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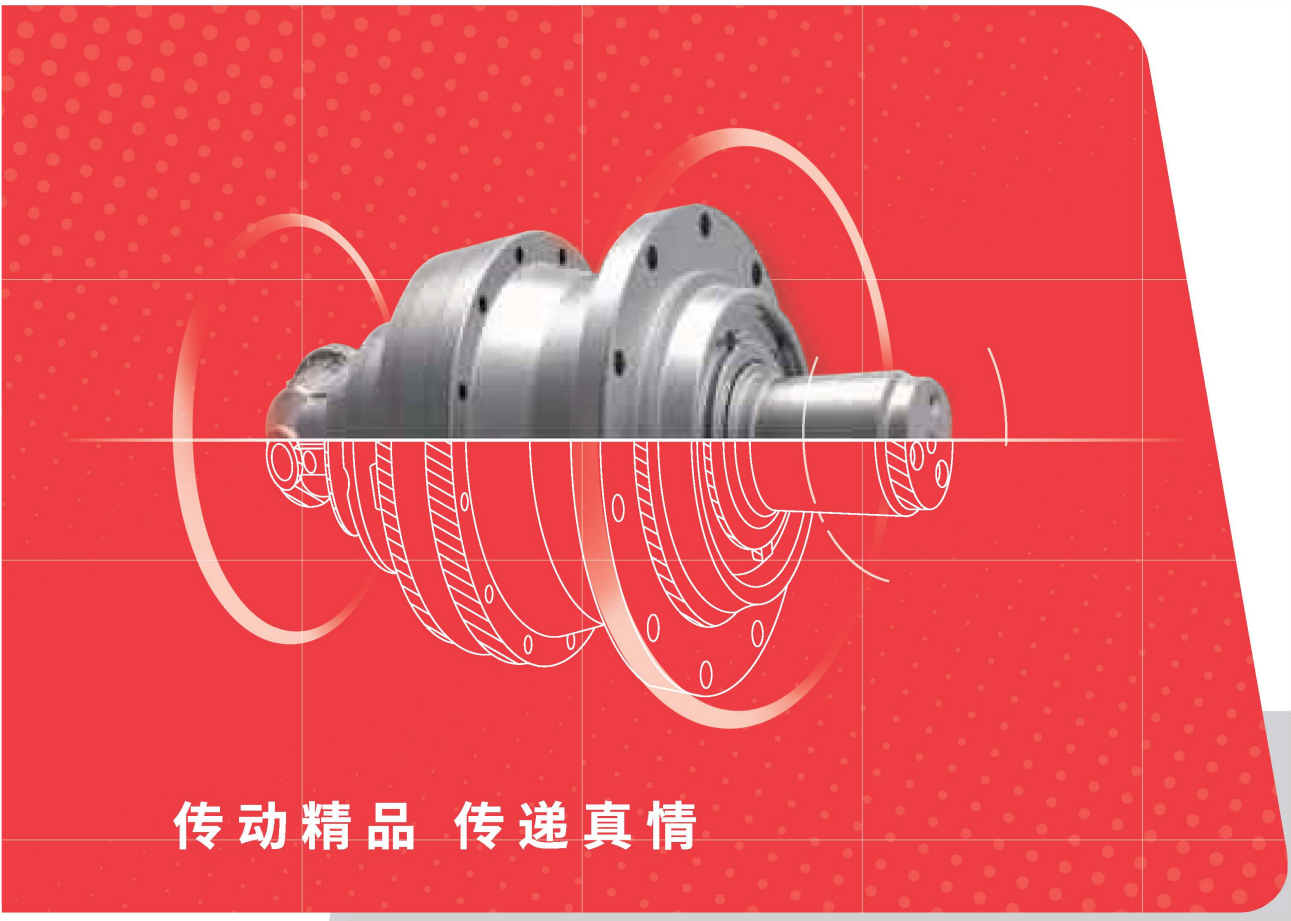

传动精品 传递真情

GTN系列 通用型驱动

GTN Series Planetary Gear Reducer

产品样本 NO.014
版　　本 V1.0-2021

GTN Series Planetary Gear Reducer

GTN系列 通用型驱动

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概述 GENERAL INFORMATION

GTN 系列模块化行星减速机 SERIES GTN MODULAR PLANETARY GEARBOXES

1.0 规格

GTN00 系列包含了一组多功能的行星减速机

主要特点：
· 18 种机座号　模块化设计
· 型式：
  - 同轴式 1 至 4 级减速
  - 直角轴式 2 至 4 级减速（第一级为螺旋伞齿轮）

· 法兰、地脚和轴装布局

· 平键输出轴、花键输出轴、花键空心轴、带收缩盘空心轴

· 输入连接方式：
  - IEC 标准电机
  - 机座号为 GTN07 以下的同轴式减速机可采用整体式电机

· 平行输入轴
· 减速电机
· 安装附件：
  - 法兰
  - 小齿轮
  - 花键轴
  - 收缩盘

1.0 SPECIFICATIONS

The GTN00 series consists of a range of multi-purpose planetary gearboxes.
Key features are:
· 18 frame sizes of modular design
· versions:
  - in-line with 1 to 4 reductions
  - right angle (spiral bevel gear set into first stage) with 2 to 4 reductions

· flange, foot and shaft mounting arrangements

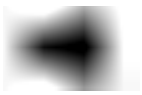
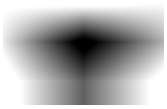
· keyedoutput shaft, splined male shaft, splined hollow shaft, hol-low shaft with shrink disc

· input adaptors for:
  - IEC-normalised electric motors
  - integral motor for in-line units up to size GTN07

· parallel input shafts
· gearmotors
· mounting accessories:
  - flanges
  - pinions
  - splined bars
  - shrink discs

2.0 结构形式

2.0 CONFIGURATIONS

结构形式 Configuration	功率 Power	转矩 Torque	减速比 Ratios	效率 Efficiency	噪音 Noise level
 同轴式 In line	0.25≤P_n [kW] ≤20	M_n≤520000Nm	3.4≤i≤290	高 High	中 Medium
 直角轴式 Right-angle	0.25≤P_n [kW] ≤7	M_n≤400000Nm	7≤i≤95	高 High	中 Medium

更多设计特征：

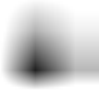
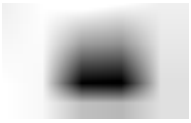
- 可选转矩种类繁多
- HS 和 HK 型中使用了重型圆锥滚子轴承，能够承受很高的悬臂载荷和径向载荷
- 高效率
- 内部零件使用花键连接而非平键连接
- 行星轮安装在自定心装置上，确保每个齿轮承受相同负载
- 球墨铸铁箱体

More design features:

- high torque density
- high overhung and axial load capacity due to heavy duty tapered roller bearings featured on H and P versions
- high efficiency
- inner parts are coupled through splined connections rather than keys
- planetary gears mounted onto self-centering carriers to ensure the most even load distribution among planetary gears
- housing from ductile cast iron.

3.0 符号及计量单位 3.0 SYMBOLS AND UNITS OF MEASURE

符号 Simb.		说明	Description
A_{c2}	[N]	减速机输出轴计算用轴向力	Calculated thrust load at gearbox output shaft
A_{r2}	[N]	减速机输出轴轴向力	Thrust load at gearbox output shaft
A_{n2}	[N]	减速机输出轴额定轴向力	Rated thrust load at gearbox output shaft
f_{a2}		轴向负载系数	Thrust load factor
f_L		寿命系数	Lifetime factor
f_m		调节系数	Adjusting factor
f_{n1},f_{n2}		输入和输出轴转速系数	Speed factor referred to input and output shaft loading
f_s		使用系数	Service factor
f_t		热功率系数	Thermal factor
f_{x1},f_{x2}		输入和输出轴上径向载荷位置系数	Load location factor for radial loading on input and output shaft
h	[N]	寿命小时数	Lifetime in hours
I		传动比，速比	Gear ratio
K_a		轴向载荷系数	Axial load duty factor
K_f		径向载荷系数	Radial load factor
I		循环周期系数	Intermittence factor
Mb	[Nm]	额定制动转矩	Rated brake torque
M_{c2}	[Nm]	计算用输出转矩	Calculated output torque
M_2		传送至输出轴的转矩	Torque delivered to output shaft
M_{n2}	[Nm]	减速机额定输出转矩	Gearbox rated output torque
M_{2max}	[Nm]	减速机最大输出转矩	Gearbox max. output torque
M_{r1}	[Nm]	输入轴所需转矩	Required torque at input shaft
M_{r2}	[Nm]	输出轴所需转矩	Required torque at output shaft
n_1	[min^{-1}]	输入轴转速	Speed of input shaft
n_2	[min^{-1}]	输出轴转速	Speed of output shaft
P_1	[kW]	最大输入功率	Max. power that can be applied to input shaft
P_2	[kW]	输出功率	Power delivered to output shaft
P_n	[kW]	电机额定功率	Motor rated power
P_1	[kW]	所需输入功率	Required input power
P_{r2}	[kW]	最大输出转速时的输出功率	Output power at n_2 max
P_s	[kW]	损耗功率	Power to be dissipated
P_t	[kW]	减速机热功率	Gearbox thermal capacity
R_{c1}	[N]	输入轴计算用径向载荷	Calculated radial load at gearbox input shaft
R_{c2}	[N]	输出轴计算用径向载荷	Calculated radial load at gearbox output shaft
R_{n1},R_{n2}	[N]	输入和输出轴中点额定径向载荷	Rated radial load at shaft mid-point, input and output
R_{x2}	[N]	轴中间点容许悬臂载荷	Admissible overhung load for forces applying off the shaft midpoint
S		安全系数	Safety factor
t_a	[℃]	环境温度	Ambient temperature
X	[mm]	悬臂载荷的作用距离	Load application distance from shaft shoulder
η_d		动态效率	Dynamic efficiency
Z		每小时启动次数	Starts per hour

	该符号表示重量	Icon symbolizes the weight.
	带该符号的栏表示安装图纸页可分类	Columns marked with this symbol indicate the page installation drawings can be sorted from.
	该符号表示提供所需信息的页码	This symbol identifies the page the information is available at.
	黑色区域表示输入部件	Areas marked in black show the input component parts.
	扳手下方的数字表示额定拧紧力矩	The number associated with the wrench indicates the rated tightening torque.
	同轴式减速机	In-line unit.
	直角轴式减速机	Right-angle unit.

4.0 输出转矩

4.1 减速电机传递的转矩 M_2[Nm]

指在理论寿命为 10000 小时、装机功率 Pn、安全系数 S 条件下减速机传递的有效输出转矩。该转矩值已考虑减速机效率。

4.2 定输出转矩 M_{n2} [Nm]

指减速机安全传递的转矩，条件为：

- 均匀负载，安全系数 S=1
- 理论寿命为 10000 小时

Mn2 值符合以下标准：

ISO DP 6336 齿轮标准

ISO 281 轴承标准

4.3 最大转矩 M_{2max} [Nm]

指减速机在静态条件或高起停运转条件下所能承受的输出转矩。通常是指峰值负载或启动负载。

4.4 实际所需转矩 M_{r2} [Nm]

所需转矩取决于应用场合的实际工况。拟选减速机的额定转矩 M_{n2} 必须大于这个转矩。

4.5 计算用转矩 M_{c2} [Nm]

计算用转矩会在选择减速机时被用到，可以由实际所需转矩 M_{r2} 和使用系数 f_S 按以下公式得出：

4.0 OUTPUT TORQUE

4.1 Gearmotor delivered torque M_2[Nm]

This is the net torque delivered to the output shaft, with in-stalled power Pn, safety factor S, which will yield a theoretical lifetime of 10000hours.This torque value takes gearbox efficiency into consideration.

4.2 Rated output torque M_{n2}[Nm]

This is the torque output the gearbox can deliver safely, based on:

- uniform loading and safety factor S=1
- 10000 hours theoretical lifetime Mn2 values are in compliance with following standards:

ISO DP 6336 for gears

ISO 281 for bearings.

4.3 Maximum torque M_{2max}[Nm]

The output torque the gear unit will withstand in a static condition or a highly intermittent operation.It is generally meant as a momentary peak load or starting-up torque under load.

4.4 Required torque M_{r2}[Nm]

The torque drawn by the application.

It must always be equal to or less than rated output torque M_{n2} for the gearbox under study.

4.5 Calculated torque M_{c2}[Nm]

Computational torque value to be used when selecting the gearbox,

considering required torque M_{r2} and service factor f_S

It is obtained through the equation:

$$M_{c2} = M_{r2} \times f_s \leq M_{n2} \quad (1)$$

5.0 功率

5.1 额定输入功率 Pn1[KW]

P_{n1} 是指减速机可使用的最大安全输入功率：

- 输入转速为 n1
- 安全系数 S=1
- 理论寿命为 10000 小时

5.0 POWER

5.1 Rated input power P_{n1}[kW]

P_{n1} is the maximum power that can be safely applied to the gearbox when the same is operated:

- at a n1 drive speed
- under a safety factor S=1
- yielding a theoretical lifetime of 10000 hours.

5.2 输出功率 P2[kW]

输出功率是指传递到输出轴的有效功率。

可按以下公式得出：

5.2 Output power P_2 [kW]

This value is the net power de-livered to the output shaft.

It can be calculated through the following formulas:

$$P_2 = P_1 \times \eta_d \quad (2)$$

$$\quad (3)$$

A3 表格中列出了效率值。

Efficiency values are listed in table (A3).

6.0 热功率 P_t [kW]

该参数与减速机发热限值相关。

具体数值在减速机额定值表中列出。该参数表示在输入转速 n_1、环境温度为 20℃、润滑剂温度不超过 85-90℃、减速机温度不超过75-80℃且不带附加冷却系统的条件下，减速机能持续传递的功率。

在工作时间较短和长时间停止的工况中，如果减速机的温度在停止时间内能完全冷却，则热功率将不再有意义，在计算时可忽略不计。如果环境温不是 20℃和 / 或间歇工作时，热功率 Pt 应根据表（A1）中的热功率系数 ft 进行调整。

确保总是满足以下条件：

6.0 THERMAL CAPACITY P_t [kW]

This parameter is linked to the gearbox thermal limit. Values for the thermal capacity are listed within the rating charts of gearboxes and gearmotors and represent the mechanical power that can be transmitted continuously at an input speed n_1 and at an ambient temperature of 20°C, without the lubricant exceeding the temperature of 85-90°C and the gear case the temperature of 75-80°C, without the use a supplementary cooling system.

When the duty cycle is formed by short operating periods and rest time is long enough for the unit to cool down, the thermal capacity is hardly significant and it may be omitted from calculation. Should the ambient temperature be different from 20°C and/or duty be intermittent, the thermal capacity P_t is to be adjusted through thermal factor f_t as listed in table (A1).

Finally, make sure that the following condition is always satisfied:

$$P_{r1} \leq P_t \times f_t \quad (4)$$

（A1）

f_t					
t_a [℃]	连续工作制 Continuous duty	间歇工作制 Intermittent duty 循环持续系数 Cyclic duration factor			
		80%	60%	40%	20%
10	1.2	1.3	1.6	1.8	2.0
20	1.0	1.1	1.3	1.5	1.7
30	0.9	1.0	1.2	1.3	1.5
40	0.7	0.8	0.9	1.0	1.2
50	0.5	0.6	0.7	0.8	0.9

循环持续时间系数是指处于工作负荷下的工作时间t_f 与周期时间（t_f+t_r，其中 t_r表示停止时间 ）的比，并以百分数表示。

Cyclic duration factor is the relationship of operating time under load tf to total cycle time ($t_f + t_r$, where t_r stands for time at rest), expressed as a percentage.

$$I = \frac{t_f}{t_f + t_r} \times 100 \qquad (5)$$

如果常规配置中减速机的热功率不足且不能满足（4 ）中的条件，推荐使用带冷却风扇的输入轴-订购代码 SV--。相关热功率在以下表格中列出。

Should the gear unit in the conventional configuration fall short of thermal capacity and not verify the condition (4) above, it is recommended that the fan cooled input shaft-ordering code FV_ _ is specified instead. The relevant thermal capacity is listed in the charts here after.

(A2)

Thermal capacity 热功率 Pt [kW] @ n_1= 1450 rpm							
		SV05B	SV06B	SV07A	SV07B	SV010B	SV011B
GTN03	L1	29	-	-	-	-	-
GTN04	L1	30	-	-	-	-	-
GTN05	L1	31	-	-	-	-	-
GTN06	L1	-	45	-	-	-	-
	L2	31	-	-	-	-	-
GTN07	L1	-	-	49	49	-	-
	L2	36	-	-	-	-	-
GTN09	L1	-	-	52	52	-	-
	L2	36	-	-	-	-	-
GTN10	L1	-	-	-	-	62	-
	L2	-	49	-	-	-	-
	L3	36	-	-	-	-	-
GTN11	L1	-	-	-	-	-	62(*)
	L2	-	-	53	53	-	-
	L3	36	-	-	-	-	-
GTN13	L1	-	-	-	-	-	-
	L2	-	-	57	57	-	-
	L3	36	-	-	-	-	-
GTN14	L2	-	-	-	-	67	-
	L3	-	52	-	-	-	-
	L4	33	-	-	-	-	-
GTN15	L2	-	-	-	-	-	72(*)
	L3	-	-	57	57	-	-
	L4	36	-	-	-	-	-
GTN16	L2	-	-	-	-	-	72(*)
	L3	-	-	57	57	-	-
	L4	36	-	-	-	-	-
GTN17	L2	-	-	-	-	-	77(*)
	L3	-	-	62	62	-	-
	L4	36	-	-	-	-	-
GTN18	L3	-	-	-	-	-	62(*)
	L4	-	-	45	45	-	-
GTN19	L3	-	-	-	-	-	77(*)
	L4	-	-	57	57	-	-
GTN21	L3	-	-	-	-	-	87(*)
	L4	-	-	62	62	-	-

Thermal capacity 热功率 Pt [kW] @ n_1= 1450 rpm			
		SV05B	SV06B
GTN07	R2	52	-
GTN09	R2	52	-
GTN10	R2 (B)	-	82
	R2 (C)	-	82
GTN11	R2 (B) ;	-	102
	R2 (C)	-	117
	R3	58	-
GTN13	R2 (B)	-	102
	R2(C)	-	117
	R3	58	-
GTN14	R3 (B)	-	82
	R3(C)	-	82
	R4	38	-
GTN15	R3 (B)	-	102
	R3 (C)	-	117
	R4	58	-
GTN16	R3 (B)	-	102
	R3 (C)	-	117
	R4	63	-
GTN17	R3 (B)	-	117
	R3 (C)	-	127
	R4	68	-
GTN18	R4 (B)	-	108
	R4 (C)	-	137
GTN19	R4 (B)	-	122
	R4 (C)	-	142
GTN21	R4 (B)	-	132
	R4 (C)	-	152

*@n_1=1150 rpm

7.0 效率

7.1 动态效率

该参数是指传送至输出轴的有效功率 P_2 和输入轴的功率 P_1 之间的比：

$$\eta_d = \frac{P_2}{P_1} \quad (6)$$

具体效率值如下表所示。

（A3）

减速级数 No. of reductions	结构形式 Configuration	
	行星结构 Planetary	直角式减速机组合 Combined with right-angle unit
1	0.97	—
2	0.94	—
3	0.91	0.91
4	0.88	—

8.0 传动比« i »

传动比是指输入轴转速与输出轴转速的比值

$$i = \frac{n_1}{n_2} \quad (7)$$

9.0 工作转速

9.1 输入转速 n_1 [min^{-1}]

减速机驱动速度。

如果减速机与电机直接相连，则转速值与电机转速相等。

如果减速机由外部传动装置驱动，输入转速为电机转速经外部驱动装置的减速后的转速。在这种情况下，输入转速应低于1400转每分钟。

输入转速不得超过减速机额定值表中规定的数值。

9.2 输出转速 n_2 [min^{-1}]

输出转速通过输入转速 $\mathbf{n_1}$ 和传动比 **i** 按照下列公式计算得出：

[illegible] (8)

7.0 EFFICIENCY

7.1 Dynamic efficiency [η_d]

The parameter is defined as the relationship of the net power delivered to the output shaft P_2 to the power applied to the input shaft P_1:

Indicative values for the efficiency are listed in the chart here after.

8.0 GEAR RATIO « i »

It is defined as the relationship of the speed the input shaft is driven at and the speed delivered at the output shaft of a gearbox.

9.0 OPERATING SPEED

9.1 Input speed n_1 [min^{-1}]

The speed the gearbox is driven at.

The value is coincident with the motor speed if this is directly connected to the gearbox.

In case the gearbox is driven through an external transmission, the gearbox input speed is the speed of the motor divided by the reduction of the external transmission.

In this case, it is recommended that the input speed be lower than 1400 min^{-1}.

Input speed should never exceed the value listed in the gearbox rating chart.

9.2 Output speed n_2 [min^{-1}]

It is calculated from drive speed n_1 and gear ratio i, as per the following equation:

10.0 使用系数 [f_S]

表示应用强度特性的参数。尽管是近似计算，该系数考虑到了减速机负载类型、工作制和每日工作时间。
可参照表格（A4）选取合适的使用系数。

10.0 SERVICE FACTOR [f_S]

A parameter representing the severity of the application. This factor takes into account, although approximately, the type of load the gearbox operates with, the specific duty as well as the operating daily hours.
The table (A4) is of reference when determining the appropriate service factor.

(A4)

使用系数《f_S》 Service factor						
负载类型 Type of load	每小时启动次数 Number of starts/hour Z	总运行时间 Total operating hours(h)				
		≤5000	10000	15000	25000	50000
		每日运行时间 Daily operating hours(h)				
		h<4	4<h<8	8<h<12	12<h<16	16<h<24
均匀负载 Uniform load	Z<10	0.90	1.00	1.15	1.30	1.60
	10<Z<30	0.95	1.15	1.30	1.50	1.80
	30<Z<100	1.00	1.25	1.45	1.60	2.00
中等负载 Moderate shock load	Z<10	1.00	1.25	1.45	1.60	2.00
	10<Z<30	1.10	1.40	1.60	1.80	2.20
	30<Z<100	1.20	1.50	1.70	2.00	2.40
重负载 Heavy shock load	Z<10	1.20	1.50	1.70	2.00	2.40
	10<Z<30	1.30	1.60	1.80	2.10	2.60
	30<Z<100	1.40	1.75	2.00	2.30	2.80

11.0 安全系数 [S]

安全系数等于减速机额定功率与电机实际功率的比值

11.0 SAFETY FACTOR [S]

This is the relationship of the gear unit rated power to the power of the electric motor actually driving the unit.

$$S = \frac{P_{n1}}{P_1} \quad (9)$$

12.0 选型

表格（A5）中列出了选择减速机或减速电机时所需的主要参数。
表格正确填写后可发送至我们的技术服务部，从而帮助客户根据特定
应用选择最合适的传动产品。

12.0 PRODUCT SELECTION

The key parameters that are necessary when selecting gearbox, or a gearmotor, are listed in table (A5).
The form, duly filled in, can be forwarded to our Technical Service which will assist the Customer in selecting the most suitable drive for the specific application.

（A5）

应用类型　Type of application

减速机 GEARBOX

P_{r2}	所需输出功率 Required output power	.....kW
M_{r2}	所需输出转矩 Required output torque	.....Nm
n_2	输出转速 Output speed	.....min^{-1}
n_1	输入转速 Input speed	.....min^{-1}
R_2	输出轴径向载荷 Radial load on output shaft	..... N
X_2	载荷作用点距离 Load application distance	.....mm（*）
R_1	输入轴径向载荷 Radial load on input shaft	.....N
X_1	载荷作用点距离 Load application distance	.....mm（*）
A_2	输出轴轴向载荷 Thrust load on output shaft	.....N（·）
A_1	输入轴轴向载荷 Thrust load on input shaft	.....N（·）
h	要求使用寿命 Requested life time	.....h
t_a	环境温度 Ambient temperature	.....℃

电机 ELECTRIC MOTOR

	IEC 规格 IEC size	.....
P_n	额定功率 Rated power	.....kW
	电机电压 Motor voltage	V
	极数 Number of poles	.....kW
	频率 Frequency	.....Hz
	IEC 电机工作制类型 Duty type to IEC norms	S..../.....%
Z	每小时起动数 Starts per hour	..... 1/h
	电机保护等级 Motor protection degree	IP.....
	绝缘等级 Insulation class	.....

电机内置制动器（如安装）
MOTOR IN-BUILT BRAKE (IF FITTED)

	制动电压 Brake voltage	V
M_b	制动转矩 Brake torque	.....Nm

类型　Type　□ 同轴式 In line □ 直角轴式 Right angle

输出型式 Output version	.....
附件 Accessories	.....
安装位置 Mounting position	.....

N.B：Table（A4）
（*）Dimension X_{1-2} is the distance between the point the force applies and the shaft shoulder(if not specified a force applying at mid-point of the shaft will be assumed).

（*）+=push
　　−=pull

注意：表格(A4)
（*）尺寸 X_{1-2} 为受力点和轴肩之间的距离
（如未规定，则假设为中点受力）.

（*）+=压
　　−=拉

注意：
本目录中所列的选择标准和规格并不适用于所有应用，其中包括那些减速机必须能够安全运行以避免对人员或物体造成伤害的工况，如起重设备中。
在这些应用中，减速机应根据适用的安全规范和特定标准进行选择。

NOTE:
The selection criteria and specifications reported in this catalogue are not valid for every and each application, including those where the gearbox operates as a safety device preventing in- jury to persons or damage to objects, as is the case with hoisting equipment.
For these applications, the gearbox should be selected according to specific criteria and in compliance with the applicable safety regulations.

12.1 减速电机选型
需事先考虑并确定应用参数：
a) 根据负载类型、每小时启动次数和预期使用寿命（表格 A4）确定使用系数 f_S；

12.1 Selecting a gearmotor
Consider the specific application and establish on beforehand:
a) service factor fs according to type of load, number of starts per hour and expected lifetime (tab. A4.);

b) 所需功率

b) Required drive power:

$$P_{r1} = \frac{M_{r2} \times n_2}{9550 \times \eta_d} \quad (10)$$

表格（A3）列出了不同型号减速机的效率值η_d

Table (A3) lists the indicative values of efficiency η_d for the different types of gearboxes.

c) 得出所需功率 $\mathbf{P_{r1}}$ 和输出转速 $\mathbf{n_2}$后，查阅齿轮减速机额定值表，
选择合适的额定功率满足 $\mathbf{P_n}$ 大于或等于 $\mathbf{P_{r1}}$：

c) After required power P_{r1} and output speed n_2 are known, locate the gearmotor rating charts and select the one relevant to normalized power P_n equal to or greater than Pr:

$$P_n \geq P_{r1} \quad (11)$$

除非另有说明，否则电机额定值表中所列的功率 P_n 为连续工作制 S1时的电机功率。
对于非连续工作制S1条件下使用的电机，根据 CEI2-3/IEC 60034-1标准确定所需的负载类型。
对于从S2到S8的工作制，特别是对于机座号不超过132的电机，能获得相对于连续工作制的情况时更大的功率。
相应地必须满足下列条件:

Unless otherwise specified, power P_n listed in the motor rating chart refers to continuous duty S1.
For motors operating in conditions other than S1, determine type of duty according to CEI2-3/IEC 60034-1 standards.
Note that for duty cycles from S2 to S8 and motor frame sizes up to 132 included, power may be upgraded over that specified for continuous duty.
In this event, the condition to be verified is the following:

$$P_n = \frac{P_{r1}}{f_m} \quad (12)$$

整系数 f_m 能从表格（A6）中查到。

The adjusting factor f_m can be obtained from table (A6).

（A6）

	工作制 DUTY CYCLE						
	S2			S3*			S4-S8
	循环周期 Cycle time			循环周期系数 Cyclic duration rate I			请与我们联系 Contact us
	10	30	60	25%	40%	60%	
f_m	1.35	1.15	1.05	1.25	1.15	1.1	

*循环周期必须小于等于1 0 分钟。否则，请与我们的技术服务部进行联系。

* Cycle time must be equal to or less than 10 minutes. Should this not be the case contact our Technical Service for assistance.

循环周期系数：见表（A5）

Cyclic duration rate: see formula (5).

根据输出转速n_2或接近的转速，选择合适的减速电机使安全系数S
满足以下条件：

For the output speed n_2, or closest to, select the gearmotor that yields a safety factor S meeting the following condition:

$$S \geq f_s \quad (13)$$

在GTN00 至GTN07的LP配置的单级减速机与大型、沉重的电机组合时可能导致减速机理论寿命下降。

The combination of large, heavy weight, motors with single reduction units of sizes GTN00 to GTN07 in the FP configuration, may result into a reduced theoretical lifetime for the gearbox.

12.2 减速机选型
检查具体应用并确定：

12.2 Selecting a gearbox Examine the application and establish:

a) 根据负载类型、每小时启动次数和所需使用寿命（表格 A4）确定使用系数f_S
b) 根据所需输出转矩M_{r2}按照以下公式得出计算用转矩：

a) Service factor fs according to type of load, number of starts per hour and required lifetime(tab. A4);
b) Determine calculated torque according to required output torque M_{r2} as follows:

$$M_{c2} = M_{c2} \times f_s \quad (14)$$

c) 根据所需的输出转速 n_2 和输入转速 n_1 确定传动比：

c) Determine gear ratio from

$$i = \frac{n_1}{n_2} \quad (15)$$

d) 确定了输出转矩 M_{c2}和传动比i后，根据输入转速n_1查找减速机额定值表，选择最接近的传动比以及满足以下条件的减速机机座号：

d) Once M_{c2} and i are determined, locate the gearbox rating chart for the drive speed n_1 and select a gearbox featuring the ratio i nearest to calculated ratio that also satisfies the condition:

$$M_{n2} \geq M_{c2} \quad (16)$$

如果减速机要配套 IEC 标准电机，必须检查电机接口是否可用。

If a IEC normalised motor is to be fitted onto the gearbox, check availability of the applicable adapter.

13.0 校核

a) 热功率
确保减速机热功率大于或等于应用的机械功率，见第9页中公式（4）。如果不能满足，应选择较大的减速机或增加一个辅助冷却系统。

b) 最大转矩
确保瞬时峰值转矩和带载启动转矩不超过减速机的额定最大转矩 M_{2max}（见表 A7）

13.0 After the drive unit has been selected check the following:

a)Thermal capacity
Make sure that the thermal capacity of the gearbox is equal to or greater than the mechanical power required by the application, as per equation (4) at page 9. If this is not the case provide a supplementary cooling system (see chap. 29) or select a larger gearbox.

b) Maximum torque
Make sure that neither the momentary peak torque nor the starting torque under load ever exceed the M_{2max} value that the gearbox is rated for (see tab. A7).

（A7）

减速机 Gearbox	M_{2max} [Nm]		减速机 Gearbox	M_{2max} [Nm]
GTN00	1200		GTN11	54000
GTN01	2400		GTN13	66000
GTN03	3500		GTN14	100000
GTN04	4800		GTN15	126000
GTN05	7000		GTN16	162000
GTN06	12000		GTN17	216000
GTN07	18000		GTN18	300000
GTN09	27000		GTN19	420000
GTN10	36000		GTN21	650000

c) 悬臂载荷
检查所选配置并确定：
输入轴和 / 或输出轴上的悬臂载荷可通过下列公式求出：

c) Overhung load
Examine the application and establish:
-overhung load applying to input and/or output shaft through the following formula:

$$R_{r1-2} = \frac{2000 \times M_{r1-2} \times K_r}{d} \quad (17)$$

R_{C1-2} 悬臂载荷
1= 表示输入轴
2= 表示输出轴
M_{r1-2} 轴上的转矩（Nm）
d P.C.D（mm）传动部件分度圆直径（链轮、齿轮、带轮等）
Kr=1 链条传动
Kr=1,25 齿轮传动
Kr=1,5-2,5 V形传动

R_{C1-2} overhung load (N)
1= for input shaft
2= for output shaft
M_{r1-2} Torque at the shaft (Nm)
d P.C.D (mm) of transmission element (sprocket, gear, pulley, etc.)
Kr=1 chain transmission
Kr=1,25 gear transmission
Kr=1,5-2,5 V-belt transmission

- 如需延长使用寿命，在表（A8）中选择寿命系数f_L

- for extended lifetime requirements, look up lifetime factor f_L in table (A8).

（A8）

使用寿命 Lifetime	2500h	5000h	10000h	15000h	25000h	50000h	100000h
f_L	0.66	0.81	1.00	1.13	1.32	1.62	2.00

c_1）输出轴
- 对于作用在轴中点的负载，确保满足以下条件:

c_1) output shaft
- for loads applying at shaft mid-point, check that the following condition is verified:

$$R_{n2} \geq R_{c2} \times f_L \quad (18)$$

其中R_{n2}是指轴中点的许用载荷，在额定值表中列出。

where R_{n2} is the permitted load at shaft mid-point, as listed in the rating charts.

- 如作用点不位于轴中点上，除LSH型式外，确定偏移距离X并在相关图表中查找调整系数f_{x2}（参照显示各减速机外形图的页码）

- Should the point of application not be located at shaft mid-point - with the exception of version LSH establish the offset value x and find the adjusting factor f_{x2} in the relevant diagram (following the pages showing the installation drawing of gearbox under study).
The following condition must be verified:

$$R_{x2} = R_{n2} \times f_{c2} \geq R_{c2} \times f_L \quad (19)$$

- VK输出
确定：
- 径向载荷R_{C2}
- 轴向载荷A_{C2}
- 载荷R_{C2}的偏移距离X

- VK output
Determine:
- Radial load R_{c2}
- Thrust load A_{c2}
- Offsetx of load R_{c2}

查询相应减速机的图表，根据相应的距离X和最接近A_{C2}/R_{C2}比值的A_{n2}/R_{n2}比值确保以下等式成立：

Look up the diagram relevant to the gearbox under study and identify permitted radial load R_{x2} corresponding to distance X and the ratio A_{n2}/R_{n2} nearest to value A_{c2}/R_{c2}.
Make sure the following equation is verified:

$$R_{x2} \geq R_{c2} \quad (20)$$

图表中的数值是指：
- n_2=10转/分钟
- 10000小时理论使用寿命
对于不同输出转速n_2和预期使用寿命，需考虑：
- 表格（A9）中所示的速度系数f_{n2}：

Values in the diagram refer to:
- n_2 = 10 rpm
- 10000 hrs theoretical lifetime
For different output speed n_2, or lifetime expectancy, consider:
- a speed factor f_{n2} as per table (A9):

（A9）

n_2	1	2.5	5	10	15	25	50	100
f_{n2}	2.0	1.51	1.23	1.00	0.88	0.76	0.62	0.50

- 表（A8）中所示的使用寿命系数f_L。
必须满足以下条件：

- a lifetime factor f_L according to table (A8).
This condition must be verified:

$$R_{a2} \times f_{n2} \geq R_{c2} \times f_L \quad (21)$$

c2）输入轴
根据公式（17）计算所得的载荷值R_{c1}，确定轴向偏移距离X并在特定减速机载荷表中找出许用载荷R_{n1}.
必须满足以下条件：

c2) input shaft
Based on the load value R_{c1} calculated through formula (17), determine point of load application over shaft length x and locate permitted load R_{n1} in the load diagram relevant to the specific gearbox.
The following condition must be verified:

$$R_{n1} \geq R_{c1} \quad (22)$$

图表中的数值适用于：
- 输入转速n_1=1000转/分钟
- 1000小时理论使用寿命

Values listed in the diagram apply for:
- drive speed n_1 = 1000 rpm
- 10000 hrs theoretical lifetime

对于不同的输入转速和预期的使用寿命，需考虑：
表（A10）中所示的调节系数f_{n1}：

For different input speed, or life expectancy, consider:
The adjusting factor fn1 as per table (A10) here below:

（A10）

n_2	500	750	900	1200	1500	1800
f_{n1}	1.23	1.09	1.03	0.95	0.89	0.84

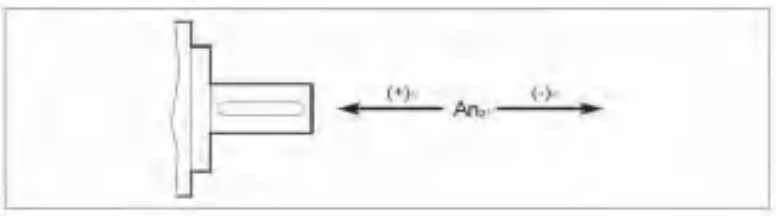
-表（A8）所示的使用寿命系数f_L
必须满足以下条件：

-a lifetime factor f_L as per table (A8).
The following condition must be verified:

$$R_{n1} \times f_{n1} \geq R_{c1} \times f_L \quad (23)$$

d） 轴向载荷
计算轴上所承受的轴向载荷A_{C2}的大小和方向。对于拟选减速机，根据输出类型和轴向载荷方向来确定调整系数f_{a2}，通常使用符号（+）和(-）表示，
如下图所示：

d) Thrust loads
Calculate value and direction of thrust A_{C2} that applies axially onto the shaft. For the gearbox under study locate the adjusting factor f_{a2} corresponding to the type of out-put and the direction the thrust load applies, with the signs (+) and (-)conventionally applied as follows:



根据R_{n2}和f_{a2}确定许用轴向载荷A_{n2}：

From R_{n2} and f_{a2} determine the value of admissible thrust load A_{n2}:

$$An_2 = Rn_2 \times fa_2 \quad (24)$$

从表（A8）中选择与轴承预期理论寿命相应的调整系数f_L

From chart (A8) select the adjusting factor f_L corresponding to the theoretical lifetime of bearings that is to be expected.

根据可用负载类型在下表中找出轴向负载系数 K_a：

From chart below locate the axial load duty factor K_a depending on the type of loading that is applicable:

	负载类型 Type of duty		
	均匀负载 Uniform	中等负载 Moderate shock	重负载 Heavy shock
K_a	1.0	1.25	1.5

确定所有系数后，确保满足以下条件：

With all factors so determined verify that the following condition is satisfied:

$$Ac_2 \times f_L \times K_a \leq An_2 \quad (25)$$

如果同时承受径向载荷和轴向载荷，请与国茂技术服务部联系。

If radial and axial loads apply simultaneously, please consult GUOMAO Technical Service.

14.0 选择电机

a) 根据以下公式计算减速机所需的输入功率。须提前确定以下参数：
- 所需转矩 M_{r2}
- 输出转速 n_2
- 效率η_d

14.0 SELECTING THE MOTOR

a) Through the formula here after calculate the power required to gearbox input shaft. The following parameters must be determined on beforehand:
- required torque M_{r2}
- output speed n_2
- efficiency η_d

$$P_{r1} = \frac{M_{r2} \times n_2}{9550 \times \eta_d} \quad (26)$$

表（A3）列出了不同型号减速机的效率η_d

Table (A3) lists the efficiency values η_d for the various types of gearboxes.

b) 根据以下条件，在电机选型表中选择合适的电机：

b) In the electric motor section select a motor that is sufficiently rated, as per the following condition:

$$Pn \geq P_{r1} \quad (27)$$

对于非连续工作制S1条件下使用的电机，电机额定值可使用系数f_m进行调整，见表（A6）。

优先选择四极电机或较低转速的电机。

For duties other than continuous S1 the motor rating can be upgraded through the factor f_m, listed in table (A6).
4-Pole motors, or lower speed motors, should be preferred.

15.0 安装

为保证减速机正确可靠运行，需要遵守几条安装准则。
此处所列准则可用作减速机选型指南。
遵循我们销售部门提供的减速机安装、使用和维护手册，就能正确、有效地进行安装。
以下是安装准则的简要描述：

15.0 INSTALLATION

Observing a few rules for correct installation is essential to the reliable and proper operation of the gearbox.
The rules set out here are intended as a preliminary guide to selecting gearbox.
For effective and proper installation, follow the instructions given in the Installation, use and maintenance manual available from our Sales network.
Following is a brief outline of installation rules:

a) 固定：
- 将减速机安放在一个足够坚硬的表面上，结合面应经过机加工且保持平坦。

- 对法兰安装的带花键空心输出轴的减速机尤其重要。

- 在输出端有较大径向载荷的应用中，建议使用法兰安装，因为这种安装方式能在减速机上实现双导径。

- 确保减速机适合于所需的安装位置。

- 使用8.8或更高等级的螺栓固定减速机。拧紧螺栓至相应图表中规定的额定值。
  当传送的转矩大于或等于给定M2max 值的70%并频繁换向时，使用等级高于10.9 的螺栓。
  部分减速机可以使用螺栓和销进行固定。如果使用了销，插入减速机的长度至少为直径的1.5倍。

a) Fastening:
- Place the gearbox on a surface providing adequate rigidity. Mating surfaces should be machined and flat.

- This applies especially to flange-mounted gearboxes with splined hollow output shafts.

- In applications that involve high radial loads at the output end, flange mounting is recommended for some gearboxes as this mounting pattern benefits from the double pilot diameters provided on these gearboxes.

- Make sure the gearbox is suitable for the required mounting position.

- Use bolts of grade 8.8 or greater to secure the gearbox. Tighten the bolts to the rated values specified in the relevant charts.
  With transmitted torque greater than or equal to 70%of the given M_{2max}, and with frequent reversals, use bolts with minimum grade 10.9.
  Some gearboxes can be fastened using both bolts and pins. If a pin is used, the portion of the pin inserted into the structure the gearbox is being installed to should be at least 1.5 times its diameter.

b) 连接
- 装配传动装置零件至减速机上时，禁止使用铁锤或类似工具进行敲打。压入零件时，可使用维护螺钉和轴端螺纹。装配前务必清除轴上的油脂或防锈剂。

b) Connections
- When fitting transmission elements onto the gearbox do not tap them with hammers or similar tools. To slide these parts in, use the service screws and taps provided at the shaft ends. Be sure to clean off any grease or rust preventative from the shafts before fitting any parts.

- 旋转方向
电机接线前请注意输入/输出轴的布局，如下图所示：

- Direction of rotation
Before wiring the motor please note the input/output shaft arrangement, as described in the diagram here after:

（A11）

同轴式
In line

直角轴式
Right angle

c) 油漆
- 使用和减速机底漆---致的油漆，请参照:供货条件。
在油漆之前，保护好装在轴上的密封件。
与溶剂接触会损坏密封件并导致漏油。

c) Paint coating
- Use paint compatible with the primer applied to the gearbox, see: Supply conditions.
Prior to painting, tape the seal rings installed on the shafts.
Contact with the solvent may deteriorate the seals with subsequent oil leakage.

d) 润滑
- 调试前，在减速机中装入指定型号和数量的润滑油（参照：润滑）。
可通过合适的油位塞或观察孔检测油位，每个减速机都装有观察孔，位置与安装方式相关。

d) Lubrication
- Prior to commissioning, fill the gearbox with the recommended type and quantity of oil (see: Lubrication).
The level is to be checked through the appropriate plug, or sight glass, each gearbox is provided with, and located according to the mounting position originally specified.

注意：组合式减速机为行星减速机 提供独立的 润滑。

NOTE: Combined gearboxes feature separate lubrication for planetary stages

终身润滑减速机在工厂里预装了合成油（参照表A27），用户不必注油。

The operations described above are not to be performed with life-lubed gearboxes, that are factory filled with synthetic oil (see tab. A27)

16.0 - 维护

初次运行50 小时后需要检查安装螺栓是否松动。

运行100-150 小时后必须进行首次换油。
随后每运行2000-3000 小时更换一次润滑油，具体取决于应用情况。也可以选择一年更换一次。

然而，必须每隔一段时期检察油面并按规定注油。

间歇工作制条件下应每月检查设备，连续工作制条件下需经常检查。

16.0 - MAINTENANCE

Check the tightness of mounting bolts after the initial 50 hours of operation.
Change the oil first after 100-150 hours operation.
Subsequently, change the oil every 2000 - 3000 hours operation, depending on the application. Alternatively change oil once a year.
However, oil level should be checked at regular intervals and topped up as required.
Check monthly if unit operates under intermittent duty, more frequently if duty is continuous.

17.0 – 存放

遵循以下说明正确存放产品：

a) 不要存放在户外露天或过于潮湿的地方。

b) 始终在设备和地板之间垫有木板、木材或其他材料。减速机不得与地板直接接触。

c) 对于存放时间超过60天的减速机，所有加工面如法兰、轴和联轴器必须涂刷防锈产品（Mobilarma248或等效产品）。

d) 当减速机存放时间可能超过6个月时，必须采取以下额外措施：

- 所有加工部件需涂上油脂防止生锈。

- 放置减速机时必须使透气塞处于顶部并注满润滑油（不适用于终身润滑减速机）。减速机投入运转前，重新注入适当数量和型号的润滑油（表A26）。

17.0 - STORAGE

Observe the following instructions to ensure correct storage of the products:

a) Do not store outdoors, in areas exposed to weather or with excessive humidity.

b) Always place boards, wood, or other material between the products and the floor.
The gearbox should not have direct contact with the floor.

c) For storage periods of over 60 days, all machined surfaces such as flanges, shafts and couplings must be protected with a suitable anti-oxidation product (Mobi-larma 248 or equivalent product).

d) When units are expected to be in storage for more than 6 months, the following extra measures are required:

- Smear all machined parts with grease to prevent oxidation.

- Place the gearbox so that the breather plug is upper most and fill it with oil (this does not apply to life-lubricated gearboxes). Before the gearbox is put into operation, the appropriate type and quantity of oil should be restored (tab. A26).

18.0 – 供货条件

减速机通常按以下标准进行供货：

a) 安装方式符合订单要求；

b) 无润滑油的内部零件受到测试时用的润滑油膜的保护（型号SHELL ENSIS OIL N）

c) 安装表面不涂漆。

d) 根据出厂规范进行测试；

e) 适当包装；

f) 提供 IEC 电机安装配件；

g) 需终身润滑的减速机在制造厂内加注润滑油。

18.0 - SUPPLY CONDITIONS

Gearboxes are generally supplied as follows:

a) arranged for installation in the mounting position specified in the purchase order;

b) Unlubricated. Inner parts are protected by a film of the oil used for testing purpose (type SHELL ENSIS OIL N);

c) Mounting surfaces are not paint coated.

d) tested to factory specifications;

e) suitably packed;

f) complete with mounting hardware for IEC electric motors;

g) gearboxes lubricated "for life" are factory filled with oil.

19.0 - GTN00 系列减速机命名说明

19.0 - GTN00 GEARBOX DESIGNATION

GTN 11 L 2 16.7 HS

输出型式 OUTPUT VERSION

LS 花键实心轴输出
Splined male shaft

LK

HS 重型花键实心轴输出
Heavy duty splined male shaft

HK

MS 地脚安装式花键轴输出
Foot base with splined shaft

MK

LSH 花键空心轴输出
Hollow splined shaft

LP 配收缩盘空心轴输出
Hollow shaft for shrink disc

速比 GEAR RATIO

填写选型表中的选定的传动比（包括小数点和小数）
Fill in the value of the transm. ratio (including point and decimals) reported in the selection charts)
如/Ex. : 1/5.33 = 5.33 1/44.6 = 44.6 1/131 = 131

传动级数
REDUCTIONS

1, 2, 3, 4

设计型式 DESIGN

同轴式 L = In line

直角轴式 **R**= Right angle

减速机机座号 GEARBOX FRAME SIZE

00	**05**	**10**	**15**	**19**
01	**06**	**11**	**16**	**21**
03	**07**	**13**	**17**	
04	**09**	**14**	**18**	

减速机系列 SERIES

P180 A SOF .....

输出配件 OUTPUT FITTINGS

小齿轮
PM... = Pinions

花键棒
SOF = Splined bar


套筒联轴节
HOS = Sleeve coupling

收缩盘
LOP = Shrink disc

法兰
FOA = Flange

安装位置 MOUNTING POSITION

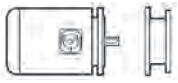
输入型式 INPUT


平键输入轴
Input keyed shaft

	S01A	S01B	S05B	S06B	S07A	S07B	S10B	S11B
diam.	Ø 24	Ø 38	Ø 48	Ø 60	Ø 60	Ø 80	Ø 80	Ø 80


带风扇实心输入轴
Solid input shaft with fan
Arbre rapide équipé de ventilateur

	SV05B	SV06B	SV07A	SV07B	SV10B	SV11B
diam.	Ø 48	Ø 60	Ø 60	Ø 80	Ø 80	Ø 80


IEC 电机输入接口
Electric motor adapter input
Adaptation pour moteur électrique

P+IEC (P71...P250)


联接紧凑型电机(可提供机座号至 GTN07)
Integrated gearmotor with in-built compact electric motor (available up to size GTN07)

S2, S3, S4

20.0 – 安装位置

一个产品完整的型号必须包含安装位置。同轴式减速机请参阅表（A12），直角轴式减速机请参阅表（A13）

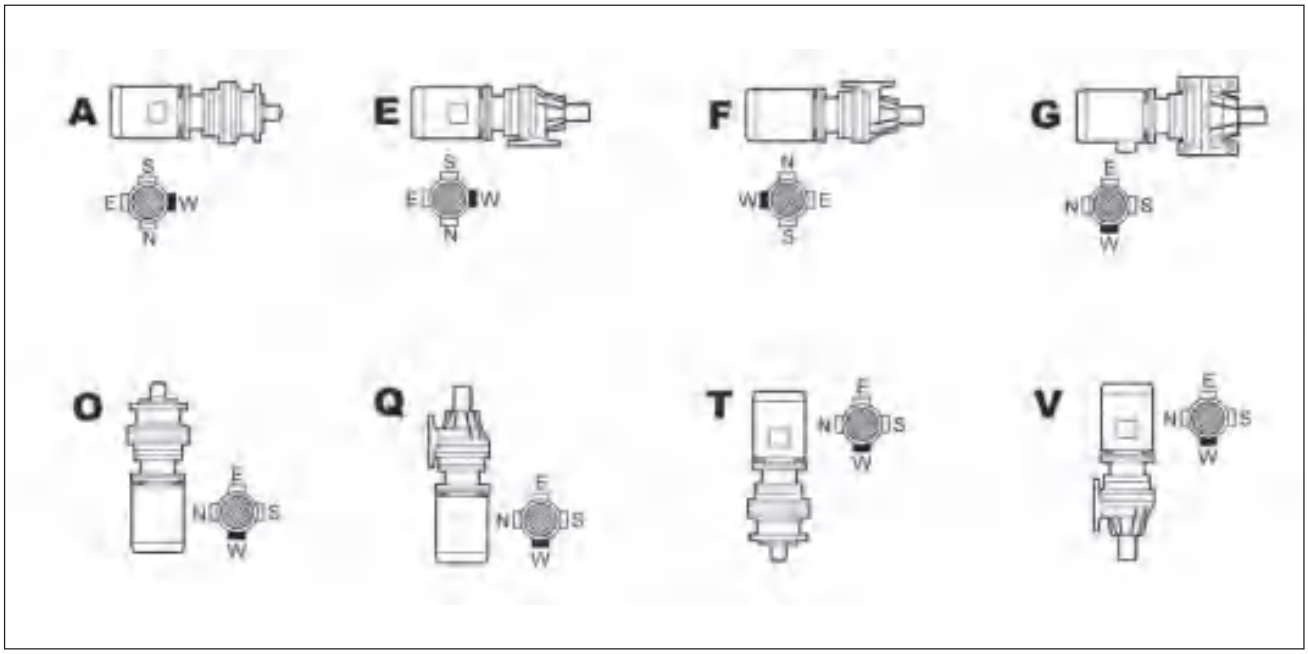
20.0 - MOUNTING POSITION

The product designation is only complete when the mounting position is also specified. Please refer to table (A12) for in-line gear units and to (A13) for right angle drives.

20.1– 同轴式减速机

（A12）

20.1– In-line units

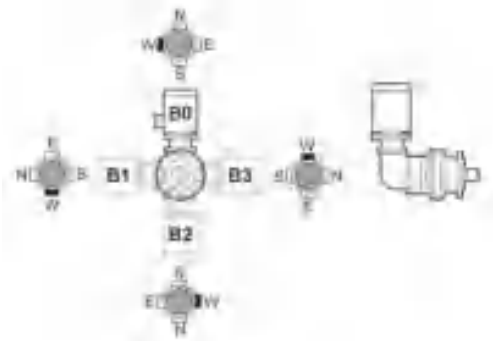


20.2 -直角式减速机

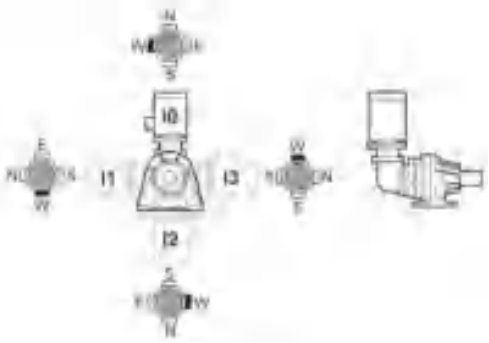
20.2 - Right angle units

(A13)

B0-B1-B2-B3

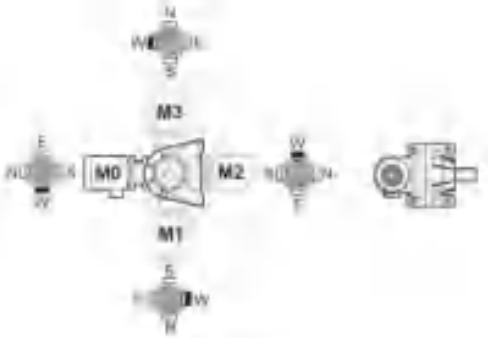


I0-I1-I2-I3

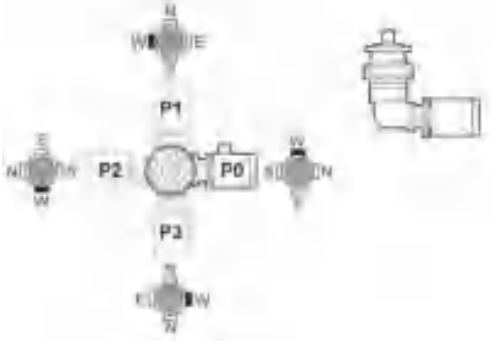


J0-J1-J2-J3

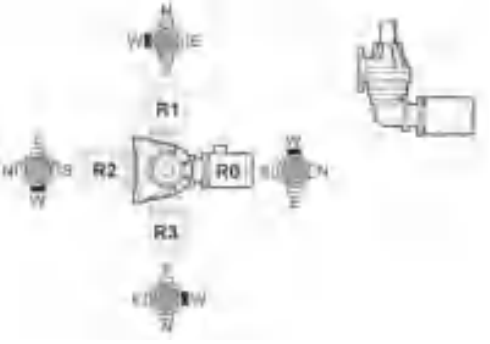
M0-M1-M2-M3



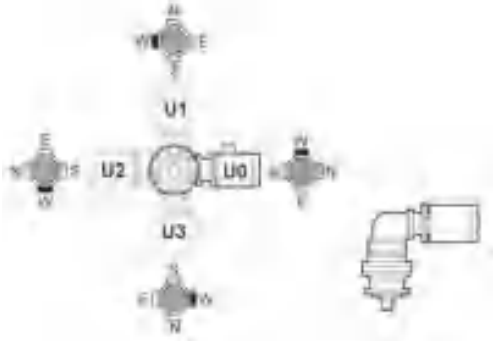
P0-P1-P2-P3



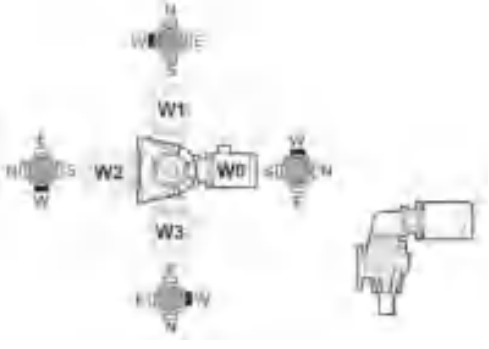
R0-R1-R2-R3



U0-U1-U2-U3



W0-W1-W2-W3



21.0 – 润滑（运行之前）

减速机采用润滑油润滑。对于竖直安装的减速机，鉴于润滑油可能不能保证最高处的轴承的可靠润滑，因此需采用其他润滑措施。

减速机可以在环境温度为 -20℃至+40℃之间运行。当温度为 -20℃和 -10℃之间时，减速机启动前必须充分且均匀预热，或者空载启动。当减速机温度达到 -10℃或更高温度时，方可加载。

运行之前，在减速机中注入适量的润滑油，润滑油的粘性根据列表（A16）进行选择。
减速机通常备有注油孔、油位塞和放油塞。因此在订购减速机时必须指定安装位置。
表（A16）列出了常规应用中所推荐的润滑油品牌和型号。

- 注意：对于非常规工作条件下的应用，请征询制造商的意见。
- 工作油温不得超过85-90℃。
- 除非另有说明，减速机供货时通常是不带润滑油的。
- 不同型号减速机所列的油量只是估计值。根据订货时指定的安装位置设置油位塞的位置，从而确保正确注油，减速机应注满至油位塞。
- 如果传送功率超过减速机的热容量，须提供辅助冷却装置（参照：外置冷却系统）。

21.0 – LUBRICATION(prior to start-up)

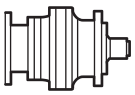
Gear units are oil lubricated. For gearboxes specified for vertical installation, whereas the oil coverage may not be sufficient to ensure proper lubrication of the uppermost bearings, extra lubrication provisions are used.

Operation of gear units is permitted at ambient temperatures between -20°C and +40°C. However, for temperatures between -20°C and -10°C unit may only start up after it has been progressively and evenly pre-heated, or otherwise initially operated unloaded. Load may then be connected to the output shaft when the gear unit has reached the temperature of -10°C, or higher.

Prior to starting-up, fill the gearbox with the appropriate quantity of oil, selecting the viscosity as per table (A16).
Gearboxes are generally provided with oil fill, level and drain plugs. As such, the mounting position needs always to be specified when ordering the gearbox.
The table (A16) lists the most common brands of lubricant and the types recommended for normal applications.

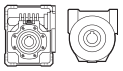
- Note: For applications with non-routine operating conditions, consult factory with complete information.
- Oil temperature must not exceed 85-90°C in operation.
- Unless otherwise specified, gear units are supplied unlubricated.
- The oil capacities listed for the various types of unit are indicative only. Fill the gearbox up to the level plug, located as per the mounting position specified when ordering to ensure the gearbox is properly filled.
- Should transmitted power exceed the thermal capacity of the unit a supplementary cooling unit must be provided (see: Supplementary cooling systems).

(A16)

	 *ISO标准3448 EP级* *ISO standard 3448 EP grade*		
T_a	**-10°C / +30°C**	**+10°C / +45°C**	**-20°C / +60°C**
	ISO VG 150	ISO VG 220	ISO VG 150-220
SHELL	**OMAL A EP1 50**	**OMALA EP220**	**TIVELA OIL S**
AGIP	BL ASIA150	BLASIA 220	BL ASIA SX220
ARAL	DEGOL BG 150	DEGOL BG 220	DEGOL PAS 150-220
BP	ENERGOL GR XP 150	ENERGOL GR XP 220	EVERSYN EXP 150-220
CASTROL	ALPHA SP 150	ALPHA SP 220	AL PHASYN EP 150-220
CEPSA	ENGRANAJES HP 150	ENGRANAJES HP 220	ENGRANAJES HPX 150-220
CHEVRON	N.L. GEAR COMPOUNDS EP 150	N.L. GEAR COMPOUNDS EP 220	TEGRA SYNTHETIC GEAR EP 150-200
ESSO	SPARTAN EP 150	SPARTAN EP 220	SPARTAN S EP 150-220
FUCHS	RENOLIN CKC 150	RENOLIN Ckc 220	RENOLIN UNISYN CKC 150-220
KLUBER	KLUBEROIL GEM1-150	KLUBEROIL GEM1-220	KLUBERSYNT EG 4-150/ 4-220
Q8	GOYA 150	GOYA 220	EL GRECO 220
MOBIL	MOBIL GEAR 600 XP 150	MOBILGEAR 600 XP 220	MOBIL GEAR SHC XMP 1 50-220
MOLYCOTE	L-0115	L-0122	L-2115/L-2122
REPSOL	SUPER TAURO 150	SUPER TAURO 220	SUPER TAURO SINTETICO 150-220
TOTAL	CARTER EP 1500	CARTER EP 2200	CARTER SH 150-220

减速机最高温度不得超过80-85℃。
The temperature of the gear case should never exceed 80-85°C at the hottest point.

- 聚 α 烯烃合成油 (PAO)
- Polyalphaolefin based synthetic oil (PAO)

	 *润滑油粘度 ISO VG*		 *Oi/ viscosity ISO VG*		
	Ta ≤ -20°	-20°< **Ta** ≤10°	0°≤ **Ta** ≤30°	20°≤ **Ta** ≤40°	**Ta** > 40°
矿物油 EP	(*)	150	320	460	460(*)
合成油 PAO EP	(*)	150	220	320	460(*)
合成油 PAG	(*)	150	220	320	460(*)

21.1－GTN_L－GTN_R 系列减速机油堵位置

（A17）

所有减速机
1 注油塞/透气塞
2 油位塞
3 放油塞

1 级同轴式行星减速机
1A 注油塞/透气塞
3A 放油塞

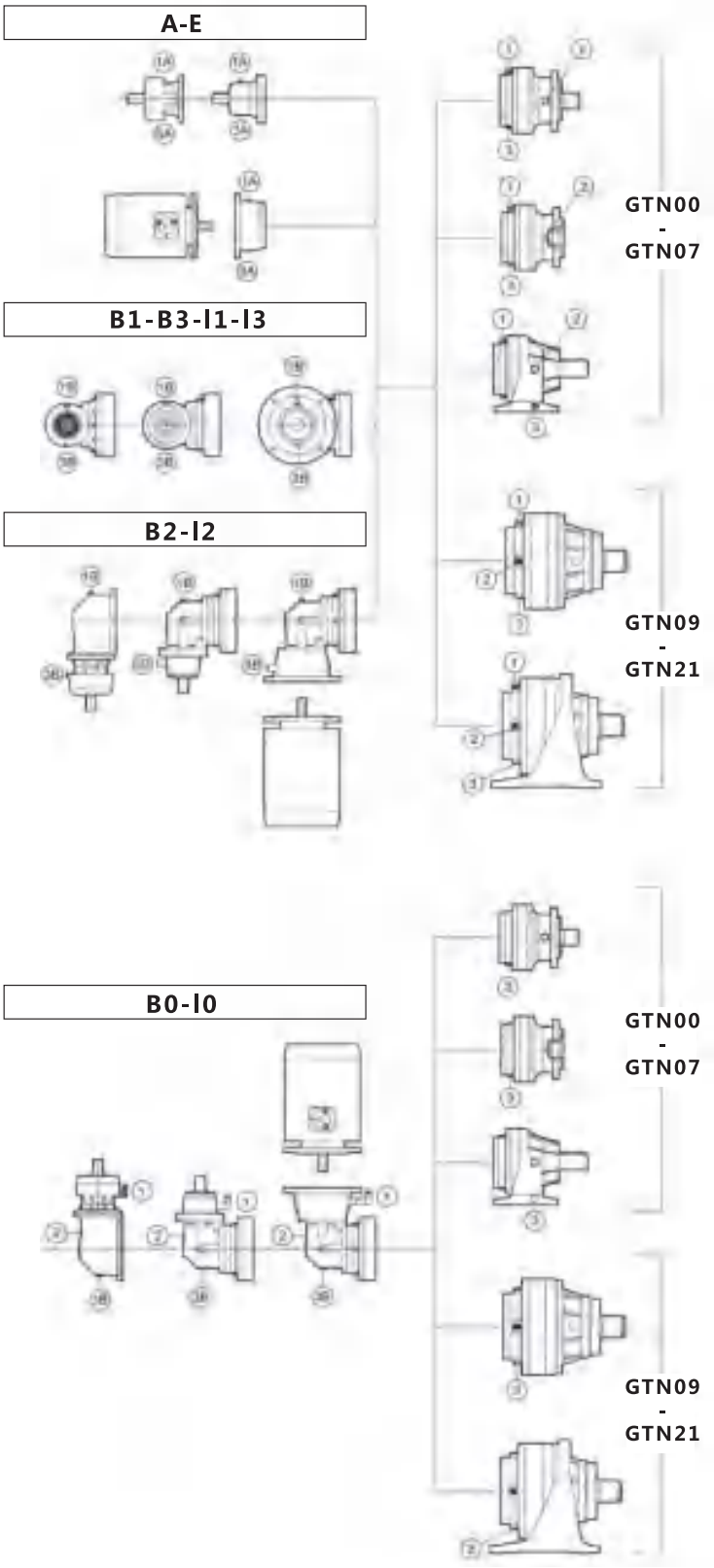
2 级直角轴式减速机
1B 注油塞/透气塞
3B 放油塞

ALL UNITS
1 Filler/breather oil plug
2 Oil level plug
3 Oil draining plug

1 STAGE IN-LINE GEAR UNITS
1A Filler/breather oil plug
3A Oil draining plug

2 STAGE RIGHT ANGLE GEAR UNITS
1B Filler/breather oil plug
3B Oil draining plug

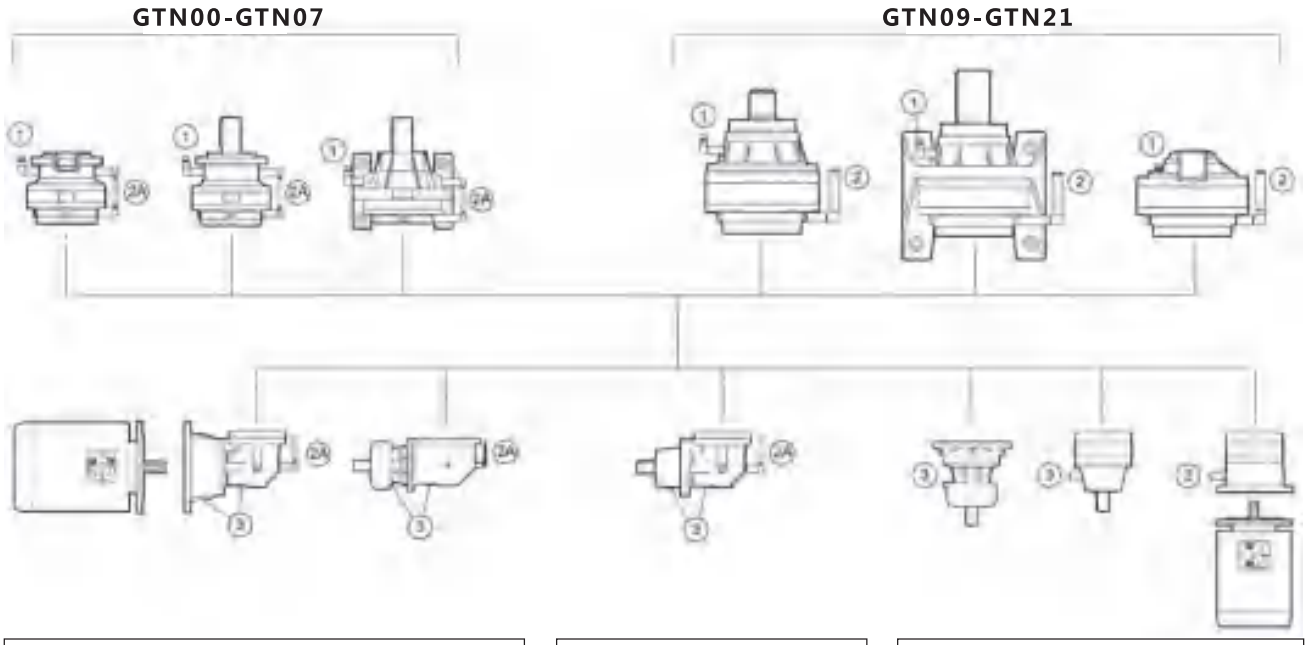
21.1－Oil plug positions GTN_L - GTN_R



21.1– GTN_L–GTN_R 系列减速机油堵位置

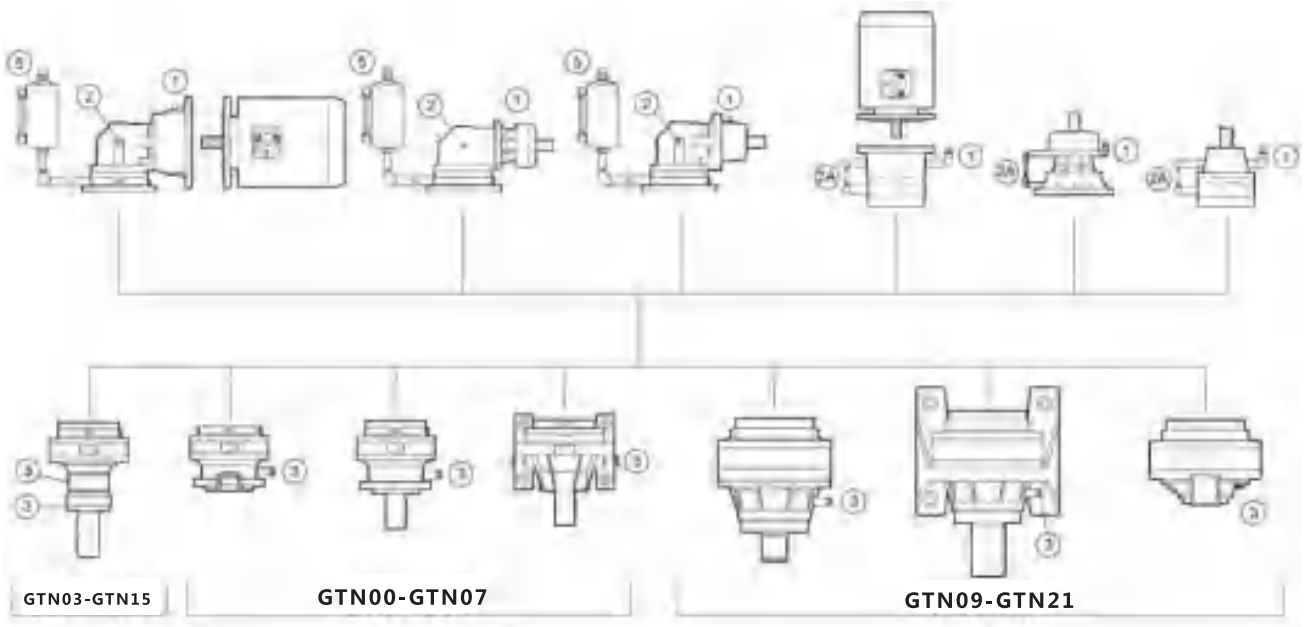
21.1– Oil plug positions GTN_L - GTN_R

(A18)



	R0-R1-R2-R3	Q-O
所有减速机		ALL GEARBOXES
注油塞/透气塞		Filler/breather oil plug
油位塞		Oil level plug
透明油位管		Transparent oil level pipe
放油塞		Oil draining plug
连续工况中的附加油罐		Expansion tank for continuous duty

(A19)



21.2–GTN_L系列润滑油量（I）

（A26a）

		Mounting position 安装位置		
		A	T	O
GTN00	L1	0.6	1.0	0.9
	L2	0.9	1.3	1.2
	L3	1.2	1.6	1.5
	L4	1.5	1.9	1.8
GTN01	L1	0.8	1.2	1.1
	L2	1.1	1.5	1.4
	L3	1.4	1.8	1.7
	L4	1.7	2.1	2.0
GTN03	L1	1.3	2.3	2.0
	L2	1.6	2.6	2.3
	L3	1.9	2.9	2.6
	L4	2.2	3.2	2.9
GTN04	L1	1.4	2.4	2.2
	L2	1.9	2.9	2.7
	L3	2.2	3.2	3.0
	L4	2.5	3.5	3.3
GTN05	L1	1.6	2.6	2.4
	L2	2.1	3.1	2.9
	L3	2.4	3.4	3.2
	L4	2.7	3.7	3.5
GTN06	L1	2.5	3.5	3.2
	L2	3.3	4.3	4.0
	L3	3.6	4.6	4.4
	L4	3.9	4.9	4.6
GTN07	L1	3.5	5.0	4.5
	L2	4.5	6.0	5.5
	L3	5.0	6.5	6.0
	L4	5.3	6.8	6.3
GTN09	L1	4.0	5.5	5.0
	L2	5.0	6.5	6.0
	L3	5.5	7.0	6.5
	L4	5.8	7.3	6.8

注：所有润滑油量仅为估计值。注油后专门的油堵检查实际油位。

21.2– Oil quantity（I） GTN_L Series

		Mounting position 安装位置		
		A	T	O
GTN10	L1	5.0	6.5	6.0
	L2	6.3	7.8	7.3
	L3	7.1	8.6	8.1
	L4	7.4	8.9	8.4
GTN11	L1	7.0	12	10
	L2	9.0	14	12
	L3	10	15	13
	L4	11	16	14
GTN13	L1	9.0	14	12
	L2	12	17	15
	L3	13	18	16
	L4	13	18	16
GTN14	L2	17	25	21
	L3	19	27	23
	L4	20	28	24
GTN15	L2	19	27	23
	L3	21	29	25
	L4	22	30	26
GTN16	L2	22	30	26
	L3	24	32	28
	L4	25	33	29
GTN17	L2	26	41	36
	L3	29	44	39
	L4	30	45	40
GTN18	L3	40	55	50
	L4	43	58	53
GTN19	L3	50	70	60
	L4	53	73	63
GTN21	L3	56	76	66
	L4	60	80	70

N.B. Oil quantities are indicative. Check actual level after filling through the appropriate plug.

21.2–GTN_L 系列润滑油量（I）

（A26b）

		Mounting position 安装位置		
		B0	**U_**	**P_**
GTN00	**R2**	1.2	1.7	1.5
	R3	1.5	2.0	1.8
	R4	1.8	2.3	2.1
GTN01	**R2**	1.6	2.1	1.9
	R3	1.9	2.4	2.2
	R4	2.2	2.7	2.5
GTN03	**R2**	2.2	2.8	2.6
	R3	2.5	3.1	2.9
	R4	2.8	3.4	3.2
GTN04	**R2**	2.3	2.9	2.7
	R3	2.8	3.4	3.2
	R4	3.1	3.7	3.5
GTN05	**R2**	2.5	3.1	2.9
	R3	3.0	3.6	3.4
	R4	3.3	3.9	3.7
GTN06	**R2**	4.0	5.0	4.8
	R3	4.8	5.8	5.6
	R4	5.1	6.1	5.9
GTN07	**R2**	6.0	8.0	7.0
	R3	7.0	9.0	8.0
	R4	7.5	9.5	8.5

21.2– Oil quantity（I） GTN_L Series

		Mounting position 安装位置		
		B0	**U_**	**P_**
GTN09	**R2**	6.5	8.5	7.5
	R3	7.5	9.5	8.5
	R4	8.0	10	9.0
GTN10	**R2**	13	15	14
	R3	11	13	12
	R4	12	14	13
GTN11	**R2**	14	19	17
	R3	16	21	19
	R4	17	22	20
GTN13	**R2**	16	21	19
	R3	19	24	22
	R4	20	25	23
GTN14	**R3**	25	33	29
	R4	28	36	32
GTN15	**R3**	27	35	31
	R4	30	38	34
GTN16	**R3**	30	38	34
	R4	33	41	37
GTN17	**R3**	38	52	48
	R4	42	56	52
GTN18	**R4**	48	63	58

注：所有润滑油量仅为估计值。注油后专门的油堵检查实际油位。

N.B. Oil quantities are indicative. Check actual level after filling through the appropriate plug.

22.0 安装结构尺寸　　22.0 Installation structure size

机座号 / TAILLE	M_2 [Nm]		
GTN 00	1000	32	38
GTN 01	1750	50	56
GTN 03	2500	68	74
GTN 04	3600	86	92
GTN 05	5000	104	110
GTN 06	8500	122	128
GTN 07	12500	140	146
GTN 09	18000	158	164
GTN 10	25000	176	182
GTN 11	40000	194	200
GTN 13	55000	212	218
GTN 14	80000	230	236
GTN 15	100000	248	254
GTN 16	135000	266	272
GTN 17	170000	284	290
GTN 18	250000	302	308
GTN 19	350000	320	326
GTN 21	500000	338	344

GTN00 L

M_2 = 1000 Nm

	i	M_{n2} [Nm]						P_1	Pt	n_1	n_{1max}	M_b	
	1:	n_2·h 10000	n_2·h 25000	n_2·h 50000	n_2·h 100000	n_2·h 500000	n_2·h 1000000	[kW]	[kW]	[min^{-1}]	[min^{-1}]	[Nm]	
L1	3.48	700	700	700	650	650	640	20	7.5	2000	4000	260	4F
	4.26	1000	1000	890	850	760	610	20	7.5	2000	4000	330	4H
	5.77	860	730	650	650	650	580	20	7.5	2000	4000	260	4F
	7.20	700	600	550	550	550	510	16.5	7.5	2000	4000	160	4D
	9.00	445	390	370	370	370	370	8.9	7.5	2000	4000	160	4D
L2	12.1	700	700	700	650	650	640	11.9	7.5	2000	4000	100	4B
	14.8	1000	1000	890	850	760	610	12.6	7.5	2000	4000	100	4B
	18.2	1000	1000	890	850	760	610	10.4	7.5	2000	4000	100	4B
	20.1	860	730	650	650	650	580	7.2	7.5	2000	4000	100	4B
	24.6	1000	1000	890	850	760	610	7.8	7.5	2000	4000	100	4B
	30.7	1000	1000	890	850	760	610	6.4	7.5	2000	4000	50	4A
	33.3	860	730	650	650	650	580	4.3	7.5	2000	4000	50	4A
	38.4	1000	1000	890	850	760	610	5.2	7.5	2000	4000	50	4A
	41.5	860	730	650	650	650	580	3.5	7.5	2000	4000	50	4A
	51.9	860	730	650	650	650	580	2.9	7.5	2000	4000	50	4A
	64.8	700	600	550	550	550	510	2.0	7.5	2000	4000	50	4A
L3	51.6	1000	1000	890	850	760	610	4.2	7.5	2000	4000	50	4A
	63.2	1000	1000	890	850	760	610	3.5	7.5	2000	4000	50	4A
	69.9	860	730	650	650	650	580	2.4	7.5	2000	4000	50	4A
	77.5	1000	1000	890	850	760	610	3.0	7.5	2000	4000	50	4A
	85.6	1000	1000	890	850	760	610	2.7	7.5	2000	4000	50	4A
	105	1000	1000	890	850	760	610	2.2	7.5	2000	4000	50	4A
	116	860	730	650	650	650	580	1.6	7.5	2000	4000	50	4A
	131	1000	1000	890	850	760	610	1.8	7.5	2000	4000	50	4A
	142	1000	1000	890	850	760	610	1.6	7.5	2000	4000	50	4A
	177	1000	1000	890	850	760	610	1.3	7.5	2000	4000	50	4A
	192	860	730	650	650	650	580	1.0	7.5	2000	4000	50	4A
	221	1000	1000	890	850	760	610	1.0	7.5	2000	4000	50	4A
	240	860	730	650	650	650	580	0.82	7.5	2000	4000	50	4A
	299	860	730	650	650	650	580	0.66	7.5	2000	4000	50	4A
	374	860	730	650	650	650	580	0.53	7.5	2000	4000	50	4A
L4	330	1000	1000	890	850	760	610	0.72	6	2000	4000	50	4A
	403	860	730	650	650	650	580	0.50	6	2000	4000	50	4A
	447	1000	1000	890	850	760	610	0.53	6	2000	4000	50	4A
	494	1000	1000	890	850	760	610	0.48	6	2000	4000	50	4A
	558	1000	1000	890	850	760	610	0.42	6	2000	4000	50	4A
	616	1000	1000	890	850	760	610	0.38	6	2000	4000	50	4A
	755	1000	1000	890	850	760	610	0.31	6	2000	4000	50	4A
	819	1000	1000	890	850	760	610	0.29	6	2000	4000	50	4A
	942	1000	1000	890	850	760	610	0.25	6	2000	4000	50	4A
	1022	1000	1000	890	850	760	610	0.23	6	2000	4000	50	4A
	1108	860	730	650	650	650	580	0.18	6	2000	4000	50	4A
	1275	1000	1000	890	850	760	610	0.19	6	2000	4000	50	4A
	1383	860	730	650	650	650	580	0.15	6	2000	4000	50	4A
	1591	1000	1000	890	850	760	610	0.15	6	2000	4000	50	4A
	1725	860	730	650	650	650	580	0.12	6	2000	4000	50	4A
	2153	860	730	650	650	650	580	0.09	6	2000	4000	50	4A
	2692	1000	1000	890	850	760	610	0.09	6	2000	4000	50	4A

M_{2max} = 1.2 • M_{n2} (n_2 • h = 10000)

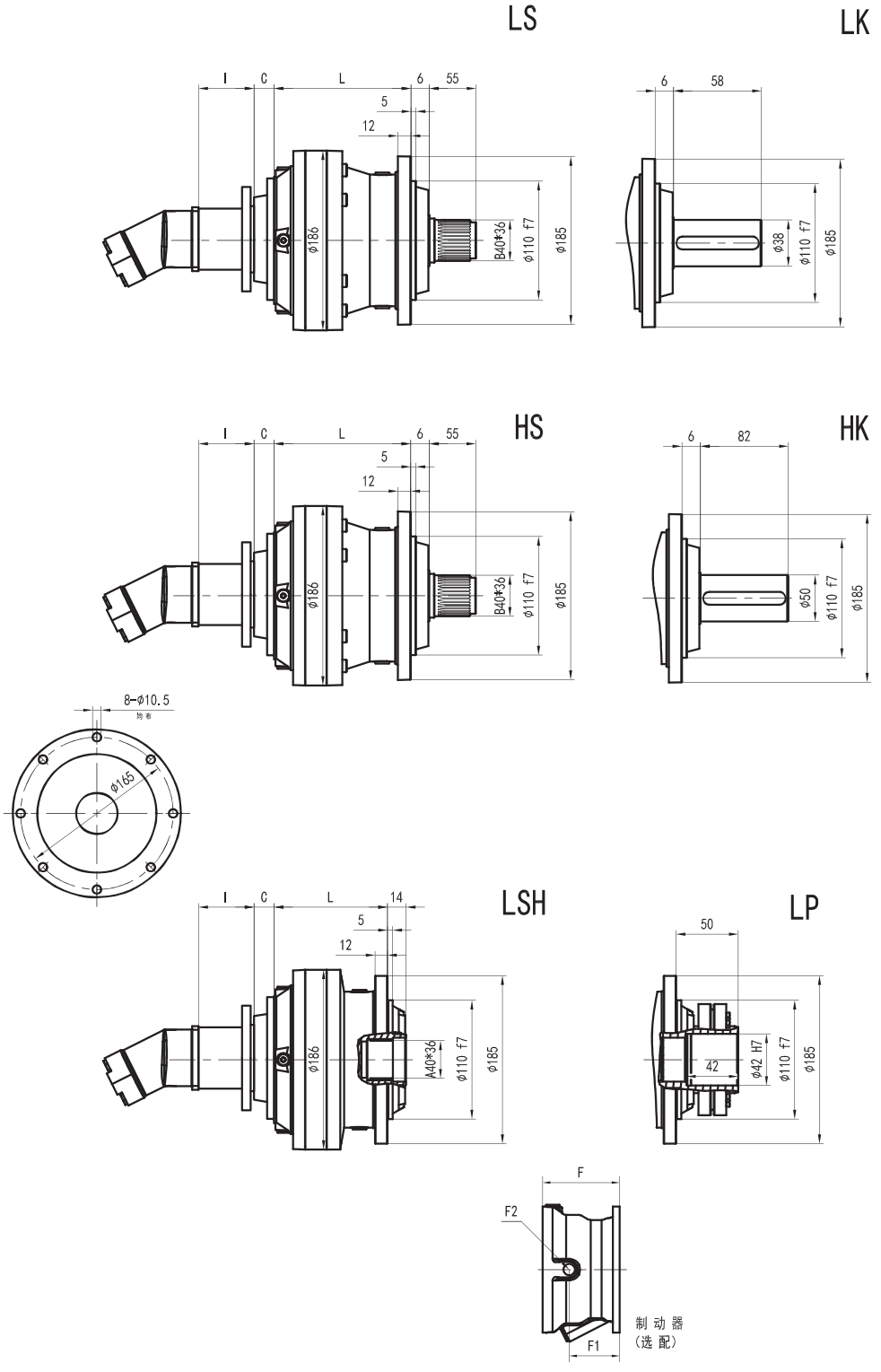
M_2=1000Nm

GTN00 R

	i 1:	M_{n2} [Nm] n_2·h 10000	 n_2·h 25000	 n_2·h 50000	 n_2·h 100000	 n_2·h 500000	 n_2·h 1000000	P_1 [kW]	Pt [kW]	n_1 [min^{-1}]	n_{1max} [min^{-1}]	M_b [Nm]	
R2	7.13	700	700	700	650	650	640	15.0	12	2000	4000	160	4D
	8.74	1000	1000	890	850	760	610	15.0	12	2000	4000	160	4D
	11.8	860	730	650	650	650	580	12.2	12	2000	4000	100	4B
	14.8	700	600	550	550	550	510	8.3	12	2000	4000	100	4B
	18.5	445	390	370	370	370	370	4.5	12	2000	4000	100	4B
R3	24.8	700	700	700	650	650	640	6.2	12	2000	4000	50	4A
	30.4	1000	1000	890	850	760	610	6.6	12	2000	4000	50	4A
	37.3	1000	1000	890	850	760	610	5.5	12	2000	4000	50	4A
	41.2	860	730	650	650	650	580	3.6	12	2000	4000	50	4A
	50.4	1000	1000	890	850	760	610	4.3	12	2000	4000	50	4A
	62.9	1000	1000	890	850	760	610	3.5	12	2000	4000	50	4A
	68.2	860	730	650	650	650	580	2.4	12	2000	4000	50	4A
	78.7	1000	1000	890	850	760	610	2.9	12	2000	4000	50	4A
	85.2	860	730	650	650	650	580	2.0	12	2000	4000	50	4A
	107	860	730	650	650	650	580	1.7	12	2000	4000	50	4A
	133	700	600	550	550	550	510	1.2	12	2000	4000	50	4A
R4	106	1000	1000	890	850	760	610	2.2	10	2000	4000	50	4A
	130	1000	1000	890	850	760	610	1.8	10	2000	4000	50	4A
	143	860	730	650	650	650	580	1.4	10	2000	4000	50	4A
	159	1000	1000	890	850	760	610	1.5	10	2000	4000	50	4A
	175	1000	1000	890	850	760	610	1.3	10	2000	4000	50	4A
	215	1000	1000	890	850	760	610	1.1	10	2000	4000	50	4A
	237	860	730	650	650	650	580	0.86	10	2000	4000	50	4A
	268	1000	1000	890	850	760	610	0.88	10	2000	4000	50	4A
	291	1000	1000	890	850	760	610	0.81	10	2000	4000	50	4A
	363	1000	1000	890	850	760	610	0.65	10	2000	4000	50	4A
	394	860	730	650	650	650	580	0.52	10	2000	4000	50	4A
	453	1000	1000	890	850	760	610	0.52	10	2000	4000	50	4A
	491	860	730	650	650	650	580	0.41	10	2000	4000	50	4A
	613	860	730	650	650	650	580	0.33	10	2000	4000	50	4A
	766	860	730	650	650	650	580	0.27	10	2000	4000	50	4A

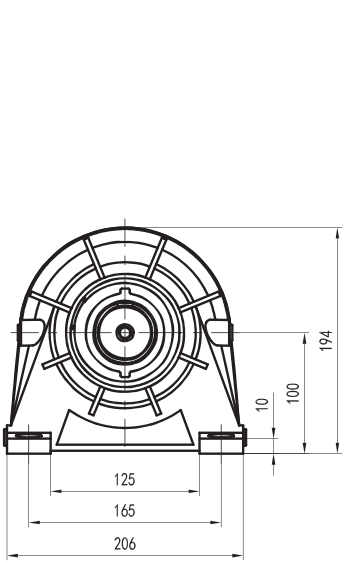
$M_{2max} = 1.2 \cdot M_{n2}$ ($n_2 \cdot h = 10000$)

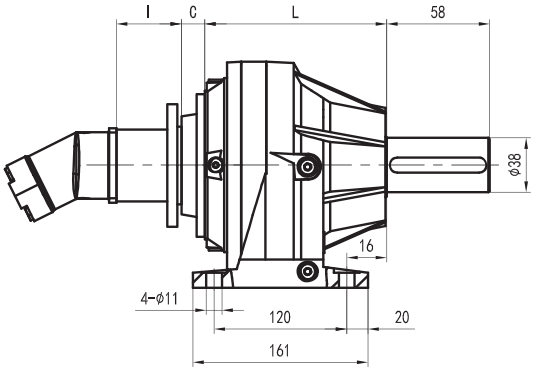
GTN00 L


LS
LK
HS
HK
LSH
LP
I
C
L
6
55
5
12
58
82
14
50
42
φ186
φ185
φ110 f7
φ38
φ50
φ42 H7
B40*36
A40*36
8-φ10.5
均布
φ165
F
F1
F2
制动器
(选配)

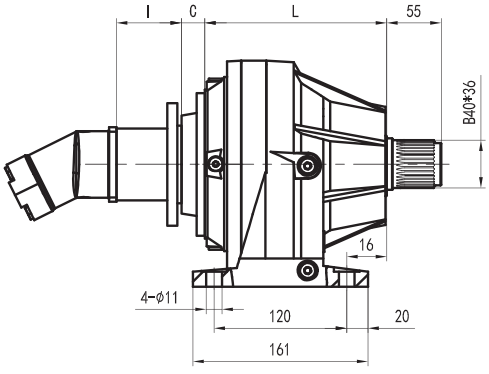
GTN00 L

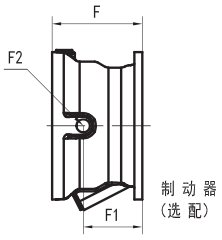
MK





MS

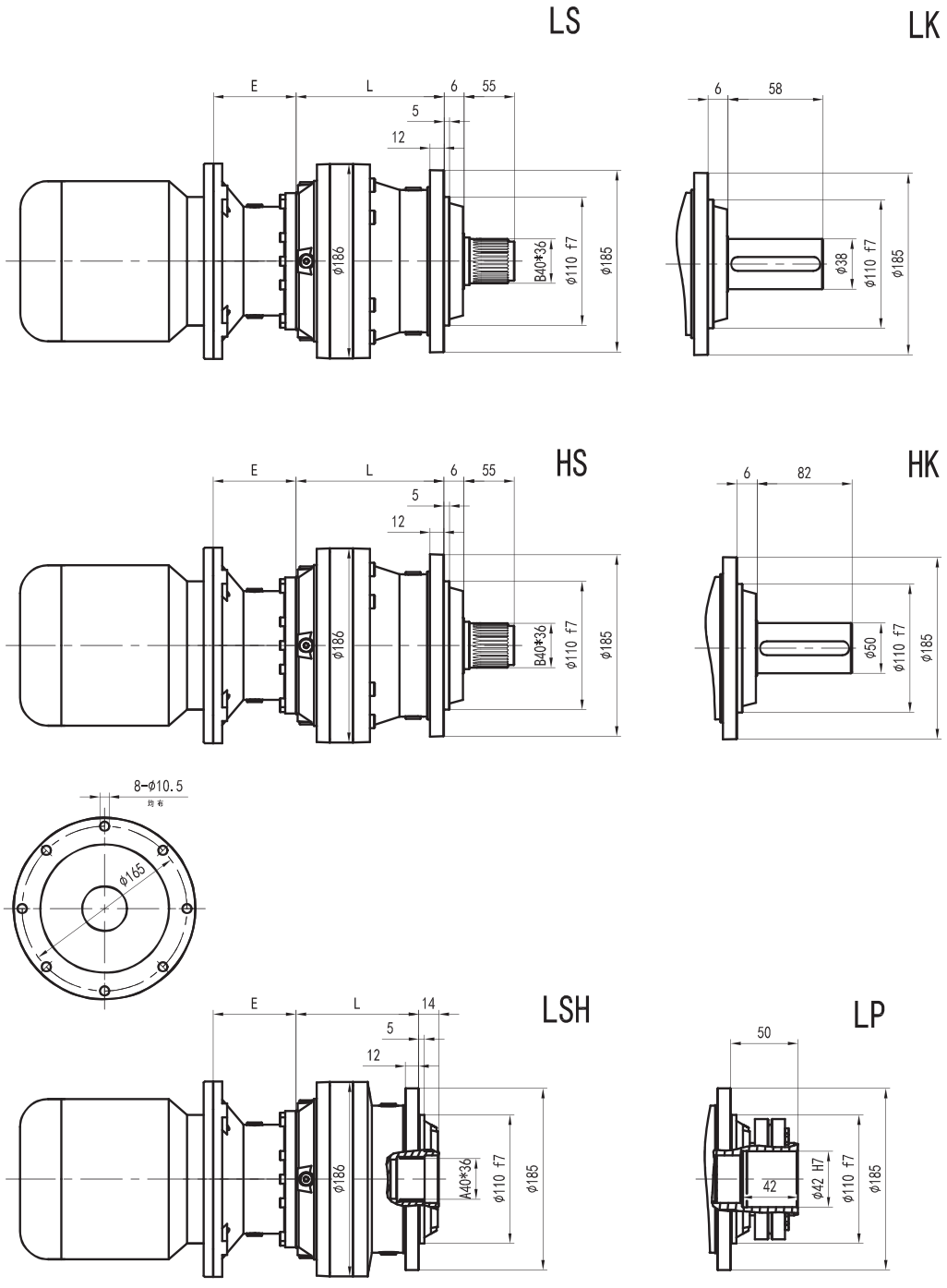




LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	1200 Nm

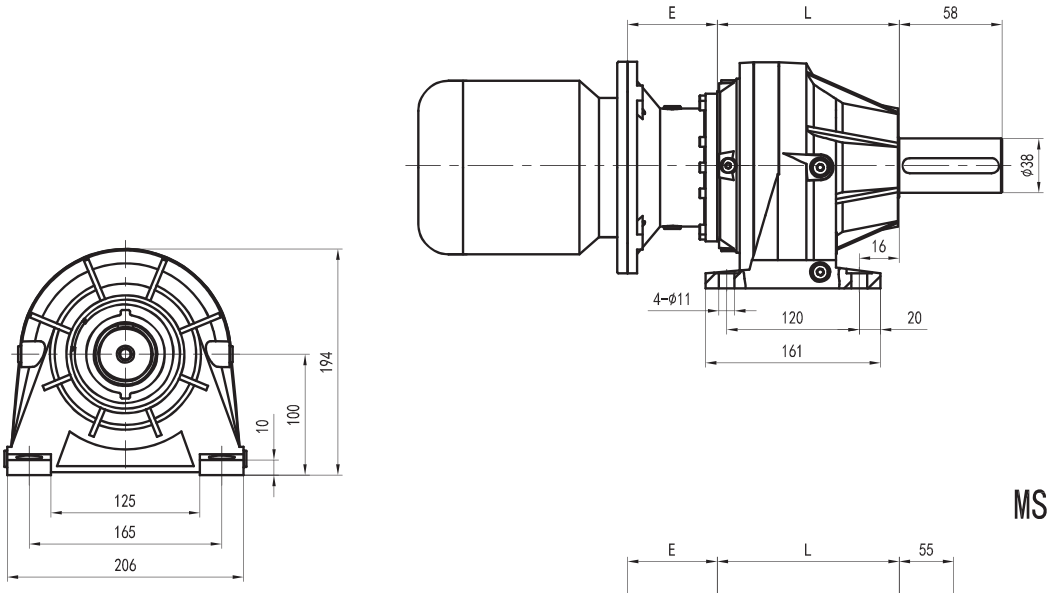
	L				Kg												
	LS LK	LSH LP	HS HK	MK MS	LS LK	LSH LP	HS HK	MK MS	C	输入 Input	I	F	F1	F2	类型 Type	输入 Input	Kg
GTN00 L1	80	80	115	86	18	16	20	23	37	A	联系厂家	105	65	1/4G	4	A	10
GTN00 L2	133	133	168	139	22	20	24	27	37	A		105	65	1/4G	4	A	10
GTN00 L3	186	186	221	192	26	24	28	31	37	A		105	65	1/4G	4	A	10
GTN00 L4	239	239	274	245	30	28	32	35	37	A		105	65	1/4G	4	A	10

GTN00 L

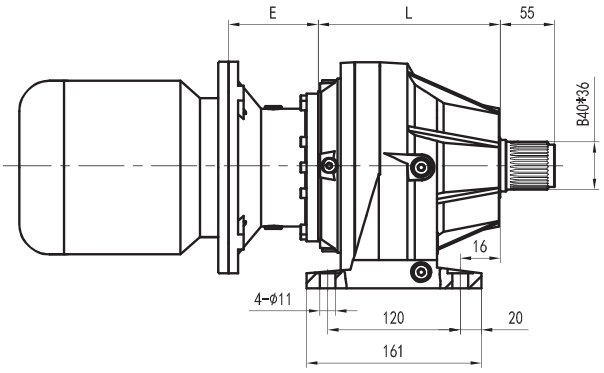

LS
LK
E
L
6
55
5
12
6
58
ϕ186
B40*36
ϕ110 f7
ϕ185
ϕ38
HS
HK
82
ϕ50
8-ϕ10.5
均布
ϕ165
LSH
LP
14
50
A40*36
42
ϕ42 H7

GTN00 L

MK



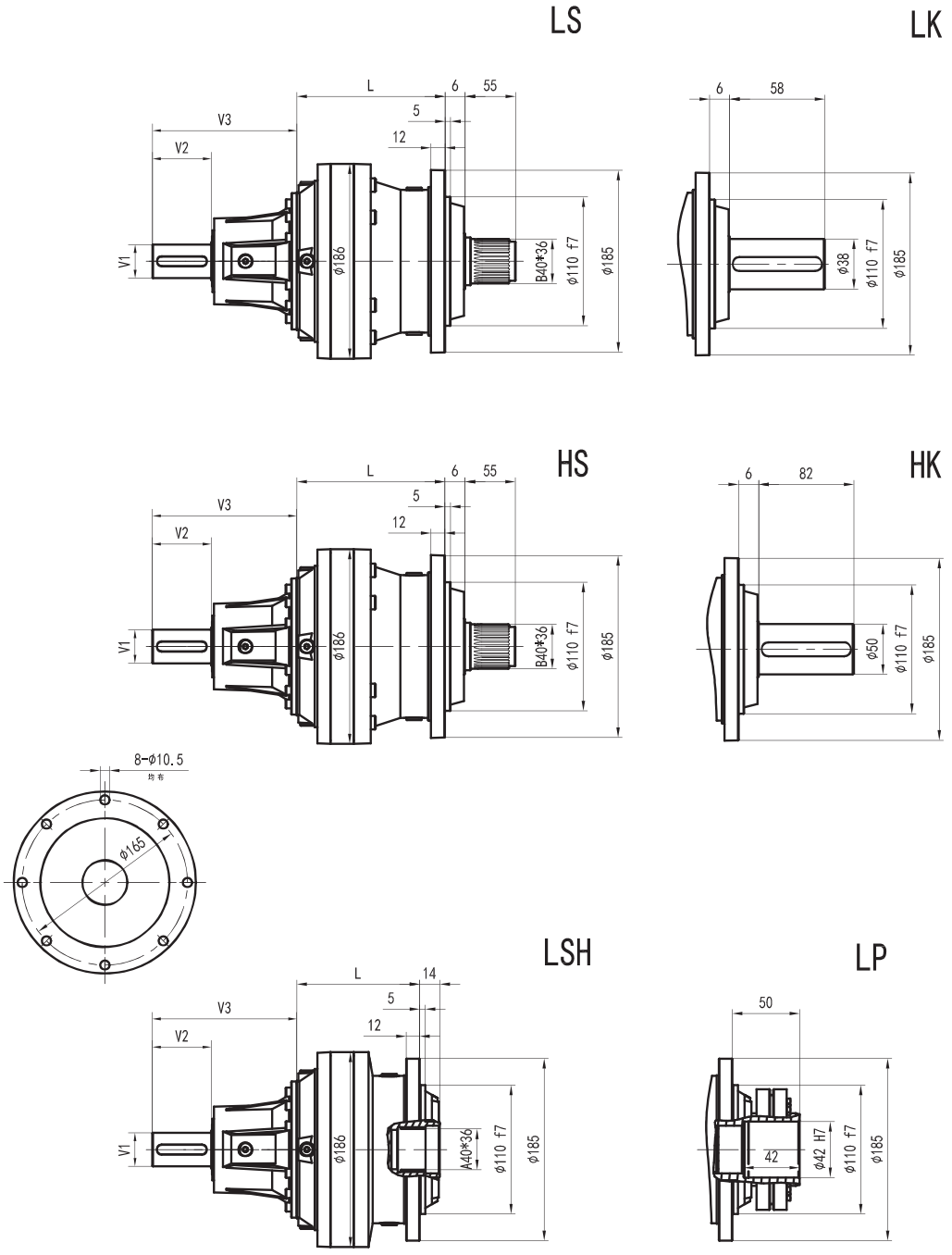
MS



LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	1200 Nm

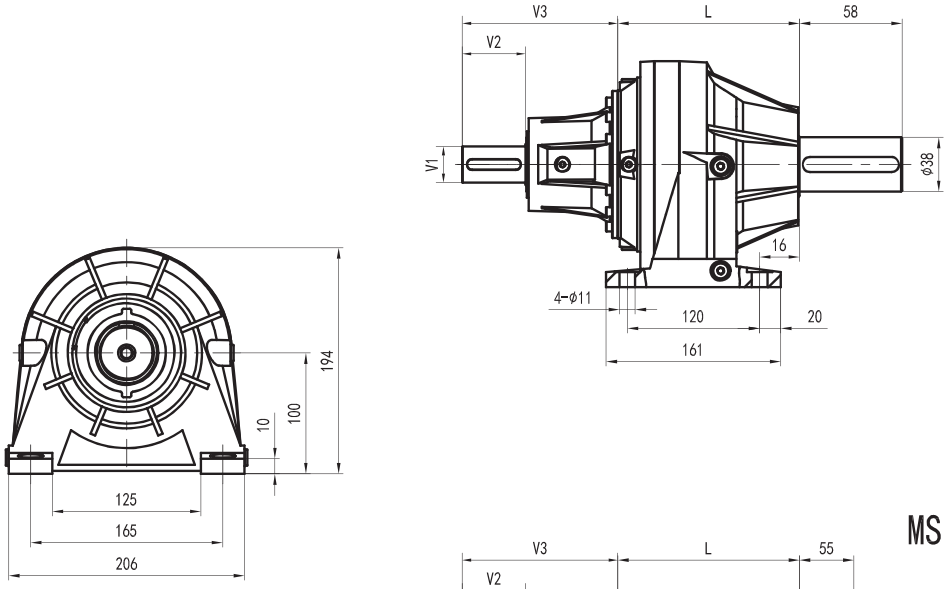
	L				Kg				E					
	LS LK	LSH LP	HS HK	MK MS	LS LK	LSH LP	HS HK	MK MS	IEC 71	IEC 80	IEC 90	IEC 100	IEC 112	IEC 132
GTN00 L1	80	80	115	86	18	16	20	23	65	84	84	94	94	114
GTN00 L2	133	133	168	139	22	20	24	27	65	84	84	94	94	114
GTN00 L3	186	186	221	192	26	24	28	31	65	84	84	94	94	114
GTN00 L4	239	239	274	245	30	28	32	35	65	84	84	94	94	114

GTN00 L

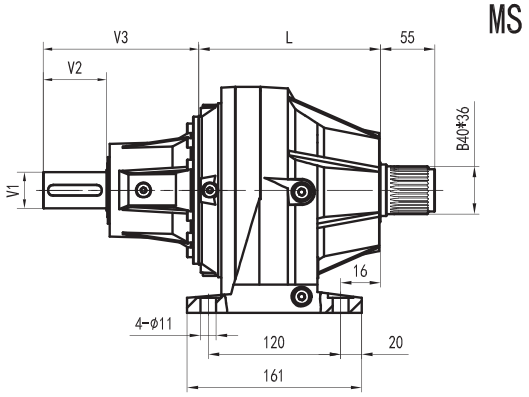

LS
LK
L
6
55
5
12
V3
V2
V1
ϕ186
B40*36
ϕ110 f7
ϕ185
6
58
ϕ38
ϕ110 f7
ϕ185
HS
HK
L
6
55
5
12
V3
V2
V1
ϕ186
B40*36
ϕ110 f7
ϕ185
6
82
ϕ50
ϕ110 f7
ϕ185
8-ϕ10.5
均布
ϕ165
LSH
LP
L
14
5
12
V3
V2
V1
ϕ186
A40*36
ϕ110 f7
ϕ185
50
42
ϕ42 H7
ϕ110 f7
ϕ185

GTN00 L

MK



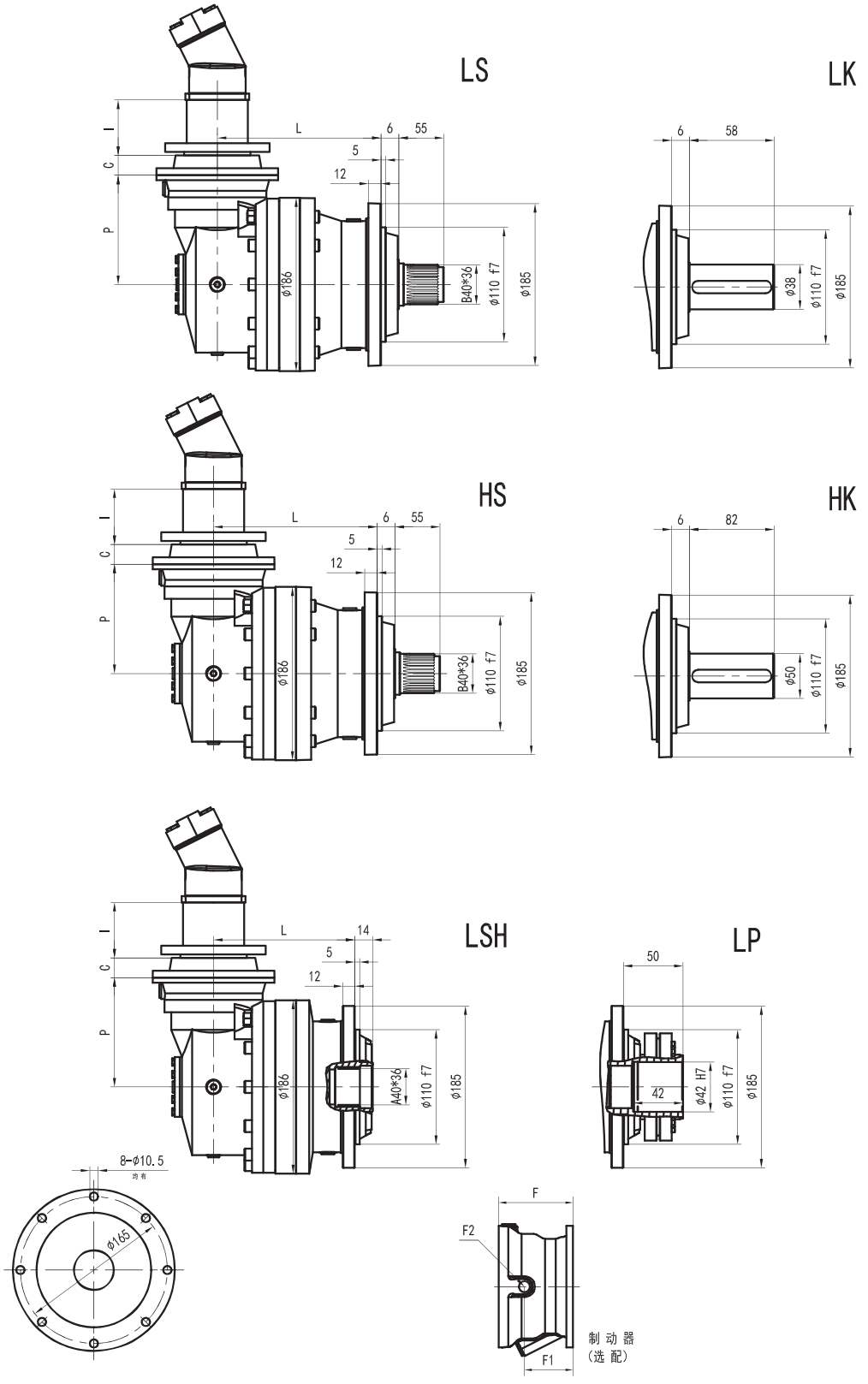
MS



LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	1200 Nm

	L				Kg				V1	V2	V3	Kg	V1	V2	V3	Kg
	LS LK	LSH LP	HS HK	MK MS	LS LK	LSH LP	HS HK	MK MS								
GTN00 L1	80	80	115	86	18	16	20	23	24	36	137.5	6	38	58	158	7
GTN00 L2	133	133	168	139	22	20	24	27	24	36	137.5	6	38	58	158	7
GTN00 L3	186	186	221	192	26	24	28	31	24	36	137.5	6	38	58	158	7
GTN00 L4	239	239	274	245	30	28	32	35	24	36	137.5	6	38	58	158	7

GTN00 R


LS
LK
HS
HK
LSH
LP
L
I
C
P
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55
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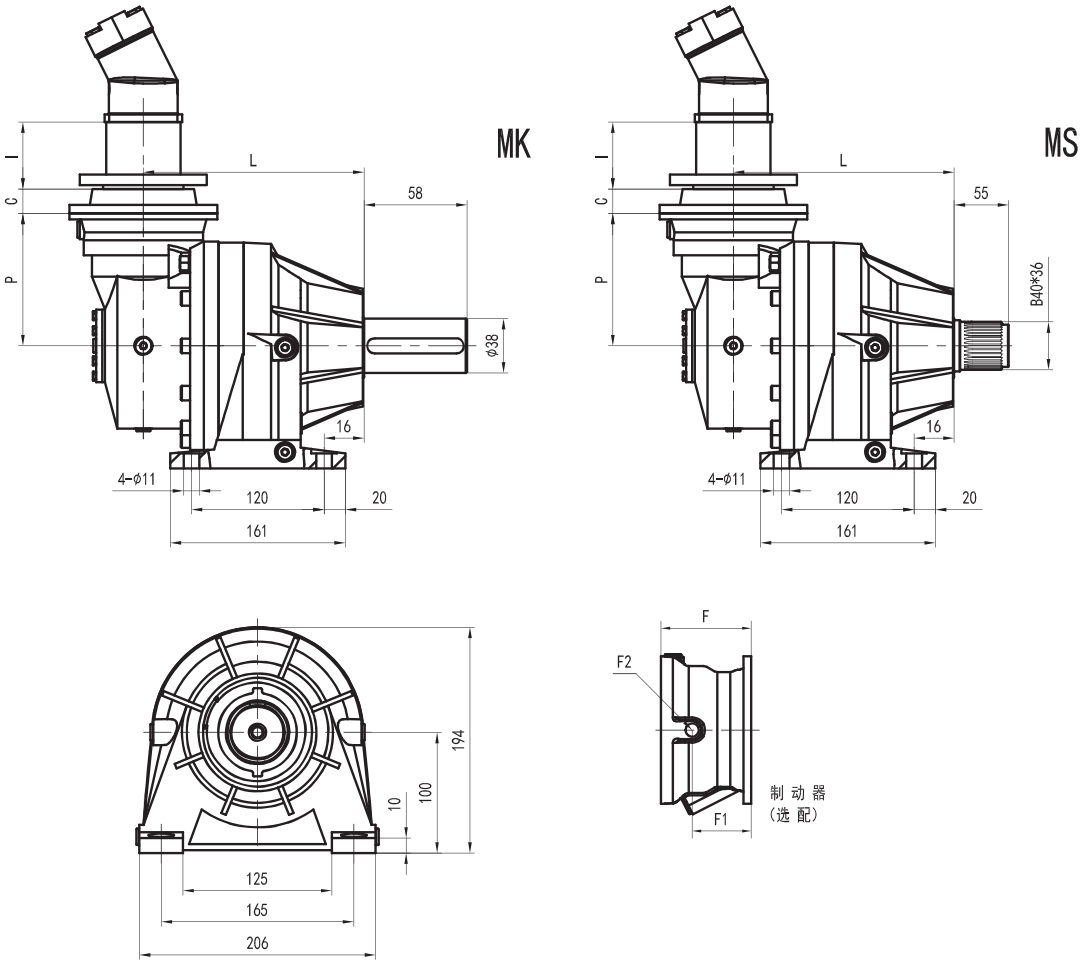
12
14
58
82
50
42
ϕ186
ϕ185
ϕ165
ϕ110 f7
ϕ38
ϕ50
ϕ42 H7
B40*36
A40*36
8-ϕ10.5
均布
F
F1
F2
制动器
(选配)

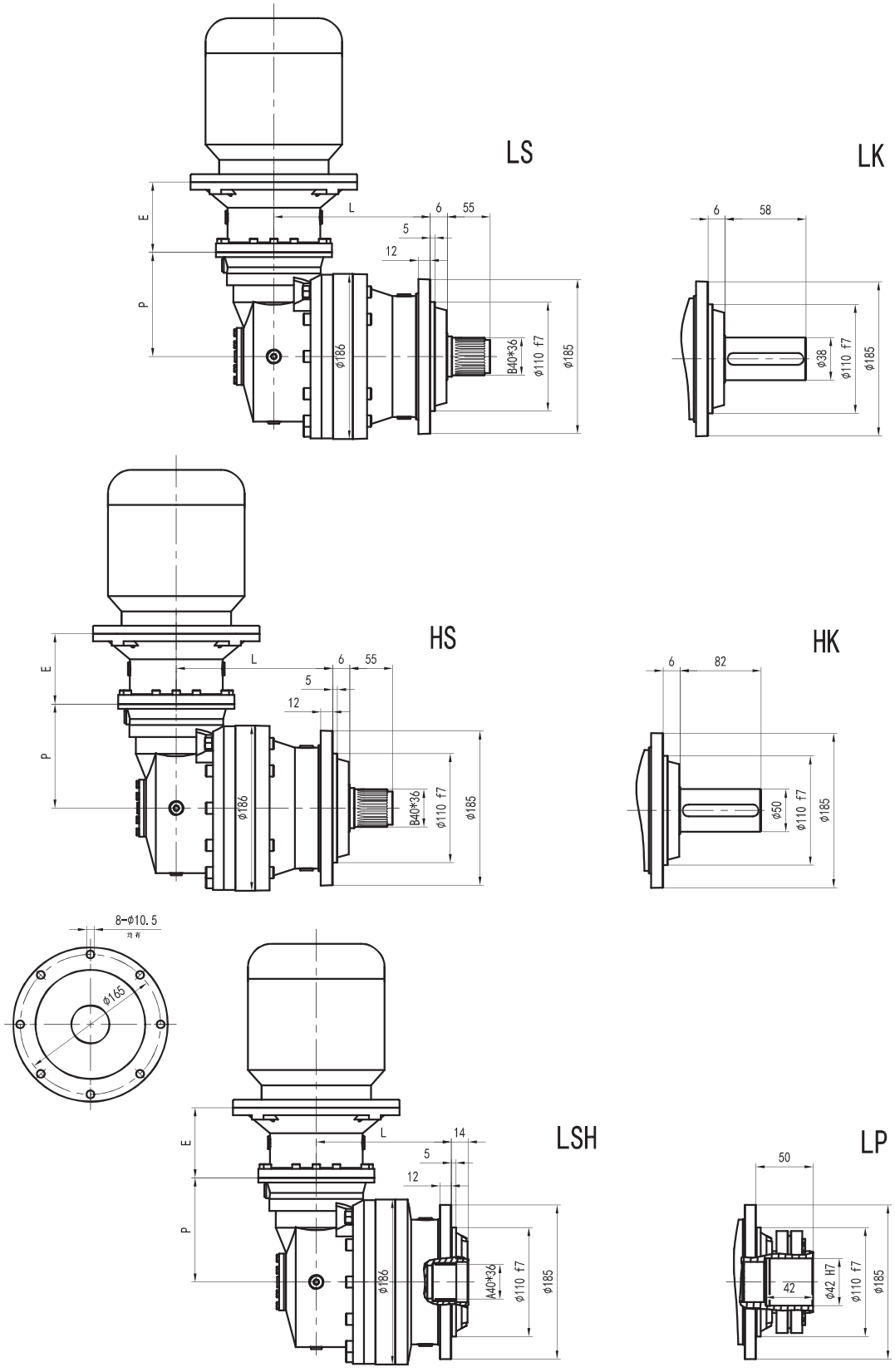
GTN00 R



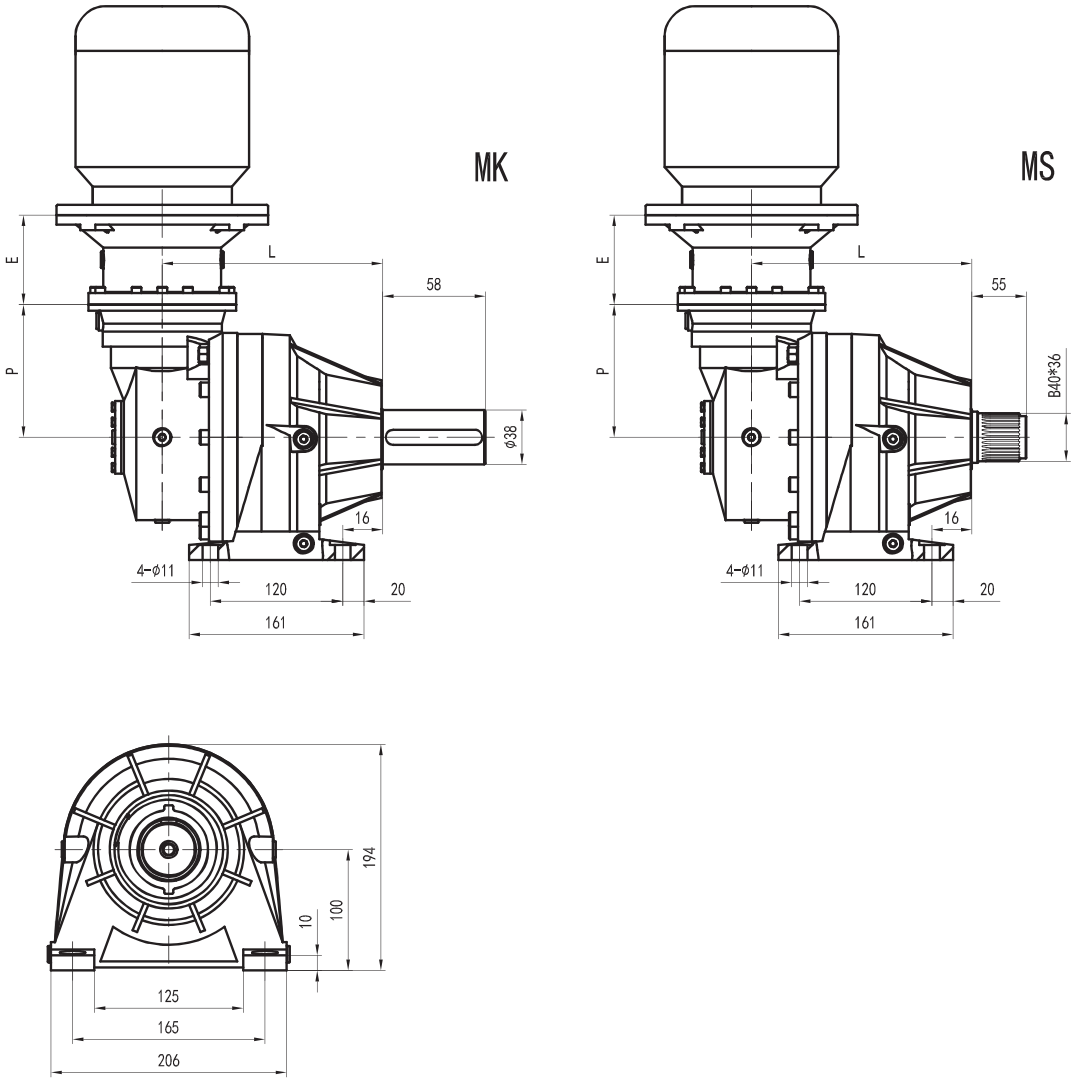
LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	1200 Nm

	L				P	Kg				C		I	F	F1	F2	类型 Type	输入 Input	Kg
	LS LK	LSH LP	HS HK	MK MS		LS LK	LSH LP	HS HK	MK MS		输入 Input							
GTN00 R2	172	172	207	178	122	32	30	34	37	37	A	联系厂家	105	65	1/4 G	4	A	10
GTN00 R3	225	225	260	231	122	36	34	38	41	37	A		105	65	1/4 G	4	A	10
GTN00 R4	278	278	313	284	122	40	38	42	45	37	A		105	65	1/4 G	4	A	10

GTN00 R


LS
LK
HS
HK
LSH
LP
8-ϕ10.5
均布
ϕ165
E
P
L
6
55
5
12
ϕ186
B40*36
ϕ110 f7
ϕ185
58
ϕ38
82
ϕ50
14
A40*36
50
42
ϕ42 H7

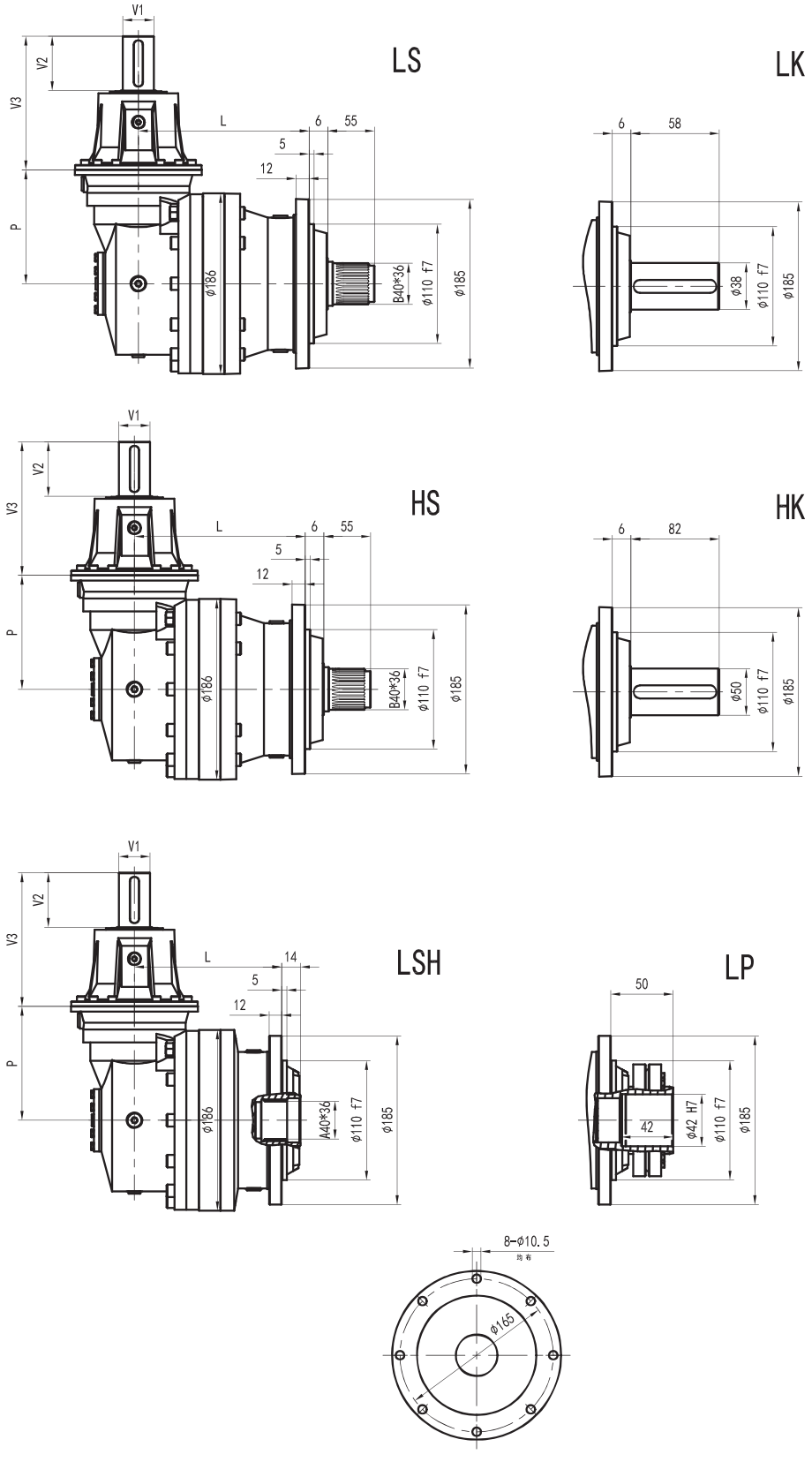
GTN00 R



LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	1200 Nm

	L				P	Kg				E					
	LS LK	LSH LP	HS HK	MK MS		LS LK	LSH LP	HS HK	MK MS	IEC 71	IEC 80	IEC 90	IEC 100	IEC 112	IEC 132
GTN00 R2	172	172	207	178	122	32	30	34	37	65	84	84	94	94	114
GTN00 R3	225	225	260	231	122	36	34	38	41	65	84	84	94	94	114
GTN00 R4	278	278	313	284	122	40	38	42	45	65	84	84	94	94	114

GTN00 R


LS
LK
HS
HK
LSH
LP
V1
V2
V3
P
L
6
55
5
12
14
58
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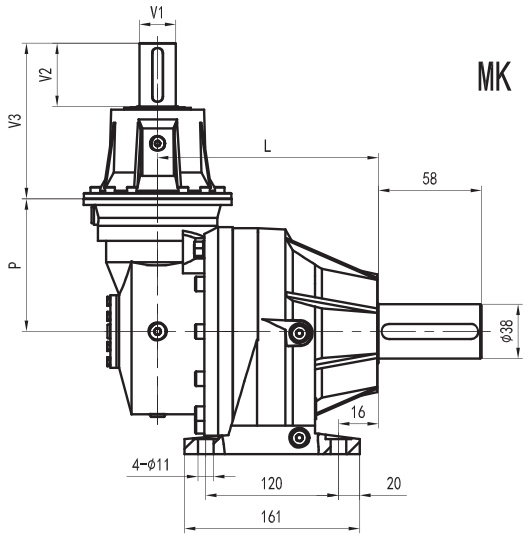
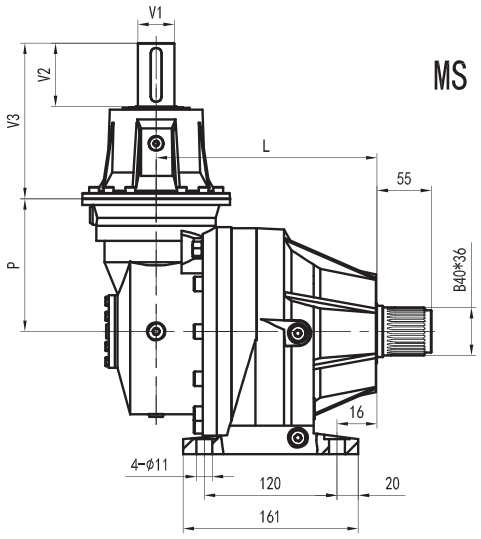
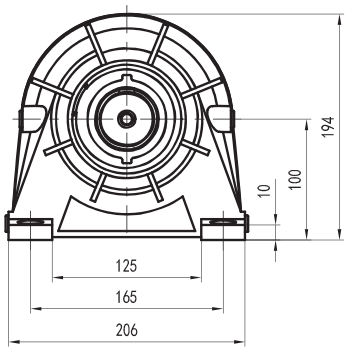
50
42
Φ186
B40*36
A40*36
Φ110 f7
Φ185
Φ38
Φ50
Φ42 H7
8-Φ10.5
均布
Φ165

GTN00 R



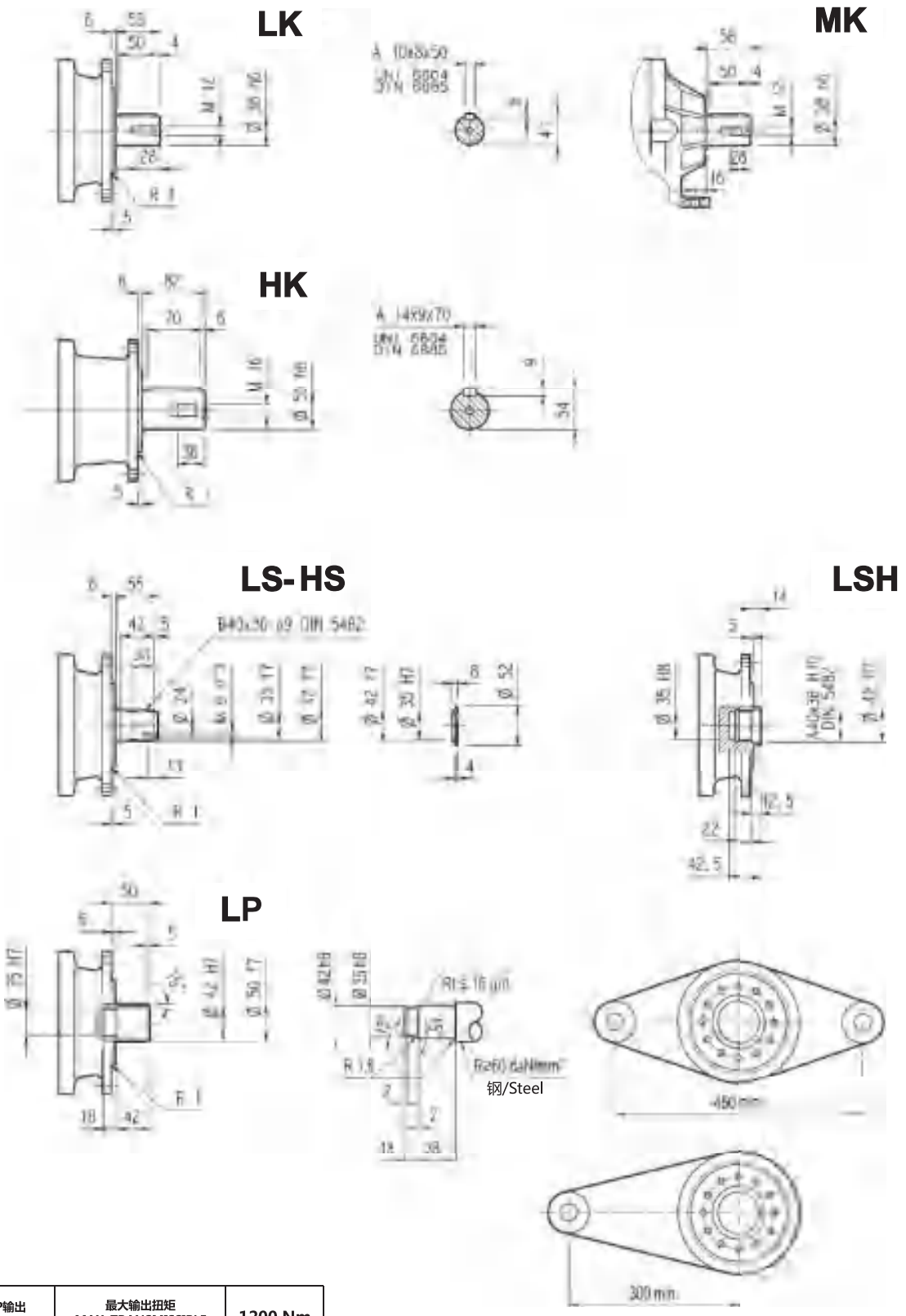




LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	1200 Nm

	L				p	Kg				V1	V2	V3	Kg	V1	V2	V3	Kg
	LS LK	LSH LP	HS HK	MK MS		LS LK	LSH LP	HS HK	MK MS								
GTN00 R2	172	172	207	178	122	32	30	34	37	24	36	137.5	6	38	58	158	7
GTN00 R3	225	225	260	231	122	36	34	38	41	24	36	137.5	6	38	58	158	7
GTN00 R4	278	278	313	284	122	40	38	42	45	24	36	137.5	6	38	58	158	7

GTN00 L - GTN00 R

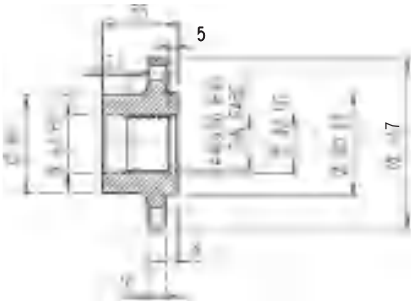


LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	1200 Nm

GTN00 L-GTN00 R

法兰 / Flange

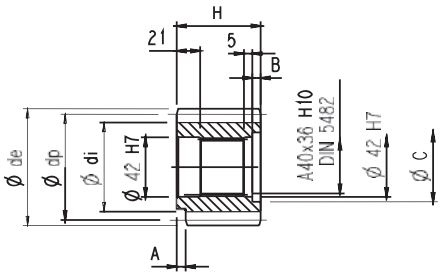
FOA



材料：钢 C40
Material : Steel C40

输出齿轮 / Output pinions

PM...

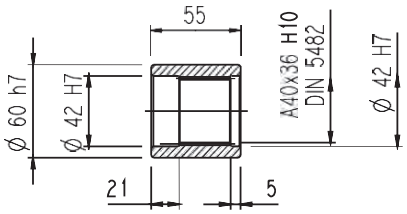


	m	z	x	dp	di	de	H	A	B	C	☆
PM451	4.5	14	0.507	63	56	75.5	55	0	0	0	□
PM501	5	14	0.500	70	62.5	84.8	65	0	10	53	□
PM601	6	12	0.250	72	61	84.8	59	14	4	54	□
PM602	6	14	0.500	84	73	99.6	65	0	10	54	□

☆	材料 / Material
□	39NiCrMo3 调制钢 Steel 39NiCrMo3 hardened and tempered
■	18NiCrMo5 表面渗碳钢 18NiCrMo5 Case hardened

套筒联轴器 / Sleeve couplings

HOS



材料　　：16CrNi4
Material : Steel 16CrNi4

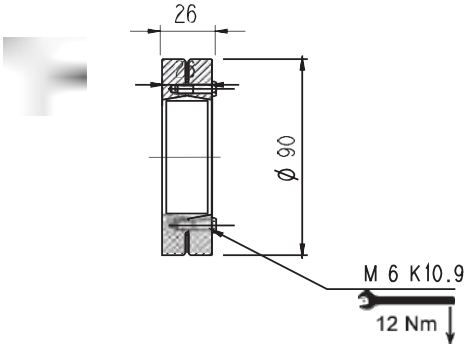
花键 / Splined bars

SOF

表面硬化钢 18NiCrMo5 UNI 5331 表面硬化必须达到 50-55 HRC
Case hardening steel 18NiCrMo5 UNI 5331
must be case hardened 50-55 HRC

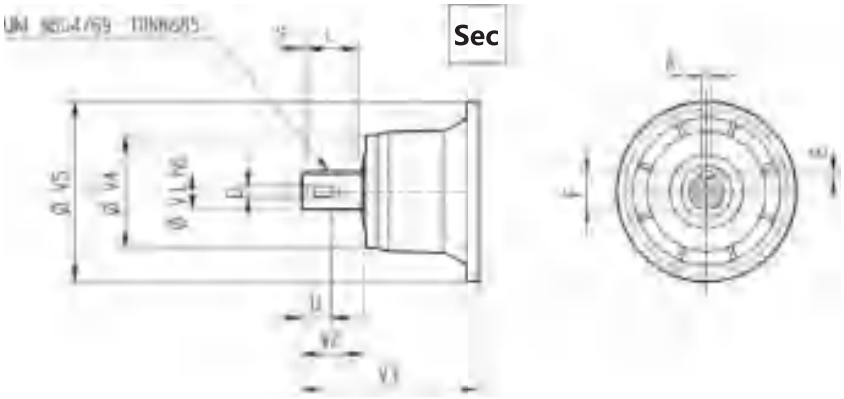
锁紧盘/ Shrink disc

LOP



GTN00 L - GTN00 R

输入轴 / Input shaft

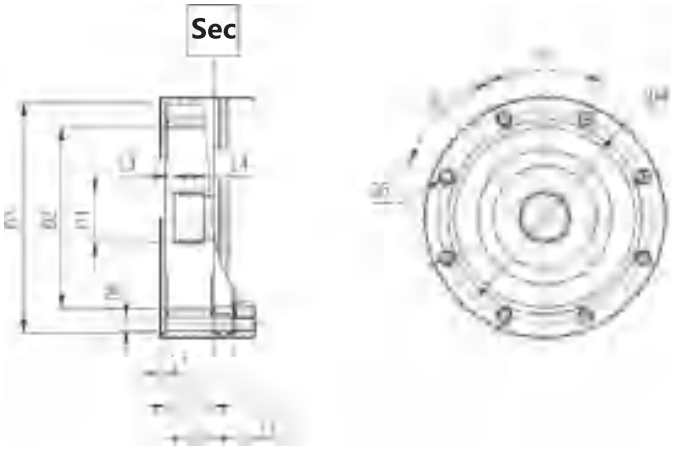


S_ _

	CODE	V1	V2	V3	V4	V5	A	B	F	L	S	D	U
GTN00 L1	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28
GTN00 L2	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28
GTN00 L3	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28
GTN00 L4	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28
GTN00 R2-R3-R4	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28

不带电机的输入法兰尺寸

Input dimension without motor adaptor



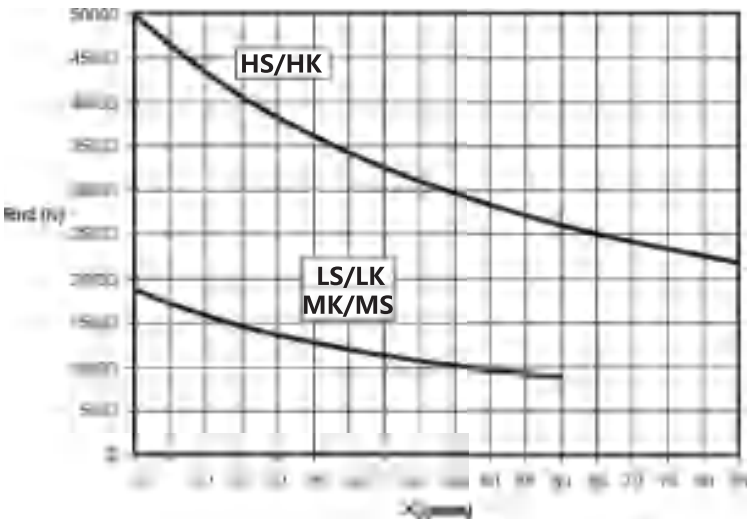
S_ _

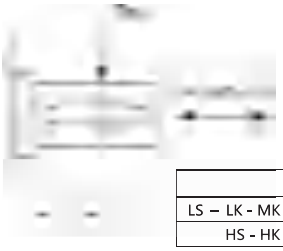
	CODE	C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	输入 Input
GTN00 L1	S9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	53	18	45°	45°	A
GTN00 L2	S9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	106	18	45°	45°	A
GTN00 L3	S9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	159	18	45°	45°	A
GTN00 L4	S9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	212	18	45°	45°	A
GTN00 R2-R3-R4	S9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	37	18	45°	45°	A

GTN00 L - GTN00 R

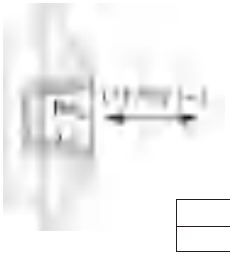
输出轴上允许的径向和轴向载荷
$Fh_2 : n_2 . h = 10000$

Permissible radial and axial loads on output shaft with Fh_2 $n_2 \cdot h = 10000$





	An_2 (+)	An_2 (-)
LS – LK - MK - MS	20000	15000
HS - HK	40000	40000

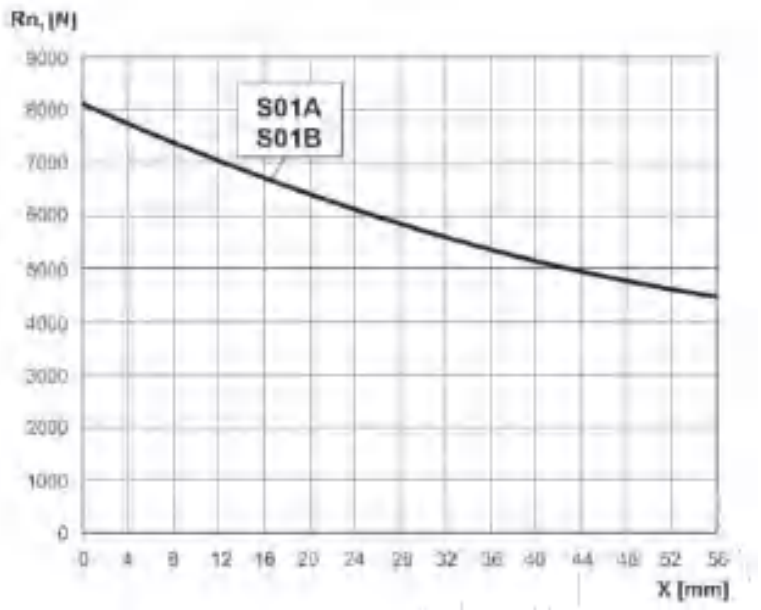


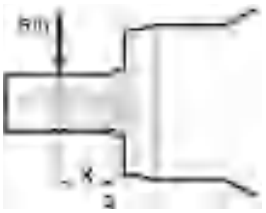
	Rn_2	An_2 (+/-)
LSH	8000	8000

轴上的载荷修正系数 fh_2 Load corrective factor fh_2 on shafts	$Fh_2 = n_2 \cdot h$		10000	25000	50000	100000	500000	1000000
	fh_2	LS-LK-MK-MS-LSH	1	0.74	0.58	0.46	0.27	0.21
		HS - HK	1	0.76	0.61	0.50	0.31	0.25

输入轴上允许的径向和轴向载荷
$Fh_1 n_1 \cdot h = 250000$

Permissible radial loads on inputshaft with $Fh_1 : n_1 \cdot h = 250000$





轴上的载荷修正系数 fh_1 Load corrective factor fh_1 on shafts	$Fh_1 = n_1 \cdot h$	250000	500000	1000000	2000000	5000000	10000000
	fh_1	1	0.79	0.63	0.50	0.37	0.29

GTN01 L

M_2 = 1750 Nm

	i	M_{n2} [Nm]						P_1	Pt	n_1	n_{1max}	M_b	
	1:	n_2·h 10000	n_2·h 25000	n_2·h 50000	n_2·h 100000	n_2·h 500000	n_2·h 1000000	[kW]	[kW]	[min^{-1}]	[min^{-1}]	[Nm]	
L1	3.48	1400	1400	1400	1300	1300	1100	30	7.5	2000	4000	440	4L
	4.26	2000	2000	1750	1700	1350	1100	30	7.5	2000	4000	440	4L
	5.77	1700	1450	1300	1300	1300	1050	30	7.5	2000	4000	400	4K
	7.20	1150	1150	1150	1150	1150	940	30	7.5	2000	4000	260	4F
	9.00	800	700	660	660	660	660	15.8	7.5	2000	4000	260	4F
L2	12.1	1400	1400	1400	1300	1300	1100	23.9	7.5	2000	4000	160	4D
	14.8	2000	2000	1750	1700	1350	1100	25.0	7.5	2000	4000	160	4D
	18.2	2000	2000	1750	1700	1350	1100	20.7	7.5	2000	4000	160	4D
	20.1	1700	1450	1300	1300	1300	1050	14.4	7.5	2000	4000	160	4D
	24.6	2000	2000	1750	1700	1350	1100	15.6	7.5	2000	4000	160	4D
	30.7	2000	2000	1750	1700	1350	1100	12.6	7.5	2000	4000	100	4B
	33.3	1700	1450	1300	1300	1300	1050	8.7	7.5	2000	4000	100	4B
	38.4	1600	1570	1570	1570	1250	1020	10.1	7.5	2000	4000	100	4B
	41.5	1700	1450	1300	1300	1300	1050	7.0	7.5	2000	4000	100	4B
	51.9	1700	1450	1300	1300	1300	1050	5.9	7.5	2000	4000	50	4A
	64.8	1150	1150	1150	1150	1150	940	4.0	7.5	2000	4000	50	4A
L3	51.6	2000	2000	1750	1700	1350	1100	8.3	7.5	2000	4000	50	4A
	63.2	2000	2000	1750	1700	1350	1100	7.0	7.5	2000	4000	50	4A
	69.9	1700	1450	1300	1300	1300	1050	4.7	7.5	2000	4000	50	4A
	77.5	2000	2000	1750	1700	1350	1100	5.9	7.5	2000	4000	50	4A
	85.6	2000	2000	1750	1700	1350	1100	5.4	7.5	2000	4000	50	4A
	105	2000	2000	1750	1700	1350	1100	4.4	7.5	2000	4000	50	4A
	116	1700	1450	1300	1300	1300	1050	3.1	7.5	2000	4000	50	4A
	131	2000	2000	1750	1700	1350	1100	3.5	7.5	2000	4000	50	4A
	142	2000	2000	1750	1700	1350	1100	3.2	7.5	2000	4000	50	4A
	177	2000	2000	1750	1700	1350	1100	2.6	7.5	2000	4000	50	4A
	192	1700	1450	1300	1300	1300	1050	2.0	7.5	2000	4000	50	4A
	221	2000	2000	1750	1700	1350	1100	2.1	7.5	2000	4000	50	4A
	240	1700	1450	1300	1300	1300	1050	1.6	7.5	2000	4000	50	4A
	299	1700	1450	1300	1300	1300	1050	1.3	7.5	2000	4000	50	4A
	374	1700	1450	1300	1300	1300	1050	1.0	7.5	2000	4000	50	4A
L4	330	2000	2000	1750	1700	1350	1100	1.4	6	2000	4000	50	4A
	403	1700	1450	1300	1300	1300	1050	1.00	6	2000	4000	50	4A
	447	2000	2000	1750	1700	1350	1100	1.06	6	2000	4000	50	4A
	494	2000	2000	1750	1700	1350	1100	0.96	6	2000	4000	50	4A
	558	2000	2000	1750	1700	1350	1100	0.85	6	2000	4000	50	4A
	616	2000	2000	1750	1700	1350	1100	0.77	6	2000	4000	50	4A
	755	2000	2000	1750	1700	1350	1100	0.63	6	2000	4000	50	4A
	819	2000	2000	1750	1700	1350	1100	0.58	6	2000	4000	50	4A
	942	2000	2000	1750	1700	1350	1100	0.50	6	2000	4000	50	4A
	1022	2000	2000	1750	1700	1350	1100	0.46	6	2000	4000	50	4A
	1108	1700	1450	1300	1300	1300	1050	0.36	6	2000	4000	50	4A
	1275	2000	2000	1750	1700	1350	1100	0.37	6	2000	4000	50	4A
	1383	1700	1450	1300	1300	1300	1050	0.29	6	2000	4000	50	4A
	1591	2000	2000	1750	1700	1350	1100	0.30	6	2000	4000	50	4A
	1725	1700	1450	1300	1300	1300	1050	0.23	6	2000	4000	50	4A
	2153	1700	1450	1300	1300	1300	1050	0.19	6	2000	4000	50	4A
	2692	1700	1450	1300	1300	1300	1050	0.15	6	2000	4000	50	4A

$M_{2max} = 1.2 \cdot M_{n2}$ ($n_2 \cdot h = 10000$)

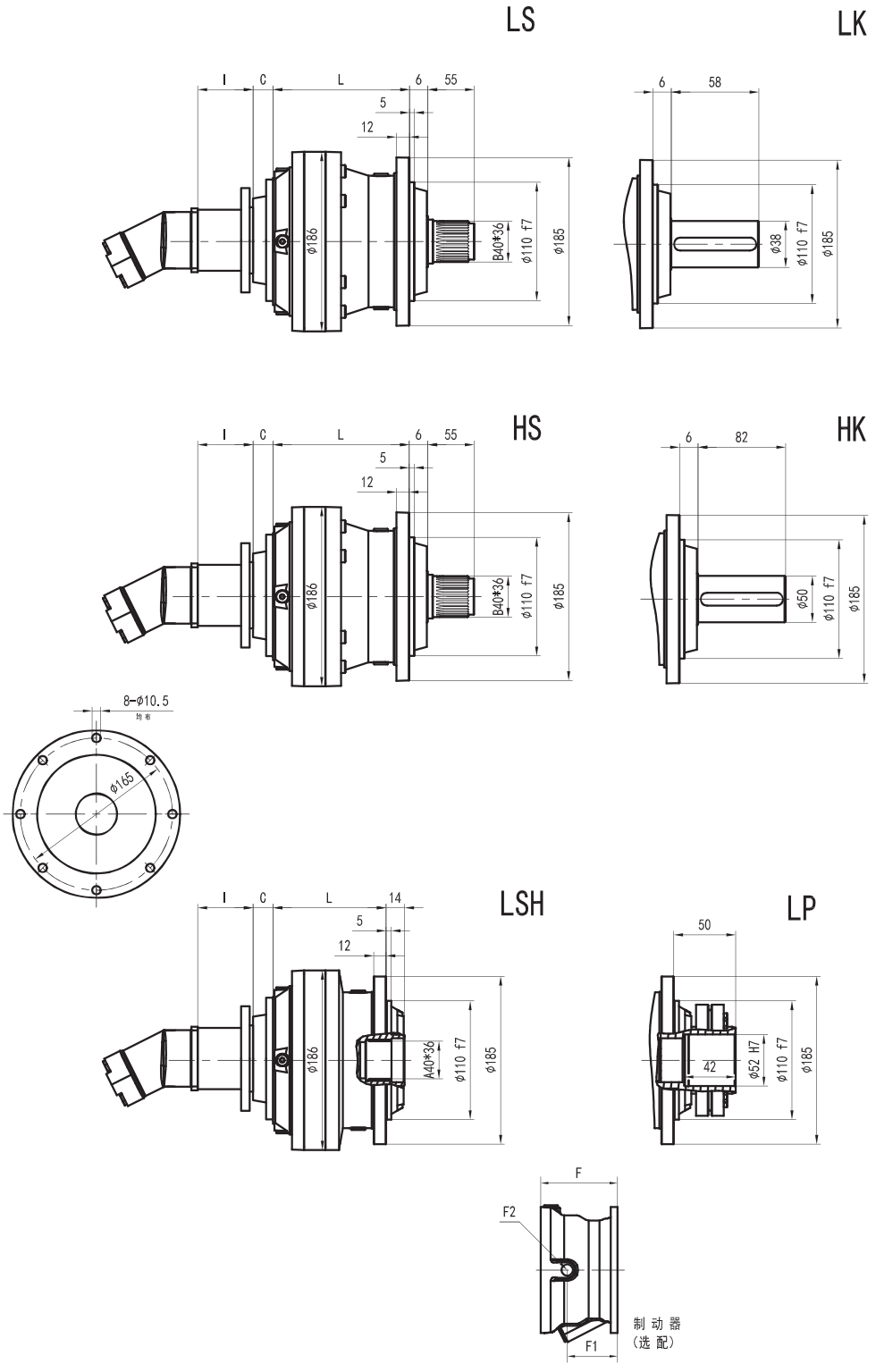
M_2 = 1750 Nm

GTN01 R

	i	M_{n2} [Nm]						P_1	Pt	n_1	n_{1max}	M_b	
	1:	n_2·h 10000	n_2·h 25000	n_2·h 50000	n_2·h 100000	n_2·h 500000	n_2·h 1000000	[kW]	[kW]	[min^{-1}]	[min^{-1}]	[Nm]	
R2	7.13	1200	1200	1200	1200	1100	890	15.0	12	2000	4000	260	4F
	8.74	1450	1450	1450	1450	1250	1050	15.0	12	2000	4000	330	4H
	11.8	1700	1450	1300	1300	1300	1050	15.0	12	2000	4000	260	4F
	14.8	1150	1150	1150	1150	1150	940	15.0	12	2000	4000	160	4D
	18.5	800	700	660	660	660	660	8.0	12	2000	4000	160	4D
R3	24.8	1400	1400	1400	1300	1300	1100	12.4	12	2000	4000	100	4B
	30.4	2000	2000	1750	1700	1350	1100	13.1	12	2000	4000	100	4B
	37.3	2000	2000	1750	1700	1350	1100	10.8	12	2000	4000	100	4B
	41.2	1700	1450	1300	1300	1300	1050	7.3	12	2000	4000	100	4B
	50.4	2000	2000	1750	1700	1350	1100	8.4	12	2000	4000	100	4B
	62.9	2000	2000	1750	1700	1350	1100	7.0	12	2000	4000	50	4A
	68.2	1700	1450	1300	1300	1300	1050	4.8	12	2000	4000	50	4A
	78.7	1600	1600	1600	1600	1300	1000	5.8	12	2000	4000	50	4A
	85.2	1700	1450	1300	1300	1300	1050	4.0	12	2000	4000	50	4A
	107	1700	1450	1300	1300	1300	1050	3.3	12	2000	4000	50	4A
	133	1150	1150	1150	1150	1150	940	2.0	12	2000	4000	50	4A
R4	106	2000	2000	1750	1700	1350	1100	4.5	10	2000	4000	50	4A
	130	2000	2000	1750	1700	1350	1100	3.6	10	2000	4000	50	4A
	143	1700	1450	1300	1300	1300	1050	2.7	10	2000	4000	50	4A
	159	2000	2000	1750	1700	1350	1100	3.0	10	2000	4000	50	4A
	175	2000	2000	1750	1700	1350	1100	2.7	10	2000	4000	50	4A
	215	2000	2000	1750	1700	1350	1100	2.2	10	2000	4000	50	4A
	237	1700	1450	1300	1300	1300	1050	1.7	10	2000	4000	50	4A
	268	2000	2000	1750	1700	1350	1100	1.8	10	2000	4000	50	4A
	291	2000	2000	1750	1700	1350	1100	1.6	10	2000	4000	50	4A
	363	2000	2000	1750	1700	1350	1100	1.3	10	2000	4000	50	4A
	394	1700	1450	1300	1300	1300	1050	1.0	10	2000	4000	50	4A
	453	2000	2000	1750	1700	1350	1100	1.0	10	2000	4000	50	4A
	491	1700	1450	1300	1300	1300	1050	0.82	10	2000	4000	50	4A
	613	1700	1450	1300	1300	1300	1050	0.66	10	2000	4000	50	4A
	766	1700	1450	1300	1300	1300	1050	0.52	10	2000	4000	50	4A

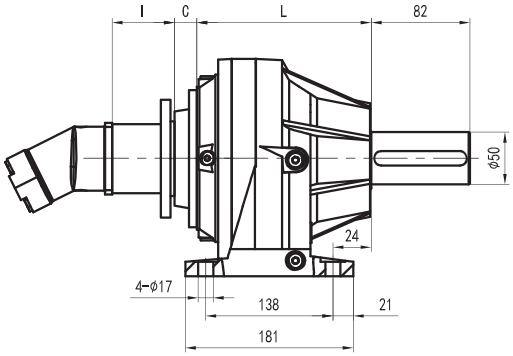
M_{2max} = 1.2 • M_{n2} (n_2 • h = 10000)

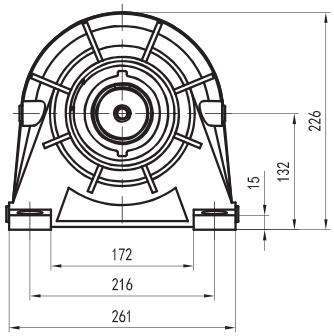
GTN01 L


LS
LK
I
C
L
6
55
5
12
6
58
φ186
B40*36
φ110 f7
φ185
φ38
HS
HK
82
φ50
8-φ10.5
均布
φ165
LSH
LP
14
A40*36
50
42
φ52 H7
F
F2
F1
制动器
(选配)

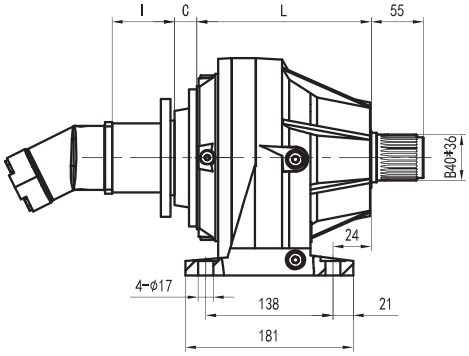
GTN01 L

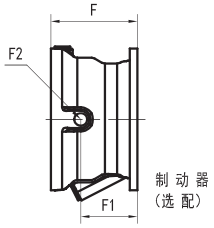
MK





MS

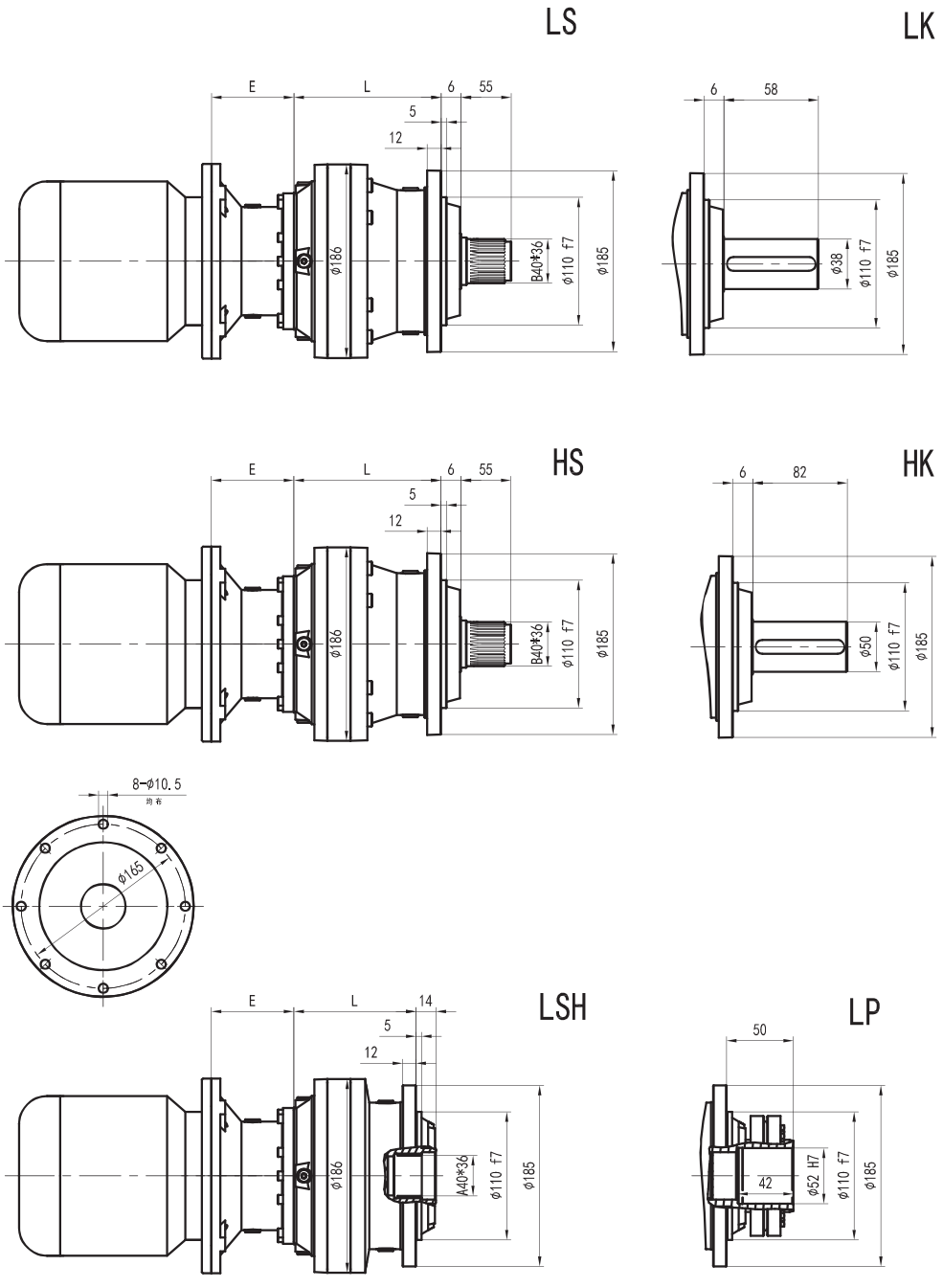




LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	2400 Nm

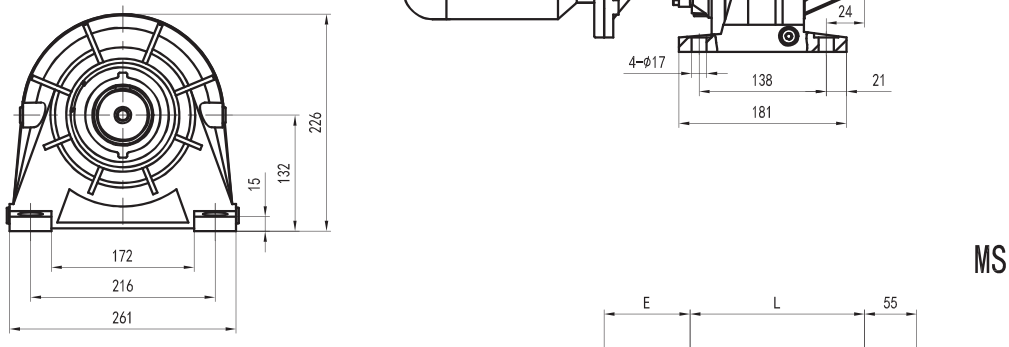
	L				Kg				C	输入 Input	I	F	F1	F2	类型 Type	输入 Input	Kg
	LS LK	LSH LP	HS HK	MK MS	LS LK	LSH LP	HS HK	MK MS									
GTN01 L1	92	92	127	133	21	19	23	26	37	A	联系厂家	105	65	1/4G	4	A	10
GTN01 L2	145	145	180	186	25	23	27	30	37	A		105	65	1/4G	4	A	10
GTN01 L3	198	198	233	239	29	27	31	34	37	A		105	65	1/4G	4	A	10
GTN01 L4	251	251	286	292	33	31	35	38	37	A		105	65	1/4G	4	A	10

GTN01 L

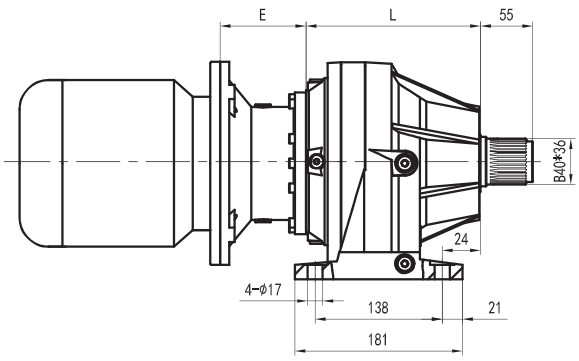

LS
LK
E
L
6
55
5
12
6
58
φ186
B40*36
φ110 f7
φ185
φ38
HS
HK
82
φ50
8-φ10.5
均布
φ165
LSH
LP
14
A40*36
50
42
φ52 H7

GTN01 L

MK



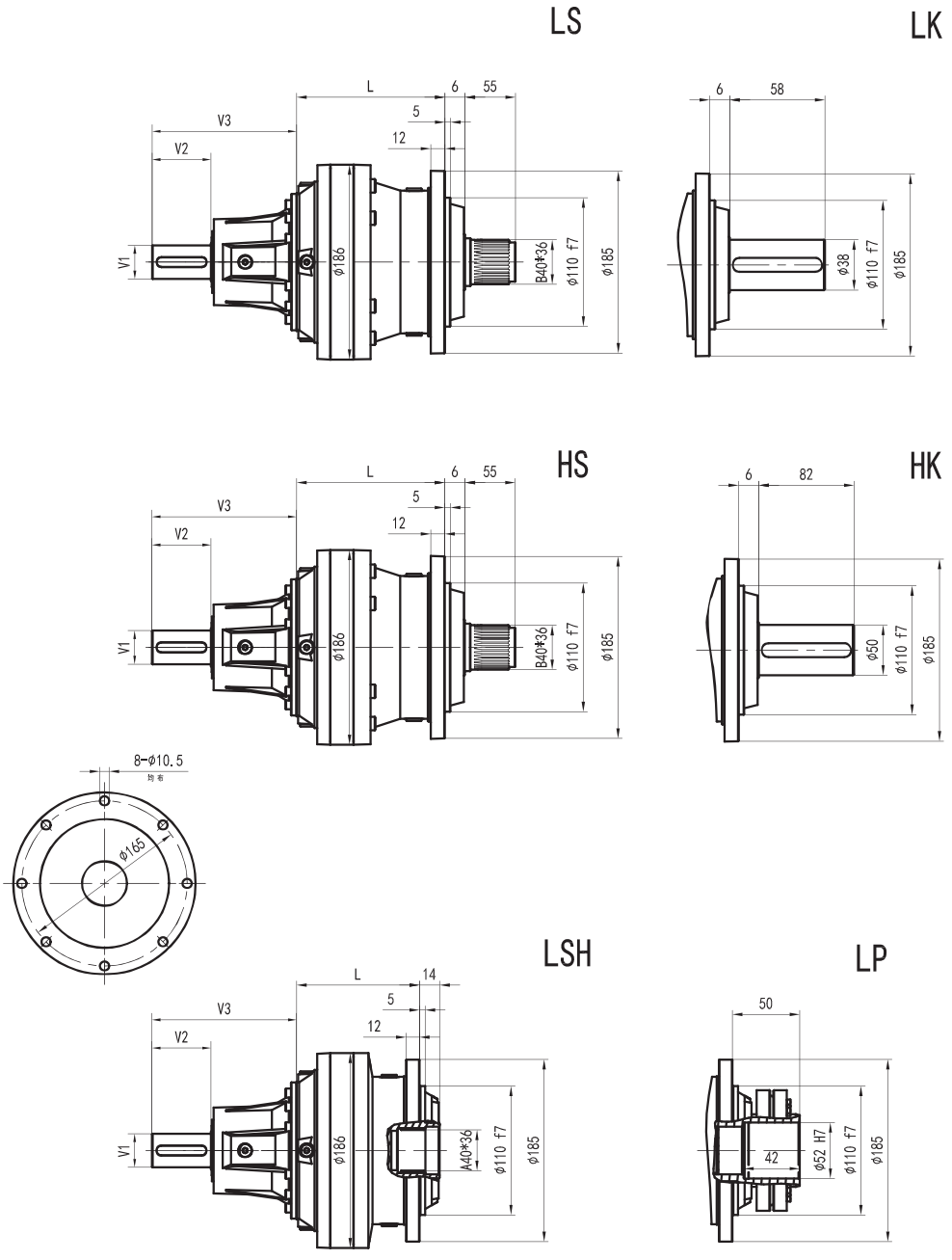
MS



LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	2400 Nm

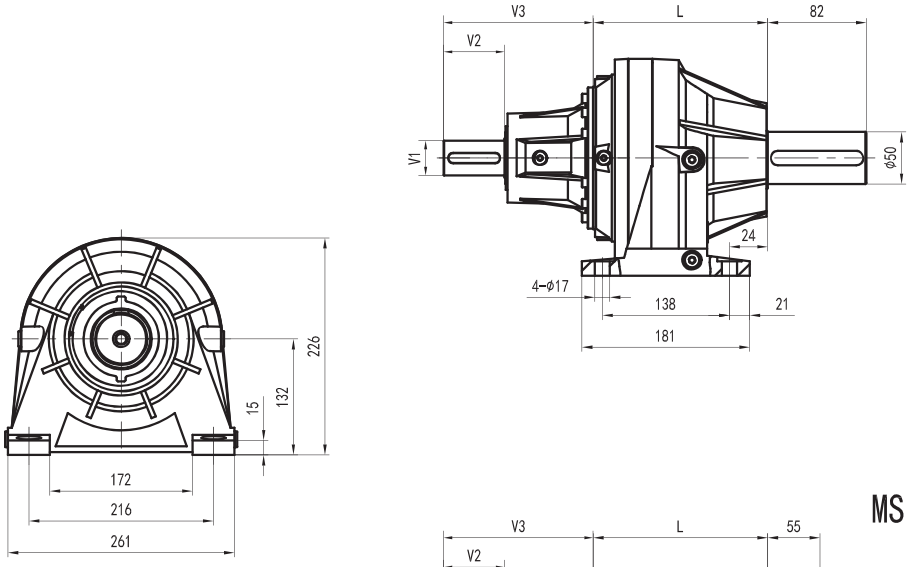
	L				Kg				E						
	LS LK	LSH LP	HS HK	MK MS	LS LK	LSH LP	HS HK	MK MS	IEC 71	IEC 80	IEC 90	IEC 100	IEC 112	IEC 132	IEC 160
GTN01 L1	92	92	127	133	21	19	23	26	65	84	84	94	94	114	114
GTN01 L2	145	145	180	186	25	23	27	30	65	84	84	94	94	114	114
GTN01 L3	198	198	233	239	29	27	31	34	65	84	84	94	94	114	114
GTN01 L4	251	251	286	292	33	31	35	38	65	84	84	94	94	114	114

GTN01 L

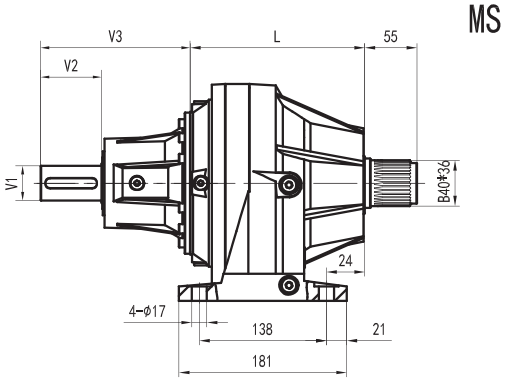

LS
LK
L
6
55
5
12
V3
V2
V1
ø186
B40*36
ø110 f7
ø185
58
ø38
HS
HK
82
ø50
8-ø10.5
均布
ø165
LSH
LP
14
A40*36
50
42
ø52 H7

GTN01 L

MK



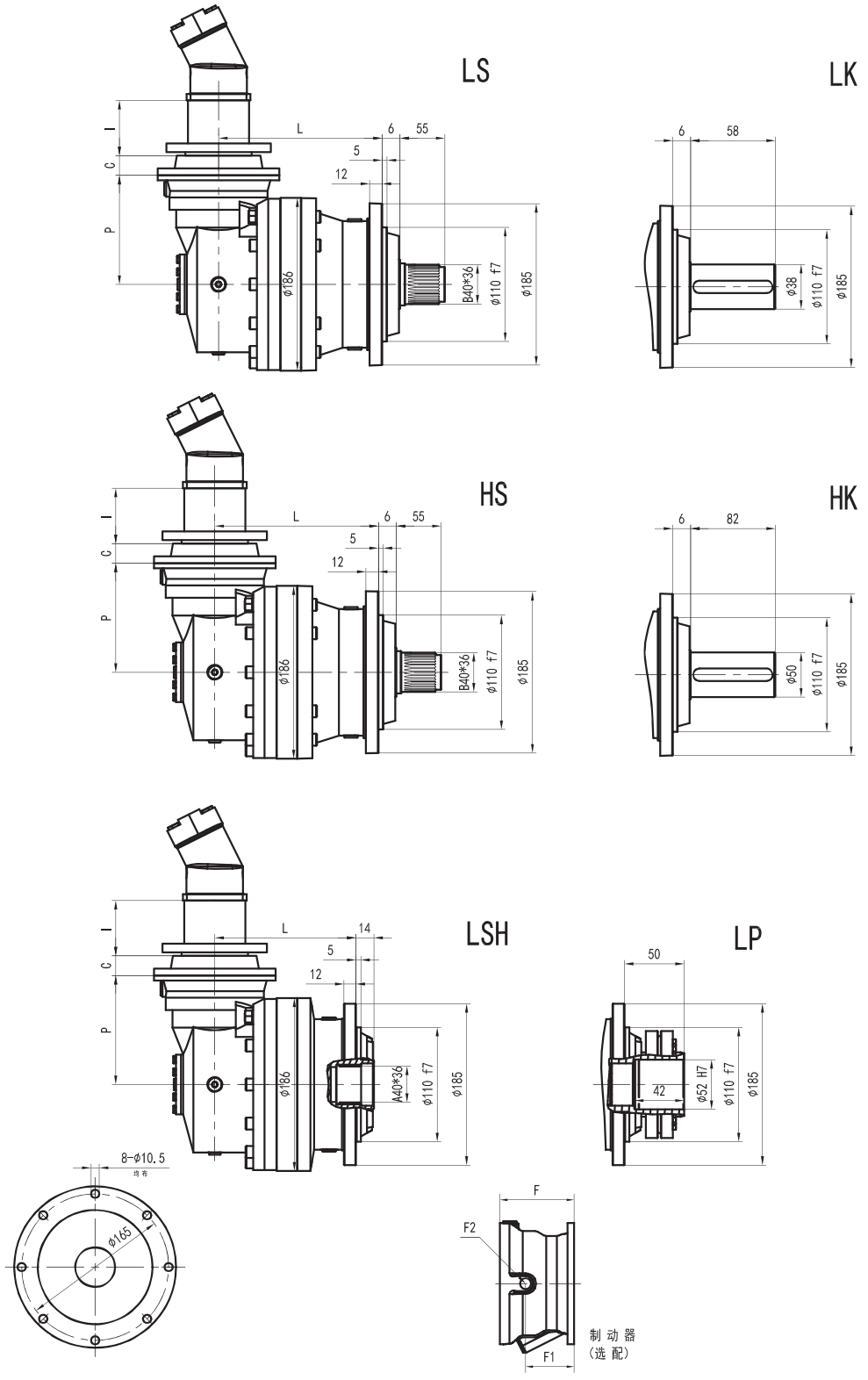
MS



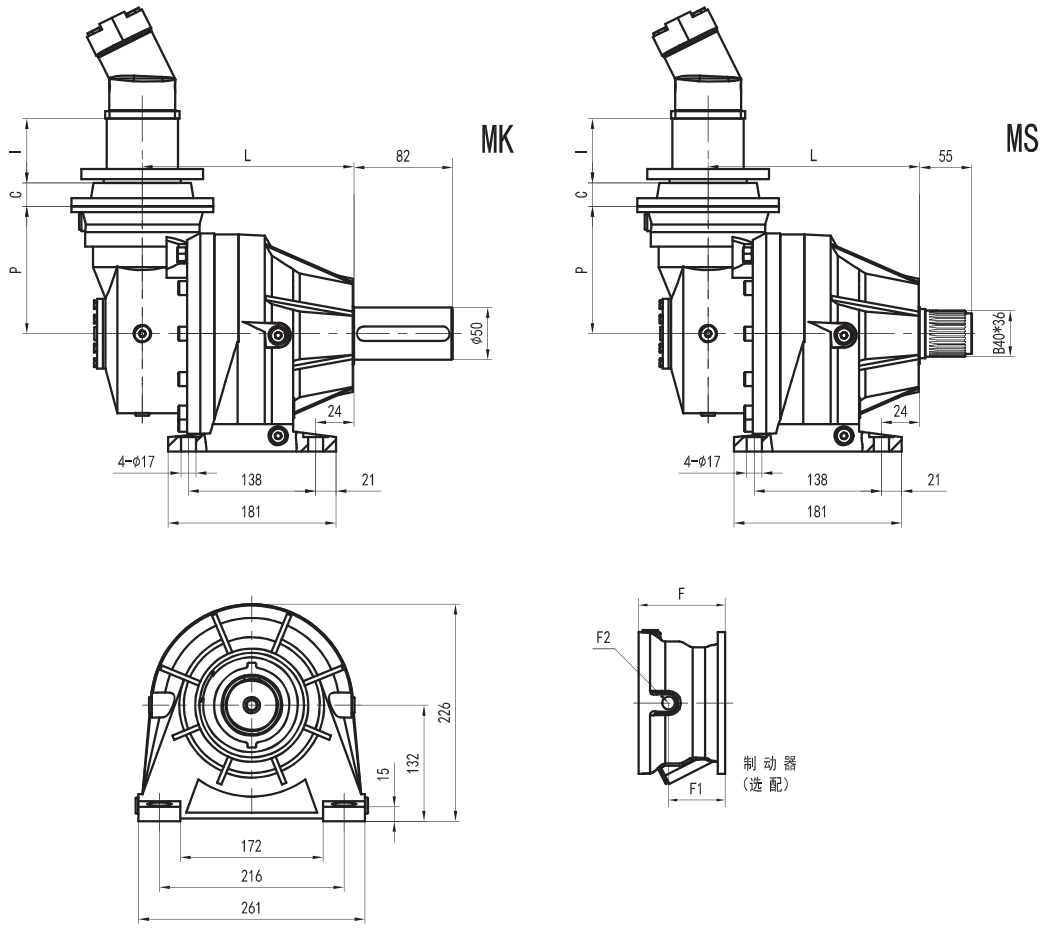
LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	2400 Nm

	L				Kg				V1	V2	V3	Kg	V1	V2	V3	Kg
	LS LK	LSH LP	HS HK	MK MS	LS LK	LSH LP	HS HK	MK MS								
GTN01 L1	92	92	127	133	21	19	23	26	24	36	137.5	6	38	58	158	7
GTN01 L2	145	145	180	186	25	23	27	30	24	36	137.5	6	38	58	158	7
GTN01 L3	198	198	233	239	29	27	31	34	24	36	137.5	6	38	58	158	7
GTN01 L4	251	251	286	292	33	31	35	38	24	36	137.5	6	38	58	158	7

GTN01 R


LS
LK
HS
HK
LSH
LP
L
6
55
5
12
14
I
C
P
ø186
B40*36
A40*36
ø110 f7
ø185
58
ø38
82
ø50
50
42
ø52 H7
8-ø10.5
均布
ø165
F
F2
F1
制动器
(选配)

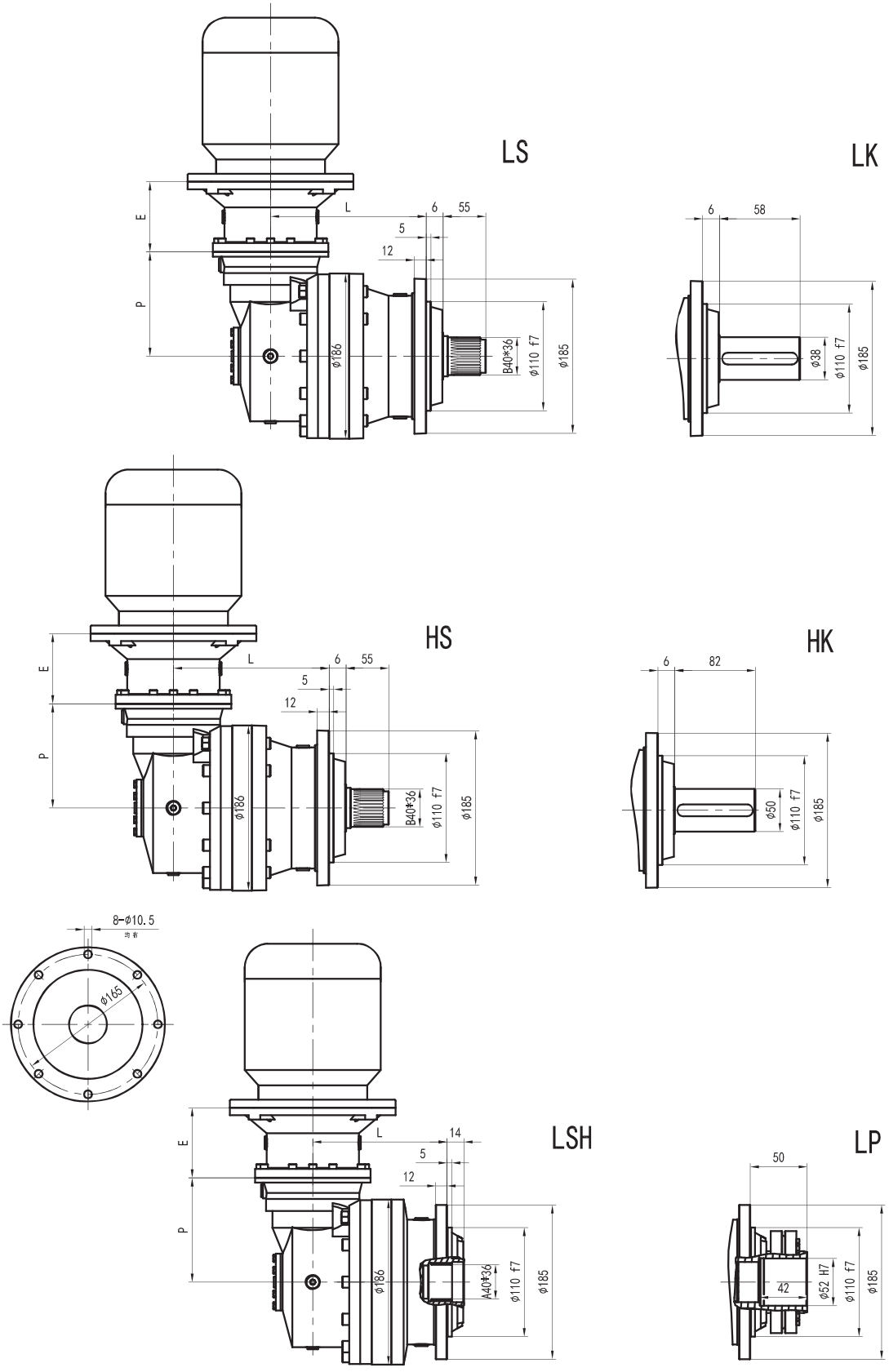
GTN01 R



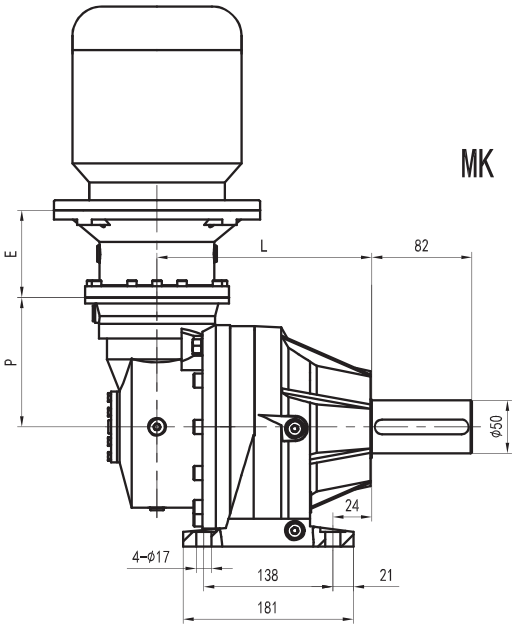
LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	2400 Nm

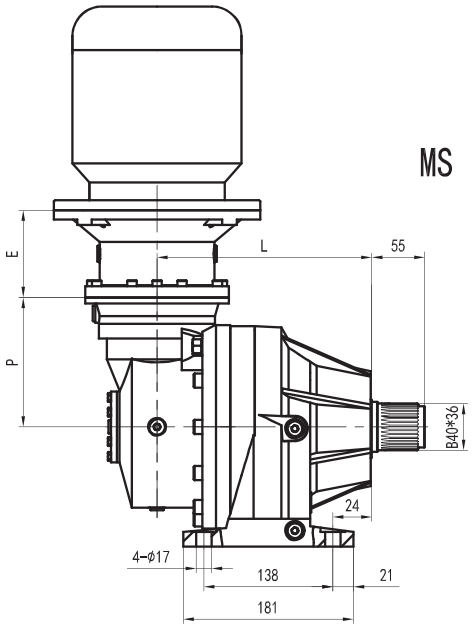
	L				P	Kg				C	输入 Input	I	F	F1	F2	类型 Type	输入 Input	Kg
	LS LK	LSH LP	HS HK	MK MS		LS LK	LSH LP	HS HK	MK MS									
GTN01 R2	184	184	219	225	122	35	33	37	40	37	A	联系厂家	105	65	1/4 G	4	A	10
GTN01 R3	237	237	272	278	122	39	37	41	44	37	A		105	65	1/4 G	4	A	10
GTN01 R4	290	290	325	331	122	43	41	45	48	37	A		105	65	1/4 G	4	A	10

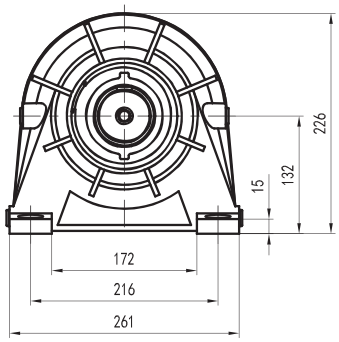
GTN01 R


LS
LK
HS
HK
LSH
LP
8-ø10.5
均布
ø165
E
P
L
6
55
5
12
ø186
B40*36
ø110 f7
ø185
58
ø38
82
ø50
14
50
42
ø52 H7

GTN01 R



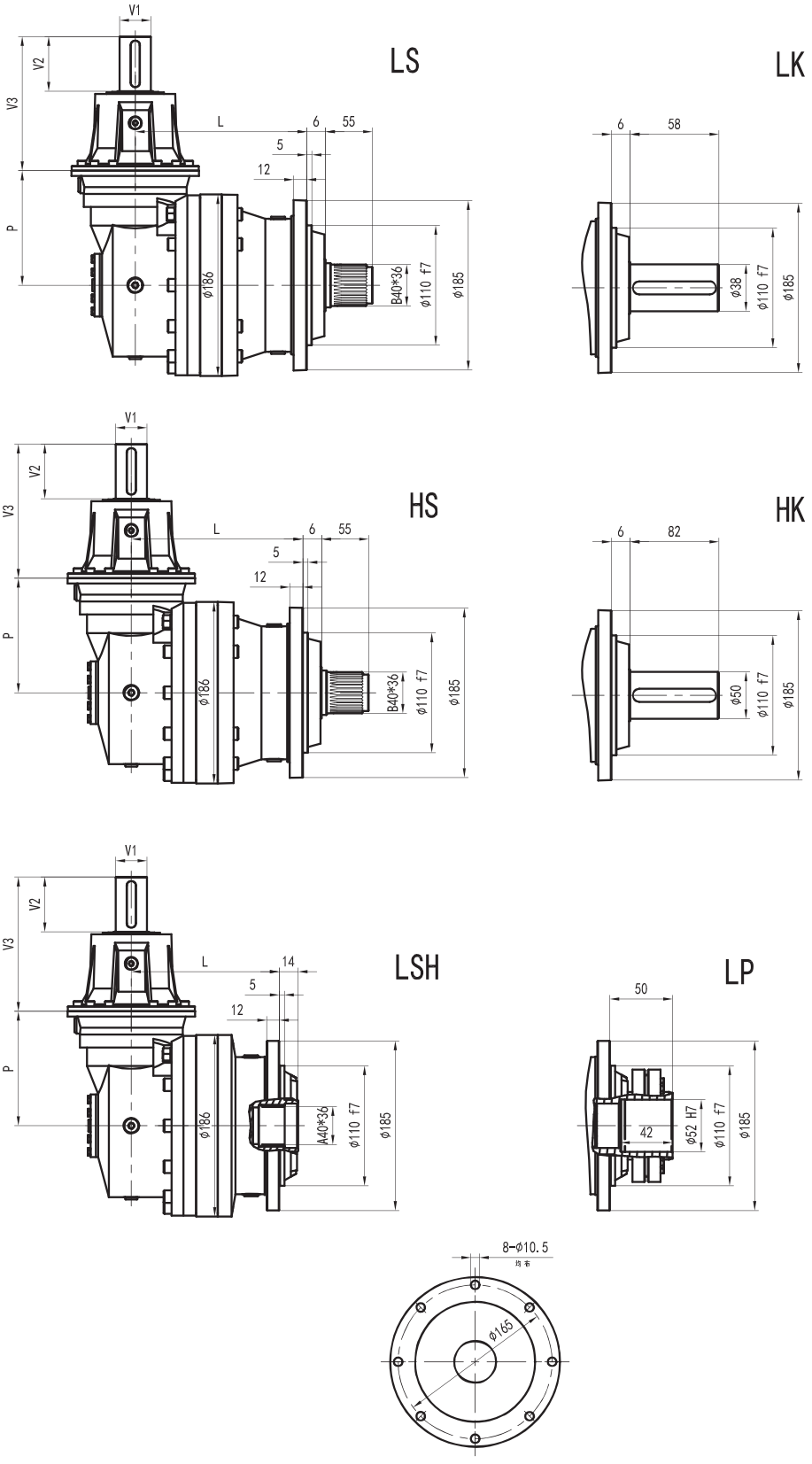




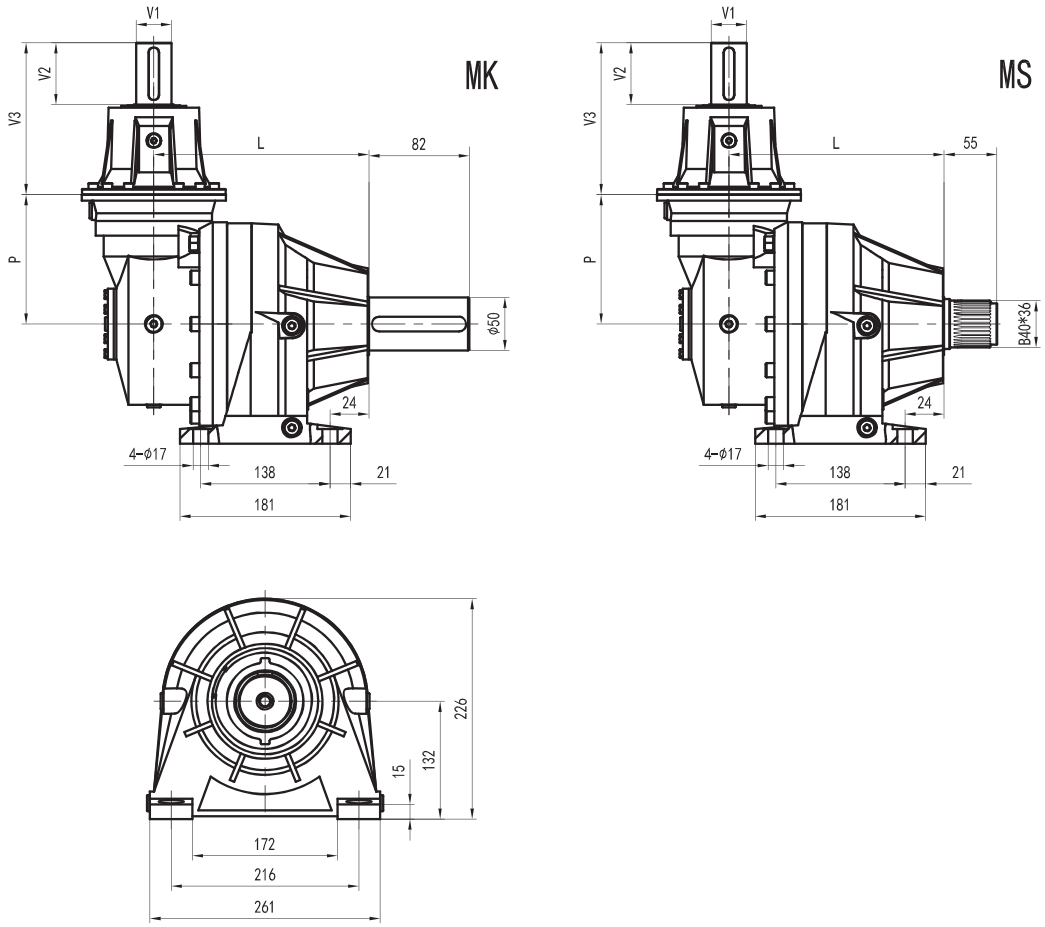
LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	2400 Nm

	L				P	Kg				E					
	LS LK	LSH LP	HS HK	MK MS		LS LK	LSH LP	HS HK	MK MS	IEC 71	IEC 80	IEC 90	IEC 100	IEC 112	IEC 132
GTN01 R2	184	184	219	225	122	35	33	37	40	65	84	84	94	94	114
GTN01 R3	237	237	272	278	122	39	37	41	44	65	84	84	94	94	114
GTN01 R4	290	290	325	331	122	43	41	45	48	65	84	84	94	94	114

GTN01 R


LS
V1
V2
V3
P
L
6
55
5
12
ø186
B40*36
ø110 f7
ø185
LK
6
58
ø38
ø110 f7
ø185
HS
V1
V2
V3
P
L
6
55
5
12
ø186
B40*36
ø110 f7
ø185
HK
6
82
ø50
ø110 f7
ø185
LSH
V1
V2
V3
P
L
14
5
12
ø186
A40*36
ø110 f7
ø185
LP
50
42
ø52 H7
ø110 f7
ø185
8-ø10.5
均布
ø165

GTN01 R

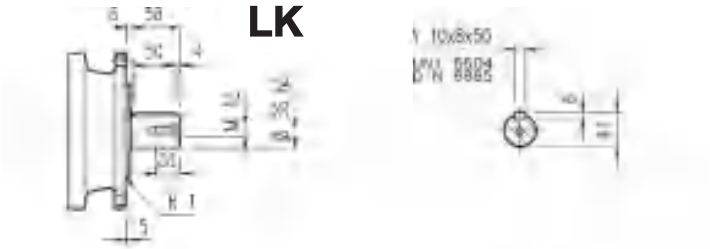


LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	2400 Nm

	L				p	Kg				V1	V2	V3	Kg	V1	V2	V3	Kg
	LS LK	LSH LP	HS HK	MK MS		LS LK	LSH LP	HS HK	MK MS								
GTN01 R2	184	184	219	225	122	35	33	37	40	24	36	137.5	6	38	58	158	7
GTN01 R3	237	237	272	278	122	39	37	41	44	24	36	137.5	6	38	58	158	7
GTN01 R4	290	290	325	331	122	43	41	45	48	24	36	137.5	6	38	58	158	7

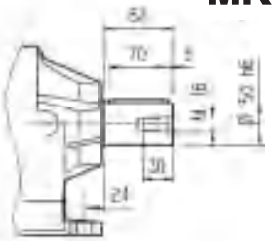
GTN01 L - GTN01 R

LK

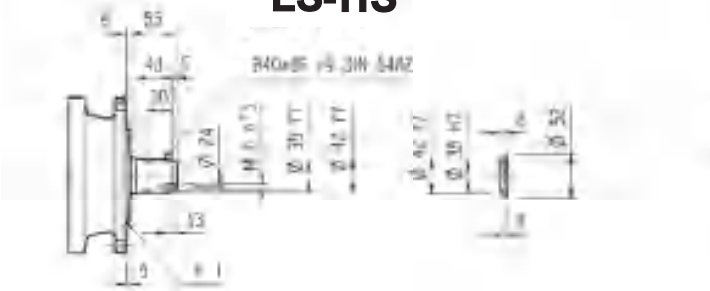


HK

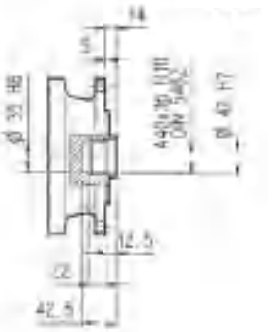
MK



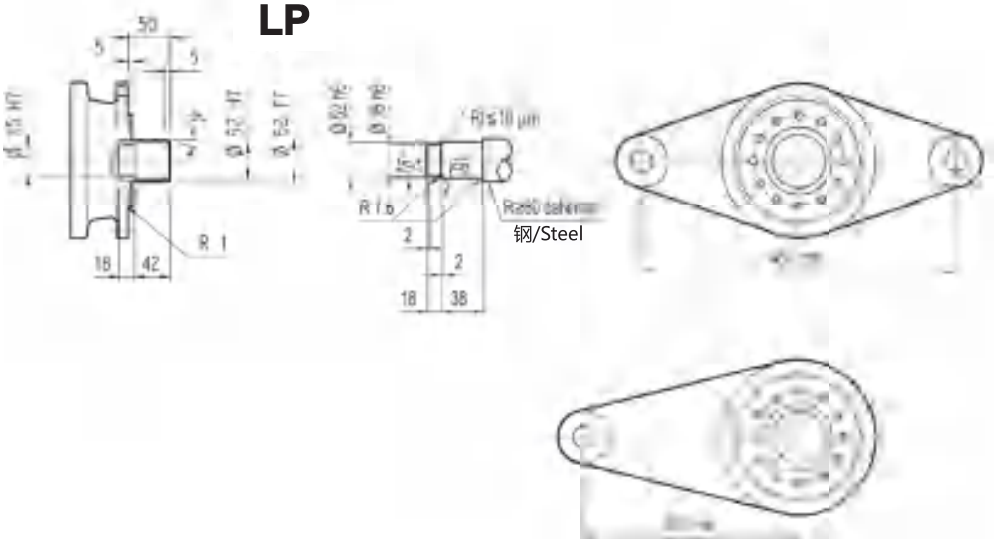
LS-HS



LSH



LP

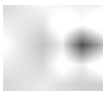


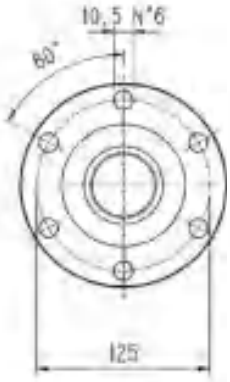
LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	2400 Nm

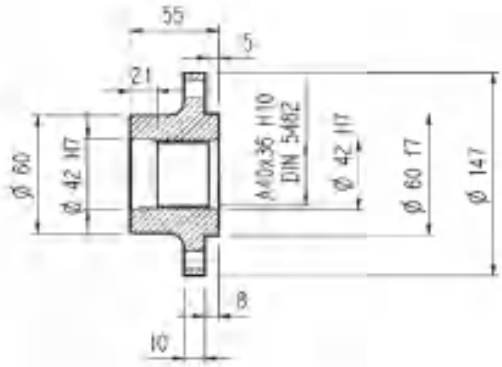
GTN01 L - GTN01 R

FOA

法兰/ Flange

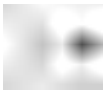


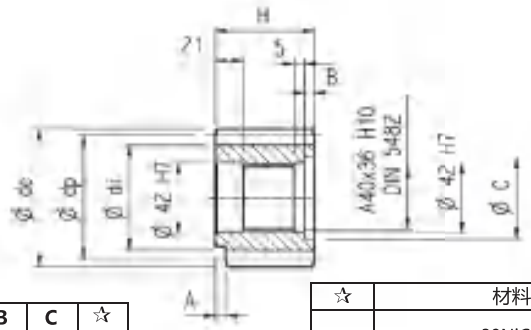




材料 : 钢C40
Material : Steel C40

输出齿轮 / Output pinions



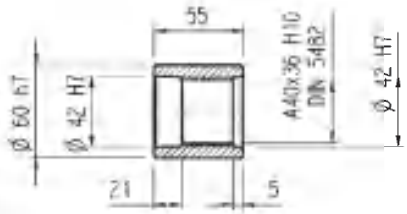


PM...

	m	z	x	dp	di	de	H	A	B	C	☆
PM451	4.5	14	0.507	63	56	75.5	55	0	0	0	□
PM501	5	14	0.500	70	62.5	84.8	65	0	10	53	□
PM601	6	12	0.250	72	61	84.8	59	14	4	54	□
PM602	6	14	0.500	84	73	99.6	65	0	10	54	□

☆	材料 / Material
□	39NiCrMo3 调制钢 Steel 39NiCrMo3 hardened and tempered
■	18NiCrMo5 表面渗碳钢 18NiCrMo5 Case hardened

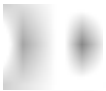
套筒联轴器/ Sleeve couplings

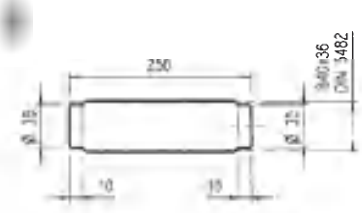


HOS

材料 : 16CrNi4
Material : Steel 16CrNi4

花键/ Splined bars

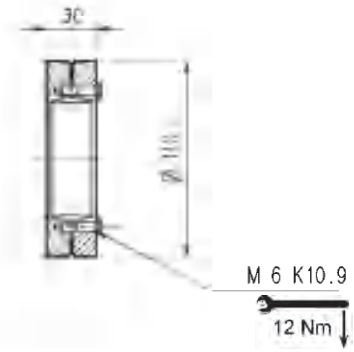




SOF

表面硬化钢18NiCrMo5必须达到50-55 HRC
Case hardening steel 18NiCrMo5 UNI 5331
must be case hardened 50-55 HRC

锁紧盘/ Shrink disc

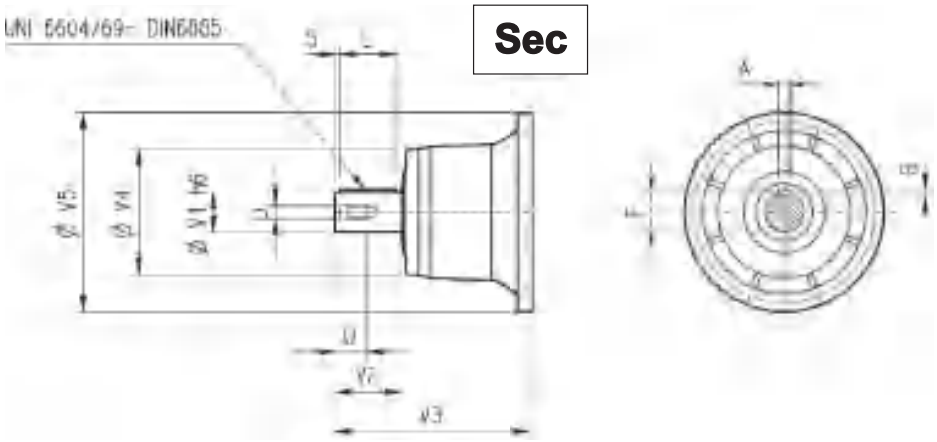


LOP

GTN01 L - GTN01 R

输入轴/ Input shaft

S_ _

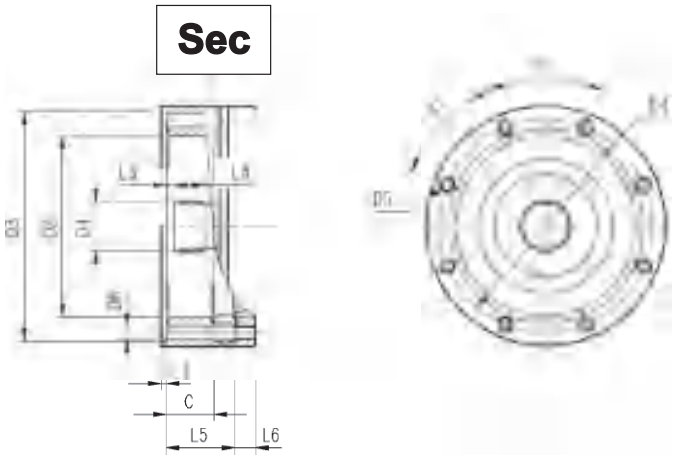


	CODE	V1	V2	V3	V4	V5	A	B	F	L	S	D	U
GTN01 L1	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28
GTN01 L2	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28
GTN01 L3	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28
GTN01 L4	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28
GTN01 R2-R3-R4	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28

不带电机的输入法兰尺寸

Input dimension without motor adaptor

S_ _

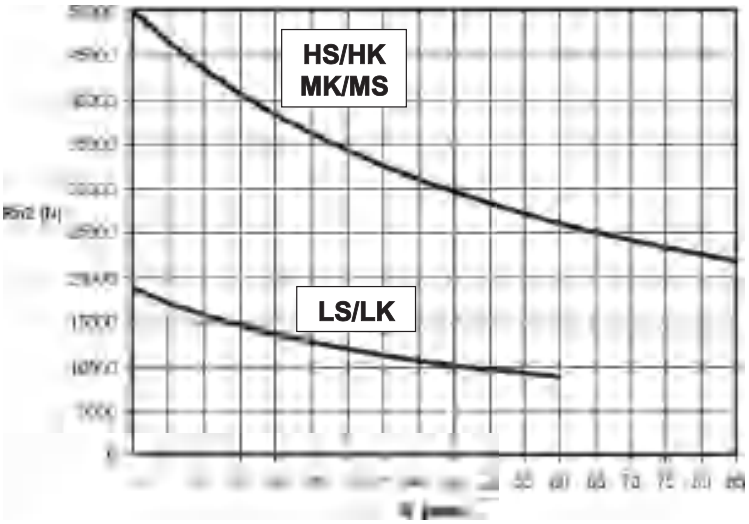


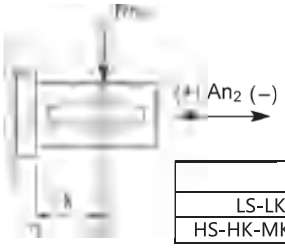
	CODE	C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	输入 Input
GTN01 L1	S9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	65	18	45°	45°	A
GTN01 L2	S9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	118	18	45°	45°	A
GTN01 L3	S9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	171	18	45°	45°	A
GTN01 L4	S9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	224	18	45°	45°	A
GTN01 R2-R3-R4	S9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	37	18	45°	45°	A

GTN01 L - GTN01 R

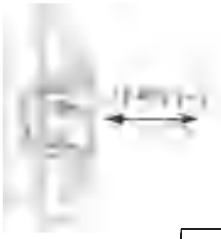
输出轴上允许的径向和轴向载荷
$Fh_2 : n_2 \cdot h = 10000$

Permissible radial and axial loadson output shaft with Fh_2
$n_2 \cdot h = 10000$





	An2 (+)	An2 (-)
LS-LK	20000	15000
HS-HK-MK-MS	40000	40000

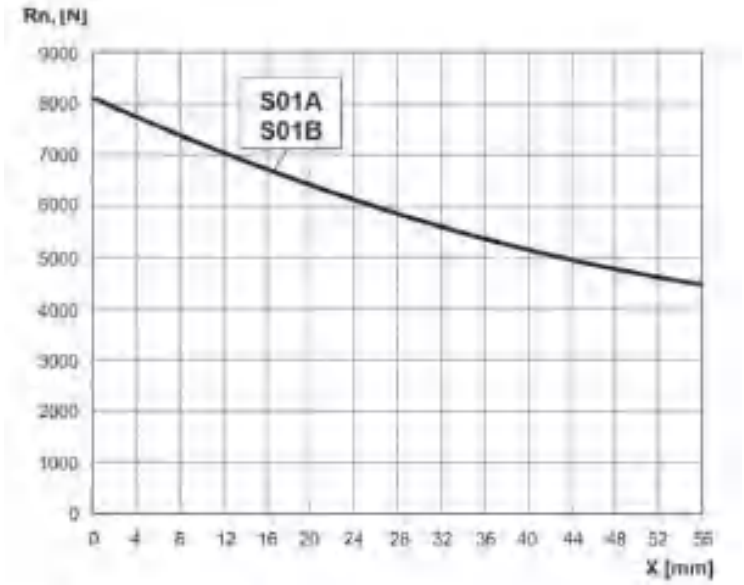


	Rn_2	An_2 (+/-)
LSH	8000	8000

轴上允许的径向和轴向载荷 fh_2 Load corrective factor fh_2 on shafts	$Fh_2 = n_2 \cdot h$		10000	25000	50000	100000	500000	1000000
	fh_2	LS - LK - LSH	1	0.74	0.58	0.46	0.27	0.21
		HS - HK - MK - MS	1	0.76	0.61	0.50	0.31	0.25

输入轴上允许的径向和轴向载荷
$n_1 \cdot h = 250000$

Permissible radial loads on inputshaft with $Fh_1 : n_1 \cdot h = 250000$



轴上的载荷修正系数 fh_1 Load corrective factor fh_1 on shafts	$Fh_1 = n_1 \cdot h$	250000	500000	1000000	2000000	5000000	10000000
	fh_1	1	0.79	0.63	0.50	0.37	0.29

GTN03 L

M_2 = 2500 Nm

	i	M_{n2} [Nm]						P_1	Pt	n_1	n_{1max}	M_b	
	1:	n_2·h 10000	n_2·h 25000	n_2·h 50000	n_2·h 100000	n_2·h 500000	n_2·h 1000000	[kW]	[kW]	[min^{-1}]	[min^{-1}]	[Nm]	
L1	3.60	2300	2200	2150	2100	2100	1750	40	11	1800	3800	800	5G
	4.25	2900	2750	2650	2600	2150	1750	40	11	1800	3800	800	5G
	5.33	2850	2450	2200	2200	2100	1700	40	11	1800	3800	630	5E
	6.20	2300	2000	1800	1800	1750	1400	40	11	1800	3800	500	5C
	7.50	2000	1750	1650	1650	1650	1500	40	11	1800	3800	400	5B
	9.67	1030	900	860	860	860	860	17.3	11	1800	3800	400	5B
L2	12.5	2300	2200	2150	2100	1850	1500	20	9	2000	4000	260	4F
	15.3	2300	2200	2150	2100	1800	1450	20	9	2000	4000	260	4F
	18.1	2900	2750	2650	2600	2000	1650	20	9	2000	4000	260	4F
	20.8	2300	2200	2150	2100	1700	1400	20	9	2000	4000	160	4D
	22.7	2850	2450	2200	2200	2100	1700	20	9	2000	4000	160	4D
	24.5	2750	2700	2650	2600	1900	1550	20	9	2000	4000	160	4D
	26.4	2300	2000	1800	1800	1750	1400	15.2	9	2000	4000	160	4D
	30.8	2850	2450	2200	2200	2100	1700	15.9	9	2000	4000	160	4D
	35.8	2300	2000	1800	1800	1750	1400	11.2	9	2000	4000	100	4B
	38.4	2850	2450	2200	2200	2000	1600	12.8	9	2000	4000	100	4B
	44.6	2300	2000	1800	1800	1750	1400	9.2	9	2000	4000	100	4B
	55.8	2300	2000	1800	1800	1750	1400	7.6	9	2000	4000	100	4B
L3	53.4	2300	2200	2150	2100	1800	1450	9.3	7.5	2000	4000	100	4B
	63.1	2886	2700	2650	2600	2100	1700	9.8	7.5	2000	4000	100	4B
	72.3	2300	2200	2150	2100	1900	1500	7.0	7.5	2000	4000	50	4A
	77.2	2900	2750	2650	2600	2000	1650	8.2	7.5	2000	4000	50	4A
	90.2	2300	2200	2150	2100	1900	1500	5.6	7.5	2000	4000	50	4A
	105	2900	2750	2650	2600	2000	1650	6.2	7.5	2000	4000	50	4A
	113	2300	2000	1800	1800	1750	1400	4.4	7.5	2000	4000	50	4A
	124	2300	2000	1800	1800	1750	1400	4.0	7.5	2000	4000	50	4A
	141	2750	2700	2650	2600	1900	1550	4.4	7.5	2000	4000	50	4A
	152	2300	2000	1800	1800	1750	1400	3.4	7.5	2000	4000	50	4A
	164	2850	2450	2200	2200	2100	1700	3.9	7.5	2000	4000	50	4A
	178	2850	2450	2200	2200	2100	1700	3.6	7.5	2000	4000	50	4A
	190	2300	2000	1800	1800	1750	1400	2.8	7.5	2000	4000	50	4A
	220	2250	2200	2250	2250	1700	1400	2.3	7.5	2000	4000	50	4A
	258	2300	2000	1800	1800	1750	1400	2.0	7.5	2000	4000	50	4A
	276	2850	2450	2200	2200	2000	1600	2.4	7.5	2000	4000	50	4A
	321	2300	2000	1800	1800	1750	1400	1.6	7.5	2000	4000	50	4A
	389	2000	1750	1650	1650	1650	1500	1.2	7.5	2000	4000	50	4A
	402	2300	2000	1800	1800	1750	1400	1.3	7.5	2000	4000	50	4A
L4	413	2850	2450	2200	2200	2100	1700	1.6	6	2000	4000	50	4A
	446	2900	2750	2650	2600	2000	1650	1.5	6	2000	4000	50	4A
	492	2750	2700	2650	2600	1900	1550	1.3	6	2000	4000	50	4A
	556	2900	2750	2650	2600	2000	1650	1.2	6	2000	4000	50	4A
	649	2300	2200	2150	2100	1850	1500	0.84	6	2000	4000	50	4A
	718	2300	2000	1800	1800	1750	1400	0.76	6	2000	4000	50	4A
	816	2750	2700	2650	2600	1900	1550	0.80	6	2000	4000	50	4A
	896	2300	2000	1800	1800	1750	1400	0.61	6	2000	4000	50	4A
	1018	2750	2700	2650	2600	1900	1550	0.64	6	2000	4000	50	4A
	1098	2300	2000	1800	1800	1750	1400	0.50	6	2000	4000	50	4A
	1278	2850	2450	2200	2200	2100	1700	0.53	6	2000	4000	50	4A
	1370	2300	2000	1800	1800	1750	1400	0.40	6	2000	4000	50	4A
	1586	2250	2250	2250	2250	1700	1350	0.34	6	2000	4000	50	4A
	1854	2300	2000	1800	1800	1750	1400	0.29	6	2000	4000	50	4A
	1991	2850	2450	2200	2200	2000	1600	0.34	6	2000	4000	50	4A
	2243	2000	1750	1650	1650	1650	1500	0.21	6	2000	4000	50	4A
	2799	2000	1750	1650	1650	1650	1500	0.17	6	2000	4000	50	4A

M_{2max} = 1.2 • M_{n2} (n_2 • h = 10000)

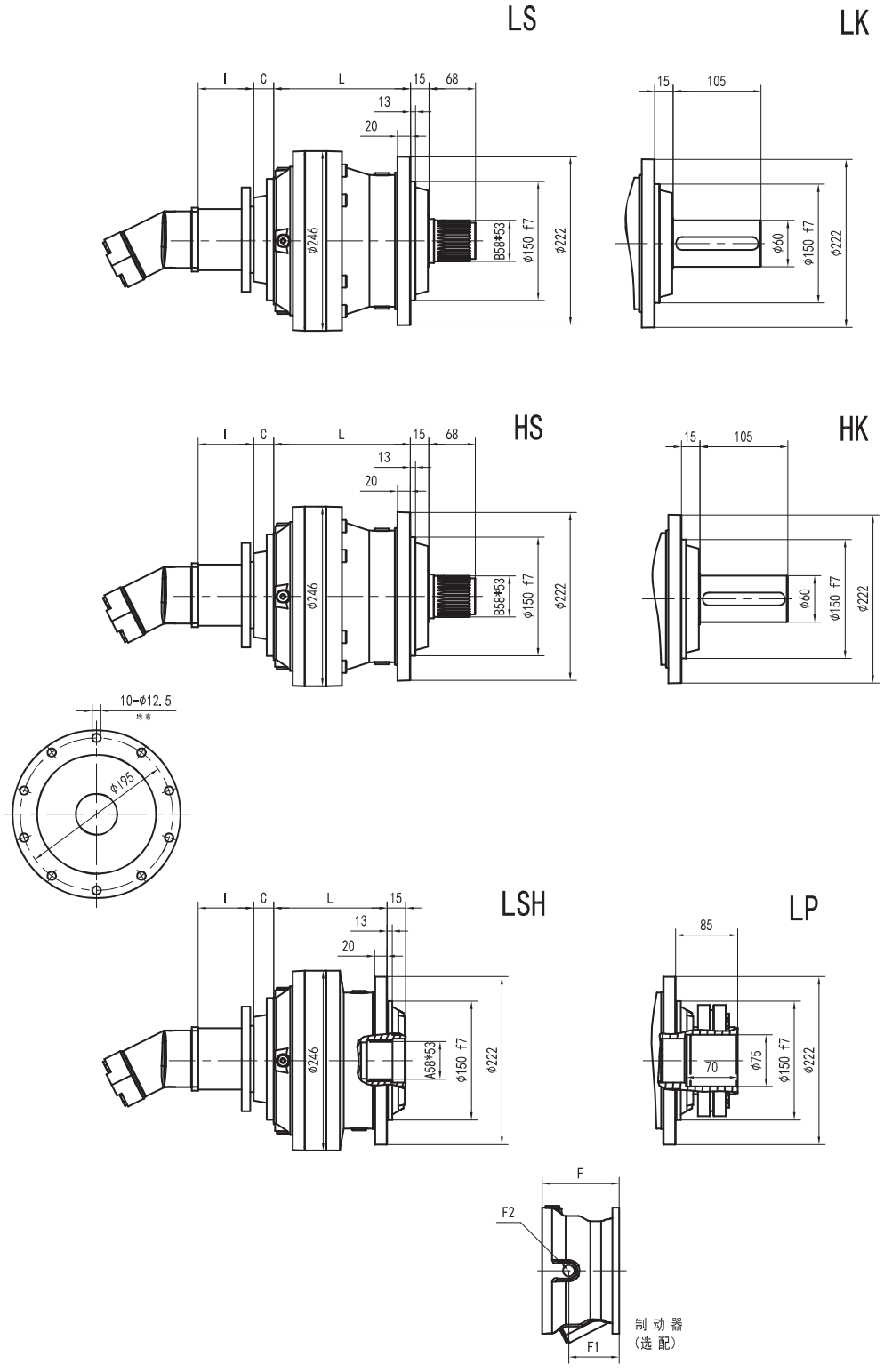
M_2 = 2500 Nm

GTN03 R

	i	M_{n2} [Nm]						P_1	Pt	n_1	n_{1max}	M_b	
	1:	n_2·h 10000	n_2·h 25000	n_2·h 50000	n_2·h 100000	n_2·h 500000	n_2·h 1000000	[kW]	[kW]	[min^{-1}]	[min^{-1}]	[Nm]	
R2	9.23	2300	2200	2150	2100	2000	1600	35	18	1800	3800	330	4H
	10.9	2900	2750	2650	2600	2150	1750	35	18	1800	3800	330	4H
	13.7	2850	2450	2200	2200	2100	1700	32	18	1800	3800	260	4F
	15.9	2300	2000	1800	1800	1750	1400	23	18	1800	3800	260	4F
	19.2	2000	1750	1650	1650	1650	1500	17.2	18	1800	3800	160	4D
	24.8	1030	900	860	860	860	860	7.0	18	1800	3800	160	4D
R3	25.7	2300	2200	2150	2100	1850	1500	15.0	14	2.000	4.000	160	4D
	31.5	2300	2200	2150	2100	1800	1450	15.0	14	2.000	4.000	100	4B
	37.1	2900	2750	2650	2600	2000	1650	15.0	14	2.000	4.000	100	4B
	42.6	2300	2200	2150	2100	1700	1400	11.6	14	2.000	4.000	100	4B
	46.6	2850	2450	2200	2200	2100	1700	11.2	14	2.000	4.000	100	4B
	50.3	2750	2700	2650	2600	1900	1550	12.2	14	2.000	4.000	100	4B
	54.2	2300	2000	1800	1800	1750	1400	8.1	14	2.000	4.000	100	4B
	63.1	2850	2450	2200	2200	2100	1700	8.7	14	2.000	4.000	100	4B
	73.3	2300	2000	1800	1800	1750	1400	6.2	14	2.000	4.000	50	4A
	78.7	2850	2450	2200	2200	2000	1600	7.1	14	2.000	4.000	50	4A
	91.5	2300	2000	1800	1800	1750	1400	5.2	14	2.000	4.000	50	4A
	114	2300	2000	1800	1800	1750	1400	4.3	14	2.000	4.000	50	4A
R4	129	2850	2700	2650	2600	2100	1700	5.1	12	2.000	4.000	50	4A
	148	2300	2200	2150	2100	1850	1500	3.6	12	2.000	4.000	50	4A
	158	2900	2750	2650	2600	2000	1650	4.3	12	2.000	4.000	50	4A
	185	2300	2200	2150	2100	1850	1500	2.9	12	2.000	4.000	50	4A
	214	2900	2750	2650	2600	2000	1650	3.2	12	2.000	4.000	50	4A
	231	2300	2000	1800	1800	1750	1400	2.4	12	2.000	4.000	50	4A
	255	2300	2000	1800	1800	1750	1400	2.1	12	2.000	4.000	50	4A
	290	2750	2700	2650	2600	1900	1550	2.2	12	2.000	4.000	50	4A
	313	2300	2000	1800	1800	1750	1400	1.7	12	2.000	4.000	50	4A
	336	2850	2450	2200	2200	2100	1700	2.0	12	2.000	4.000	50	4A
	364	2850	2450	2200	2200	2100	1700	1.9	12	2.000	4.000	50	4A
	390	2300	2000	1800	1800	1750	1400	1.4	12	2.000	4.000	50	4A
	452	2250	2250	2250	2250	1700	1400	1.2	12	2.000	4.000	50	4A
	528	2300	2000	1800	1800	1750	1400	1.0	12	2.000	4.000	50	4A
	567	2850	2450	2200	2200	2000	1600	1.2	12	2.000	4.000	50	4A
	659	2300	2000	1800	1800	1750	1400	0.83	12	2.000	4.000	50	4A
	797	2000	1750	1650	1650	1650	1500	0.59	12	2.000	4.000	50	4A
	824	2300	2000	1800	1800	1750	1400	0.66	12	2.000	4.000	50	4A

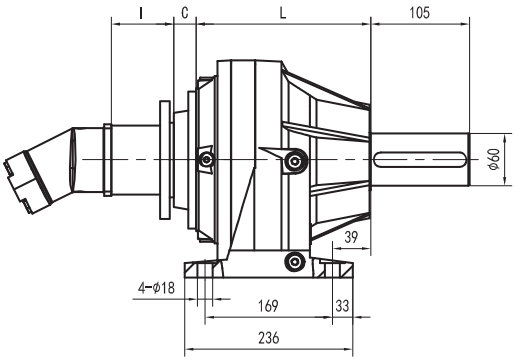
M_{2max} = 1.2 • M_{n2} (n_2 • h = 10000)

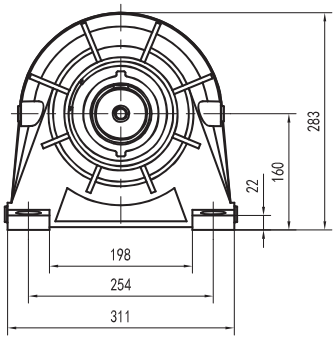
GTN03 L


LS
LK
HS
HK
LSH
LP
I
C
L
15
68
13
20
105
85
70
Φ246
B58*53
Φ150 f7
Φ222
Φ60
Φ75
10-Φ12.5
均布
Φ195
F
F2
F1
制动器
(选配)

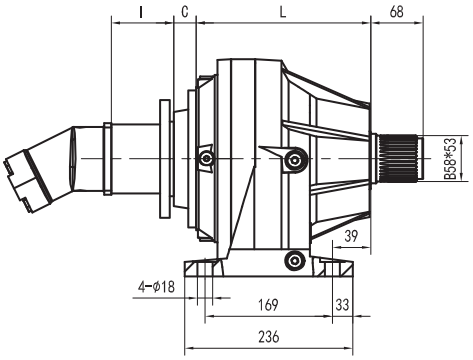
GTN03 L

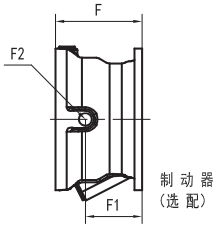
MK





MS

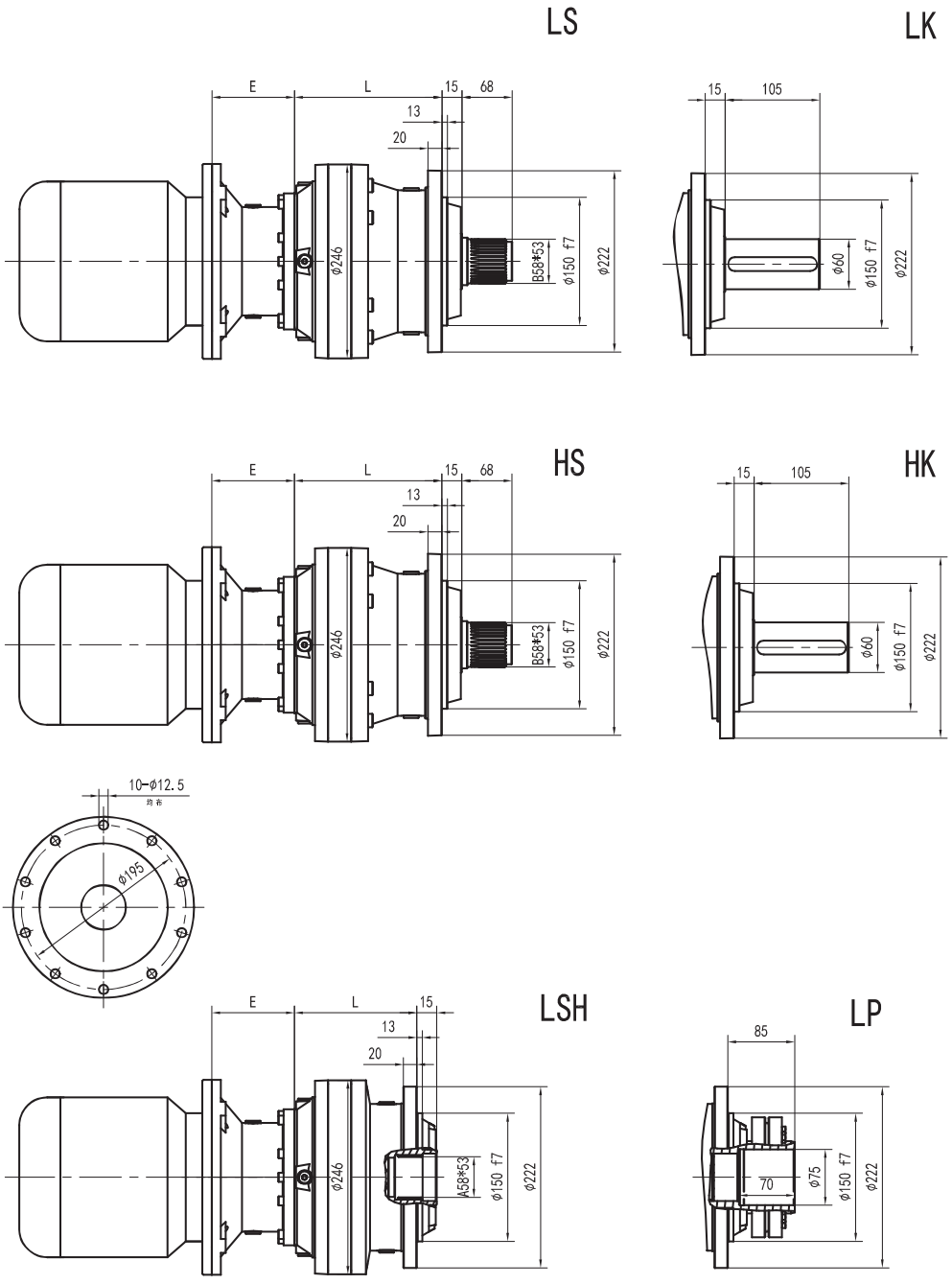




LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	3500 Nm

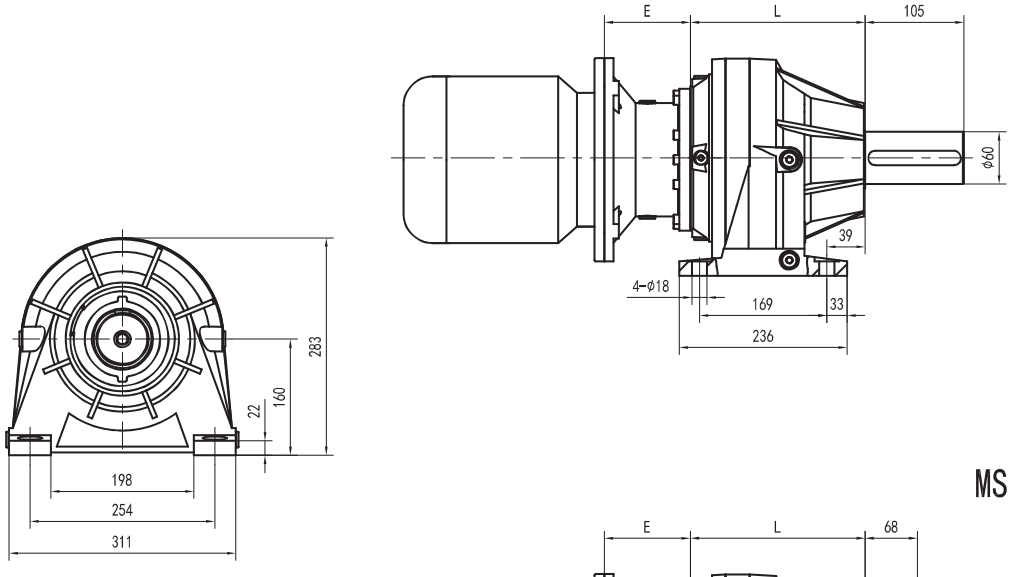
	L				Kg				C	输入 Input	I	F	F1	F2	类型 Type	输入 Input	Kg
	LS LK	LSH LP	HS HK	MK MS	LS LK	LSH LP	HS HK	MK MS									
GTN03 L1	125	125	150	165	31	31	35	40	37	A	联系厂家	145	95	1/4 G	5	A	16
GTN03 L2	178	178	203	218	35	35	39	44	37	A		105	65	1/4 G	4	A	10
GTN03 L3	231	231	256	271	39	39	43	48	37	A		105	65	1/4 G	4	A	10
GTN03 L4	284	284	309	324	43	43	47	52	37	A		105	65	1/4 G	4	A	10

GTN03 L

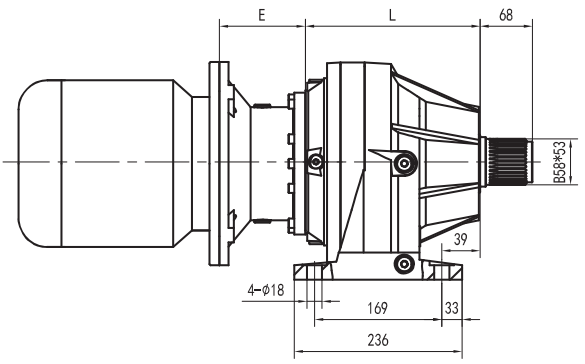

LS
LK
E
L
15
68
13
20
Φ246
B58*53
Φ150 f7
Φ222
105
Φ60
HS
HK
10-Φ12.5
均布
Φ195
LSH
LP
85
70
Φ75

GTN03 L

MK



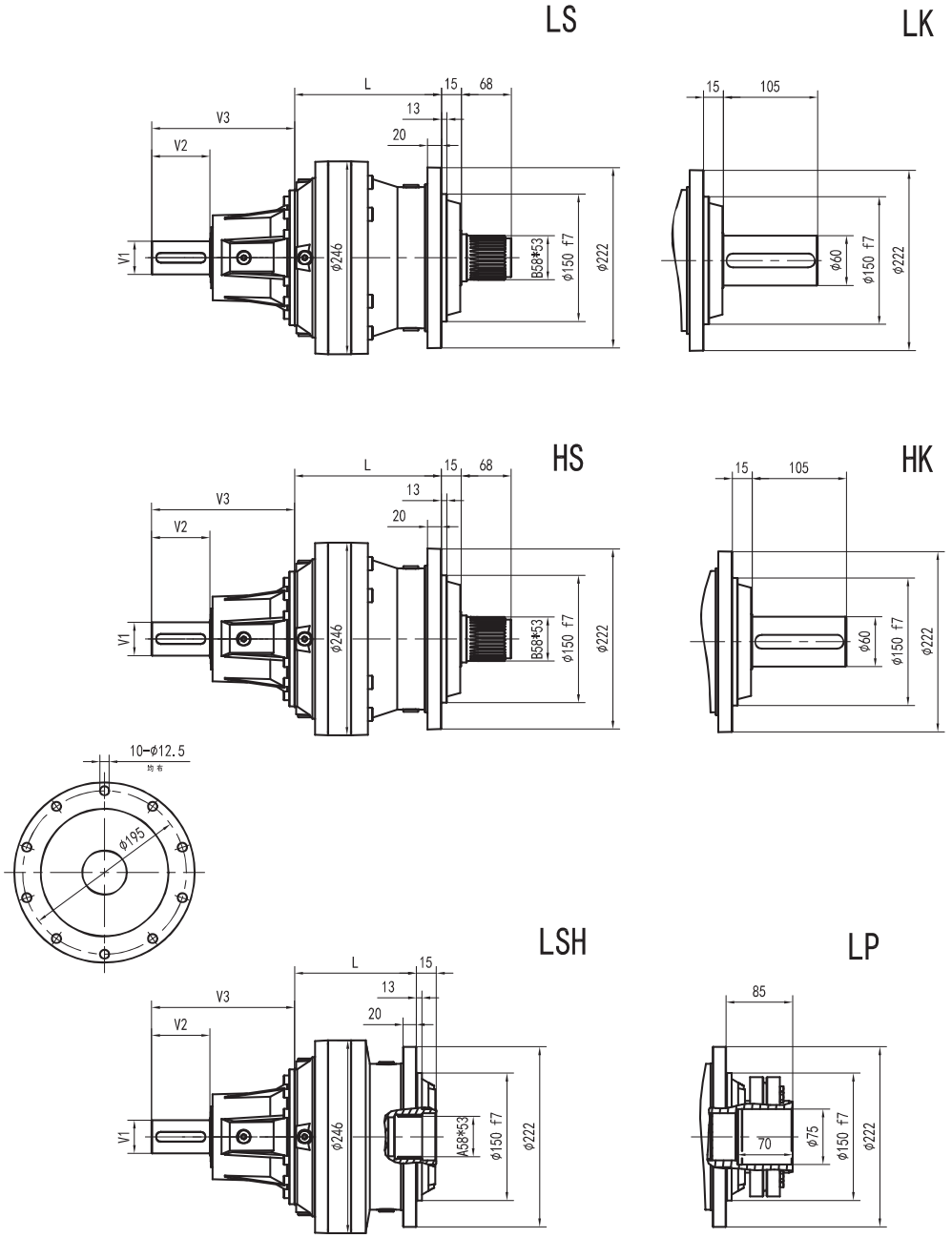
MS



LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	3500 Nm

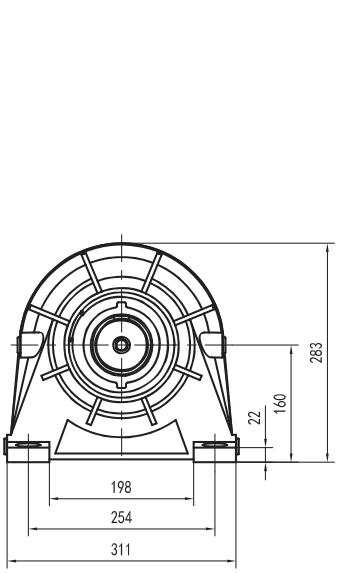
	L				Kg				E								
	LS LK	LSH LP	HS HK	MK MS	LS LK	LSH LP	HS HK	MK MS	IEC 71	IEC 80	IEC 90	IEC 100	IEC 112	IEC 132	IEC 160	IEC 180	IEC 200
GTN03 L1	125	125	150	165	31	31	35	40						114	144	144	174
GTN03 L2	178	178	203	218	35	35	39	44	65	84	84	94	94	114	144		
GTN03 L3	231	231	256	271	39	39	43	48	65	84	84	94	94	114	144		
GTN03 L4	284	284	309	324	43	43	47	52	65	84	84	94	94	114	144		

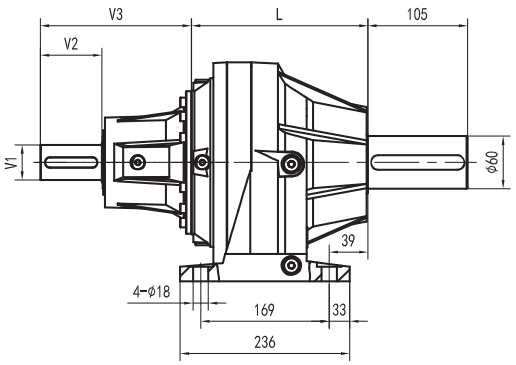
GTN03 L


LS
LK
HS
HK
LSH
LP
L
15
68
13
20
V3
V2
V1
φ246
B58*53
φ150 f7
φ222
105
φ60
10-φ12.5
均布
φ195
85
70
φ75

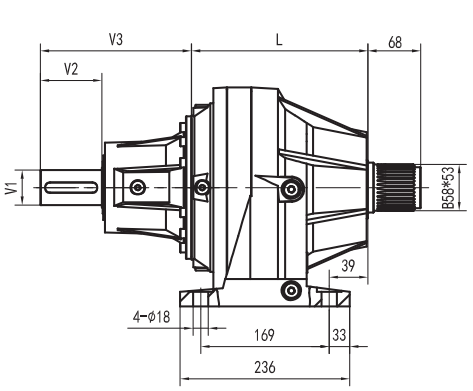
GTN03 L

MK





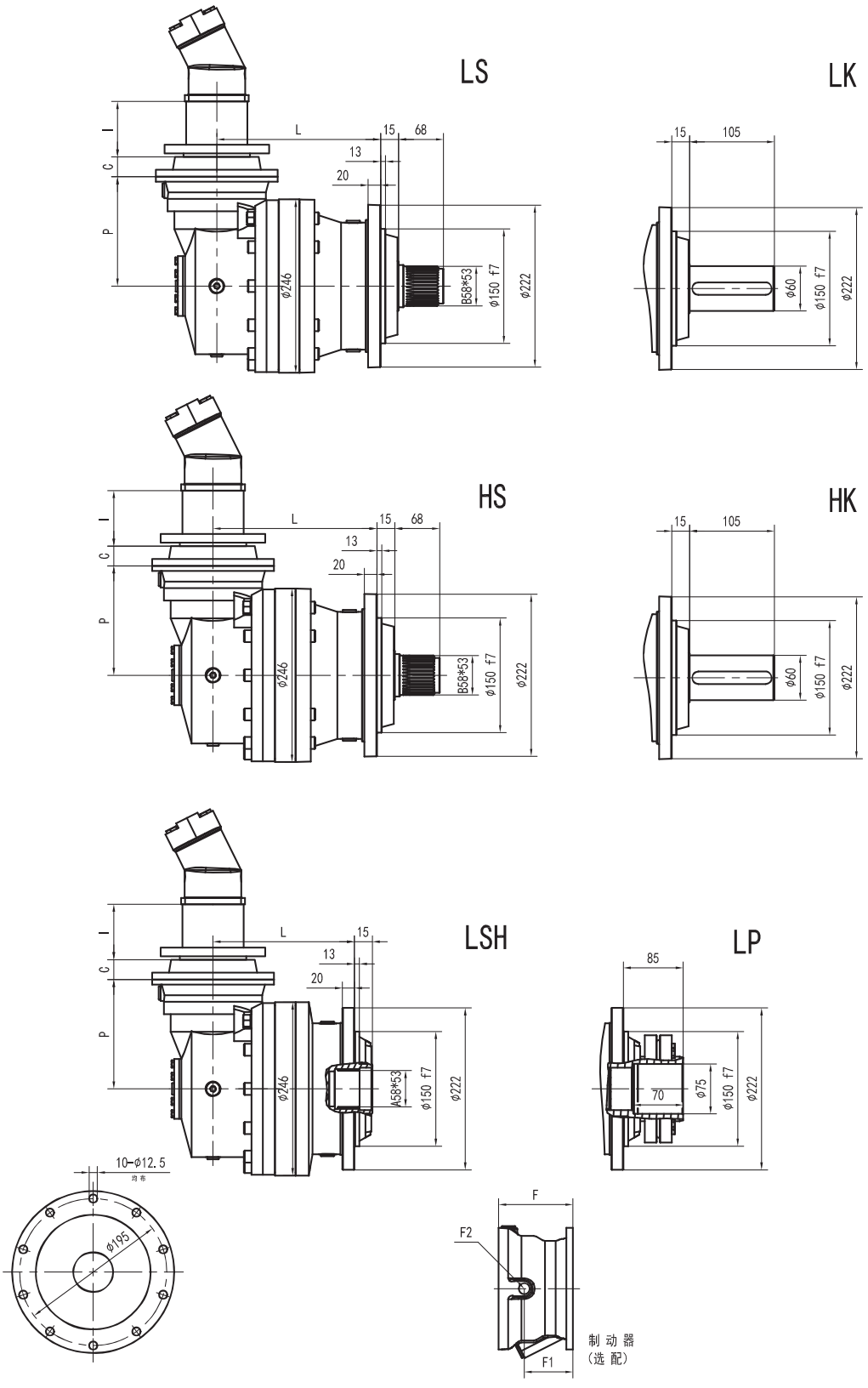
MS



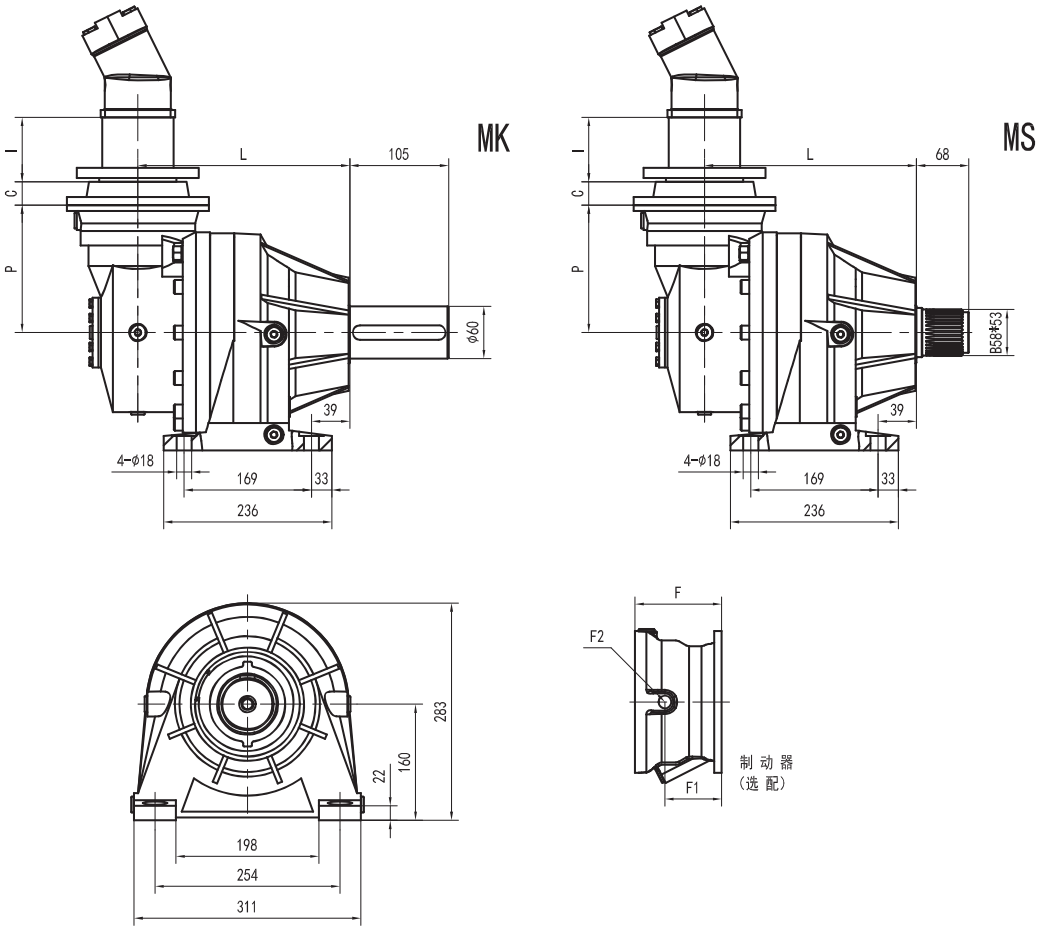
LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	3500 Nm

	L				Kg				V1	V2	V3	Kg	V1	V2	V3	Kg
	LS LK	LSH LP	HS HK	MK MS	LS LK	LSH LP	HS HK	MK MS								
GTN03 L1	125	125	150	165	31	31	35	40	48	82	239	15				
GTN03 L2	178	178	203	218	35	35	39	44	24	36	137.5	6	38	58	158	7
GTN03 L3	231	231	256	271	39	39	43	48	24	36	137.5	6	38	58	158	7
GTN03 L4	284	284	309	324	43	43	47	52	24	36	137.5	6	38	58	158	7

GTN03 R


LS
LK
HS
HK
LSH
LP
L
15
68
13
20
I
C
P
φ246
B58*53
φ150 f7
φ222
105
φ60
85
70
φ75
A58*53
10-φ12.5
均布
φ195
F
F2
F1
制动器
(选配)

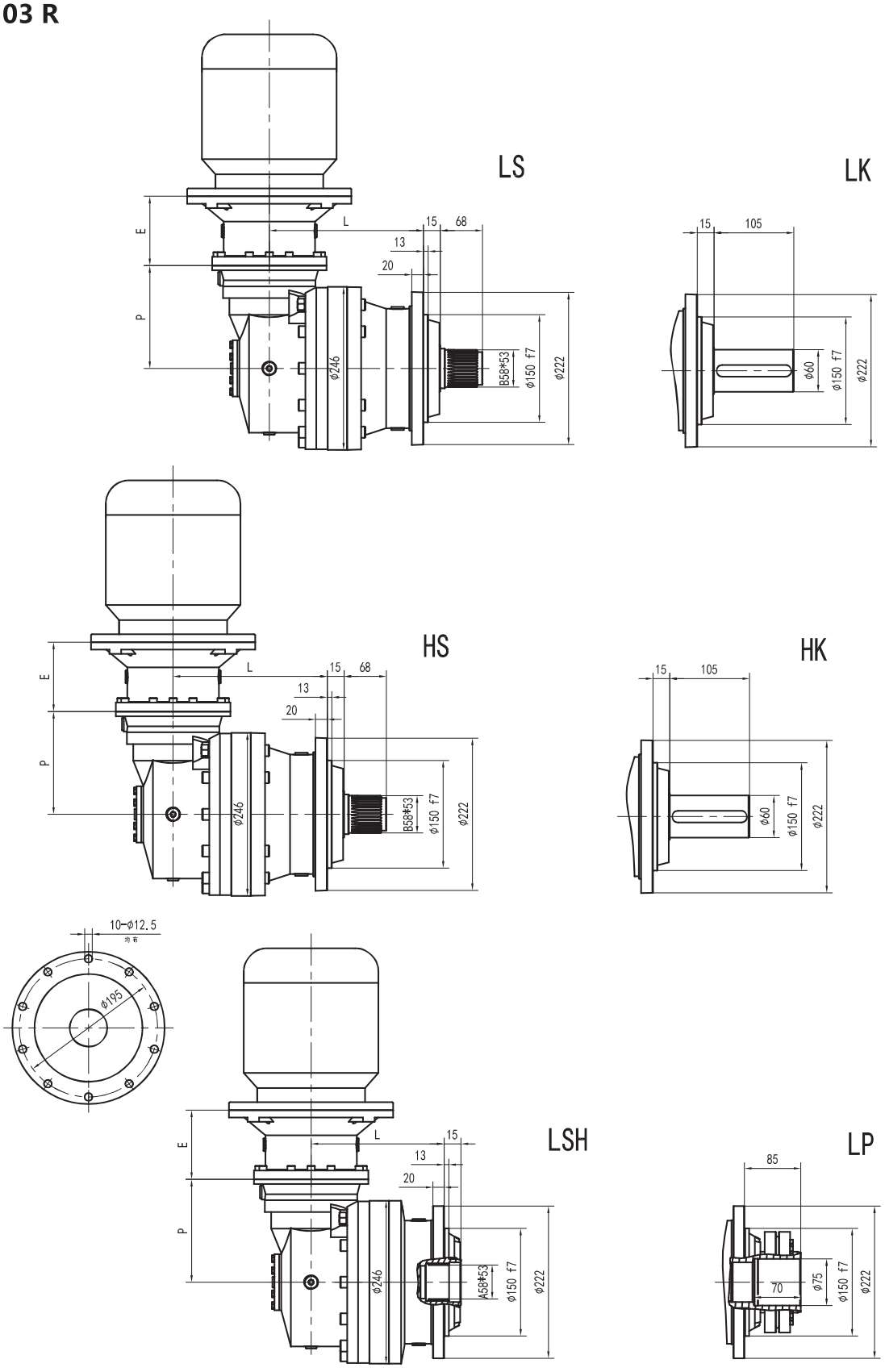
GTN03 R



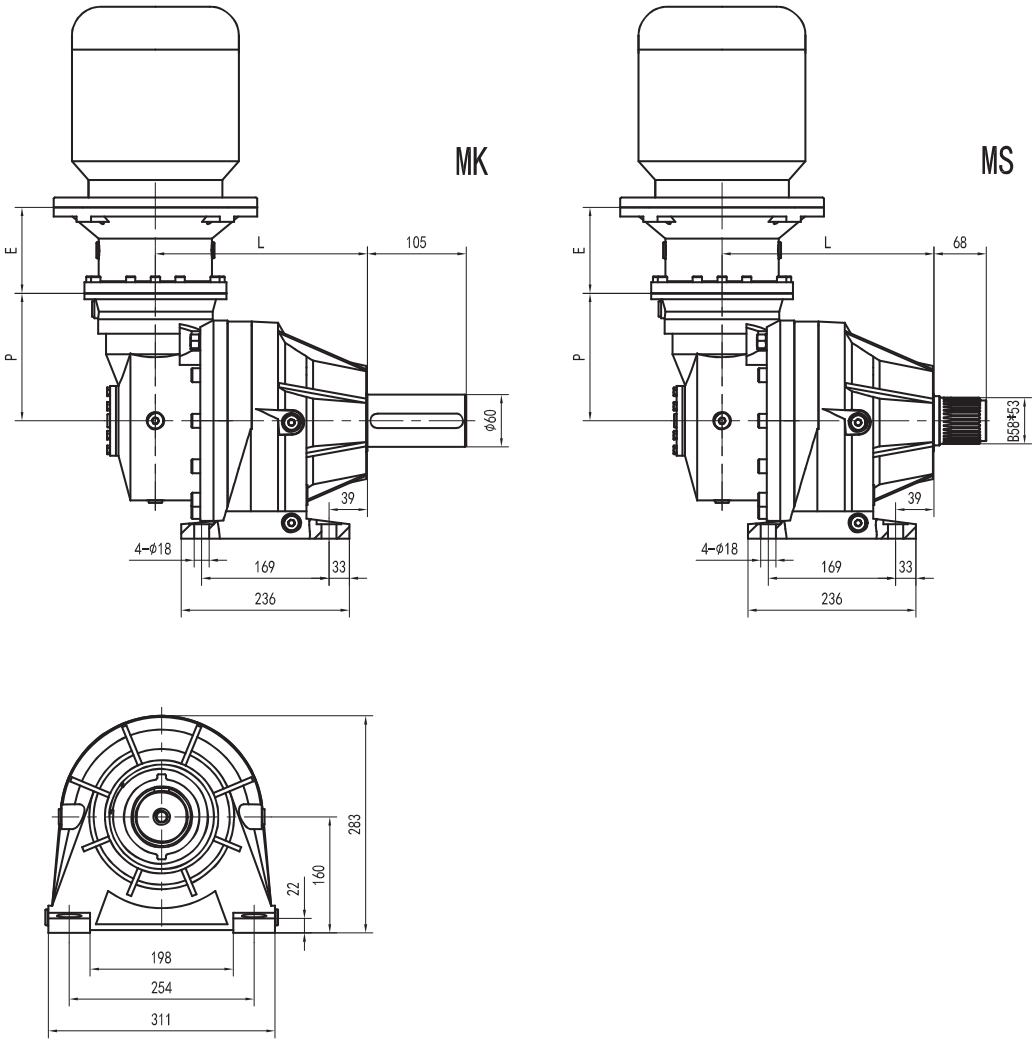
LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	3500 Nm

	L				P	Kg				C	输入 Input	I	F	F1	F2	类型 Type	输入 Input	Kg
	LS LK	LSH LP	HS HK	MK MS		LS LK	LSH LP	HS HK	MK MS									
GTN03 R2	217	217	242	257	140	51	51	55	60	37	A	联系厂家	105	65	1/4 G	4	A	10
GTN03 R3	270	270	295	310	122	49	49	53	58	37	A		105	65	1/4 G	4	A	10
GTN03 R4	323	323	348	363	122	53	53	57	62	37	A		105	65	1/4 G	4	A	10

GTN03 R


LS
LK
HS
HK
LSH
LP
L
E
P
15
68
13
20
105
85
70
Φ246
B58*53
Φ150 f7
Φ222
Φ60
Φ75
10-Φ12.5
均布
Φ195

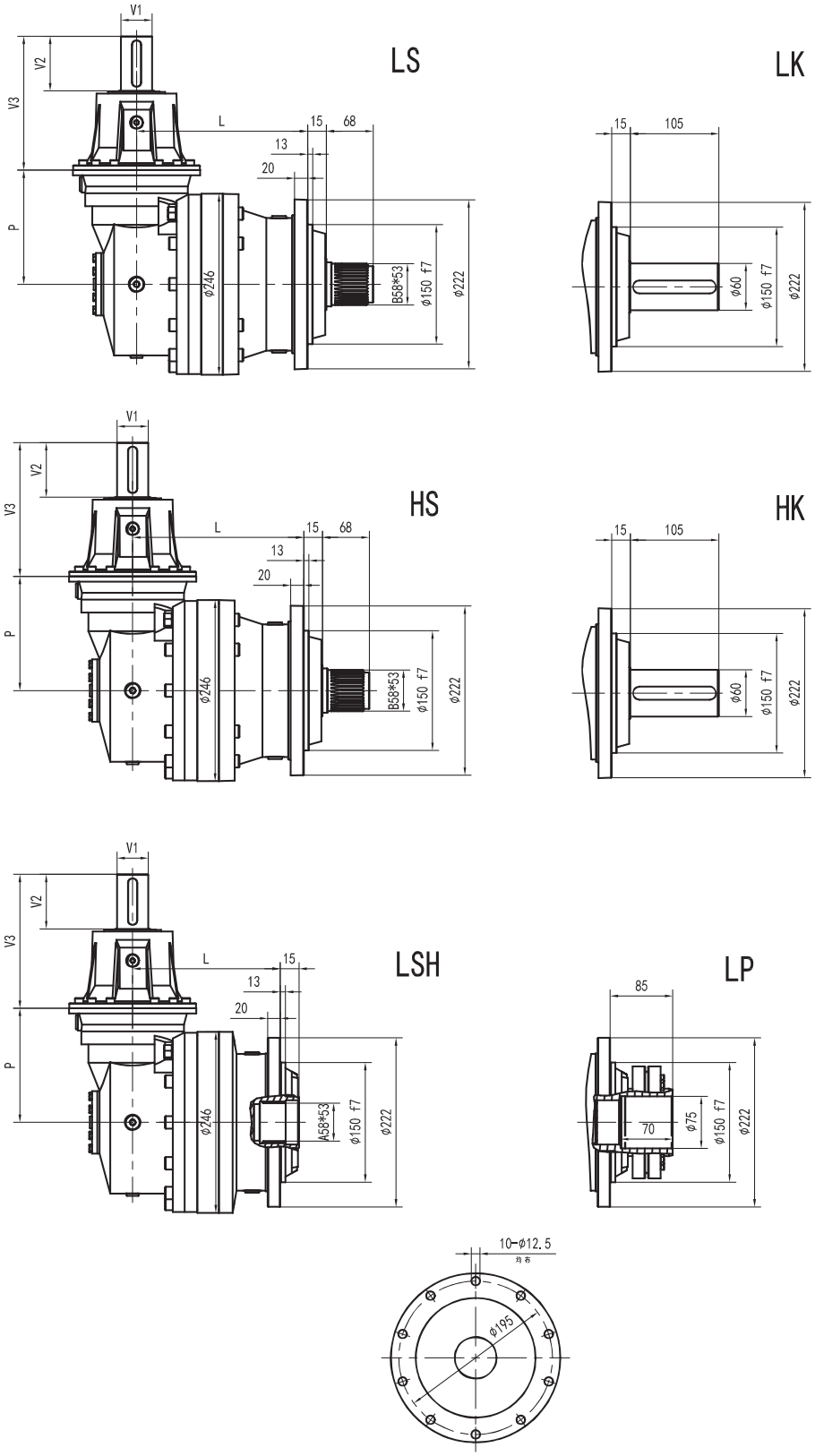
GTN03 R



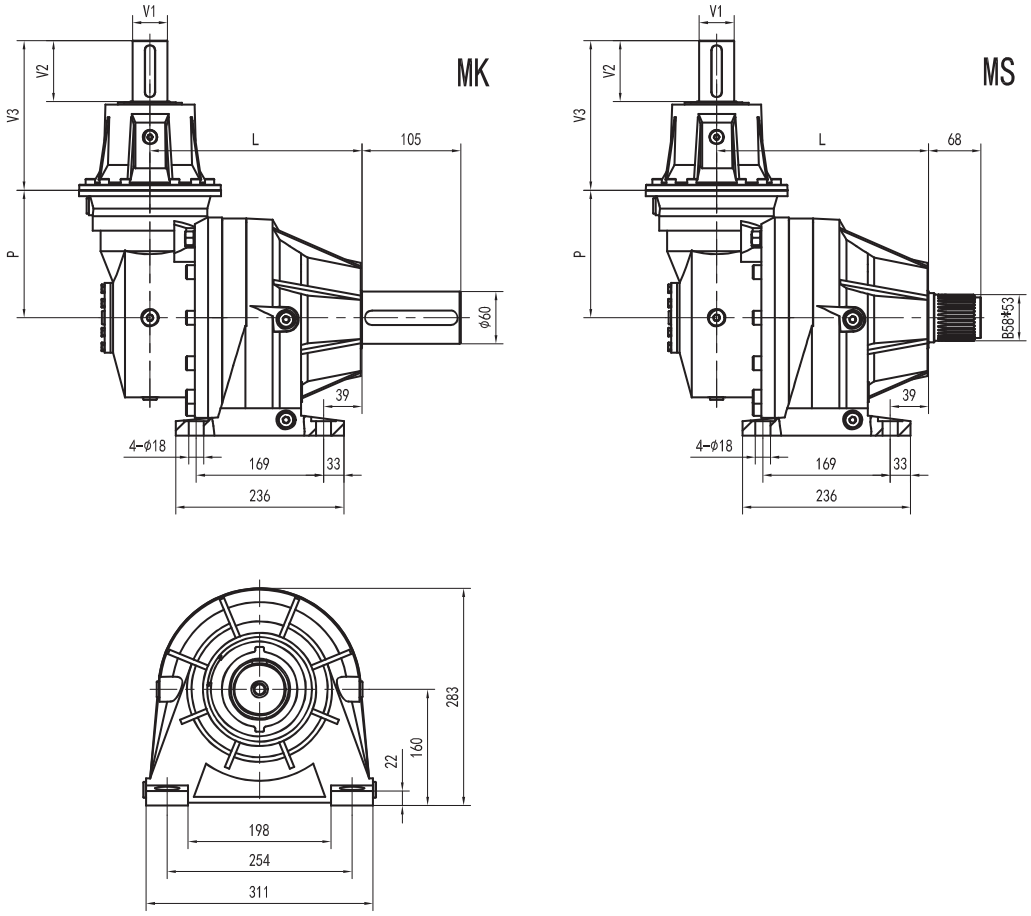
LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	3500 Nm

	L				P	Kg				E					
	LS LK	LSH LP	HS HK	MK MS		LS LK	LSH LP	HS HK	MK MS	IEC 71	IEC 80	IEC 90	IEC 100	IEC 112	IEC 132
GTN03 R2	217	217	242	257	140	51	51	55	60	65	84	84	94	94	114
GTN03 R3	270	270	295	310	122	49	49	53	58	65	84	84	94	94	114
GTN03 R4	323	323	348	363	122	53	53	57	62	65	84	84	94	94	114

GTN03 R


LS
LK
HS
HK
LSH
LP
V1
V2
V3
P
L
15
68
13
20
105
85
70
Φ246
B58*53
A58*53
Φ150 f7
Φ222
Φ60
Φ75
10-Φ12.5
均布
Φ195

GTN03 R

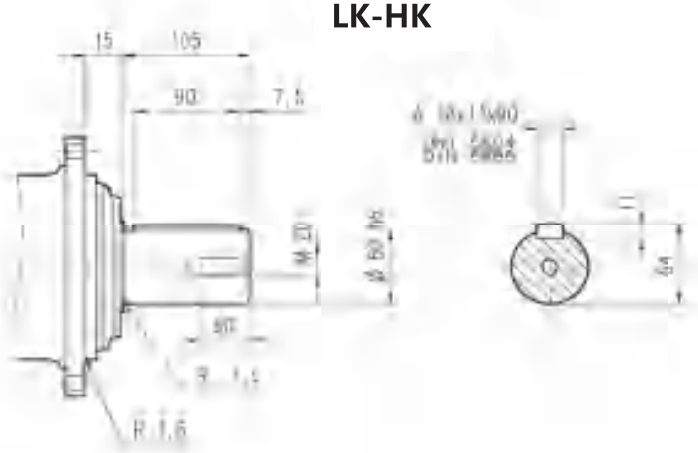


LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	3500 Nm

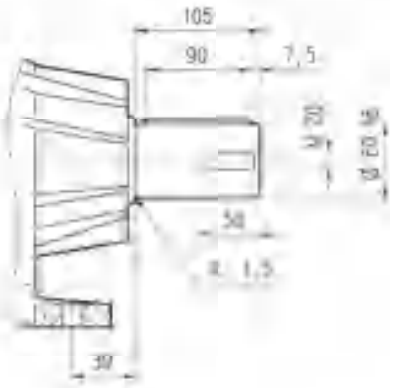
	L				P	Kg				V1	V2	V3	Kg	V1	V2	V3	Kg
	LS LK	LSH LP	HS HK	MK MS		LS LK	LSH LP	HS HK	MK MS								
GTN03 R2	217	217	242	257	140	51	51	55	60	24	36	137.5	6	38	58	158	7
GTN03 R3	270	270	295	310	122	49	49	53	58	24	36	137.5	6	38	58	158	7
GTN03 R4	323	323	348	363	122	53	53	57	62	24	36	137.5	6	38	58	158	7

GTN03 L-GTN03 R

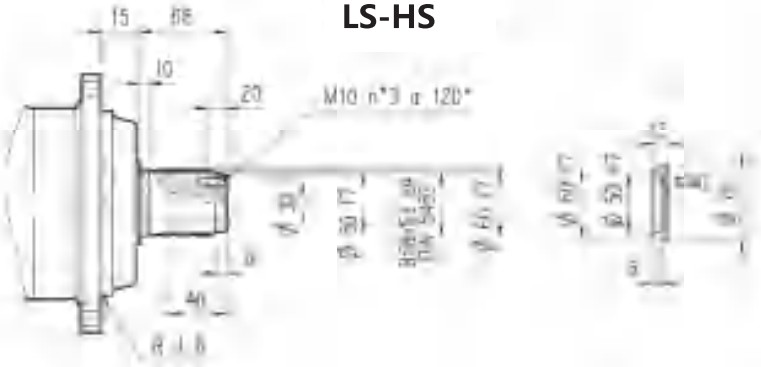
LK-HK



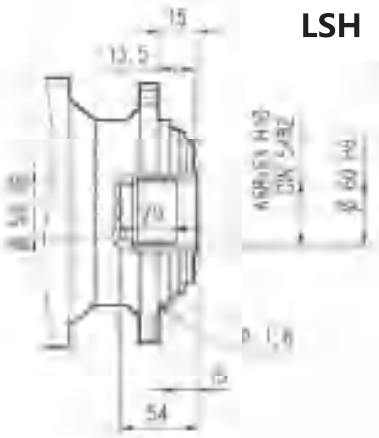
MK



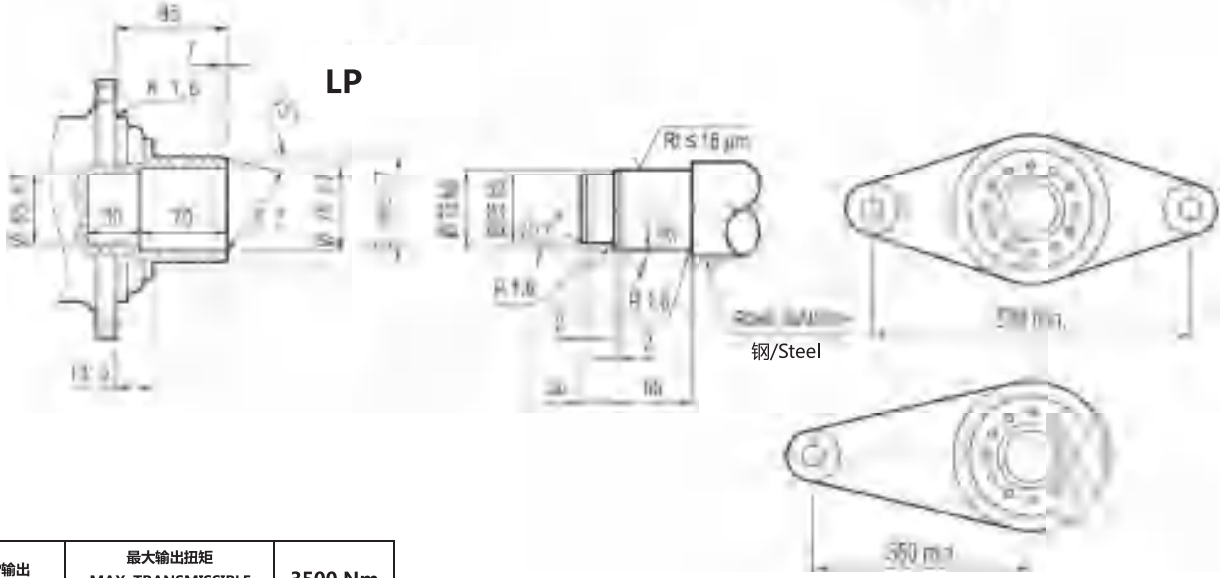
LS-HS



LSH



LP

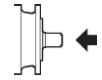


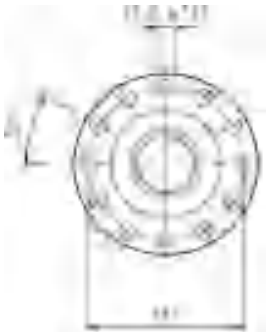
LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	3500 Nm

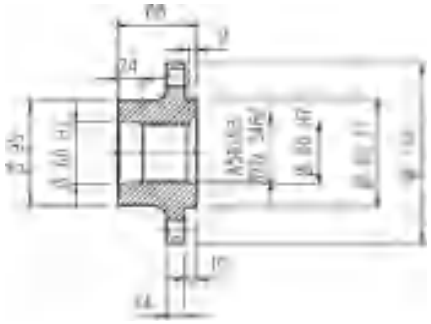
GTN03 L-GTN03 R

法兰 / Flange

FOA





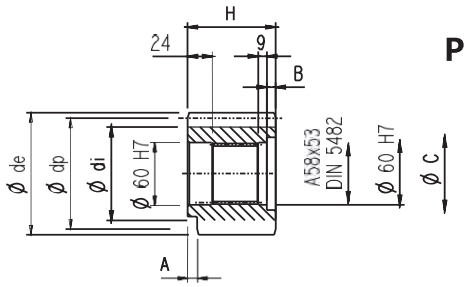


材料 : 钢 C40
Material : Steel C40

输出齿轮 / Output pinions

PM...

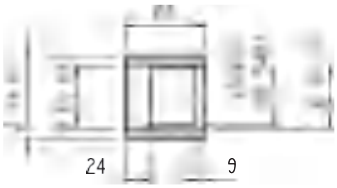
	m	z	x	dp	di	de	H	A	B	C	☆
PM501	5	19	0	95	82	104	77	12	9	72	□
PM502	5	19	0	95	82	104	68	0	0	0	□
PM503	5	20	0	100	87.5	110	68	18	0	0	■
PM504	5	22	0	110	97.5	120	68	18	0	0	■
PM601	6	14	0.500	84	75	99.6	68	0	0	0	□
PM602	6	18	0.500	108	99	123.6	68	0	0	0	□
PM603	6	20	0.833	120	115	140	68	0	0	0	□
PM801	8	13	0.675	104	95	127.6	68	0	0	0	■
PM802	8	14	0	112	92	126	68	0	0	0	■
PM803	8	14	0	112	92	126	80	0	12	72	■
PM804	8	15	0	120	100	136	68	0	0	0	□
PM805	8	22	0	176	156	190	77	12	10	71	□
PM1001	10	16	0.500	160	145	188	75	0	7	72	□



☆	材料 / Material
□	39NiCrMo3 调制钢 Steel 39NiCrMo3 hardened and tempered
■	18NiCrMo5 表面渗碳钢 18NiCrMo5 Case hardened

套筒联轴器i / Sleeve couplings

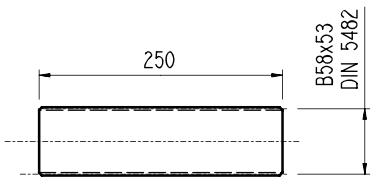
HOS



材料 : 16CrNi4
Material : Steel 16CrNi4

花键 / Splined bars

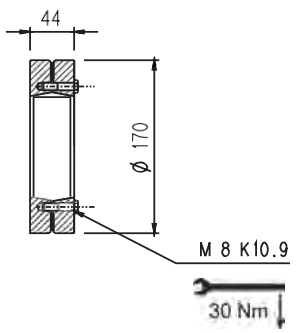
SOF



表面硬化钢 18NiCrMo5 UNI 5331 表面硬化必须达到 50-55 HRC
Case hardening steel 18NiCrMo5 UNI 5331
must be case hardened 50-55 HRC

锁紧盘 / Shrink disc

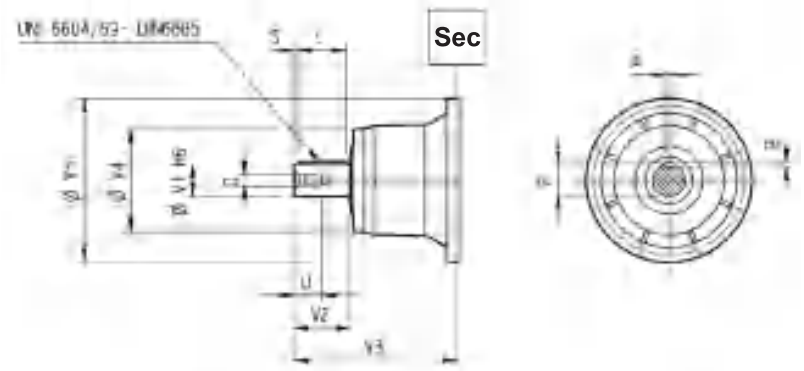
LOP



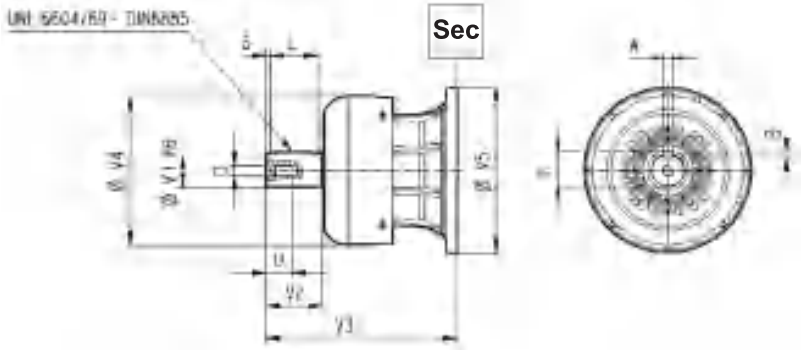
GTN03 L - GTN03 R

输入轴 / Input shaft

S_ _



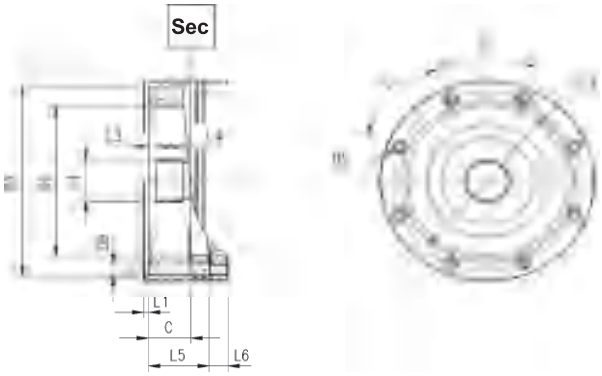
SV_ _



	CODE	V1	V2	V3	V4	V5	A	B	F	L	S	D	U
GTN03 L1	S05B	48	82	239	155	245	14	9	51.5	70	6	M16	36
	SV05B	48	82	276	219.5	244	14	9	51.5	70	6	M16	36
GTN03 L2	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28
GTN03 L3	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28
GTN03 L4	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28
GTN03 R2-R3-R4	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28

不带电机的输入法兰尺寸
Input dimension without motor adaptor

S_ _

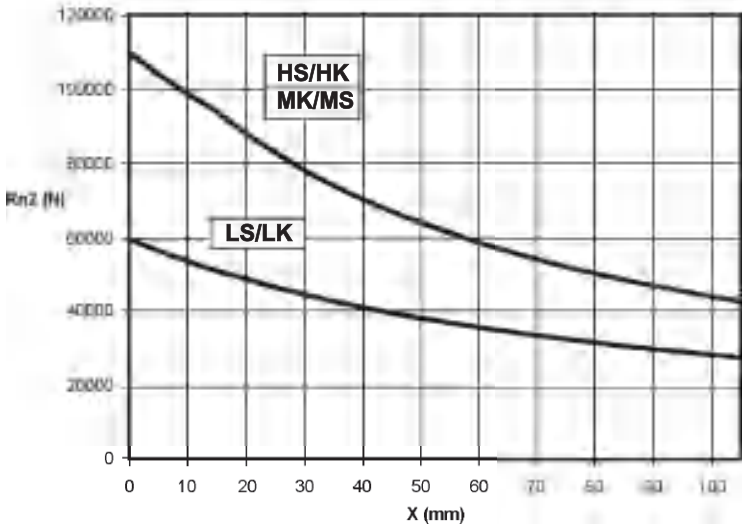


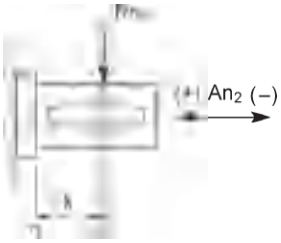
	CODE	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	输入 Input
GTN03 L1	S9AA	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	/	18	45°	45°	A
GTN03 L2	S9AA	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	53	18	45°	45°	A
GTN03 L3	S9AA	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	106	18	45°	45°	A
GTN03 L4	S9AA	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	159	18	45°	45°	A
GTN03 R2-R3-R4	S9AA	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	37	18	45°	45°	A

GTN03 L - GTN03R

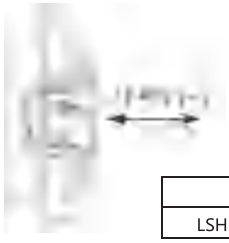
输出轴上允许的径向和轴向载荷
$Fh_2 : n_2 . h = 10000$

Permissible radial and axial loadson output shaft with Fh_2 $n_2 \cdot h = 10000$





	An2 (+)	An2 (-)
LS - LK	55000	44000
HS - HK - MK - MS	55000	44000

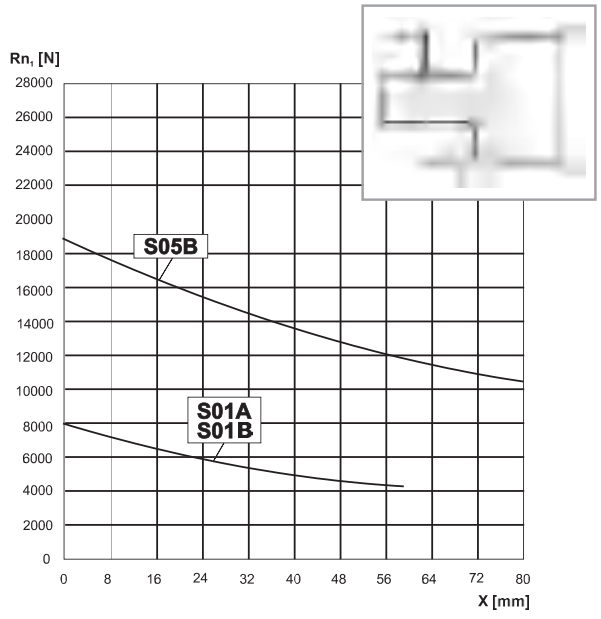


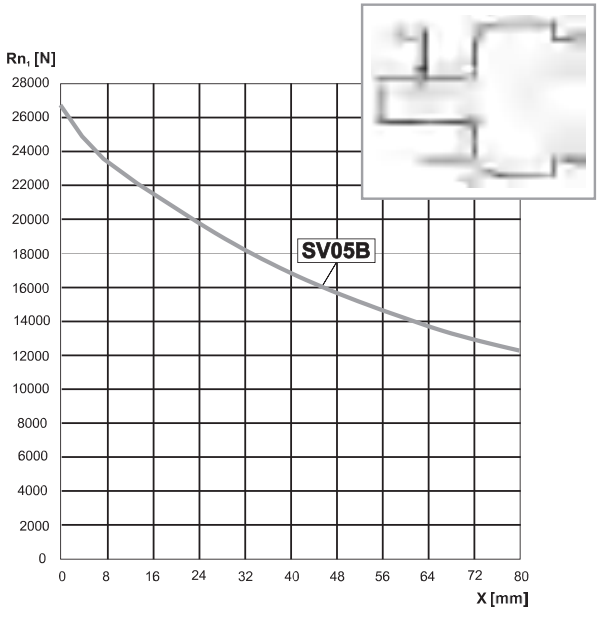
	Rn2	An2 (+/-)
LSH	24000	25000

轴上的载荷修正系数 fh_2 Load corrective factor fh_2 on shafts	$Fh_2 = n_2 \cdot h$		10000	25000	50000	100000	500000	1000000
	fh_2	LS - LK - LSH	1	0.74	0.58	0.46	0.27	0.21
		HS - HK - MK- MS	1	0.76	0.61	0.50	0.31	0.25

输入轴上允许的径向和轴向载荷
$Fh_1 n_1 . h = 250000$

Permissible radial loads on inputshaft with $Fh_1 : n_1 \cdot h = 250000$





轴上的载荷修正系数 fh_1 Load corrective factor fh_1 on shafts	$Fh_1 = n_1 \cdot h$	250000	500000	1000000	2000000	5000000	10000000
	fh_1	1	0.79	0.63	0.50	0.37	0.29

GTN04 L

M_2 = 3600 Nm

	i	M_{n2} [Nm]						P_1	Pt	n_1	n_{1max}	M_b	
	1:	n_2·h 10000	n_2·h 25000	n_2·h 50000	n_2·h 100000	n_2·h 500000	n_2·h 1000000	[kW]	[kW]	[min^{-1}]	[min^{-1}]	[Nm]	
L1	3.60	3710	3520	3500	3440	3120	2530	50	12	1800	3800	800	5G
	4.25	3960	3710	3650	3540	3070	2500	50	12	1800	3800	800	5G
	5.33	3500	3080	2800	2800	2750	2430	50	12	1800	3800	630	5E
	6.57	2750	2400	2290	2290	2290	2180	50	12	1800	3800	500	5C
L2	12.5	3710	3520	3500	3440	3120	2530	30	9	2000	4000	260	4F
	15.3	3710	3520	3500	3440	3120	2530	30	9	2000	4000	260	4F
	18.1	3960	3710	3650	3540	3070	2500	30	9	2000	4000	260	4F
	20.8	3710	3520	3500	3440	3120	2530	30	9	2000	4000	160	4D
	22.7	3500	3080	2800	2800	2750	2430	28	9	2000	4000	160	4D
	24.5	3960	3710	3650	3540	3070	2500	30	9	2000	4000	160	4D
	30.8	3500	3080	2800	2800	2750	2430	20	9	2000	4000	160	4D
	38.4	3500	3080	2800	2800	2750	2430	16.2	9	2000	4000	160	4D
	47.3	2750	2400	2290	2290	2290	2180	10.9	9	2000	4000	100	4B
	59.1	2750	2400	2290	2290	2290	2180	8.9	9	2000	4000	100	4B
L3	43.6	3710	3520	3500	3440	3120	2530	18.4	7.5	2000	4000	50	4A
	53.4	3710	3520	3500	3440	3120	2530	15.1	7.5	2000	4000	50	4A
	63.1	3960	3710	3650	3540	3070	2500	13.4	7.5	2000	4000	50	4A
	72.3	3710	3520	3500	3440	3120	2530	11.2	7.5	2000	4000	50	4A
	77.2	3960	3710	3650	3540	3070	2500	11.0	7.5	2000	4000	50	4A
	90.2	3710	3520	3500	3440	2840	2300	9.0	7.5	2000	4000	50	4A
	105	3960	3710	3650	3540	3070	2500	8.4	7.5	2000	4000	50	4A
	111	3710	3520	3500	3440	3120	2530	7.5	7.5	2000	4000	50	4A
	130	3960	3710	3650	3540	3070	2500	6.8	7.5	2000	4000	50	4A
	141	3960	3710	3650	3540	3070	2500	6.3	7.5	2000	4000	50	4A
	150	3710	3520	3500	3440	3120	2530	5.6	7.5	2000	4000	50	4A
	165	2750	2400	2290	2290	2290	2180	3.8	7.5	2000	4000	50	4A
	178	3500	3080	2800	2800	2750	2430	4.5	7.5	2000	4000	50	4A
	202	2750	2400	2290	2290	2290	2180	3.1	7.5	2000	4000	50	4A
	220	3960	3710	3650	3540	3070	2500	4.1	7.5	2000	4000	50	4A
	273	2750	2400	2290	2290	2290	2180	2.3	7.5	2000	4000	50	4A
	341	2750	2400	2290	2290	2290	2180	1.8	7.5	2000	4000	50	4A
	426	2750	2400	2290	2290	2290	2180	1.5	7.5	2000	4000	50	4A
L4	413	3500	3080	2800	2800	2750	2430	2.0	6	2000	4000	50	4A
	446	3960	3710	3650	3540	3070	2500	2.1	6	2000	4000	50	4A
	492	3960	3710	3650	3540	3070	2500	1.9	6	2000	4000	50	4A
	556	3960	3710	3650	3540	3070	2500	1.7	6	2000	4000	50	4A
	649	3710	3520	3500	3440	3120	2530	1.4	6	2000	4000	50	4A
	702	2750	2400	2290	2290	2290	2180	0.93	6	2000	4000	50	4A
	816	3960	3710	3650	3540	3070	2500	1.1	6	2000	4000	50	4A
	1018	3960	3710	3650	3540	3070	2500	0.92	6	2000	4000	50	4A
	1164	2750	2400	2290	2290	2290	2180	0.56	6	2000	4000	50	4A
	1271	3960	3710	3650	3540	3070	2500	0.74	6	2000	4000	50	4A
	1344	3710	3520	3500	3440	2840	2300	0.65	6	2000	4000	50	4A
	1586	3960	3710	3650	3540	3070	2500	0.59	6	2000	4000	50	4A
	1815	2750	2400	2290	2290	2290	2180	0.36	6	2000	4000	50	4A
	1991	3500	3080	2800	2800	2750	2430	0.42	6	2000	4000	50	4A
	2269	2750	2400	2290	2290	2290	2180	0.29	6	2000	4000	50	4A
	2453	2750	2400	2290	2290	2290	2180	0.27	6	2000	4000	50	4A

M_{2max} = 1.2 • M_{n2} (n_2 • h = 10000)

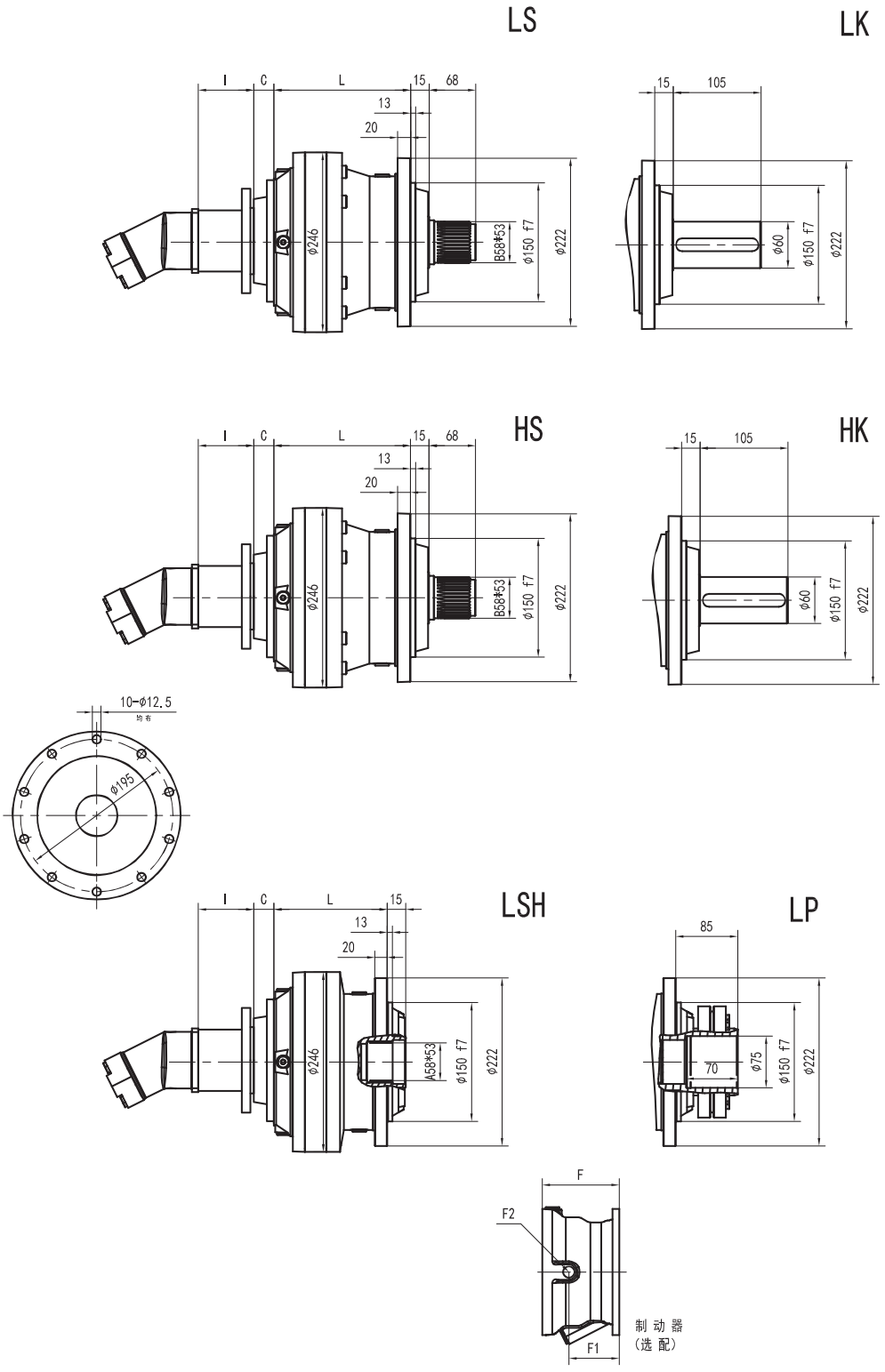
M_2 = 3600 Nm

GTN04 R

	i	M_{n2} [Nm]						P_1	Pt	n_1	n_{1max}	M_b	
	1:	n_2·h 10000	n_2·h 25000	n_2·h 50000	n_2·h 100000	n_2·h 500000	n_2·h 1000000	[kW]	[kW]	[min^{-1}]	[min^{-1}]	[Nm]	
R2	9.23	3710	3520	3500	3220	2050	1670	35	18	1800	3800	330	4H
	10.9	3960	3710	3650	3540	2310	1870	35	18	1800	3800	330	4H
	13.7	3500	3080	2800	2800	2700	2190	35	18	1800	3800	260	4F
	16.8	2750	2400	2290	2290	2290	2180	28	18	1800	3800	260	4F
R3	25.7	3710	3520	3500	3440	2530	2050	15.0	14	2.000	4.000	160	4D
	31.5	3710	3520	3500	3440	2910	2370	15.0	14	2.000	4.000	100	4B
	37.1	3960	3710	3650	3540	3070	2500	15.0	14	2.000	4.000	100	4B
	42.6	3710	3520	3500	3440	3120	2530	15.0	14	2.000	4.000	100	4B
	46.6	3500	3080	2800	2800	2750	2430	14.2	14	2.000	4.000	100	4B
	50.3	3960	3710	3650	3540	3070	2500	15.0	14	2.000	4.000	100	4B
	63.1	3500	3080	2800	2800	2750	2430	10.9	14	2.000	4.000	100	4B
	78.7	3500	3080	2800	2800	2750	2430	9.0	14	2.000	4.000	100	4B
	97.0	2750	2400	2290	2290	2290	2180	5.9	14	2.000	4.000	50	4A
	121	2750	2400	2290	2290	2290	2180	4.9	14	2.000	4.000	50	4A
R4	89.4	3710	3520	3500	3440	3120	2530	9.4	12	2.000	4.000	50	4A
	109	3710	3520	3500	3440	3120	2530	7.8	12	2.000	4.000	50	4A
	129	3960	3710	3650	3540	3070	2500	7.1	12	2.000	4.000	50	4A
	148	3710	3520	3500	3440	3120	2530	5.9	12	2.000	4.000	50	4A
	158	3960	3710	3650	3540	3070	2500	5.9	12	2.000	4.000	50	4A
	185	3710	3520	3500	3440	2840	2300	4.7	12	2.000	4.000	50	4A
	214	3960	3710	3650	3540	3070	2500	4.4	12	2.000	4.000	50	4A
	227	3710	3520	3500	3440	3120	2530	3.9	12	2.000	4.000	50	4A
	267	3960	3710	3650	3540	3070	2500	3.5	12	2.000	4.000	50	4A
	290	3960	3710	3650	3540	3070	2500	3.2	12	2.000	4.000	50	4A
	307	3710	3520	3500	3440	3120	2530	2.9	12	2.000	4.000	50	4A
	338	2750	2400	2290	2290	2290	2180	1.9	12	2.000	4.000	50	4A
	364	3500	3080	2800	2800	2750	2430	2.3	12	2.000	4.000	50	4A
	414	2750	2400	2290	2290	2290	2180	1.6	12	2.000	4.000	50	4A
	452	3960	3710	3650	3540	3070	2500	2.1	12	2.000	4.000	50	4A
	560	2750	2400	2290	2290	2290	2180	1.2	12	2.000	4.000	50	4A
	699	2750	2400	2290	2290	2290	2180	0.93	12	2.000	4.000	50	4A

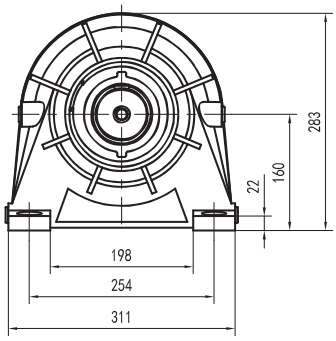
M_{2max} = 1.2 • M_{n2} (n_2 • h = 10000)

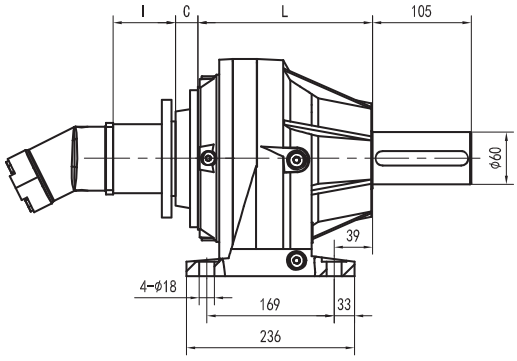
GTN04 L


LS
LK
HS
HK
LSH
LP
I
C
L
15
68
13
20
105
85
70
Φ246
B58*53
Φ150 f7
Φ222
Φ60
Φ75
10-Φ12.5
均布
Φ195
A58*53
F
F2
F1
制动器
(选配)

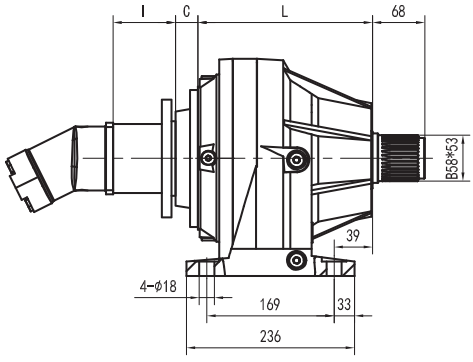
GTN04 L

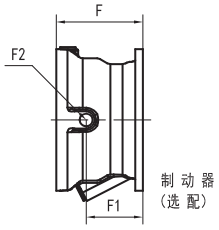
MK





MS

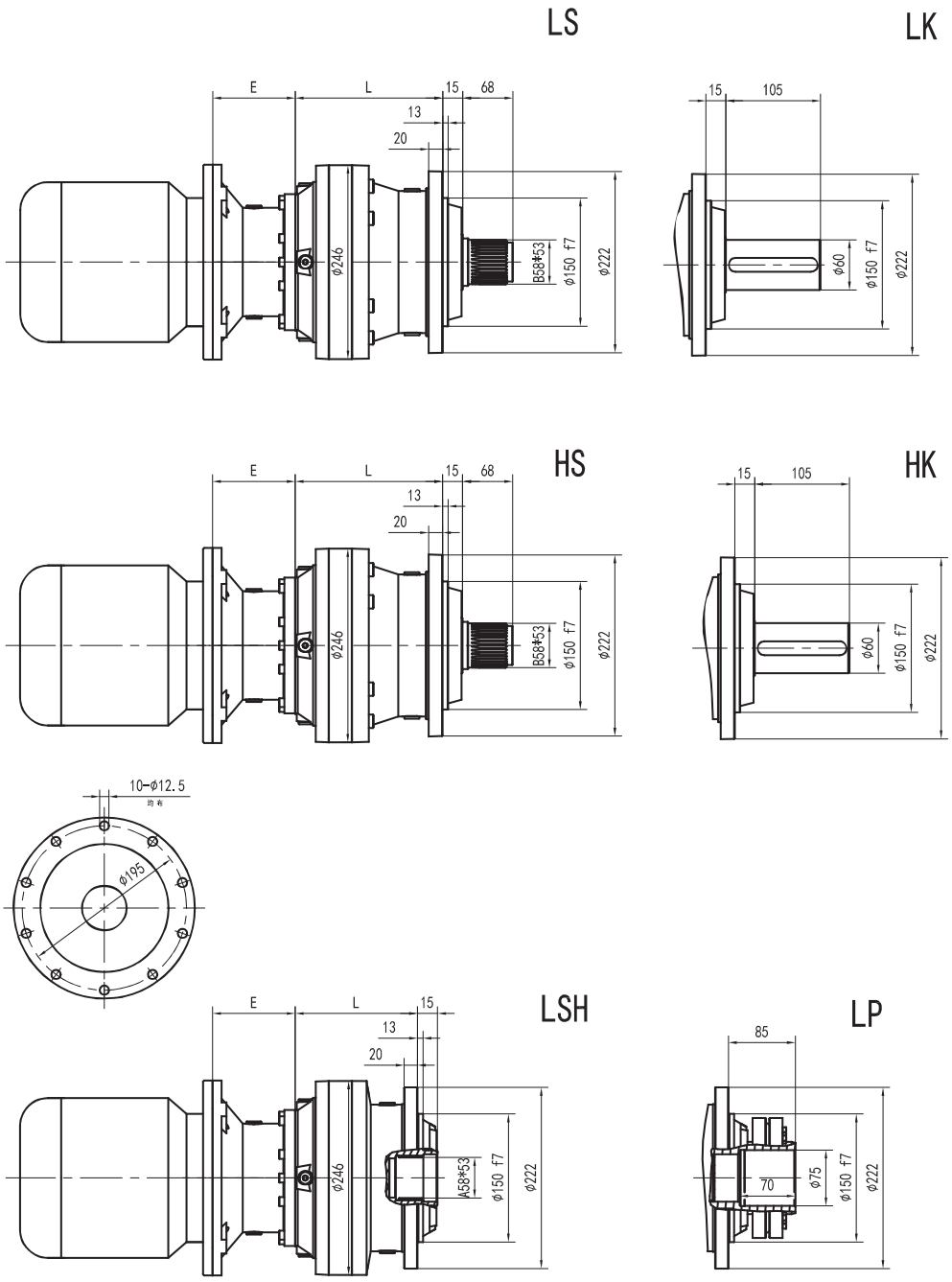




LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	6000 Nm

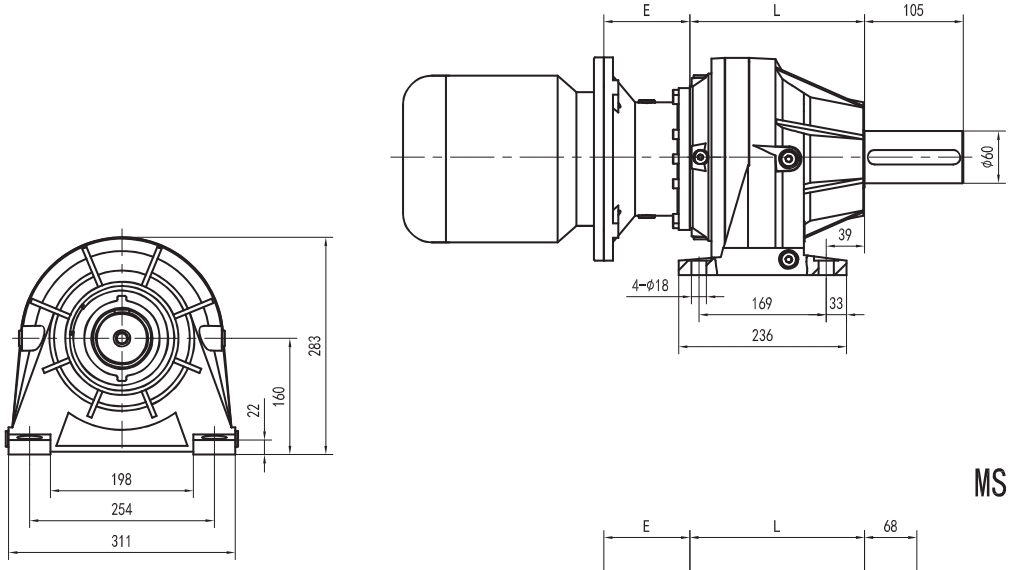
	L				Kg												
	LS LK	LSH LP	HS HK	MK MS	LS LK	LSH LP	HS HK	MK MS	C	输入 Input	I	F	F1	F2	类型 Type	输入 Input	Kg
GTN03 L1	125	125	150	165	31	31	35	40	37	A	联系厂家	145	95	1/4 G	5	A	16
GTN03 L2	190	190	215	230	35	35	39	44	37	A		105	65	1/4 G	4	A	10
GTN03 L3	243	243	268	283	39	39	43	48	37	A		105	65	1/4 G	4	A	10
GTN03 L4	296	296	321	336	43	43	47	52	37	A		105	65	1/4 G	4	A	10

GTN04 L

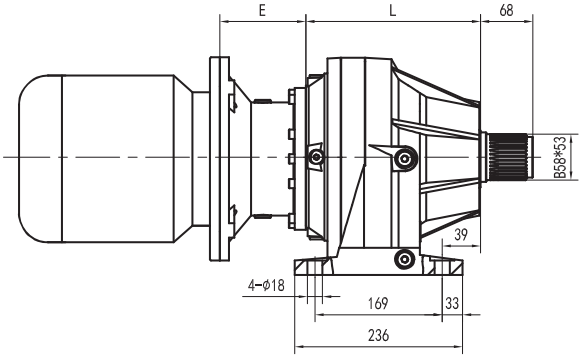

LS
LK
E
L
15
68
13
20
105
φ246
B58*53
φ150 f7
φ222
φ60
HS
HK
10-φ12.5
均布
φ195
LSH
LP
85
70
φ75

GTN04 L

MK



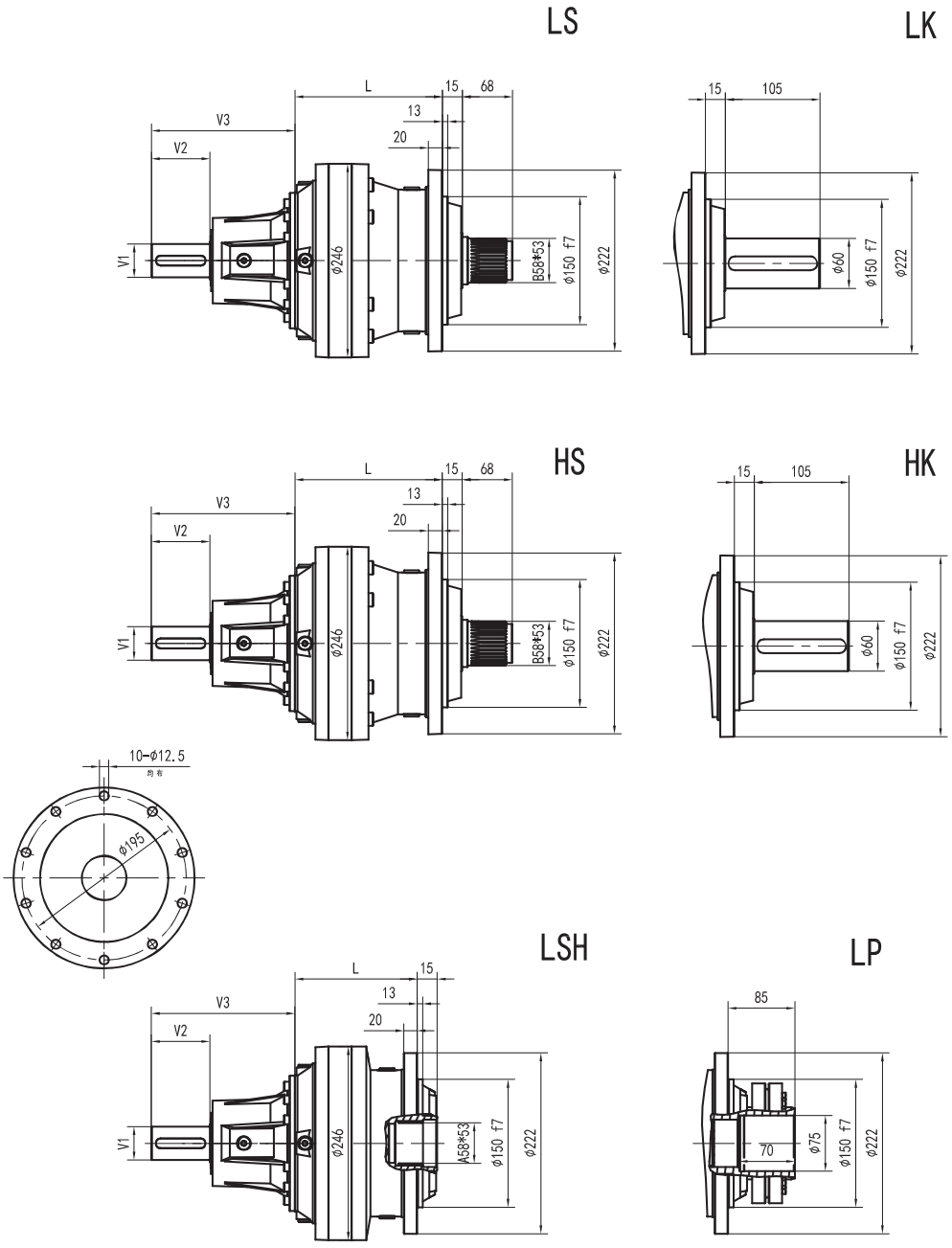
MS



LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	6000 Nm

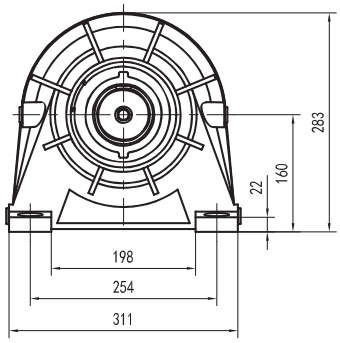
	L				Kg				E								
	LS LK	LSH LP	HS HK	MK MS	LS LK	LSH LP	HS HK	MK MS	IEC 71	IEC 80	IEC 90	IEC 100	IEC 112	IEC 132	IEC 160	IEC 180	IEC 200
GTN03 L1	125	125	150	165	31	31	35	40						114	144	144	174
GTN03 L2	190	190	215	230	35	35	39	44	65	84	84	94	94	114	144		
GTN03 L3	243	243	268	283	39	39	43	48	65	84	84	94	94	114	144		
GTN03 L4	296	296	321	336	43	43	47	52	65	84	84	94	94	114	144		

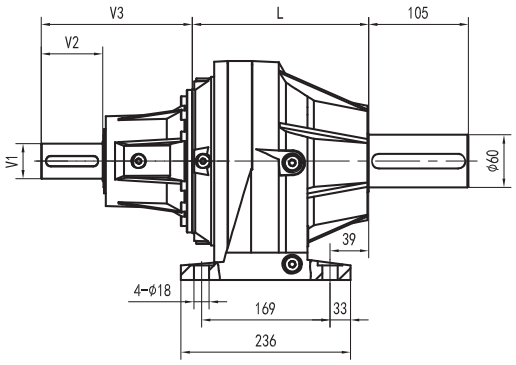
GTN04 L


LS
LK
HS
HK
LSH
LP
L
15
68
13
20
V3
V2
V1
φ246
B58*53
φ150 f7
φ222
105
φ60
10-φ12.5
均布
φ195
A58*53
85
70
φ75

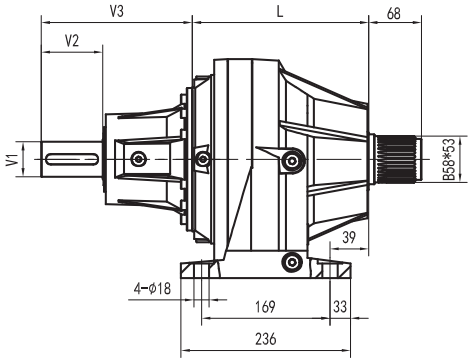
GTN04 L

MK





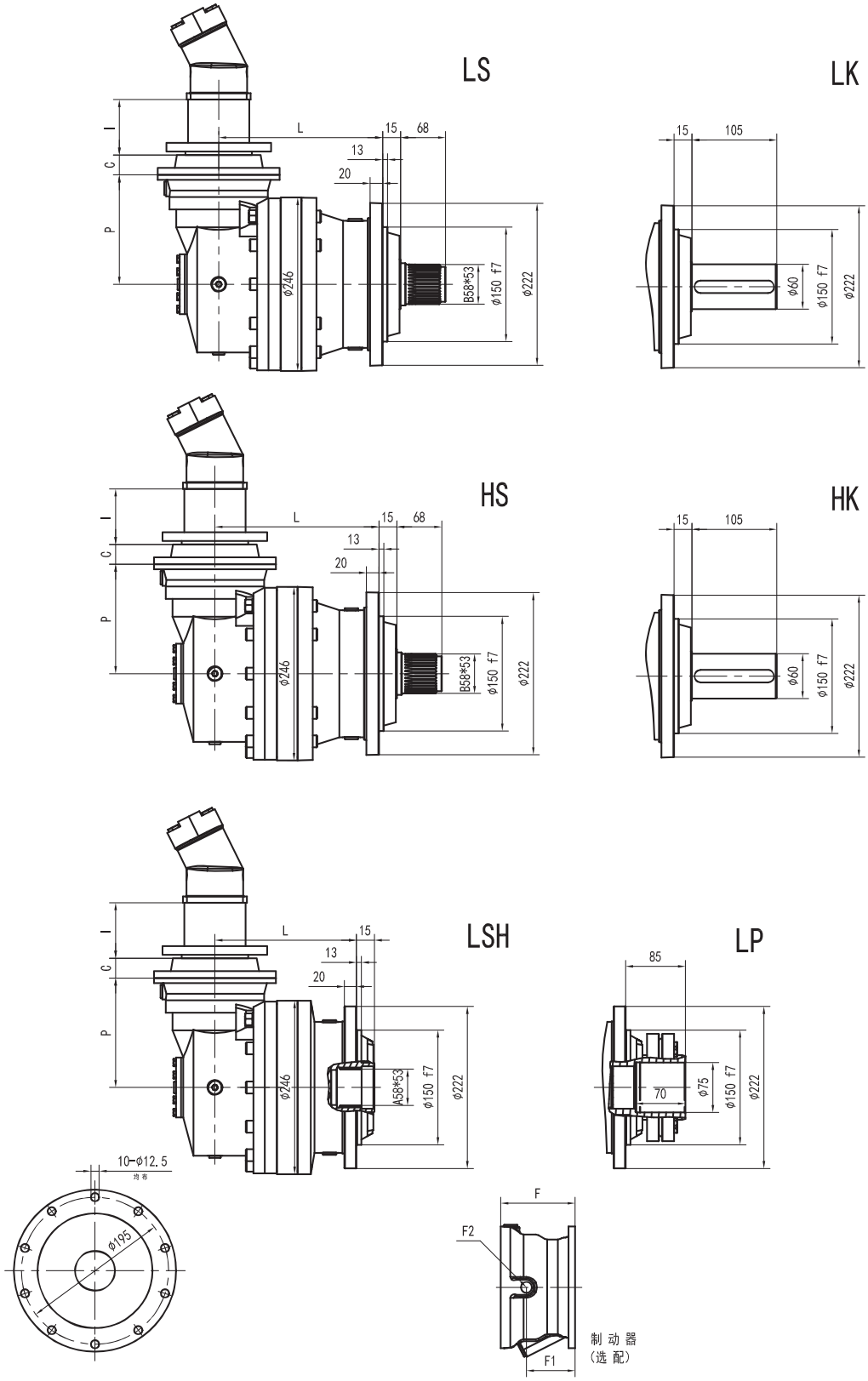
MS



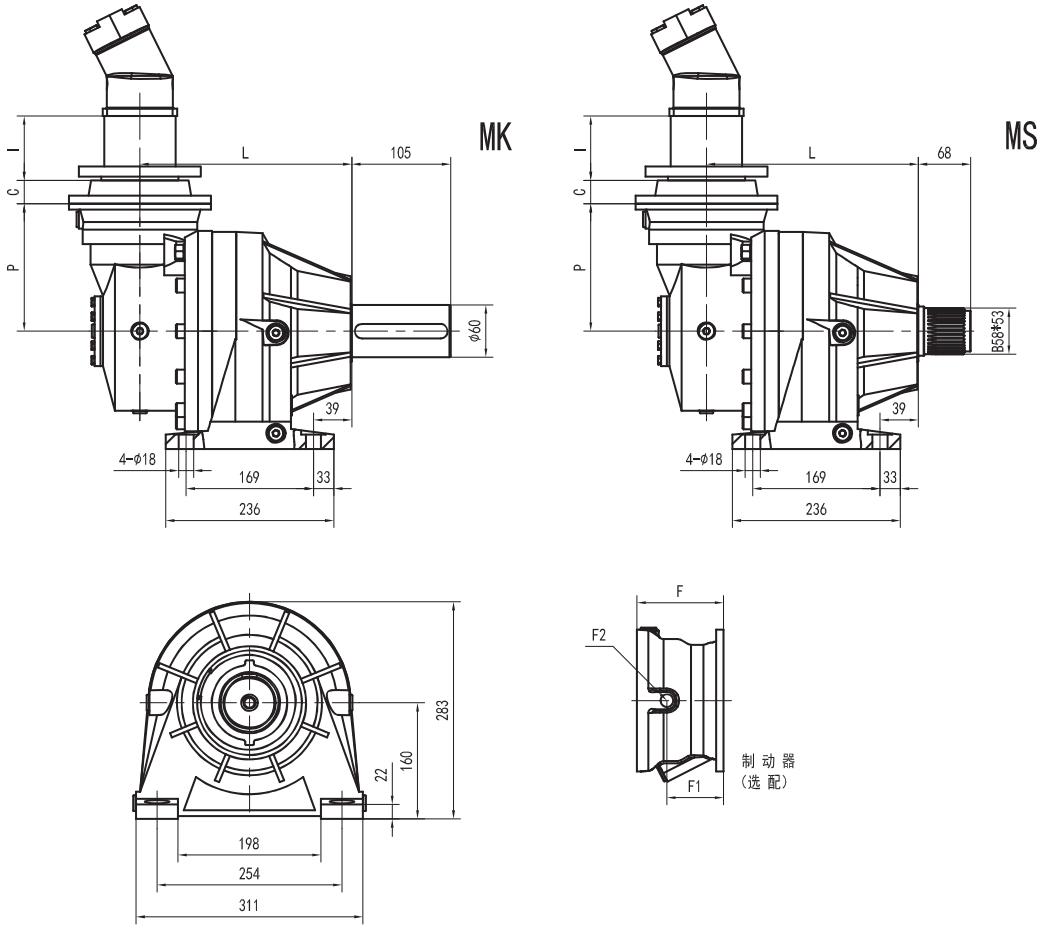
LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	6000 Nm

	L				Kg				V1	V2	V3	Kg	V1	V2	V3	Kg
	LS LK	LSH LP	HS HK	MK MS	LS LK	LSH LP	HS HK	MK MS								
GTN03 L1	125	125	150	165	31	31	35	40	48	82	239	15				
GTN03 L2	190	190	215	230	35	35	39	44	24	36	137.5	6	38	58	158	7
GTN03 L3	243	243	268	283	39	39	43	48	24	36	137.5	6	38	58	158	7
GTN03 L4	296	296	321	336	43	43	47	52	24	36	137.5	6	38	58	158	7

GTN04 R


LS
LK
HS
HK
LSH
LP
L
15
68
13
20
I
C
P
ϕ246
B58*53
ϕ150 f7
ϕ222
105
ϕ60
85
70
ϕ75
A58*53
10-ϕ12.5
均布
ϕ195
F
F2
F1
制动器
(选配)

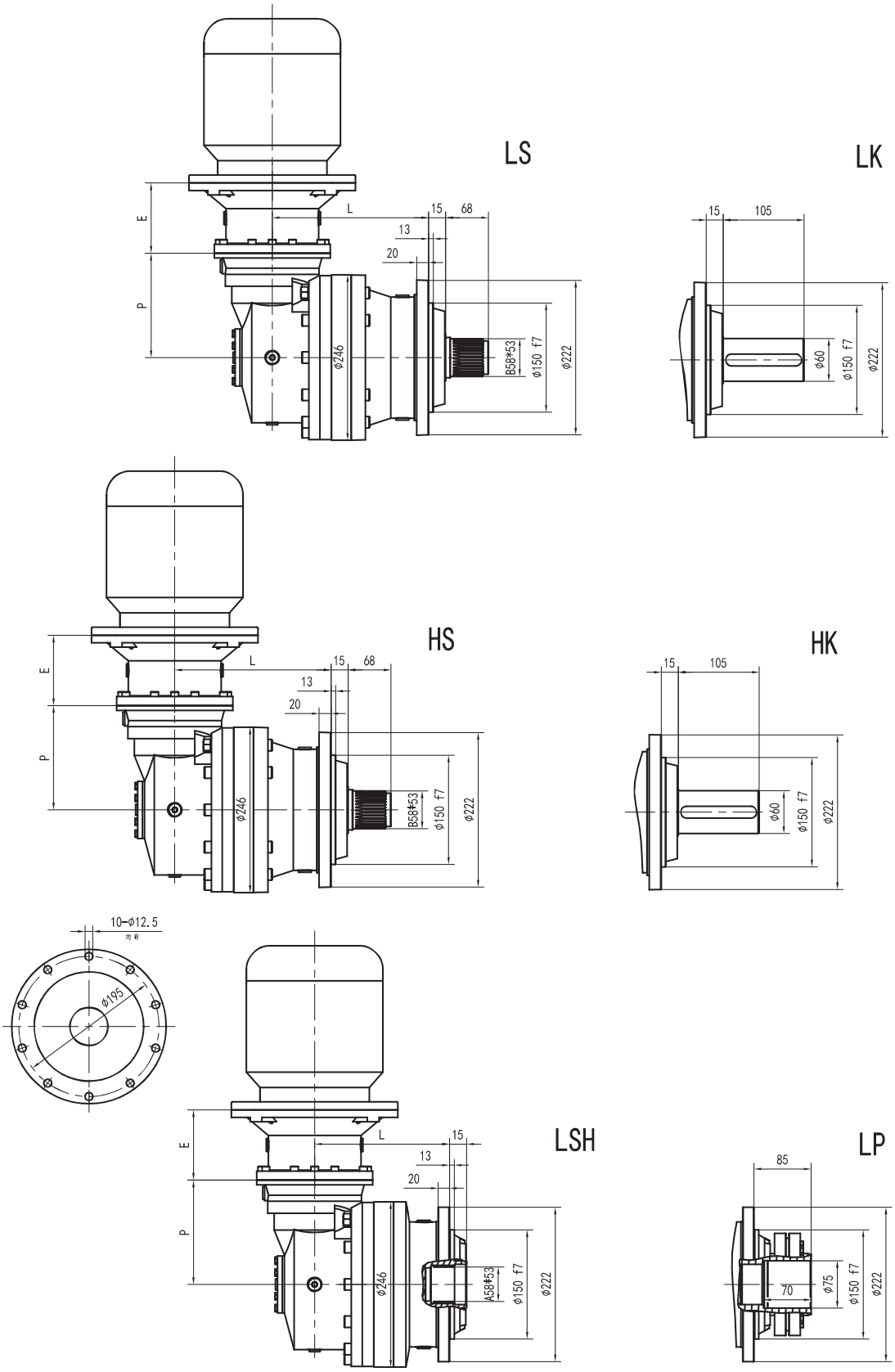
GTN04 R



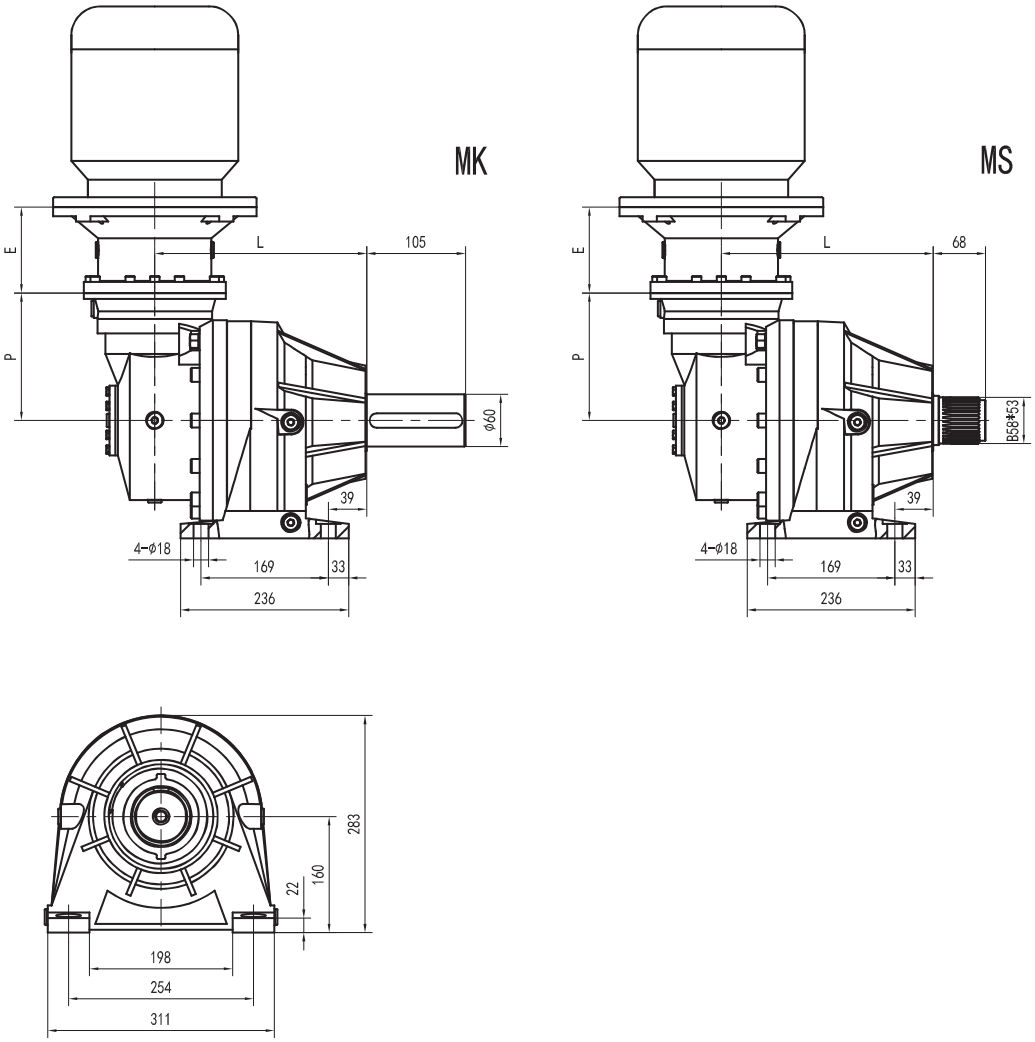
LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	6000 Nm

	L				P	Kg				C	输入 Input	I	F	F1	F2	类型 Type	输入 Input	Kg
	LS LK	LSH LP	HS HK	MK MS		LS LK	LSH LP	HS HK	MK MS									
GTN03 R2	217	217	242	257	140	51	51	55	60	37	A	联系厂家	105	65	1/4 G	A	A	10
GTN03 R3	282	282	307	322	122	49	49	53	58	37	A		105	65	1/4 G	4	A	10
GTN03 R4	335	335	360	375	122	53	53	57	62	37	A		105	65	1/4 G	4	A	10

GTN04 R


LS
LK
HS
HK
LSH
LP
L
E
P
15
68
13
20
105
85
70
10-Φ12.5
均布
Φ195
Φ246
B58*53
A58*53
Φ150 f7
Φ222
Φ60
Φ75

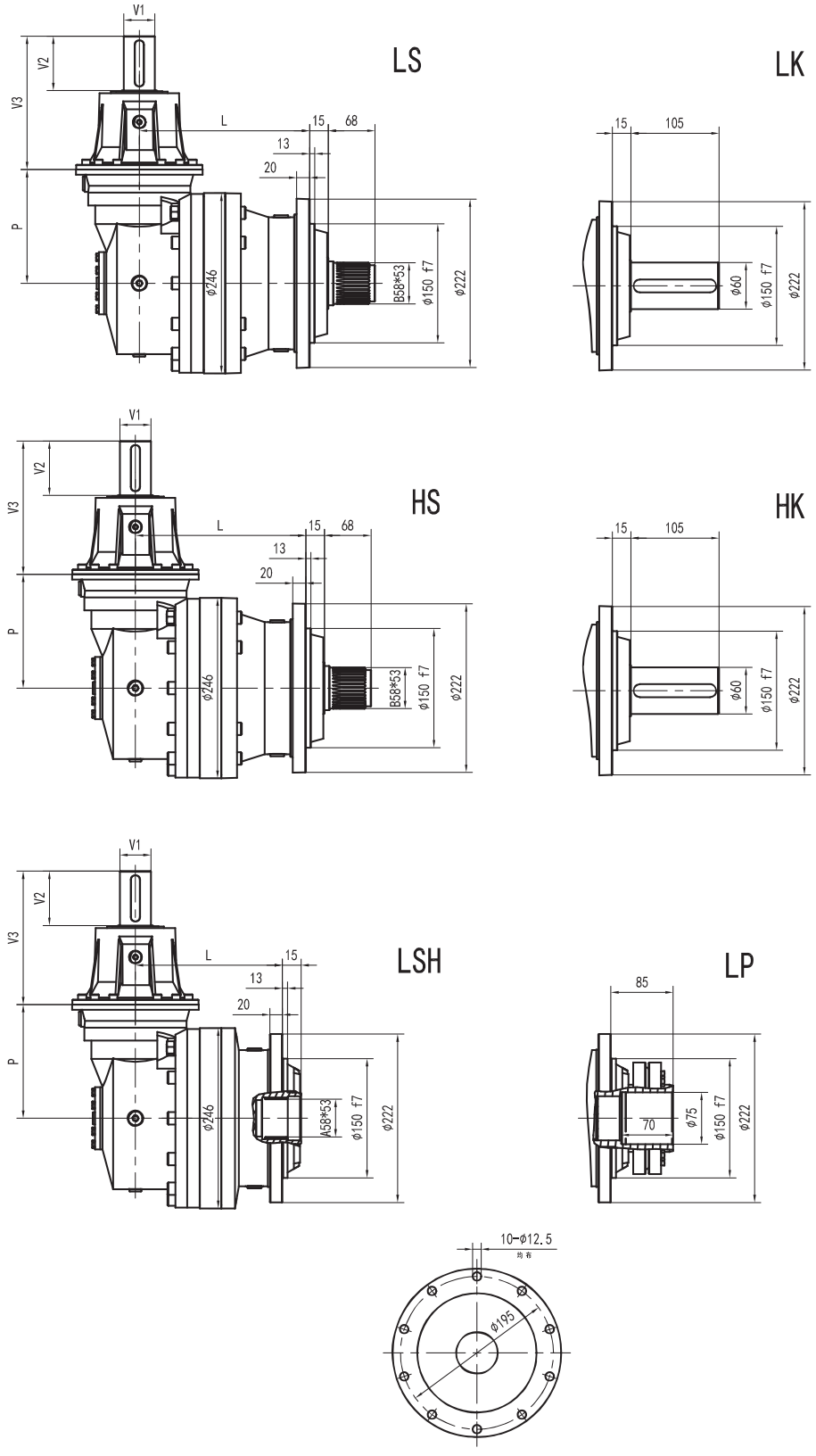
GTN04 R



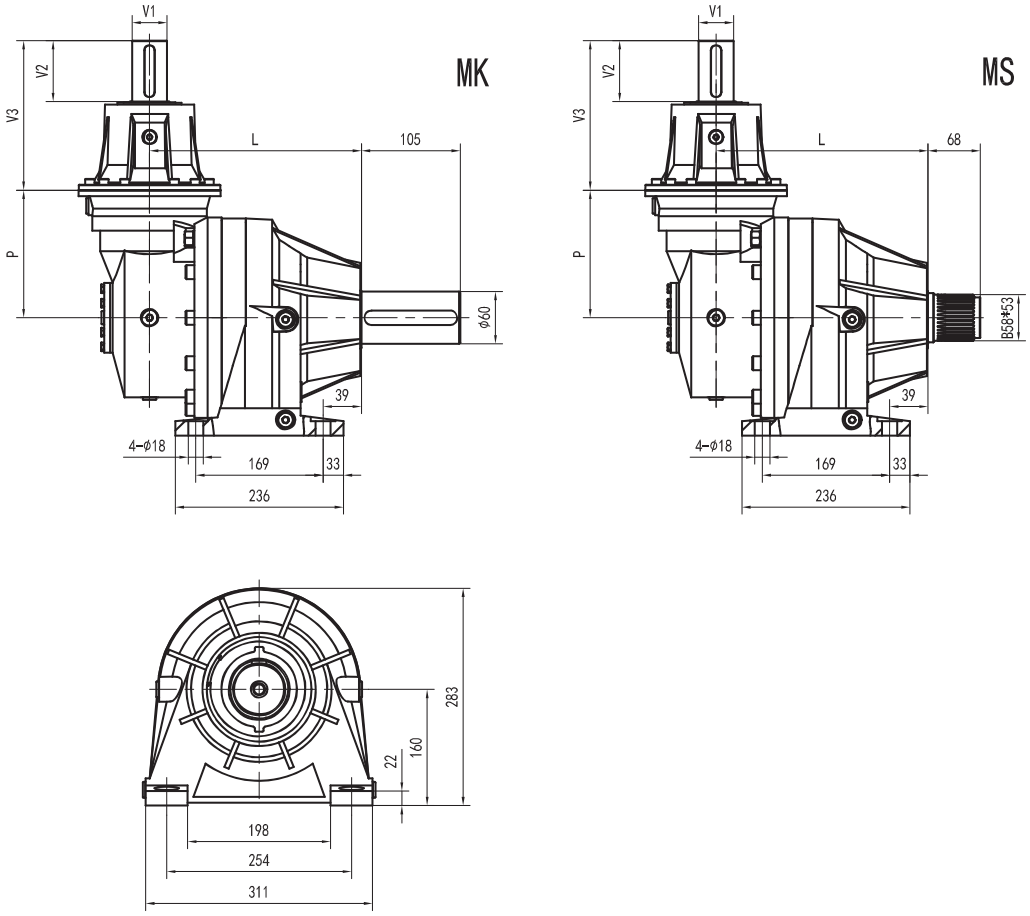
LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	6000 Nm

	L				P	Kg				E					
	LS LK	LSH LP	HS HK	MK MS		LS LK	LSH LP	HS HK	MK MS	IEC 71	IEC 80	IEC 90	IEC 100	IEC 112	IEC 132
GTN03 R2	217	217	242	257	140	51	51	55	60	65	84	84	94	94	114
GTN03 R3	282	282	307	322	122	49	49	53	58	65	84	84	94	94	114
GTN03 R4	335	335	360	375	122	53	53	57	62	65	84	84	94	94	114

GTN04 R


LS
LK
HS
HK
LSH
LP
V1
V2
V3
P
L
15
68
13
20
105
85
70
Φ246
B58*53
A58*53
Φ150 f7
Φ222
Φ60
Φ75
10-Φ12.5
均布
Φ195

GTN04 R

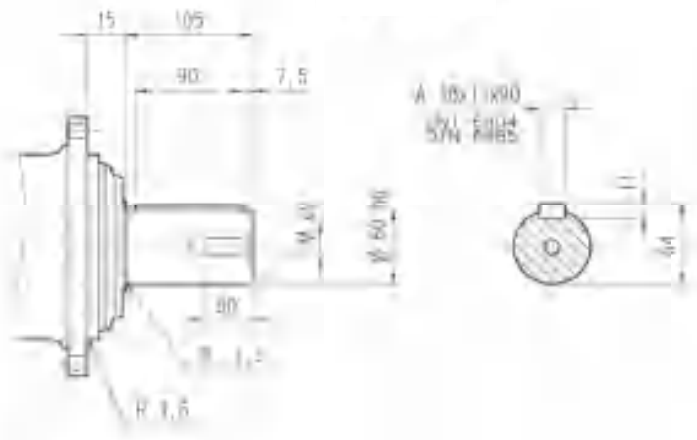


LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	6000 Nm

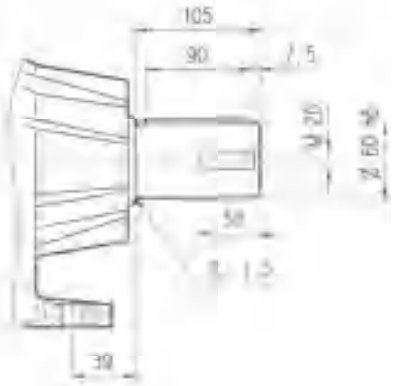
	L				P	Kg				V1	V2	V3	Kg	V1	V2	V3	Kg
	LS LK	LSH LP	HS HK	MK MS		LS LK	LSH LP	HS HK	MK MS								
GTN03 R2	217	217	242	257	140	51	51	55	60	24	36	137.5	6	38	58	158	7
GTN03 R3	282	282	307	322	122	49	49	53	58	24	36	137.5	6	38	58	158	7
GTN03 R4	335	335	360	375	122	53	53	57	62	24	36	137.5	6	38	58	158	7

GTN04 L-GTN04 R

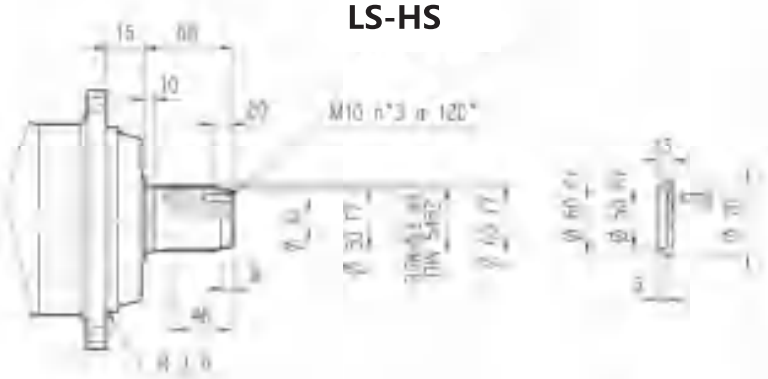
LK-HK



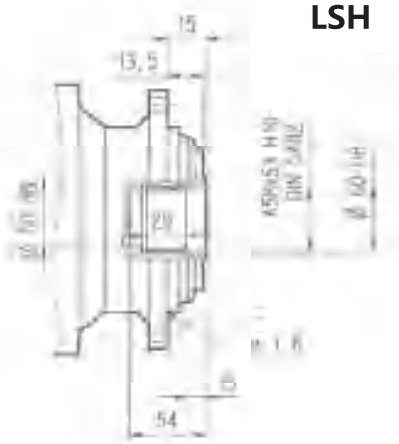
MK



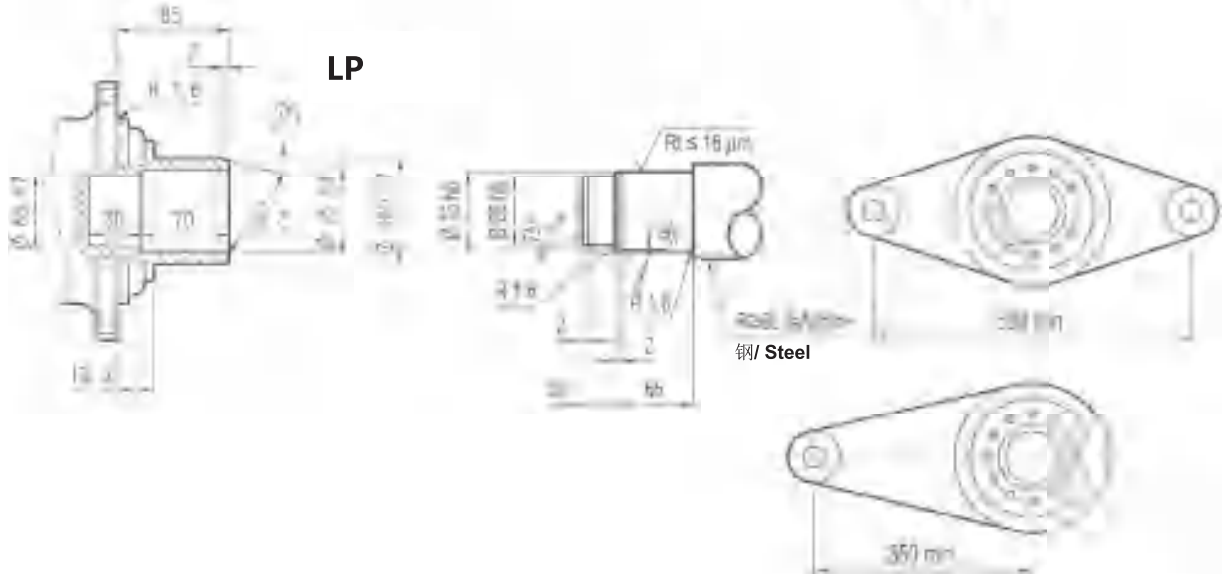
LS-HS



LSH



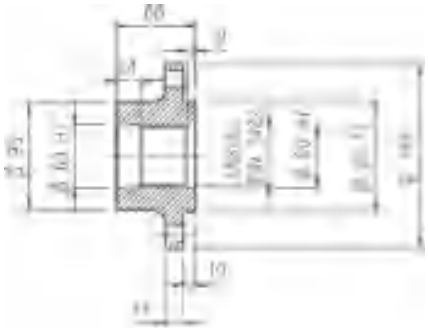
LP



LP输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	6000 Nm

GTN04 L-GTN04 R

法兰 / Flange

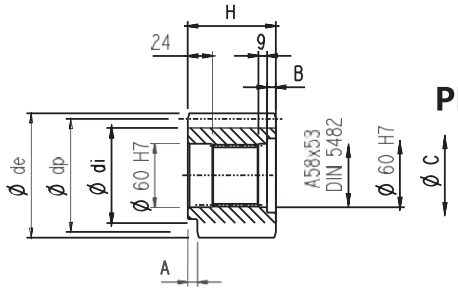


FOA

材料 : 钢 C40
Material : Steel C40

输出齿轮 / Output pinions

	m	z	x	dp	di	de	H	A	B	C	☆
PM501	5	19	0	95	82	104	77	12	9	72	□
PM502	5	19	0	95	82	104	68	0	0	0	□
PM503	5	20	0	100	87.5	110	68	18	0	0	■
PM504	5	22	0	110	97.5	120	68	18	0	0	■
PM601	6	14	0.500	84	75	99.6	68	0	0	0	□
PM602	6	18	0.500	108	99	123.6	68	0	0	0	□
PM603	6	20	0.833	120	115	140	68	0	0	0	□
PM801	8	13	0.675	104	95	127.6	68	0	0	0	■
PM802	8	14	0	112	92	126	68	0	0	0	■
PM803	8	14	0	112	92	126	80	0	12	72	■
PM804	8	15	0	120	100	136	68	0	0	0	□
PM805	8	22	0	176	156	190	77	12	10	71	□
PM1001	10	16	0.500	160	145	188	75	0	7	72	□

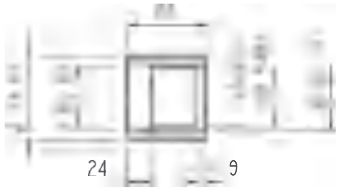


PM...

☆	材料 / Material
□	39NiCrMo3 调制钢 Steel 39NiCrMo3 hardened and tempered
■	18NiCrMo5 表面渗碳钢 18NiCrMo5 Case hardened

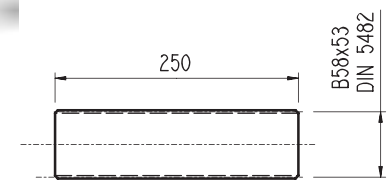
套筒联轴器i / Sleeve couplings

材料 : 16CrNi4
Material : Steel 16CrNi4



HOS

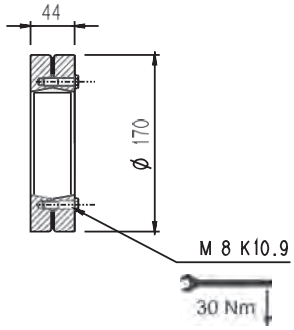
花键 / Splined bars



SOF

表面硬化钢 18NiCrMo5 UNI 5331 表面硬化必须达到 50-55 HRC
Case hardening steel 18NiCrMo5 UNI 5331
must be case hardened 50-55 HRC

锁紧盘 / Shrink disc

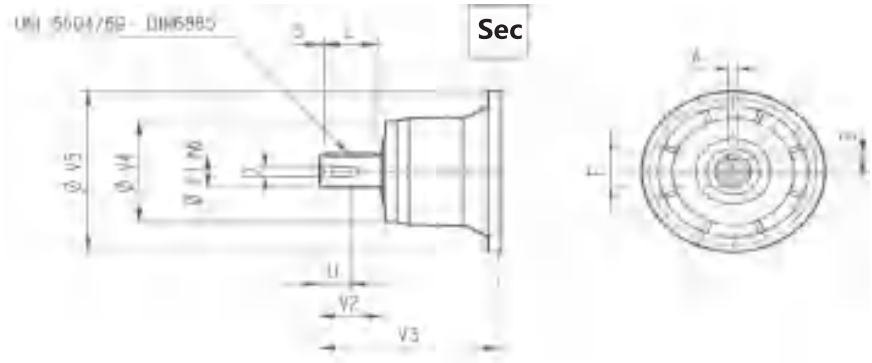


LOP

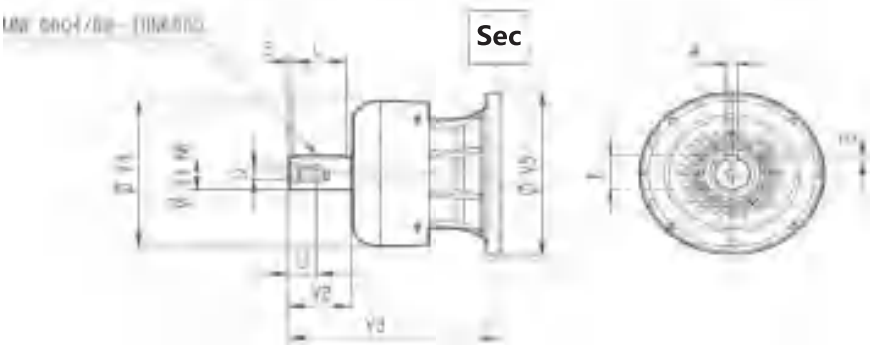
GTN04 L -GTN04R

输入轴 / Input shaft

S_ _



SV_ _

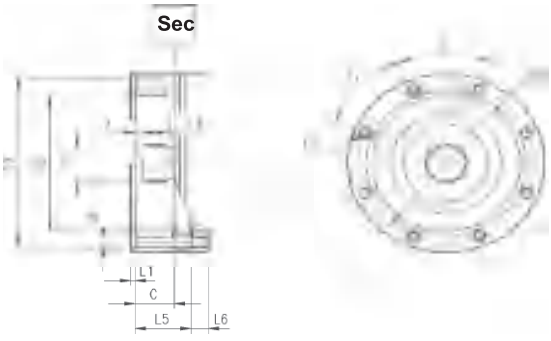


	CODE	V1	V2	V3	V4	V5	A	B	F	L	S	D	U
GTN04 L1	S05B	48	82	239	155	245	14	9	51.5	70	6	M16	36
	SV05B	48	82	276	219.5	244	14	9	51.5	70	6	M16	36
GTN04 L2	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28
GTN04 L3	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28
GTN04 L4	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28
GTN04 R2-R3-R4	S01A	24	36	137.5	120	186	8	7	27	30	3	M8	19
	S01B	38	58	158	120	186	10	8	41	50	4	M12	28

不带电机的输入法兰尺寸

Input dimension without motor adaptor

S_ _

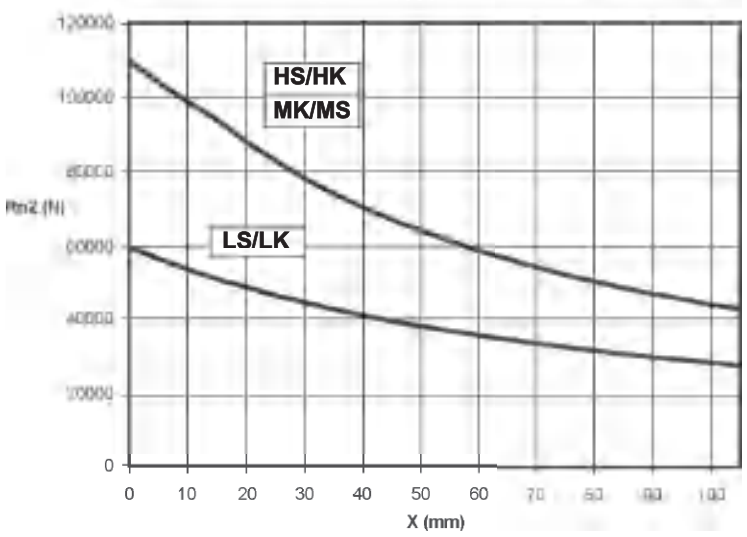


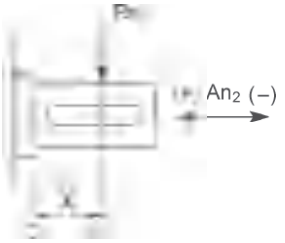
	CODE	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	输入 Input
GTN04 L1	S9AA	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	/	18	45°	45°	A
GTN04 L2	S9AA	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	53	18	45°	45°	A
GTN04 L3	S9AA	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	106	18	45°	45°	A
GTN04 L4	S9AA	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	159	18	45°	45°	A
GTN04 R2-R3-R4	S9AA	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	/	9	18	37	18	45°	45°	A

GTN04 L -GTN04R

输出轴上允许的径向和轴向载荷
$Fh_2 : n_2 . h = 10000$

Permissible radial and axial loadson output shaft with Fh_2 $n_2 \cdot h = 10000$





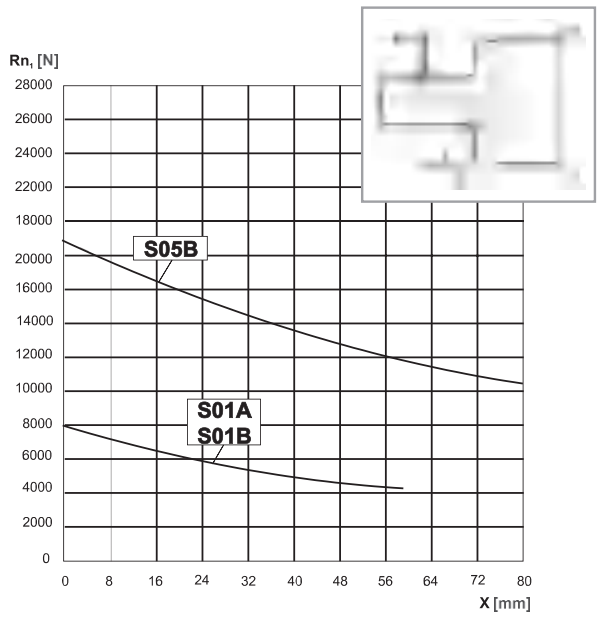
	An2 (+)	An2 (-)
LS - LK	55000	44000
HS - HK - MK - MS	55000	44000

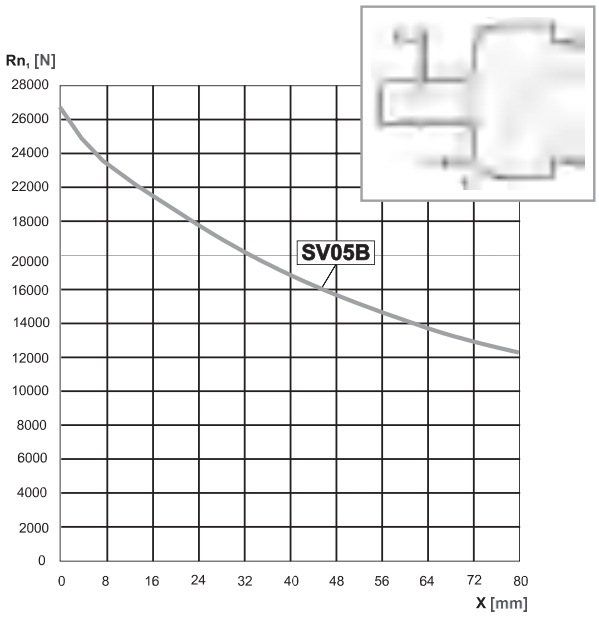
	Rn2	An2 (+/-)
LSH	24000	25000

轴上的载荷修正系数 fh_2 Load corrective factor fh_2 on shafts	$Fh_2 = n_2 \cdot h$		10000	25000	50000	100000	500000	1000000
	fh_2	LS - LK - LSH	1	0.74	0.58	0.46	0.27	0.21
		HS - HK - MK- MS	1	0.76	0.61	0.50	0.31	0.25

输入轴上允许的径向和轴向载荷
$Fh_1 n_1 \cdot h = 250000$

Permissible radial loads on inputshaft with $Fh_1 : n_1 \cdot h = 250000$





轴上的载荷修正系数 fh_1 Load corrective factor fh_1 on shafts	$Fh_1 = n_1 \cdot h$	250000	500000	1000000	2000000	5000000	10000000
	fh_1	1	0.79	0.63	0.50	0.37	0.29

GTN05 L

M_2 = 5000 Nm

	i	M_{n2} [Nm]						P_1	Pt	n_1	n_{1max}	M_b	
	1:	n_2·h 10000	n_2·h 25000	n_2·h 50000	n_2·h 100000	n_2·h 500000	n_2·h 1000000	[kW]	[kW]	[min^{-1}]	[min^{-1}]	[Nm]	
L1	3.60	4700	4450	4300	4200	3750	3050	60	13	1800	3800	1000	5K
	4.25	5800	5500	5300	5200	3700	3000	60	13	1800	3800	1000	5K
	5.33	5600	4900	4400	4400	3600	2950	60	13	1800	3800	1000	5K
	6.20	4600	3950	3600	3600	3550	2900	60	13	1800	3800	800	5G
	7.50	3800	3300	3100	3100	3000	2400	60	13	1800	3800	630	5E
L2	12.5	4700	4450	4300	4200	3250	2650	30	9	2000	4000	400	4K
	15.3	4700	4450	4300	4200	3250	2650	30	9	2000	4000	330	4H
	18.1	5800	5500	5300	5200	3650	2950	30	9	2000	4000	400	4K
	20.8	4700	4450	4300	4200	3100	2500	30	9	2000	4000	260	4F
	22.7	5600	4900	4400	4400	3600	2950	30	9	2000	4000	330	4H
	24.5	5500	5400	5300	5200	3450	2800	30	9	2000	4000	330	4H
	26.4	4600	3950	3600	3600	3550	2900	30	9	2000	4000	260	4F
	30.8	5600	4900	4400	4400	3600	2950	30	9	2000	4000	260	4F
	35.8	4600	3950	3600	3600	3550	2900	22.4	9	2000	4000	160	4D
	38.4	5600	4900	4400	4400	3600	2900	25.5	9	2000	4000	160	4D
	44.6	4600	3950	3600	3600	3550	2900	18.3	9	2000	4000	160	4D
	55.8	4100	4000	3600	3600	2900	2400	15.2	9	2000	4000	160	4D
L3	53.4	4700	4450	4300	4200	3250	2650	18.8	7.5	2000	4000	100	4B
	63.1	5800	5350	5300	5200	3650	3000	19.4	7.5	2000	4000	160	4D
	72.3	4700	4450	4300	4200	3250	2650	14.1	7.5	2000	4000	100	4B
	77.2	5800	5500	5300	5200	3650	2950	16.3	7.5	2000	4000	100	4B
	90.2	4700	4450	4300	4200	3250	2650	11.4	7.5	2000	4000	100	4B
	105	5800	5500	5300	5200	3650	2950	12.3	7.5	2000	4000	100	4B
	113	4600	3950	3600	3600	3550	2900	8.7	7.5	2000	4000	100	4B
	124	4600	3950	3600	3600	3550	2900	8.0	7.5	2000	4000	50	4A
	141	5500	5350	5300	5200	3450	2800	8.9	7.5	2000	4000	100	4B
	152	4600	3950	3600	3600	3550	2900	6.7	7.5	2000	4000	50	4A
	164	5600	4900	4400	4400	3600	2950	7.7	7.5	2000	4000	50	4A
	178	5600	4900	4400	4400	3600	2950	7.2	7.5	2000	4000	50	4A
	190	4600	3950	3600	3600	3550	2900	5.5	7.5	2000	4000	50	4A
	220	4750	4750	4750	4750	3050	2500	4.9	7.5	2000	4000	50	4A
	258	4600	3950	3600	3600	3550	2900	4.1	7.5	2000	4000	50	4A
	276	5600	4900	4400	4400	3600	2900	4.6	7.5	2000	4000	50	4A
	321	4600	3950	3600	3600	3550	2900	3.3	7.5	2000	4000	50	4A
	389	3800	3300	3100	3100	3000	2400	2.2	7.5	2000	4000	50	4A
	402	4600	3950	3600	3600	3550	2900	2.6	6	2000	4000	50	4A
L4	413	5600	4900	4400	4400	3600	2900	3.2	6	2000	4000	50	4A
	446	5800	5500	5300	5200	3650	2950	3.1	6	2000	4000	50	4A
	492	5500	5350	5300	5200	3450	2800	2.6	6	2000	4000	50	4A
	556	5800	5500	5300	5200	3650	2950	2.5	6	2000	4000	50	4A
	649	4700	4450	4300	4200	3250	2650	1.7	6	2000	4000	50	4A
	718	4600	3950	3600	3600	3550	2900	1.5	6	2000	4000	50	4A
	816	5500	5350	5300	5200	3450	2800	1.6	6	2000	4000	50	4A
	896	4600	3950	3600	3600	3550	2900	1.2	6	2000	4000	50	4A
	1018	5500	5350	5300	5200	3450	2800	1.3	6	2000	4000	50	4A
	1098	4600	3950	3600	3600	3550	2900	0.99	6	2000	4000	50	4A
	1278	5600	4900	4400	4400	3600	2950	1.0	6	2000	4000	50	4A
	1370	4600	3950	3600	3600	3550	2900	0.79	6	2000	4000	50	4A
	1586	4750	4750	4750	4750	3050	2500	0.71	6	2000	4000	50	4A
	1854	4600	3950	3600	3600	3550	2900	0.59	6	2000	4000	50	4A
	1991	5600	4900	4400	4400	3600	2900	0.67	6	2000	4000	50	4A
	2243	3800	3300	3100	3100	3000	2400	0.40	6	2000	4000	50	4A
	2799	3800	3300	3100	3100	3000	2400	0.32	6	2000	4000	50	4A

M_{2max} = 1.2 • M_{n2} (n_2 • h = 10000)

M_2 = 5000 Nm

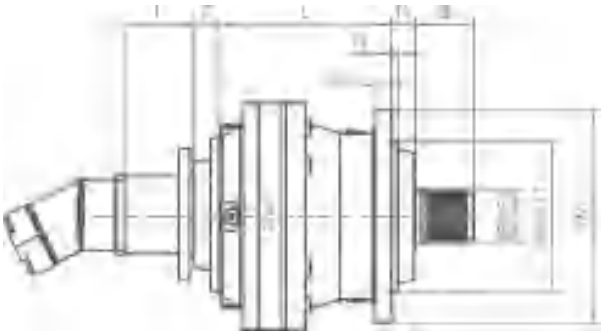
GTN05 R

	i	M_{n2} [Nm]						P_1	Pt	n_1	n_{1max}	M_b	
	1:	n_2·h 10000	n_2·h 25000	n_2·h 50000	n_2·h 100000	n_2·h 500000	n_2·h 1000000	[kW]	[kW]	[min^{-1}]	[min^{-1}]	[Nm]	
R2	9.23	4650	4050	3600	3200	2000	1600	35	18	1800	3800	440	4L
	10.9	5300	4650	4150	3600	2200	1800	35	18	1800	3800	440	4L
	13.7	5600	4900	4400	4200	2600	2100	35	18	1800	3800	440	4L
	15.9	4600	3950	3600	3600	2900	2350	35	18	1800	3800	330	4H
	19.2	3800	3300	3100	3100	3000	2400	32	18	1800	3800	260	4F
R3	25.7	4150	4150	4150	4150	2600	2100	15.0	14	2000	4000	260	4F
	31.5	4700	4450	4300	4200	3000	2450	15.0	14	2000	4000	260	4F
	37.1	5800	5500	5300	5200	3400	2750	15.0	14	2000	4000	260	4F
	42.6	4700	4450	4300	4200	3100	2500	15.0	14	2000	4000	160	4D
	46.6	5600	4900	4400	4400	3600	2950	15.0	14	2000	4000	160	4D
	50.3	5500	5350	5300	5200	3450	2800	15.0	14	2000	4000	160	4D
	54.2	4600	3950	3600	3600	3550	2900	15.0	14	2000	4000	100	4B
	63.1	5600	4900	4400	4400	3600	2950	15.0	14	2000	4000	100	4B
	73.3	4600	3950	3600	3600	3550	2900	12.3	14	2000	4000	100	4B
	78.7	5600	4900	4400	4400	3600	2900	14.3	14	2000	4000	100	4B
	91.5	4600	3950	3600	3600	3550	2900	10.2	14	2000	4000	100	4B
	114	4100	4000	3600	3600	2900	2400	8.6	14	2000	4000	50	4A
R4	129	5800	5400	5300	5200	3650	3000	10.3	12	2000	4000	50	4A
	148	4700	4450	4300	4200	3250	2650	7.4	12	2000	4000	50	4A
	158	5800	5500	5300	5200	3650	2950	8.6	12	2000	4000	50	4A
	185	4700	4450	4300	4200	3250	2650	6.0	12	2000	4000	50	4A
	214	5800	5500	5300	5200	3650	2950	6.4	12	2000	4000	50	4A
	231	4600	3950	3600	3600	3550	2900	4.7	12	2000	4000	50	4A
	255	4600	3950	3600	3600	3550	2900	4.3	12	2000	4000	50	4A
	290	5500	5400	5300	5200	3450	2800	4.5	12	2000	4000	50	4A
	313	4600	3950	3600	3600	3550	2900	3.5	12	2000	4000	50	4A
	336	5600	4900	4400	4400	3600	2900	3.9	12	2000	4000	50	4A
	364	5600	4900	4400	4400	3600	2950	3.6	12	2000	4000	50	4A
	390	4600	3950	3600	3600	3550	2900	2.8	12	2000	4000	50	4A
	452	4750	4750	4750	4750	3050	2500	2.5	12	2000	4000	50	4A
	528	4600	3950	3600	3600	3550	2900	2.1	12	2000	4000	50	4A
	567	5600	4900	4400	4400	3600	2900	2.3	12	2000	4000	50	4A
	659	4600	3950	3600	3600	3550	2900	1.7	12	2000	4000	50	4A
	797	3800	3300	3100	3100	3000	2400	1.1	12	2000	4000	50	4A
	824	4600	3950	3600	3600	3550	2900	1.3	12	2000	4000	50	4A

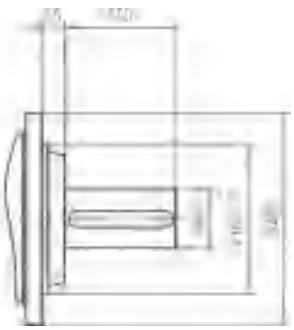
M_{2max} = 1.2 • M_{n2} (n_2 • h = 10000)

GTN05 L

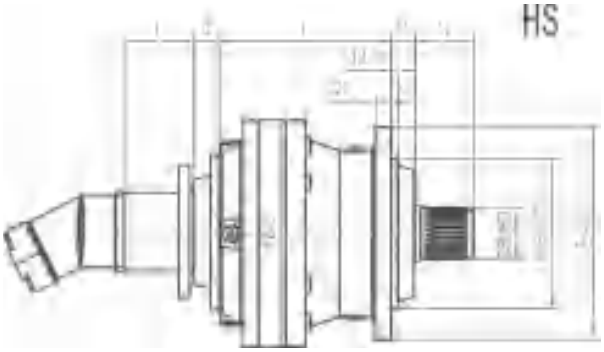
LS



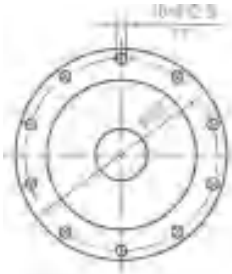
LK



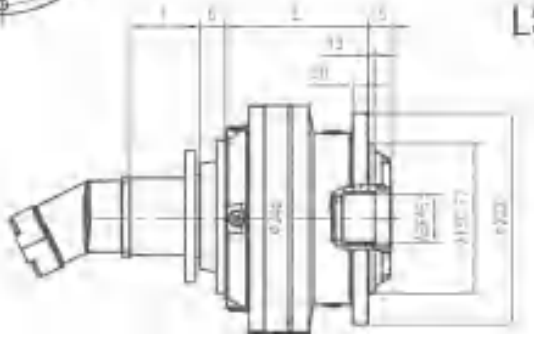
HS



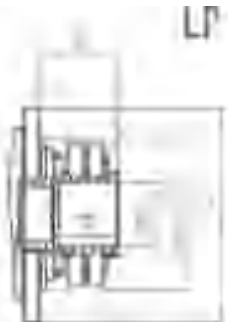
HK



LSH

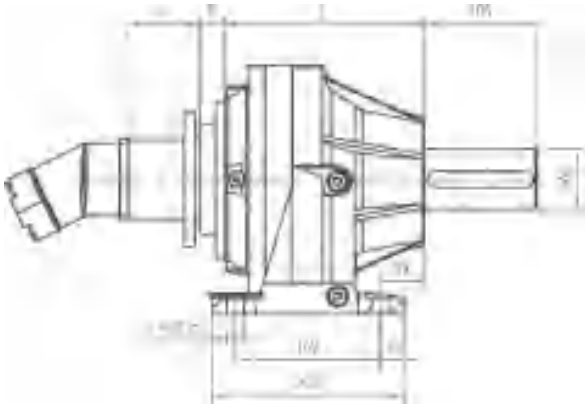


LP

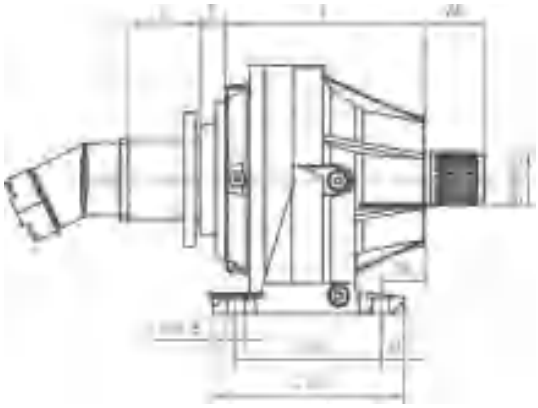


GTN05 L

MK



MS

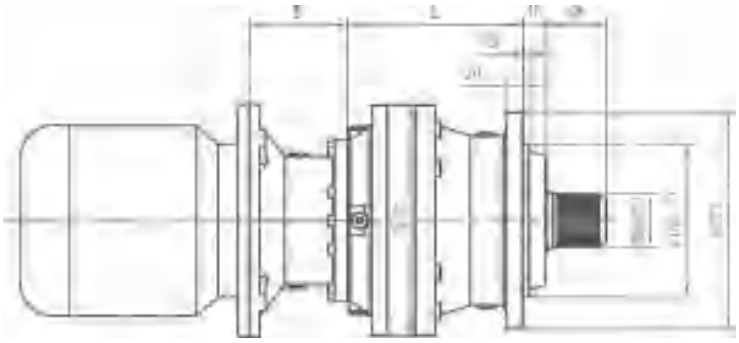


LP 输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	7000 Nm

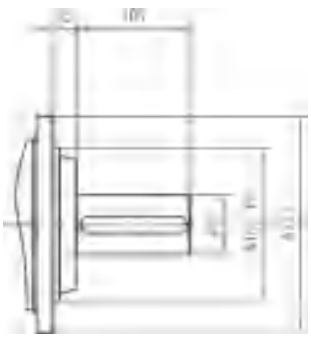
	L				Kg						I	F	F1	F2	类型 Type	输入 Input	Kg
	LS LK	LSH LP	HS HK	MK MS	LS LK	LSH LP	HS HK	MK MS	C	输入 Input							
GTN05 L1	143	143	168	183	36	36	40	45	37	A	联系厂家	145	95	1/4 G	5	A	16
GTN05 L2	208	208	233	248	43	43	47	52	37	A		105	65	1/4 G	4	A	10
GTN05 L3	261	261	286	301	47	47	51	56	37	A		105	65	1/4 G	4	A	10
GTN05 L4	314	314	339	354	51	51	55	60	37	A		105	65	1/4 G	4	A	10

GTN05 L

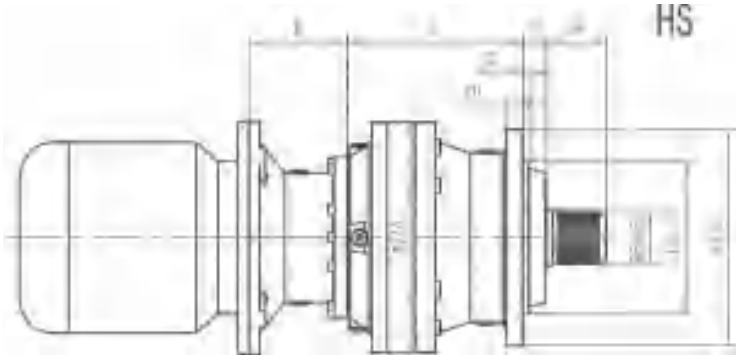
LS



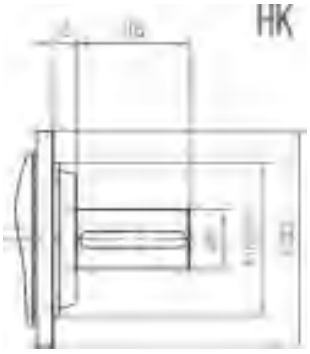
LK



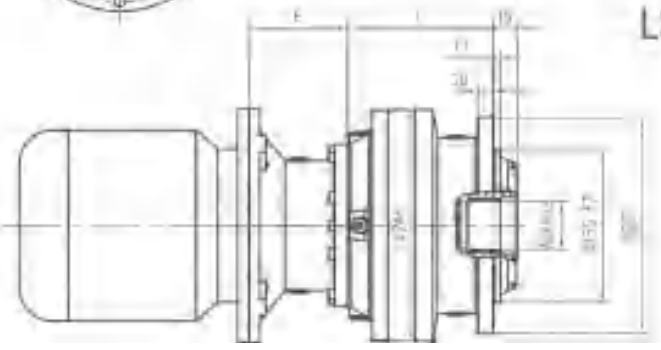
HS



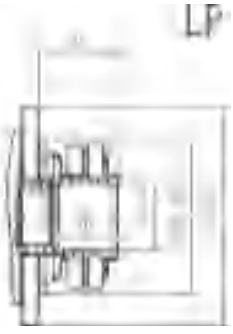
HK



LSH

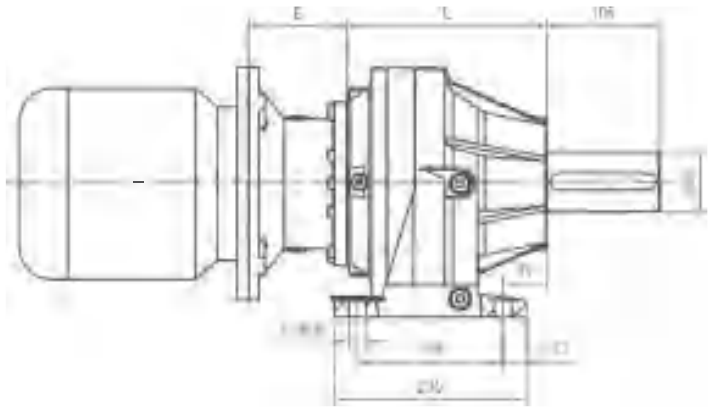


LP

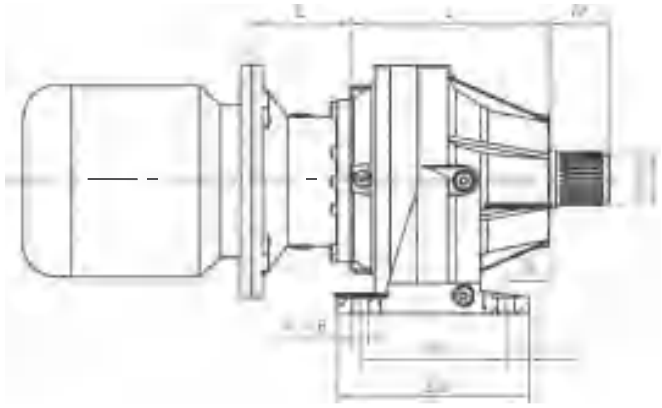


GTN05 L

MK



MS

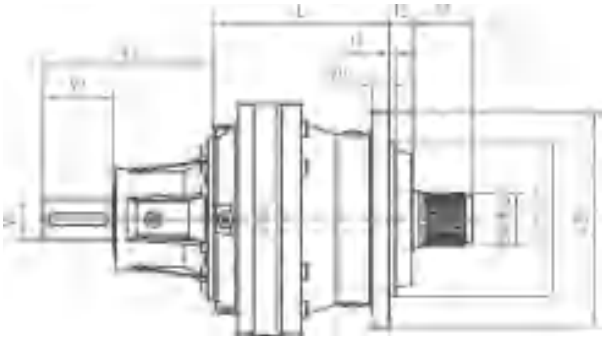


LP 输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	7000 Nm

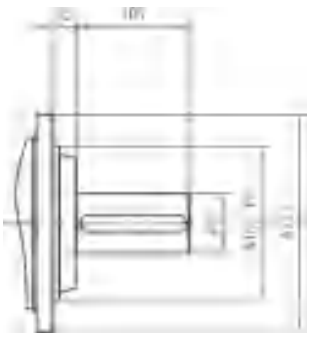
	L				Kg				E								
	LS LK	LSH LP	HS HK	MK MS	LS LK	LSH LP	HS HK	MK MS	IEC 71	IEC 80	IEC 90	IEC 100	IEC 112	IEC 132	IEC 160	IEC 180	IEC 200
GTN05 L1	143	143	168	183	36	36	40	45						114	144	144	174
GTN05 L2	208	208	233	248	43	43	47	52	65	84	84	94	94	114	144		
GTN05 L3	261	261	286	301	47	47	51	56	65	84	84	94	94	114	144		
GTN05 L4	314	314	339	354	51	51	55	60	65	84	84	94	94	114	144		

GTN05 L

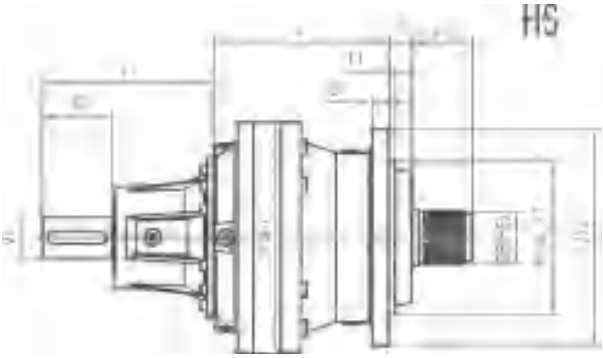
LS



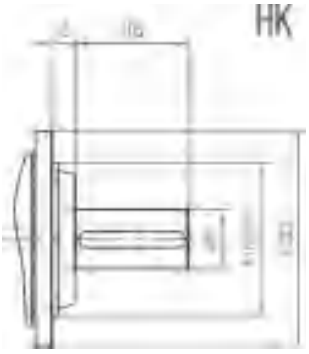
LK



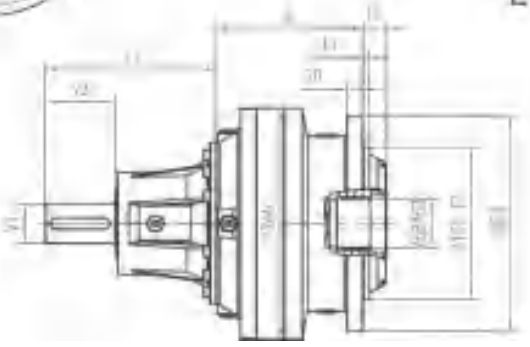
HS



HK



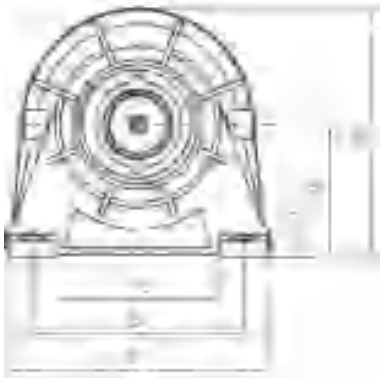
LSH

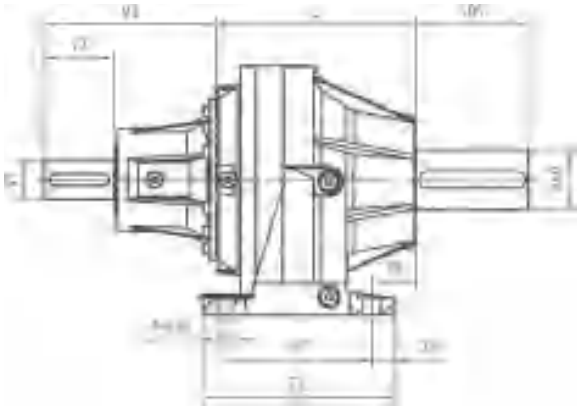


LP

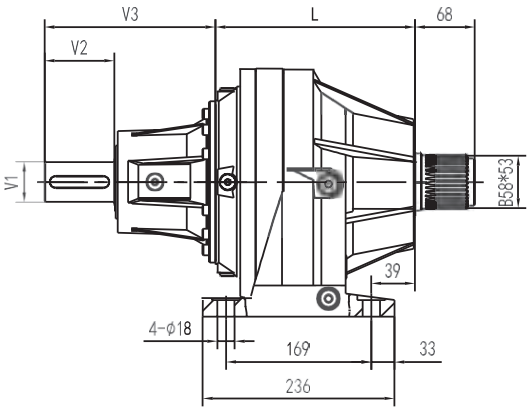
GTN05 L

MK





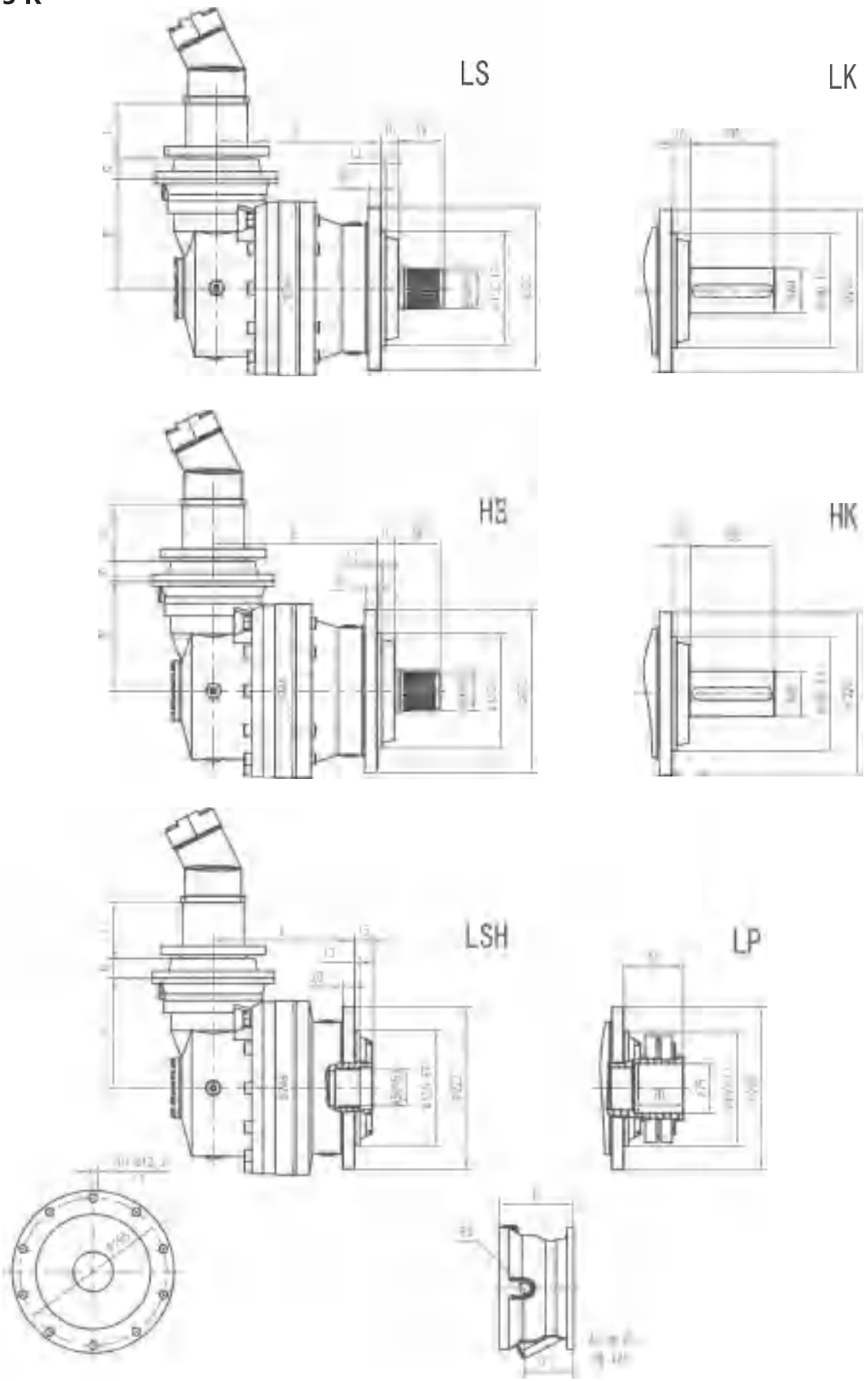
MS



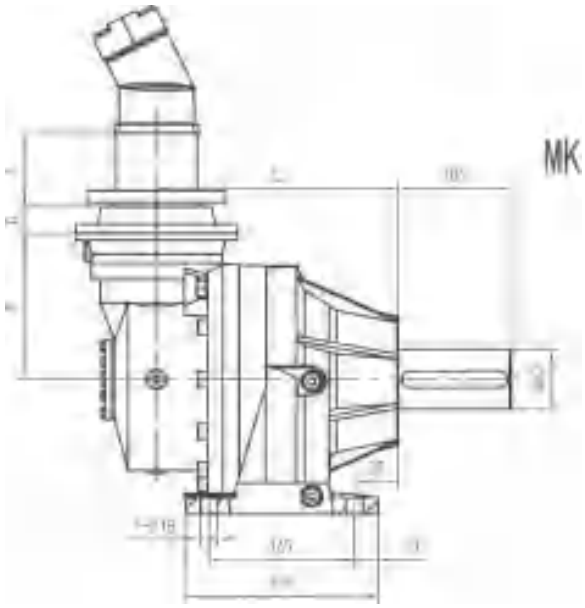
LP 输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	7000 Nm

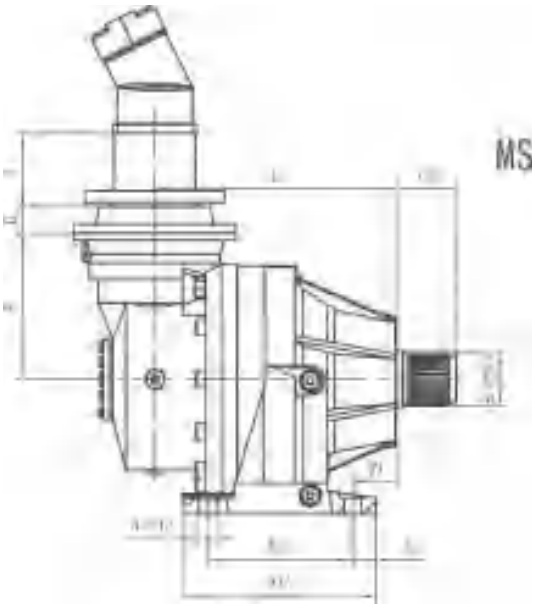
	L				Kg				V1	V2	V3	Kg	V1	V2	V3	Kg
	LS LK	LSH LP	HS HK	MK MS	LS LK	LSH LP	HS HK	MK MS								
GTN05 L1	143	143	168	183	36	36	40	45	48	82	239	15				
GTN05 L2	208	208	233	248	43	43	47	52	24	36	137.5	6	38	58	158	7
GTN05 L3	261	261	286	301	47	47	51	56	24	36	137.5	6	38	58	158	7
GTN05 L4	314	314	339	354	51	51	55	60	24	36	137.5	6	38	58	158	7

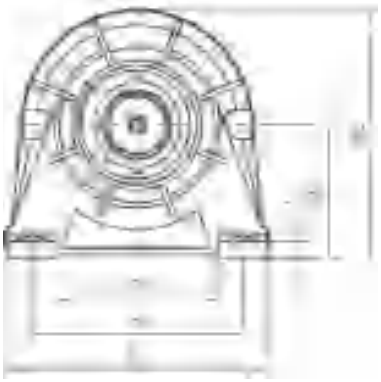
GTN05 R



GTN05 R



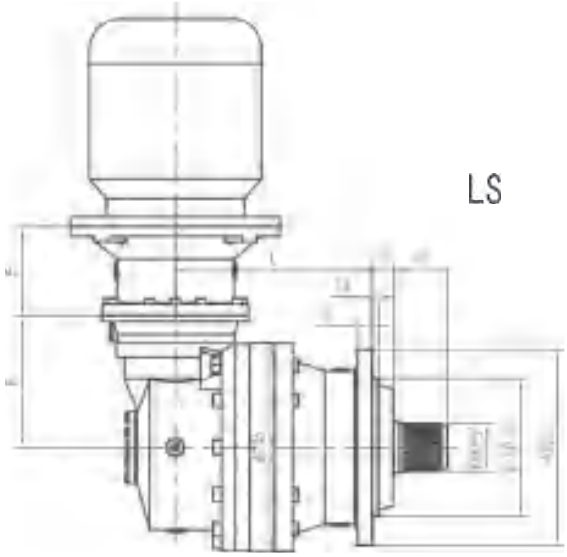


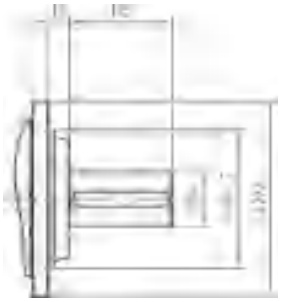


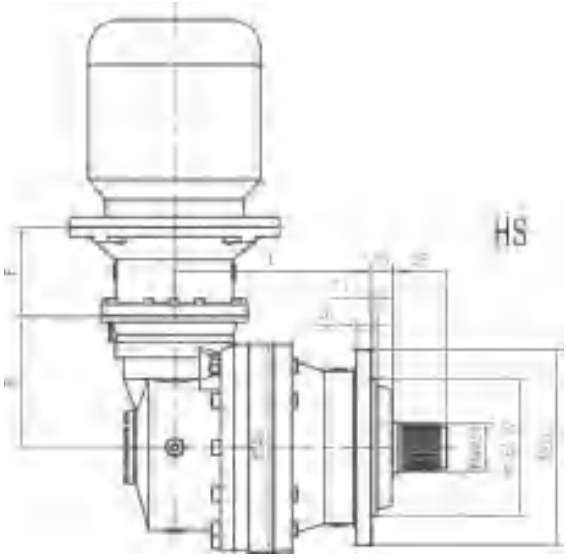
LP 输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	7000 Nm

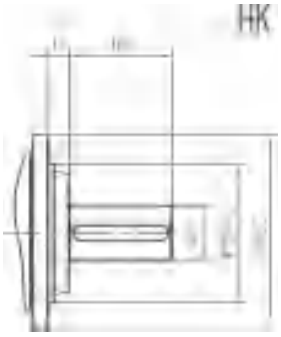
	L				P	Kg				C	输入 Input	I	F	F1	F2	类型 Type	输入 Input	Kg
	LS LK	LSH LP	HS HK	MK MS		LS LK	LSH LP	HS HK	MK MS									
GTN05 R2	235	235	260	275	140	56	56	60	65	37	A	联系厂家	105	65	1/4 G	4	A	10
GTN05 R3	300	300	325	340	122	57	57	61	66	37	A		105	65	1/4 G	4	A	10
GTN05 R4	353	353	378	393	122	61	61	65	70	37	A		105	65	1/4 G	4	A	10

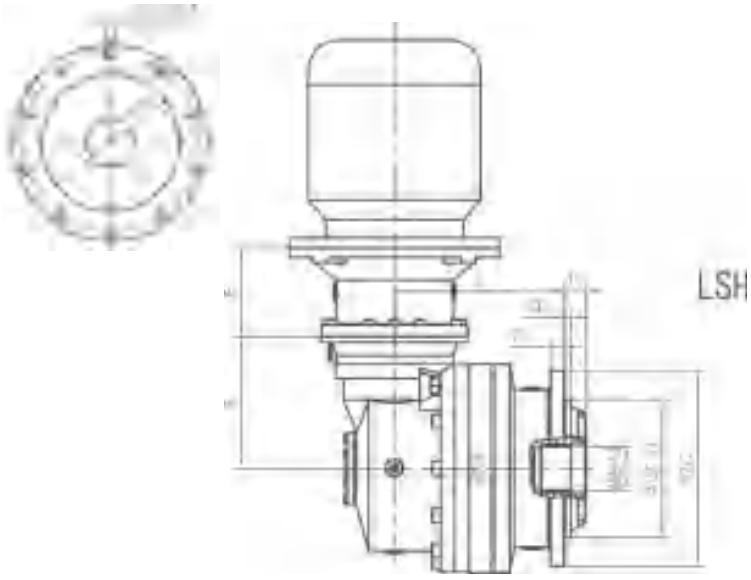
GTN05 R

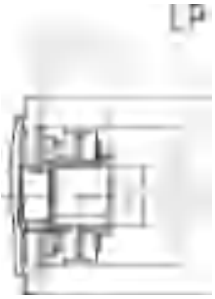




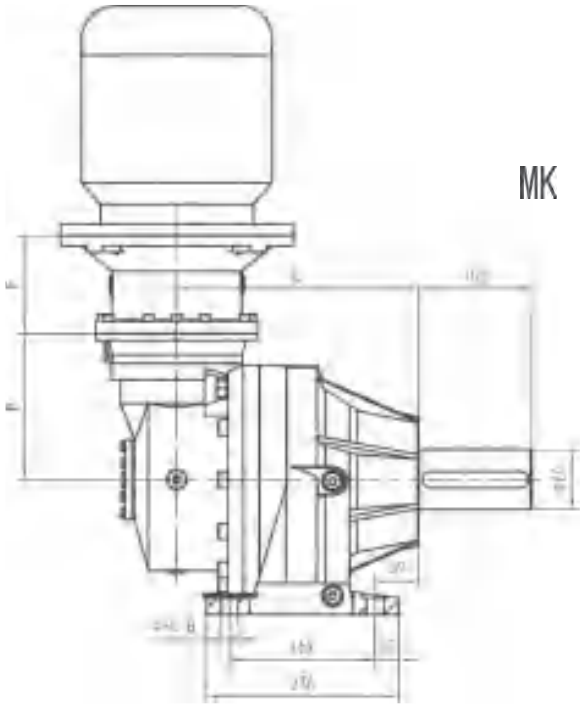


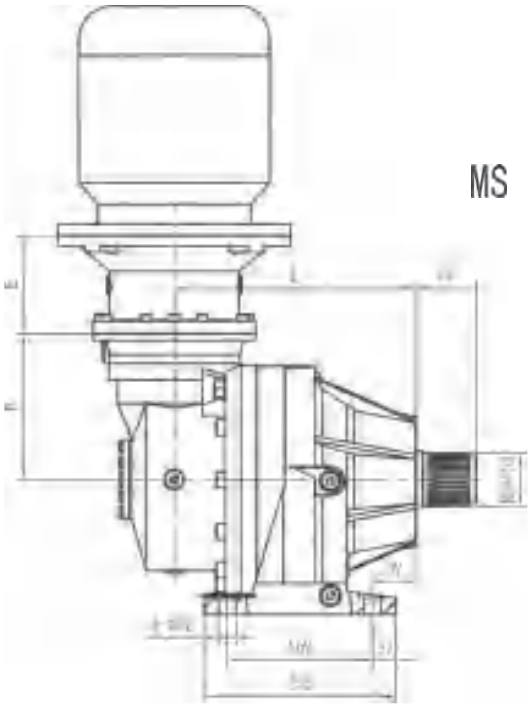






GTN05 R

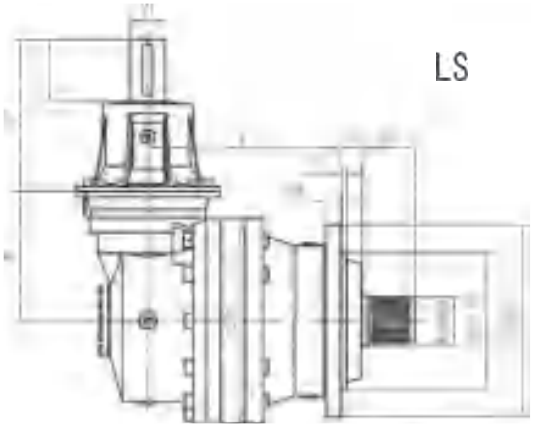


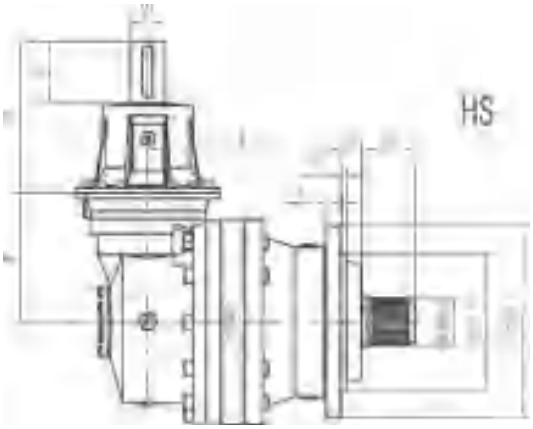


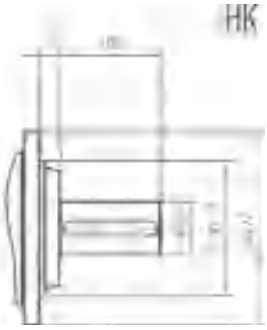
LP 输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	7000 Nm

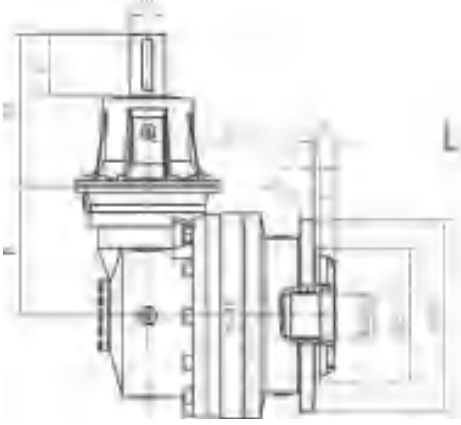
	L				P	Kg				E					
	LS LK	LSH LP	HS HK	MK MS		LS LK	LSH LP	HS HK	MK MS	IEC 71	IEC 80	IEC 90	IEC 100	IEC 112	IEC 132
GTN05 R2	235	235	260	275	140	56	56	60	65	65	84	84	94	94	114
GTN05 R3	300	300	325	340	122	57	57	61	66	65	84	84	94	94	114
GTN05 R4	353	353	378	393	122	61	61	65	70	65	84	84	94	94	114

GTN05 R

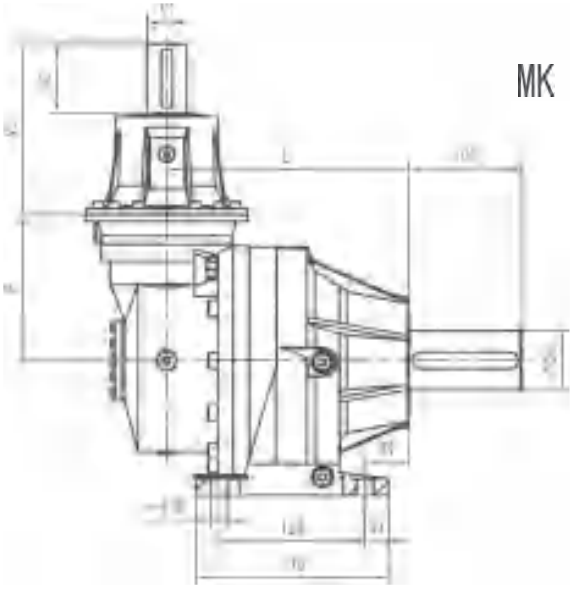


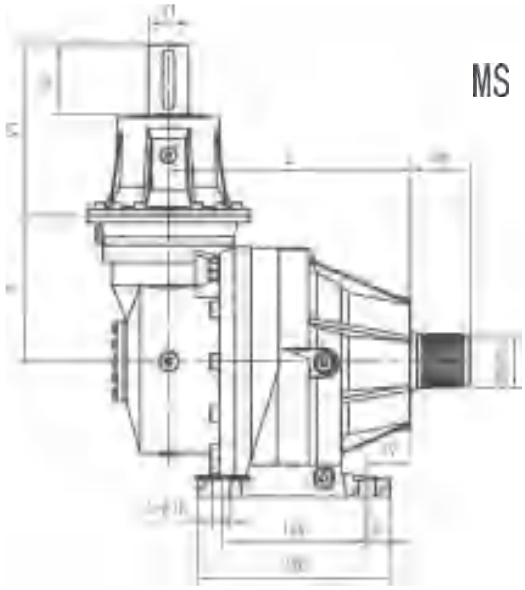


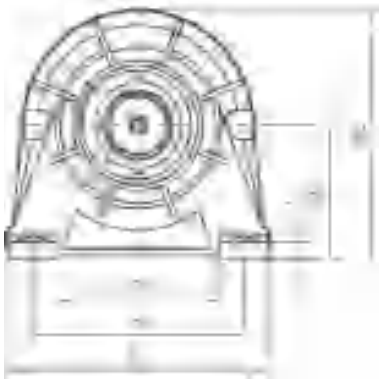




GTN05 R



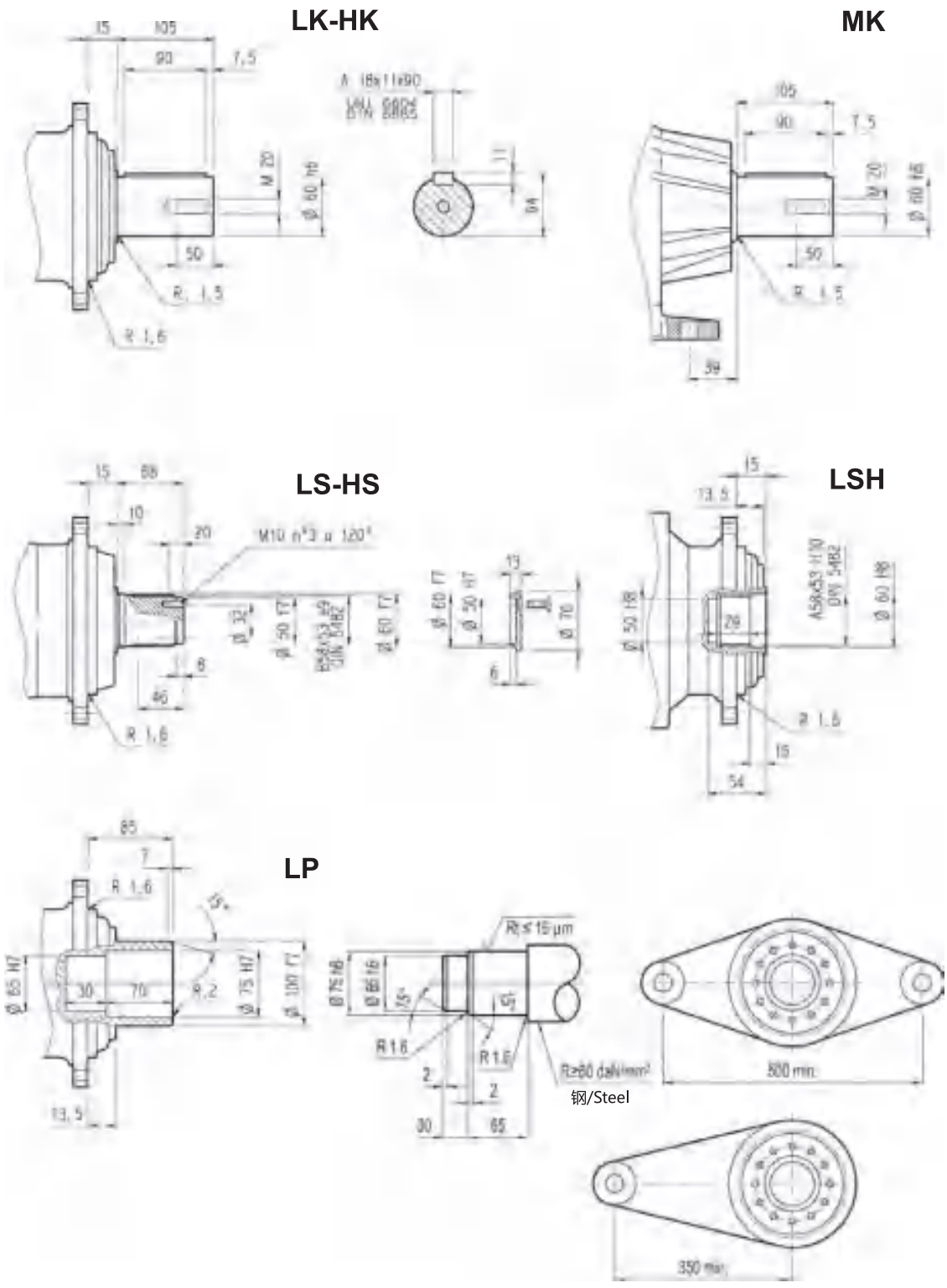




LP 输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	7000 Nm

	L				P	Kg				V1	V2	V3	Kg	V1	V2	V3	Kg
	LS LK	LSH LP	HS HK	MK MS		LS LK	LSH LP	HS HK	MK MS								
GTN05 R2	235	235	260	275	140	56	56	60	65	24	36	137.5	6	38	58	158	7
GTN05 R3	300	300	325	340	122	57	57	61	66	24	36	137.5	6	38	58	158	7
GTN05 R4	353	353	378	393	122	61	61	65	70	24	36	137.5	6	38	58	158	7

GTN05 L-GTN05 R



LP 输出 LP VERSION	最大输出扭矩 MAX. TRANSMISSIBLE TORQUE	7000 Nm