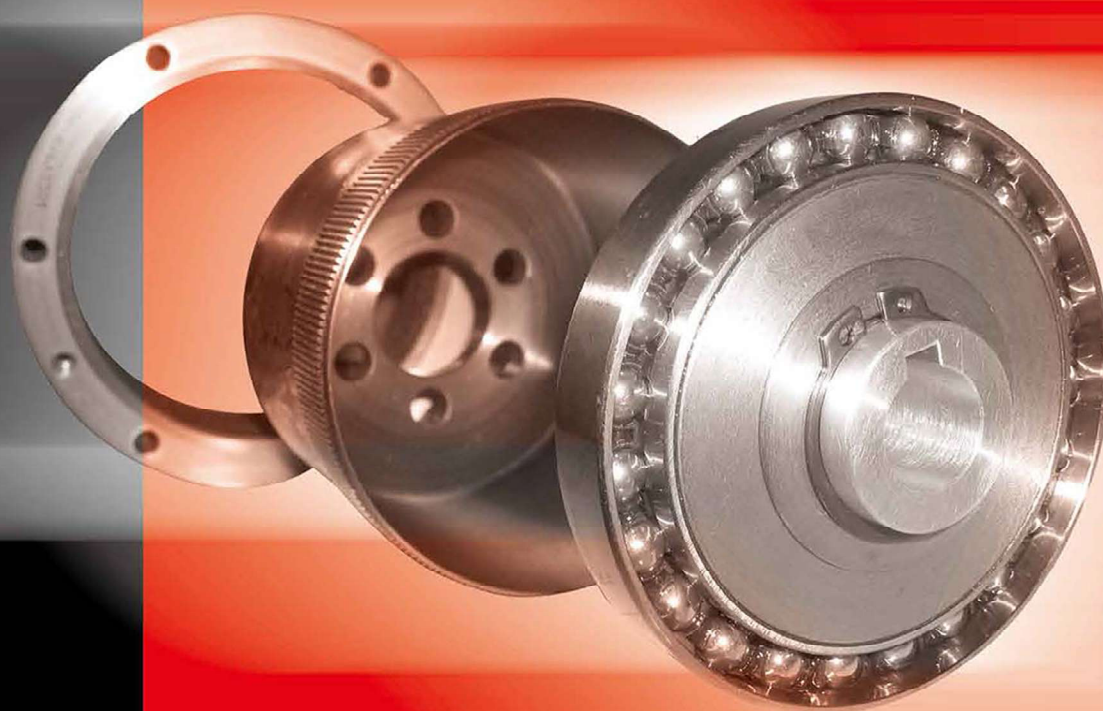




**HARMONIC GEAR PRODUCTS
2025**

English Version

汉真传动技术公司简介

汉真世纪传动技术有限公司成立于1993年，是专业从事谐波齿轮传动产品的研究、生产的专业公司。公司位于北京西北郊，集设计，生产，销售为一体。经过20年时间的积累，本公司拥有丰富的谐波传动及特种传动产品的设计和生产经验。产品已经广泛被采用在各类工业机器人、数控机床/加工中心、电动工具、雷达卫星地面站、医疗卫生等的传动机构，尤其是精度要求和体积尺寸要求比较高的应用环境中。

General introduction of HanZhen Company

HanZhen Tech Co Ltd is founded in 1993, and it's the one professional company of China engage in harmonic gear drive products' research and production. The company locates in Beijing northwest suburb, and gathers design, producing and selling together. Our company possesses plenty harmonic drive and special driving products' design and producing experience. The products have been broadly used in all kinds of industry robot, digital machine/machining center, electric tool, radar satellite ground station and medical sanitation device etc driving machine, especially used in the environment with high requirement of precision and bulk dimension.

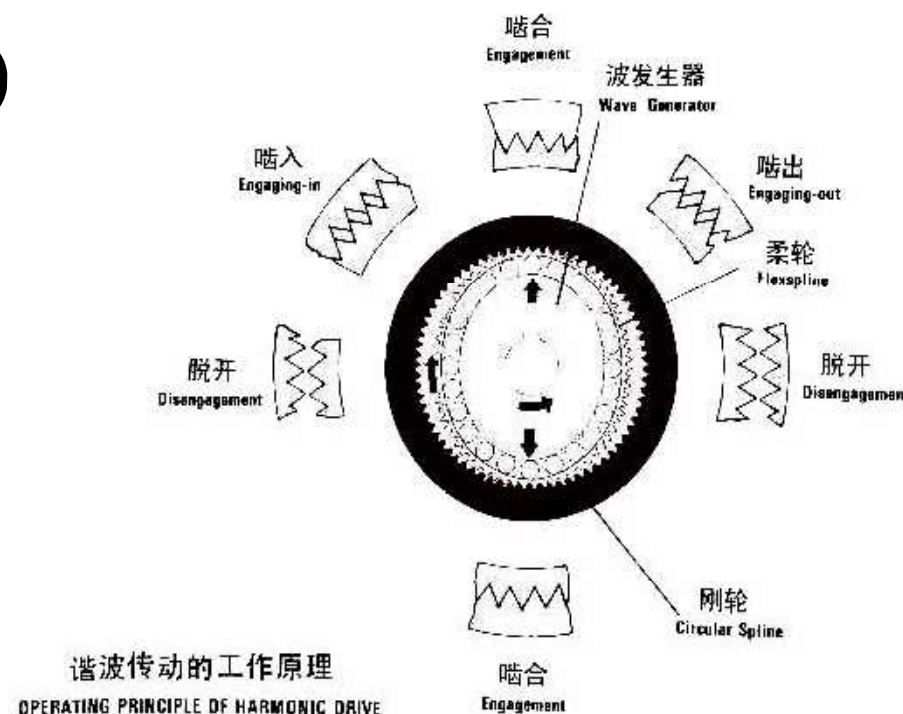
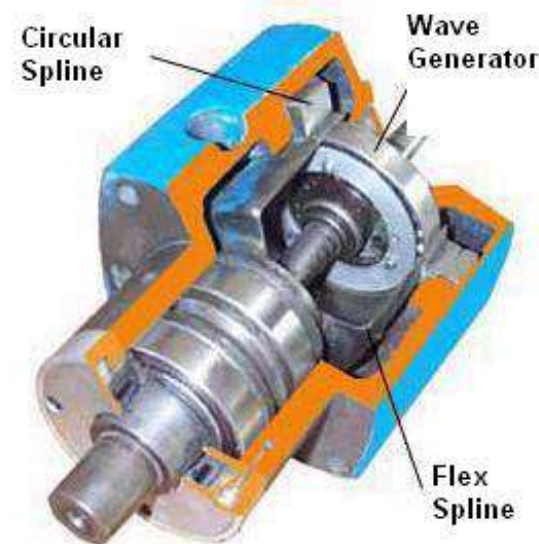


谐波齿轮工作原理

谐波减速器主要由刚性刚轮、柔性柔轮和波发生器组成。波发生器装入柔轮内，使其弹性变形为椭圆。椭圆长轴两端柔轮齿与刚轮齿完全啮合，短轴两端则完全脱开。波发生器连续转动，迫使柔轮齿与刚轮齿不断进行“啮入-啮合-啮出-脱开”的循环错齿运动，实现大速比减速传动。

The working principle of harmonic drive gears

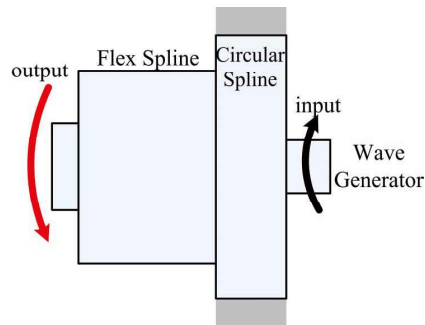
Harmonic Drive Gear consists of a rigid circular spline, a flexible flexspline, and a wave generator. When the wave generator is inserted into the flexspline, it deforms the flexspline into an elliptical shape. At the ends of the major axis of the ellipse, the teeth of the flexspline fully engage with the teeth of the circular spline, while at the ends of the minor axis, they completely disengage. As the wave generator rotates continuously, it forces the teeth of the flexspline and circular spline to undergo a cyclic motion of "engagement-meshing-disengagement-separation," achieving high-reduction-ratio speed reduction transmission.



谐波齿轮的传动方式

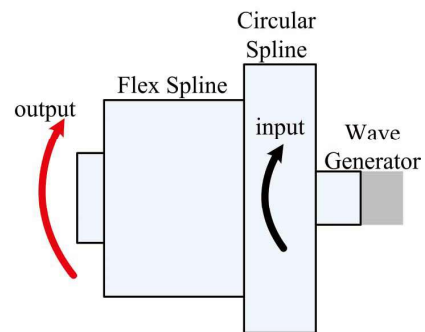
谐波齿轮的三个组件可以通过固定其中任何一件，另2件一个用作高速输入，一个用作减速输出，构成灵活的输出组合。因此谐波齿轮装置可以实现一些特殊传动需求：例如向封闭空间内传递力矩。

以下是各种传动组合及其输出速比：



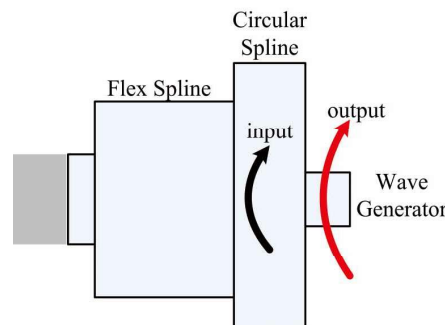
1. 刚轮固定，波发生器输入，柔轮输出。
1. The circular spline clamping, the wave generator input, the flex spline output

$$i = -R$$



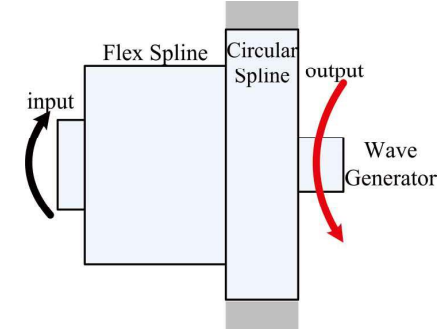
4. 波发生器固定，刚轮输入，柔轮输出。
4. The wave generator clamping, the circular spline input, the flex spline output

$$i = \frac{R}{R+1}$$



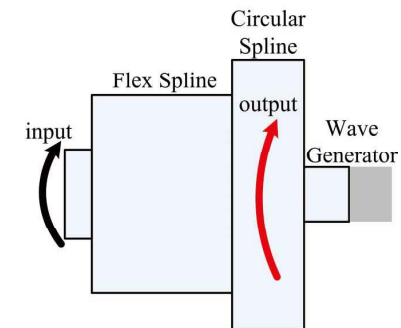
2. 柔轮固定，波发生器输入，刚轮输出。
2. The flex spline clamping, the wave generator input, the circular spline output

$$i = R+1$$



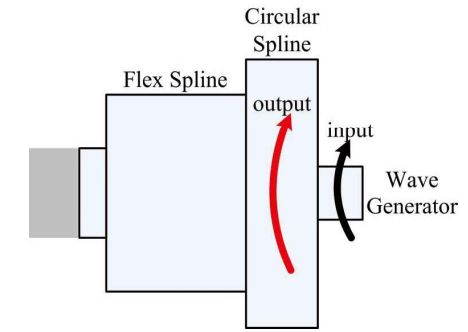
5. 刚轮固定，柔轮输入，波发生器输出。
5. The circular spline clamping, the flex spline input, the wave generator output

$$i = -\frac{1}{R}$$



3. 波发生器固定，柔轮输入，刚轮输出。
3. The wave generator clamping, the flex spline input, the circular spline output

$$i = \frac{R+1}{R}$$



6. 柔轮固定，波发生器输入，刚轮输出。
6. The flex spline clamping, the circular spline input, the wave generator output

$$i = \frac{1}{R+1}$$

The working method of harmonic drive

The three components of the harmonic gear can be configured flexibly by fixing any one of them, while using the other two as high-speed input and reduced-speed output respectively, enabling versatile output combinations. Consequently, harmonic gear devices can fulfill specific transmission requirements, such as delivering torque into enclosed spaces.

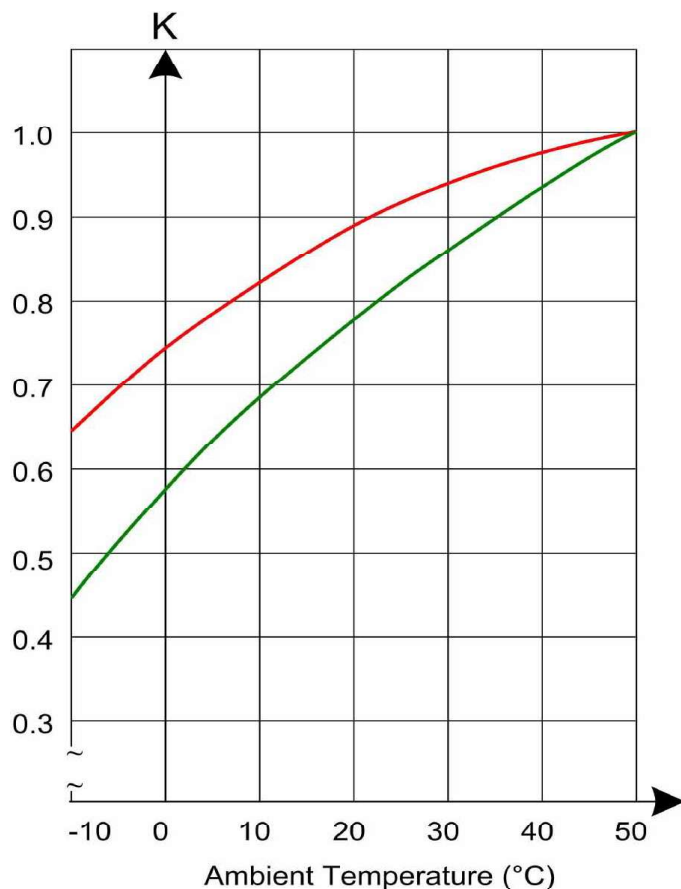
The various transmission configurations and their output speed ratios are as follows:



谐波齿轮的传动效率

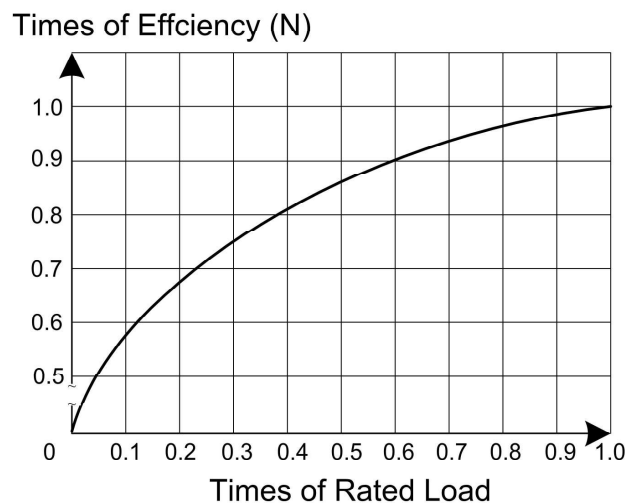
和所有传动设备一样，谐波齿轮传动也有效率问题。输入转速，传动速比，负载种类，环境温度，润滑剂的种类等因素都会影响传动效率。

传动效率可参考以下曲线：

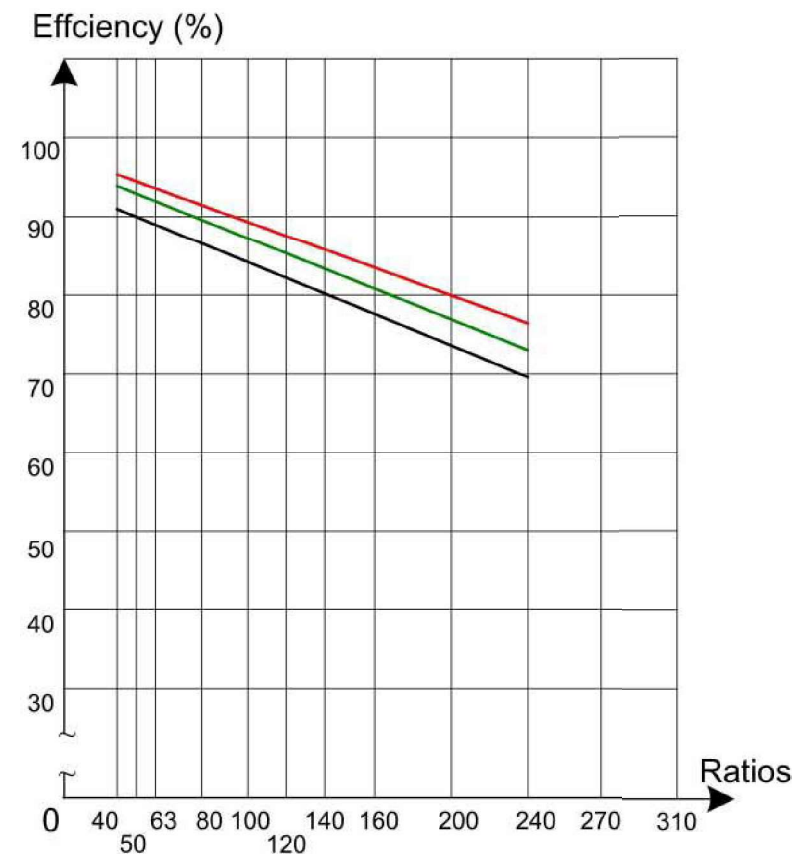


温度-效率曲线
Temp-Efficiency curve

润滑方式：
Lubrication:
OIL
GREASE



负载-效率曲线
Load-Efficiency curve



速比-效率曲线
Ratio-Efficiency curve

齿轮输入转速：
Input rotation speed:
3000 rpm
2000 rpm
1000 rpm

Driving efficiency of harmonic gear

Like all transmission equipment, harmonic gears also face efficiency issues. Factors such as input speed, transmission ratio, type of load, ambient temperature, and the type of lubricant can influence transmission efficiency.

For reference, the transmission efficiency can be observed in the following curve:





谐波齿轮组件

Harmonic Drive gear set
XB1-AS-C Page 7



谐波齿轮减速机

Harmonic Drive gearbox
XB1-AS-GF Page 29



谐波齿轮组件

Harmonic Drive gear set
XB1-BS-CF Page 45



谐波齿轮减速机

Harmonic Drive gearbox
XB1-AL-GS Page 18



谐波齿轮减速机（空心轴）

Harmonic Drive gearbox
Hollow shaft
XB1-BT-GF Page 53



谐波齿轮减速机（空心轴）

Harmonic Drive gearbox
Hollow shaft
XB1-BS-GF Page 37



谐波齿轮组件

Harmonic Drive gear
set (Pancake)
XB3-A-C Page 58



谐波齿轮组件
产品编码: XB1-AS-C

Harmonic Drive Gearset
Code: XB1-AS-C

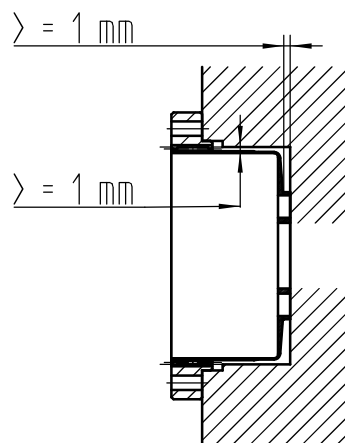
本型号共有08,11,14,17,20,25,32,40,50 九个尺寸级别。可实现的速比和技术性能
请参看个产品细节图

This Model is available in nine size classes: 08,11,14,17,20,25,32,40 and 50. The
achievable ratio can be found in the detailed products drawing for each variant.



齿轮组安装注意事项

柔轮安装时图中间隙必须保证在1毫米或1毫米以上

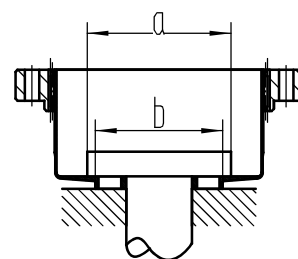


Precautions for Installing Gear Sets

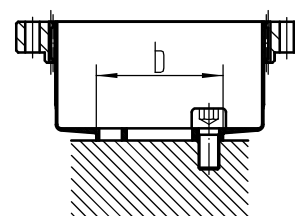
When installing the flexible spline, the gap in the diagram must be ensured to be 1 mm or more

柔轮和输出轴连接时，输出轴法兰直径（尺寸a）不可超出柔轮根直径（尺寸b）

如果采用螺钉直接连接，螺钉帽外沿不可超出柔轮根直径（尺寸b）

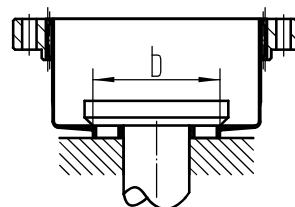


错误
Wrong

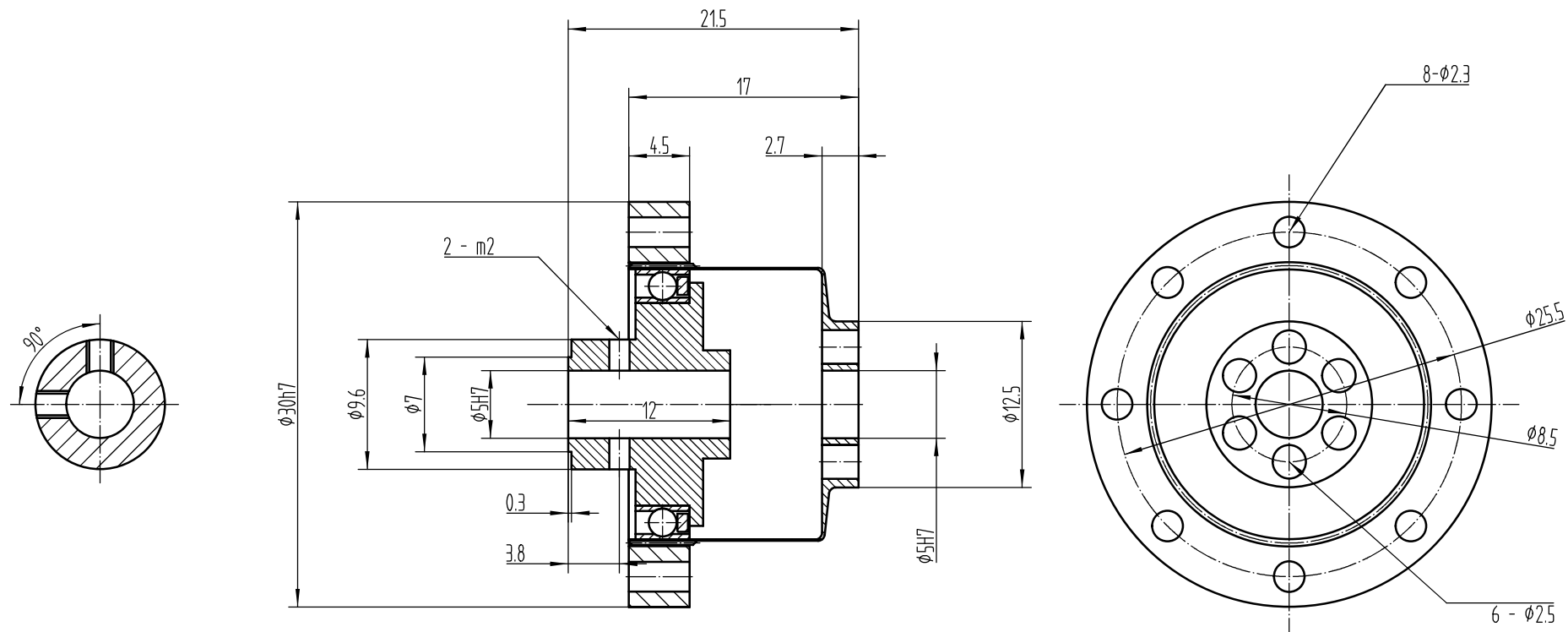


When connecting the flex spline to the output shaft, the diameter of the output shaft flange (dimension a) must not exceed the root diameter of the flex spline (dimension b)
If screws are used for direct connection, the outer edge of the screw cap must not exceed the diameter of the flex spline root (dimension b)

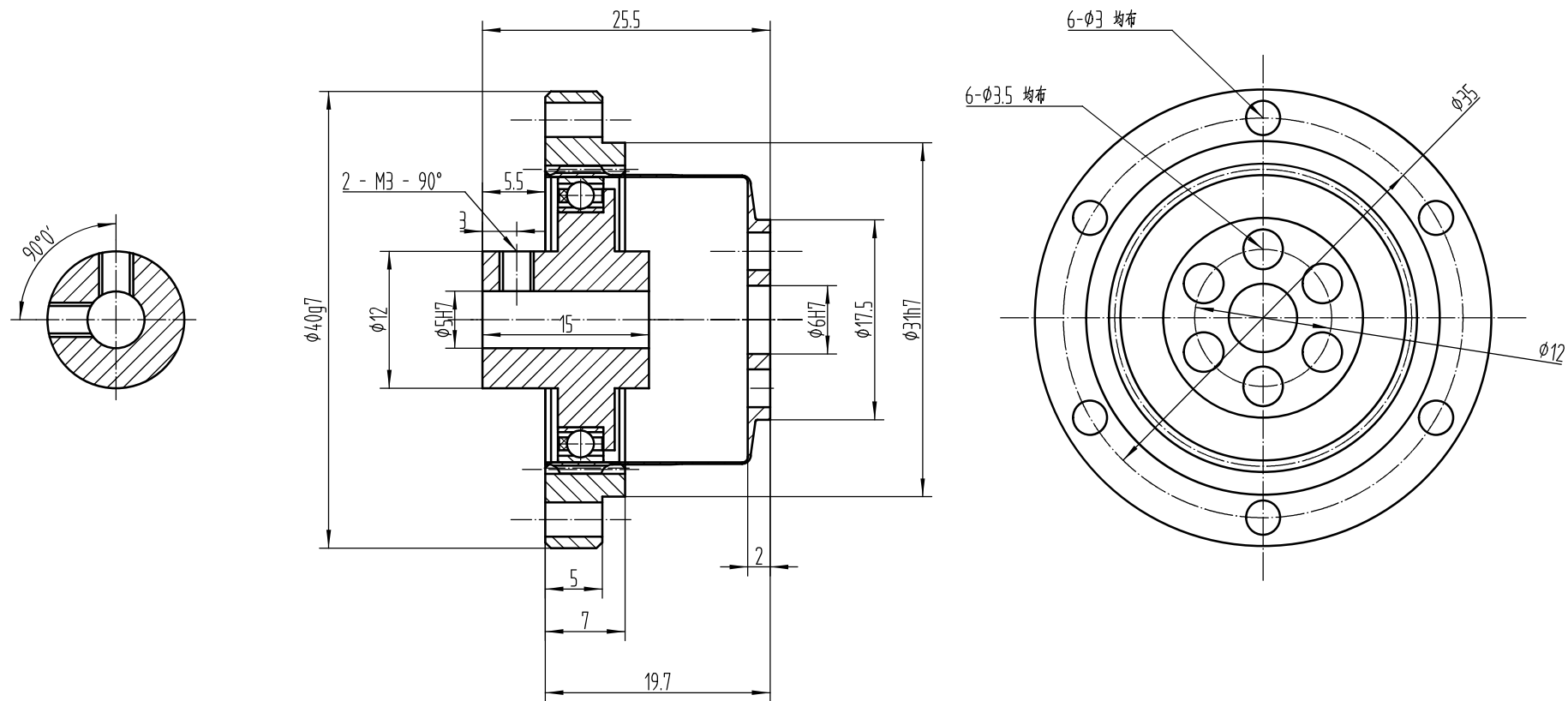
输出轴法兰直径如果超过柔轮根直径（b）
输出轴法兰需做倒角或圆弧处理。如图：



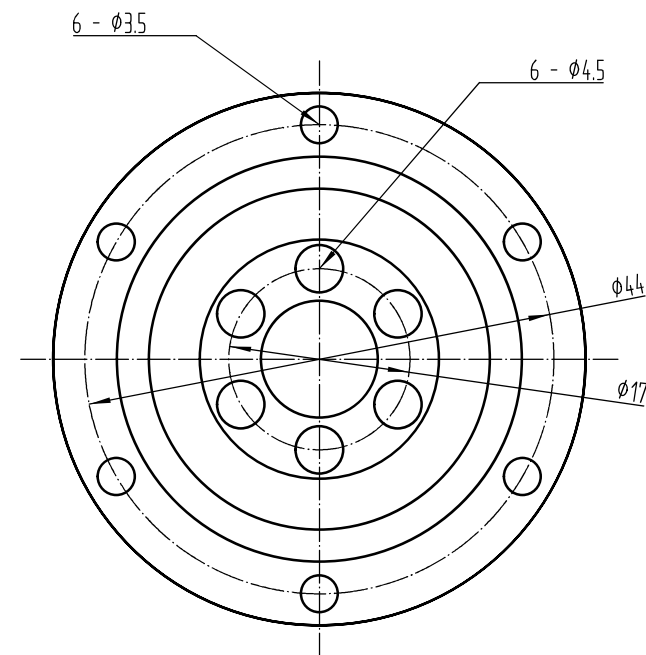
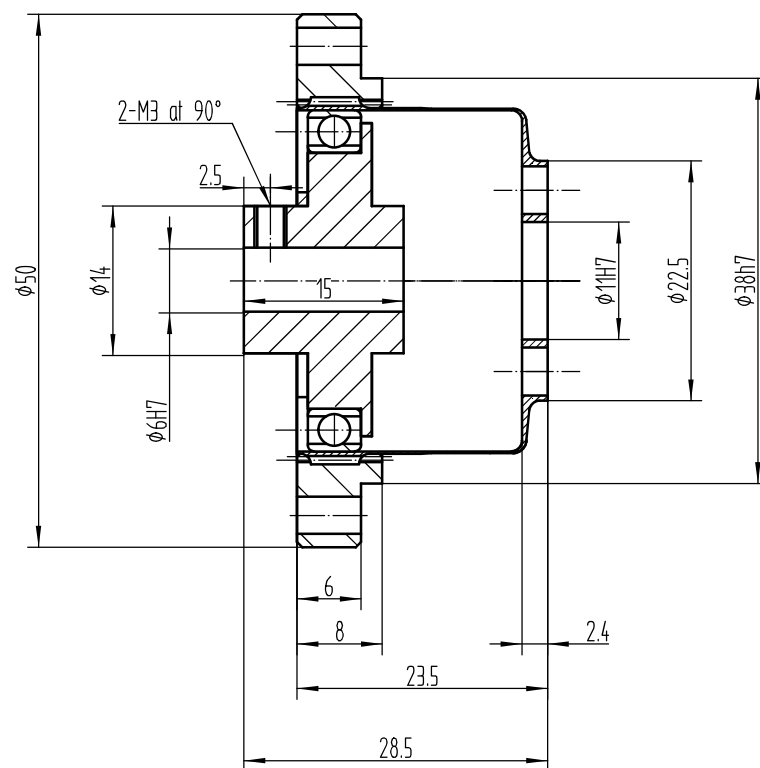
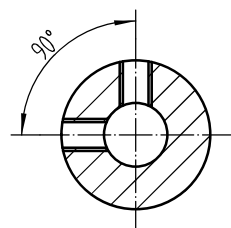
If the diameter of the output shaft flange exceeds the diameter of the flex spline root (b), the output shaft flange needs to be chamfered or rounded. As shown in the left picture:



	XB1-AS-C-20 (08)			北京汉真传动技术有限公司		
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
40	1.2	2.3	4	3500	<=0.3	0.026
52	1.3	2.5	4.5			
62	1.3	2.5	4.5			



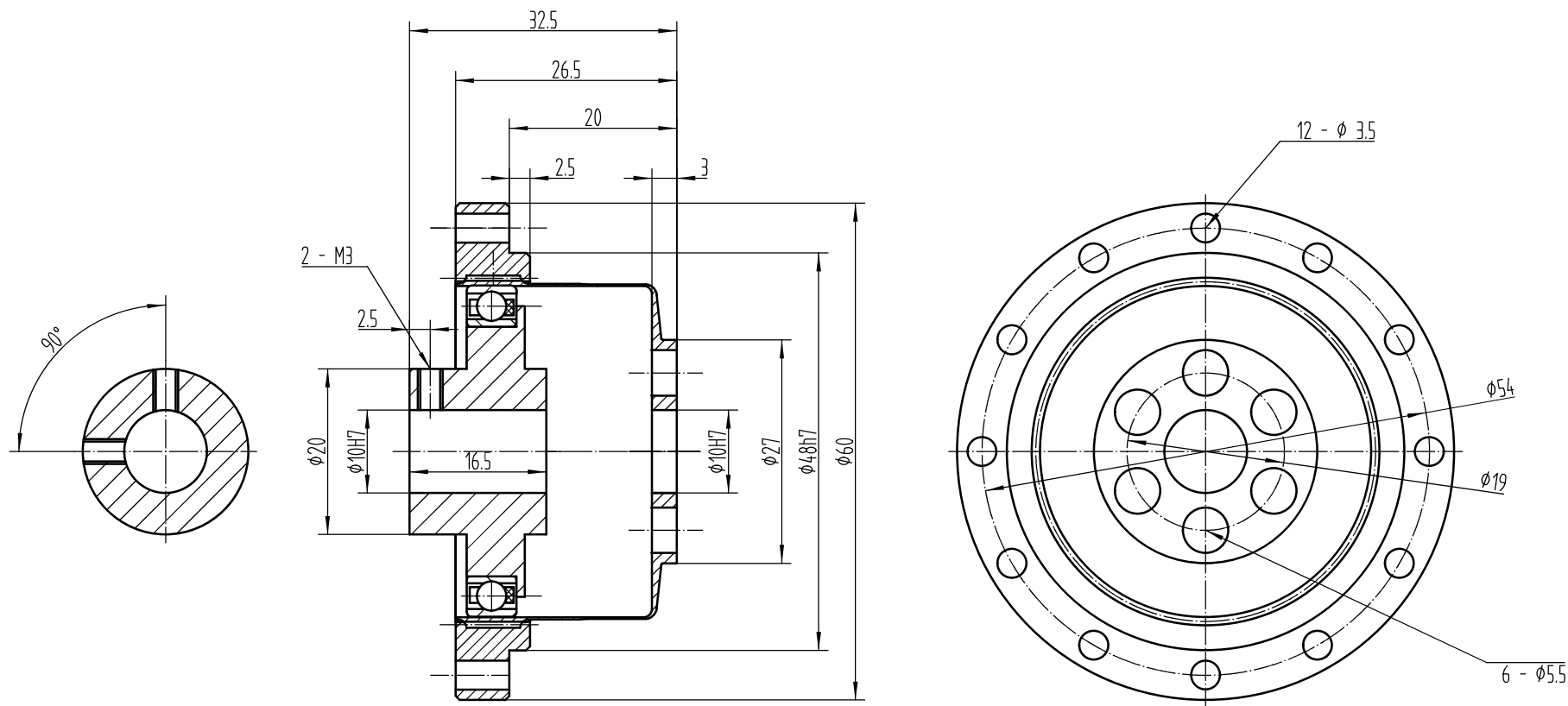
XB1-AS-C-25 (11)				北京汉真传动技术有限公司		
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速(rpm) InputMaxSpeed	侧隙(arcmin) Backlash	重量(kg) Mass
40	2	4	9	3500	≤0.3	0.05
50	2.5	5	11			
60	2.5	5	11			
80	2.8	5.5	11			



XB1-AS-C-32 (14)

北京汉真传动技术有限公司

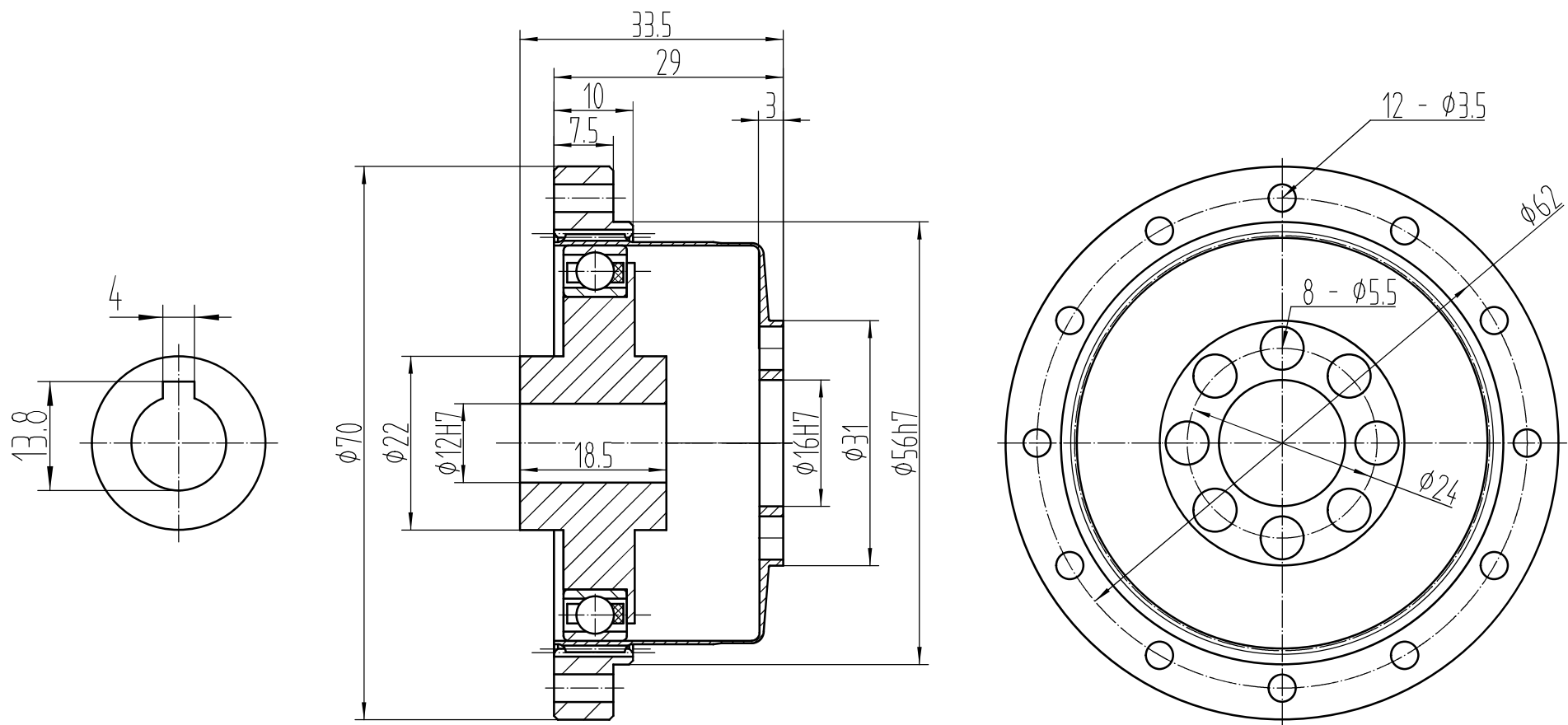
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
40	3.5	10	20	3500	<=0.3	0.1
50	4	11	24			
60	5	11	24			
80	6	15	33			
110	6	15	33			
120	6	15	33			



XB1-AS-C-40 (17) -H

北京汉真传动技术有限公司

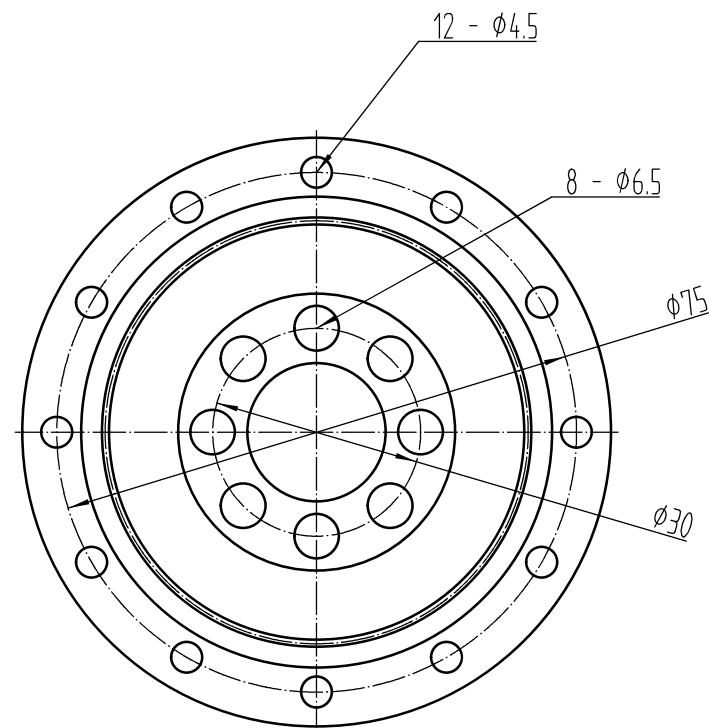
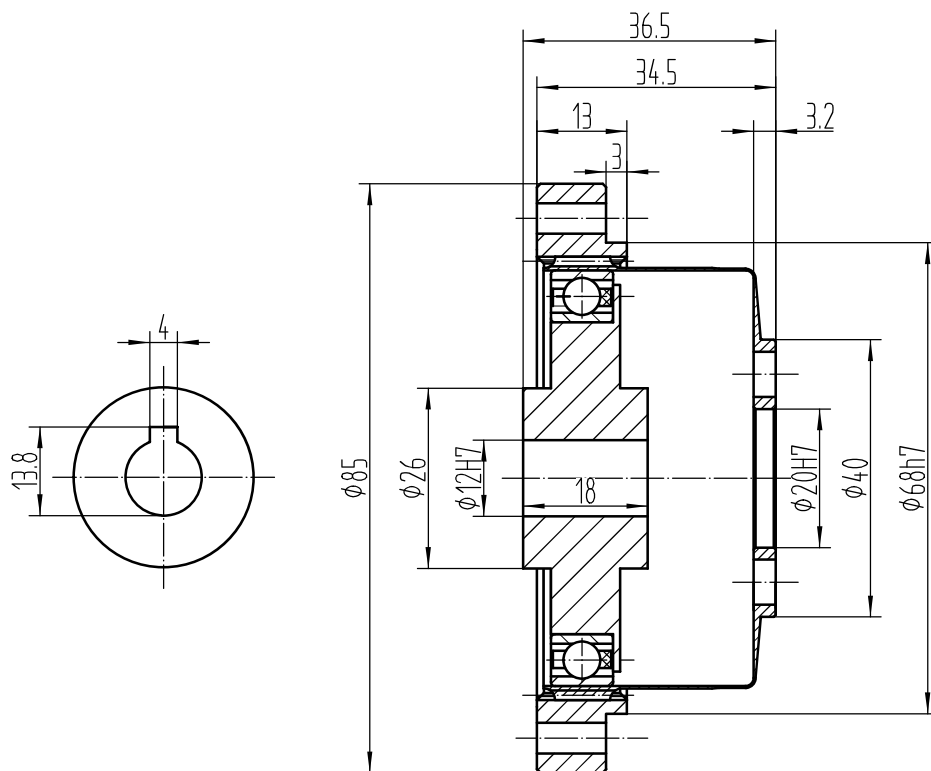
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
40	20	35	72	3500	<= 0.5	0.15
50	28	55	115			
60	28	55	115			
80	38	74	150			
100	38	74	150			
120	38	74	120			



XB1-AS-C-50 (20)

北京汉真传动技术有限公司

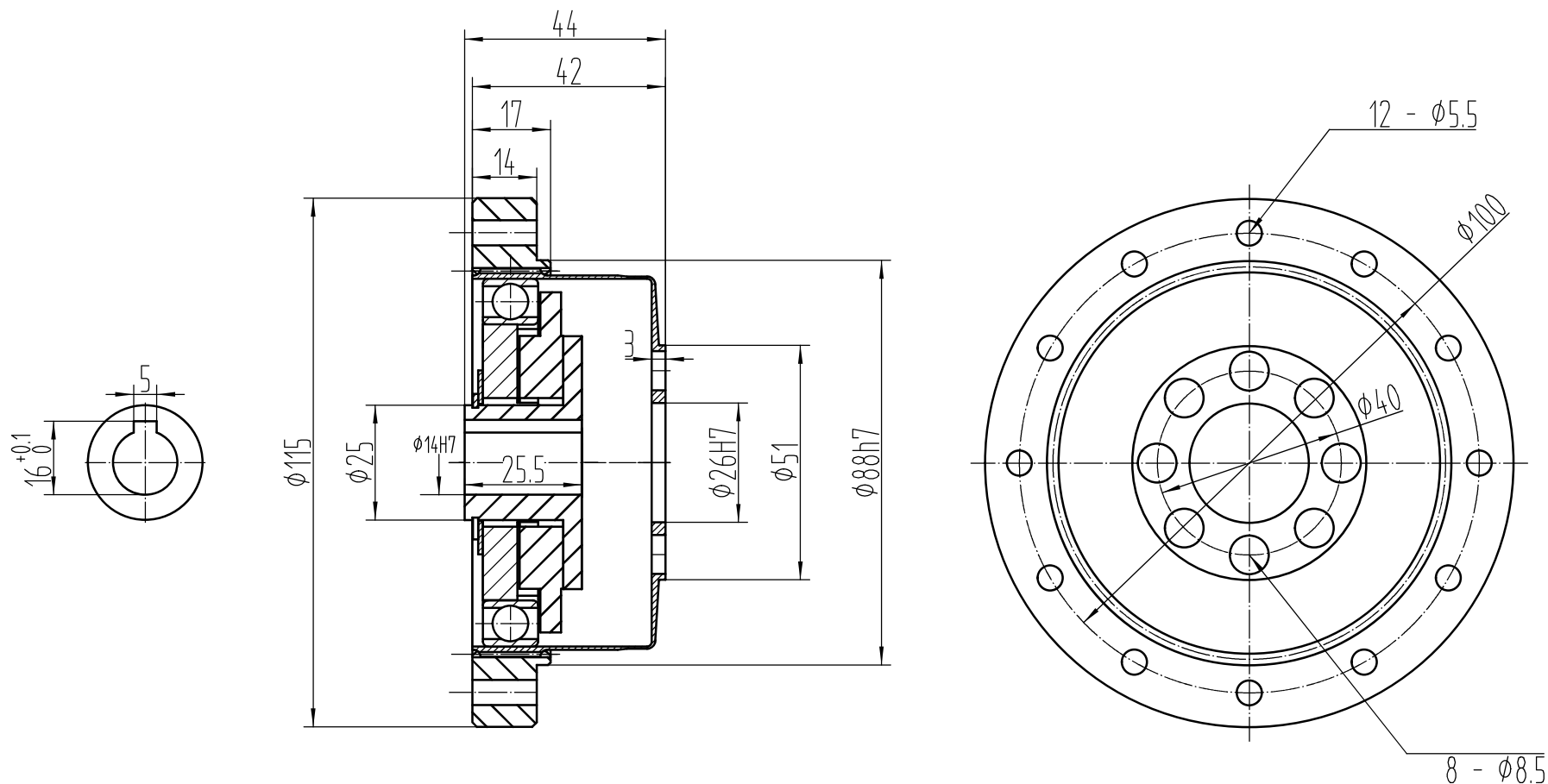
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	30	72	135	3500	≤ 0.5	0.3
80	45	110	170			
100	47	110	190			
120	47	110	190			
160	47	110	190			



XB1-AS-C-60 (25)

北京汉真传动技术有限公司

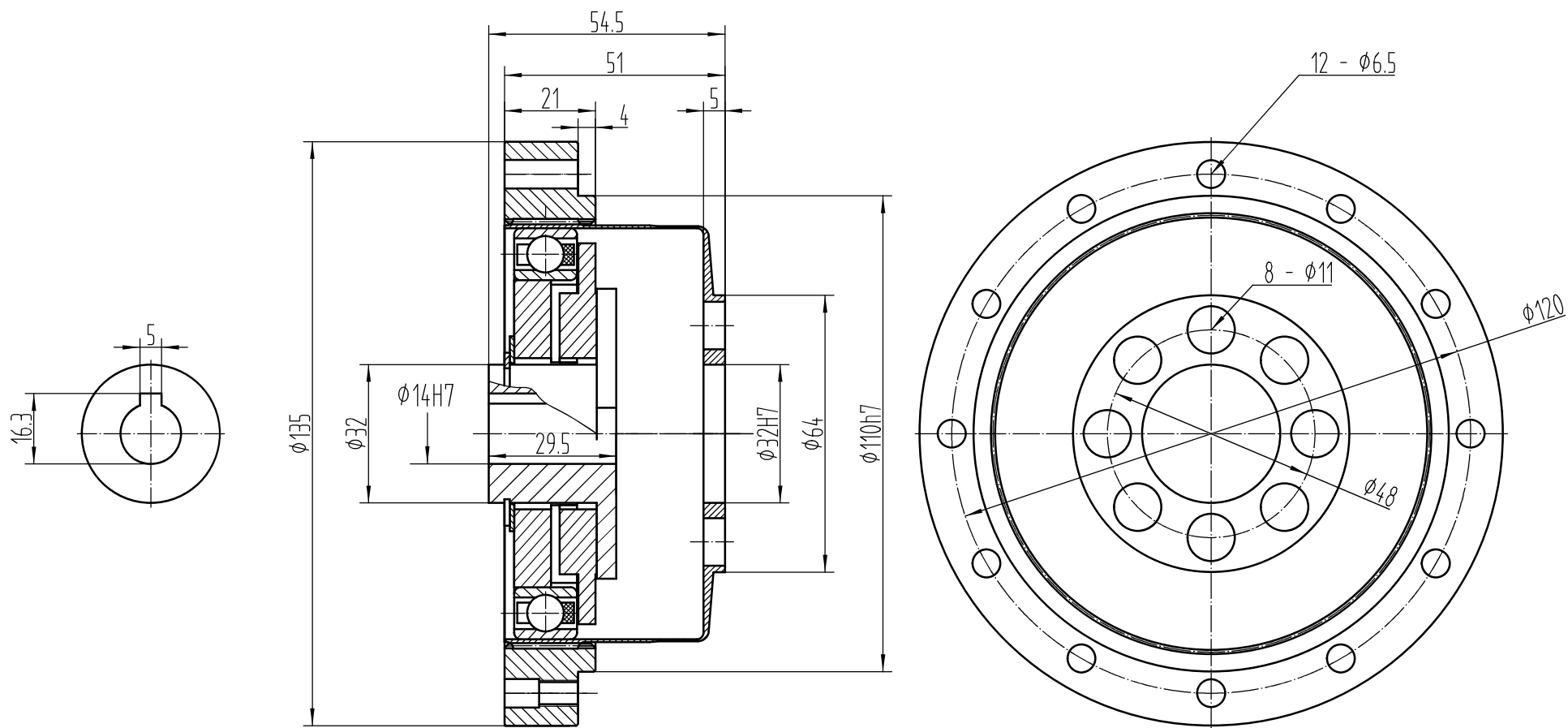
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	40	98	185	3500	<=1	0.45
60	40	100	255			
80	63	137	280			
100	66	157	280			
120	67	157	280			
160	67	157	280			
200	67	157	280			



XB1-AS-C-80 (32) -s

北京汉真传动技术有限公司

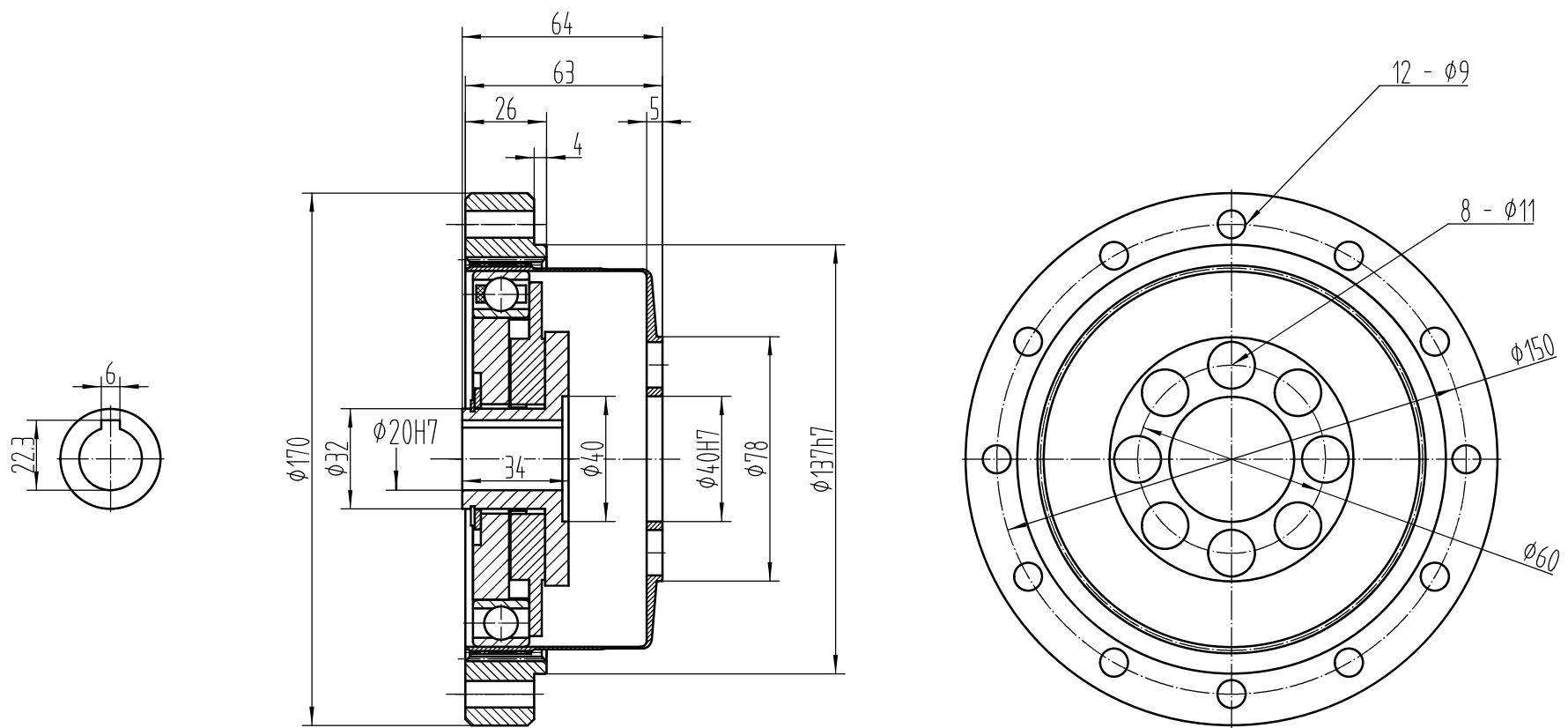
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	90	270	370	3500	<=0.5	0.9
80	155	395	650			
100	175	430	720			
120	175	460	720			
160	175	460	720			
200	175	460	720			



XB1-AS-C-100 (40)

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速(rpm) InputMaxSpeed	侧隙(arcmin) Backlash	重量(kg) Mass
50	175	430	800	3500	<=0.5	1.8
80	270	620	1160			
100	350	790	1320			
120	380	850	1320			
160	380	850	1320			
200	410	920	1320			



XB1-AS-C-120 (50)

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	390	780	1450	2000	<=0.5	3.3
60	450	890	1590			
80	550	1000	1970			
100	610	1230	2300			
120	610	1230	2300			
160	680	1380	2700			
200	710	1520	2900			



谐波齿轮减速机
产品编码: XB1-AL-GS

Harmonic Drive Gearbox
Code: XB1-AL-GS

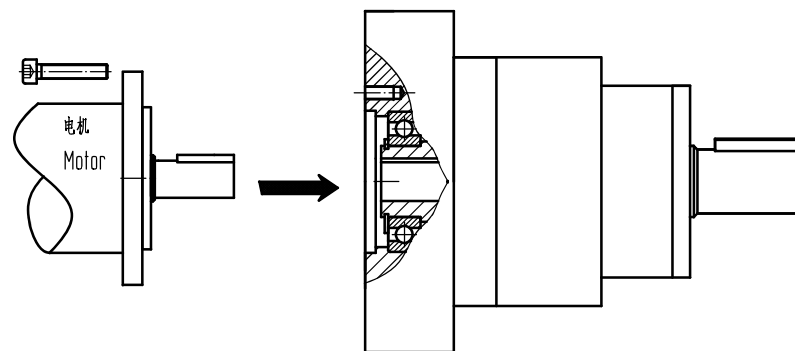
本型号共有08,11,14,17,20,25,32,40,50 九个尺寸级别。
可实现的速比和技术性能请参看个产品细节图

This Model is available in nine size classes: 08,11,14,17,20,25,32,40 and 50. The achievable ratio can be found in the detailed products drawing for each variant.



XB1-AL-GS的安装

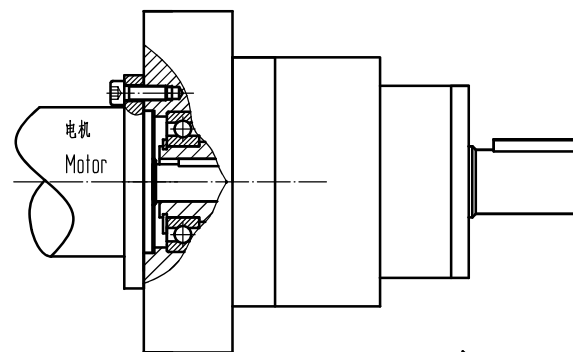
先将电机和齿轮箱连接在一起，
形成电机-齿轮箱结合体。



Installation of XB1-AL-GS

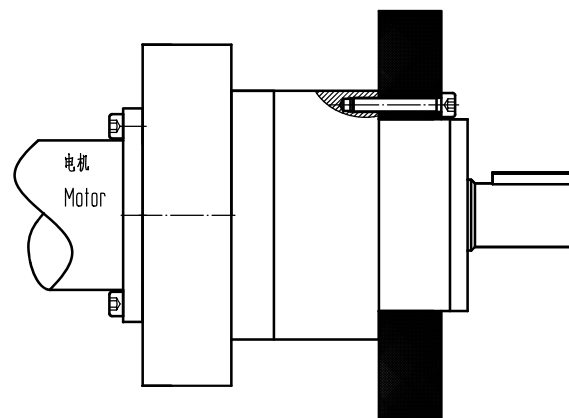
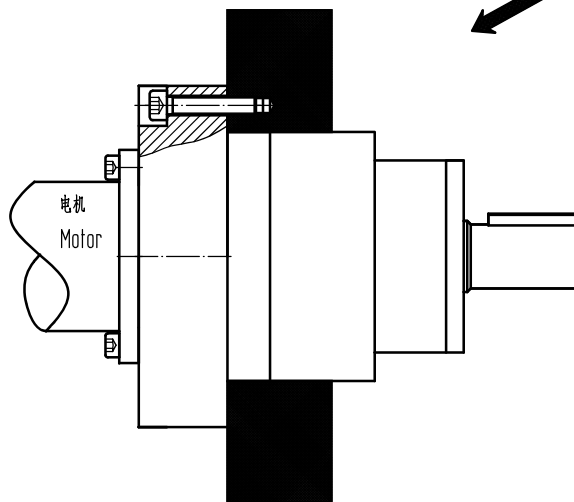
At first, connect the motor and
gearbox together to form a
motor-gearbox combination.

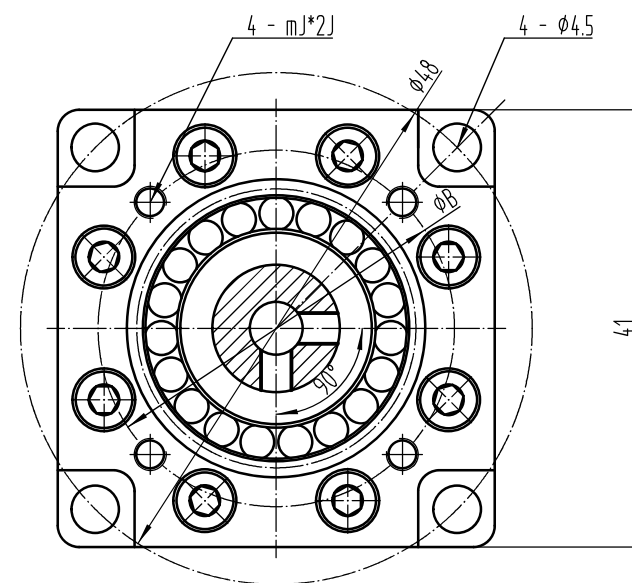
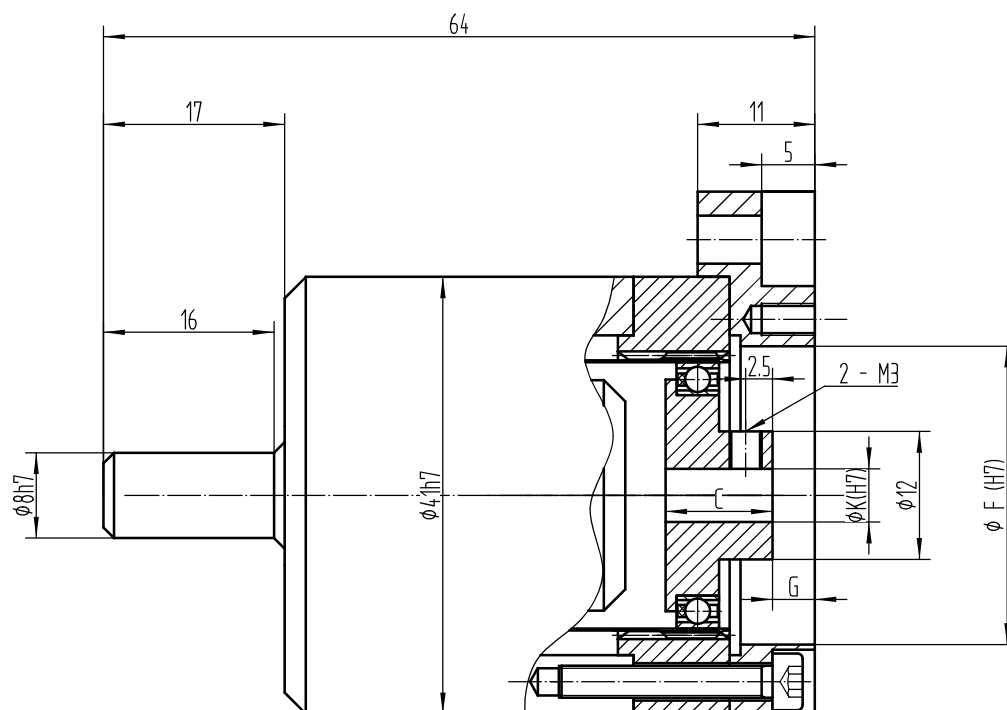
齿轮箱上有两处安装面可供客户选择。
如下图所示：
(08,11,14这三个型号只有一个安装面)



There are two mounting surfaces available
for customers to choose on the gearbox.
As shown in the following figure:

(Models 08, 11, and 14 only have one
installation surface)

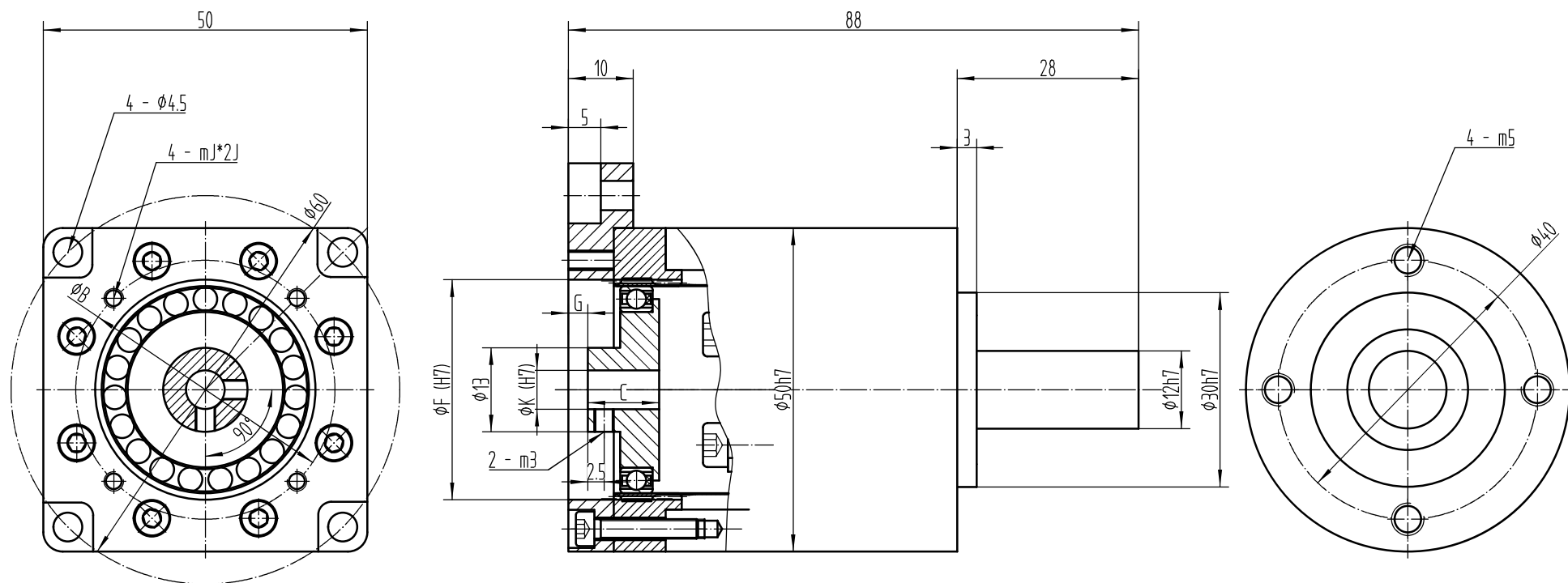




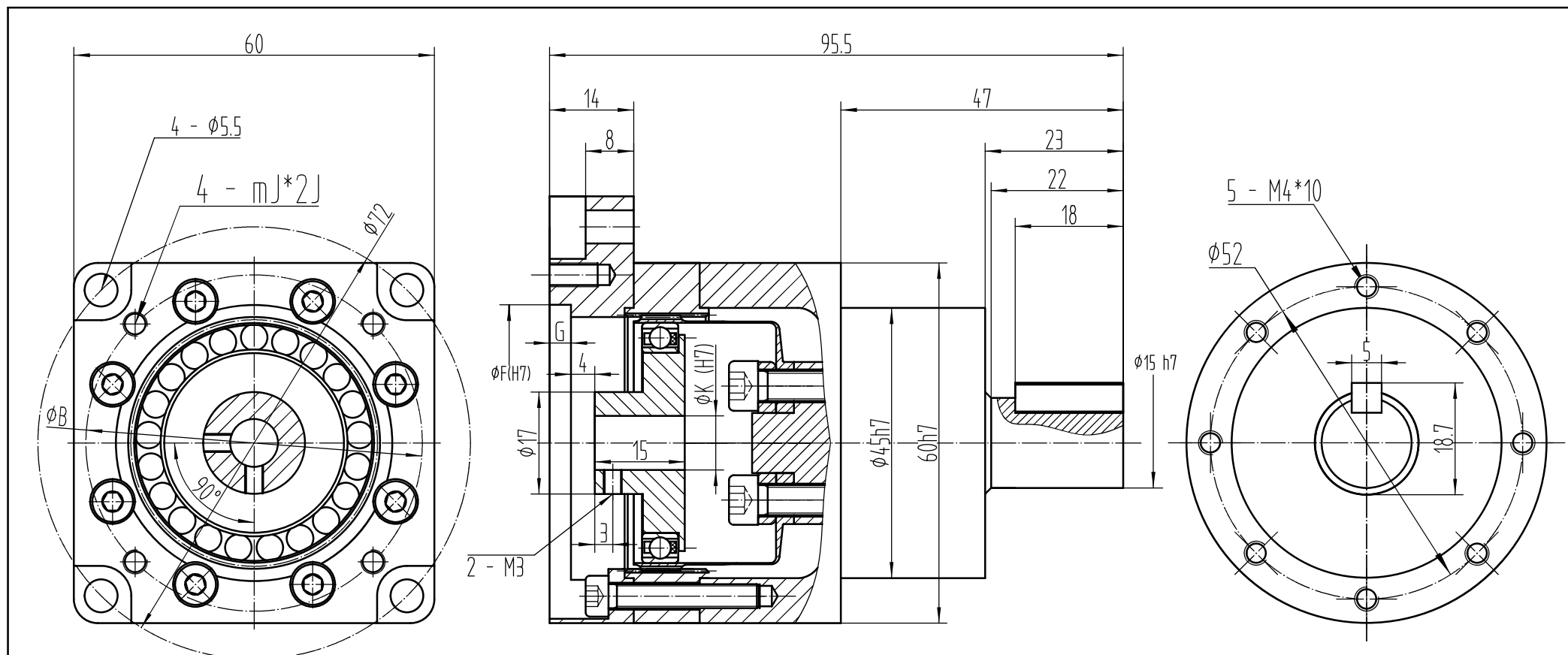
字母A-K所代表的尺寸需根据选用电机的安装尺寸确定

The size represented by letters A-K needs to be determined based on the output terminal size of the motor.

XB1-AL-GS-25 (11)				北京汉真传动技术有限公司		
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
40	2	4	9	3500	<=0.3	0.4
50	2.5	5	11			
60	2.5	5	11			
80	2.8	5.5	11			



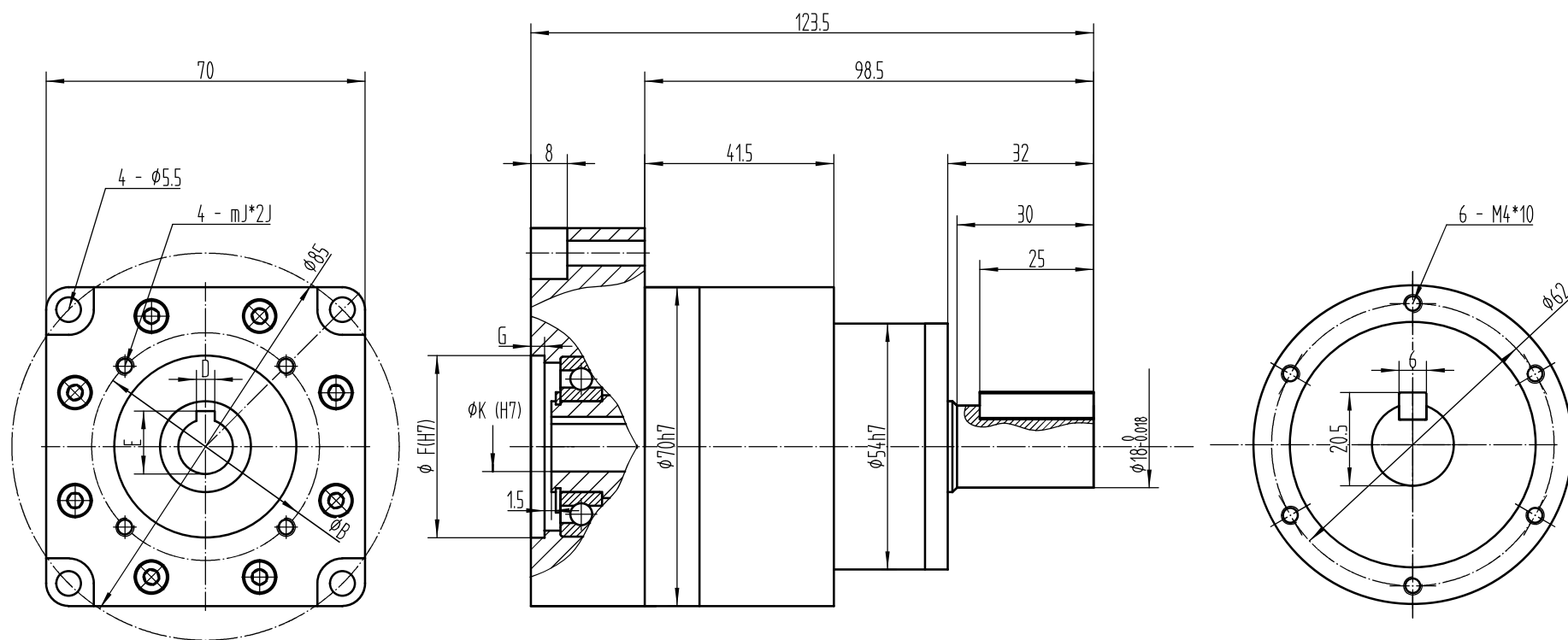
The size represented by letters A-K needs to be determined based on the output terminal size of the motor.



字母A-K所代表的尺寸需根据选用电机的安装尺寸确定

The size represented by letters A-K needs to be determined based on the output terminal size of the motor.

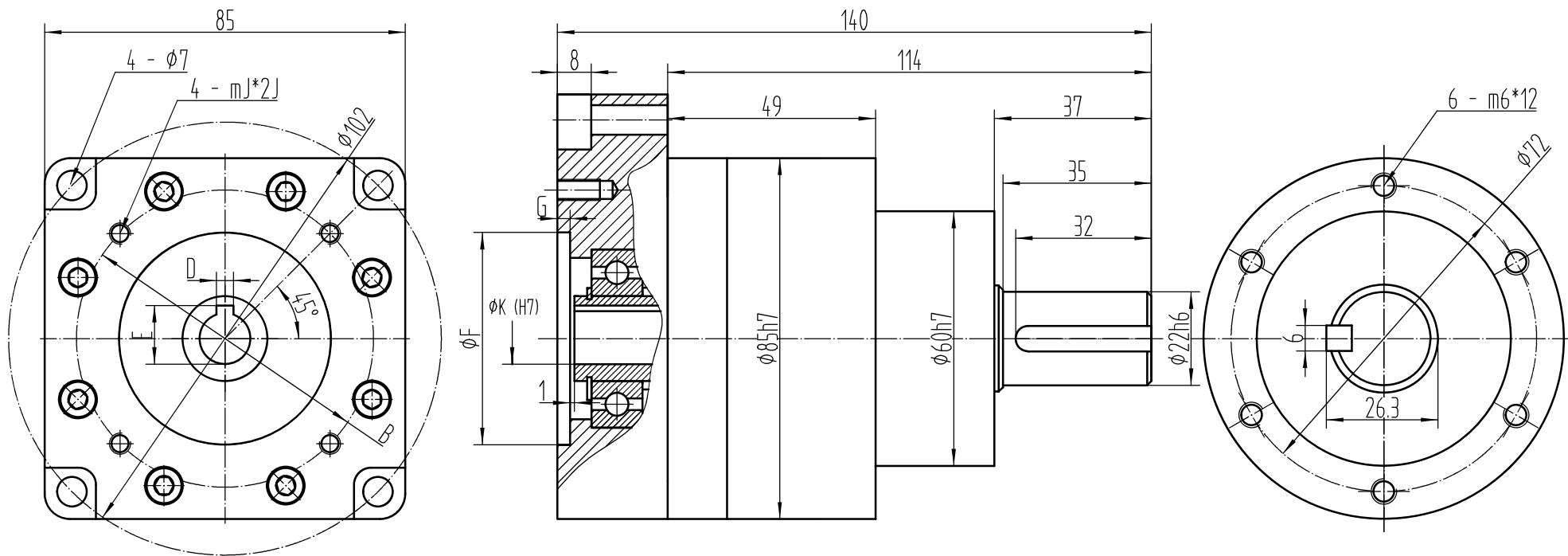
XB1-AL-GS-40 (17) -H				北京汉真传动技术有限公司		
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速(rpm) InputMaxSpeed	侧隙(arcmin) Backlash	重量(kg) Mass
40	20	35	72	3500	<=0.5	1
50	28	55	115			
60	28	55	115			
80	38	74	150			
100	38	74	150			



字母A-K所代表的尺寸需根据选用电机的安装尺寸确定

The size represented by letters A-K needs to be determined based on the output terminal size of the motor.

XB1-AL-GS-50 (20)				北京汉真传动技术有限公司		
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速(rpm) InputMaxSpeed	侧隙(arcmin) Backlash	重量(kg) Mass
50	30	72	135	3500	≤ 0.5	1.5
80	45	110	170			
100	47	110	190			
120	47	110	190			
160	47	110	190			



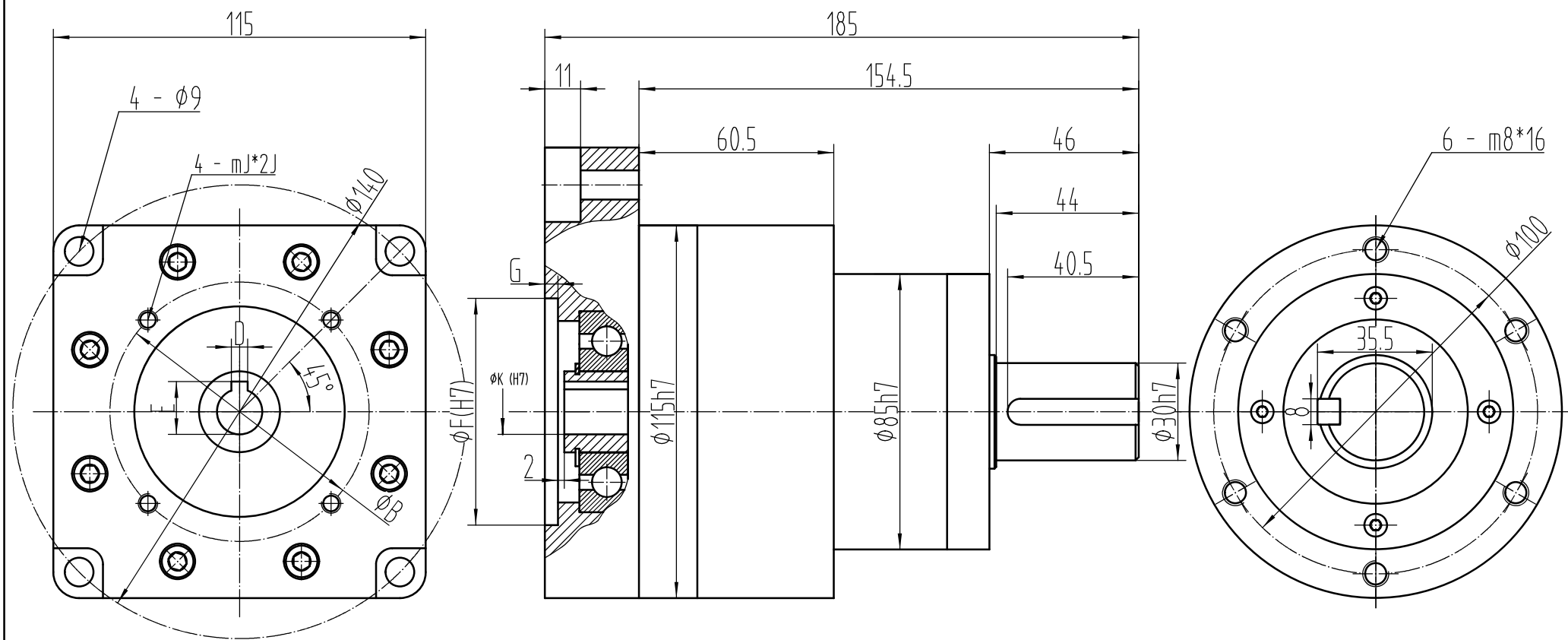
字母A-K所代表的尺寸需根据选用电机的安装尺寸确定

The size represented by letters A-K needs to be determined based on the output terminal size of the motor.

XB1-AL-GS-60 (25) -s

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	40	98	185	3500	<=1	2.6
60	40	100	255			
80	63	137	280			
100	66	157	280			
120	67	157	280			
160	67	157	280			
200	67	157	280			



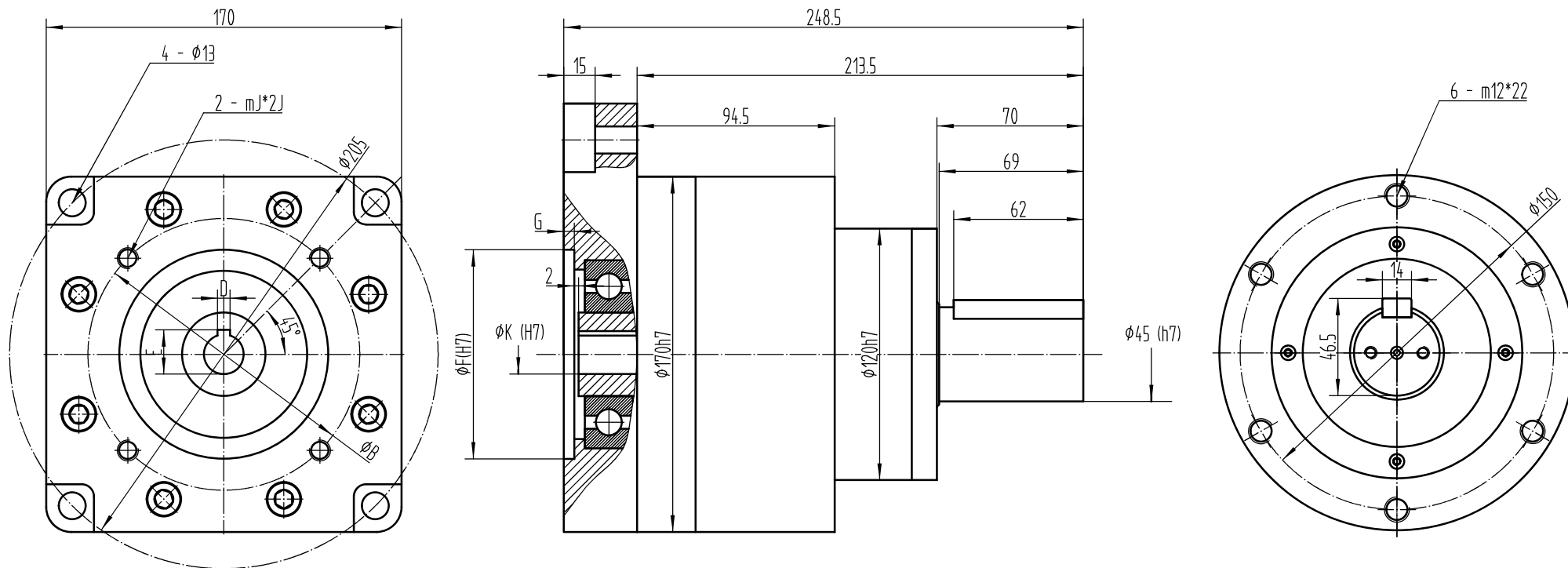
字母A-K所代表的尺寸需根据选用电机的安装尺寸确定

The size represented by letters A-K needs to be determined based on the output terminal size of the motor.

XB1-AL-GS-80 (32) -s

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	90	270	370	3500	<= 0.5	3.5
80	155	395	650			
100	175	430	720			
120	175	460	720			
160	175	460	720			
200	175	460	720			



字母A-K所代表的尺寸需根据选用电机的安装尺寸确定

The size represented by letters A-K needs to be determined based on the output terminal size of the motor.

XB1-AL-GS-120 (50) -H

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	390	780	1450	2000	<= 0.5	15
60	450	890	1590			
80	550	1000	1970			
100	610	1230	2300			
120	610	1230	2300			
160	680	1380	2700			
200	710	1520	2900			



谐波齿轮减速机
产品编码: XB1-AS-GF

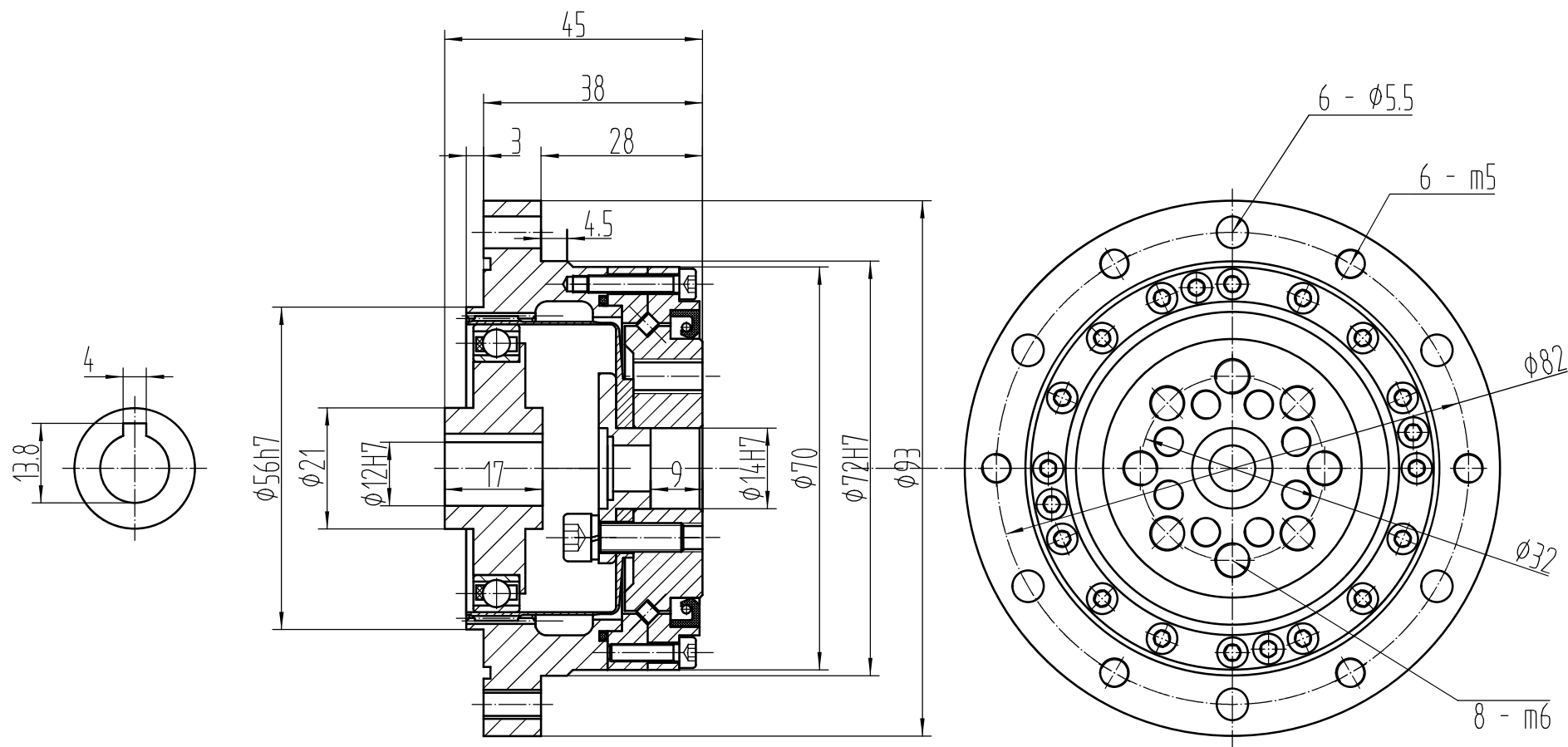
Harmonic Drive Gearhead
Code: XB1-AS-GF

本型号共有14,17,20,25,32,40,45,50 八个尺寸级别。

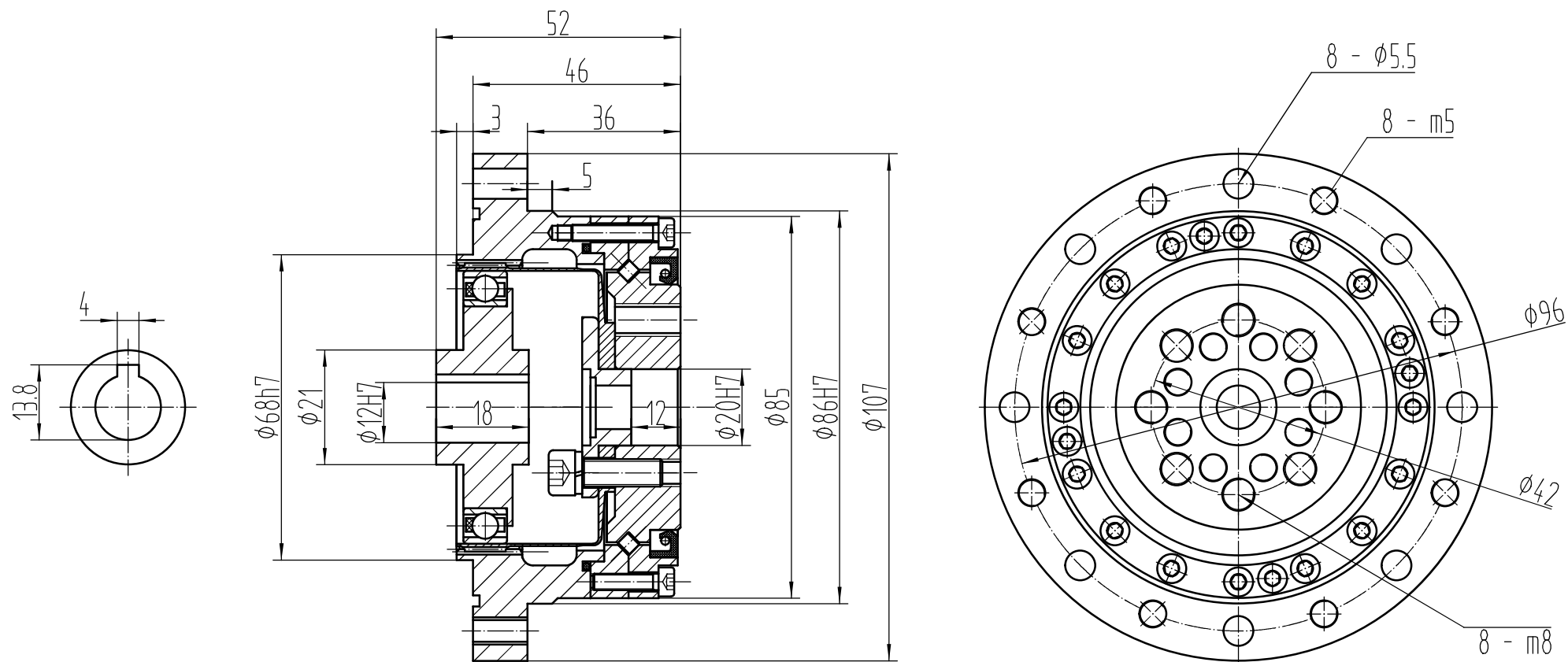
可实现的速比和技术性能请参看个产品细节图

This Model is available in eight size classes: 14,17,20,25,32,40 45and 50. The achievable ratio can be found in the detailed products drawing for each variant.





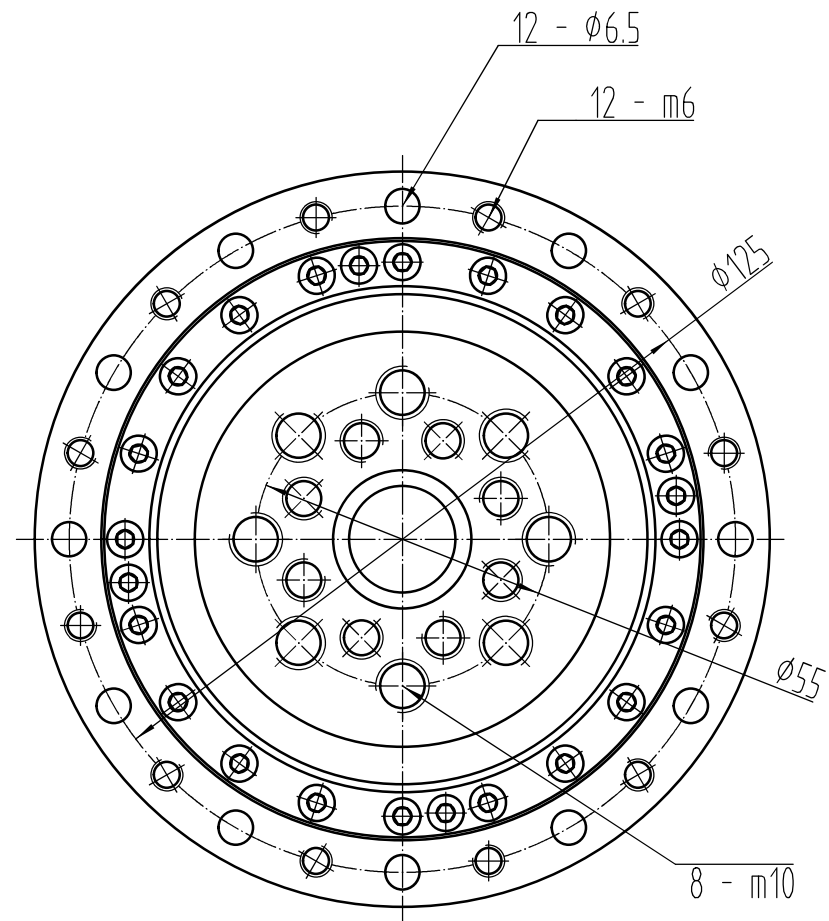
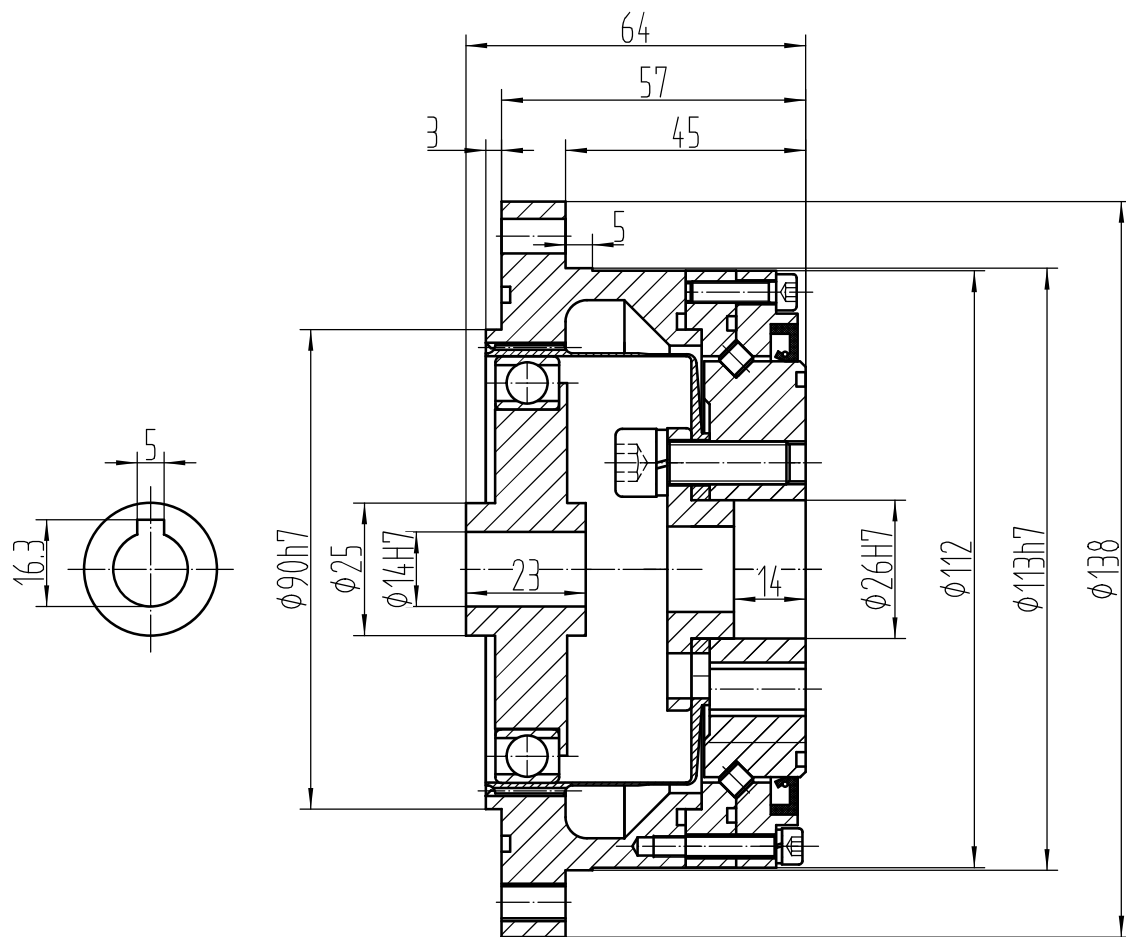
XB1-AS-GF-50 (20) -s				北京汉真传动技术有限公司		
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速(rpm) InputMaxSpeed	侧隙(arcmin) Backlash	重量(kg) Mass
50	30	72	135	3500	<=0.5	1
80	45	110	170			
100	47	110	190			
120	47	110	190			
160	47	110	190			



XB1-AS-GF-60 (25) -s

北京汉真传动技术有限公司

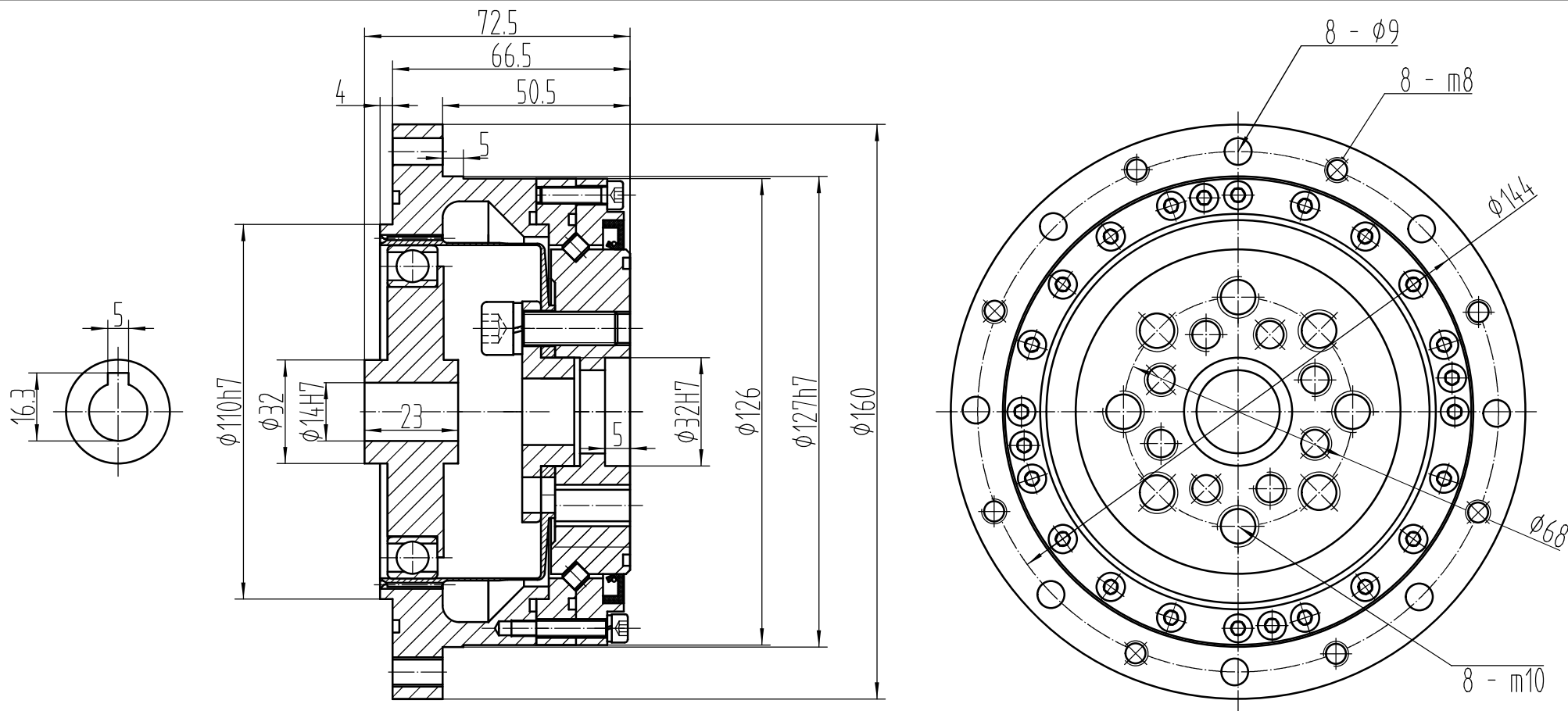
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	40	98	185	3500	<=1	1.5
60	40	100	255			
80	63	137	280			
100	66	157	280			
120	67	157	280			
160	67	157	280			
200	67	157	280			



XB1-AS-GF-80 (32) -s

北京汉真传动技术有限公司

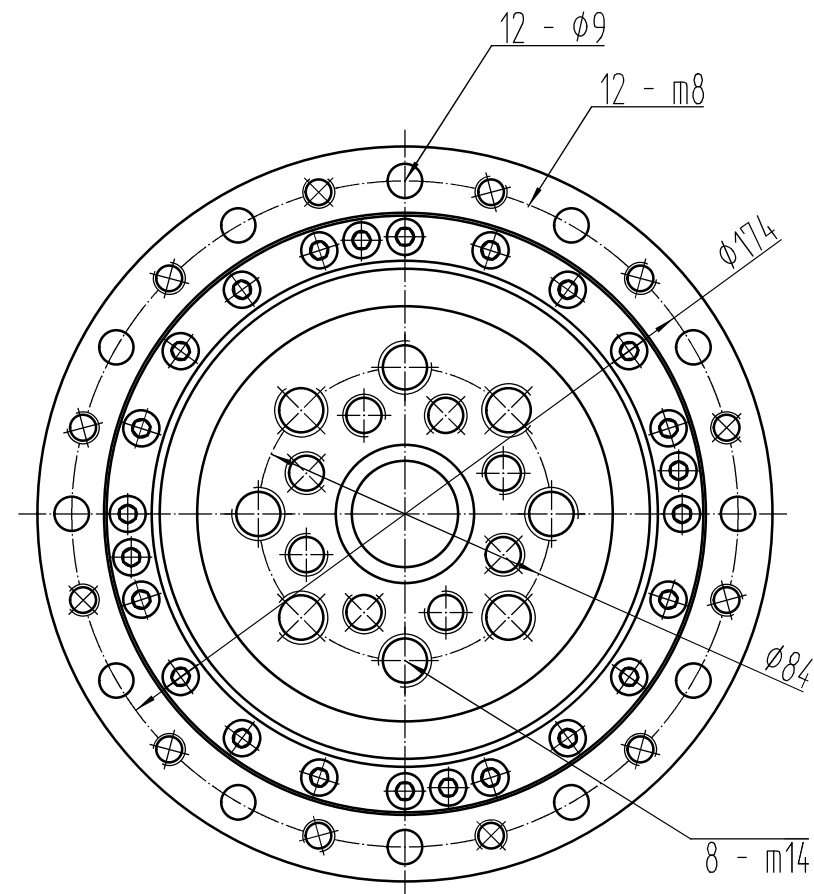
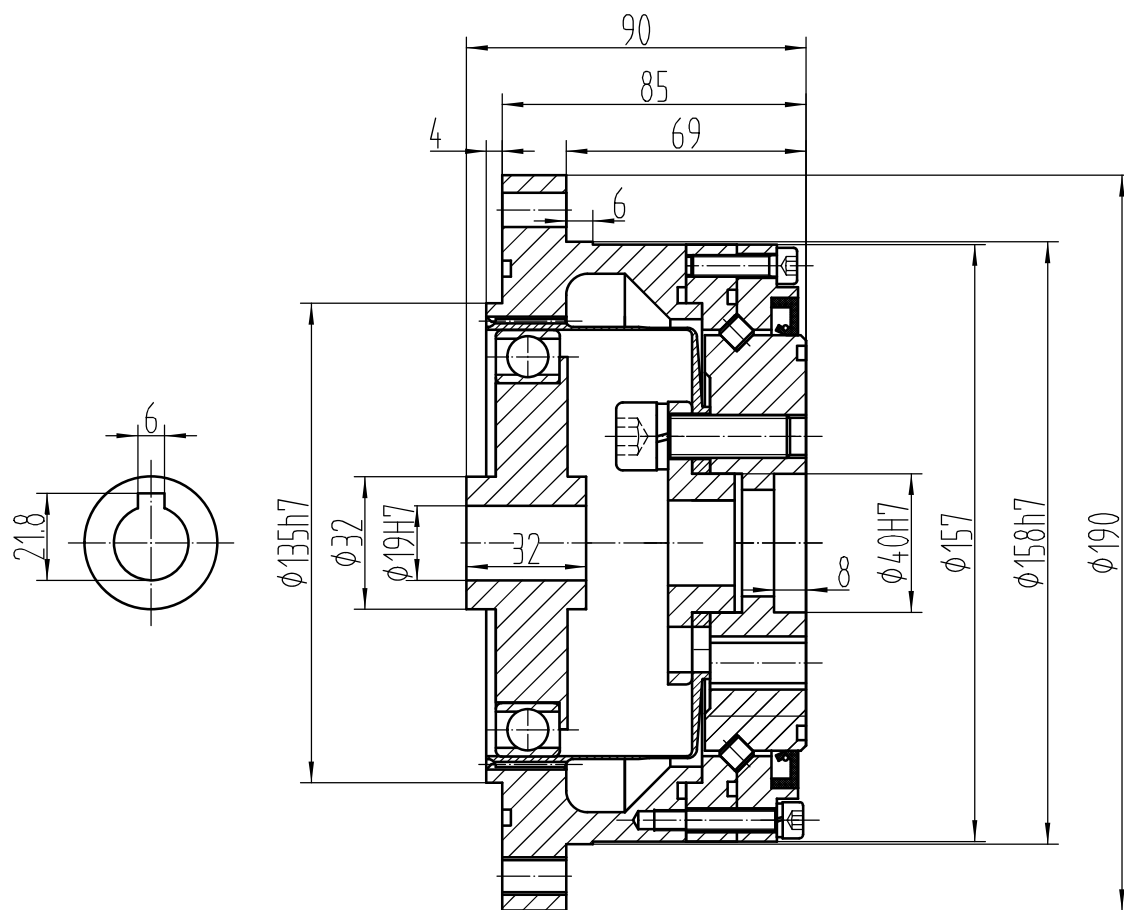
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	90	270	370	3500	<=0.5	3.2
80	155	395	650			
100	175	430	720			
120	175	460	720			
160	175	460	720			
200	175	460	720			



XB1-AS-GF-100 (40) - s

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	175	430	800	3500	<=0.5	5.0
60	195	520	940			
80	270	620	1160			
100	350	790	1320			
120	380	850	1320			
160	380	850	1320			
200	410	920	1320			



XB1-AS-GF-120 (50) -s

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	390	780	1450	2000	<=0.5	9
60	450	890	1590			
80	550	1000	1970			
100	610	1230	2300			
120	610	1230	2300			
160	680	1380	2700			
200	710	1520	2900			



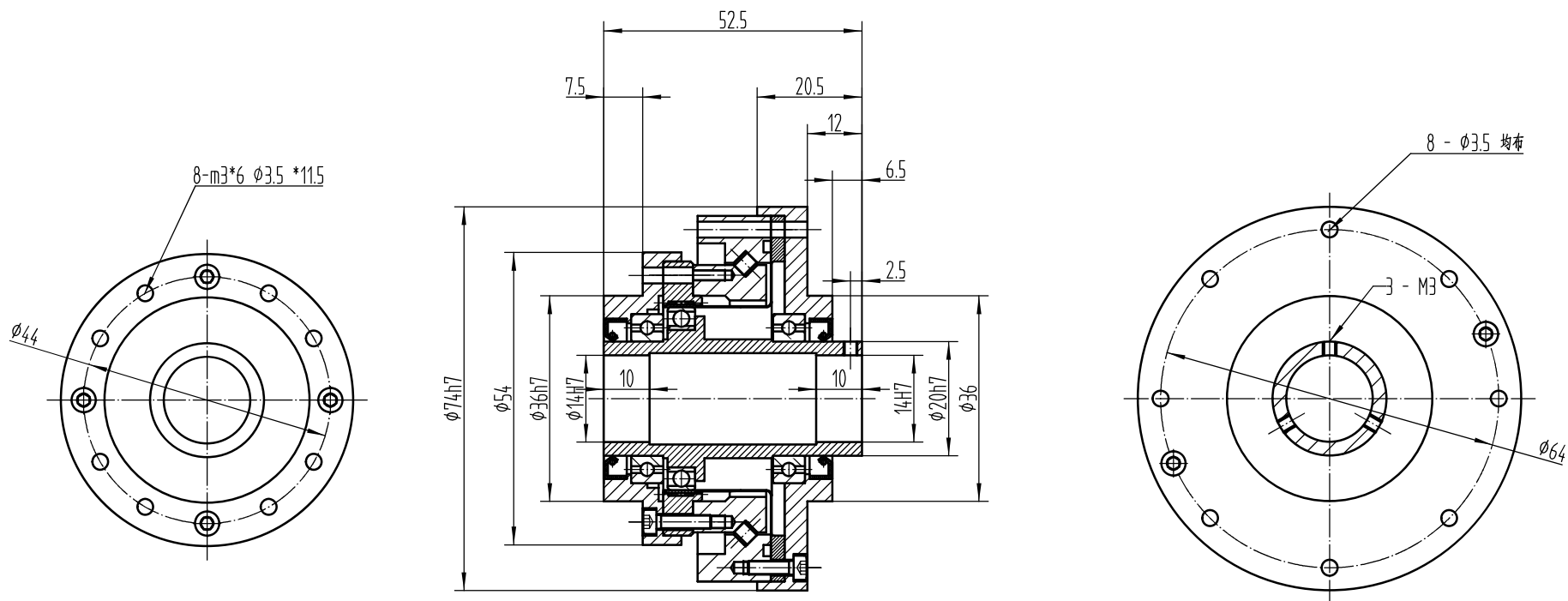
谐波齿轮减速机（空心轴）
产品编码：XB1-BS-GF

Harmonic Drive Gearbox
(Hollow Shaft)
Code: XB1-AS-C

本型号共有14,17,20,25,32,40,50 七个尺寸级别。
可实现的速比和技术性能请参看个产品细节图

This Model is available in seven size classes: 14,17,20,25,32,40 and 50.
The achievable ratio can be found in the detailed products drawing for each variant.

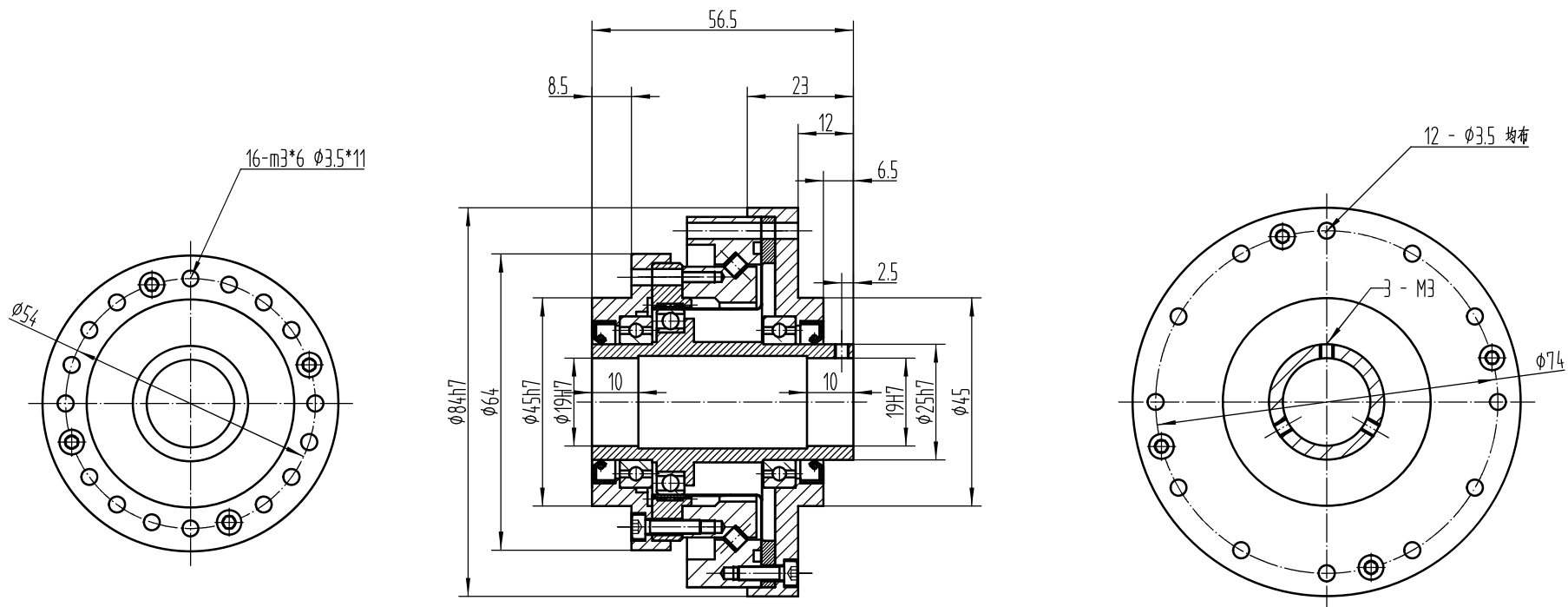




XB1-BS-GF-32 (14) -H

北京汉真传动技术有限公司

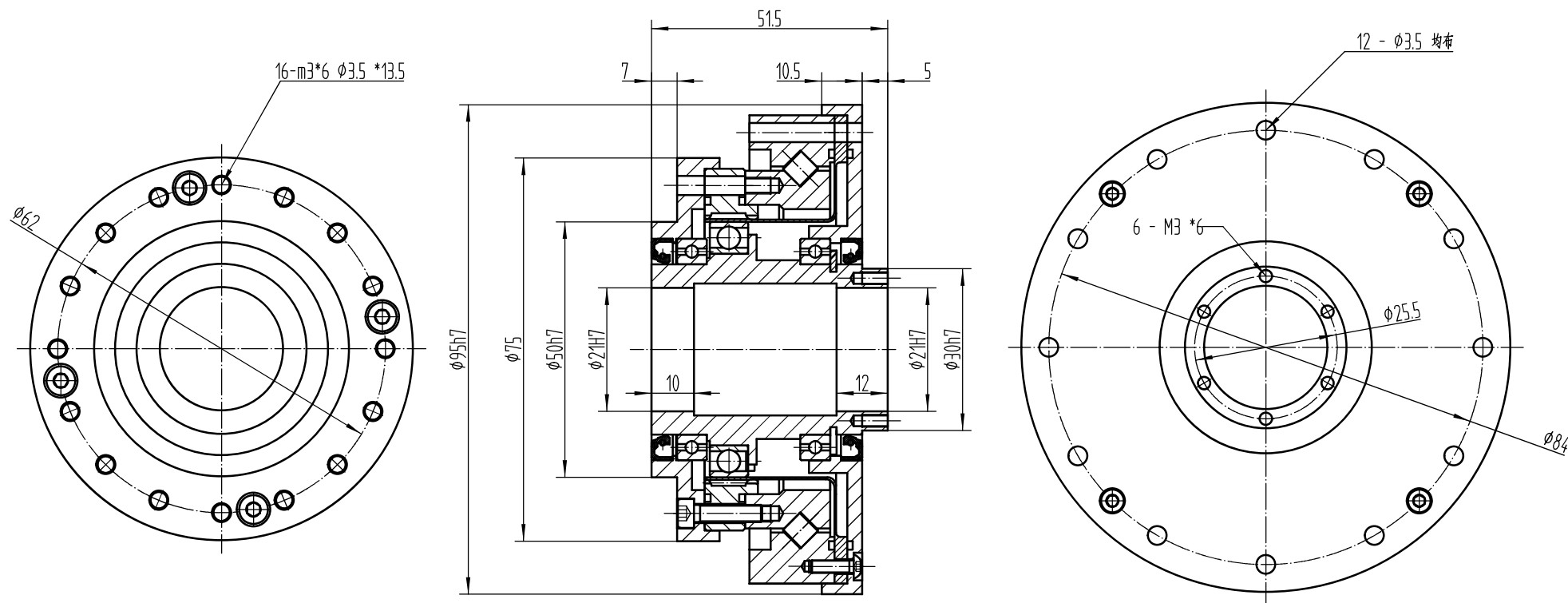
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
40	3.7	7.5	16	3500	<=0.5	0.7
50	5	11	24			
60	5	11	24			
80	7.2	15	33			
100	7.2	15	33			



XB1-BS-GF-40 (17) -H

北京汉真传动技术有限公司

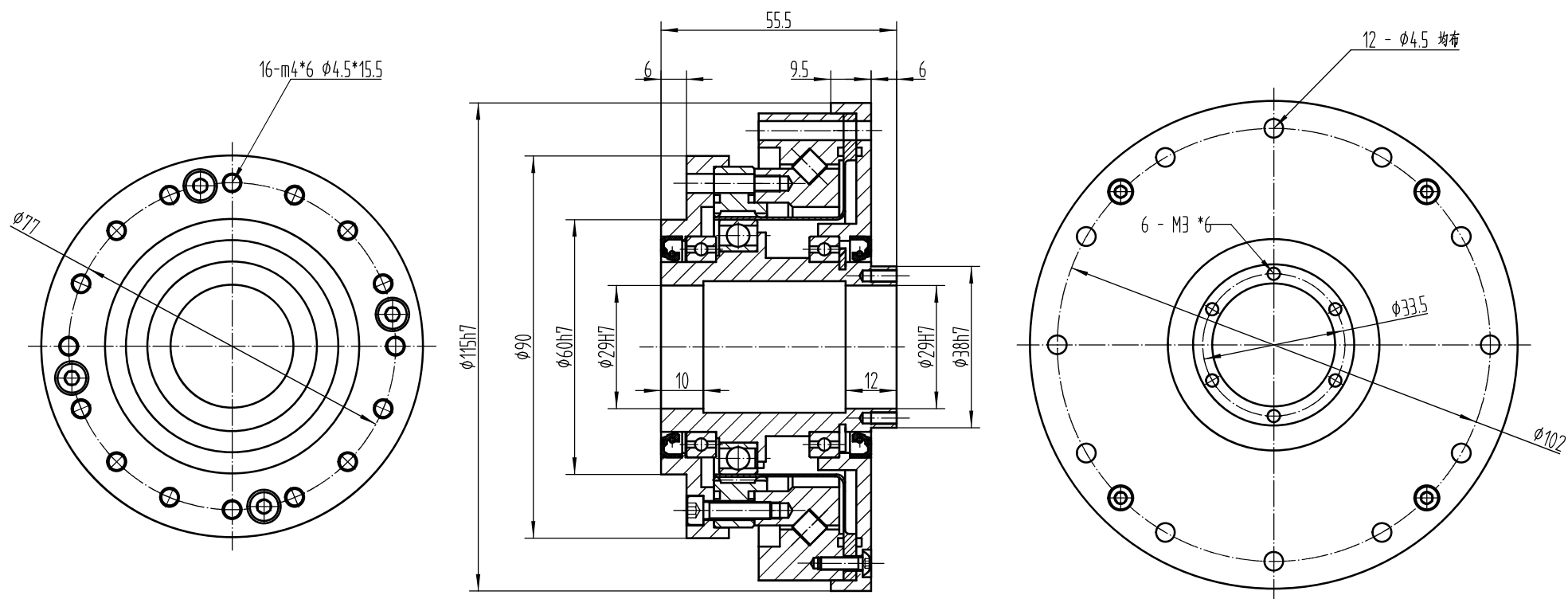
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
40	20	35	72	3500	<=0.5	0.8
50	28	55	115			
60	28	55	115			
80	38	74	150			
100	38	74	150			



XB1-BS-GF-50 (20) -H

北京汉真传动技术有限公司

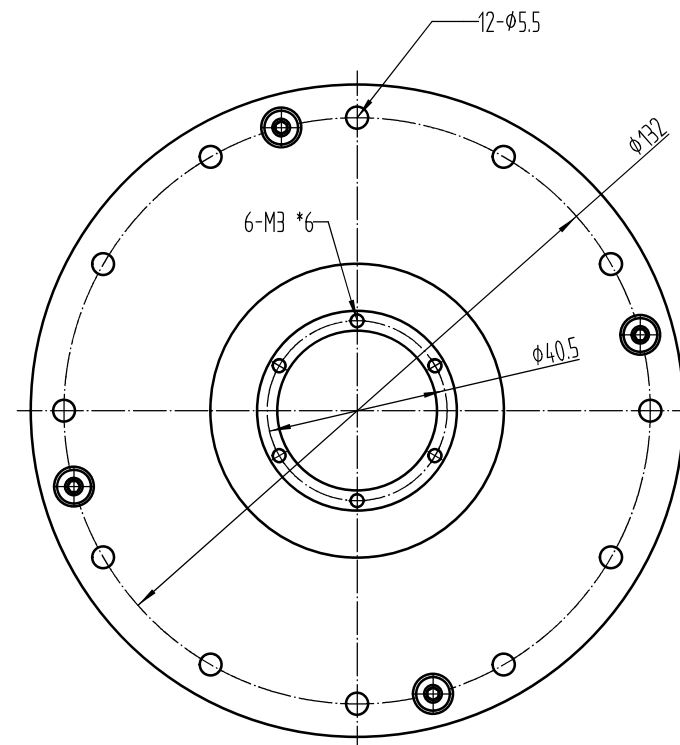
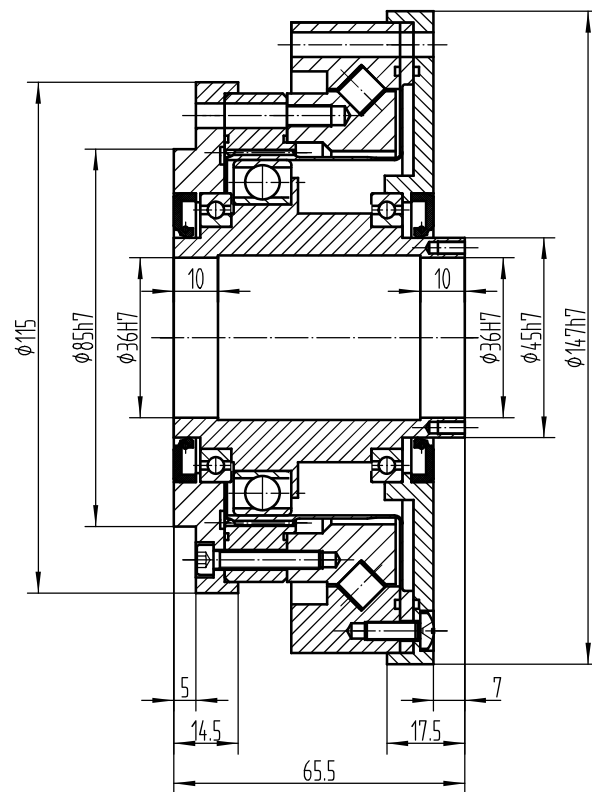
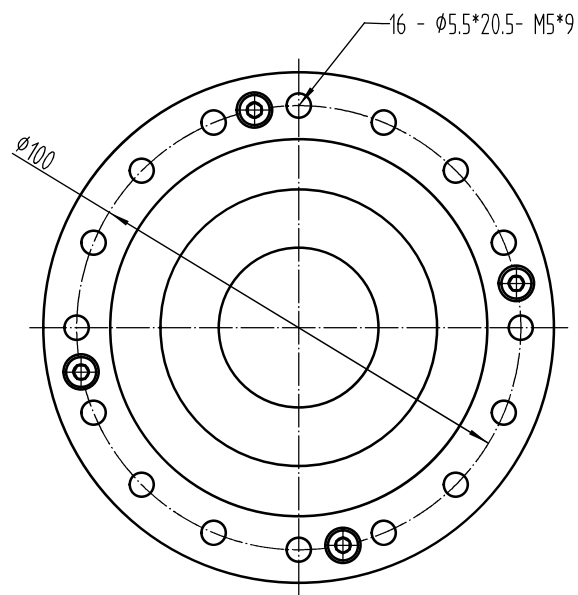
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	30	72	135	3500	<=0.5	1.6
80	45	110	170			
100	47	110	190			
120	47	110	190			
160	47	110	190			



XB1-BS-GF-60 (25)

北京汉真传动技术有限公司

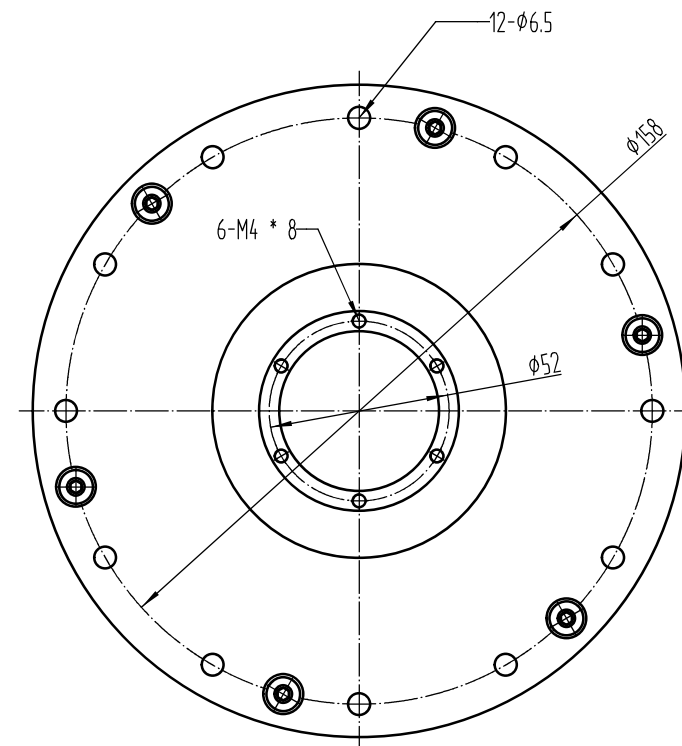
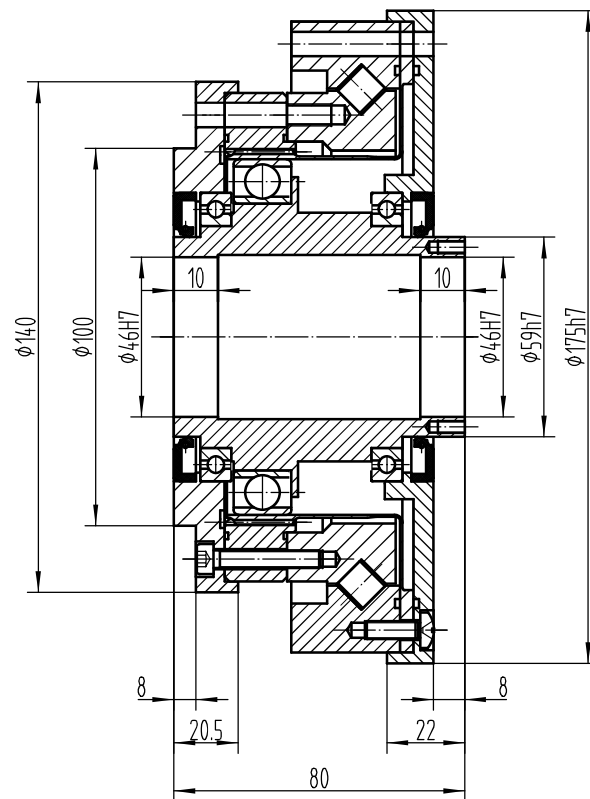
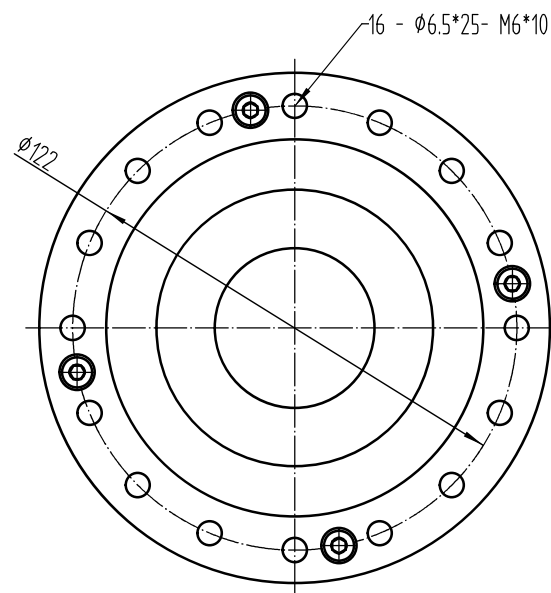
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	40	98	185	3500	<=1	2.2
60	40	100	255			
80	63	137	280			
100	66	157	280			
120	67	157	280			
160	67	157	280			



XB1-BS-GF-80 (32) -H

北京汉真传动技术有限公司

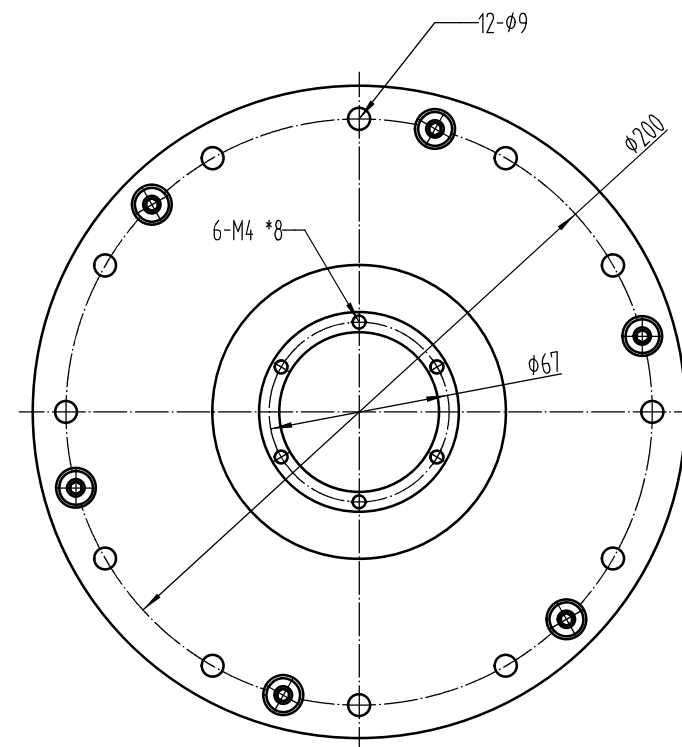
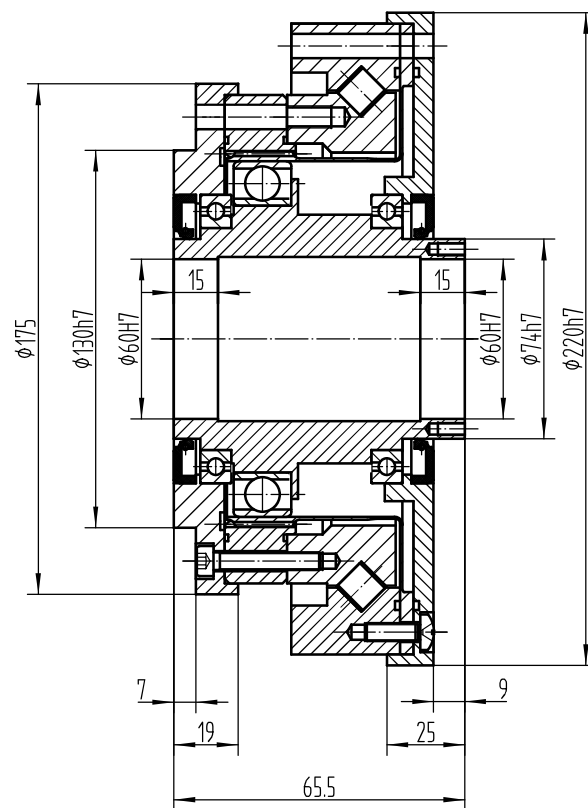
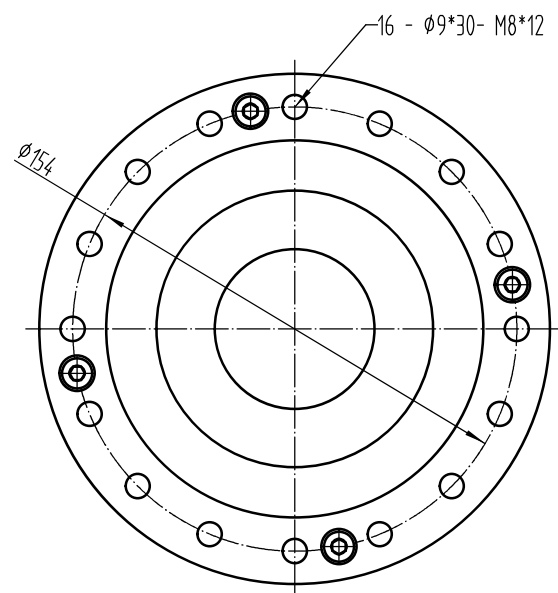
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	90	270	370	3500	≤ 0.5	3.5
60	110	290	460			
80	155	395	650			
100	175	430	720			
120	175	460	720			
160	175	460	720			



XB1-BS-GF-100 (40) -H

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	175	430	800	3500	<=0.5	5.9
60	195	520	940			
80	270	620	1160			
100	350	790	1320			
120	380	850	1320			
160	380	850	1320			
200	410	920	1320			



XB1-BS-GF-120 (50) -H

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	390	780	1450	2000	≤ 0.5	11
60	450	890	1590			
80	550	1000	1970			
100	610	1230	2300			
120	610	1230	2300			
160	680	1380	2700			
200	710	1520	2900			



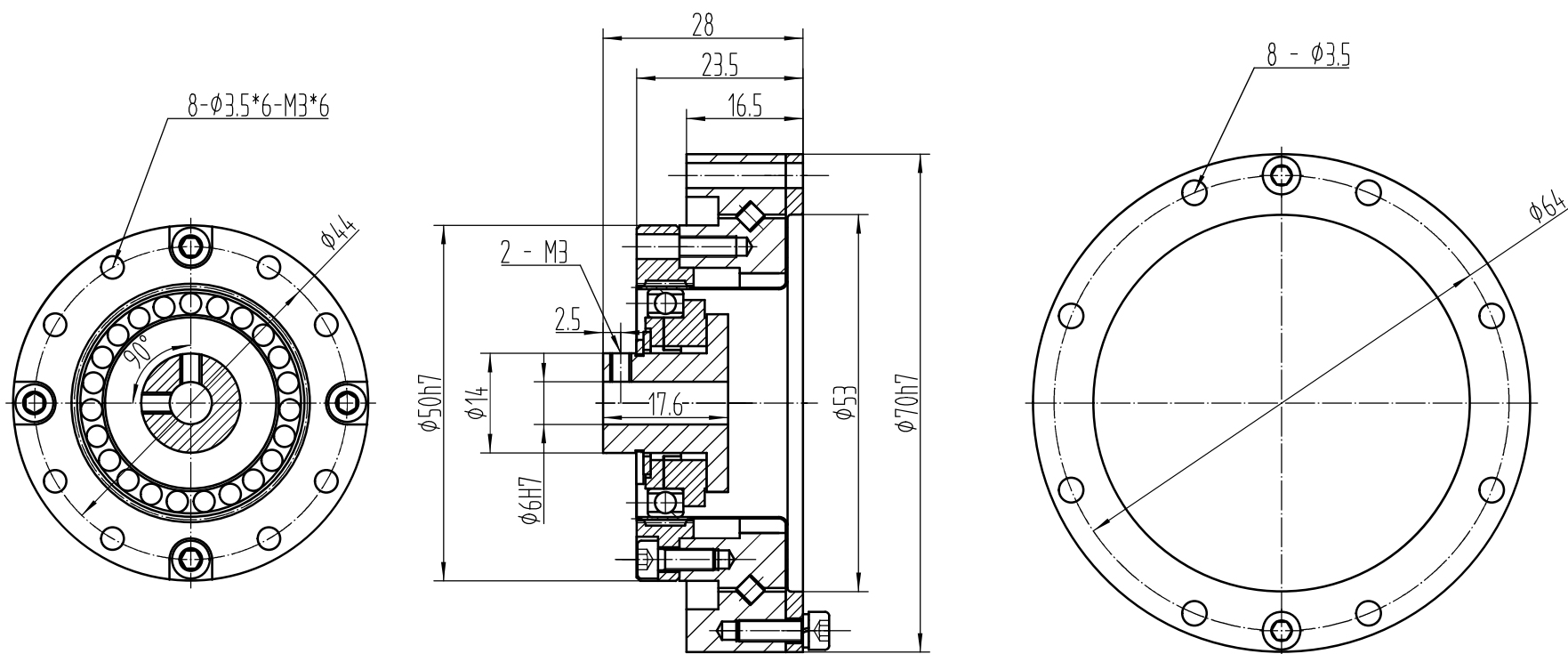
谐波齿轮组件
产品编码: XB1-BS-CF

Harmonic Drive Gearset
Code: XB1-BS-CF

本型号共有14,17,20,25,32,40,50 七个尺寸级别。
可实现的速比和技术性能请参看个产品细节图

This Model is available in seven size classes:
08,11,14,17,20,25,32,40 and 50. The achievable ratio can be
found in the detailed products drawing for each variant.

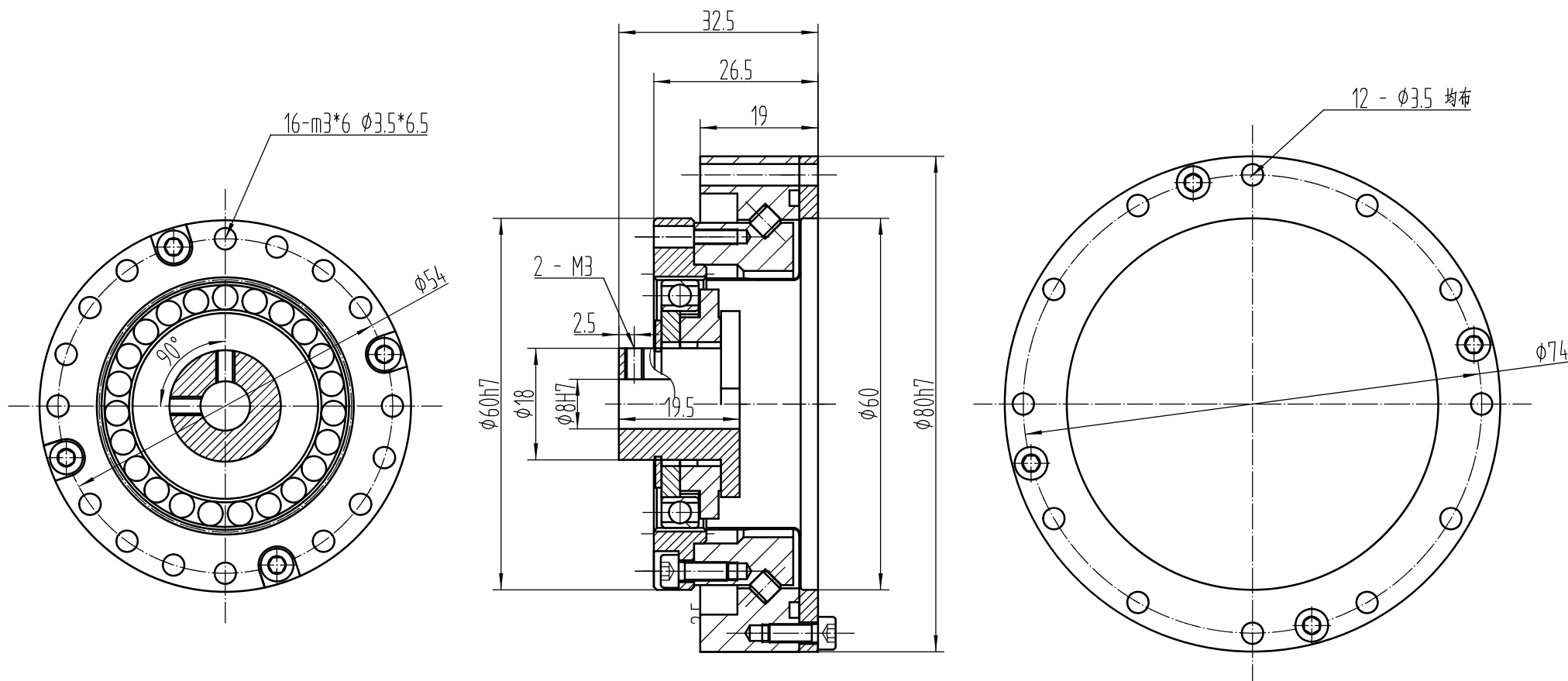




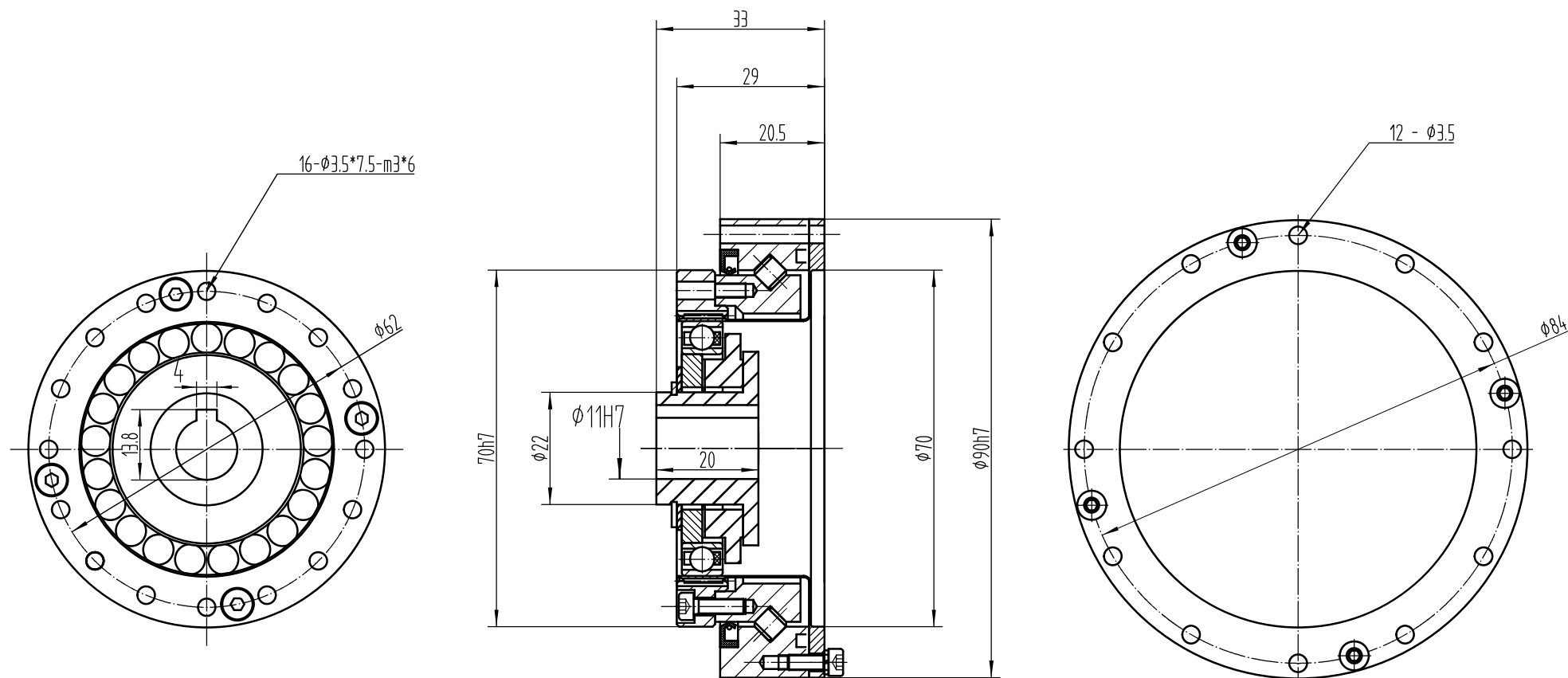
XB1-BS-CF-32 (14) -H

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
40	3.7	7.5	16	3500	<=0.5	0.4
50	5	11	24			
60	5	11	24			
80	7.2	15	33			
100	7.2	15	33			
120	7.2	15	33			



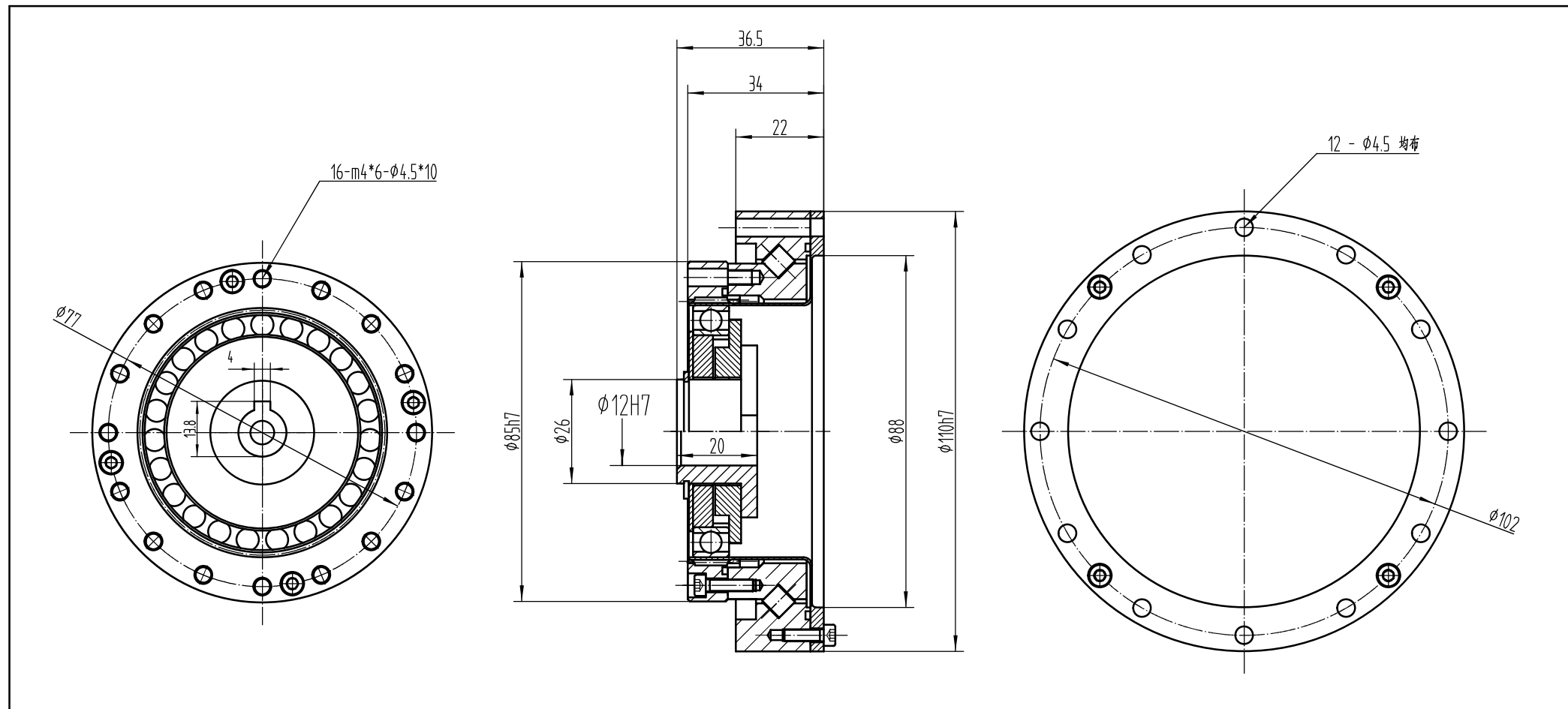
XB1-BS-CF-40 (17) -H				北京汉真传动技术有限公司		
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速(rpm) InputMaxSpeed	侧隙(arcmin) Backlash	重量(kg) Mass
40	20	35	72	3500	<=0.5	0.6
50	28	55	115			
60	28	55	115			
80	38	74	150			
100	38	74	150			



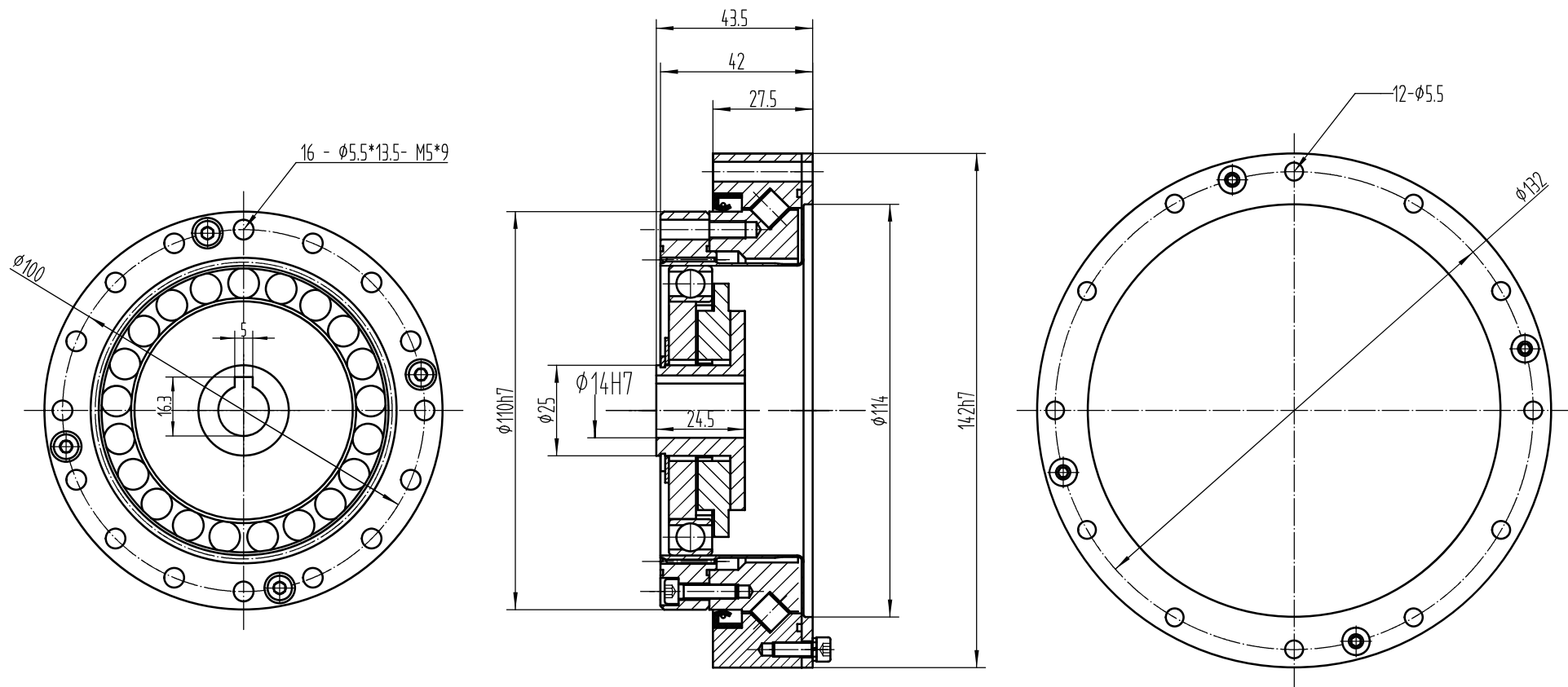
XB1-BS-CF-50 (20) -H

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	30	72	135	3500	≤ 0.5	0.85
80	45	110	170			
100	47	110	190			
120	47	110	190			
160	47	110	190			



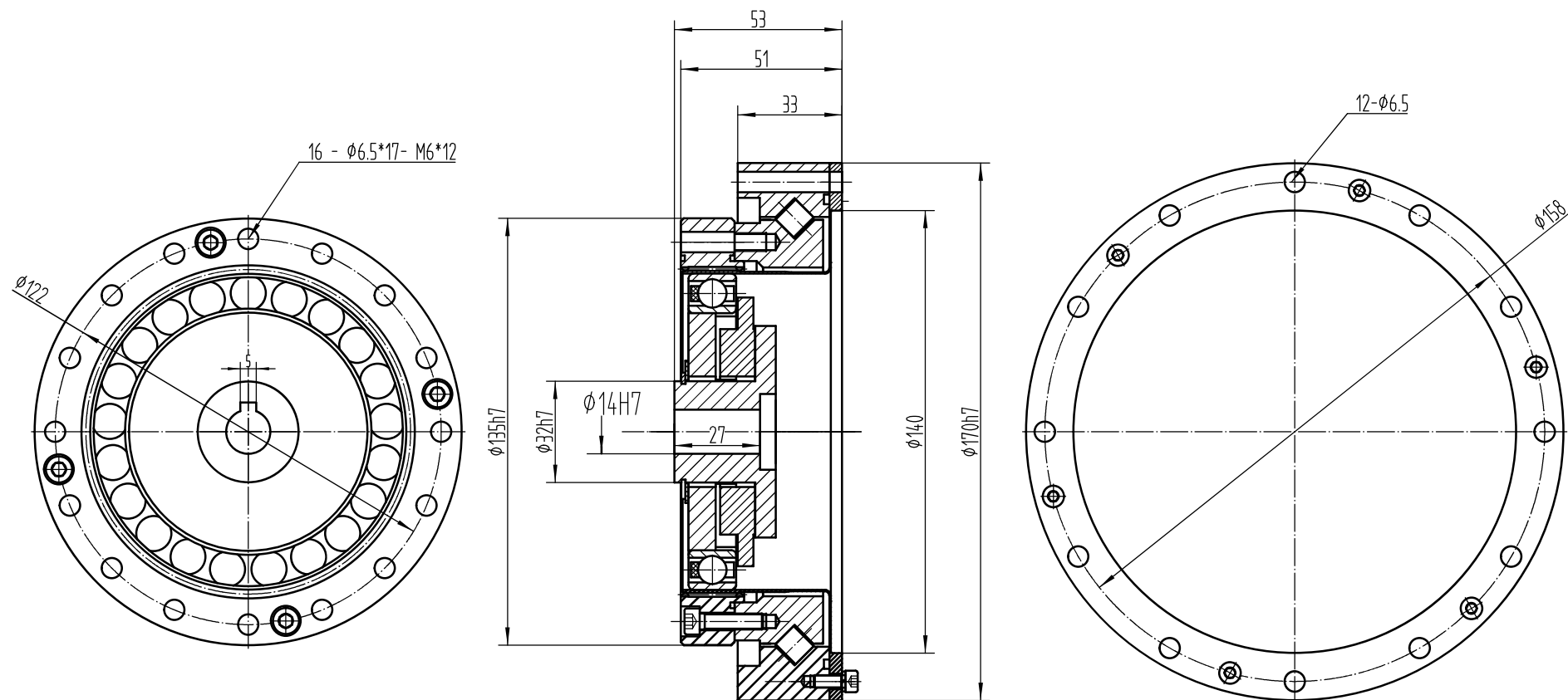
XB1-BS-CF-60 (25) -H				北京汉真传动技术有限公司		
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速(rpm) InputMaxSpeed	侧隙(arcmin) Backlash	重量(kg) Mass
50	40	98	185	3500	<=0.5	1.4
60	45	98	185			
80	63	137	280			
100	66	157	280			
120	67	157	280			
160	67	157	280			
200	67	157	260			



XB1-BS-CF-80 (32) -H

北京汉真传动技术有限公司

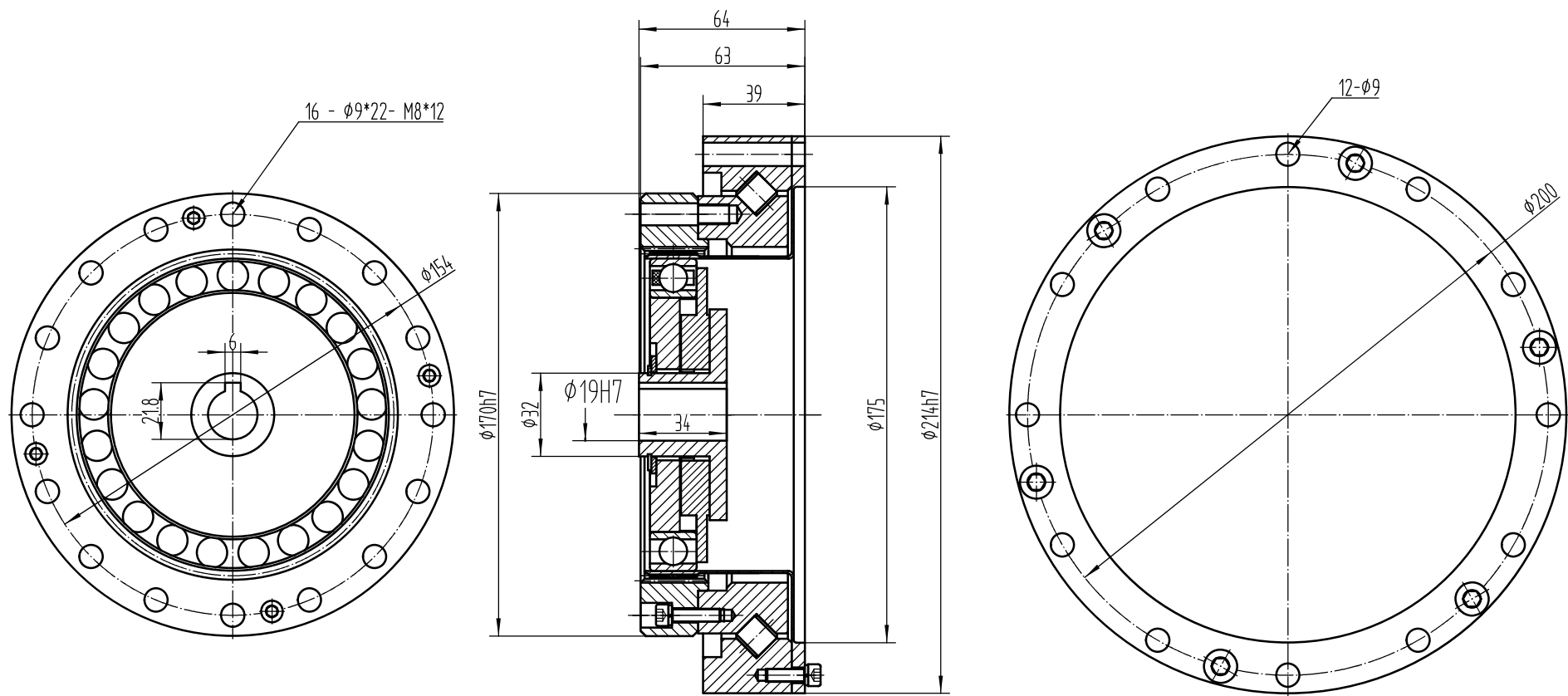
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	90	270	370	3500	<=0.5	2.9
80	155	395	650			
100	175	430	720			
120	175	460	720			
160	175	460	720			
200	175	460	720			



XB1-BS-CF-100 (40) -H

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	175	430	800	3500	<=0.5	5.1
80	270	620	1160			
100	350	790	1320			
120	380	850	1320			
160	380	850	1320			
200	410	920	1320			



XB1-BS-CF-120 (50) -H				北京汉真传动技术有限公司		
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	390	780	1450	2000	<=0.5	9.6
60	450	890	1590			
80	550	1000	1970			
100	610	1230	2300			
120	610	1230	2300			
160	680	1380	2700			
200	710	1520	2900			

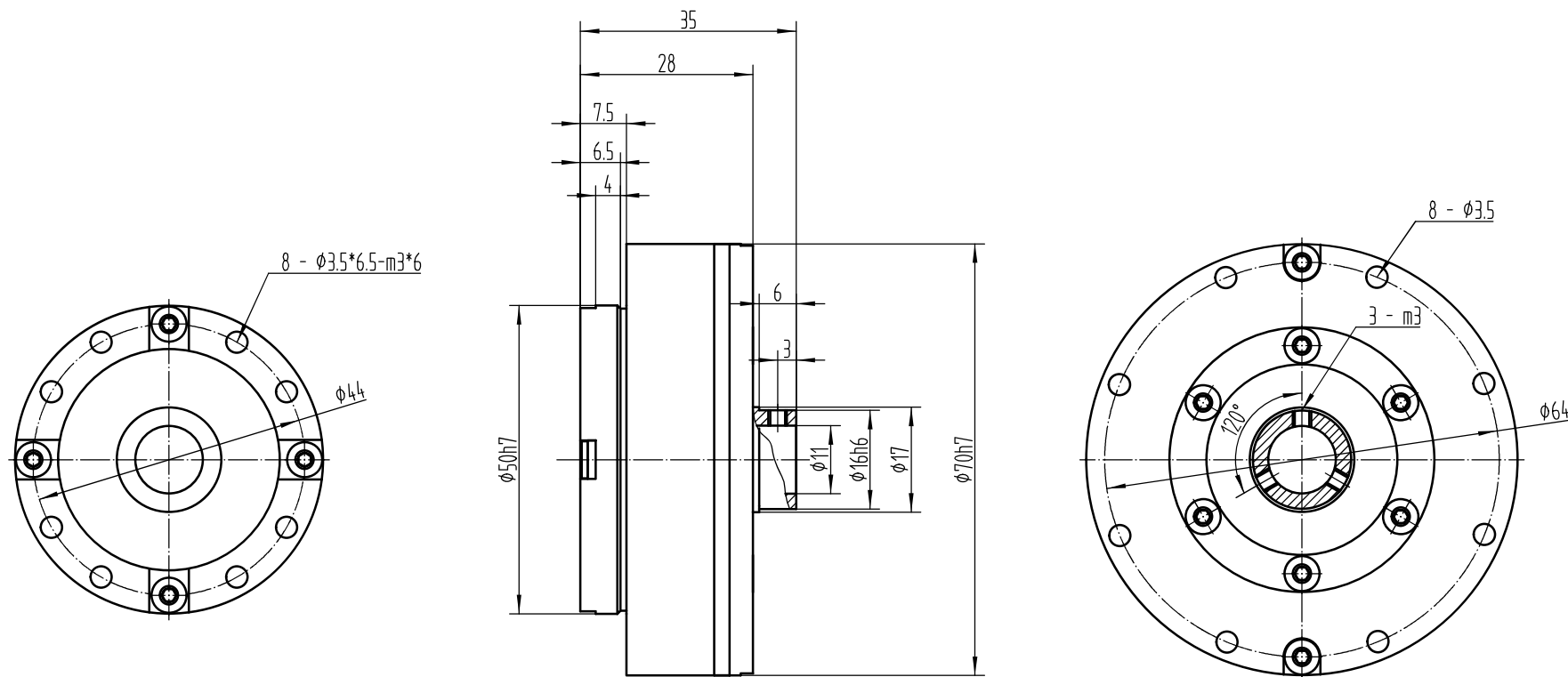


谐波齿轮减速机（空心轴）
产品编码：XB1-BT-GF

Harmonic Drive
Gearbox(Hollow Shaft)
Code: XB1-BT-GF

本型号共有14,17,20,25,32 五个尺寸级别。可实现的速比和技术性能请参看个产品细节图

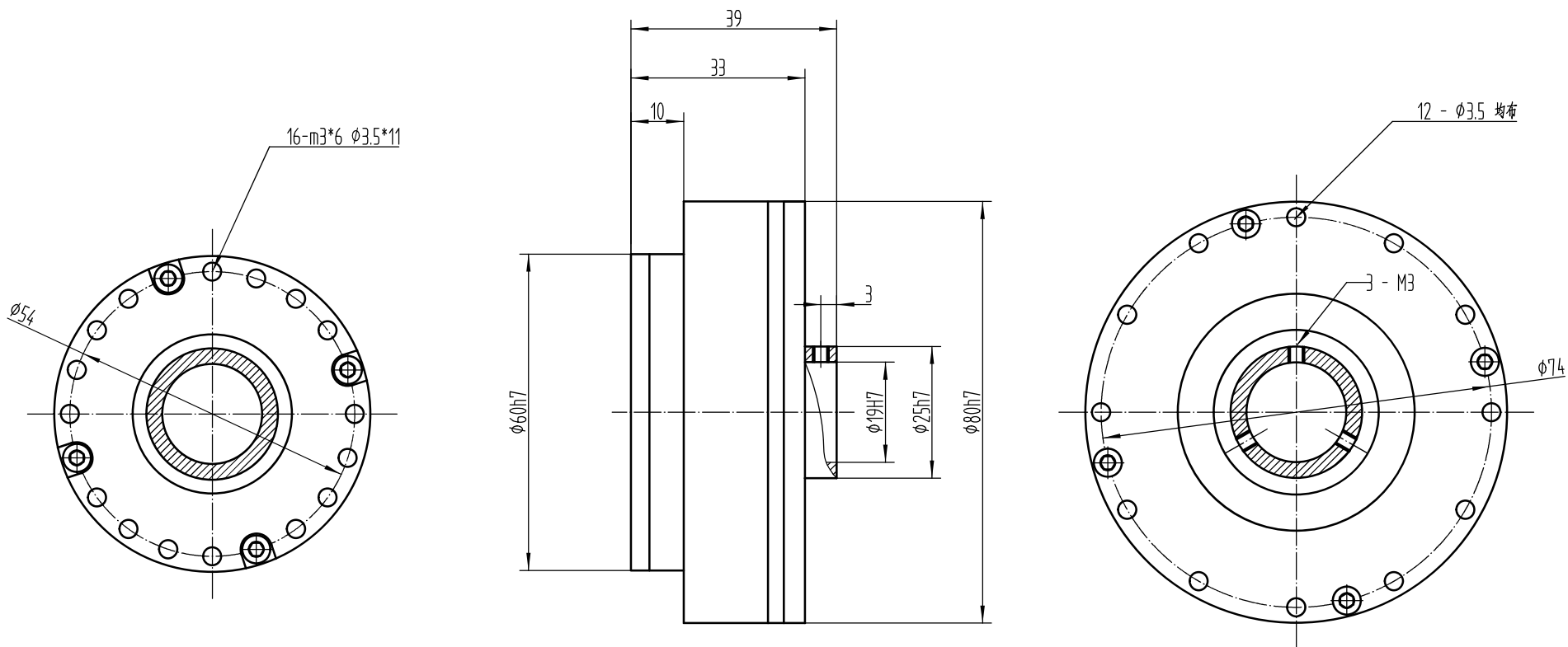
This Model is available in five size classes: 14,17,20,25 and 32. The achievable ratio can be found in the detailed products drawing for each variant.



XB1-BS-GF-32 (14) -BEG23

北京汉真传动技术有限公司

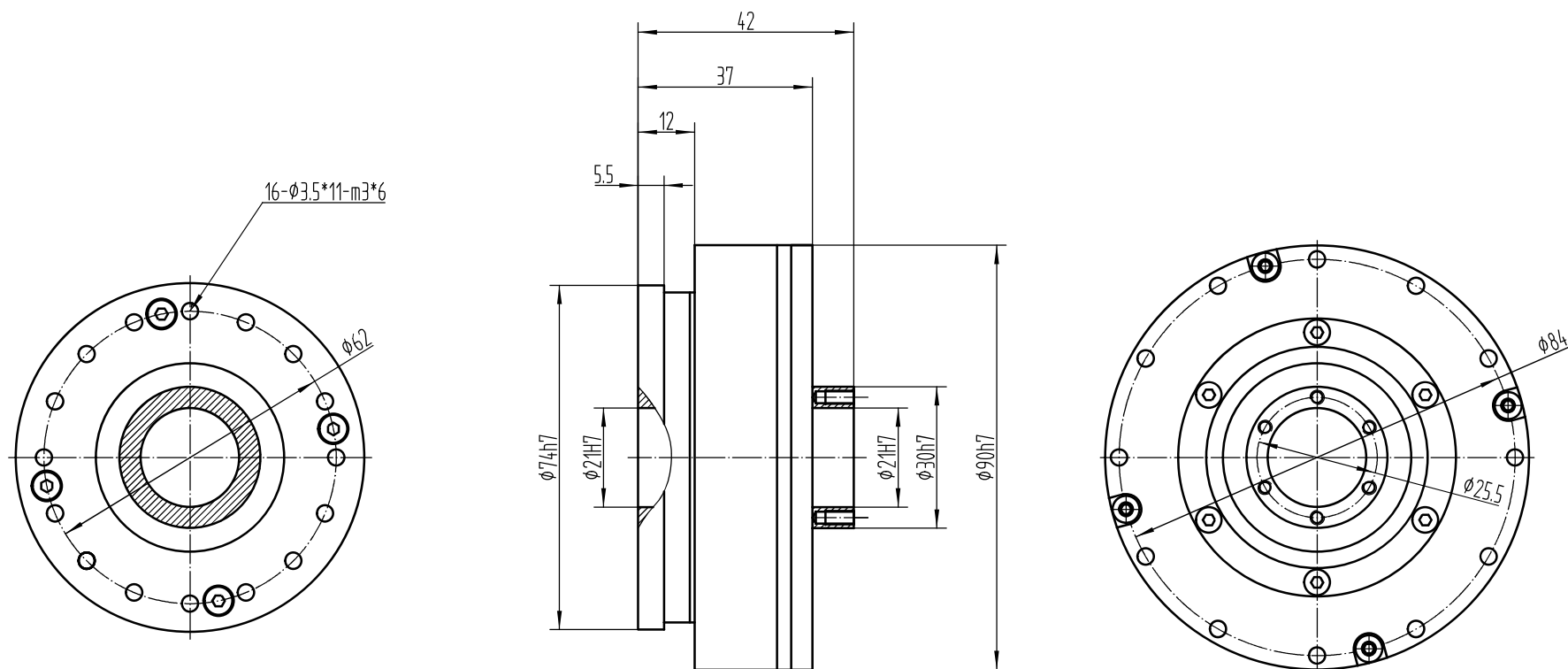
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
40	3.5	10	20	3500	<=0.3	0.59
50	4	11	24			
60	5	11	24			
80	6	15	33			
110	6	15	33			
120	6	15	33			



XB1-BT-GF-40 (17) -H

北京汉真传动技术有限公司

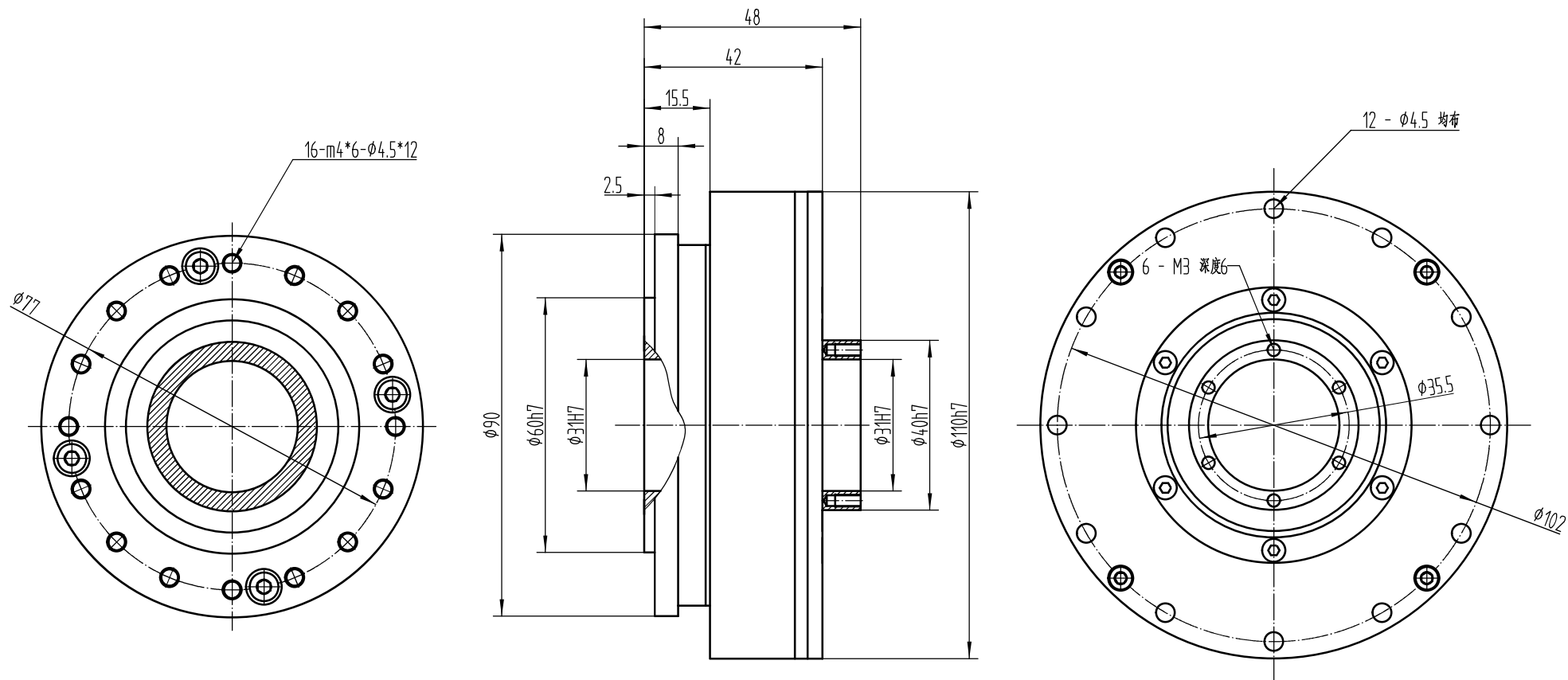
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
40	20	35	72	3500	<= 0.5	0.8
50	28	55	115			
60	28	55	115			
80	38	74	150			
100	38	74	150			
120	38	74	120			



XB1-BT-GF-50 (20) -H

北京汉真传动技术有限公司

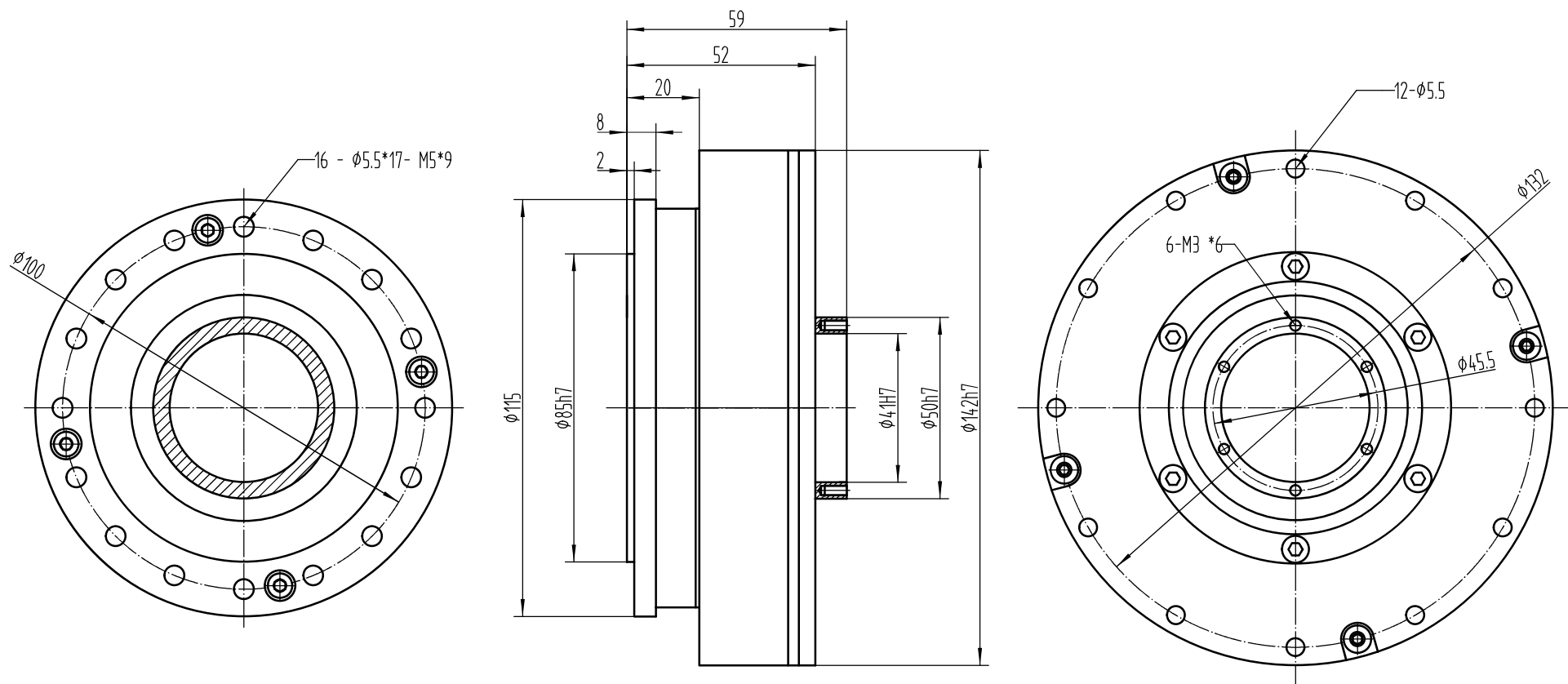
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	30	72	135	3500	≤ 0.5	1.6
80	45	110	170			
100	47	110	190			
120	47	110	190			
160	47	110	190			



XB1-BT-GF-60 (25) -H

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	40	98	185	3500	<=0.5	2.2
60	45	98	185			
80	63	137	280			
100	66	157	280			
120	67	157	280			
160	67	157	280			
200	67	157	260			



XB1-BT-GF-80 (32) -H

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	90	270	370	3500	≤ 0.5	3.5
80	155	395	650			
100	175	430	720			
120	175	460	720			
160	175	460	720			
200	175	460	720			



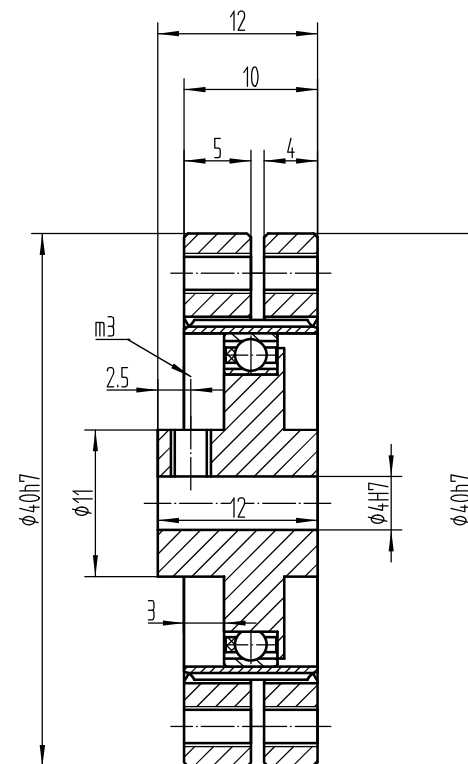
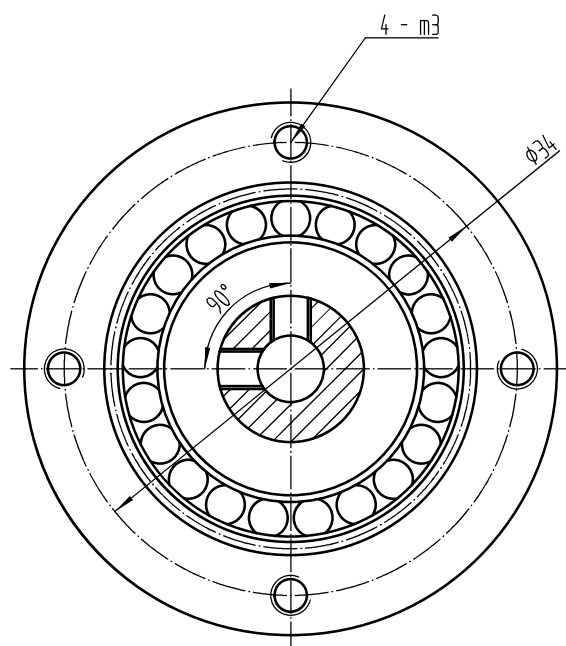
谐波齿轮组
产品编码: XB3-A-C

Harmonic Drive
Gearset (Pancake)
Code: XB3-A-C

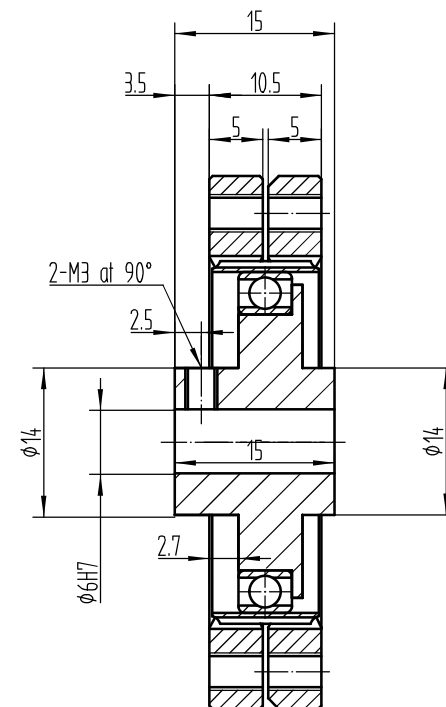
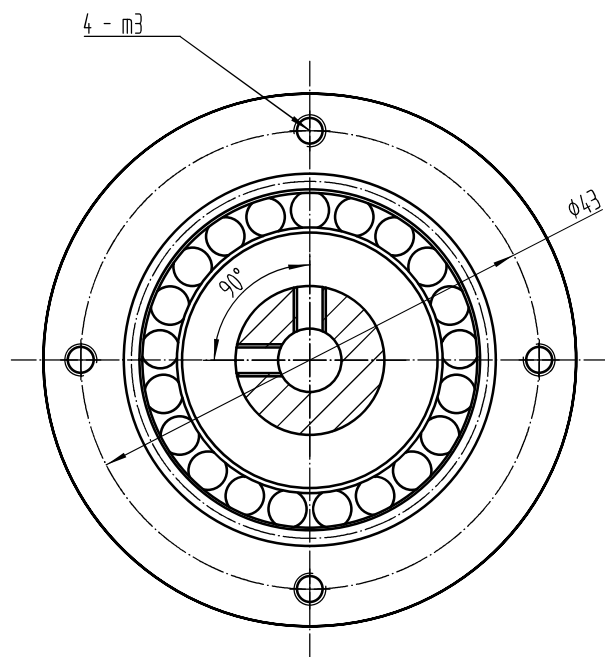
本型号共有11,14,17,20,25,32,40,50 八个尺寸级别。可实现的速比和技术性能请参看个产品细节图

This Model is available in eight size classes: 14,17,20,25 32,40and 50. The achievable ratio can be found in the detailed products drawing for each variant.





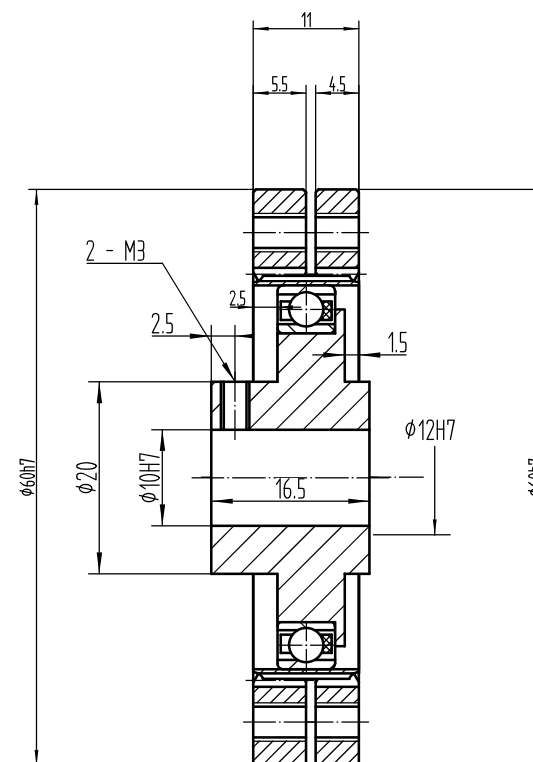
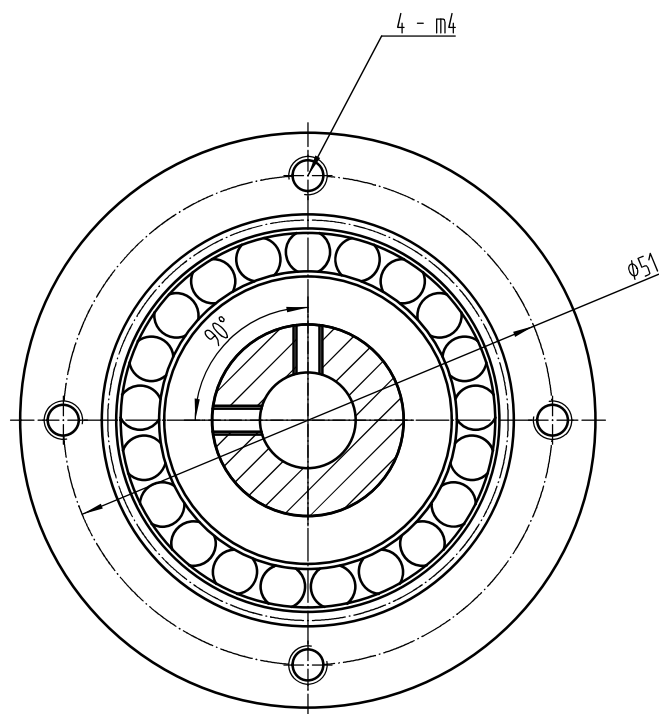
XB3-A-C-25 (11)				北京汉真传动技术有限公司		
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
40	1.5	2.8	6	3500	<= 4	0.05
50	1.8	3.5	7			
60	1.8	3.5	7			
80	2	3.8	8			



XB3-A-C-32 (14)

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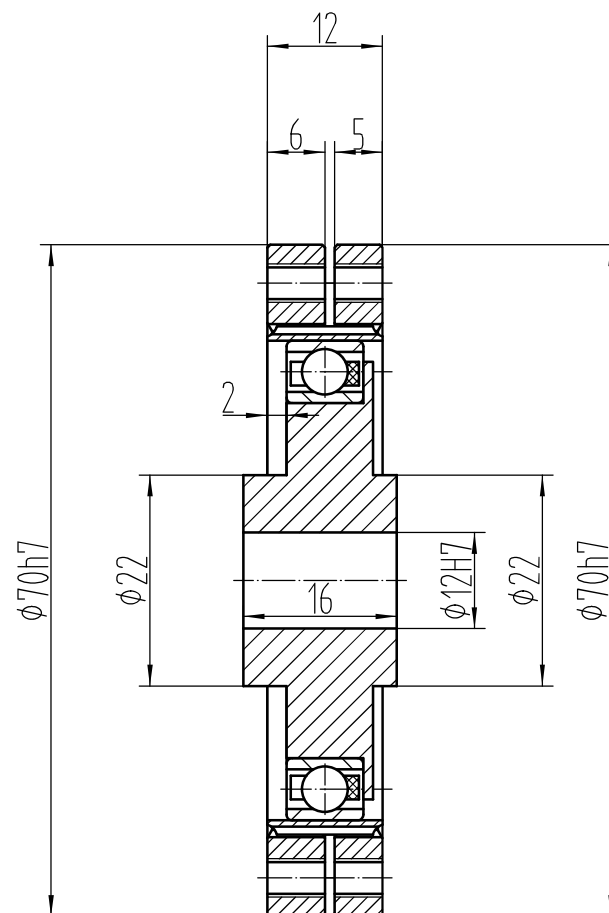
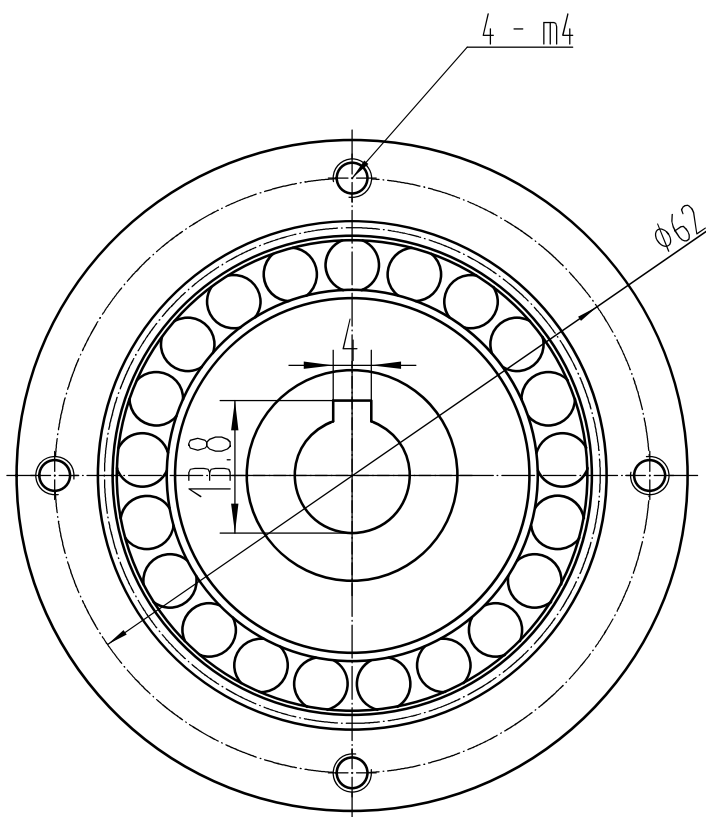
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
40	2.5	6	14	3500	<= 4	0.1
50	3	7	14			
60	3.5	7	14			
80	4.5	9	21			
110	4.5	9	21			
120	4.5	9	21			



XB3-A-C-40 (17) -H

北京汉真传动技术有限公司

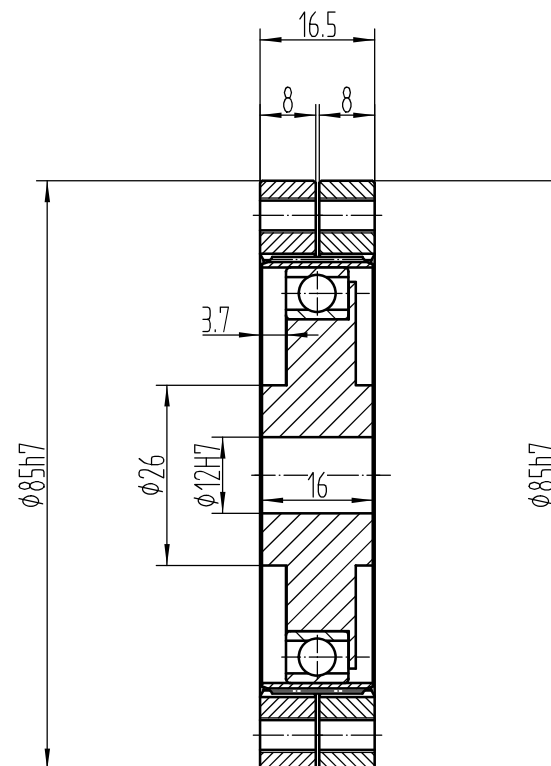
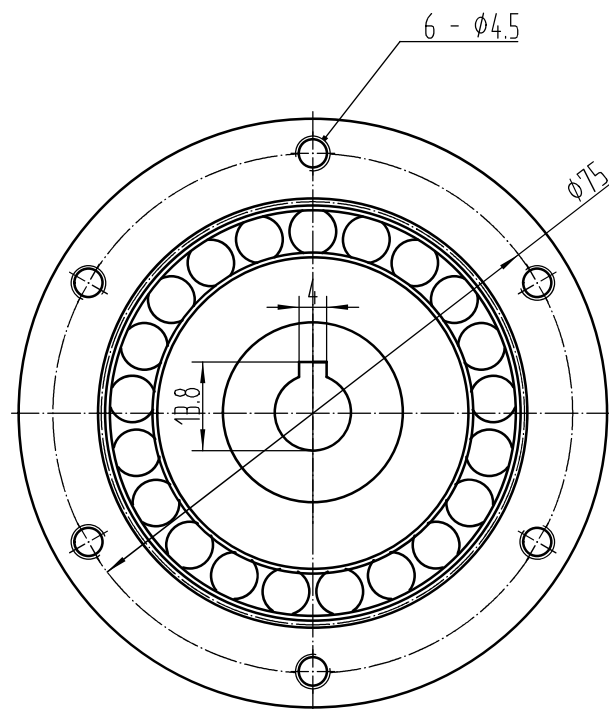
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
40	14	26	50	3500	<= 4	0.15
50	20	39	78			
60	20	39	78			
80	25	48	105			
100	25	48	105			
120	27	50	110			



XB3-A-C-50 (20)

北京汉真传动技术有限公司

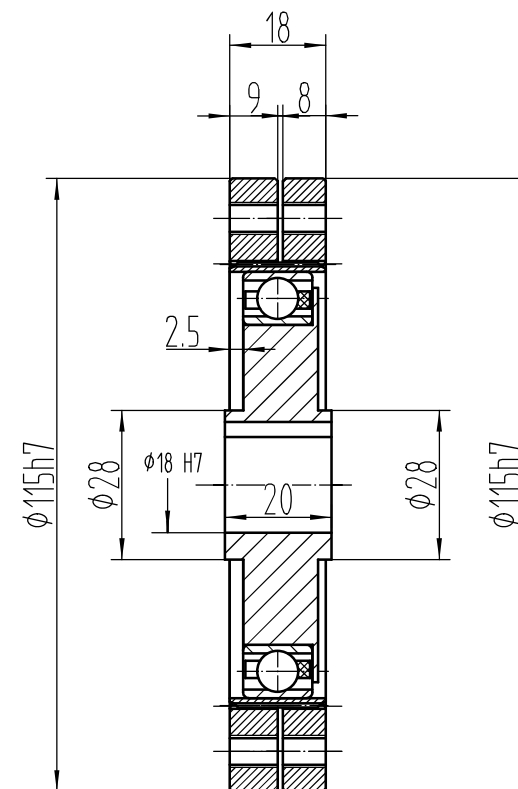
速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	20	40	92	3500	<= 4	0.3
80	32	65	118			
100	32	70	118			
120	32	70	118			
160	34	75	118			



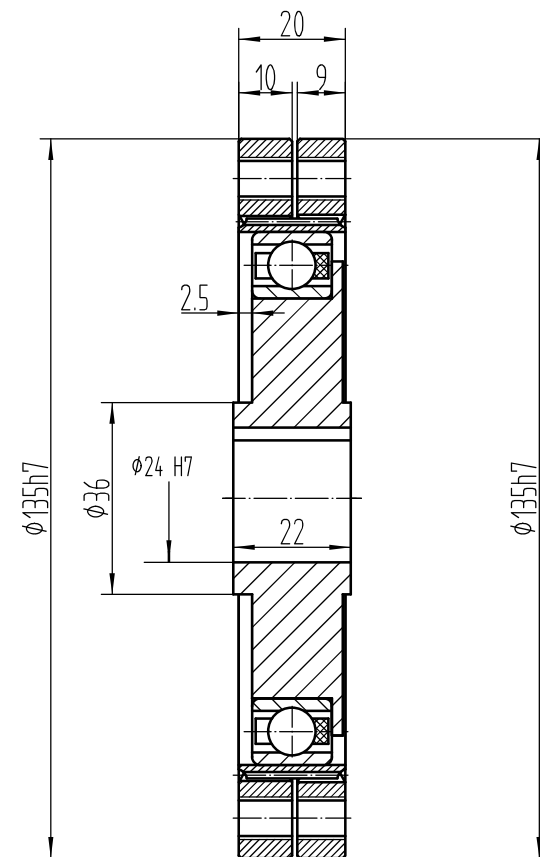
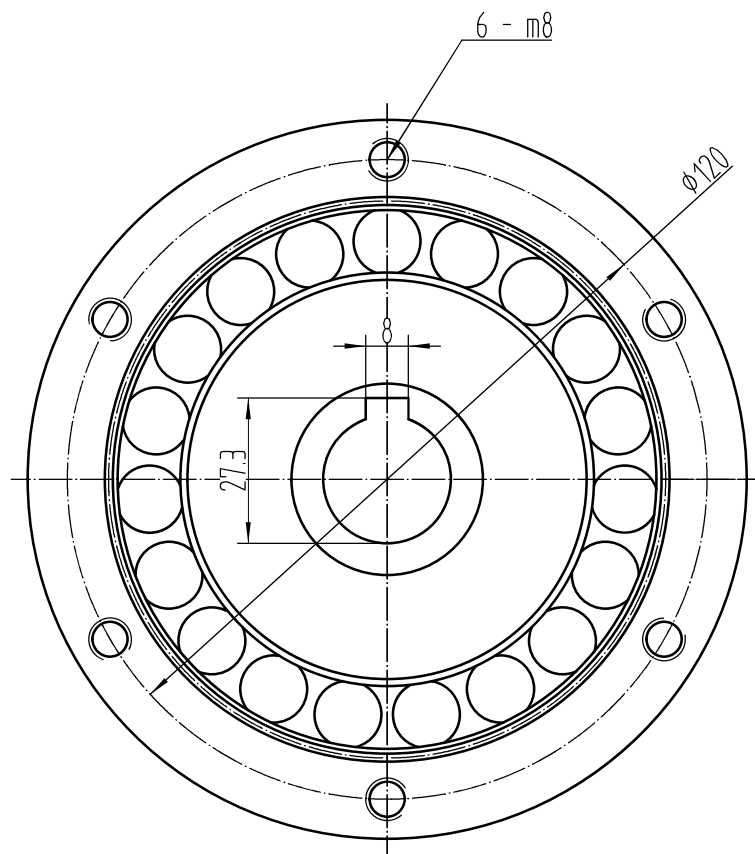
XB3-A-C-60 (25)

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	30	65	130	3500	< = 4	0.45
60	30	65	130			
80	40	90	190			
100	45	92	195			
120	48	92	195			
160	48	95	195			
200	50	95	195			



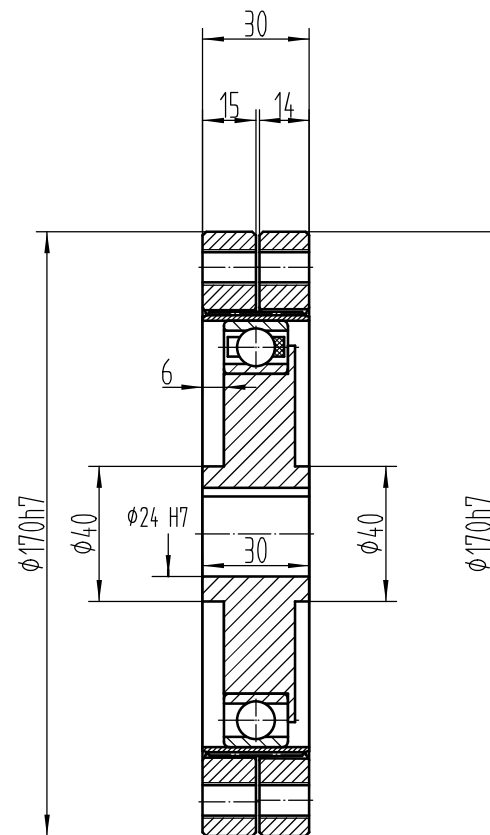
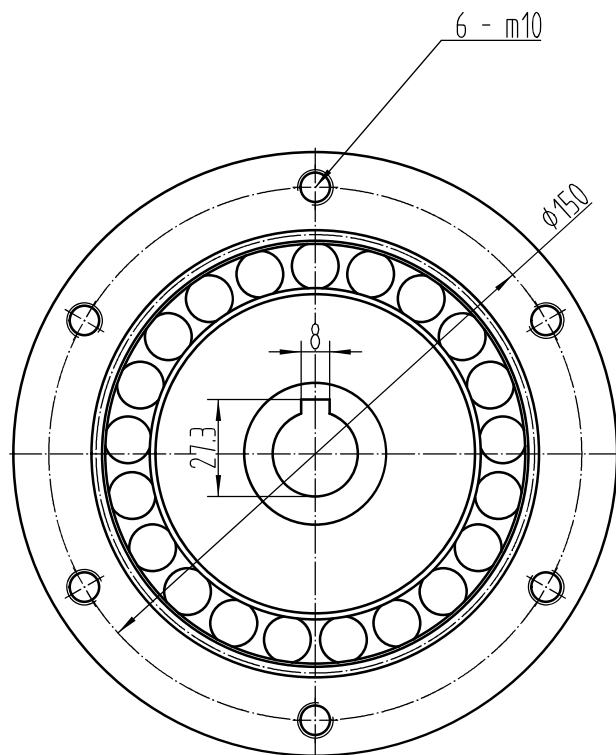
北京汉真传动技术有限公司



XB3-A-C-100 (40)

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	120	280	560	3500	<= 4	1.8
80	190	430	770			
100	240	490	920			
120	265	490	920			
160	275	530	930			
200	280	550	930			



XB3-A-C-120 (50)

北京汉真传动技术有限公司

速比 Ratio	额定扭矩 (N.m) Rated Torque Capacity	启停扭矩 (N.m) Start/Stop Torque	峰值扭矩 (N.m) Peak Torque Capacity	最高输入转速 (rpm) InputMaxSpeed	侧隙 (arcmin) Backlash	重量 (kg) Mass
50	290	510	910	2000	<=4	3.3
60	315	620	1100			
80	385	710	1360			
100	460	830	1580			
120	460	830	1630			
160	460	890	1880			
200	500	900	1880			



我公司可以根据客户的具体需求定制各种特型谐波传动装置，包括特殊尺寸，特殊结构，特殊速比都可以定制。如有需求，请和我们联系，我们的工程师团队将为您评估并设计。

Our company specializes in customizing various specialized harmonic drive units according to specific customer requirements, including special dimensions, unique structures, and customized ratios.

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