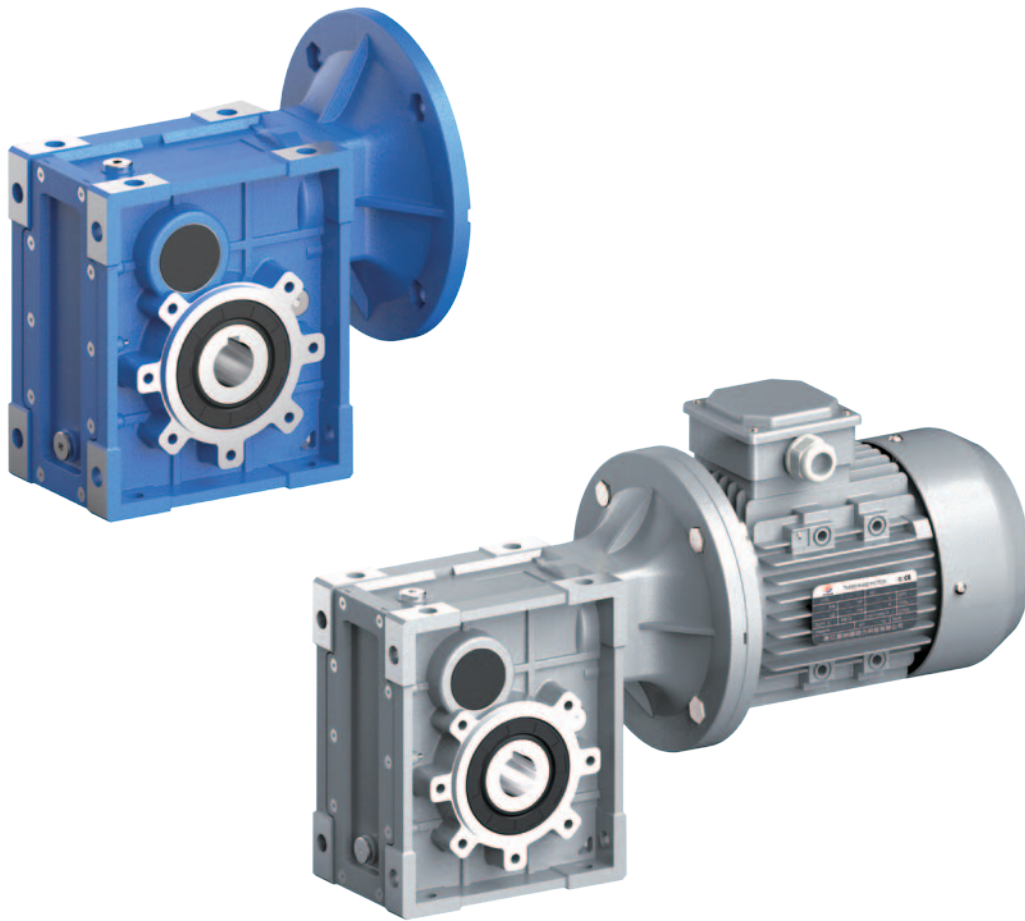




SKM

Series

SEIKO QUALITY
SHARED GLOBALLY

精工品质 全球共享

型号说明 /MODEL ILLUMINATE

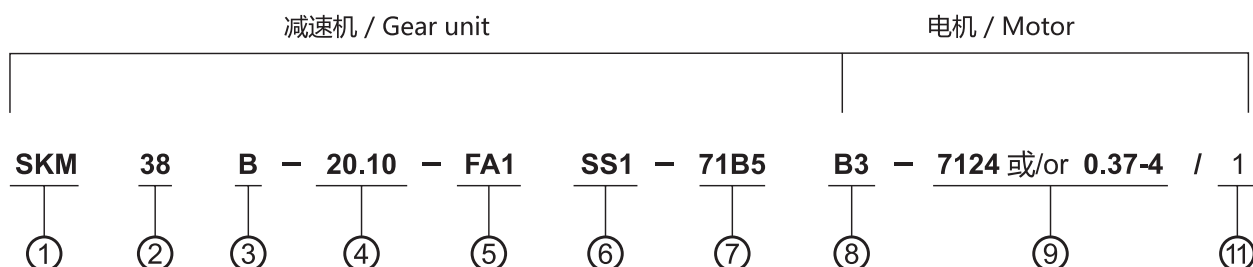
减速电机 / Geared motor

SKM	38	B	—	20.10	—	FA1	—	SS1	—	B3	7124B5	/	BMG	/	1
①	②	③		④		⑤		⑥		⑧	⑨		⑩		⑪

NO	说 明	Comments
1	减速机系列代号：SKM	Code for gear units series: SKM
2	减速机规格代号：28、38、48、58	Specification code of gear units: 28. 38. 48. 58
3	1) B：表示2级传动 2) C：表示3级传动	1) B: Means 2 stages 2) C: Means 3 stages
4	减速机速比 i	Speed ratio of reducer i
5	1.无代号表示不带输出法兰 2.FA,FB,FC,FD,FE(1/2):输出法兰代号和位置	1.No mark means without output flange 2.FA, FB, FC, FD, FE(1/2):output Flange and position
6	1.无代号表示孔输出 2.SS(1/2):单向输出轴和位置 3.DS：双向输出轴	1.No mark means hole output 2.SS(1/2):Single output shaft and position 3.DS:Double output shaft
8	安装方位代号	Installation position code
9	电机型号规格	motor type
10	1.无代号表示不带制动器 2.BMG:制动器	1.No mark means without brake 2.BMG:brake
11	电机接线盒位置，默认位置1可以不写	Position of motor terminal box default position 1 not to write out is ok

型号说明 /MODEL ILLUMINATE

减速机或减速机+IEC电机 / Gear unit or gear unit + IEC motor



NO	说 明	Comments
1	减速机系列代号：SKM	Code for gear units series: SKM
2	减速机规格代号：28、38、48、58	Specification code of gear units: 28. 38. 48. 58
3	1) B：表示2级传动 2) C：表示3级传动	1) B: Means 2 stages 2) C: Means 3 stages
4	减速机速比 i	Speed ratio of reducer i
5	1.无代号表示不带输出法兰 2.FA,FB,FC,FD,FE(1/2):输出法兰代号和位置	1.No mark means without output flange 2.FA, FB, FC, FD, FE(1/2):output Flange and position
6	1.无代号表示孔输出 2.SS(1/2):单向输出轴和位置 3.DS：双向输出轴	1.No mark means hole output 2.SS(1/2):Single output shaft and position 3.DS:Double output shaft
7	1) 输入法兰规格代号(63B5、71B5、71B14.....) 2) HS：表示轴输入	1) Input flange code (63B5、71B5、71B14.....) 2) HS: means shaft input
8	安装方位代号	Installation position code
9	1.无代号表示不带电机 2.电机型号或功率、极数	1.No mark means without motor 2.Model motos (poles of power)
11	电机接线盒位置，默认位置1可以不写	Position of motor terminal box default position 1 not to write out is ok

注：订单时请说明是否带电机，一般按不带电机供应。

NOTE: When ordering, you should show whether the reducers are equipped with motors, otherwise reducers aren't supplied with motors.

示例Example：**SKM48C - 149.44 - B3 - MV71D4**
SKM48B - 59.55 - FA1 - 90B5

减速机选型表 / GEAR UNIT SELECTION TABLES

型 号	速比 (公称)	速比 (实际)	额定输出 扭矩	最大输出 扭矩	额定输入 转速	最大输入 转速	使用 温度	润滑 方式	重 量
SKM28B	7.5	7.61	80	二倍额定 输出扭矩	1400rpm	3000rpm	-5℃~+40℃	油润滑	≈ 5kg
	10	10.28	100						
	12.5	12.83	130						
	15	14.88	80						
	20	20.10	100						
	25	25.10	130						
	30	29.82	130						
	40	40.29	130						
	50	50.30	130						
	60	59.55	130						
SKM28C	75	75.74	130						≈ 6kg
	100	102.32	80						
	125	127.76	100						
	150	151.82	130						
	200	205.11	130						
	250	256.09	130						
	300	303.19	130						

减速机选型表 / GEAR UNIT SELECTION TABLES

型 号	速比 (公称)	速比 (实际)	额定输出 扭矩	最大输出 扭矩	额定输入 转速	最大输入 转速	使用 温度	润滑 方式	重 量
SKM38B	7.5	7.6	110	二倍额定 输出扭矩	1400rpm	3000rpm	-5℃~+40℃	油润滑	≈ 6kg
	10	10.5	150						
	12.5	12.67	180						
	15	14.67	110						
	20	20.25	150						
	25	24.44	180						
	30	30.31	200						
	40	39.29	180						
	50	48.71	200						
	60	60.89	200						
SKM38C	75	73.33	110						≈ 6.8kg
	100	101.27	150						
	125	122.22	180						
	150	151.56	200						
	200	196.43	180						
	250	243.57	200						
	300	304.46	200						

减速机选型表 /GEAR UNIT SELECTION TABLES

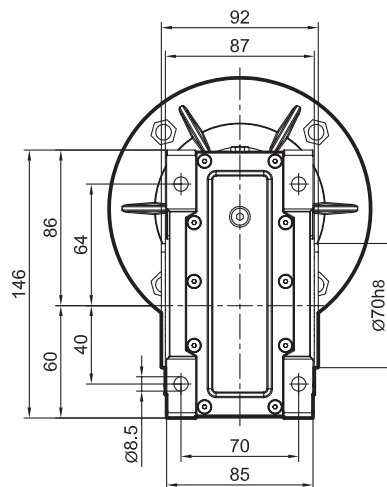
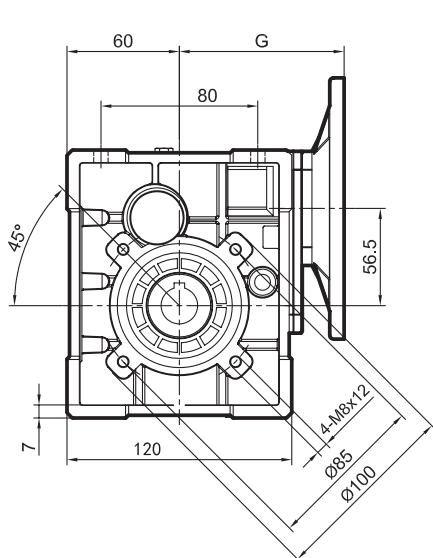
型 号	速比 (公称)	速比 (实际)	额定输出 扭矩	最大输出 扭矩	额定输入 转速	最大输入 转速	使用 温度	润滑 方式	重 量
SKM48B	7.5	7.48	200	二倍额定 输出扭矩	1400rpm	3000rpm	-5℃~+40℃	油润滑	≈ 10.16kg
	10	9.84	240						
	12.5	12.49	300						
	15	15.88	200						
	20	20.16	240						
	25	24.20	300						
	30	29.86	350						
	40	40.13	300						
	50	48.18	350						
	60	59.44	350						
SKM48C	75	79.41	200						≈ 10.8kg
	100	100.81	240						
	125	121.02	300						
	150	149.32	350						
	200	200.66	300						
	250	240.89	350						
	300	297.21	350						

减速机选型表 /GEAR UNIT SELECTION TABLES

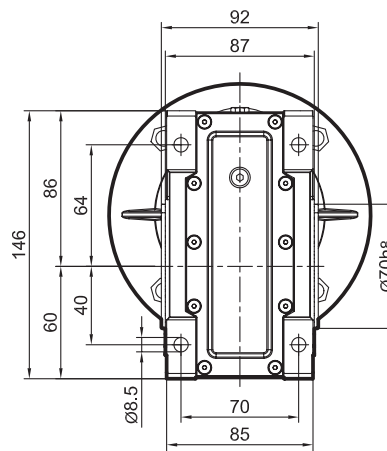
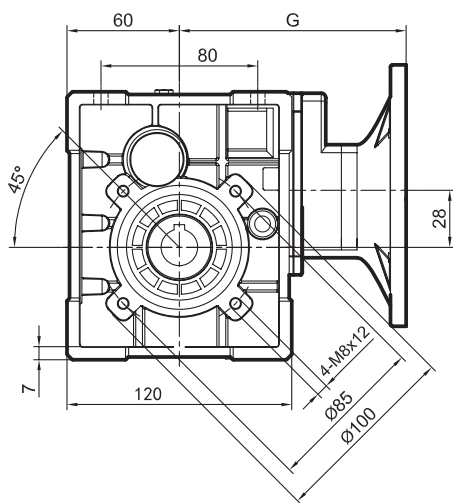
型 号	速比 (公称)	速比 (实际)	额定输出 扭矩	最大输出 扭矩	额定输入 转速	最大输入 转速	使用 温度	润滑 方式	重 量
SKM58B	7.5	7.48	300	二倍额定 输出扭矩	1400rpm	3000rpm	-5℃~+40℃	油润滑	≈ 13.3kg
	10	9.84	380						
	12.5	12.49	480						
	15	15.09	300						
	20	19.84	380						
	25	25.19	480						
	30	30.24	500						
	40	40.13	480						
	50	48.18	500						
	60	59.44	500						
SKM58C	75	75.45	300						≈ 14.8kg
	100	99.22	380						
	125	125.95	480						
	150	151.2	500						
	200	200.66	480						
	250	240.89	500						
	300	297.21	500						

外形尺寸图 / OUTLINE DIMENSION SHEET

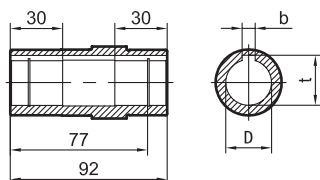
SKM28..B..IEC



SKM28..C..IEC



输出孔/Output hole



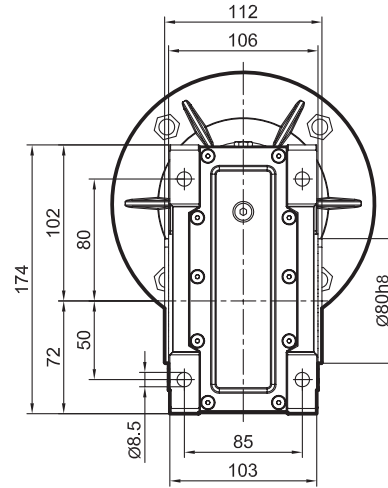
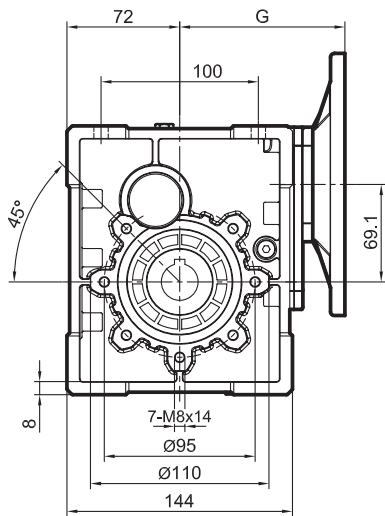
IEC	SKM	G
63B5	28B	101.5
	28C	119.5
71B5/B14	28B	102.5
	28C	120.5
80B5/B14	28B	122.5
90B5/B14	28B	122.5

D _{H8}	b	t
20*	6	22.8
25	8	28.3
*非标孔，订单时请说明。 *Only on request		

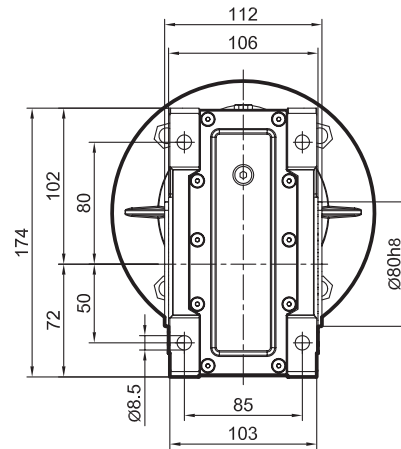
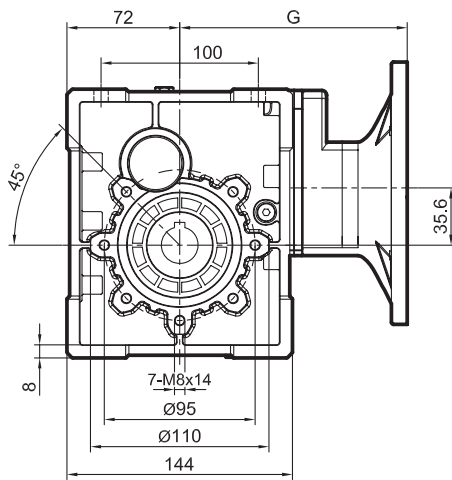
SKM	Kg(重量)
28B	4.2
28C	5
不包括马达 Weight without motor	

外形尺寸图 / OUTLINE DIMENSION SHEET

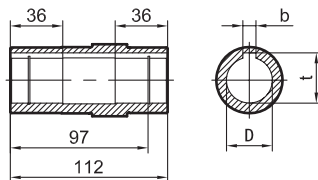
SKM38..B..IEC



SKM38..C..IEC



输出孔/Output hole



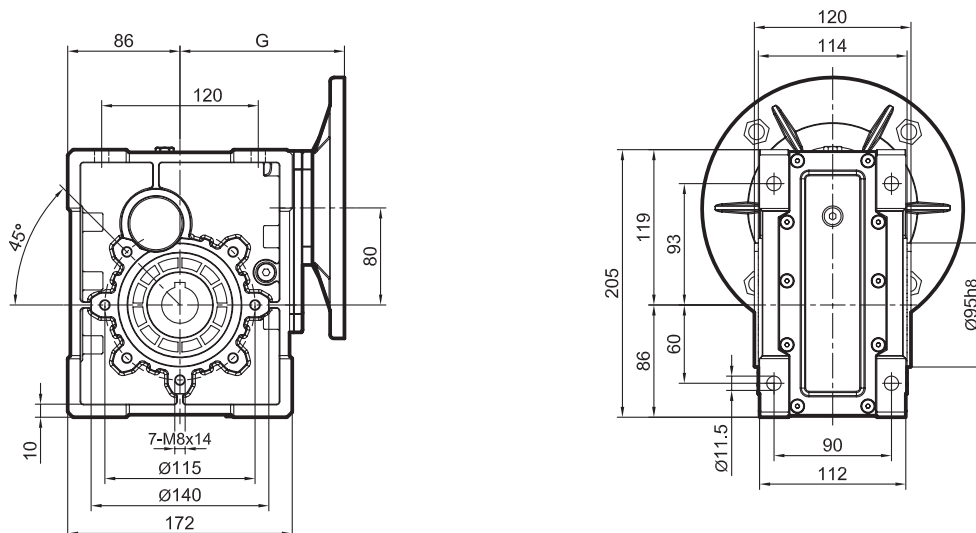
IEC	SKM	G
63B5	38B	112.5
	38C	137.5
71B5/B14	38B	119.5
	38C	144.5
80B5/B14	38B	139.5
	38C	164.5
90B5/B14	38B	139.5

D _{H8}	b	t
25	8	28.3
28*	8	31.3
*非标孔, 订单时请说明。 *Only on request		

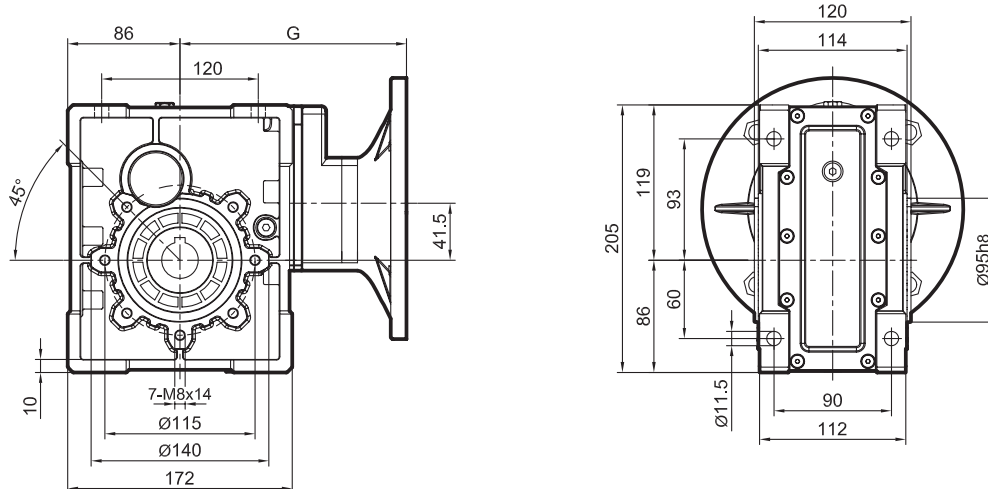
SKM	Kg(重量)
38B	6.0
38C	6.8
不包括马达 Weight without motor	

外形尺寸图 / OUTLINE DIMENSION SHEET

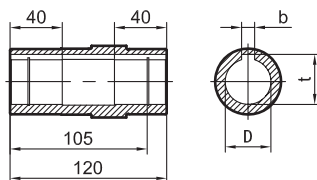
SKM48..B..IEC



SKM48..C..IEC



输出孔/Output hole

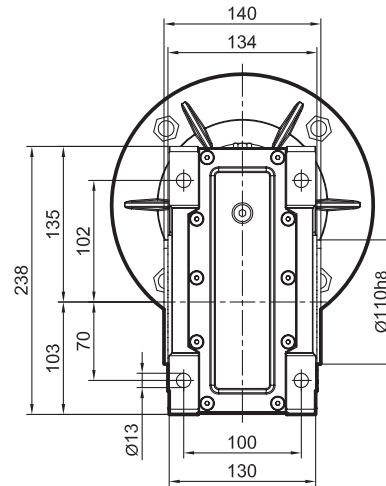


IEC	SKM	G
63B5	48C	154
71B5	48B	161
	48C	191
80B5/B14	48B	151
	48C	181
90B5/B14	48B	151
	48C	181
100/112B5	48B	161
100/112B14	48B	161

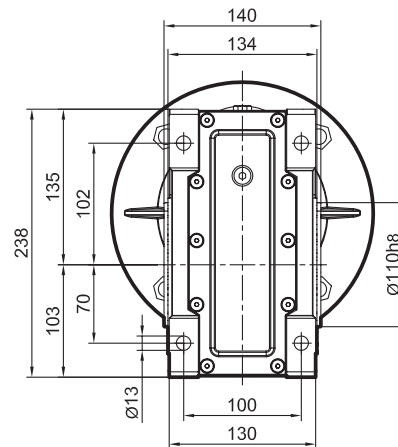
D _{H8}	b	t
28	8	31.3
30*	8	33.3
35*	10	38.3
*非标孔, 订单时请说明。 *Only on request		

SKM	Kg(重量)
48B	9.2
48C	10.8
不包括马达 Weight without motor	

SKM58..B..IEC



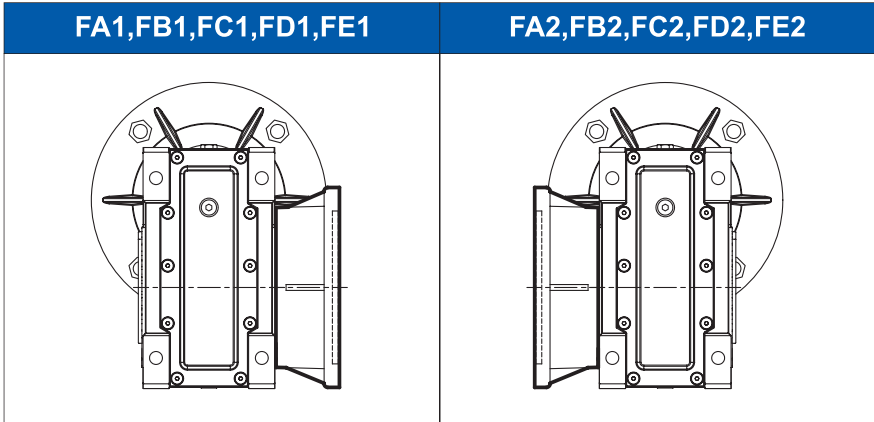
Technical drawing of the front view of a pump housing. The drawing shows a central circular opening with a gear-like pattern. Dimensions include a total width of 206, a central hole diameter of Ø130, and a mounting flange diameter of Ø160. A 45-degree angle is indicated for the top-left corner. A side view is partially shown on the right with a dimension of 52.5.



IEC	SKM	G	D _{H8}	b	t	SKM	Kg(重量)
63B5	58C	176.5	35	10	38.3	58B	13.3
71B5	58B	174	38*	10	41.3	58C	14.8
	58C	213.5					
80B5/B14	58B	164	*非标准孔，订单时请说明。 *Only on request			不包括马达 Weight without motor	
	58C	203.5					
90B5/B14	58B	164					
	58C	203.5					
100/112B5	58B	174					
100/112B14	58B	174					

安装方位图 / INSTALLATION POSITIONS DIAGRAM

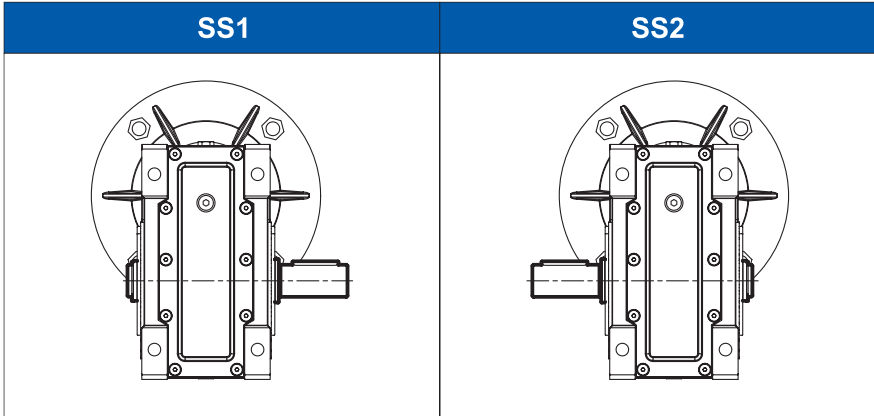
输出法兰位置 / Position diagram for output flange



如果没有特殊要求，一般按出厂标准位置如图F..1方式和B3位置提供。

Unless specified otherwise, the gear units is supplied with the flange in pos. F..1 referred to position B3.

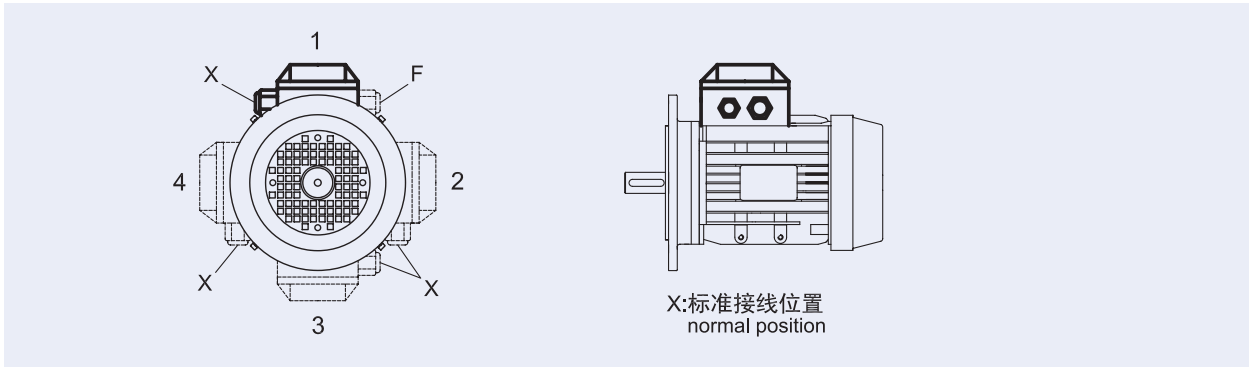
单向输出轴位置 / Position diagram for single output shaft



如果没有特殊要求，一般按出厂标准位置如图SS1方式和B3位置提供。

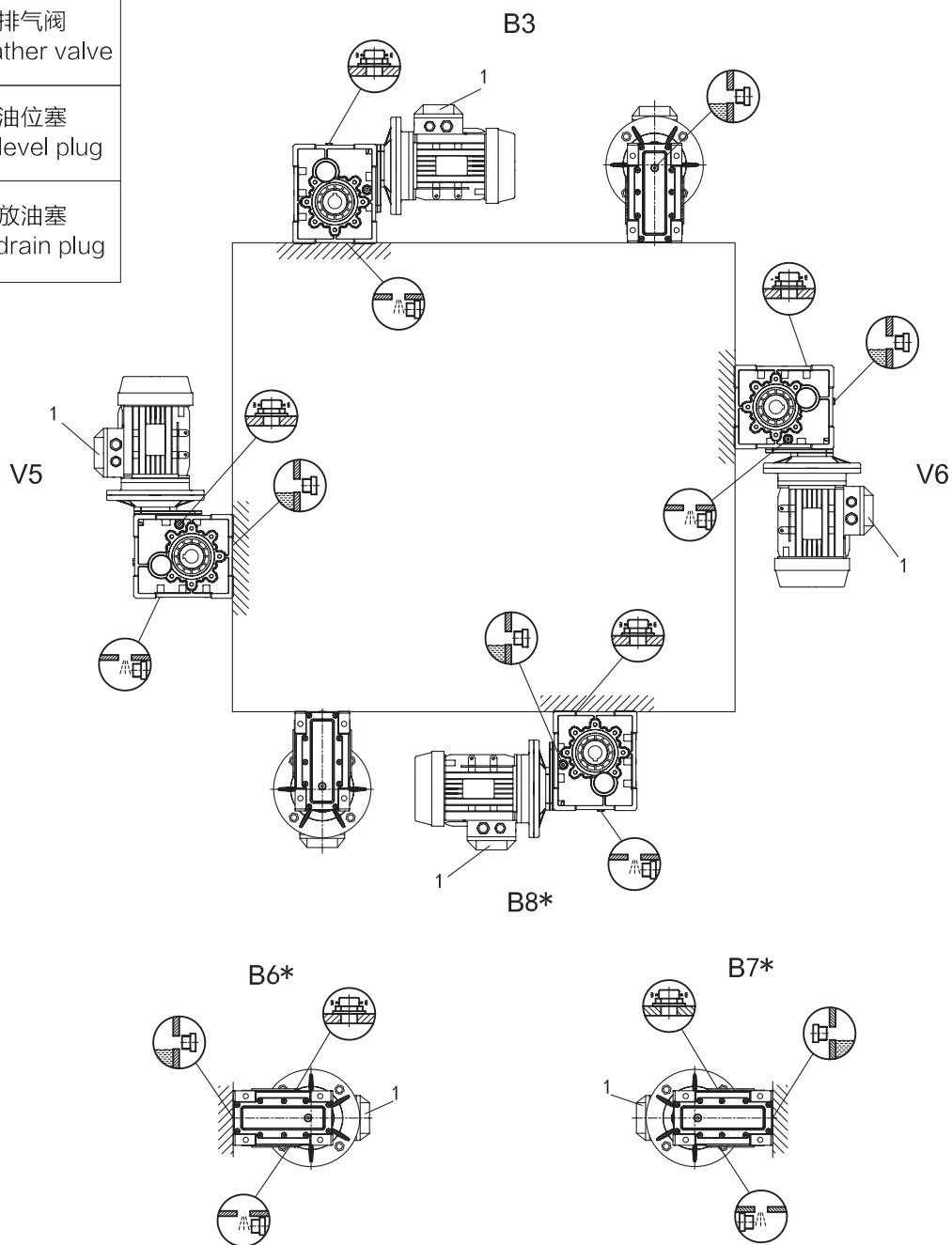
Unless specified otherwise, the gear units is supplied with the flange in pos. SS1 referred to position B3.

电机接线盒方位/Position of motor terminal box



安装方位图 /INSTALLATION POSITIONS DIAGRAM

符号/Symbol	含义/Meaning
	排气阀 Breather valve
	油位塞 Oil level plug
	放油塞 Oil drain plug



* 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，加注量按表内所示。

* It means the lubricant can't be added according to the oil level line plug, but also higher the plug to fill quantity as shown in the table.

安装 /INSTALLATION

注意事项 / Matters needing attention

安装减速机时要注意以下一些事项：

1. 减速机与机械设备装配之前，要检查减速机输出轴的旋转方向是否正确；
2. 减速机与原动机、设备装配之前，应检查各轴径、孔径、键和键槽的偏差尺寸，避免装配过紧、过松影响减速机性能；
3. 减速机必须牢固地安装在机械设备上，避免有松动或振动；
4. 尽可能地避免减速机暴露在烈日阳光和恶劣环境中；
5. 如果减速机存放时间长达4-6个月，应检查油封是否浸润在润滑油中，可能油封唇口会粘在轴上，甚至失去了弹性，由于适合的弹性是油封必须的工作条件，所以推荐更换油封；
6. 所有橡胶件和透气孔不能沾有油漆；
7. 与减速机的空心轴或实心轴配合连接时，应在轴上配合部分涂上润滑油，以免卡死或氧化；
8. 使用时必须检查油位（如油位镜孔或打开油塞，小型号是没有的）；
9. 使用新减速机时，不能满负载起动，应该逐步增大负载；
10. 使用各类电机直连型减速机时，若电机重量偏大，应设支撑装置；
11. 确保电机风扇附近有良好的通风环境，以免影响散热效果；
12. 减速机的标准工作环境温度是-5℃至40℃，如果不在这范围时，请与我们技术服务人员联系。

To install the gear units it is necessary to note the following recommendations:

1. Check the correct direction of rotation of the gear units output shaft before fitting the unit to the machine.
2. Before mount with the prime mover and device, please check the reducer's every axial diameter, aperture, key and not key and key slot, to be sure their dimensions are not deviation, and avoid assembling too tight or too loose, unless it will influence the reducer's performance.
3. The mounting on the machine must be stable to avoid any vibration.
4. Whenever possible, protect the gear units against solar radiation and bad weather.
5. In the case of particularly lengthy periods of storage (4-6 months), if the oil seal is not immersed in the lubricant inside the unit, it is recommended to change it since the rubber could stick to the shaft or may even have lost the elasticity it needs to function properly.
6. Painting must definitely not go over rubber parts and the holes on the breather plugs, if any.
7. When connect with hollow or solid shaft, please grease the joint to avoid lock or oxidation.
8. Check the correct level of the lubricant through the indicator, if there is one.
9. Starting must take place gradually, without immediately applying the maximum load.
10. Supporting unit is required when using various of reducer matched with motor directly and the weight of motor is a little bigger than common.
11. Ensure the motor cools correctly by assuring good passage of air from the fan side.
12. In the case of ambient temperatures $< -5^{\circ}\text{C}$ or $> +40^{\circ}\text{C}$ call the Technical Service.

安装 /INSTALLATION

使用限制/Critical applications

这本样本给出的参数基本上是按B3安装方位来编的，即第一级没有完全浸入油中。对于其他安装方位和输入转速，请参考下面表格中相应参数。当遇到下列应用情况时，如有必要请与我们技术服务人员联系。

1. 在原有上提高转速时；
2. 应用在惯性特别大的设备上时；
3. 应用在如升降机（需要自锁考虑）时；
4. 当减速机出现故障有可能会对操作者造成危害时；
5. 应用在减速机过度疲劳状态时；
6. 工作环境温度低于-5℃或高于40℃时；
7. 在化学腐蚀环境中使用时；
8. 在盐性环境中使用时；
9. 在辐射性高的环境中使用时；
10. 在环境气压不在正常大气压力下使用时；
11. 安装方位在这样本中没有被提到时。

避免把减速机部分或整台浸入水中或其他液体中。

减速机承受的最大负载扭矩不能超过两倍于性能参数表中规定的正常扭矩（当使用系数 $f_s=1$ 时）；这里最大负载扭矩是指承受瞬间短暂的过载，他出现在过载启动、刹车、振动或其他动态操作环境中。

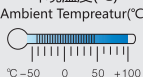
1. As a speed increasing;
2. Applications with especially high inertia;
3. Use as a lifting winch;
4. Use in services that could be hazardous for people if the reduction unit fails.
5. Applications with high dynamic strain on the case of the reduction unit.
6. In places with T° under -5°C or over 40°C .
7. Use in chemically aggressive environments.
8. Use in a salty environment.
9. Use in radioactive environments.
10. Use in environments pressures other than atmospheric pressure.
11. Mounting positions not envisaged in the catalogue.

Avoid applications where even partial immersion of the reduction unit is required.

The maximum torque that the gear reducer can support must not exceed two times the nominal torque ($f_s=1$) stated in the performance tables. Intended for momentary overloads due to starting at full load, braking, shocks or other causes, particularly those are dynamic.

润滑油 / LUBRICATION

润滑油型号 / Types of lubrication

	环境温度(°C) Ambient Temperature(°C) 	ISO粘度 ISO Viscosity Class	 SHELL	 MOBIL	 BP	润滑油类型 Lubrication type
SKM	-10 ~ +40	VG220	Shell Omala 220	Mobil gear 630	BP Energol GX-XP 220	矿物油 Mineral oil
	-20 ~ +25	VG150 VG100	Shell Omala 100	Mobil gear 627	BP Energol GX-XP 100	
	-30 ~ +10	VG68-46 VG32	Shell Omala T32	Mobil D.T.E.13M		
	-40 ~ -20	VG22 VG15	Shell Omala T15	Mobil D.T.E.11M	BP Energol HLP-HM 15	
	-40 ~ +80	VG220	Shell Omala HD220	Mobil SHC630		合成油 Synthetic oil
	-40 ~ +40	VG150		Mobil SHC629		
	-40 ~ +10	VG32		Mobil SHC624		

润滑油加注量/Lubricant fill quantity

减速机型号 Gear units		加注量 Fill quantity in liters				单位 : 升 (L)	
		B3	B6	B7	B8	V5	V6
SKM	SKM28B	0.22	0.20*	0.13*	0.15	0.25	0.14
	SKM28C#	0.07	0.04	0.04	0.05	0.08	0.09
	SKM38B	0.42	0.35*	0.24*	0.22	0.46	0.25
	SKM38C#	0.07	0.04	0.04	0.05	0.08	0.09
	SKM48B	0.70	0.58*	0.42*	0.42	0.75	0.45
	SKM48C#	0.13	0.09	0.09	0.09	0.15	0.17
	SKM58B	1.21	0.95*	0.72*	0.67	1.30	0.74
	SKM58C#	0.13	0.09	0.09	0.09	0.15	0.17

规定的加注量为参考值。精准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.....）的减速机相应的标准参考润滑油注入量值。

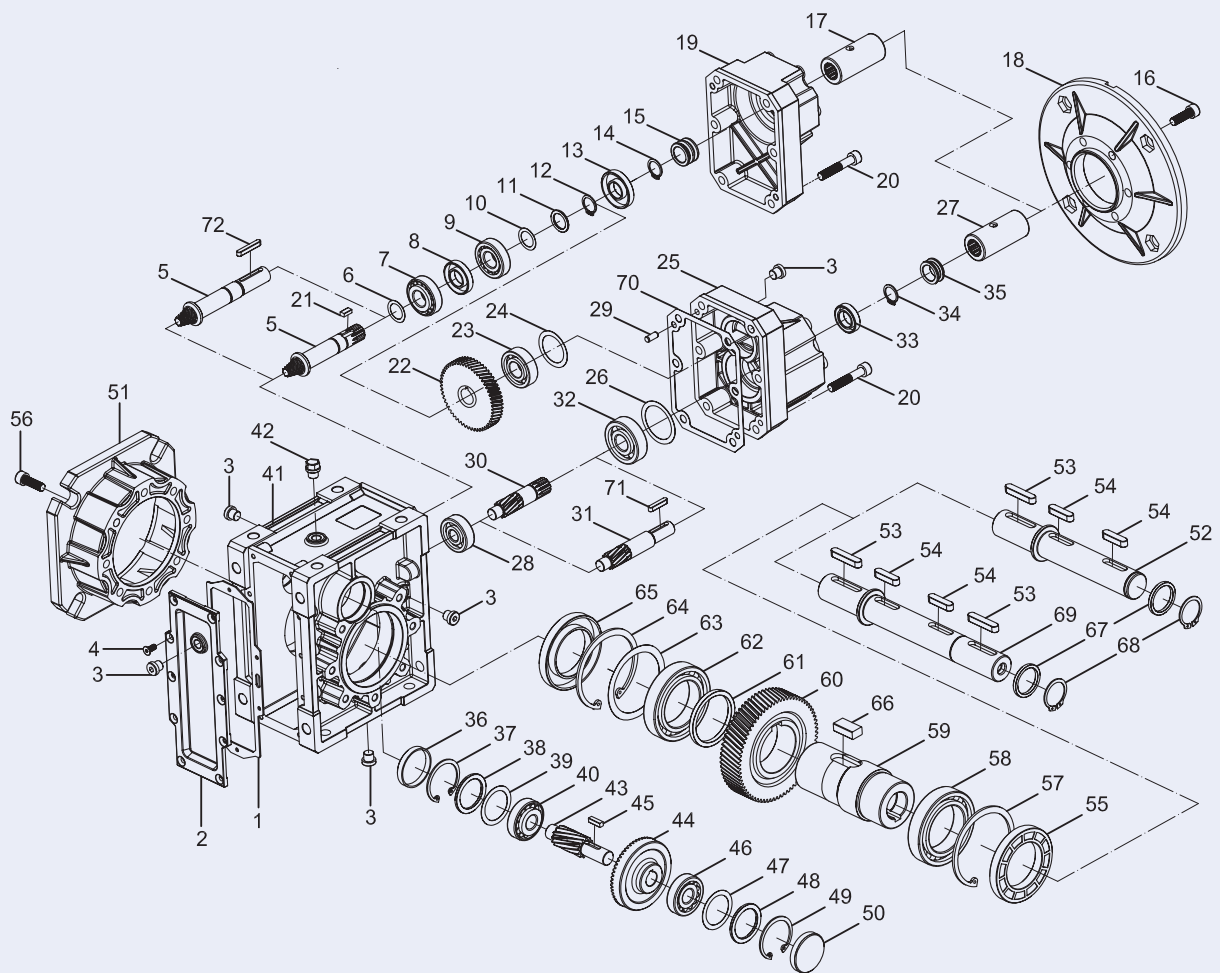
The specified fill quantities are recommended values. The precise values vary depending on the number of stages and gear ratio. When filling, it is essential to check the oil level plug since it indicates the precise oil capacity. The following tables show guide values for lubricant fill quantities in relation to the mounting position (B3、B6、B7.....)

#: 采用3级传动减速机时，各自加注3级箱体和2级箱体的润滑油，润滑油互不相通，表中的加注量为3级箱体润滑油加注量。
#: Means the oil quantity in the 3rd stage housing, as this one is separated from the 2nd housing, please fill them separately while in 3 stages.

*: 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 according to the oil level line plug, but also higher the plug the fill quantity as shown in the table.

产品构造原理 / PRODUCT STRUCTURE PRINCIPLE



1	橡胶垫 / Rubber gasket	38	垫圈 / Washer
2	齿轮箱盖板 / Gearcase cover	39	调整垫片 / Shim ring
3	油塞 / Oil plug	40	轴承 / Bearing
4	内六角沉头螺钉 / Hexagon sunk screw	41	齿轮箱体 / Gearcase
5	主动齿轮轴 / Pinion shaft	42	透气阀 / Breather valve
6	调整垫片 / Shim ring	43	主动齿轮轴 / Pinion shaft
7	轴承 / Bearing	44	从动齿轮 / Gear
8	油封 / Oil seal	45	键 / Key
9	轴承 / Bearing	46	轴承 / Bearing
10	调整垫片 / Shim ring	47	调整垫片 / Shim ring
11	垫圈 / Washer	48	垫圈 / Washer
12	轴用挡圈 / Shaft-circlip	49	孔用挡圈 / Hole-circlip
13	油封 / Oil seal	50	油封盖 / Closing cap
14	轴用挡圈 / Shaft-circlip	51	输出法兰 / Output flange
15	橡胶套 / Rubber boot	52	单向输出轴 / Single output shaft
16	内六角螺钉 / Inner hex screw	53	键 / Key
17	输入轴 / Input shaft	54	键 / Key
18	输入法兰 / Input flange	55	油封 / Oil seal
19	两级输入箱盖 / 2 stage input box cover	56	内六角螺钉 / Inner hex screw
20	内六角螺钉 / Inner hex screw	57	孔用挡圈 / Hole-circlip
21	键 / Key	58	轴承 / Bearing
22	从动齿轮 / Gear	59	输出轴 / Hollow shaft
23	轴承 / Bearing	60	从动齿轮 / Gear
24	调整垫片 / Shim ring	61	垫圈 / Washer
25	三级输入箱盖 / 3 stage input box cover	62	轴承 / Bearing
26	调整垫片 / Shim ring	63	调整垫片 / Shim ring
27	输入轴 / Input shaft	64	孔用挡圈 / Hole-circlip
28	轴承 / Bearing	65	油封 / Oil seal
29	圆柱销 / Stifte	66	键 / Key
30	主动齿轮 / Pinion	67	垫圈 / Washer
31	主动齿轮轴 / Pinion shaft	68	轴用挡圈 / Shaft-circlip
32	轴承 / Bearing	69	输出双向轴 / Double output shaft
33	油封 / Oil sea	70	密封纸垫 / Housing gasket
34	轴用挡圈 / Shaft-circlip	71	键 / Key
35	橡胶套 / Rubber boot	72	键 / Key
36	油封盖 / Closing cap		
37	孔用挡圈 / Hole-circlip		