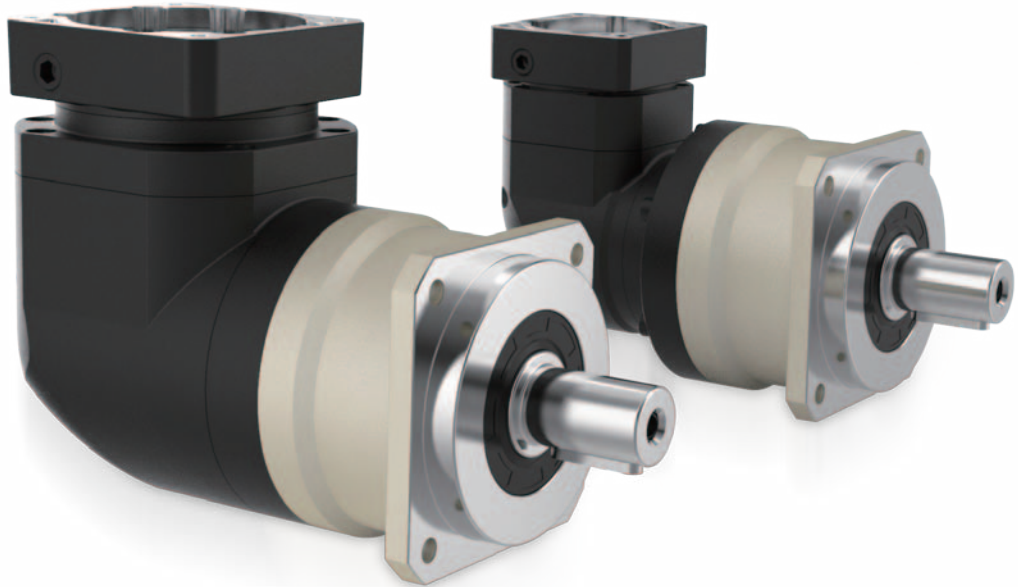


## FBR Series

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- ✓ FBR060
- ✓ FBR090
- ✓ FBR115
- ✓ FBR142
- ✓ FBR180



**FBR**

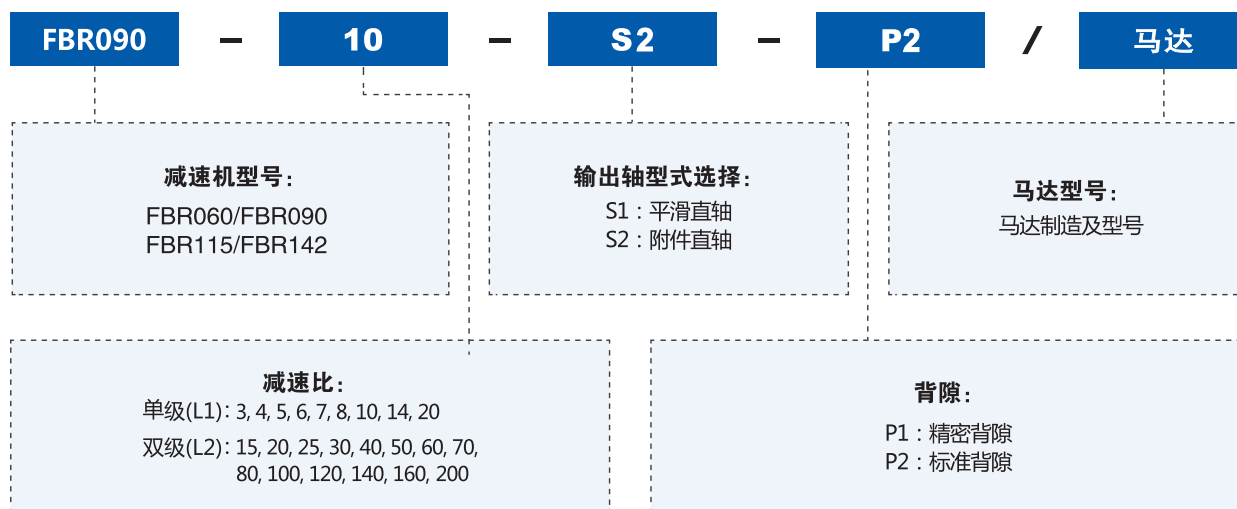
Series

**SEIKO QUALITY**

SHARED GLOBALLY

精工品质 全球共享

## 型号说明 MODEL ILLUMINATE



选用范例: **FBR090-10-S2-P2 / MHMD-082G1U**

## 性能 -FBR 减速机

规格	单位	节数	减速比 <sup>①</sup>	FBR060	FBR090	FBR115	FBR142	FBR180
额定输出力矩 $T_{2N}$	Nm	单级 L1	3	55	130	208	342	588
			4	50	140	290	542	1050
			5	60	160	330	650	1200
			6	55	150	310	600	1100
			7	50	140	300	550	1100
			8	50	140	290	542	1050
			10	60	160	330	650	1200
			14	50	140	300	550	1100
		20	40	100	230	450	900	
		双级 L2	12	55	130	208	342	588
			15	55	130	208	342	588
			20	50	140	290	542	1050
			25	60	160	330	650	1200
			30	55	130	208	342	588
			35	60	160	330	650	1200
			40	50	140	290	542	1050
			50	60	160	330	650	1200
			60	55	150	310	600	1100
			70	60	160	330	650	1200
			80	50	140	290	542	1050
100	60		160	330	650	1200		
120	-	150	310	600	1100			
140	-	140	300	550	1100			
160	-	120	290	500	1000			
200	-	100	230	450	900			
紧急制动力矩 $T_{2B}$	Nm	L1.L2	3~200	3倍额定输出力矩				
额定输入转速 $N_1$	rpm	L1.L2	3~200	5000	4000	4000	3000	3000
最大输入转速 $n_{1B}$	rpm	L1.L2	3~200	10000	8000	8000	6000	6000
背隙	arcmin	L1	3~20	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6
		L2	12~200	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9
扭转刚性	Nm/arcmin	L1.L2	3~200	7	14	25	50	145
容许径向力 $F_{2rB}$ <sup>②</sup>	N	L1.L2	3~200	1550	3250	6700	9400	14500
容许轴向力 $F_{2aB}$ <sup>②</sup>	N	L1.L2	3~200	770	1630	3350	4700	6200
使用寿命	hr	L1.L2	3~200	20000 <sup>③</sup>				
效率 $\eta$	%	L1	3~20	≥ 97%				
		L2	12~200	≥ 94%				
重量	kg	L1	3~20	2.1	6.5	13	24.5	51
		L2	12~200	2.8	7.8	14.2	27.5	54
使用温度	°C	L1.L2	3~200	-10°C ~ +90°C				
润滑		L1.L2	3~200	合成润滑油脂				
防护等级		L1.L2	3~200	IP65				
安装方式		L1.L2	3~200	任意方向				
噪音值 ( $n_1=3000\text{rpm}$ )	dB	L1.L2	3~200	≤ 63	≤ 65	≤ 68	≤ 70	≤ 75

## 惯量 -FBR 减速机

规格	单位	节数	减速比 <sup>①</sup>	FBR060	FBR090	FBR115	FBR142	FBR180
转动惯量 $J_1$	$\text{kg} \cdot \text{cm}^2$	L1	3~10	0.35	2.25	6.84	23.4	68.9
			14	0.07	1.87	6.25	21.8	65.6
			20	0.07	1.87	6.25	21.8	65.6
		L2	12~100	0.09	0.35	2.25	6.84	23.4
			120~200	-	0.31	1.87	6.25	21.8

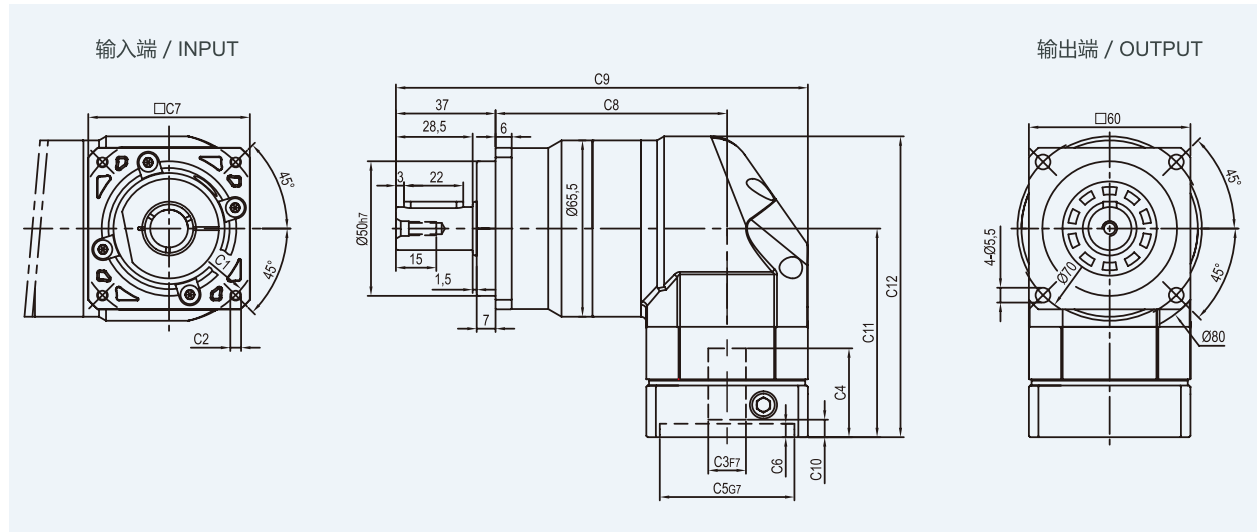
1. 减速比 ( $i=N_{in}/N_{out}$ )

2. 输出转速 100rpm 时, 作用于输出轴中心位置

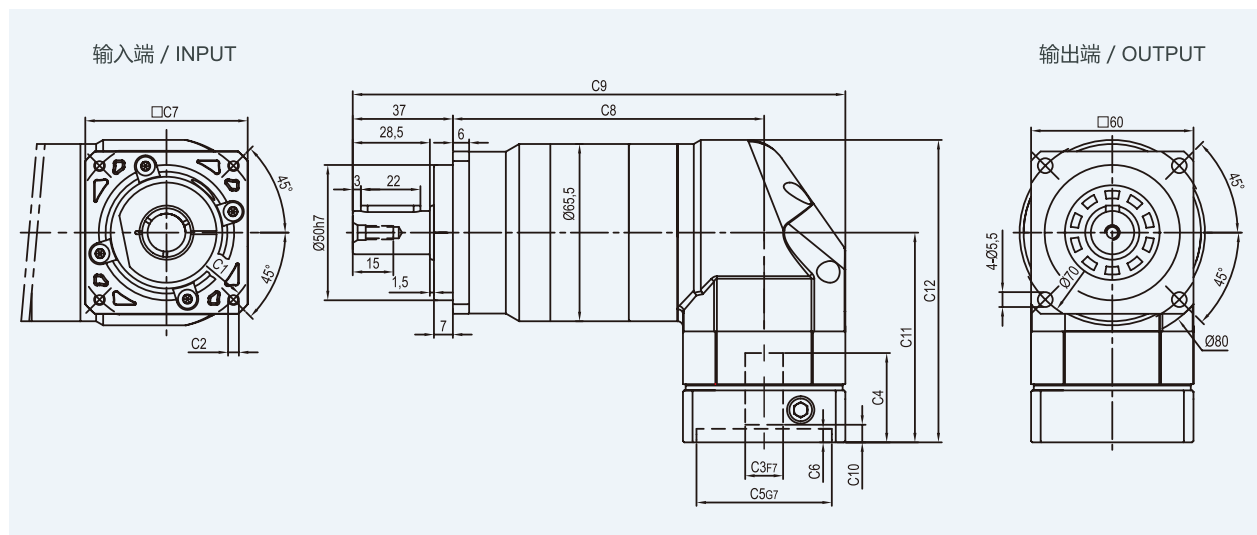
3. 连续运转降低使用寿命二分之一

# 外形尺寸图表 / OUTLINE DIMENSION SHEET

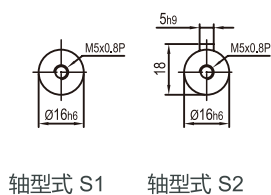
## FBR-060-L1



## FBR-060-L2



## 输出轴径



尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
FBR-060-L1	Ø66.7	4-M4x10	Ø8	33	Ø38.1	5	60	86	153	5.5	77.5	111.75
FBR-060-L2	Ø70	4-M4x10,4-M5x12	Ø11,Ø14	33	Ø50	5	60	86	153	5.5	77.5	111.75
FBR-060-L1	Ø90	4-M5x12,4-M6x14	Ø19	42.5	Ø70	6.5	80	86	163	12	87	121.25
FBR-060-L2								115	182			

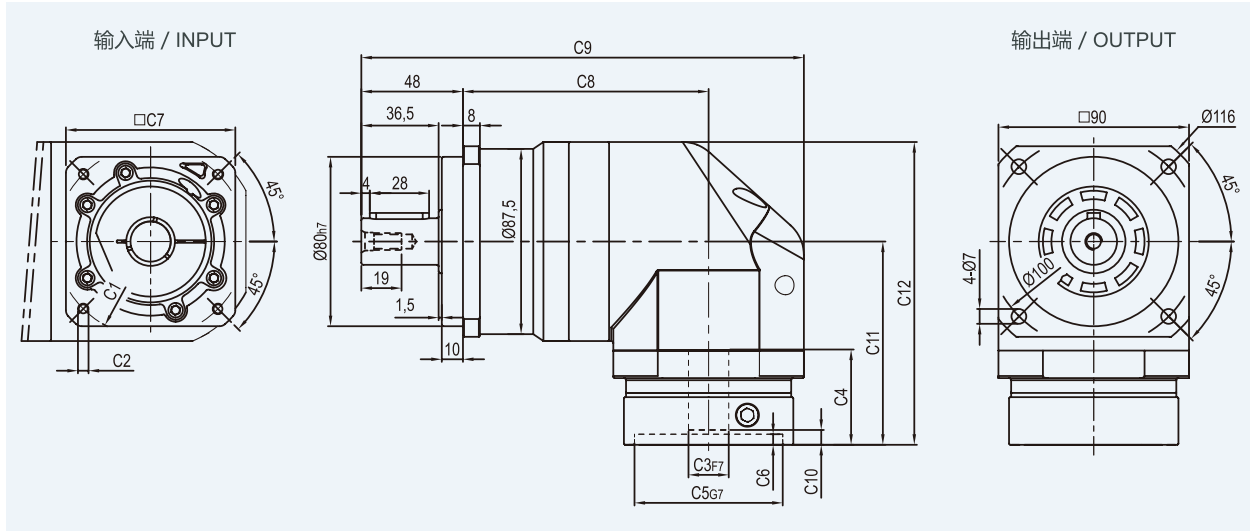
\* C1~C7是公制标准马达连接板之尺寸,可根据客户要求单独定做。

\* C1~C7are motor(metric standard) specific dimensions, which could be customised.

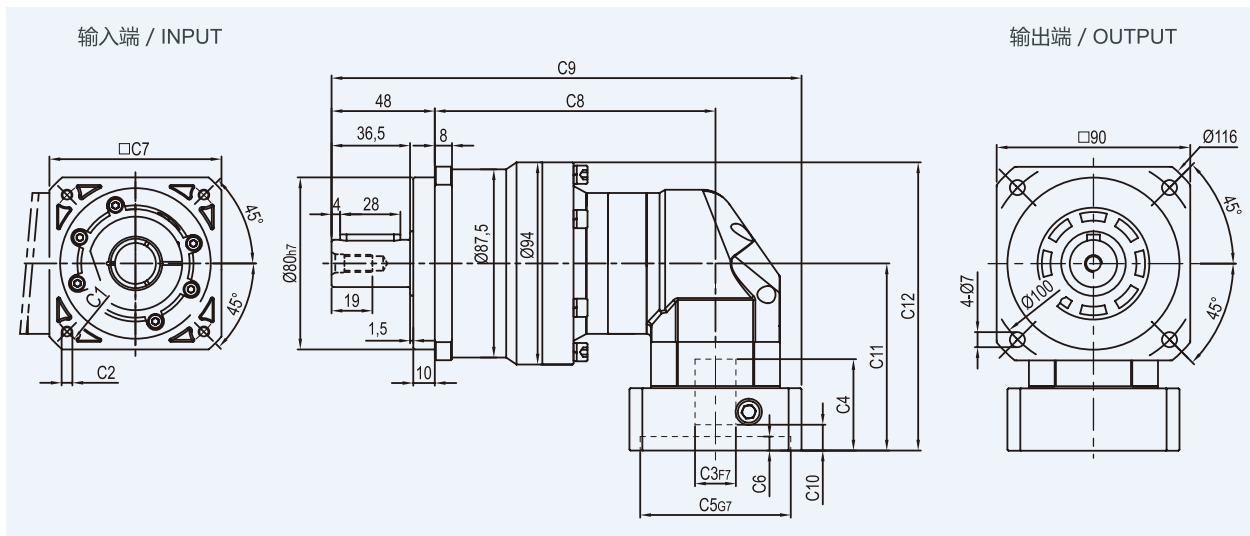
# FBR Series

## 外形尺寸图表 / OUTLINE DIMENSION SHEET

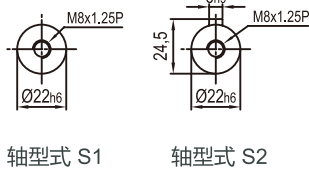
### FBR-090-L1



### FBR-090-L2



### 输出轴径



轴型式 S1

轴型式 S2

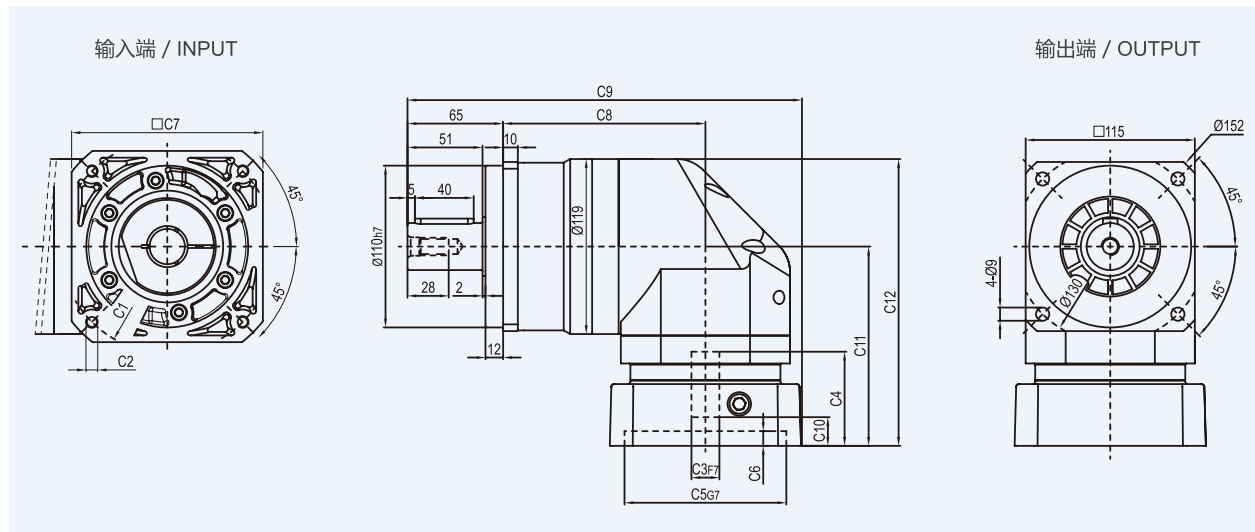
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
FBR-090-L1	Ø90	4-M5x12,4-M6x14	Ø19	45	Ø70	6.5	80	116	209	7	96	143
	Ø100	4-M6x14	Ø16	45	Ø80	6.5	86	116	209	6	96	143
	Ø115	4-M8x20	Ø19,Ø22	56.5	Ø95	8	100	116	214	16.5	117.5	164.5
	Ø145	4-M8x20	Ø19,Ø22,Ø24	59	Ø110	11	130	116	229	19	120	167
FBR-090-L2	Ø66.7	4-M4x10	Ø8	33	Ø38.1	5	60	130.5	208.5	5.5	77.5	124.5
	Ø70	4-M4x10,4-M5x12	Ø11,Ø14	33	Ø50	5	60	130.5	208.5	5.5	77.5	124.5
	Ø90	4-M5x12,4-M6x14	Ø19	42.5	Ø70	6.5	80	130.5	218.5	12	87	134
	Ø100	4-M6x14	Ø16	42.5	Ø80	6.5	86	130.5	221.5	11	87	134

\* C1~C7是公制标准马达连接板之尺寸,可根据客户要求单独定做。

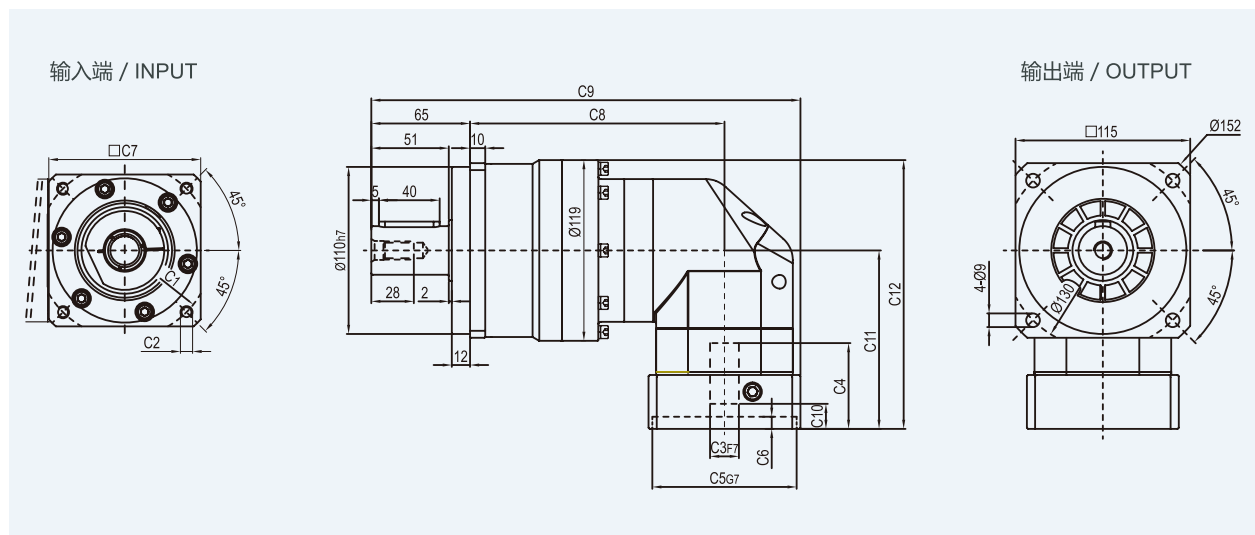
\* C1~C7are motor(metric standard) specific dimensions, which could be customised.

## 外形尺寸图表 / OUTLINE DIMENSION SHEET

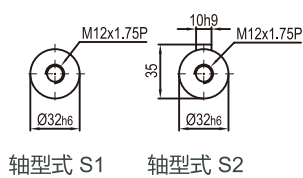
### FBR-115-L1



### FBR-115-L2



### 输出轴径



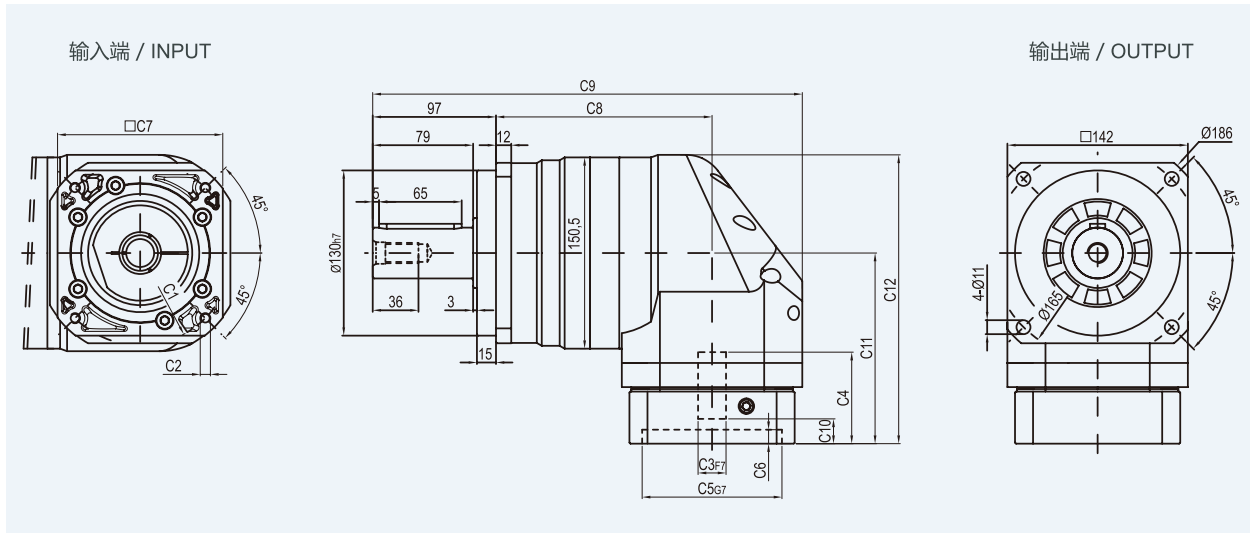
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
FBR-115-L1	$\varnothing 145$	4-M8x20	$\varnothing 19, \varnothing 22, \varnothing 24$	64	$\varnothing 110$	10	130	137.5	267.5	19.5	135.5	195
	$\varnothing 200$	4-M12x28	$\varnothing 35$	81	$\varnothing 114.3$	10	180	137.5	292.5	28	152.5	212
FBR-115-L2	$\varnothing 90$	4-M5x12, 4-M6x14	$\varnothing 19$	45	$\varnothing 70$	6.5	80	167.5	277.5	7	96	155.5
	$\varnothing 100$	4-M6x14	$\varnothing 16$	45	$\varnothing 80$	6.5	86	167.5	277.5	6	96	155.5
	$\varnothing 115$	4-M8x20	$\varnothing 19, \varnothing 22$	56.5	$\varnothing 95$	8	100	167.5	282.5	16.5	117.5	177
	$\varnothing 145$	4-M8x20	$\varnothing 19, \varnothing 22, \varnothing 24$	59	$\varnothing 110$	11	130	167.5	297.5	19	120	179.5

\* C1~C7是公制标准马达连接板之尺寸,可根据客户要求单独定做。

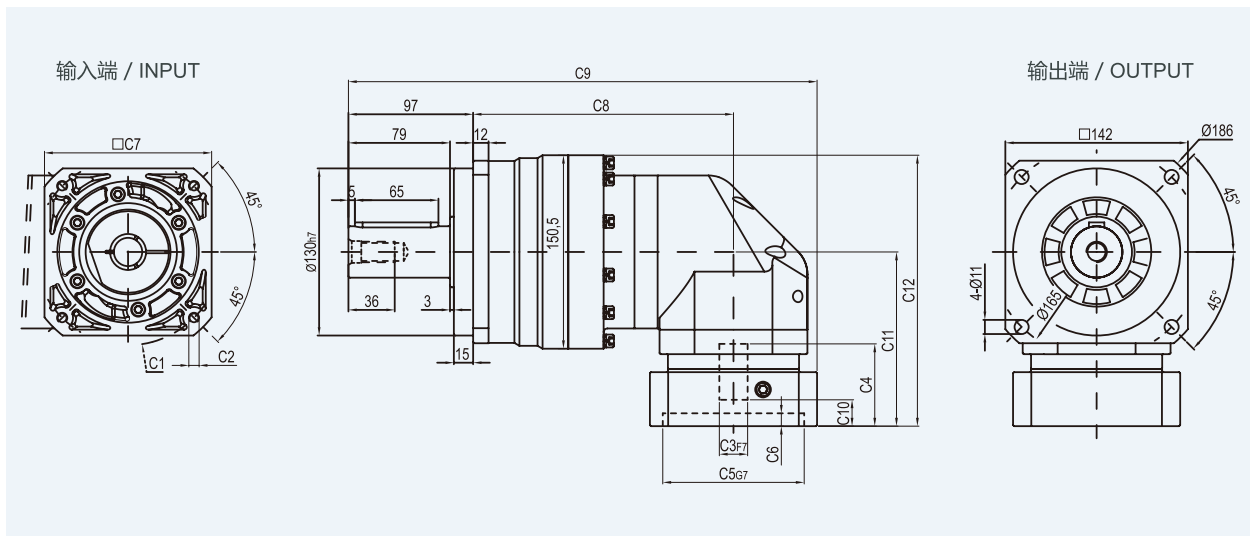
\* C1~C7are motor(metric standard) specific dimensions, which could be customised.

## 外形尺寸图表 / OUTLINE DIMENSION SHEET

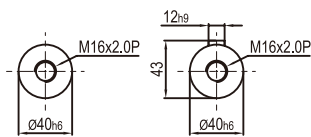
### FBR-142-L1



### FBR-142-L2



### 输出轴径



轴型式 S1

轴型式 S2

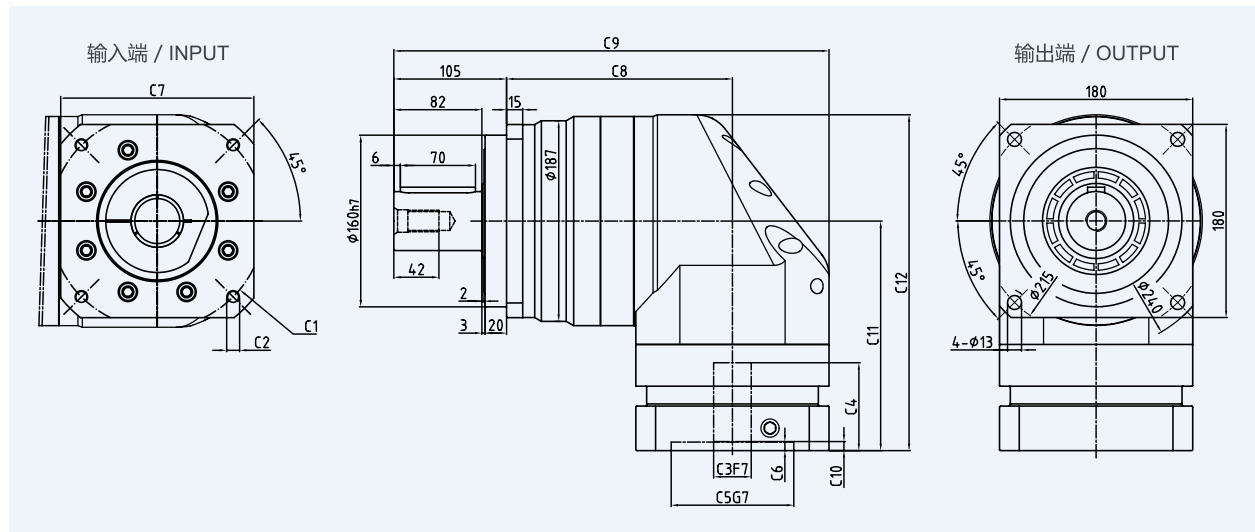
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
FBR-142-L1	$\varnothing 145$	4-M8x20	$\varnothing 22, \varnothing 24$	72	$\varnothing 110$	11	130	170	338	19.5	150	227.25
	$\varnothing 200$	4-M12x28	$\varnothing 35$	82	$\varnothing 114.3$	8	180	170	357	25	160	237.25
FBR-142-L2	$\varnothing 145$	4-M8x20	$\varnothing 19, \varnothing 22, \varnothing 24$	64	$\varnothing 110$	10	130	202.5	364.5	19.5	135.5	210.75
	$\varnothing 200$	4-M12x28	$\varnothing 35$	81	$\varnothing 114.3$	10	180	202.5	389.5	28	152.5	227.75

\* C1~C7是公制标准马达连接板之尺寸,可根据客户要求单独定做。

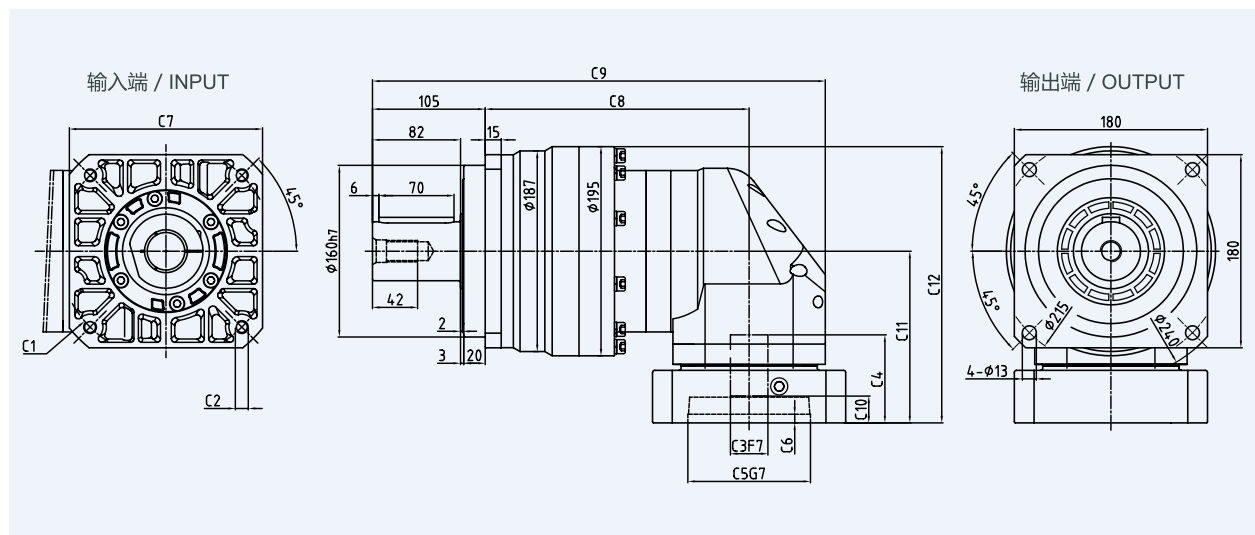
\* C1~C7are motor(metric standard) specific dimensions, which could be customised.

## 外形尺寸图表 / OUTLINE DIMENSION SHEET

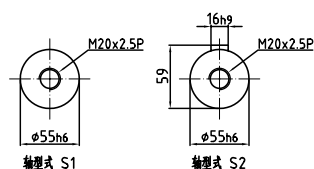
### FBR-180-L1



### FBR-180-L2



### 输出轴径



尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
FBR180-L1	$\phi 200$	4-M12X28	$\phi 35, \phi 42$	82	$\phi 114.3$	8	180	210.5	405.5	8.5	214	313
	$\phi 200$	4-M12X28	$\phi 42$	117.5	$\phi 114.3$	8	180	210.5	405.5	45.5	249.5	348.5
	$\phi 215$	4-M12X28	$\phi 38, \phi 42$	87	$\phi 180$	8	192	210.5	405.5	15	219	318
	$\phi 235$	4-M12X28	$\phi 38, \phi 42$	117.5	$\phi 200$	10	220	210.5	405.5	45.5	249.5	348.5
FBR180-L2	$\phi 145$	4-M8X20	$\phi 22, \phi 24$	72	$\phi 110$	11	130	246	422	19.5	150	247.5
	$\phi 200$	4-M12X28	$\phi 35$	82	$\phi 114.3$	8	180	246	422	25	160	257.5
	$\phi 215$	4-M12X28	$\phi 38$	82	$\phi 180$	8	192	246	422	25	171.5	269

\* C1~C7是公制标准马达连接板之尺寸,可根据客户要求单独定做。

\* C1~C7 are motor (metric standard) specific dimensions, which could be customised.