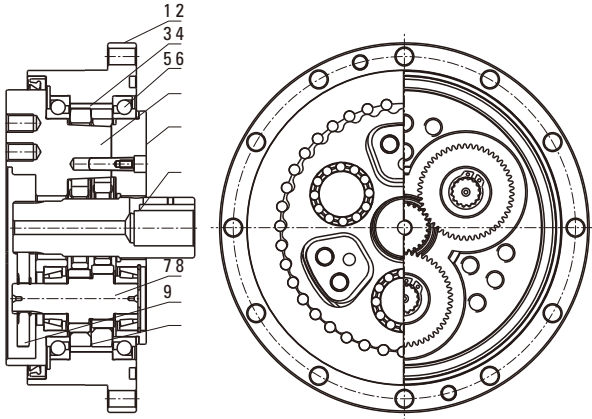


Reducer structure

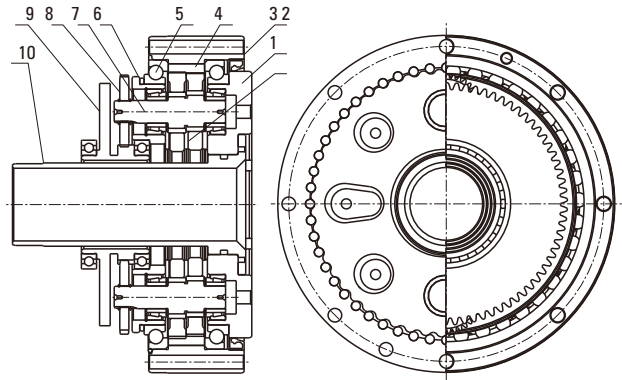
E series reducer structure

- 1- Needle tooth shell
- 3- Main bearing
- 5- Supporting flange
- 7- Crankshaft
- 9- Cycloidal gear
- 2- Pin gear
- 4- Output flange
- 6- Input shaft
- 8- Planetary gear



C series reducer structure

- 1- Cycloidal gear
- 3- Needle tooth shell
- 5- Main bearing
- 7- Crankshaft
- 9- Central gear
- 2- Output flange
- 4- Pin gear
- 6- Supporting flange
- 8- Planetary gear
- 10- Low speed tube



Code

Reducer Code

E Series			C Series		
Code	Outline dimension (mm)	General model	Code	Outline dimension (mm)	The original code
120	Φ122	6E	10C	Φ145	150
150	Φ145	20E	27C	Φ181	180
190	Φ190	40E	50C	Φ222	220
220	Φ222	80E	100C	Φ250	250
250	Φ244	110E	200C	Φ345	350
280	Φ280	160E	320C	Φ440	440
320	Φ325	320E	500C	Φ520	520
370	Φ370	450E	/	/	/

Reduction Ratio

E Series		C Series	
Code	Reduction ratio (output flange output)	Code	Monomer reduction ratio
120	31, 43, 53.5, 59, 79, 103	10CBX	27.00
150	41, 57, 81, 105, 121, 141, 161	27CBX	36.57
190	41, 57, 81, 105, 121, 153	50CBX	32.54
220	57, 81, 101, 121, 153	100CBX	36.75
250	81, 111, 161, 175.28	200CBX	34.86
280	81, 101, 129, 145, 171	320CBX	35.61
320	81, 101, 118.5, 129, 141, 171, 185	500CBX	37.34
370	81, 101, 118.5, 129, 154.8, 171, 192.4	/	/

Note 1: E series, such as by the shell (pin shell) output, the corresponding reduction ratio by 1.

Note 2: C series gear ratio refers to the motor installed in the casing of the reduction ratio, if installed on the output flange side, the corresponding reduction ratio by 1.

■E系列输出转矩及效率 E series output torque and efficiency

输出转速项目 Output Speed Project 型号 Model	5 r/min		15 r/min			25 r/min		30 r/min		容许最高输出转速 Maximum Allowable Loss Out Speed r/min
	输出转矩 Output Torque	输入功率 Input Power	输出转矩 Output Torque	输入功率 Input Power	效率 Efficiency	输出转矩 Output Torque	输入功率 Input Power	输出转矩 Output Torque	输入功率 Input Power	
	N.m	Kw	N.m	Kw	%	N.m	Kw	N.m	Kw	
120BX	115	0.075	58.8	0.115	80	62	0.2	64	0.25	100
150BX	245	0.16	196	0.385	80	153	0.5	153	0.6	75
35BX	329	0.23	254	0.5	80	203	0.71	192	0.8	75
190BX	612	0.4	392	0.77	80	367	1.2	382	1.5	70
65BX	745	0.52	575	1.13	80	460	1.61	435	1.81	70
220BX	1146	0.75	784	1.54	80	673	2.2	637	2.5	70
250BX	1528	1.0	1078	2.12	80	978	3.2	892	3.5	50
280BX	2292	1.5	1568	3.1	80	1437	4.7	1274	5.0	45
320BX	4584	3.0	3136	6.2	80	2903	9.5	2802	11.0	35
370BX	6112	4.0	4410	8.66	80	/	/	/	/	25

注1: 额定转矩是指输出转速为15 r/min时的输出转矩。输入功率考虑了减速器的效率。

Note 1: The rated torque is the output torque of the output speed of 15 r/min. The input power considers the efficiency of the reducer.

注2: 转矩计算公式 Note 2: Torque calculation formula:

$T=9549PX\eta/N$ (T: 转矩Nm, P: 功率Kw, N: 转速r/min, η : 效率%)。 $T=9549PX\eta/N$ (T: Torque Nm, P: Power Kw, N: Speed r/min, η : Efficiency %).

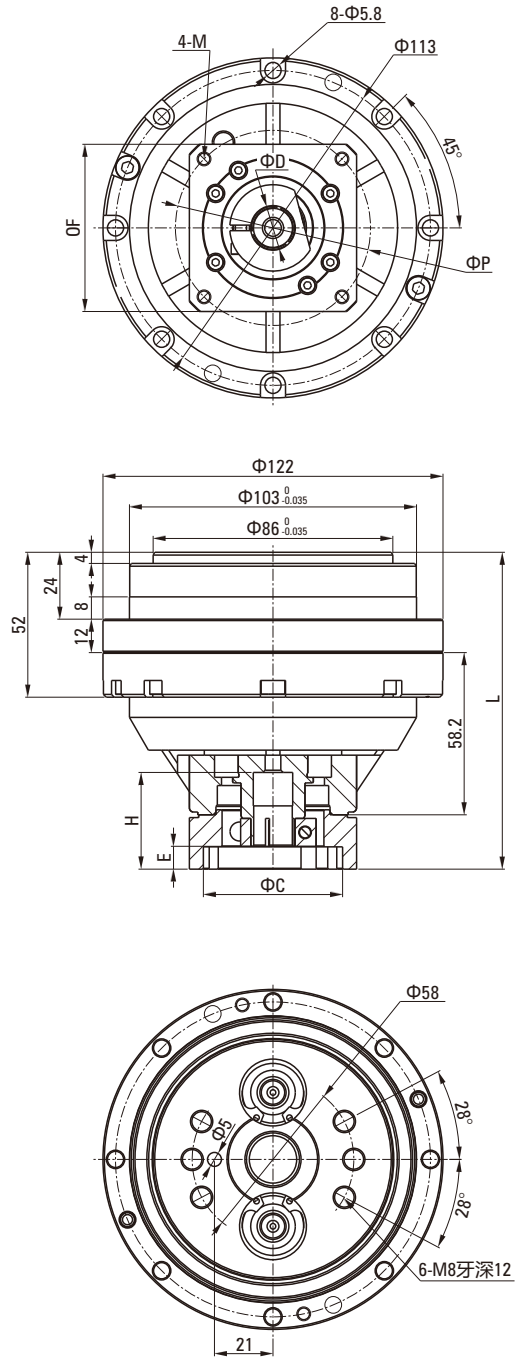
■E系列技术参数 E series of technical parameters

项目 Project 型号 Model	速比值 Ratio Value		容许力矩 Allowable Moment N.m	扭转刚度 Torsional Rigidity N.m/(Arc.min)	启动停止许 用输出转矩 Stat And Stop Allowing Output Torque (N.m)	瞬时容许最大转矩 Instantaneous Maximum Torque N.m	传动精度 Transmission Accuracy Arc.min	齿隙回差 Backlash Of Backlash Arc.min	寿命 Life h	惯性力矩 (I=GD ² /4) Moment of inertia 输入轴换算值 Input axis conversion value (kg-m ²)	重量 Weight kg
	轴输出 Axis Output	壳输出 Shell Output									
120BX	53.50	52.50	196	20	117	294	1.5	1.5	6000	1.53X10 ⁻⁵	2.50
	59.00	58.00								1.39X10 ⁻⁵	
	79.00	78.00								1.09X10 ⁻⁵	
	103.0	102.0								0.74X10 ⁻⁵	
150BX	81.00	80.00	880	49	412	820	1.0	1.0	6000	6.07X10 ⁻⁵	4.70
	105.0	104.0								4.32X10 ⁻⁵	
	121.0	120.0								3.56X10 ⁻⁵	
	141.0	140.0								2.88X10 ⁻⁵	
35BX	161.0	160.0	1103	73	530	1190	1.0	1.0	6000	2.39X10 ⁻⁵	4.6
	81.00	80.00								6.07X10 ⁻⁵	
	105.0	104.0								4.32X10 ⁻⁵	
	121.0	120.0								3.56X10 ⁻⁵	
190BX	141.0	140.0	1600	108	1029	2000	1.0	1.0	6000	2.88X10 ⁻⁵	9.30
	161.0	160.0								2.39X10 ⁻⁵	
	81.00	80.00								2.20X10 ⁻⁵	
	105.0	104.0								1.63X10 ⁻⁵	
65BX	121.0	120.0	1916	162	1380	2690	1.0	1.0	6000	1.37X10 ⁻⁵	9.50
	153.0	152.0								1.01X10 ⁻⁵	
	81.00	80.00								2.20X10 ⁻⁵	
	105.0	104.0								1.63X10 ⁻⁵	
220BX	121.0	120.0	2000	196	1960	3600	1.0	1.0	6000	1.37X10 ⁻⁵	13.1
	153.0	152.0								4.82X10 ⁻⁵	
	81.00	80.00								3.96X10 ⁻⁵	
	101.0	100.0								2.98X10 ⁻⁵	
250BX	161.0	160.0	2900	294	2695	5380	1.0	1.0	6000	9.88X10 ⁻⁵	17.4
	175.28	174.28								6.96X10 ⁻⁵	
	81.00	80.00								4.36X10 ⁻⁵	
	101.0	100.0								3.89X10 ⁻⁵	
280BX	118.5	117.5	3900	392	3920	7800	1.0	1.0	6000	1.77X10 ⁻⁴	26.4
	129.0	128.0								1.40X10 ⁻⁴	
	145.0	144.0								1.06X10 ⁻⁴	
	171.0	170.0								0.87X10 ⁻⁴	
320BX	81.00	80.00	7000	980	7840	15600	1.0	1.0	6000	0.74X10 ⁻⁴	44.3
	101.0	100.0								4.83X10 ⁻⁴	
	118.5	117.5								3.79X10 ⁻⁴	
	129.0	128.0								3.15X10 ⁻⁴	
370BX	141.0	140.0	8820	1176	11025	22000	1.0	1.0	6000	2.84X10 ⁻⁴	66.4
	171.0	170.0								2.54X10 ⁻⁴	
	185.0	184.0								1.97X10 ⁻⁴	
	81.00	80.00								1.77X10 ⁻⁴	
370BX	101.0	100.0	8820	1176	11025	22000	1.0	1.0	6000	8.75X10 ⁻⁴	66.4
	118.5	117.5								6.91X10 ⁻⁴	
	129.0	128.0								5.75X10 ⁻⁴	
	154.8	153.8								5.20X10 ⁻⁴	
370BX	171.0	170.0	8820	1176	11025	22000	1.0	1.0	6000	4.12X10 ⁻⁴	66.4
	192.4	191.4								3.61X10 ⁻⁴	
370BX	81.00	80.00	8820	1176	11025	22000	1.0	1.0	6000	3.07X10 ⁻⁴	66.4
	101.0	100.0								3.07X10 ⁻⁴	

REA系列外形尺寸图

REA SERIES OUTLINE DIMENSION DRAWING

120BX-REA2 外形图 120BX-REA2 Outline Drawing



马达种类 Type Motor	M41	M42
C	50	50
D	11/14	11/14
E	8	8
F	60	60
H	34	34
L	113.7	113.7
M	M4	M5
P	70	70

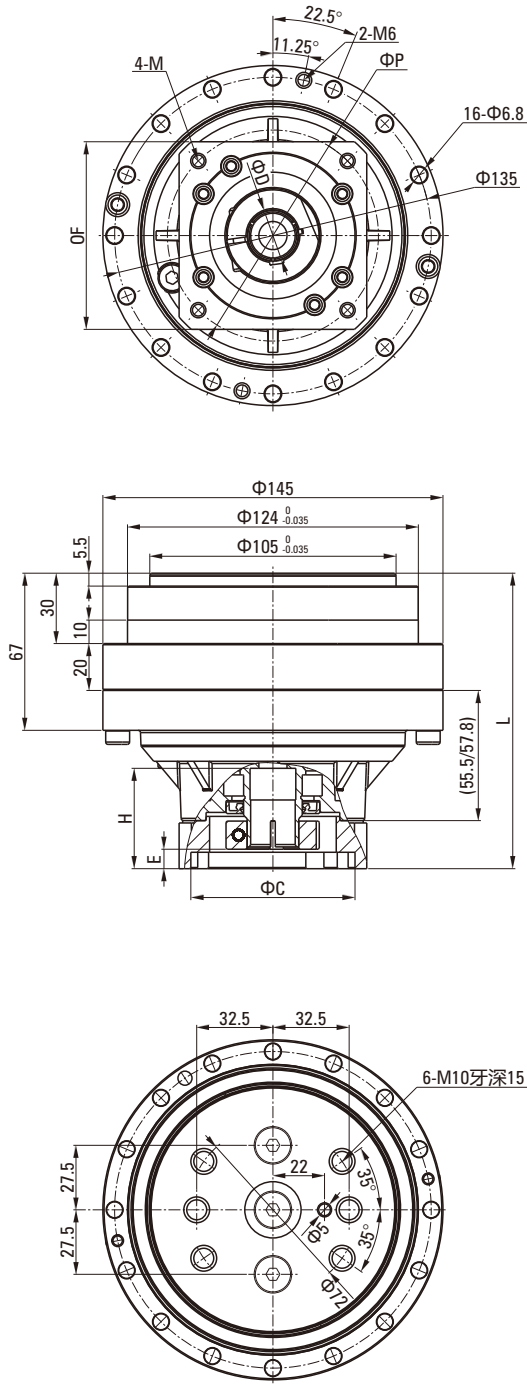
说明 Note:

1. 本图适用电机轴: ≤ 14 ; 电机轴用锁紧器锁紧。 This figure applies to the motor shaft: ≤ 14 ; motor shaft lock use locker.
2. 减速机速比: (31,43,53.5,59,79,103):1 (轴输出)。 Speed reduction ratio: (31,43,53.5,59,79,103): 1 (shaft output).
3. 润滑油脂: VIGO GREASE RE0 或 RE-00 (MOLYWHITE)。 Lubricants: VIGO GREASE RE0 or RE-00 (MOLYWHITE).
4. 额定输出扭矩: 58N.m (输出转速: 15R/Min)。 Rated output torque: 58N.m (output speed: 15R/Min).
5. 电机安装法兰依电机型号提供。 Motor mounting flange according to motor model.

REA系列外形尺寸图

REA SERIES OUTLINE DIMENSION DRAWING

150BX-REA2 外形图 150BX-REA2 Outline Drawing



● 说明 Note:

1. 本图适用电机轴: $\leq 19 \times 40L$; 电机轴用锁紧器锁紧。This figure applies to the motor shaft: $\leq 19 \times 40L$; motor shaft lock use locker.
2. 减速机速比: (41,57,81,105,121,141,161):1 (轴输出)。Speed reduction ratio: (41,57,81,105,121,141,161): 1 (shaft output).
3. 润滑油脂: VIGO GREASE RE0 或 RE-00 (MOLYWHITE)。Lubricants: VIGO GREASE RE0 or RE-00 (MOLYWHITE).
4. 额定输出扭矩: 196N.m (输出转速: 15R/Min)。Rated output torque: 196N.m (output speed: 15R/Min).
5. 电机安装法兰依电机型号提供。Motor mounting flange according to motor model.

马达种类 Type Motor	M59A	M59B
C	50	50
D	14	14
E	5	5
F	80	80
H	35	35
K	-	-
L	123	123
L (41,57K)	113	113
M	M4	M5
P	70	70

马达种类 Type Motor	M51	M52
C	70	70
D	19	19
E	8	8
F	80	80
H	45	45
K	6	6
L	128.3	128.3
L (41,57K)	-	-
M	M5	M6
P	90	90

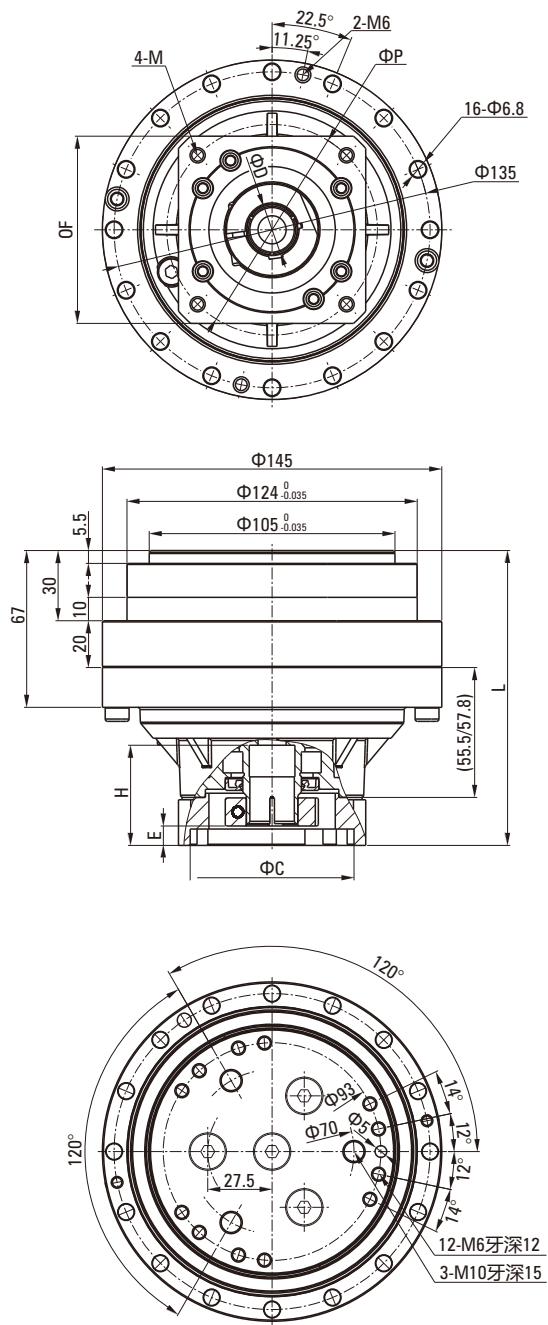
马达种类 Type Motor	M53	M51
C	80	70
D	19	19
E	8	8
F	90	80
H	45	42
K	6	无键型
L	128.3	126
L (41,57K)	-	116
M	M6	M5
P	100	90

马达种类 Type Motor	M52	M53
C	70	80
D	19	19
E	8	8
F	80	90
H	42	42
K	无键型	无键型
L	126	126
L (41,57K)	116	116
M	M6	M6
P	90	100

REA系列外形尺寸图

REA SERIES OUTLINE DIMENSION DRAWING

35BX-REA2 外形图 35BX-REA2 Outline Drawing



● 说明 Note:

1. 本图适用电机轴: $\leq 19 \times 40L$ 。This figure applies to the motor shaft: $\leq 19 \times 40L$.
2. 减速机速比: (41,57,81,105,121,141,161):1 (轴输出)。Speed reduction ratio: (41,57,81,105,121,141,161): 1 (shaft output).
3. 润滑油脂: VIGO GREASE RE0 或 RE-00 (MOLYWHITE)。Lubricants: VIGO GREASE RE0 or RE-00 (MOLYWHITE).
4. 额定输出扭矩: 254N.m (输出转速: 15R/Min)。Rated output torque: 254N.m (output speed: 15R/Min).
5. 电机安装法兰依电机型号提供。Motor mounting flange according to motor model.

马达种类 Type Motor	M59A	M59B
C	50	50
D	14	14
E	5	5
F	80	80
H	35	35
K	-	-
L	123	123
L (41,57K)	113	113
M	M4	M5
P	70	70

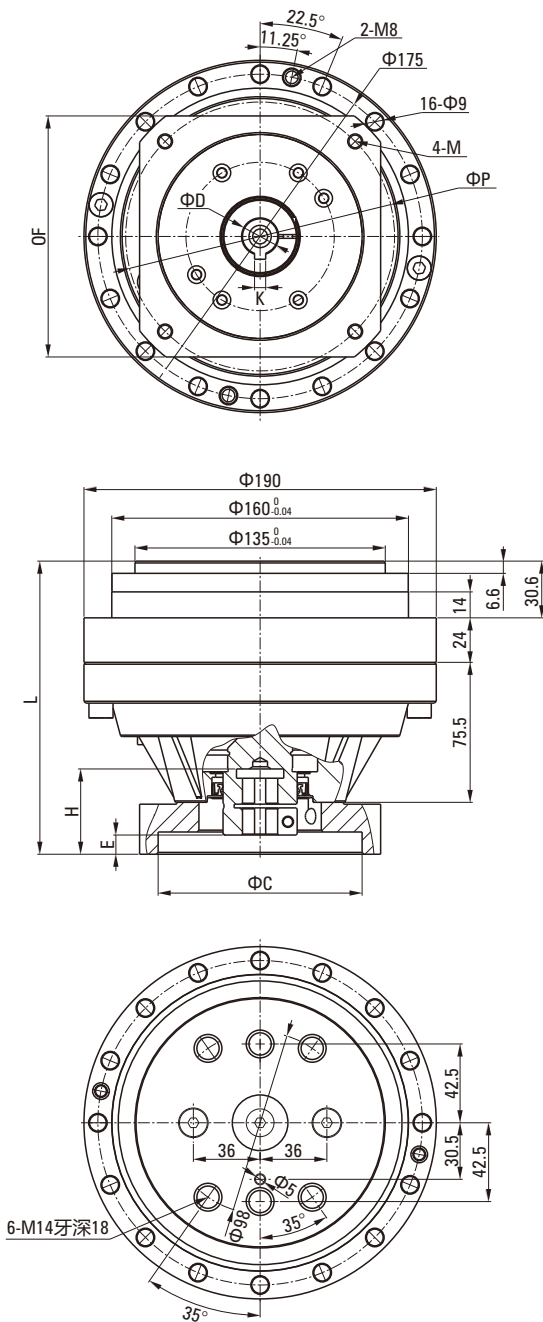
马达种类 Type Motor	M51	M52
C	70	70
D	19	19
E	8	8
F	80	80
H	45	45
K	6	6
L	128.3	128.3
L (41,57K)	-	-
M	M5	M6
P	90	90

马达种类 Type Motor	M53	M51
C	80	70
D	19	19
E	8	8
F	90	80
H	45	42
K	6	无键型
L	128.3	126
L (41,57K)	-	116
M	M6	M5
P	100	90

马达种类 Type Motor	M52	M53
C	70	80
D	19	19
E	8	8
F	80	90
H	42	42
K	无键型	无键型
L	126	126
L (41,57K)	116	116
M	M6	M6
P	90	100

REA系列外形尺寸图

■ 190BX-REA2 外形图 190BX-REA2 Outline Drawing



马达种类 Type Motor	M59A	M59B
C	50	50
D	14	14
E	8	8
F	80	80
H	35	35
K	-	-
L	147.6	147.6
L (41,57K)	147.6	147.6
M	M4	M5
P	70	70

马达种类 Type Motor	M72	M73
C	110	95
D	19/22	19
E	20	7
F	130	100
H	58	48
K	6/8	6
L	170.1	162.1
L (41,57K)	165.1	155.1
M	M8	M6
P	145	115

马达种类 Type Motor	M74	M75
C	95	95
D	19/22	19/22
E	7	10
F	100	110
H	48	52
K	6/8	6/8
L	162.1	165.1
L (41,57K)	155.1	158.1
M	M8	M8
P	115	130

马达种类 Type Motor	M77	M78
C	80	70
D	19	19
E	10	8
F	90	80
H	40	40
K	6	6
L	158.1	156.1
L (41,57K)	150.1(M51/52/53)	
M	M6	M6
P	100	90

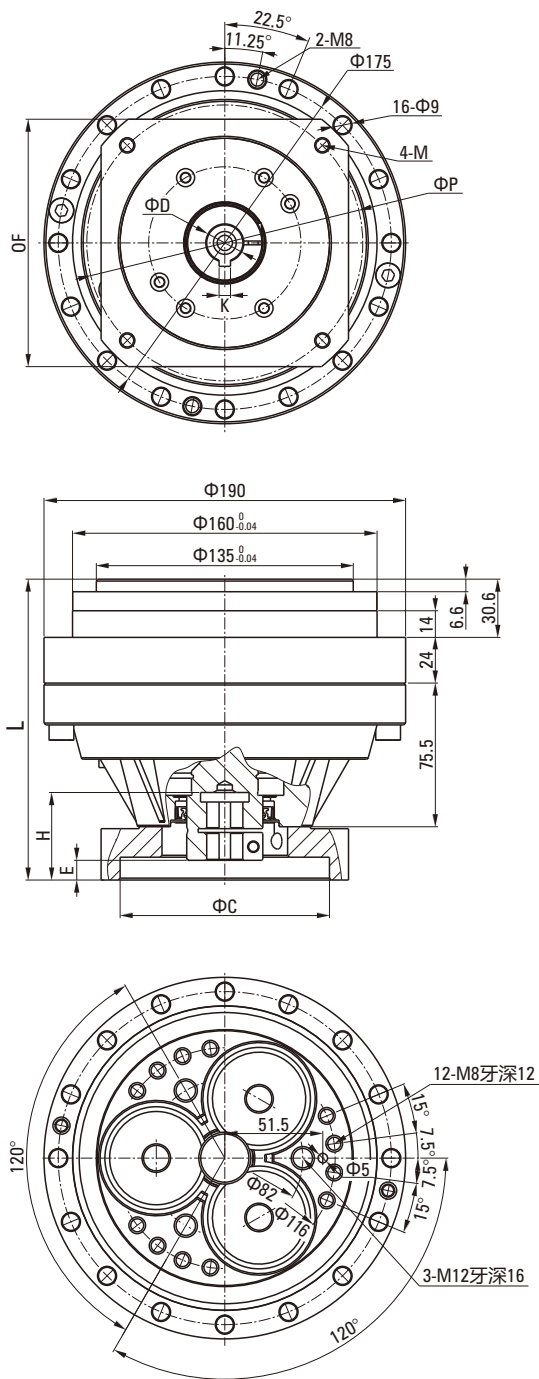
● **说明 Note:**

1. 本图适用电机轴: ≤ 24 ; 电机轴用锁紧带键一体轴。This figure applies to the motor shaft: ≤ 24 ; motor shaft lock use locker.
2. 减速电机速比: (41,57,81,105,121,153):1 (轴输出)。Speed reduction ratio: (41,57,81,105,121,153): 1 (shaft output).
3. 润滑油脂: VIGO GREASE REO 或 RE-00 (MOLYWWHITE)。Lubricants: VIGO GREASE REO or RE-00 (MOLYWWHITE).
4. 额定输出扭矩: 392N.m (输出转速: 15R/Min)。Rated output torque: 392N.m (output speed: 15R/Min).
5. 电机安装法兰依电机型号提供。Motor mounting flange according to motor model.

REA系列外形尺寸图

REA SERIES OUTLINE DIMENSION DRAWING

65BX-REA 外形图 65BX-REA Outline Drawing



马达种类 Type Motor	M59A	M59B
C	50	50
D	14	14
E	8	8
F	80	80
H	35	35
K	-	-
L	147.6	147.6
L (41,57K)	147.6	147.6
M	M4	M5
P	70	70

马达种类 Type Motor	M72	M73
C	110	95
D	19/22	19
E	20	7
F	130	100
H	58	48
K	6/8	6
L	170.1	162.1
L (41,57K)	165.1	155.1
M	M8	M6
P	145	115

马达种类 Type Motor	M74	M75
C	95	95
D	19/22	19/22
E	7	10
F	100	110
H	48	52
K	6/8	6/8
L	162.1	165.1
L (41,57K)	155.1	158.1
M	M8	M8
P	115	130

马达种类 Type Motor	M77	M78
C	80	70
D	19	19
E	10	8
F	90	80
H	40	40
K	6	6
L	158.1	156.1
L (41,57K)	150.1(M51/52/53)	
M	M6	M6
P	100	90

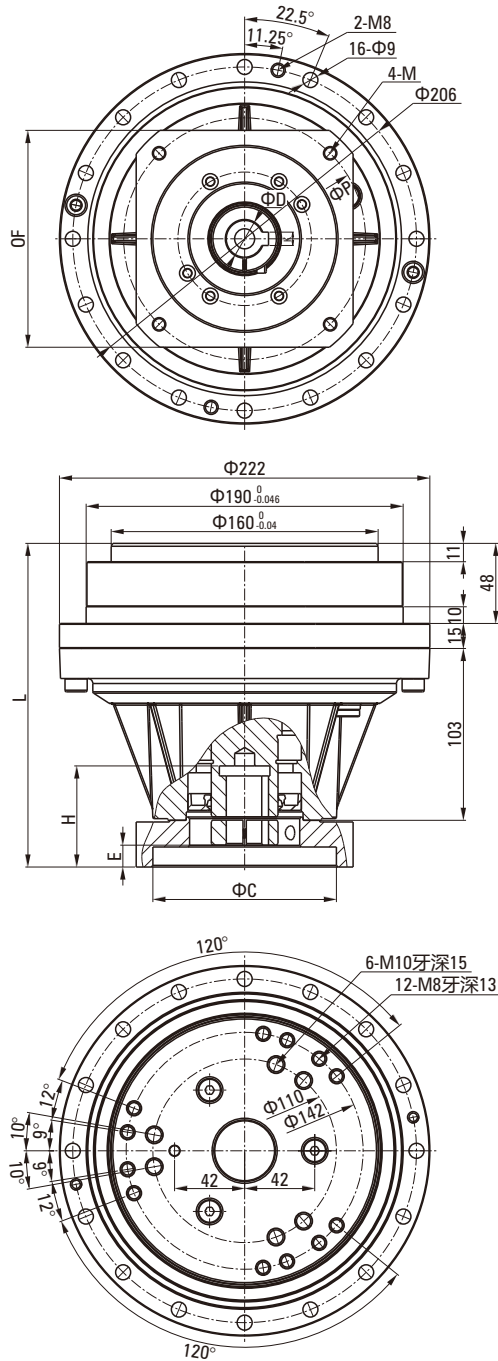
● 说明 Note:

1. 本图适用电机轴: ≤ 24 ; 电机轴用锁紧带键一体轴。This figure applies to the motor shaft: ≤ 24 ; motor shaft lock use locker.
2. 减速机速比: (41,57,81,105,121,153):1 (轴输出)。Speed reduction ratio: (41,57,81,105,121,153): 1 (shaft output).
3. 润滑油脂: VIGO GREASE RE0 或 RE-00 (MOLYWHITE)。Lubricants: VIGO GREASE RE0 or RE-00 (MOLYWHITE).
4. 额定输出扭矩: 575N.m (输出转速: 15R/Min)。Rated output torque: 575N.m (output speed: 15R/Min).
5. 电机安装法兰依电机型号提供。Motor mounting flange according to motor model.

REA系列外形尺寸图

REA SERIES OUTLINE DIMENSION DRAWING

220BX-REA2 外形图 220BX-REA2 Outline Drawing



● 说明 Note:

1. 本图适用电机轴: $\leq 24 \times 70L$; 电机轴用锁紧器锁紧。This figure applies to the motor shaft: $\leq 24 \times 70L$; motor shaft lock use locker.
2. 减速机速比: (57,81,101,121,153):1 (轴输出)。Speed reduction ratio: (57,81,101,121,153): 1 (shaft output).
3. 润滑油脂: VIGO GREASE RE0 或 RE-00 (MOLYWHITE)。Lubricants: VIGO GREASE RE0 or RE-00 (MOLYWHITE).
4. 额定输出扭矩: 784N.m (输出转速: 15R/Min)。Rated output torque: 784N.m (output speed: 15R/Min).
5. 电机安装法兰依电机型号提供。Motor mounting flange according to motor model.

马达种类 Type Motor	M71	M73
C	110	95
D	19/22/24	19
E	13	10
F	130	100
H	60	57
K	6/8	6
L	194	191
M	M8	M6
P	145	115

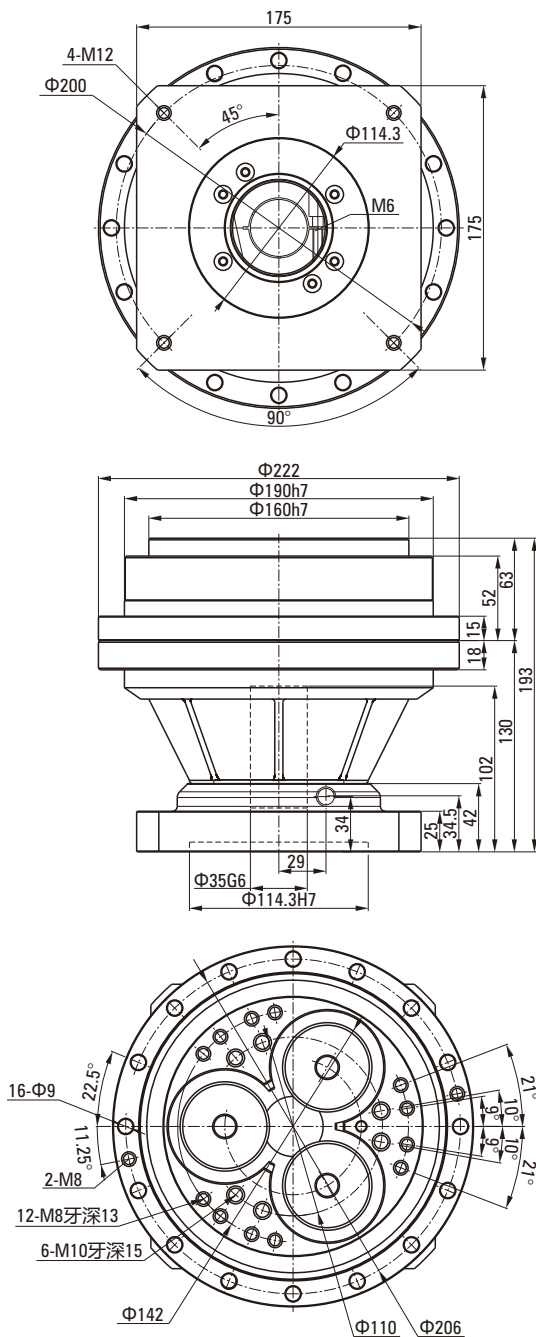
马达种类 Type Motor	M74	M75
C	95	95
D	19/22	19/22/24
E	10	13
F	100	110
H	57	60
K	6/8	6/8
L	191	194
M	M8	M8
P	115	130

马达种类 Type Motor	M76	M77
C	130	80
D	19/22	19
E	13	10
F	142	90
H	60	60
K	6/8	6
L	194	194
M	M10	M6
P	165	100

马达种类 Type Motor	M78	M81
C	70	114.3
D	19	28/35
E	11	27.5
F	80	175
H	58	82
K	6	8/10
L	192	208
M	M6	M8
P	90	200

REA系列外形尺寸图

■ 220BX-REA-35 外形图 220BX-REA-35 Outline Drawing



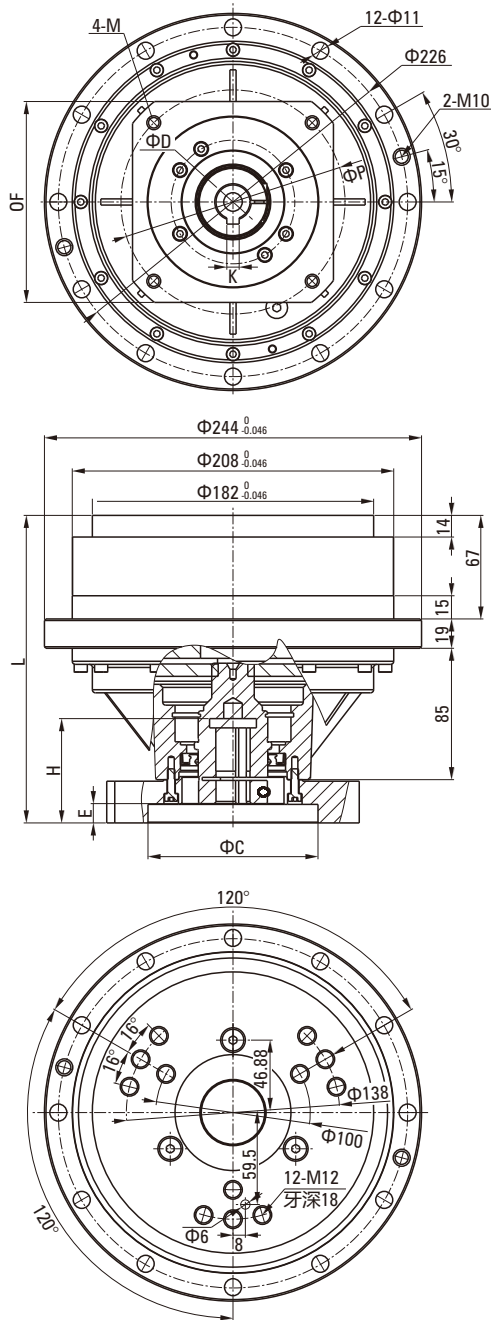
● 说明 Note:

1. 本图适用电机轴: $\leq 35 \times 80L$; 电机轴用锁紧带键一体轴。This figure applies to the motor shaft: $\leq 35 \times 80L$; motor shaft lock use locker.
2. 减速比速比: (57,81,101,121,153):1 (轴输出)。Speed reduction ratio: (57,81,101,121,153): 1 (shaft output).
3. 润滑油脂: VIGO GREASE RE0 或 RE-00 (MOLYWHITE)。Lubricants: VIGO GREASE RE0 或 RE-00 (MOLYWHITE).
4. 额定输出扭矩: 784N.m (输出转速: 15R/Min); 容许力矩 1700Nm, 容许推力 7400N。Rated output torque: 784N.m (output speed: 15R/Min); Allowable moment 1700Nm, allowable thrust 7400N.
5. 电机安装法兰依电机型号提供。Motor mounting flange according to motor model.

REA系列外形尺寸图

REA SERIES OUTLINE DIMENSION DRAWING

250BX-REA2 外形图 250BX-REA2 Outline Drawing



马达种类 Type Motor	M71	M73
C	110	95
D	22/24	22
E	12.5	9.5
F	130	100
H	66	57
K	6/8	6
L	199	196
M	M8	M6
P	145	115

马达种类 Type Motor	M74	M75
C	95	95
D	22	22/24
E	9.5	12.5
F	100	110
H	57	60
K	6/8	6/8
L	196	199
M	M8	M8
P	115	130

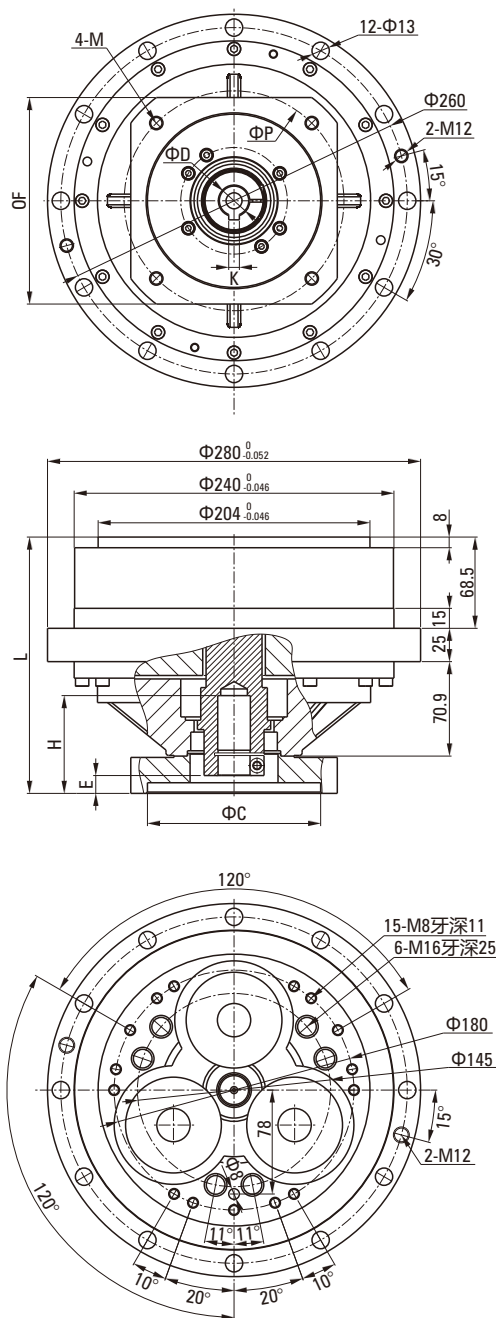
马达种类 Type Motor	M76	M91
C	130	114.3
D	22	28/35
E	12.5	27
F	142	175
H	60	82
K	6/8	8/10
L	199	213
M	M10	M12
P	165	200

● 说明 Note:

1. 本图适用电机轴: $\leq 35 \times 80L$; 电机轴用锁紧带键一体轴。This figure applies to the motor shaft: $\leq 35 \times 80L$; motor shaft lock use locker.
2. 减速机速比: (81,111,161,175.28):1 (轴输出)。Speed reduction ratio: (81,111,161,175.28): 1 (shaft output).
3. 润滑油脂: VIGO GREASE RE0 或 RE-00 (MOLYWHITE)。Lubricants: VIGO GREASE RE0 or RE-00 (MOLYWHITE).
4. 额定输出扭矩: 1078N.m (输出转速: 15R/Min)。Rated output torque: 1078N.m (output speed: 15R/Min).
5. 电机安装法兰依电机型号提供。Motor mounting flange according to motor model.

REA系列外形尺寸图 REA SERIES OUTLINE DIMENSION DRAWING

280BX-REA 外形图 280BX-REA Outline Drawing



说明 Note:

1. 本图适用电机轴: <=35x70L ; 电机轴用锁紧带键一体轴。 This figure applies to the motor shaft: <=35x70L; Motor shaft is locked by locker.
2. 减速机速比: (81,101,129,145,171): 1 (轴输出)。 Speed reduction ratio: (81,101,129,145,171): 1 (shaft output).
3. 润滑油脂: VIGO GREASE RE0或RE-00 (MOLYWHITE)。 Lubricants: VIGO GREASE RE0 or RE-00 (MOLYWHITE).
4. 额定输出扭矩: 1568N.m (输出转速: 15R/Min)。 Rated output torque: 1568N.m (output speed: 15R/Min).
5. 电机安装法兰依电机型号提供。 The motor mounting flange is supplied according to the motor type.

马达种类 Type Motor	M71	M73
C	110	95
D	22/24	22
E	13.4	10.4
F	130	100
H	70	65
K	6/8	6
L	192.4	189.4
M	M8	M6
P	145	115

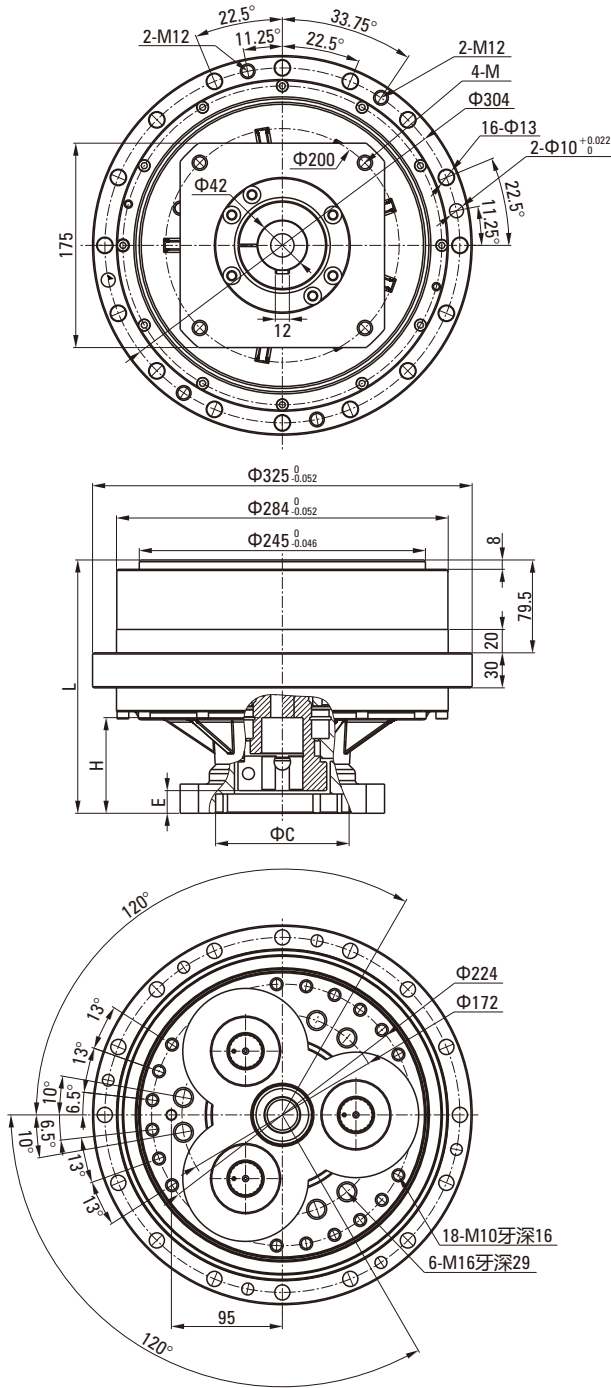
马达种类 Type Motor	M74	M75
C	95	95
D	22	22/24
E	10.4	13.4
F	100	110
H	57	60
K	6/8	6/8
L	189.4	192.4
M	M8	M8
P	115	130

马达种类 Type Motor	M76	M91
C	130	114.3
D	22	28/35
E	13.4	27
F	142	175
H	60	82
K	6/8	8/10
L	192.4	206.4
M	M10	M12
P	165	200

REA系列外形尺寸图

REA SERIES OUTLINE DIMENSION DRAWING

320BX-REA 外形图 320BX-REA Outline Drawing



马达种类 Type Motor	M91	M92
C	114.3	180
D	35	35
E	19	19
F	175	200
H	81	81
K	10	10
L	216.9	216.9
M	M12	M12
P	200	215

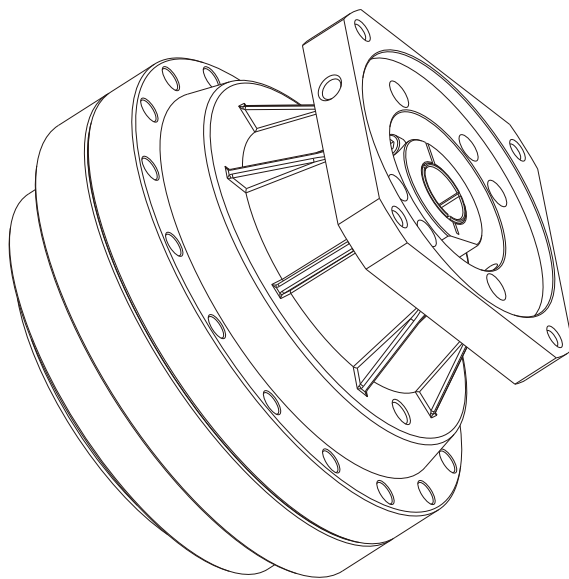
马达种类 Type Motor	M91
C	114.3
D	42
E	48.5
F	175
H	116
K	12
L	248.4
M	M12
P	200

说明 Note:

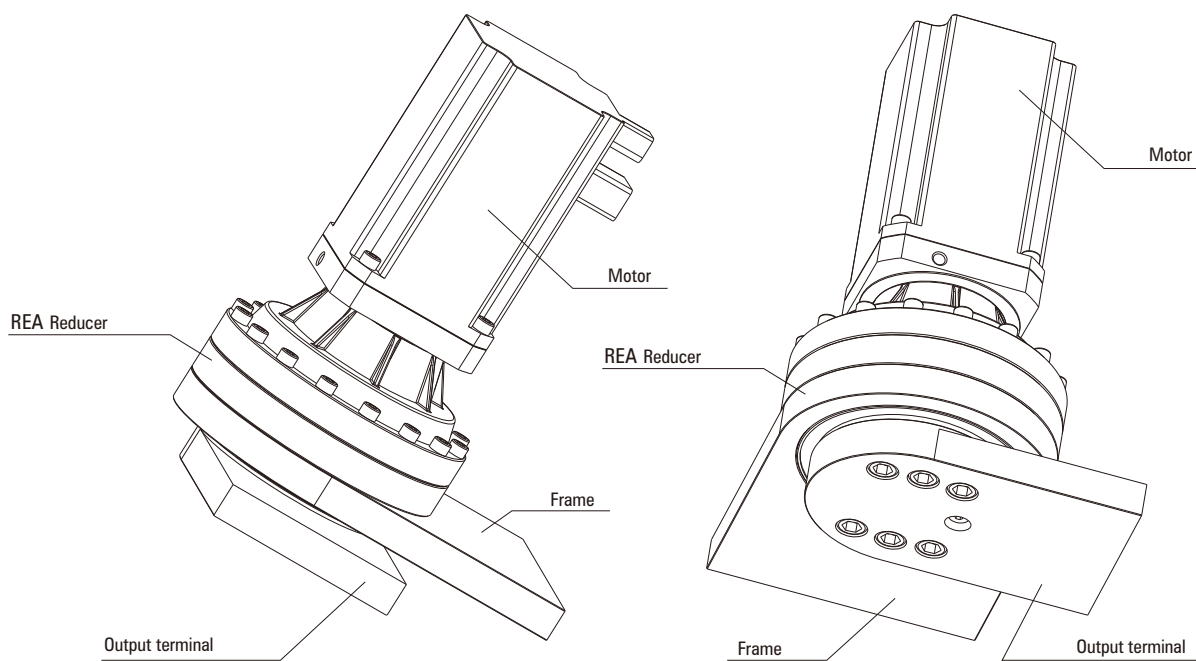
1. 本图适用电机轴: $\leq 42 \times 114L$; 电机轴用锁紧带键一体轴。This figure applies to the motor shaft: $\leq 42 \times 114L$; motor shaft lock use locker.
2. 减速机速比: (81,101,118.5,129,141,171,185):1 (轴输出)。Speed reduction ratio: (81,101,118.5,129,141,171,185): 1 (shaft output).
3. 润滑油脂: VIGO GREASE RE0 或 RE-00 (MOLYWHITE)。Lubricants: VIGO GREASE RE0 or RE-00 (MOLYWHITE).
4. 额定输出扭矩: 3136N.m (输出转速: 15R/Min)。Rated output torque: 3136N.m (output speed: 15R/Min).
5. 电机安装法兰依电机型号提供。Motor mounting flange according to motor model.

REA系列减速机安装图 RVA SERIES INSTALLATION DRAWING

REA系列减速机 REA Series Reducer



REA系列减速机安装示例 REA Series Reducer Installation Example



REA系列减速机安装图

REA SERIES INSTALLATION DRAWING

■ REA系列减速机安装拆解示意图 REA Series Mounting Schematic Diagram (Disassemble Diagram)

