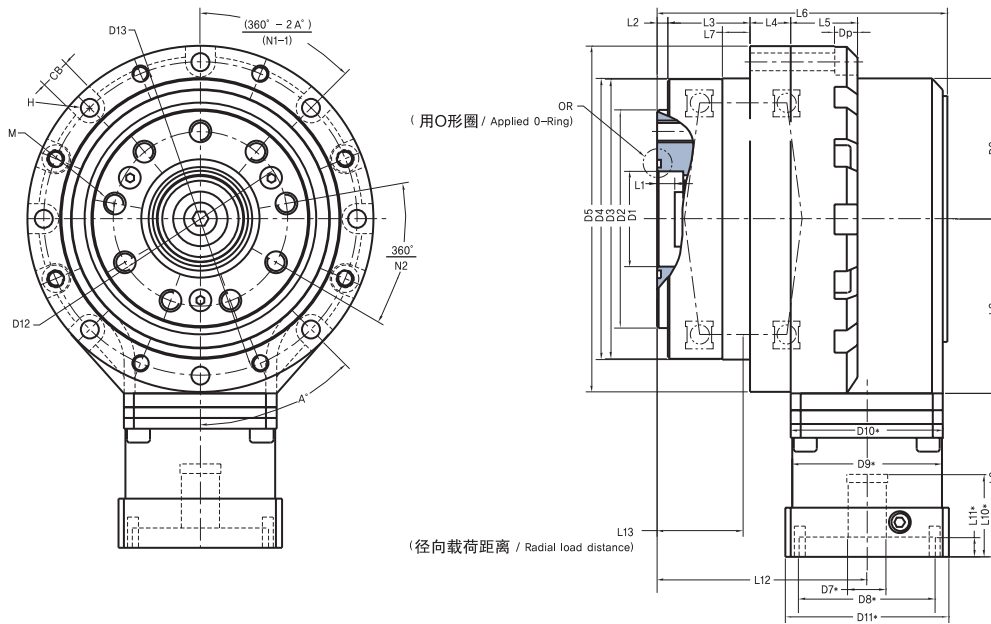


RL-EP type

■RL-EP 型 外形尺寸表 [RL-EP type External dimension table]

	D1 (ø) (H7)	D2 (ø) (h7)	D3 (ø)	D4 (ø) (h7)	D5 (ø)	D6 (ø)	D7 (ø) (H7)	D8 (ø) (H7)	D9 (ø)	D10 (□)	D11* (□)	D12 (PCD)	D13 (PCD)	L1	L2	L3	L4	L5	L6	L7	L8	L9*	L10*	L11*	L12	L13	A°	N1	N2	M	øHxøCBxDp	OR
006	27	63	87.5	88	107	44	8	30	39	44	40	50	98	9	3.5	29.5	12	20	90	10	58	50	25	5.5	67	30	45°	7	9	M5X8	5.5x9.5x5.5	S29
015	35	80	102.5	103	127	51.5	14	50	55	56	60	64	115	6.5	4	30	15	24.5	106.5	10	64	56.5	30	7	77	31.5	45°	7	9	M8X13	6.6x11x8.5	S38
030	48	100	129.5	130	156	55	19	70	64	65	80	80	143	8	6	34	15	35	127.5	12	78.5	65.5	35	6.5	95	40.5	33.75°	14	9	M10X13	6.6x11x24	S53
050	63	125	164	165	195	70	22	95	86	88	100	100	180	14	7	45	23	30	163	15	98.5	92	55	12	119	50.5	33.75°	14	9	M12X17	9x14x20	S67
100	80	150	189	190	222	88	28	110	118	120	130	115	206	14	10	48	25	50	203	20	112	96	55	10	143	60	33.75°	14	9	M14X20	9x14x38	S85
150	80	170	219	220	256	104	28	110	118	125	130	136	238	16	9	59	25	46	218	20	130	104	55	10	155.5	63	33.75°	14	9	M16X24	11x17.5x34	S85
200	96	190	239	240	280	119	35	130	140	145	150	150	260	14.5	8.5	70	25	51	248.5	20	142	124	70	12	176	68.5	33.75°	14	9	M16X25	13x20x10	S105

- ▶ * 取决于所用电机 / * depend on applied motor.
- ▶ N1 : 安装通孔数量 / N1 : Number of installation through hole
- ▶ N2 : 输出法兰螺孔数量 / N2 : Number of output flange tap



■RL-EP 型 标准速比 [RL-EP type standard ratio]

型号 [Model]	006	(23.5) / 30.5 / 44.5 / 65.5 / 86.5	100	(23.75) / 28.75 / 35.5 / (43.75) / 45 / 50 / 59.5 / 87.5
RL-EP	015	(34.5) / 42 / 61.5 / 69 / 90.75 / 102	150	(26.5) / 30 / 42.5 / 60 / (62.5)
	030	(22.5) / 26.5 / 35.5 / 42.5 / 58.5 / 67.5 / 82.5	200	(26.625) / 31.8 / 52.5 / (57) / 60 / (64.25) / 84
	050	(22.5) / 30 / 37.5 / 42.5 / (50) / 55 / 62.5		

▶ () 可选速比 / () is optional ratio.

■RL-EP 型 额定值一览表 [RL-EP type rating at a glance]

型号 [Model]	RL-EP	额定输出 扭矩 [Rated output torque] (Nm)	额定输出 转速 [Rated output speed] (rpm)	扭转刚性 [Torsional stiffness] (Nm /arc min.)	允许的加/ 减速扭矩 [Allowable acc./dec. torque] (Nm)	瞬间最大 允许扭矩 [Momentary allowable max.torque] (Nm)	最大传动 回差 [Lost Motion max.] (arc min.)	最大(平均) 输入转速 [Max. (average) input speed] (rpm)	主轴承承载力 [Main bearing load]			重量 [Weight] (kg)	
									径向承载 [Radial load] (N)	轴向承载 [Thrust load] (N)	抗弯扭矩 [Moment load] (Nm)	RL-EP	
												A204	S45C
006		35	75	8	80	245	1	5000 (4000)	2500	1000	75	2.8	3.6
015		90	60	21	225	630	1	4500 (3600)	5000	2000	158	4.2	5.2
030		180	50	44	495	1200	1	4500 (3600)	7600	2900	308	8.2	9.9
050		280	50	85	770	1960	1	4000 (3200)	8500	4000	430	14	18
100		550	50	150	1510	3850	1	4000 (3200)	12250	5000	735	21	28
150		850	50	280	2340	5950	1	3500 (2800)	20000	8000	1260	35	42
200		1100	50	470	3025	7700	1	3000 (2400)	33500	12600	2300	36	48

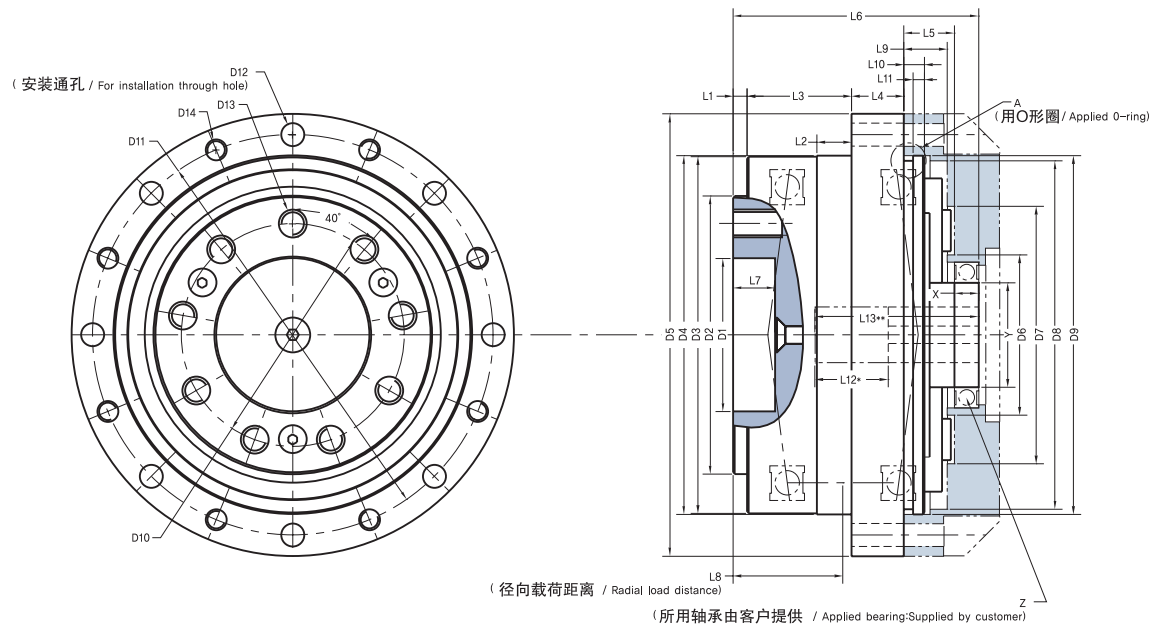
▶ () 可选速比 / () is optional ratio.

RL-B type

■RL-B 型 外形尺寸表 [RL-B type External dimension table]

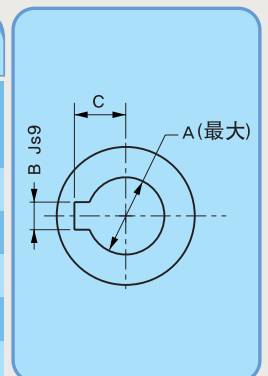
	D1 (H7)	D2 (h7)	D3	D4 (h7)	D5	D6	D7	D8	D9 (h7)	D10 (PCD)	D11 (PCD)	D12	D13	D14	A	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12*	L13**	L13**
004	27	55	74.5	75	93	-	-	70	74	43	85	8- ϕ 4.5	9-M5X8	8-M4	S71	4	10	23	8	15.5	56	11	27.5	15.5	7.5	4.8	20	40	
006	33	63	87.5	88	107	-	-	82	88	50	98	8- ϕ 5.5	9-M5X8	8-M5	S85	3.5	10	29.5	16	11.5	69	8.5	30	11.5	6	3.7	18	44	
010	38	70	94.5	95	119	-	-	90	93	55	107	8- ϕ 5.5	9-M6X12	8-M5	S90	3.5	10	29	15	13	70	12	32	13	6	3.3	22	49	
015	44	80	102.5	103	127	46	74	100	103	64	115	8- ϕ 6.6	9-M8X13	8-M6	S100	4	10	30	15	14.5	70.5	12	31.5	12.5	6	3.3	21	49	
030	53	100	129.5	130	156	54	90	124	128	80	143	16- ϕ 6.6	9-M10X13	8-M6	S125	6	12	34	15	23.5	85	12	40.5	21	12.5	5.5	26.5	56	
050	63	125	164	165	195	66	114	156	162	100	180	16- ϕ 9	9-M12X17	8-M8	ISO C1550G	7	15	45	23	22.5	107.5	22.5	50.5	18.5	9.5	4.9	25.5	69	
100	81	150	189	190	222	84	132	186.5	186.5	115	206	16- ϕ 9	9-M14X24	8-M8	ISO C1800G	10	20	48	25	35	132	23	60	31	18	8	34.5	89	
150	91	170	219	220	256	90	156	216	216	136	238	16- ϕ 11	9-M16X24	8-M10	ISO D2060G	9	20	59	25	32	138	24.5	63	27	11	4	37	93	
200	96	190	239	240	280	100	176	240	240	150	260	16- ϕ 13	9-M16X25	8-M12	ISO D2300G	8.5	20	70	25	36.5	158	25	68.5	31.5	14	6.9	44.5	112	
400	116	240	283	284	325	120	210	283	283	-	304	16- ϕ 13	9-M12X25(PCD149) 9-M16X25(PCD195)	8-M12	ISO D2720G	8	30	80	30	50	184	24.5	80	45	26	9	60.5	133	

- ▶ * 输入轴伸长范围 / * is input shaft relief depth
- ▶ ** 输入轴可插入的深度 / ** is input shaft insertable depth
- ▶ *** 有双PCD的输出法兰 / *** has dual PCD for output flange.



■RL-B 型 输入端详细资料 [RL-B type detail of input side]

	速比 [Ratio]	ØA	B	C	X	ØY(h6)	Z
004	(10.375)/12/16	11	4	7.1	5	17	6803
	18.5/25	8	3	5.3	5	15	6802
006	12.2/15.7/25.5/17.8	11	4	7.2	7	20	6804
010	11.4/13.6/17/21	14	5	9.3	7	25	6805
	17.8/25	11	4	7.2	9	20	6904
015	(11.5)/14/19/28	19	5	12.3	7	30	6806
	20.5/23	16	5	10.3	7	30	6806
030	9/10.6/14.2	22	8	14.3	7	35	6807
	17/27	19	6	12.3	9	30	6906
050	12/15/17/25	28	8	17.3	12	40	6908
100	11.5/14.2/17.5/18/20/23.8	35	10	20.8	16	50	6010
150	(10.6)/12/17/24	35	10	20.8	16	50	6010
200	(10.6)/17.5/20/25.7	35	10	20.8	20	50	6210
400	20/24.56	42	12	24.3	18	65	6013



- ▶ () 可选速比 / () is optional ratio.
- ▶ X, Y, Z 请参照上面尺寸图 / Please refer X, Y, Z, above external dimension drawing.

■RL 系列 标准速比 [RL series standard ratio]

型号 [Model]	RL-A2			型号 [Model]	RL-C2 RL-S RL-S2		
	004	006	010		004	006	010
	(10.375*) / 12* / 16* / 18.5 / 25	(12.2*) / 15.7* / 17.8 / 25.5*	(11.4*) / 13.6* / 17* / 17.8 / 21* / 25		(10.375*) / 12* / 16* / 18.5 / 25	(12.2*) / 15.7* / 17.8 / 26.2 / 34.6	(11.4*) / 13.6* / 17.8 / 25 / 31.8
			(11.5*) / 14* / 19* / 20.5 / 23 / 28*				(11.5*) / 14* / 20.5 / 23 / 30.25 / 34
	(9*) / 10.6* / 14.2* / 17 / 27	(9*) / 12* / 15* / 17 / 25	(9*) / 10.6* / 14.2* / 17 / 27		(9*) / 10.6* / 14.2* / 17 / 23.4 / 27 / 33	(9*) / 12* / 15* / 17 / 25	(9*) / 10.6* / 14.2* / 17 / 23.4 / 27 / 33
	(9.5*) / 11.5* / 14.2* / 17.5 / (18) / 20 / 23.8	(10.6*) / 12* / 17 / 24	(9.5*) / 11.5* / 14.2* / 17.5 / (18) / 20 / 23.8		(9.5*) / 11.5* / 14.2* / 17.5 / (18) / 20 / 23.8 / 35	(10.6*) / 12* / 17 / 24	(9.5*) / 11.5* / 14.2* / 17.5 / (18) / 20 / 23.8 / 35
		(10.6*) / 12* / 17 / 24			(10.6*) / 12* / 17 / 24 (25)		(10.6*) / 12* / 17 / 24 (25)
		(10.6*) / 17.5* / 20 / 25.7 / 28			(10.6*) / 17.5* / 20 / 25.7 / 28		(10.6*) / 17.5* / 20 / 25.7 / 28
	20 / 24.56				20 / 24.56		20 / 24.56

▶ () 可选速比 / () is optional ratio.

▶ * 速比要求输入转速不大于下面参数表中输入转速值的60% / *ratio apply 60% of input speed on specifications.

■RL 系列 额定值一览表 [RL series rating at a glance]

型号 [Model]	额定输出扭矩 [Rated output torque]	额定输出转速 [Rated output speed]	扭转刚性 [Torsional stiffness]	允许的加/减速扭矩 [Allowable acc. / dec. torque]	瞬间最大允许扭矩 [Momentary allowable max. torque]	最大传动回差 [Lost motion max]	最大(平均)输入转速 [Max. (average) input speed]
	(Nm)	(rpm)	(Nm/arc min.)	(Nm)	(Nm)	(arc min.)	(rpm)
004	24	75	4	55	168	1	5000 (4000)
006	35	75	8	80	245	1	5000 (4000)
010	55	60	15	140	385	1	5000 (4000)
015	90	60	21	225	630	1	4500 (3600)
030	180	50	44	495	1200	1	4500 (3600)
050	280	50	85	770	1960	1	4000 (3200)
100	550	50	150	1510	3850	1	4000 (3200)
150	850	50	280	2340	5950	1	3500 (2800)
200	1100	50	470	3025	7700	1	3000 (2400)
400	2400	50	750	6600	16800	1	3000 (2400)

型号 [Model]	主轴承承载力 [Main bearing load]			重量 [Weight] (kg)									
	径向承载 [Radial load]	轴向承载 [Thrust load]	抗弯扭矩 [Moment load]	RL-B		RL-A2		RL-C2		RL-S		RL-S2	
				A2024	S45C	A2024	S45C	A2024	S45C	A2024	S45C	A2024	S45C
004	2000 (160)	750 (80)	55	0.9	1.5	1.2	1.7	1.5	2.1	1	1.6	1.2	1.7
006	2500 (270)	1000 (135)	80	1.7	2.6	1.8	2.7	2.2	3.1	1.6	2.3	1.9	2.6
010	3000 (330)	1450 (165)	96	1.8	2.9	2.3	3.4	3	4	2.3	3.1	2.5	3.3
015	5000 (350)	2000 (175)	158	2.1	3.4	2.8	3.9	3.4	4.6	2.6	3.6	2.9	3.9
030	7600 (600)	2900 (300)	308	4.3	6.4	5.2	7.3	6.4	8.5	4.9	6.6	5.4	7.1
050	8500 (980)	4000 (490)	430	9	13	10.6	14.6	13	17	10	13	11	14
100	12250 (1970)	5000 (985)	735	19	28	16.3	23.3	21	28	16	21	17	22
150	20000 (2190)	8000 (1095)	1260	19	28	22.5	31.5	27	36	21	28	23	30
200	33500 (2580)	12600 (1290)	2300	25	38	30	43	36	48	29	39	32	42
400	48000 (3000)	19000 (1500)	3840	45	65	53	73	61	83	45	67	51	73

▶ () 指S和S2型输入轴轴承的许用承载力 / () show S & S2 type input shaft bearing permissible load

