



Високоточні планетарні редуктори

ПІД ЗАМОВЛЕННЯ з терміном поставки 1 місяць

Сфери застосування:

- обладнання для обробки на верстатах з ЧПК;
- військове та аерокосмічне обладнання;
- виробництво напівпровідникових пластин;
- обробку покриттів та плівок;
- високошвидкісне складання електроніки;
- лиття під тиском, упаковку;
- обладнання для плазмового різання з ЧПК;
- автоматизоване пакувальне обладнання, друкарські машини

ПІДБІР ТА ТЕХНІЧНА КОНСУЛЬТАЦІЯ: +38 096 848 62 76

PRECISION PLANETARY GEARBOX

EVB

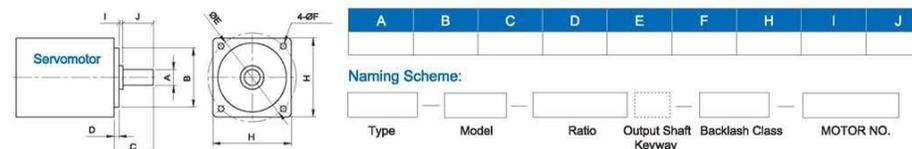


- **1. Quiet operation**
Helical gears are used to achieve smooth and quiet operation.
- **2. High precision**
The backlash is less than 3 arcmin and the positioning is accurate.
- **3. High rigidity & torque**
The use of integral ball bearings greatly improves the rigidity and torque.
- **4. Methods of flange and connector**
It can be installed on any motor in the world.
- **5. No grease leakage**
The use of grease with high viscosity which is not easy to separate effectively prevents the grease leakage.
- **6. Convenient maintenance**
No need to replace the grease in the product life period, and the installation is more convenient.

Model Selection of Speed Reducers

EVB Type					
EVB090	-	10	-	S1	- P1 / Motor
Reducer Model EVB042, EVB060, EVB090, EVB115 EVB142, EVB180, EVB220		Output Shaft Keyway S2: Standard (Keyway)		Motor Model Servo Nema	
Ratio 1-stage: 3, 4, 5, 6, 7, 8, 9, 10, 14, 16, 20 2-stage: 15, 20, 25, 30, 35, 40, 50, 70, 80, 100, 120, 140, 160, 180, 200			Backlash Grade P0: High precision backlash P1: Precision backlash P2: Standard backlash		

The gearbox matching motor needs to be confirmed with following dimensions :



Reducer Specifications

Specs	Unit	Stage	Ratio	EVB042	EVB060	EVB090	EVB115	EVB142	EVB180	EVB220
Rated Output Torque / T2N	Nm	1	3	20	45	130	230	450	900	1500
			4	19	50	140	290	542	1050	1700
			5	22	60	160	330	650	1200	2000
			6	20	55	150	310	600	1100	1900
			7	19	50	140	300	550	1100	1800
			8	17	45	120	260	500	1000	1600
			9	14	40	100	230	450	900	1500
			10	14	40	100	208	342	588	1140
			14	19	50	140	230	450	900	1550
			20	14	40	100	290	542	1050	1700
		2	15	20	55	130	230	450	900	1140
			20	20	55	150	310	600	1100	1900
			25	22	60	160	330	550	1100	1800
			30	20	45	120	260	500	1000	1600
			35	19	40	100	230	450	900	1500
			40	17	60	160	330	650	1200	2000
			50	22	50	140	300	550	1100	1800
			70	19	45	120	260	500	1000	1600
			80	17	40	100	230	450	900	1500
			100	14	40	100	208	342	588	1140
120	—	—	128	305	495	1095	1895			
140	—	—	128	295	525	1095	1795			
160	—	—	118	255	515	995	1595			
180	—	—	98	225	445	895	1495			
200	—	—	98	225	445	895	1495			
Max. Output Torque / T200 ¹	Nm	1,2	3-200	3Times of Nominal Output Torque						
Rated Input Speed / П1н	rpm	1,2	3-200	3000	3000	3000	3000	2500	2000	2000
Max. Input Speed / П1в	rpm	1,2	3-200	6000	6000	6000	5500	4500	4500	4000
Precision Backlash P0	arcmin	1	3-20	≤2	≤2	≤2	≤2	≤2	≤2	≤2
		2	15-200	≤4	≤4	≤4	≤4	≤4	≤4	≤4
Precision Backlash P1	arcmin	1	3-20	≤4	≤4	≤4	≤4	≤4	≤4	≤4
		2	15-200	≤6	≤6	≤6	≤6	≤6	≤6	≤6
Standard Backlash P2	arcmin	1	3-20	≤6	≤6	≤6	≤6	≤6	≤6	≤6
		2	15-200	≤8	≤8	≤8	≤8	≤8	≤8	≤8
Torsional Rigidity	Nm/arcmin	1,2	3-200	3	6	14	25	56	140	220
Max. Radial Force / F2н ²	N	1,2	3-200	780	1300	3200	6750	9400	14500	50000
Max. Axial Force / F2в ²	N	1,2	3-200	330	700	1580	3300	4700	7200	28000
Service Life	hr	1,2	3-200	21000 h						
Efficiency / η	%	1	3-20	≥93%						
		2	25-200	≥90%						
Weight	kg	1	3-20	0.9	1.5	6.4	13	24.5	51	83
		2	25-200	1.2	2.1	7.8	14.2	27.5	54	95
Operating Temperature	°C	1,2	3-200	(-15°C ~ +90°C)						
Lubrication		1,2	3-200	(Synthetic Grease)						
Protection Class		1,2	3-200	IP65						
Mounting Position		1,2	3-200	(Any Direction)						
Noise Level (n1=3000rpm, No load)	dB(A)	1,2	3-200	≤65	≤65	≤68	≤68	≤70	≤72	≤74

Reducer Rotary Inertia

Specs	Unit	Stage	Ratio	EVB042	EVB060	EVB090	EVB115	EVB142	EVB180	EVB220
Moment of Inertia	kg.cm ²	1	3-10	0.09	0.35	2.25	6.84	23.4	68.9	135.4
			14-20	0.03	0.07	1.87	6.25	21.8	65.6	119.8
		2	15-100	0.09	0.09	0.35	2.25	6.84	23.4	68.9
			120-200	—	—	0.31	1.87	6.25	21.8	65.6

1. The Max. acceleration torque T2B=60% of T2NOT 2. When output speed is 100rpm, inertia acts on the output shaft center position.
3. 3-stage big ratios are not in the above table. There is shaft lengthening and enlarging design. Please tell sales person if you need it.

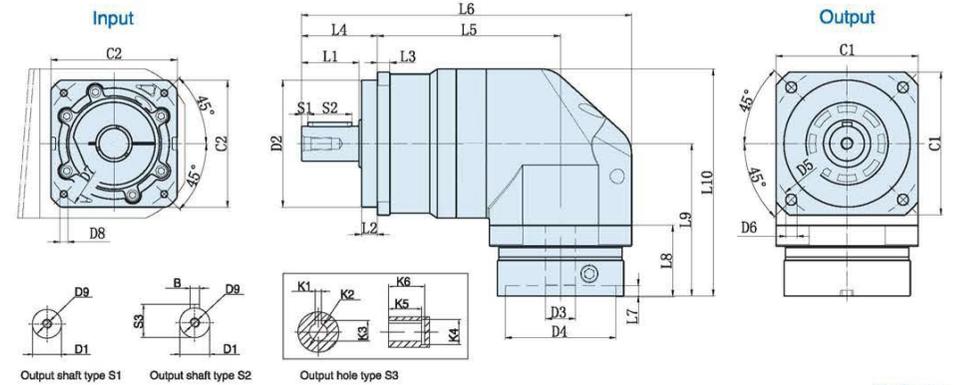
MODEL: EVB

1-Stage

Ratio: 3, 4, 5, 6, 7, 8, 9, 10, 14, 16, 20



Dimensions:



Unit:mm

Size	EVB042-L1	EVB060-L1	EVB090-L1	EVB115-L1	EVB142-L1	EVB180-L1	EVB220-L1
D1	φ13	φ16	φ22	φ32	φ40	φ55	φ75
D2	φ35	φ50	φ80	φ110	φ130	φ160	φ180
D3	φ8(≤11)	φ14(≤14)	φ19(≤24)	φ24(≤32)	φ35(≤42)	φ38(≤50)	φ55(≤55)
D4	φ30(30-50)	φ50(50-70)	φ70(50-110)	φ110(50-130)	φ114.3(95-180)	φ180(95-180)	φ215(180-255)
D5	φ50	φ70	φ100	φ130	φ165	φ215	φ250
D6	4-φ3.4	4-φ5.5	4-φ7	4-φ9	4-φ11	4-φ13	4-φ17
D7	φ46(22-70)	φ70(70-130)	φ90(70-145)	φ145(70-145)	φ200(90-215)	φ200(90-300)	φ235(200-300)
D8	(4-M3X8L)	(4-M4*8L)	(4-M6*10L)	(4-M8*20L)	(4-M12X30L)	(4-M12X30L)	(4-M12X30L)
D9	M4X0.7P	M5*0.8P*18L	M6*1.25P*19L	M12*1.75P*28L	M16X2.0P	M20X2.5P	M20X2.5P
L1	19	28.5	36.5	51	79	82	105
L2	5.5	7	10	12	15	20	30
L3	4	6	8	10	12	15	20
L4	26	37	48	65	97	105	138
L5	96	86	116	137.5	255	289	346
L6	(122)	153	209	260	(352)	(394)	(484)
L7	(3.5)	(5)	(6.5)	(10)	(14)	(15)	(7)
L8	(30)	(33)	(45)	(64)	(81)	(85)	(85)
L9	(69.5)	(77.5)	(96)	(135.5)	(165)	(213.5)	(268.5)
L10	(95.5)	(111.75)	(143)	(195)	(230)	(303.5)	(378.5)
C1	□42	□60	□90	□115	□142	□180	□220
C2	(□42)	(□60)	(□80)	(□130)	(□142)	(□180)	(□220)
S1	2	3	4	5	5	5	7
S2	16	22	28	40	65	70	90
S3	15	18	24.5	35	43	59	79
B	5	5	6	10	12	16	20
K1	—	3	6	8	10	14	16
K2	—	φ8	φ18	φ28	φ38	φ50	φ60
K3	—	9.2	21	31.3	42	53.8	64.4
K4	—	φ11	φ24	φ38	φ48	φ60	φ72
K5	—	16	30	27	35	43	60
K6	—	18	35	32	40	50	65

Note 1: Inside of () is the optional range of sizes, outside of () is the standard sizes.

Note 2: The reducer output shaft size and length can be customized for customers.

Note 3: The input size can be changed according to the servomotor or stepper motor of each brand.

MODEL: EVB

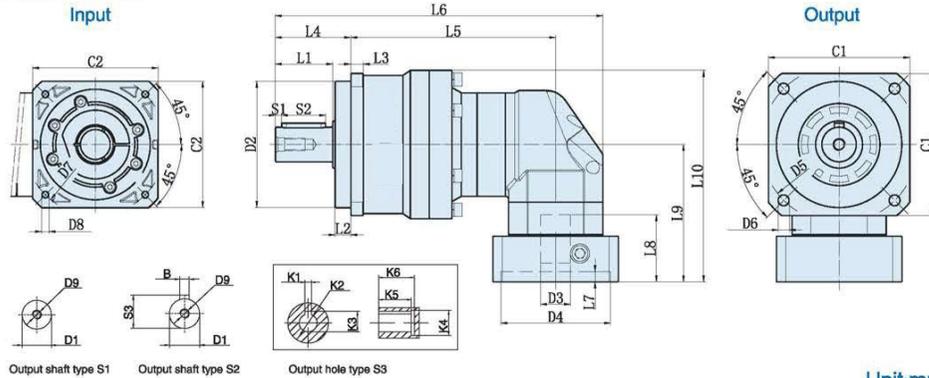
2-Stage

Ratio: 15, 20, 25, 30, 35, 40, 50, 70, 80

100, 120, 140, 160, 180, 200



Dimensions:



Unit:mm

Size	EVB042-L2	EVB060-L2	EVB090-L2	EVB115-L2	EVB142-L2	EVB180-L2	EVB220-L2
D1	φ 13	φ 16	φ 22	φ 32	φ 40	φ 55	φ 75
D2	φ 35	φ 50	φ 80	φ 110	φ 130	φ 160	φ 180
D3	φ 8(≤11)	φ 14(≤14)	φ 19(≤24)	φ 24(≤32)	φ 35(≤42)	φ 38(≤50)	φ 55(≤55)
D4	φ 30(30-50)	φ 50 (50-70)	φ 70 (50-110)	φ 110 (50-130)	φ 114.3(95-180)	φ 180(95-180)	φ 215(180-255)
D5	φ 50	φ 70	φ 100	φ 130	φ 165	φ 215	φ 250
D6	4-φ 3.4	4-φ 5.5	4-φ 7	4-φ 9	4-φ 11	4-φ 13	4-φ 17
D7	φ 46(22-70)	φ 70 (70-130)	φ 90 (70-145)	φ 145 (70-145)	φ 200(90-215)	φ 200(90-300)	φ 235(200-300)
D8	(4-M3X8L)	(4-M4*8L)	(4-M6*10L)	(4-M8*20L)	(4-M12X30L)	(4-M12X30L)	(4-M12X30L)
D9	M4X0.7P	M5*0.8P*18L	M6*1.25P*19L	M12*1.75P*28L	M16X2.0P	M20X2.5P	M20X2.5P
L1	19	28.5	36.5	51	79	82	105
L2	5.5	7	10	12	15	20	30
L3	4	6	8	10	12	15	20
L4	26	37	48	65	97	105	138
L5	113	115	130.5	167.5	282	322	383
L6	139	182	208.5	277.5	(378)	(427)	(521)
L7	(3.5)	(5)	(6.5)	(10)	(14)	(15)	(7)
L8	(30)	(33)	(42.5)	(59)	(81)	(85)	(85)
L9	(69.5)	(77.5)	(87)	(120)	(165)	(213.5)	(268.5)
L10	(90.5)	(111.75)	(134)	(179.5)	(236)	(303.5)	(378.5)
C1	□42	□60	□90	□115	□142	□180	□220
C2	(□42)	(□60)	(□80)	(□130)	(□142)	(□180)	(□220)
S1	2	3	4	5	5	5	7
S2	16	22	28	40	65	70	90
S3	15	18	24.5	35	43	59	79
B	5	5	6	10	12	16	20
K1	-	3	6	8	10	14	16
K2	-	φ 8	φ 18	φ 28	φ 38	φ 50	φ 60
K3	-	9.2	21	31.3	42	53.8	64.4
K4	-	φ 11	φ 24	φ 38	φ 48	φ 60	φ 72
K5	-	20	30	27	35	43	60
K6	-	24	35	32	40	50	65

Note 1: Inside of () is the optional range of sizes, outside of () is the standard sizes.

Note 2: The reducer output shaft size and length can be customized for customers.

Note 3: The input size can be changed according to the servomotor or stepper motor of each brand.