准双曲面斜齿轮减速机
HYPOID HELICAL GEARBOX

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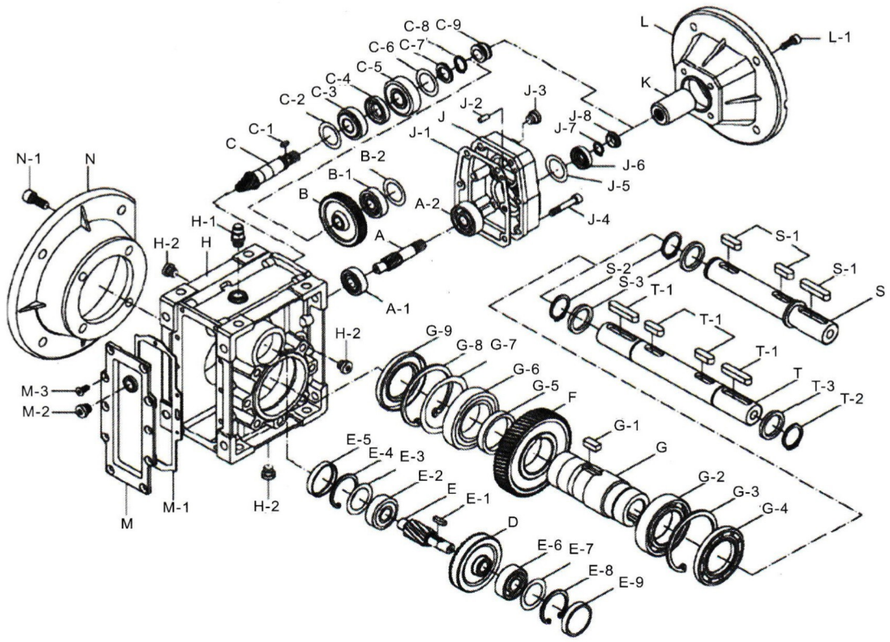
结构图 / STRUCTURE



A 主动齿轮	driving pinion	C-4 油封	oil seal	G-9 油封	oil seal
B 从动齿轮	driven gear	C-5 轴承	bearing	H-1 排气阀	air vent valve
C 主动齿轴	driving gear shaft	C-6 调整垫片	adjusting shim	H-2 油塞	oil plug
D 从动齿轮	driven gear	C-7 垫圈	gasket	J-1 密封垫片	seal spacer
E 主动齿轴	driving gear shaft	C-8 轴用挡圈	shaft circlip	J-2 圆柱销	straight pin
F 从动齿轮	driven gear	C-9 橡胶套	rubber sleeve	J-3 油塞	oil plug
G 输出轴	output shaft	E-1 平键	flat key	J-4 内六角螺钉	inner hexagon screw
H 箱体	housing	E-2 轴承	bearing	J-5 调整垫片	adjusting shim
J 三级箱体	3 stage housing	E-3 调整垫片	adjusting shim	J-6 油封	oil seal
K 输入轴套	input bushing	E-4 孔用挡圈	hole circlip	J-7 轴用挡圈	shaft circlip
L 输入法兰	input flange	E-5 油封盖	oil seal cover	J-8 橡胶套	rubber sleeve
M 侧盖板	side cover	E-6 轴承	bearing	L-1 内六角螺钉	inner hexagon screw
N 输出法兰	output flange	E-7 调整垫片	adjusting shim	M-1 密封垫	sealed gasket
S 单向输出轴	single output shaft	E-8 孔用挡圈	hole circlip	M-2 油塞	oil plug
T 双向输出轴	double output shaft	E-9 油封盖	oil seal cover	M-3 内六角埋头螺丝	inner hexagon sunk screw
		G-1 平键	flat key	N-1 内六角螺钉	inner hexagon screw
A-1 轴承	bearing	G-2 轴承	bearing	S-1 平键	flat key
A-2 轴承	bearing	G-3 孔用挡圈	hole circlip	S-2 轴用挡圈	shaft circlip
B-1 轴承	bearing	G-4 油封	oil seal	S-3 垫片	gasket
B-2 调整垫片	adjusting shim	G-5 间隔套	spacer sleeve	T-1 平键	flat key
C-1 平键	flat key	G-6 轴承	bearing	T-2 轴用挡圈	shaft circlip
C-2 调整垫片	adjusting shim	G-7 调整垫片	adjusting shim	T-3 垫片	gasket
C-3 轴承	bearing	G-8 孔用挡圈	hole circlip		

ADVANTAGE
产品优点

KPM和KPB是先进的新一代准双曲线斜齿轮减速机，其优点如下：

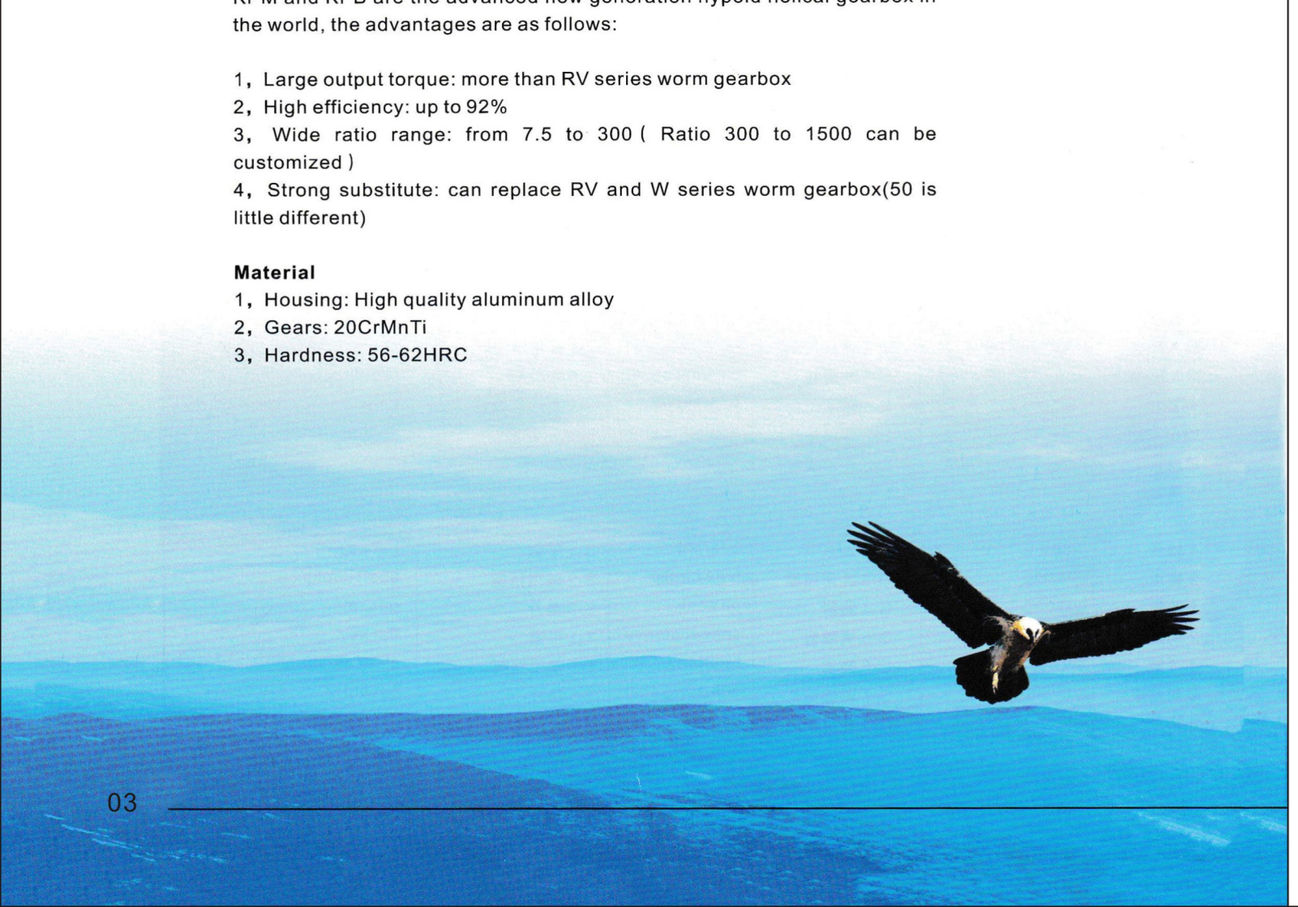
1，输出扭矩大：远大于RV系列蜗轮蜗轮减速机
2，传动效率高：可达到92%
3，速比范围广：7.5到300之间（可定制300~1500之间的速比）
4，可替代性强：可代替RV系列和W系列蜗轮减速机（50有部分差异）

材料
1，箱体：优质铝合金
2，齿轮：20铬锰钛
3，硬度：洛氏56-62度

KPM and KPB are the advanced new generation hypoid helical gearbox in the world, the advantages are as follows:

1，Large output torque: more than RV series worm gearbox
2，High efficiency: up to 92%
3，Wide ratio range: from 7.5 to 300 (Ratio 300 to 1500 can be customized)
4，Strong substitute: can replace RV and W series worm gearbox(50 is little different)

Material
1，Housing: High quality aluminum alloy
2，Gears: 20CrMnTi
3，Hardness: 56-62HRC



1. 型号概述 / MODEL INSTRUCTION

KPM 50 B - 12.25 - FA 1 - 63B5 - SS 1 - V5
1 2 3 4 5 6 7 8 9 10

NO	说明	Instruction
1	减速机系列号：KPM、KPB	Gearbox series name: KPM, KPB
2	减速机型号：50, 63, 75, 90	Gearbox types: 50, 63,75,90
3	B：两级传动	B: 2 stage
	C：三级传动	C: 3 stage
4	速比	Ratio
5	输出法兰型号	Output flange types
	无此代号表示不带输出法兰	No symbol means without output flange
6	输出法兰位置	Output flange position
7	输入法兰	Input flange
8	SS：单向输出轴	SS: single output shaft
	DS：双向输出轴	DS: double output shaft
	无代号表示不带输出轴	No symbol means without output shaft
9	输出轴位置	Output shaft position
10	减速机安装方式	Gearbox mounting position

举例/Example: **KPM63C-100-FB2-71B14-SS1-V6**
KPB75B-20-FA1-80B5-DS-V5

2. 选型参数

2.1 功率 P

$$P_1 = \frac{P_2}{\eta} \text{ [kW]}$$

$$P_{1n} \geqslant P_1 \cdot f_s \text{ [kW]}$$

P_1	输入功率
P_2	输出功率
P_{1n}	电机额定功率
f_s	使用系数
η	传动效率

2.2 转速 n

n_1	减速器输入转速
n_2	减速器输出转速

若是齿轮箱外部传动装置驱动，为了优化工作条件和提高使用寿命，建议使用1400r/min或更低转速。允许输入较高的输入转速，但在这种情况下，额定扭矩M_2会下降。

2.3 传动比 i

$$i = \frac{n_1}{n_2}$$

传动比通常为小数，在选型表中保留两位小数。

2.4 扭矩 M

$$M_2 = \frac{9550 \cdot P_1 \cdot \eta}{n_2} \text{ [Nm]}$$

$$M_{2n} \geqslant M_2 \cdot f_s \text{ [Nm]}$$

M_2	输入扭矩
M_{2n}	选用输出扭矩
P_1	输入功率
η	传动效率
f_s	使用系数

2.5 使用系数 f_s

使用减速器时，应考虑一定的使用系数 f_s ，它是根据每天的运转时间和启停频率Z确定的。

2. SELECTING PARAMETER

2.1 Power P

$$P_1 = \frac{P_2}{\eta} \text{ [kW]}$$

$$P_{1n} \geqslant P_1 \cdot f_s \text{ [kW]}$$

P_1	Input power
P_2	Output power
P_{1n}	Rated motor power
f_s	Service factor
η	Efficiency

2.2 Rotation speed n

n_1	Gear units input speed
n_2	Gear units output speed

For optimizing working condition and improving the life when the gearbox driven by the external device, please use the speed at 1400rpm or lower. High input speed is allowed but the rated torque M_2 will be decreased under such case.

2.3 Transmission ratio i

$$i = \frac{n_1}{n_2}$$

Generally ratio is decimal fraction with 2 radix points tagged in selecting table.

2.4 Torque M

$$M_2 = \frac{9550 \cdot P_1 \cdot \eta}{n_2} \text{ [Nm]}$$

$$M_{2n} \geqslant M_2 \cdot f_s \text{ [Nm]}$$

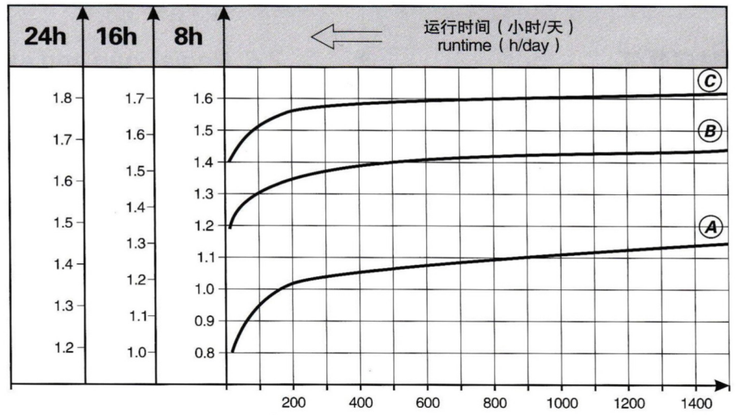
M_2	Output torque
M_{2n}	Selected output torque
P_1	Input power
η	Efficiency
f_s	Service factor

2.5 Service factor f_s

Please consider the service factor f_s when used the gearbox, the service factor is decided by running time and frequency of on-off Z per day.

根据惯性加速系数确定三种负载类型，在下图中可以读取实际应用的使用系数，按下图选取的使用系数必须小于或等于从性能参数表中提供的使用系数。

Confirming the 3 kind of loadtypes according to the inertial accelerating factor, the practical application service factors (fs) can be read in the below table, the selected fs from the below table must be less than or equal to the fs provided in the performance parameter table.



图：使用系数（f_s）
Fig:Service factor（f_s）

启动频率 Z（次/小时）#
start up frequency Z (1/h)#

启动频率 Z：周期包括所有启动、制动的次数以及变速电机高低速变化时的次数。

Start up frequency Z: The cycle includes all start and brake times,also the times of speed changing on geared motor.

2.5.1 负载类型

Ⓐ 均匀冲击负载，允许惯性加速系数 $f_a \leqslant 0.2$

Ⓑ 中等冲击负载，允许惯性加速系数 $f_a \leqslant 3$

Ⓒ 重冲击负载，允许惯性加速系数 $f_a \leqslant 10$

2.5.1 Load classifications

Ⓐ Uniform,permitted mass acceleration factor $f_a \leqslant 0.2$

Ⓑ Moderate shock load,permitted mass acceleration factor $f_a \leqslant 3$

Ⓒ Heavy shock load,permitted mass acceleration factor $f_a \leqslant 10$

2.5.2 惯性加速系数

惯性加速系数计算如下：

$$f_a = \frac{J_c}{J_m}$$

f_a	惯性加速系数
J_c	所有外部传动惯量（kgm^2）
J_m	驱动电机的传动惯量（kgm^2）

如果惯性加速系数 $f_a > 10$，请与我们技术部联系。

为了保持减速器的使用寿命，从产品样本中的性能参数表所选择的使用系数 f_s 应等于或略高于计算出的使用系数 f_s。

2.5.2 Inertial accelerating factor

The Inertial accelerating factor is calculated as follows:

$$f_a = \frac{J_c}{J_m}$$

f_a	Inertial accelerating factor
J_c	All external mass moments of inertia（kgm^2）
J_m	Mass moment of inertia on the motor end（kgm^2）

Please contact with our technology department if the inertial accelerating factor $f_a > 10$.

To keep the service-life of gearbox,the use factor f_s selected from the catalogue must be equal or slightly higher than the calculated use factor f_s.

举例：

惯性加速系数2.5(负载类型 Ⓑ),运行时间10小时/天，（按16小时/天查图）和每小时100次起停，查图得使用系数f_s=1.45。

根据性能参加表所选择的使系数$f_s \geqslant 1.45$。

Example:

Inertial accelerating factor 2.5(load classification Ⓑ),10hours/day operating time (read off at 16h/d)and100 cycles/hour result in a service factor f_s=1.45.

Choose the service factor f_s = 1.45 according to theparameter sheet.

2.6 径向载荷和轴向载荷

在确定影响径向载荷时，必须考虑安装在轴段上的传动件类型。不同类型的传动件的传动附加系数f_z列表如下：

2.6 Radial load and axial load

The types of transmission parts that mounted on the shaft end must be considered when the radial load was affected. Various transmission parts are corresponding with following transmission parts factors f_z :

传动件 Transmission element	传动附加系数 Fz Transmission part factor Fz	注释 Comments
齿轮 Gears	1.15	< 17齿 teeth
链轮 Chain sprockets	1.25	< 20齿 teeth
	1.40	< 13齿 teeth
V带轮 Narrow V-belt pulleys	1.75	有预紧力作用 Influence of tensile force
平带轮 Toothed belt pulleys	2.50	有预紧力作用 Influence of tensile force
齿带轮 Flat belt pulleys	2.50	有预紧力作用 Influence of tensile force

作用在电机和齿轮轴上的径向载荷按如下公式计算：

The radial load forced on the motor and gear shaft is calculated as follows:

$$F_r = \frac{M \cdot 2000 \cdot f_z}{d_0} \text{ [N]}$$

F_r 作用在轴上的载荷 [N]

M 作用在轴上的扭矩 [Nm]

d_0 安装在轴上转动件的平均直径[mm]

f_z 传动附加系数

F_r Radial load [N]

M Torque on the shaft [Nm]

d_0 Average diameter of the mounted transmis–sion part in [mm]

f_z Transmission part factor

许用径向载荷是根据轴承额定使用寿命L_{10h}来估算的（根据**ISO281**）。对于特殊的运行条件，许用径向载荷是根据修正使用寿命L_{na}来确定。

The permitted radial load is estimated by bearing rated service life L_{10h}(according to **ISO281**), and it confirmed by modificatory service life L_{na} under special running condition.

当作用点偏离出轴中点时，许用径向载荷须按以下公式来计算，取在x点的许可数值 F_{xl}（根据轴承的使用寿命）

The permitted radial load must be calculated by the following formula when the loading point is deflected from the shaft center, and choose the permissible value F_{xl} on the point X(according to bearing service life)

$$F_{xl} = F_{r(1,2)} \cdot \frac{a}{b+x} \text{ [N]}$$

F_{r1}, F_{r2} = 性能参数表中的许用径向载荷（x=L/2）[N]

x = 从轴肩到受力点的距离 [mm]

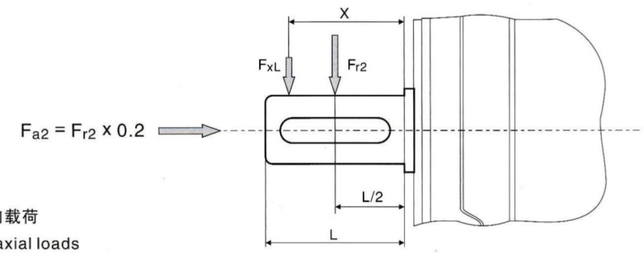
$a,b,$ = 减速器径向转化常量 [mm]

F_{r1}, F_{r2} = Permitted radial load (x=L/2) for foot–mounted gearbox according to the selec–tion tables [N]

x = Distance from shaft shoulder to the pressure point [mm]

$a,b,$ = Gearbox radial conversion constant [mm]

输出轴径向载荷 / Ouput shaft radial loads



F_{a2} = 输出轴向载荷
Output axial loads

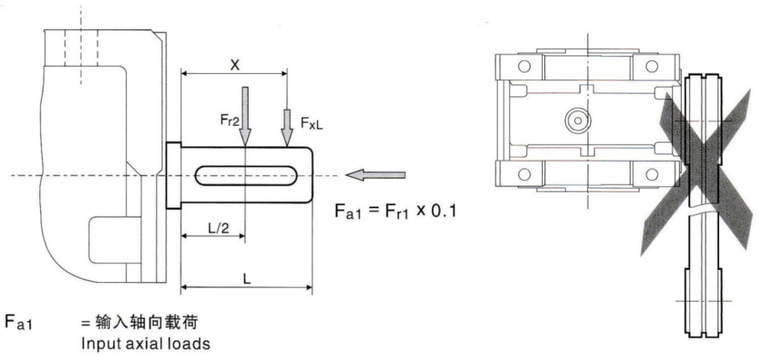
KPM减速器径向转化常量/Gearbox radial conversion constant

	KPM50B	KPM50C	KPM63B	KPM63C	KPM75B	KPM75C	KPM90B	KPM90C
a	104	104	118	118	131	131	159	159
b	78	78	93	93	101	101	119	119

KPB 减速器径向转化常量/Gearbox radial conversion constant

			KPB63B	KPB63C	KPB75B	KPB75C	KPB86B	KPB86C
a			128	128	135	135	148.5	148.5
b			98	98	105	105	118.5	118.5

输入轴径向载荷 / Input shaft radial loads



输入结构
V带轮 Narrow V-belt pulleys
平带轮 Flat belt pulleys
齿带轮 Toothed belt pulleys

F_{a1} = 输入轴向载荷
Input axial loads

右示图的输入不被允许使用（包括三级输入）
It is forbidden to use the input on the right chart (including 3 stage input).

KPM减速器径向转化常量/Gearbox radial conversion constant

	KPM50B	KPM50C	KPM63B KPB63B	KPM63C KPB63C	KPM75B KPB75B	KPM75C KPB75C	KPM90B KPB86B	KPM90C KPB86C
a	51.5	56	58	56	73	70	81	70
b	40	44.5	43	44.5	53	55	61	55

2.7 选型表说明

N/A	表示减速机和输入法兰是可的接受 表示减速机和输入法兰是不可接受的
*	表示速比可除尽
P_{1n}	电机额定功率 [kW]；
n_2	输出转速[r/min]；
M_{2n}	输出扭矩 [Nm]；
M_{2max}	最大允许输出扭矩 [Nm]；
F_{r2}	输出轴径向载荷 [N]；
i	减速机公称传动比；
ia	减速机实际传动比；
f_s	使用系数；
	减速机型号；
	电机型号；
Page	外形尺寸表页码；

2.7 Selection table instruction

N/A	Gearbox with such input flange is applicable Gearbox with such input flange is not applicable
*	Ratio is divisible;
P_{1n}	Rated motor power;
n_2	Output speed;
M_{2n}	Output torque;
M_{2max}	Max.permissible output torque
F_{r2}	Ouput shaft radial load
i	Gearbox nominal ratio;
ia	Gearbox actual ratio;
f_s	Service factor;
	Gearbox type;
	Motor type;
Page	Dimension sheet page no;

3. 选型举例

3.1 减速电机

例：被驱动设备所需功率0.37kW,工作8小时/天，中等冲击，启动频率100次/小时，输出转速n_2=7r/min，减速机要求**B3**安装，

则：

查 P6 使用系数图标即可选使用系数 f_s=1.3

$$i = \frac{n_1}{n_2} = \frac{1400}{7} = 200$$

$$P_{1n} \geq P_1 \cdot f_s = \frac{P_2}{\eta} \cdot f_s = \frac{0.37}{0.94} \times 1.3 = 0.512\ [kW]$$

查KPM/KPB系列性能参数表可确定减速电机型号为：

KPM75C-200-71B5-7124-B3

3. SELECTION EXAMPLE

3.1 Geared motor

Example: Required power 0.37kW on driven machine, work for 8 h/day, moderate shock load,start up frequency 100(1/h),n_2=7r/min,**B3** mounted,

So:

Check the service factor table at page 6 , choose f_s=1.3

Choose type:

KPM75C-200-71B5-7124-B3

3.2 减速器

例:被驱动设备所需扭矩为130Nm,工作8小时/天，均匀冲击负载，启动频率200次/小时，减速机要求FA1法兰安装，减速器要求输入转速n_1=1400r/min，输出转速速n_2=90r/min，查性能参数表可知，只能选三级传动形式。

查 P6 使用系数图标即可选使用系数 f_s=1.02

$$i = \frac{1}{n_2} = \frac{1400}{90} = 15.5$$

$$M_{2n} \geq M_2 \cdot f_s = 130 \times 1.02 = 132.6\ [Nm]$$

$$P_{1n} \geq P_1 \cdot f_s = \frac{M_2 \cdot n_1}{9550 \cdot \eta \cdot i} \cdot f_s = \frac{132.6 \times 1400}{9550 \times 0.94 \times 15} \times 1.02 = 1.4\ [kW]$$

查KPM/KPB系列性能参数表可确定减速电机型号为：

KPM63B-15-FA1-90B5

3.2 Gearbox

Example: Required 130Nrn on driven machine, work for 8 h/day, start up frequency 200(1/h), **FA1** mounted n_1=1400r/min,n_2=90r/min,so the only selection is 3 stage after checked the table:

Check the service factor table at page 6 , choose f_s=1.02

Choose type:

KPM63B-15-FA1-90B5

4. 减速机选型 / GEARBOX SELECTING

4.1 减速机与输入法兰搭配 / Gearbox and input flange combination

KPM50.. n_1=1400r/min **160Nm**

减速机型号 Model		i 公称 Nominal	i 实际 Actual	n_2 [r/min]	M_2max [Nm]	F_{r2} [N]	63B5	71B5 71B14	80B5 80B14	90B5 90B14
3级 / Stage										
KPM50C		300	294.05	4.8	130	4100		N/A	N/A	N/A
KPM50C		250	244.29	5.8	130	4100		N/A	N/A	N/A
KPM50C		200	200.44	7.0	130	4100		N/A	N/A	N/A
KPM50C		150	146.67	9.6	160	4000		N/A	N/A	N/A
KPM50C		125	120.34	12	160	3770			N/A	N/A
KPM50C		100	101.04	14	160	3560			N/A	N/A
KPM50C		75	74.62	19	160	3220			N/A	N/A
KPM50C		60	62.36	23	160	3030			N/A	N/A
KPM50C		50	52.36	27	160	2860			N/A	N/A
2级 / Stage										
KPM50B		60	58.36	24	130	2960			N/A	N/A
KPM50B		50	48.86	29	130	2790				N/A
KPM50B		40	40.09	35	130	2610				N/A
KPM50B		30	29.33	48	160	2350				N/A
KPM50B		25	24.07	59	160	2200				
KPM50B		20	20.21	70	160	2080				
KPM50B		15	14.92	94	160	1880				
KPM50B		12.5	12.47	113	160	1770				
KPM50B		10	10.47	134	160	1670				
KPM50B		7.5	7.73	182	160	1510				

KPM63.., KPB63.., n_1=1400r/min **180Nm**

减速机型号 Model		i 公称 Nominal	i 实际 Actual	n_2 [r/min]	M_2max [Nm]	F_{r2} [N]	63B5	71B5 71B14	80B5 80B14	90B5 90B14
3级 / Stage										
KPM63C	KPB63C	300	302.50	4.7	160	4800		N/A	N/A	N/A
KPM63C	KPB63C	250	243.57	5.8	160	4800		N/A	N/A	N/A
KPM63C	KPB63C	200	196.43	7.2	160	4800			N/A	N/A
KPM63C	KPB63C	150	151.56	9.3	180	4650			N/A	N/A
KPM63C	KPB63C	125	122.22	12	180	4330			N/A	N/A
KPM63C	KPB63C	100	94.50	14	180	4070			N/A	N/A
KPM63C	KPB63C	75	73.33	20	180	3650				N/A
KPM63C	KPB63C	60	63.33	23	180	3480				N/A
KPM63C	KPB63C	50	52.48	27	180	3270				N/A
2级 / Stage										
KPM63B	KPB63B	60	60.50	24	160	3430				N/A
KPM63B	KPB63B	50	48.71	29	160	3190				
KPM63B	KPB63B	40	39.29	36	160	2970				
KPM63B	KPB63B	30	30.31	47	180	2720				
KPM63B	KPB63B	25	24.44	58	180	2530	N/A			
KPM63B	KPB63B	20	18.90	70	180	2380	N/A			
KPM63B	KPB63B	15	14.67	96	180	2130	N/A	N/A		
KPM63B	KPB63B	12.5	12.67	111	180	2030	N/A	N/A		
KPM63B	KPB63B	10	10.50	134	180	1910	N/A	N/A		
KPM63B	KPB63B	7.5	7.60	185	180	1710	N/A	N/A		

KPM75..,KPB75.. n_1=1400r/min **350Nm**

减速机型号 Model		i 公称 Nominal	i 实际 Actual	n_2 [r/min]	M_2max [Nm]	F_{r2} [N]	63B5	71B5	80B5 80B14	90B5 90B14	100B5 100B14	112B5 112B14
3级 / Stage												
KPM75C	KPB75C	300	297.21	4.8	300	6500			N/A	N/A	N/A	N/A
KPM75C	KPB75C	250	240.89	5.9	300	6500			N/A	N/A	N/A	N/A
KPM75C	KPB75C	200	200.66	7.0	300	6500			N/A	N/A	N/A	N/A
KPM75C	KPB75C	150	149.30	9.3	350	6500				N/A	N/A	N/A
KPM75C	KPB75C	125	121.00	12	350	5980				N/A	N/A	N/A
KPM75C	KPB75C	100	100.80	15	350	5520				N/A	N/A	N/A
KPM75C	KPB75C	75	79.40	19	350	5040					N/A	N/A
KPM75C	KPB75C	60	62.43	23	350	4730	N/A				N/A	N/A
KPM75C	KPB75C	50	49.18	29	350	4370	N/A				N/A	N/A
2级 / Stage												
KPM75B	KPB75B	60	59.44	24	300	4660	N/A				N/A	N/A
KPM75B	KPB75B	50	48.18	30	300	4.40	N/A				N/A	N/A
KPM75B	KPB75B	40	40.13	35	300	4080	N/A					N/A
KPM75B	KPB75B	30	29.86	47	350	3720	N/A	N/A				N/A
KPM75B	KPB75B	25	24.20	56	350	3500	N/A	N/A				
KPM75B	KPB75B	20	20.16	71	350	3230	N/A	N/A				
KPM75B	KPB75B	15	15.88	93	350	2950	N/A	N/A				
KPM75B	KPB75B	12.5	12.49	113	350	2770	N/A	N/A	N/A			
KPM75B	KPB75B	10	9.84	143	350	2550	N/A	N/A	N/A			
KPM75B	KPB75B	7.5	7.48	188	350	2330	N/A	N/A	N/A			

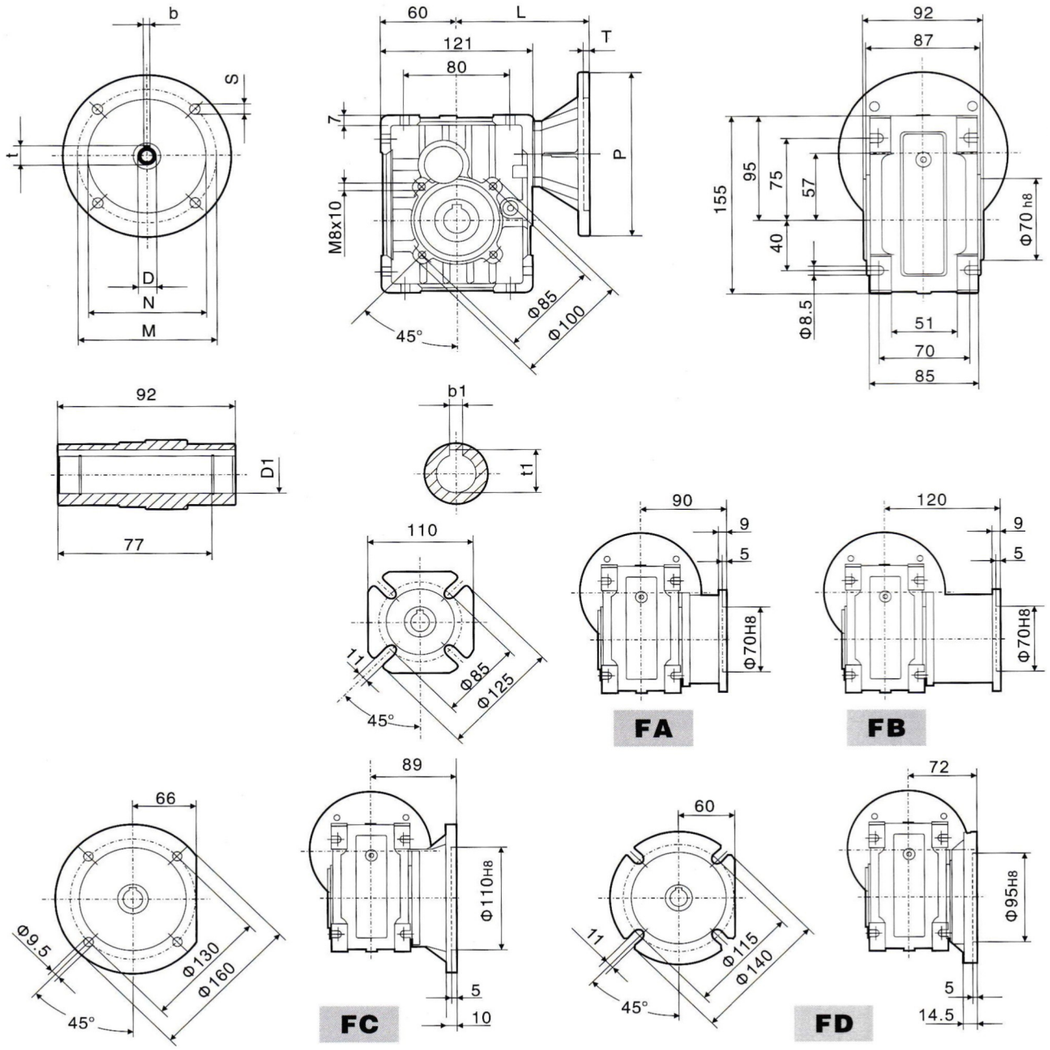
KPM90..,KPB86.. n_1=1400r/min **500Nm**

减速机型号 Model		i 公称 Nominal	i 实际 Actual	n_2 [r/min]	M_2max [Nm]	F_{r2} [N]	63B5	71B5	80B5 80B14	90B5 90B14	100B5 100B14	112B5 112B14
3级 / Stage												
KPM90C	KPB86C	300	297.21	4.8	450	6500			N/A	N/A	N/A	N/A
KPM90C	KPB86C	250	240.89	5.9	450	6500				N/A	N/A	N/A
KPM90C	KPB86C	200	200.66	7.0	450	6500				N/A	N/A	N/A
KPM90C	KPB86C	150	151.20	9.3	500	6500				N/A	N/A	N/A
KPM90C	KPB86C	125	125.95	12	500	5980				N/A	N/A	N/A
KPM90C	KPB86C	100	99.22	15	500	5520	N/A				N/A	N/A
KPM90C	KPB86C	75	75.45	19	500	5040	N/A				N/A	N/A
KPM90C	KPB86C	60	62.43	23	500	4730	N/A				N/A	N/A
KPM90C	KPB86C	50	49.18	29	500	4370	N/A				N/A	N/A
2级 / Stage												
KPM90B	KPB86B	60	59.44	24	450	5890	N/A					N/A
KPM90B	KPB86B	50	48.18	30	450	5500	N/A					N/A
KPM90B	KPB86B	40	40.13	35	450	5170	N/A	N/A				
KPM90B	KPB86B	30	30.24	47	500	4710	N/A	N/A				
KPM90B	KPB86B	25	25.19	56	500	4430	N/A	N/A				
KPM90B	KPB86B	20	19.84	71	500	4090	N/A	N/A	N/A			
KPM90B	KPB86B	15	15.09	93	500	3730	N/A	N/A	N/A			
KPM90B	KPB86B	12.5	12.49	113	500	3510	N/A	N/A	N/A			
KPM90B	KPB86B	10	9.84	143	500	3240	N/A	N/A	N/A			
KPM90B	KPB86B	7.5	7.48	188	500	2950	N/A	N/A	N/A			

5. 减速机外形尺寸 / GEARBOX OUTSIDE DIMENSION

5.1 KPM..外形图 / KPM Outside dimension drawing

KPM50B..

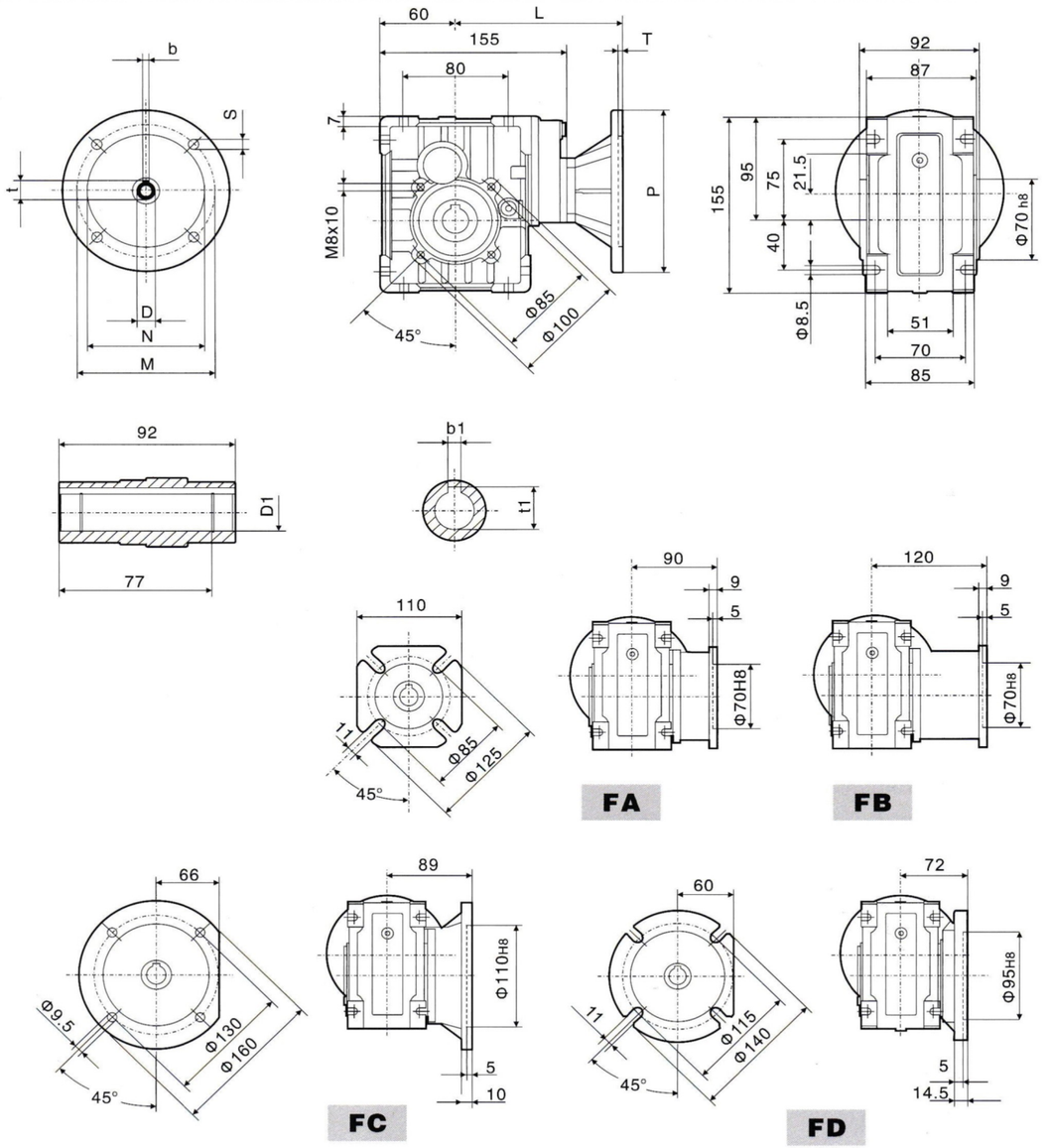


IEC	DE8	b	t	P	M	N	S	T	L
63B5	11	4	12.8	140	115	95	9	4	106
71B5	14	5	16.3	160	130	110	9	4	113
71B14	14	5	16.3	105	85	70	7	4	113
80B5	19	6	21.8	200	165	130	11	4	133
80B14	19	6	21.8	120	100	80	7	4	133
90B14	24	8	27.3	140	115	95	9	4	133

D1H8	b1	t1
20*	6*	22.8*
24*	8*	27.3*
25	8	28.3
*非标产品，订单时请说明		
*Special request		

重量（不包括马达）
≈4.2kg
Weight without motor
≈4.2kg

KPM50C..

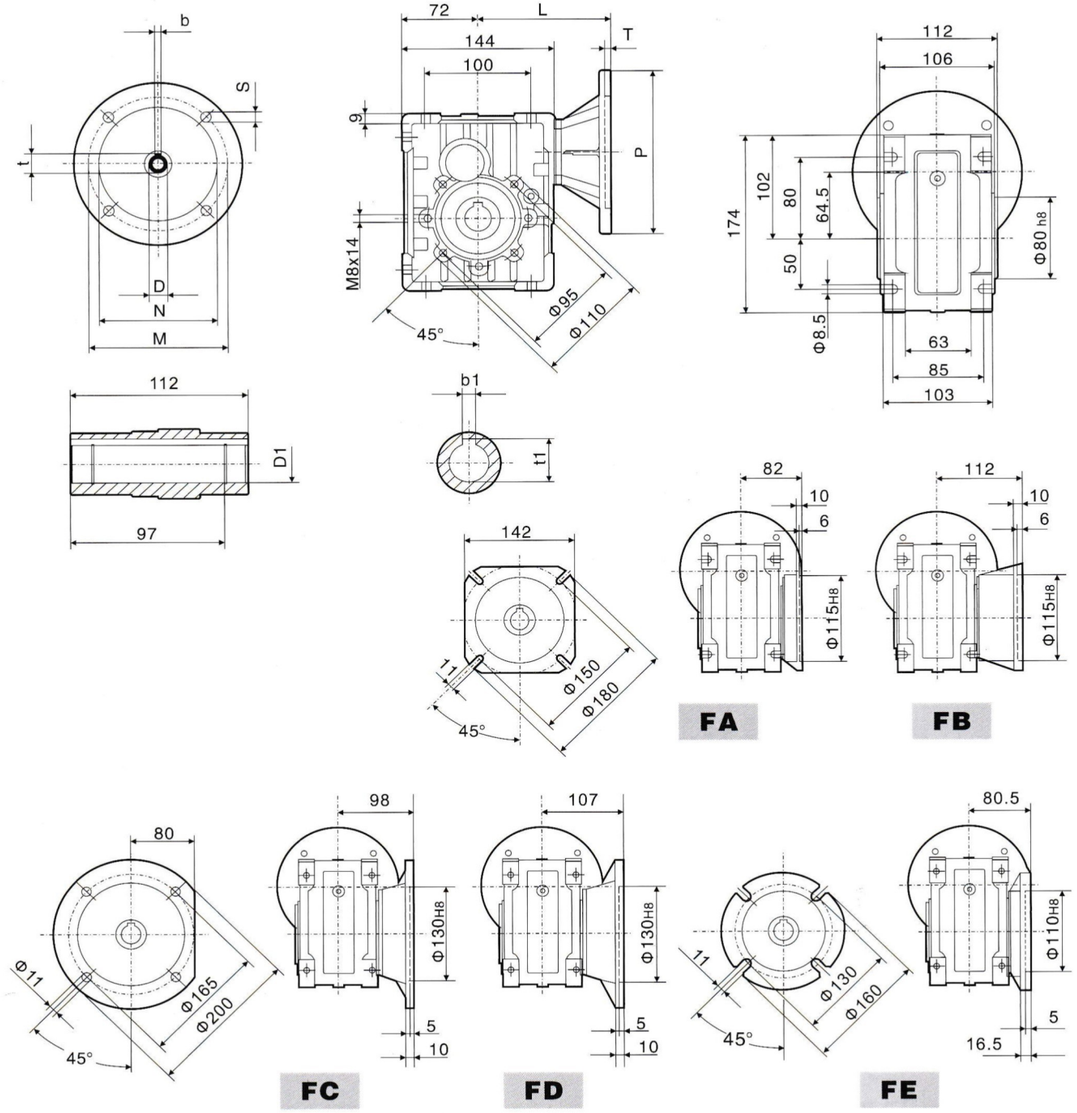


重量（不包括马达）
≈5.0kg
Weight without motor
≈5.0kg

IEC	DE8	b	t	P	M	N	S	T	L
63B5	11	4	12.8	140	115	95	9	4	140
71B5	14	5	16.3	160	130	110	9	4	147
71B14	14	5	16.3	105	85	70	7	4	147
80B5	19	6	21.8	200	165	130	11	4	167
80B14	19	6	21.8	120	100	80	7	4	167
90B14	24	8	27.3	140	115	95	9	4	167

D1H8	b1	t1
20*	6*	22.8*
24*	8*	27.3*
25	8	28.3
*非标产品，订单时请说明		
*Special request		

KPM63B..



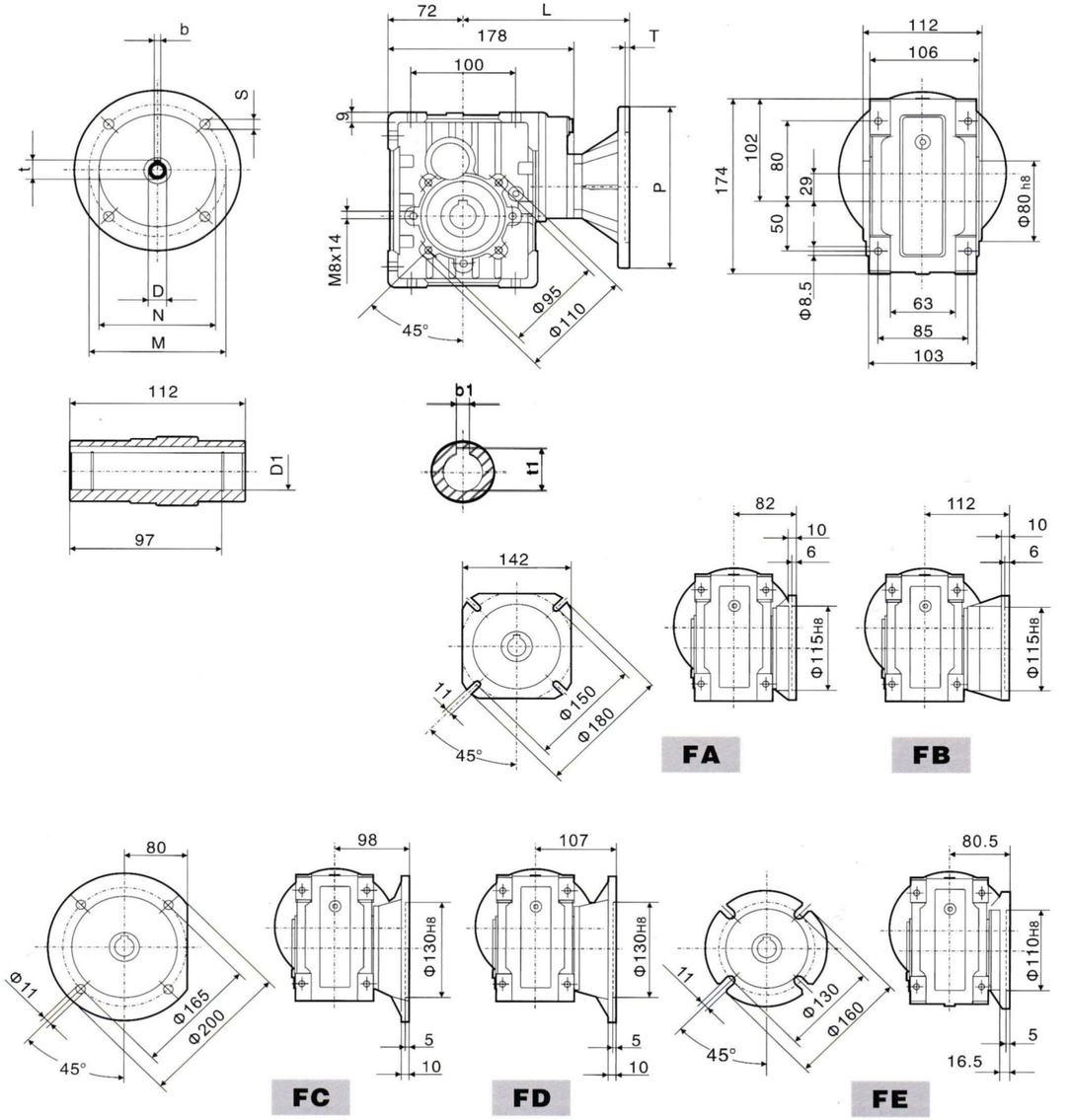
IEC	DE8	b	t	P	M	N	S	T	L
63B5	11	4	12.8	140	115	95	9	4	117
71B5	14	5	16.3	160	130	110	9	4	124
71B14	14	5	16.3	105	85	70	7	4	124
80B5	19	6	21.8	200	165	130	11	4	144
80B14	19	6	21.8	120	100	80	7	4	144
90B5	24	8	27.3	200	165	130	11	4	144
90B14	24	8	27.3	140	115	95	9	4	144

D1H8	b1	t1
25	8	28.3
28*	8	31.3
30*	8	33.3

*非标产品，订单时请说明
*Special request

重量（不包括马达）
≈6.0kg
Weight without motor
≈6.0kg

KPM63C..



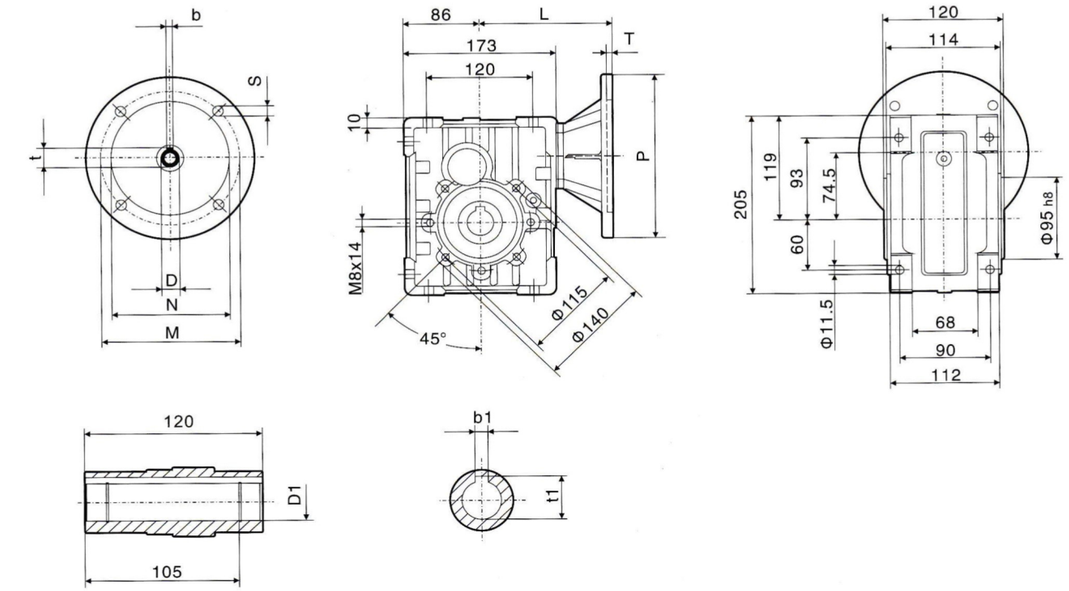
IEC	DE8	b	t	P	M	N	S	T	L
63B5	11	4	12.8	140	115	95	9	4	151
71B5	14	5	16.3	160	130	110	9	4	158
71B14	14	5	16.3	105	85	70	7	4	158
80B5	19	6	21.8	200	165	130	11	4	178
80B14	19	6	21.8	120	100	80	7	4	178
90B5	24	8	27.3	200	165	130	11	4	178
90B14	24	8	27.3	140	115	95	9	4	178

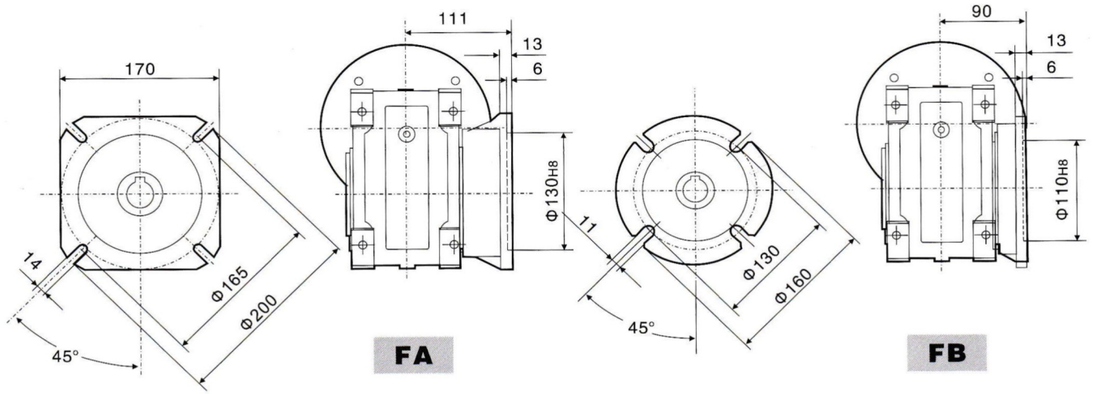
D1H8	b1	t1
25	8	28.3
28*	8	31.3
30*	8	33.3

*非标产品，订单时请说明
*Special request

重量（不包括马达）
≈6.8kg
Weight without motor
≈6.8kg

KPM75B..





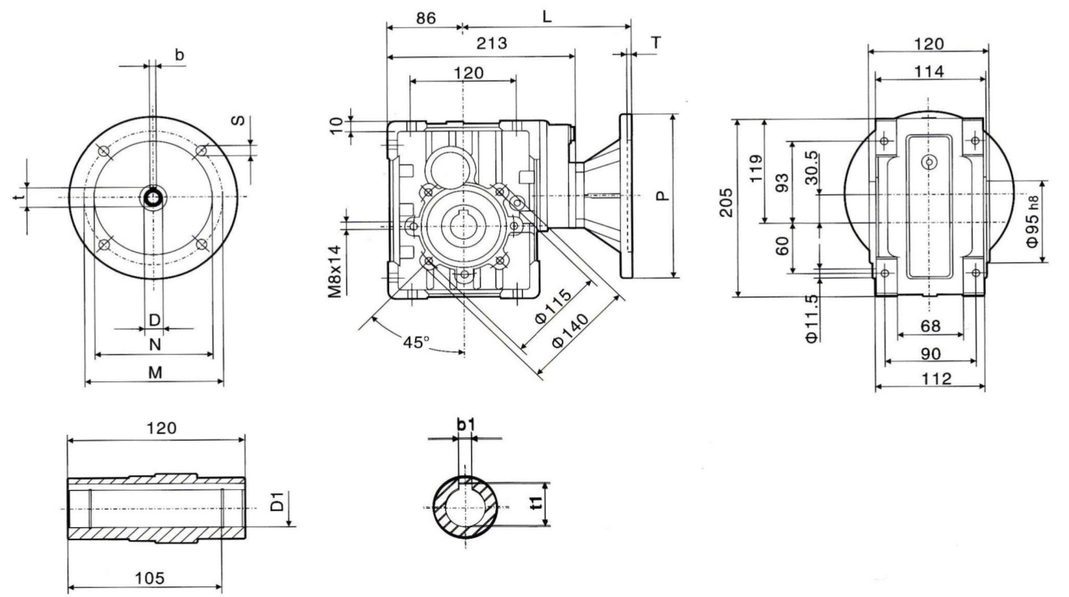
IEC	DE8	b	t	P	M	N	S	T	L
63B5	11	4	12.8	140	115	95	9	4	139
71B5	14	5	16.3	160	130	110	9	4	146
80B5	19	6	21.8	200	165	130	11	4	166
80B14	19	6	21.8	120	100	80	7	4	166
90B5	24	8	27.3	200	165	130	11	4	166
90B14	24	8	27.3	140	115	95	9	4	166
100/112B5	28	8	31.3	250	215	180	13.5	4.5	176
100/112B14	28	8	31.3	160	130	110	9	4.5	176

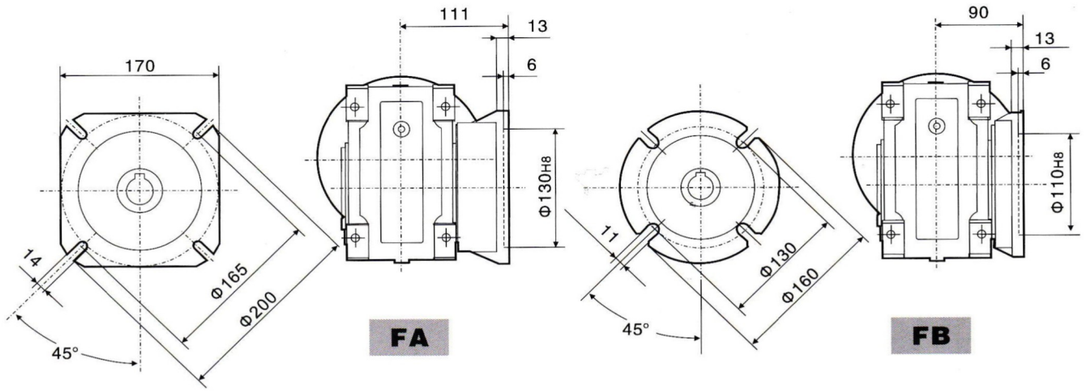
D1H8	b1	t1
28	8	31.3
30*	8*	33.3*
35*	10*	38.3*

*非标产品，订单时请说明
*Special request

重量（不包括马达）
≈9.2kg
Weight without motor
≈9.2kg

KPM75C..





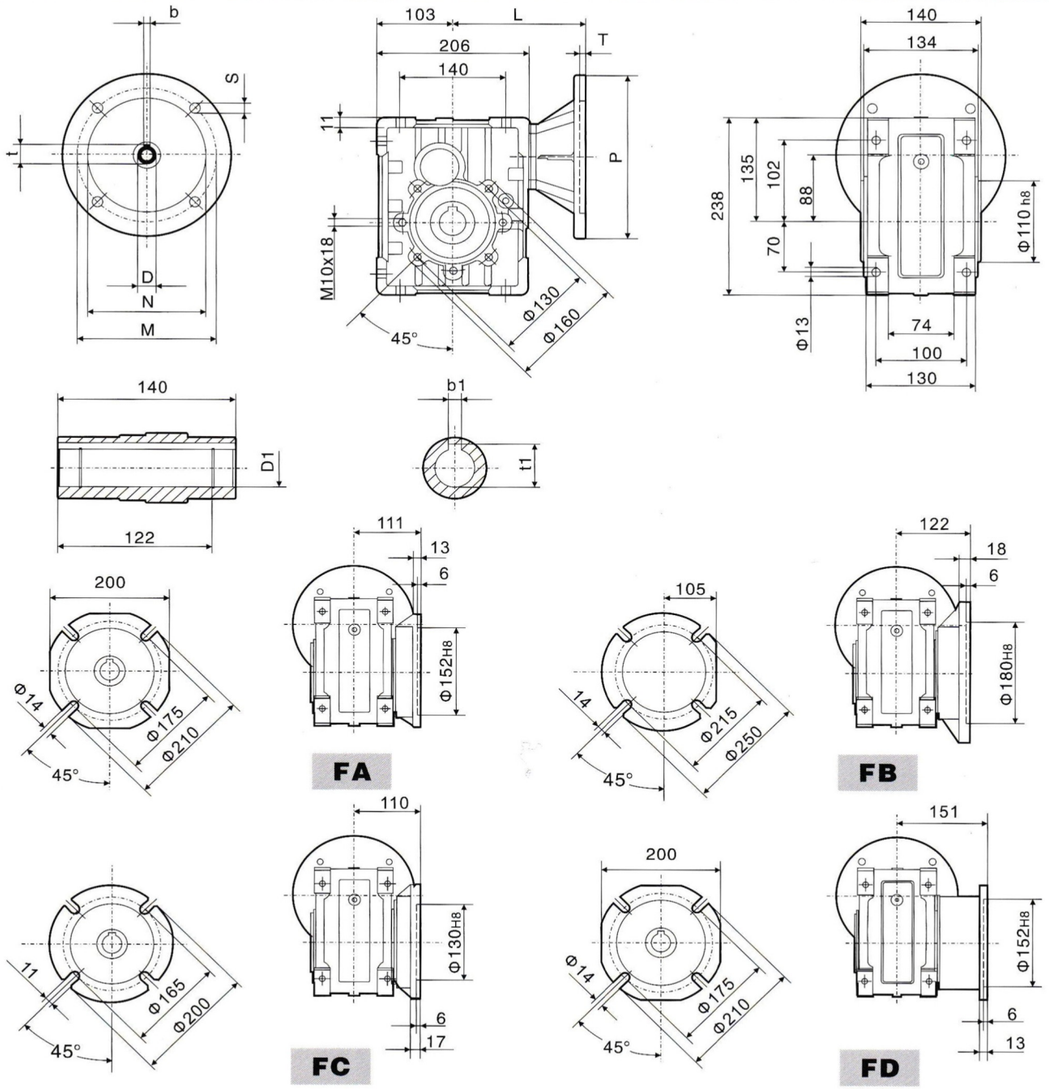
IEC	DE8	b	t	P	M	N	S	T	L
63B5	11	4	12.8	140	115	95	9	4	179
71B5	14	5	16.3	160	130	110	9	4	186
80B5	19	6	21.8	200	165	130	11	4	206
80B14	19	6	21.8	120	100	80	7	4	206
90B5	24	8	27.3	200	165	130	11	4	206
90B14	24	8	27.3	140	115	95	9	4	206
100/112B5	28	8	31.3	250	215	180	13.5	4.5	216
100/112B14	28	8	31.3	160	130	110	9	4.5	216

D1H8	b1	t1
28	8	31.3
30*	8*	33.3*
35*	10*	38.3*

*非标产品，订单时请说明
*Special request

重量（不包括马达）
≈10.8kg
Weight without motor
≈10.8kg

KPM90B..



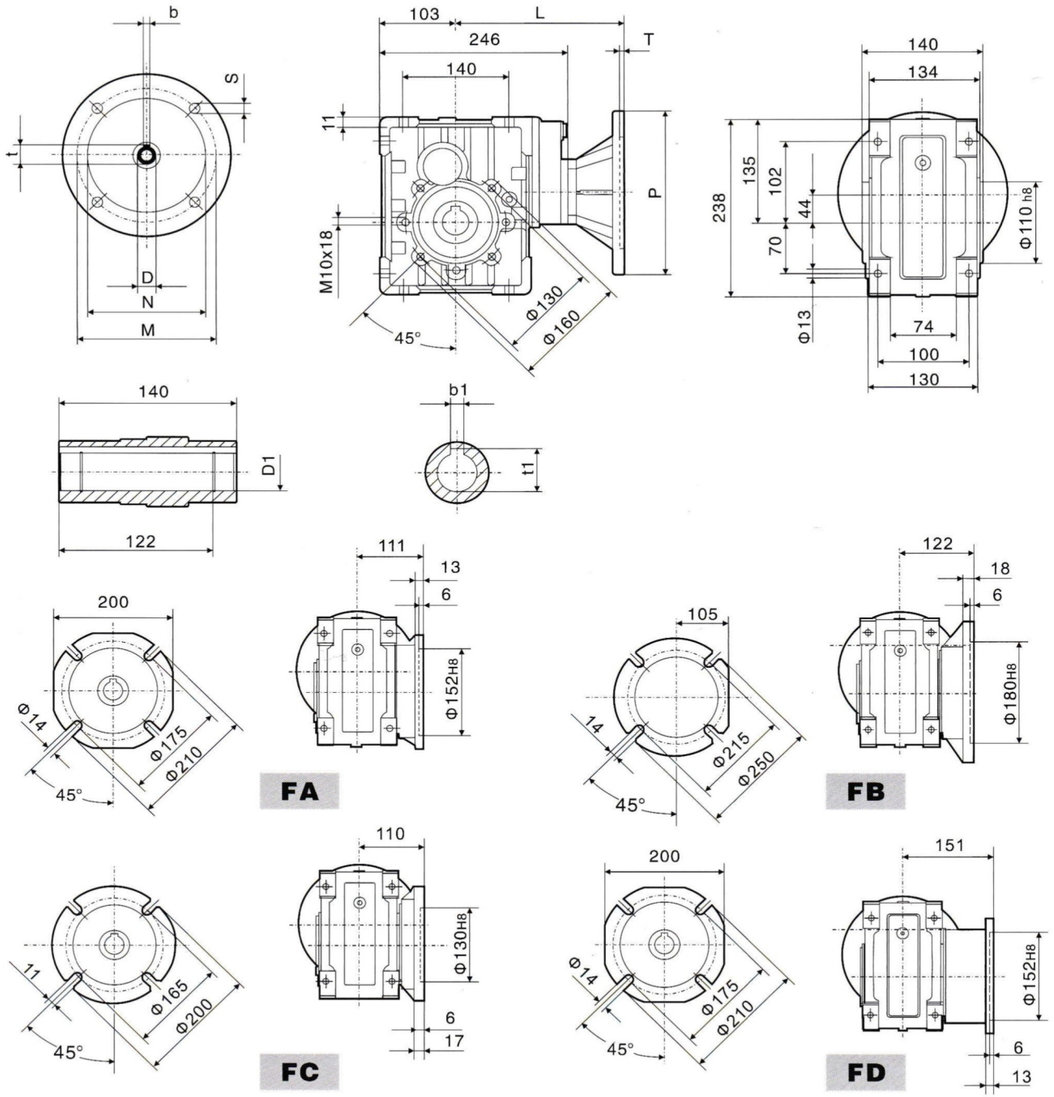
IEC	DE8	b	t	P	M	N	S	T	L
63B5	11	4	12.8	140	115	95	9	4	155
71B5	14	5	16.3	160	130	110	9	4	162
80B5	19	6	21.8	200	165	130	11	4	182
80B14	19	6	21.8	120	100	80	7	4	182
90B5	24	8	27.3	200	165	130	11	4	182
90B14	24	8	27.3	140	115	95	9	4	182
100/112B5	28	8	31.3	250	215	180	13.5	4.5	192
100/112B14	28	8	31.3	160	130	110	9	4.5	192

D1H8	b1	t1
35	10	38.3
38*	10*	41.3*

*非标产品，订单时请说明
*Special request

重量（不包括马达）
≈13.3kg
Weight without motor
≈13.3kg

KPM90C..



重量（不包括马达）
≈14.8kg
Weight without motor
≈14.8kg

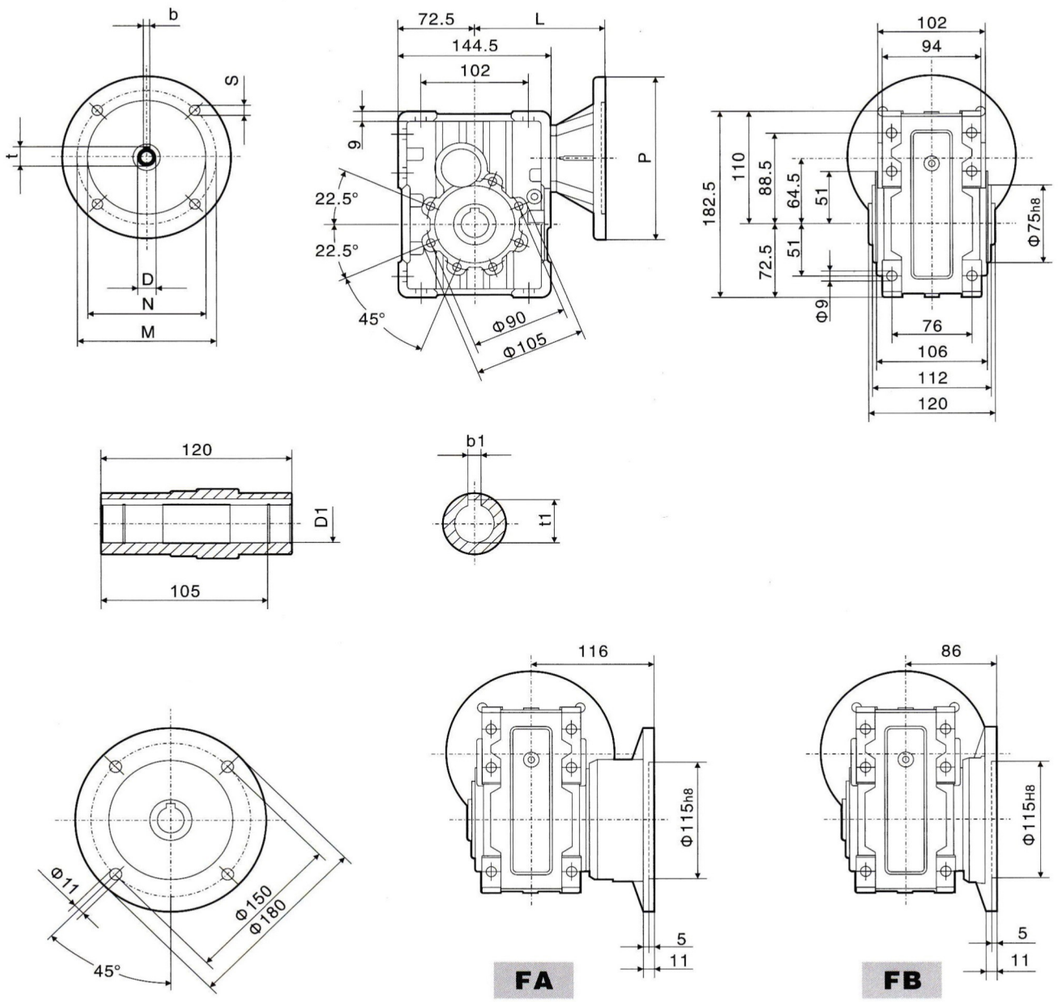
IEC	DE8	b	t	P	M	N	S	T	L
63B5	11	4	12.8	140	115	95	9	4	195
71B5	14	5	16.3	160	130	110	9	4	202
80B5	19	6	21.8	200	165	130	11	4	222
80B14	19	6	21.8	120	100	80	7	4	222
90B5	24	8	27.3	200	165	130	11	4	222
90B14	24	8	27.3	140	115	95	9	4	222
100/112B5	28	8	31.3	250	215	180	13.5	4.5	232
100/112B14	28	8	31.3	160	130	110	9	4.5	232

D1H8	b1	t1
35	10	38.3
38*	10*	41.3*

*非标产品，订单时请说明
*Special request

5.2 KPB..外形图 / KPB Outside dimension drawing

KPB63B..



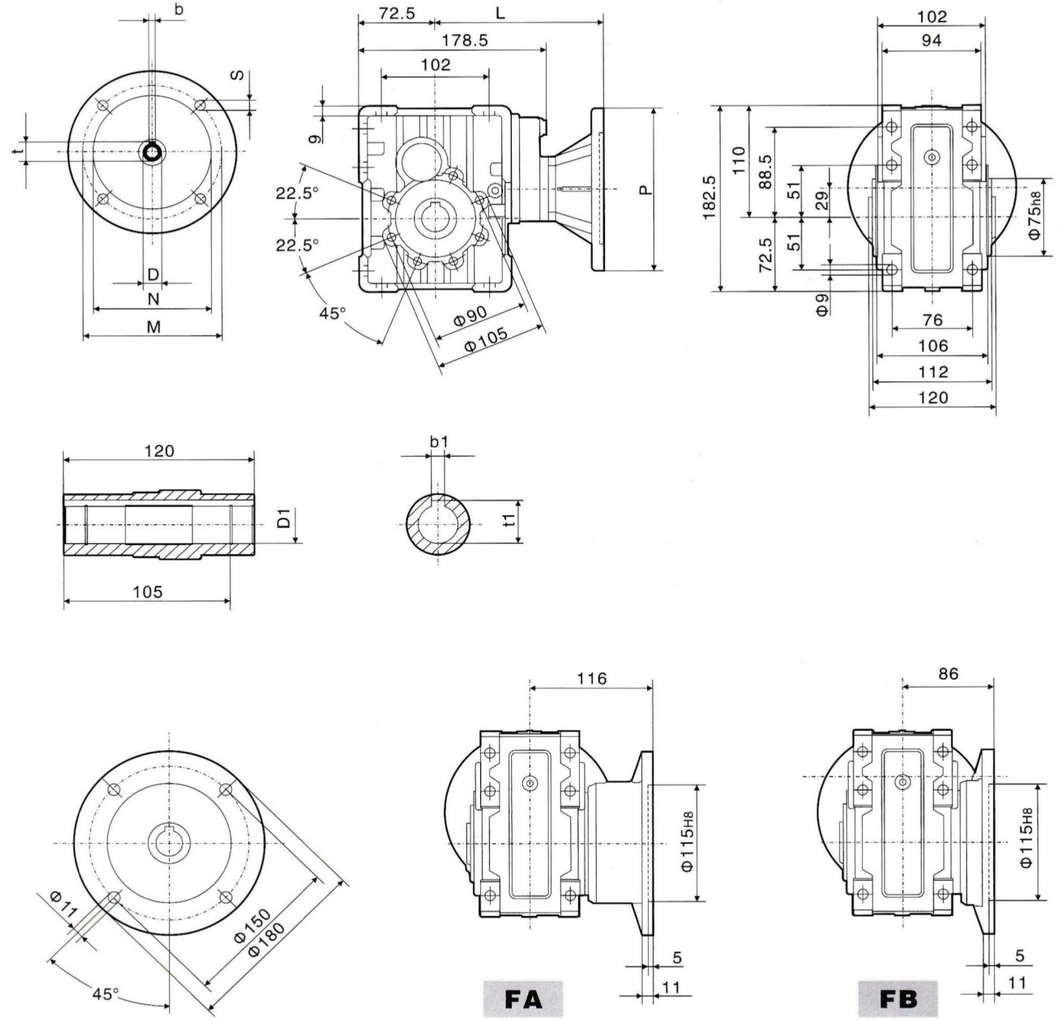
IEC	D_{E8}	b	t	P	M	N	S	T	L
63B5	11	4	12.8	140	115	95	9	4	117
71B5	14	5	16.3	160	130	110	9	4	124
71B14	14	5	16.3	105	85	70	7	4	124
80B5	19	6	21.8	200	165	130	11	4	144
80B14	19	6	21.8	120	100	80	7	4	144
90B5	24	8	27.3	200	165	130	11	4	144
90B14	24	8	27.3	140	115	95	9	4	144

$D1_{H8}$	b1	t1
25	8	28.3
28*	8	31.3
30*	8	33.3

*非标产品，订单时请说明
*Special request

重量（不包括马达）
≈6.0kg
Weight without motor
≈6.0kg

KPB63C..



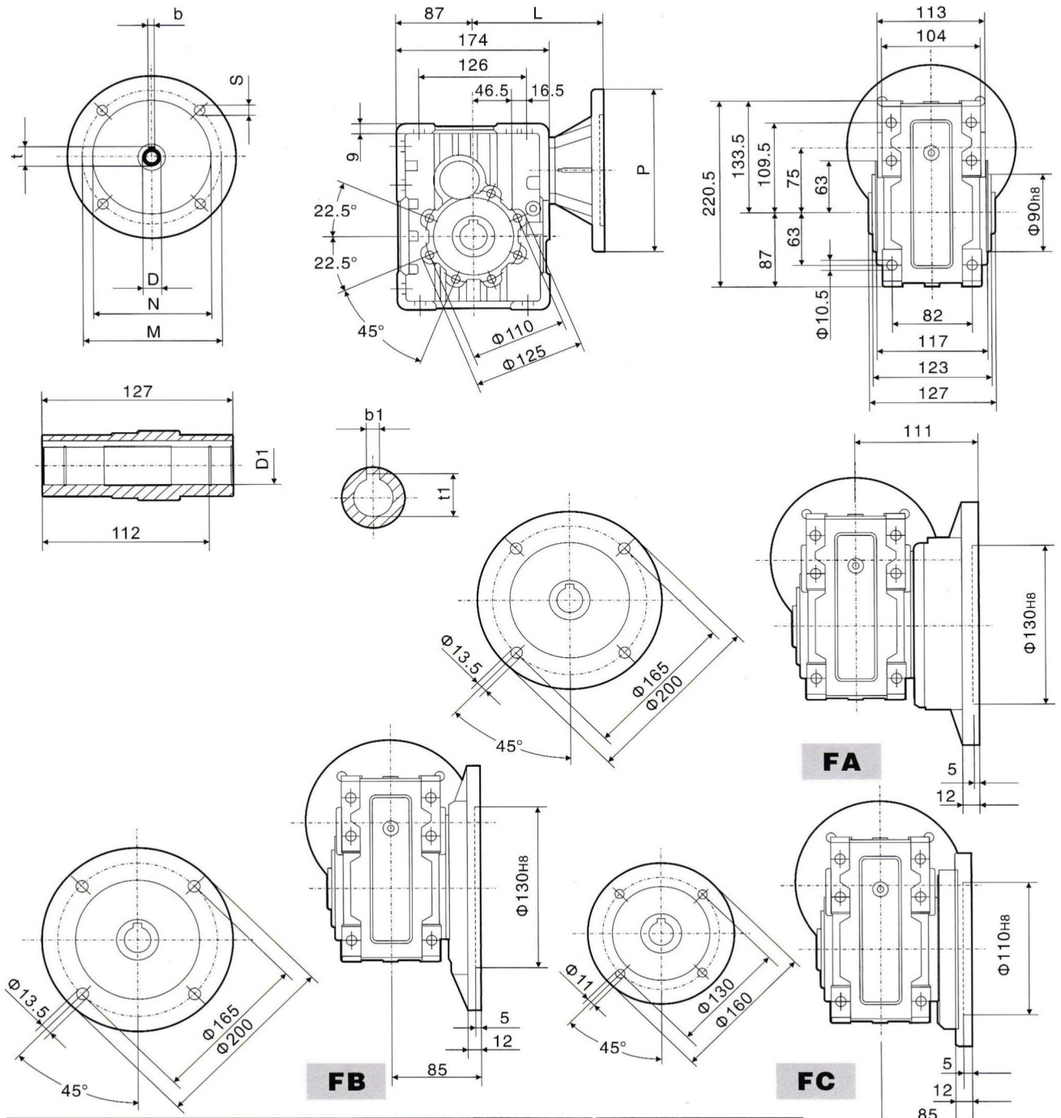
重量（不包括马达）
≈6.8kg
Weight without motor
≈6.8kg

IEC	D_{E8}	b	t	P	M	N	S	T	L
63B5	11	4	12.8	140	115	95	9	4	151
71B5	14	5	16.3	160	130	110	9	4	158
71B14	14	5	16.3	105	85	70	7	4	158
80B5	19	6	21.8	200	165	130	11	4	178
80B14	19	6	21.8	120	100	80	7	4	178
90B5	24	8	27.3	200	165	130	11	4	178
90B14	24	8	27.3	140	115	95	9	4	178

$D1_{H8}$	b1	t1
25	8	28.3
28*	8	31.3
30*	8	33.3

*非标产品，订单时请说明
*Special request

KPB75B..



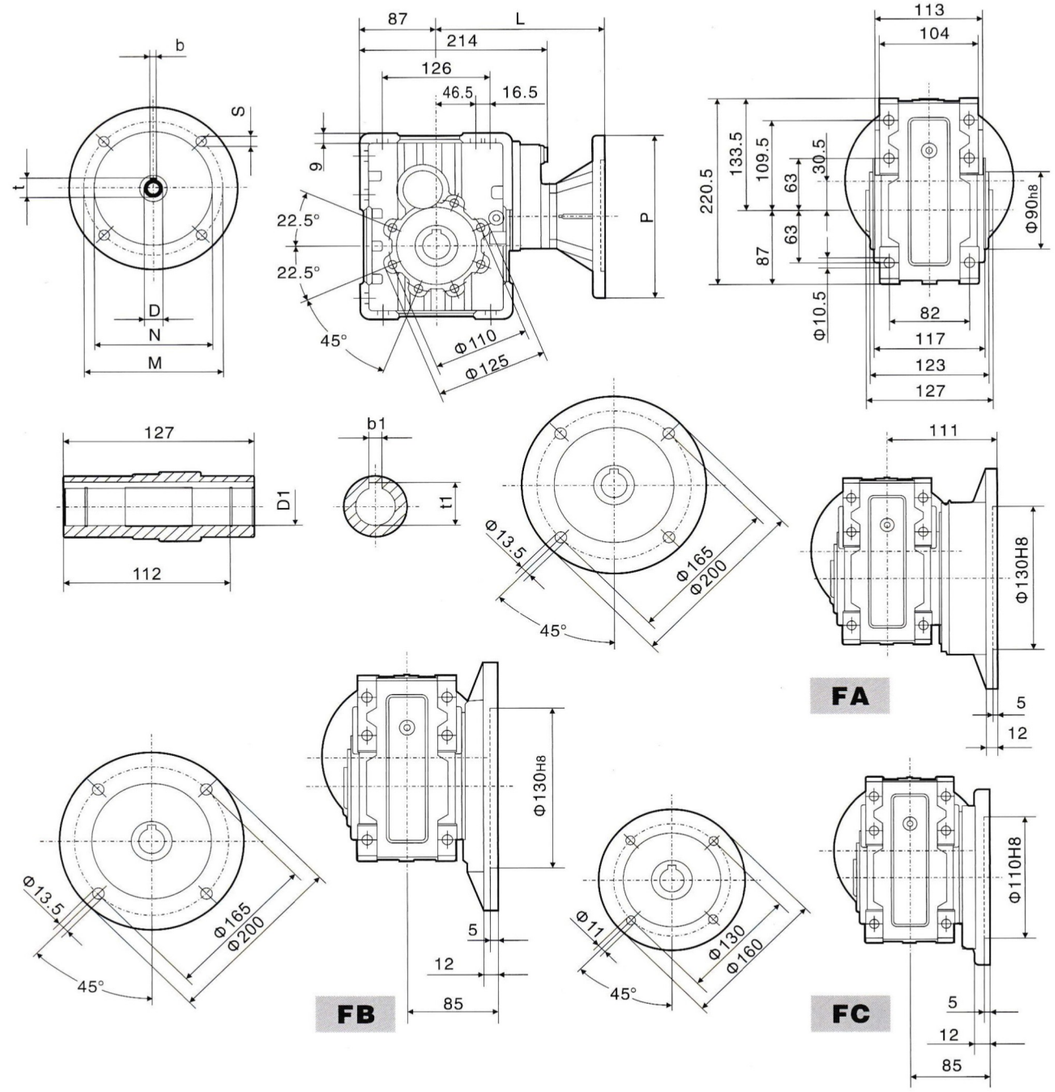
IEC	D_{E8}	b	t	P	M	N	S	T	L
63B5	11	4	12.8	140	115	95	9	4	139
71B5	14	5	16.3	160	130	110	9	4	146
80B5	19	6	21.8	200	165	130	11	4	166
80B14	19	6	21.8	120	100	80	7	4	166
90B5	24	8	27.3	200	165	130	11	4	166
90B14	24	8	27.3	140	115	95	9	4	166
100/112B5	28	8	31.3	250	215	180	13.5	4.5	176
100/112B14	28	8	31.3	160	130	110	9	4.5	176

$D1_{H8}$	b1	t1
28*	8*	31.3*
30	8	33.3
35*	10*	38.3*

*非标产品，订单时请说明
*Special request

重量（不包括马达）
≈9.5kg
Weight without motor
≈9.5kg

KPB75C..



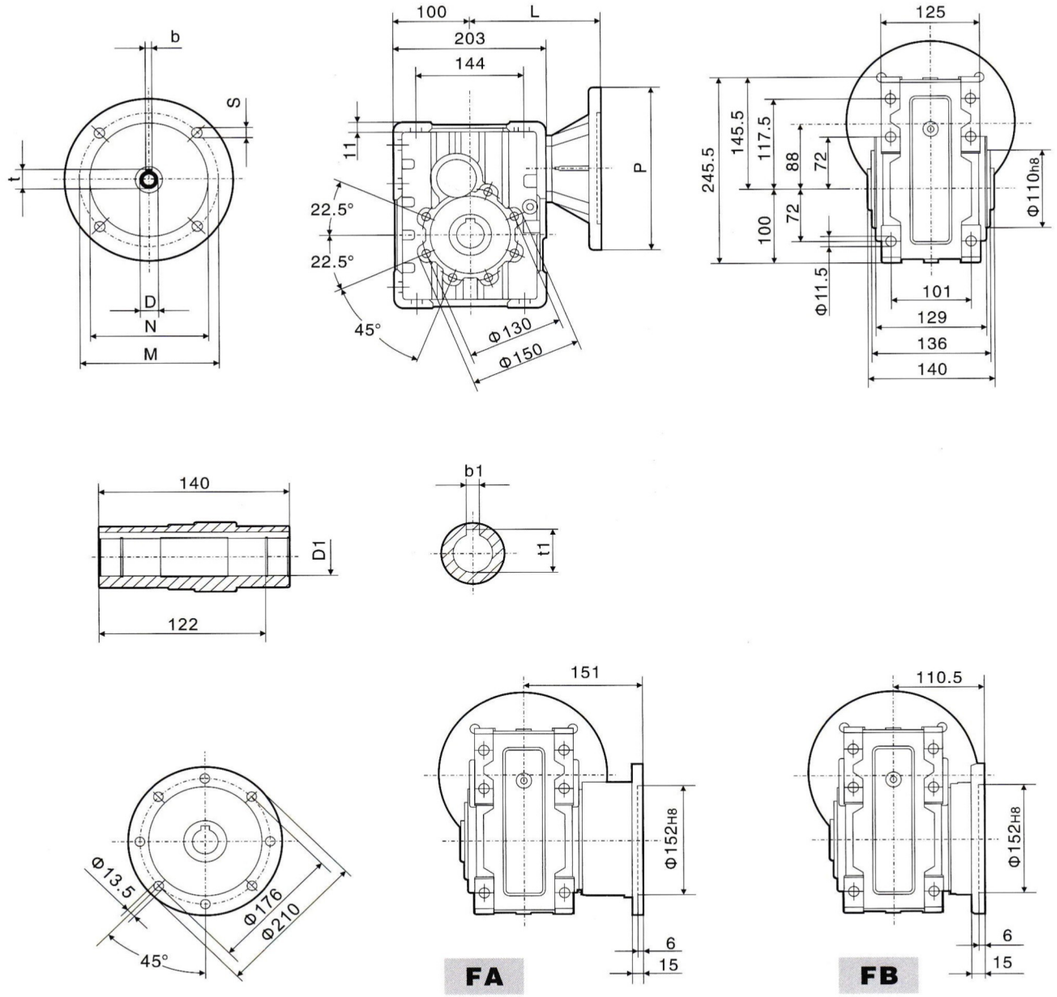
重量（不包括马达）
≈10.8kg
Weight without motor
≈10.8kg

IEC	D_{E8}	b	t	P	M	N	S	T	L
63B5	11	4	12.8	140	115	95	9	4	179
71B5	14	5	16.3	160	130	110	9	4	186
80B5	19	6	21.8	200	165	130	11	4	206
80B14	19	6	21.8	120	100	80	7	4	206
90B5	24	8	27.3	200	165	130	11	4	206
90B14	24	8	27.3	140	115	95	9	4	206
100/112B5	28	8	31.3	250	215	180	13.5	4.5	216
100/112B14	28	8	31.3	160	130	110	9	4.5	216

$D1_{H8}$	b1	t1
28*	8*	31.3*
30	8	33.3
35*	10*	38.3*

*非标产品，订单时请说明
*Special request

KPB86B..



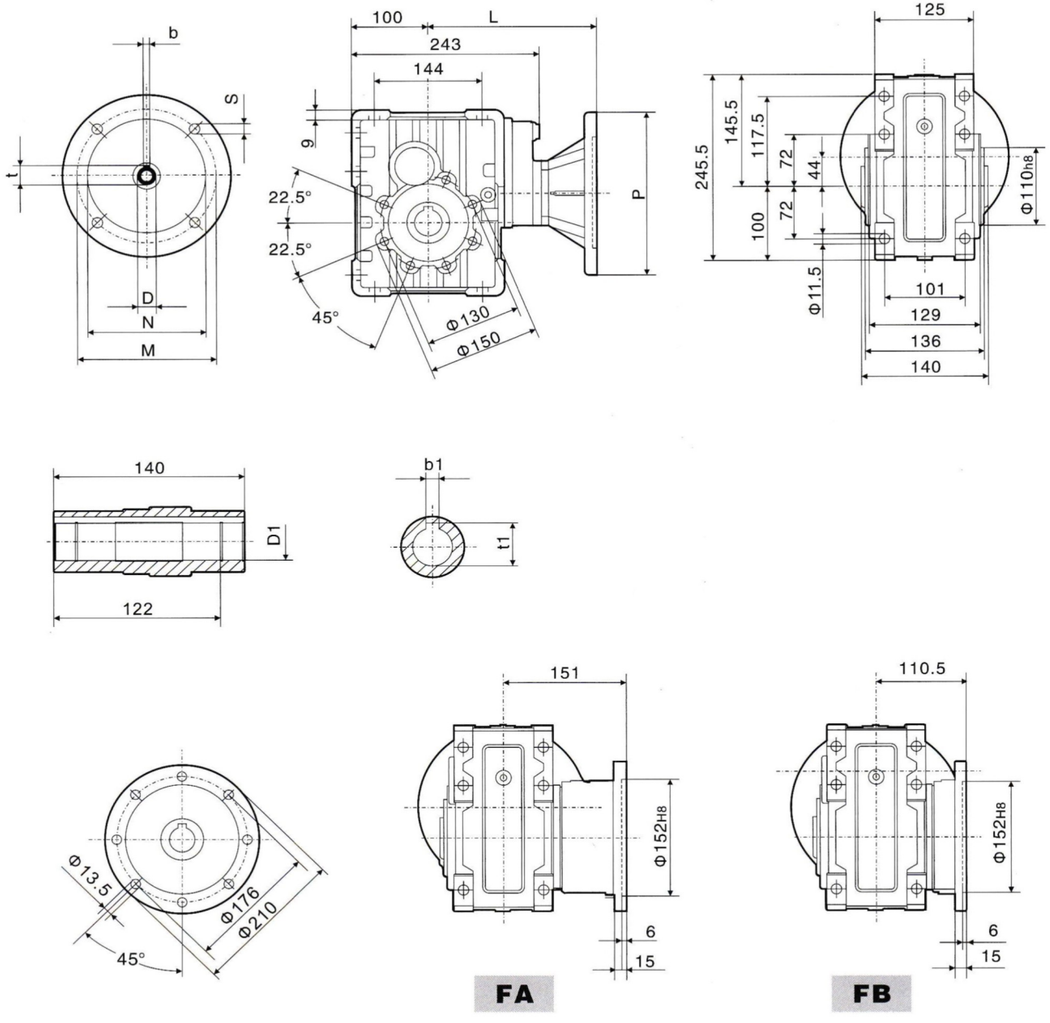
IEC	D_{E8}	b	t	P	M	N	S	T	L
63B5	11	4	12.8	140	115	95	9	4	155
71B5	14	5	16.3	160	130	110	9	4	162
80B5	19	6	21.8	200	165	130	11	4	182
80B14	19	6	21.8	120	100	80	7	4	182
90B5	24	8	27.3	200	165	130	11	4	182
90B14	24	8	27.3	140	115	95	9	4	182
100/112B5	28	8	31.3	250	215	180	13.5	4.5	192
100/112B14	28	8	31.3	160	130	110	9	4.5	192

$D1_{H8}$	b1	t1
35	10	38.3
38*	10*	41.3*

*非标产品，订单时请说明
*Special request

重量（不包括马达）
≈13.5kg
Weight without motor
≈13.5kg

KPB86C..



重量（不包括马达）
≈14.8kg
Weight without motor
≈14.8kg

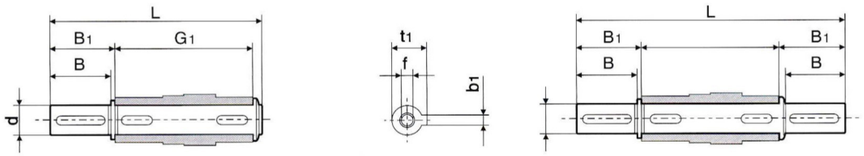
IEC	D_{E8}	b	t	P	M	N	S	T	L
63B5	11	4	12.8	140	115	95	9	4	195
71B5	14	5	16.3	160	130	110	9	4	202
80B5	19	6	21.8	200	165	130	11	4	222
80B14	19	6	21.8	120	100	80	7	4	222
90B5	24	8	27.3	200	165	130	11	4	222
90B14	24	8	27.3	140	115	95	9	4	222
100/112B5	28	8	31.3	250	215	180	13.5	4.5	232
100/112B14	28	8	31.3	160	130	110	9	4.5	232

$D1_{H8}$	b1	t1
35	10	38.3*
38*	10*	41.3

*非标产品，订单时请说明
*Special request

6. 配件尺寸 / PARTS DIMENSION

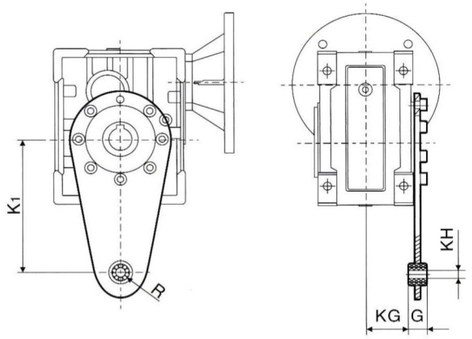
6.1 输出轴 / Output Shafts



	dh6	B	B1	G1	L	L1	f	b1	t1
KPM50	25	50	53.5	92	153	199	M10	8	28
KPM63	25	50	53.5	112	173	219	M10	8	28
KPM75	28	60	63.5	120	192	247	M10	8	31
KPM90	35	80	84.5	140	234	309	M12	10	38
KPB63	25	60	65	120	192	246.4	M8	8	28
KPB75_d 28	28	60	65	127	199	255	M8	8	31
KPB75_d 30	30	60	65	127	199	255	M10	8	33
KPB86	35	60	65	140	214	268	M12	10	38

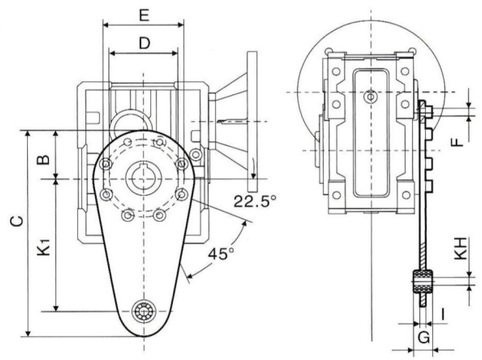
6.2 扭力臂 / Torque Arm

6.2.1 KPM..扭力臂 / KPM..Torque Arm



	K1	G	KG	KH	R
KPM50	100	14	38.5	10	18
KPM63	150	14	49	10	18
KPM75	200	25	47.5	20	30
KPM90	200	25	57.5	20	30

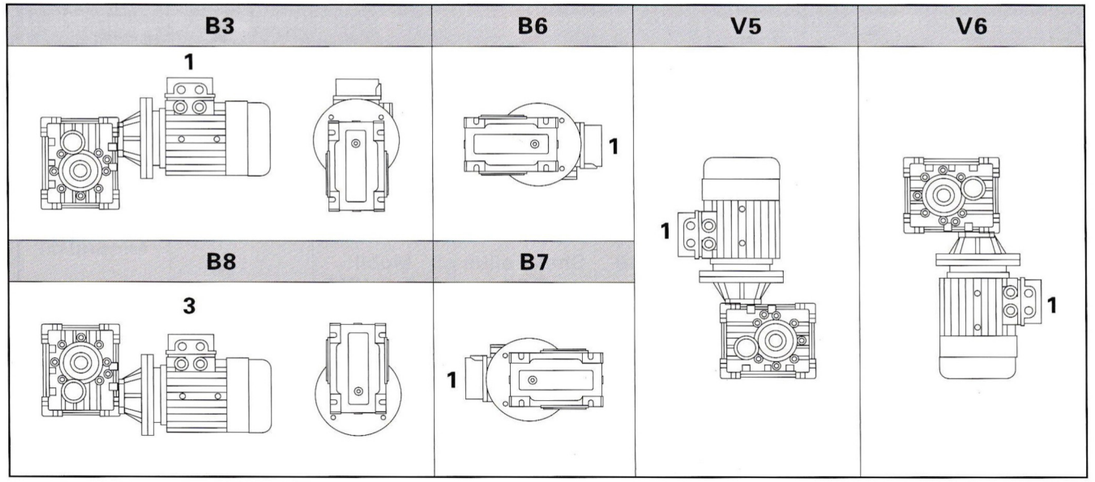
6.2.2 KPB..扭力臂 / KPM..Torque Arm



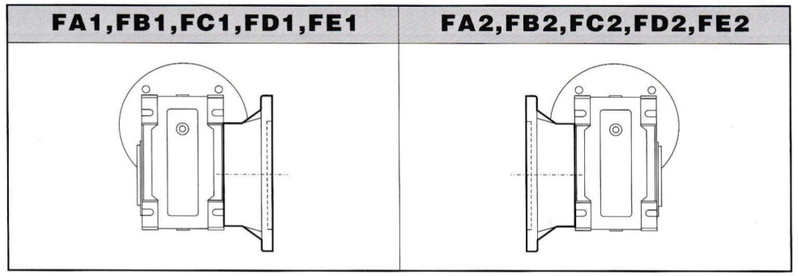
	K1	B	C	D	E	F	G	KH	I
KPB63	150	55	233	75	90	9	20	10	6
KPB75	200	63	300	90	110	9	25	20	6
KPB86	200	80	318	110	130	11	25	20	6

7. 安装方位 / MOUNTING POSITION

7.1 KPM/KPB安装方位图 / KPM/KPB Mounting position chart



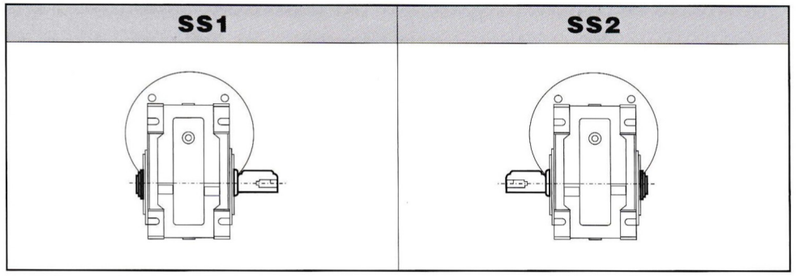
7.2 输出法兰安装方位图 / Output flange mounting position chart



减速机和输出法兰的默认安装方位是B3和F..1

The default mounting position for gearbox and output flange are B3 and F..1

7.3 单向输出轴安装方位图 / Output shaft mounting position chart



8. 润滑油 / LUBRICANT

8.1 润滑油型号 / Brand of lubricant

	℃ −50 0 +50 +100	ISO ISO	SHELL	Mobil MOBIL	bp BP	润滑油性质 Lubricant character
KPM.. KPB..	标准 Standard −10 +40	VG 220	Shell Omala 220	Mobilgear 630	BP Energol GR-XP 220	矿物油 Mineral oil
	−20 +25	VG 150 VG 100	shell Omala 100	Mobilgear 627	BP Energol GR-XP 100	
	−30 +10	VG 68-46 VG 32	Shell Tellus T 32	Mobil D.T.E 13M		
	−40 −20	VG 22 VG 15	Shell Tellus T 15	Mobil D.T.E 11M	BP Energol HLP-HM 15	
	−40 +80	VG 220	Shell Omala HD 220	Mobil SHC 630		合成油 Synthetic oil
	−40 +40	VG 150		Mobil SHC 629		
	−40 +10	VG 32		Mobil SHC 624		

8.2 润滑油加注量

规定的加注量为参考值。精确值的变化与级数和传动比有关。请您在加注润滑油时一定要注意油位螺栓所指示的精确油量。后期调整安装方式时，您必须根据改变后的安装方式相应调整加注润滑剂。

下表中列出了不同安装方式（B3、B6、B7……）的减速器相应的标准参考润滑油注入量值。

8.2 Lubricant fill quantity

The specified fill quantities are recommended values. The precise values vary depending on the number of stages and gear ratio.When filling,it is essential to check the oil level plug since it indicates the precise oil capacity.

The following tables show guide values for lubricant fill quantities in relation to the mounting position (B3、B6、B7……)

KPM加油量 / KPM oil quantity

减速机型号 Model	加注量 Fill quantity in liters 单位:升（L）					
	B3	B6	B7	B8	V5	V6
KPM50B	0.22	0.2*	0.13*	0.15	0.25	0.14
KPM50C#	0.07	0.04	0.04	0.05	0.08	0.09
KPM63B	0.42	0.35*	0.24*	0.22	0.46	0.25
KPM63C	0.07	0.04	0.04	0.05	0.08	0.09
KPM75B#	0.70	0.58*	0.42*	0.42	0.75	0.45
KPM75C	0.13	0.09	0.09	0.09	0.15	0.17
KPM90B	1.21	0.95*	0.72*	0.67	1.3	0.74
KPM90C#	0.13	0.09	0.09	0.09	0.15	0.17

KPB加油量 / KPB oil quantity

减速机型号 Model	加注量 Fill quantity in liters 单位:升（L）					
	B3	B6	B7	B8	V5	V6
KPB63B	0.38	0.35*	0.25*	0.26*	0.44	0.25
KPB63C	0.07	0.04	0.04	0.05	0.08	0.09
KPB75B#	0.66	0.60*	0.45*	0.48	0.78	0.48
KPB75C	0.13	0.09	0.09	0.09	0.15	0.17
KPB86B	1.15	0.95*	0.70*	0.75*	1.25	0.75
KPB86C#	0.13	0.09	0.09	0.09	0.15	0.17

#：3级传动时，2级和3级箱体要各自加油，两个箱体之间不相通。
#: The 2 stage doesn't communicate with the 3 stage housing, so please fill the 2 stage and 3 stage housings respectively while 3 stage gearbox used.

*：表示在此安装方式，不能仅凭油位塞加注润滑油，油位需高出油位塞，加注量按表中所示.
*: It means the lubricant can't be added according to the oil level line plug but also higher than the plug. The fill quantity shown as in the chart.

9. 维护 / MAINTENANCE

1：减速器工作累计300个小时后建议更换润滑油。请勿将合成油和矿物油混合使用。

2：至少每半年一次检查油和油位，必要时更换输入端的橡胶套。

3：根据不同的工作条件（如下图），最长每三年检测一次，并且更换矿物油和轴承的润滑油脂。

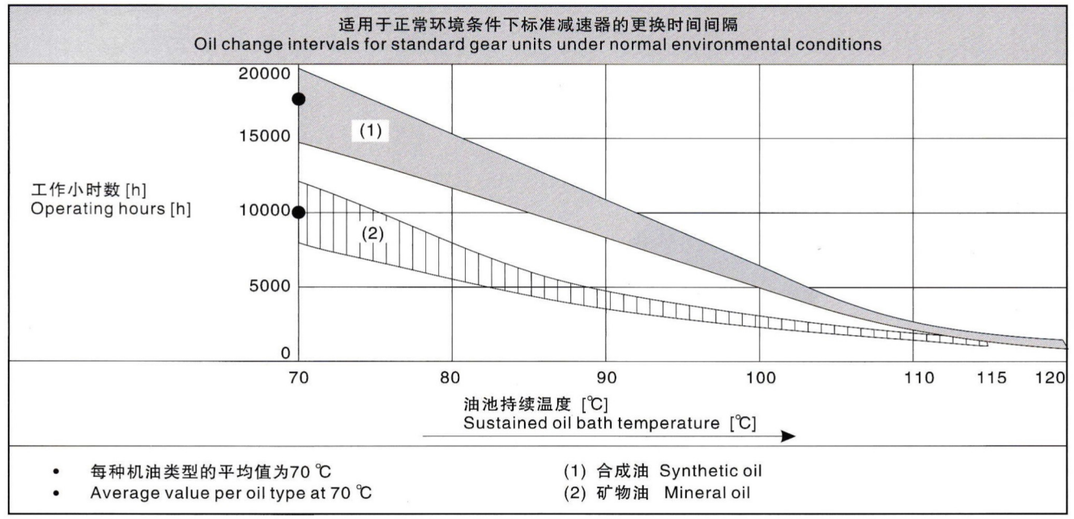
4：根据不同的工作条件而定，更换输出轴上的油封。

5：产品出现故障时，请不要自行拆卸，请第一时间联系我们。

1:Change the oil after 300 hours running is necessary.Please do not mix the synthetic oil with mineral oil.

2:Check the oil and oil level at least every 6 months, and change the rubber sleeve if necessary.

3:Check the oil and oil level maximal every 3 years according to different working conditions(shown as below chart), and change the oil and lubricant on bearing if necessary.

4:Depending on the operating conditions,change the oil seals on output shaft.

5:Please do not disassemble the gearbox by yourself when it broken down, please contact us firstly.