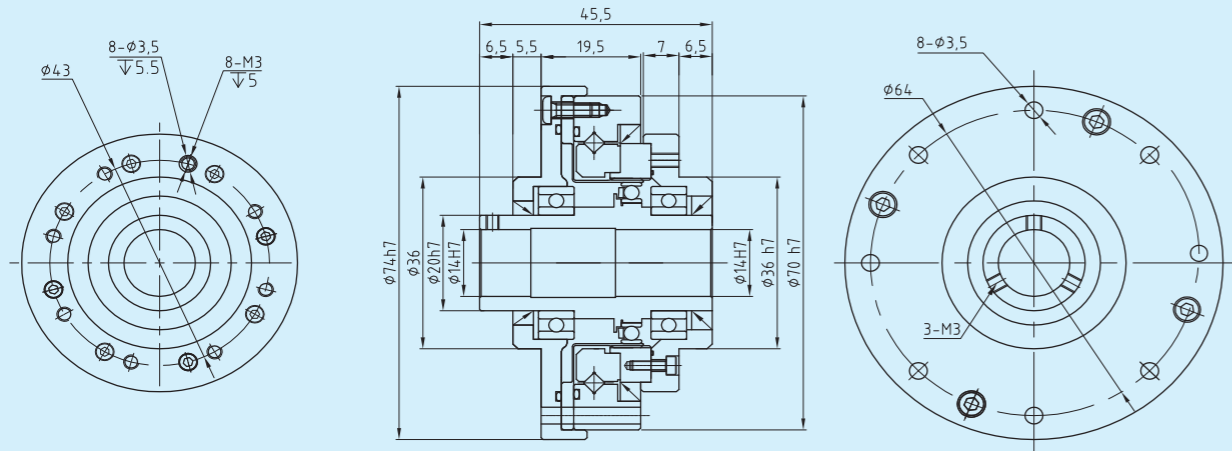
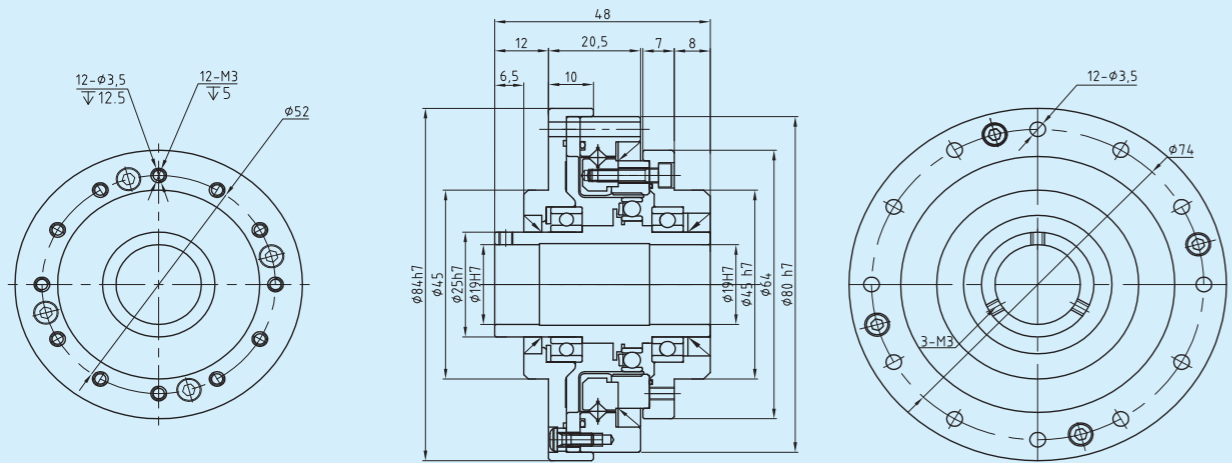


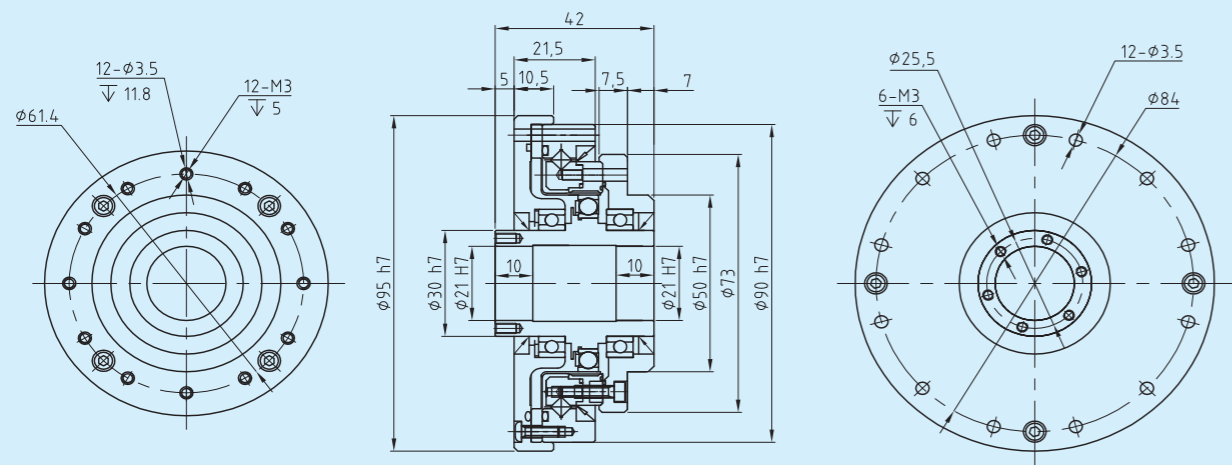
LHD-14-XX-U-III



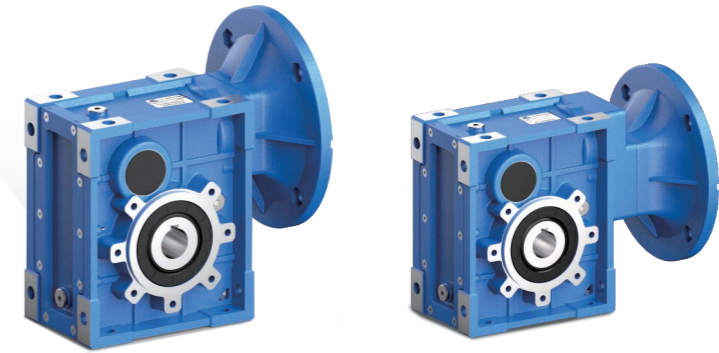
LHD-17-XX-U-III



LHD-20-XX-U-III



※尺寸的详细情况，请使用交货规格图进行确认。



型号说明 / MODEL ILLUMINATE

减速电机 / Geared motor

SKM 38 B - 20.10 - FA1 - SS1 - B3 - (电机规格)

① ② ③ ④ ⑤ ⑥ ⑧ ⑨

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

产品概述 / PRODUCTS OVERVIEW

产品特点 / Products features

SKM系列斜齿-准双曲面齿轮减速机是我公司自主研发的新一代实用性产品。融合了国内外先进技术，具有以下一些主要特点：

1. 采用准双曲面齿轮传动，传动比大；
2. 输出扭矩大，传动效率高，节能环保；
3. 优质铝合金铸造，重量轻，不生锈；
4. 传动平稳，噪音小，适合在恶劣环境中长期连续工作；
5. 美观耐用，体积小；
6. 可适应全方位安装，应用广泛，使用方便；
7. SKM系列减速机安装尺寸与NMRV系列蜗轮蜗杆减速机完全兼容（SKM28与NMRV050部分尺寸不同）；
8. 模块化组合，可多种形式组合，满足各种传动条件的需求。

SKM series helical-hypoid gear units is a new-generation of product developed by our company,with a compromise of advanced technology both at home and abroad,its main features are as follows:

1. Driven by hypoid gear, has big ratios.
2. Large in output torque, high efficiency, energy saving and environmental protection.
3. Made of high-quality aluminum alloy, light in weight and non-rusting.
4. Smooth in running and low in noise, can work long time in dreadful conditions.
5. Good-looking in appearance, durable in service life and small in volume.
6. Suitable for all round installation, wide application and easy of use.
7. The mounting dimension of SKM series are compatible with NMRV series worm gear unit (A part of NMRV050 dimensions are different from SKM28).
8. Modulaw and multistructure can meet the demands of various conditions.

主要材料 / Main materials

1. 外壳：铝合金（机座：28-58）
2. 齿轮：20CrMnTi，渗碳淬火，齿面硬度56-62HRC，精磨后保持渗碳层厚度0.3-0.5mm。

1. Housing: die-cast aluminum alloy (frame size: 28 to 58);
2. Gear wheel: 20CrMnTi, carbonize & quencher heat treatment make the hardness of gear's surface up to 56-62 HRC, retain carburization layer's thickness 0.3 and 0.5mm after precise grinding.

表面涂装 / Surface painting

铝合金外壳：

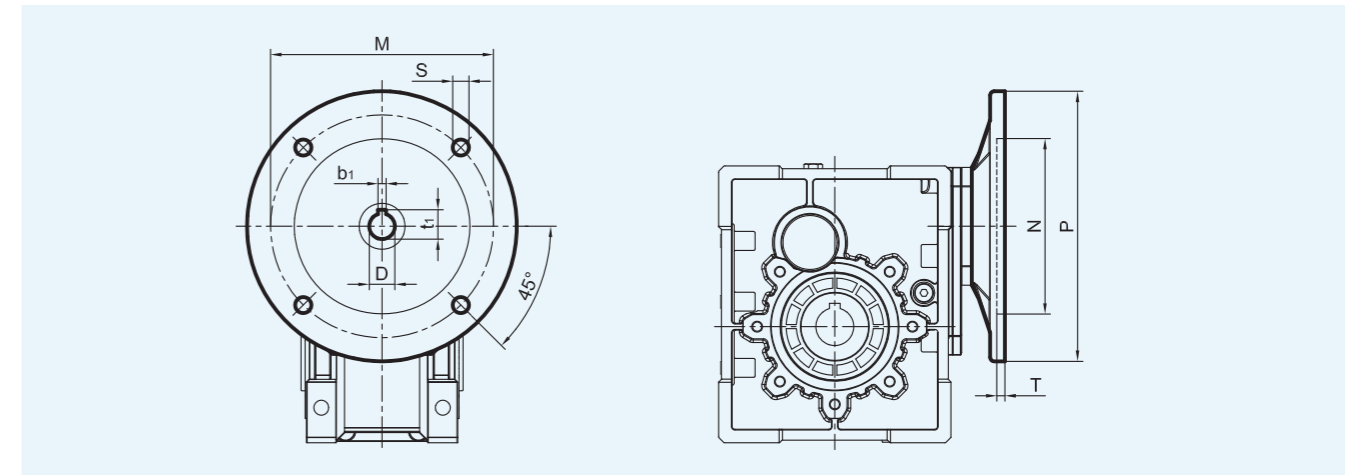
1. 先抛丸处理，再经过特种防腐处理，保持银白金属感，并耐汽油，二甲苯等有机溶剂的腐蚀；
2. 磷化处理后，再喷PAL5010蓝色或银灰色涂料。

Aluminum alloy housing :

1. Shot blasting and special antiseptic treatment on the aluminum alloy surface.
2. After phosphating, spray the paint PAL5010 in blue or in grey.

输入尺寸图表 / INPUT SIZE DIAGRAM

SKM..IEC 输入法兰尺寸/Input Flange Dimension



SKM	IEC接口						键槽/keyway		i(速比/ratio)																	
	PAM-IEC	N	M	P	S	T	b1	t1	7.5	10	12.5	15	20	25	30	40	50	60	75	100	125	150	200	250	300	
									D										B						C	
28	63B5	95	115	140	9	4	4	12.8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
	71B5	110	130	160	9	5	5	16.3	14	14	14	14	14	14	14	14	14	14	14	14	14	14	-	-	-	-
	71B14	70	85	105	7	5	5	16.3	14	14	14	14	14	14	14	14	14	14	14	14	14	14	-	-	-	-
	80B5	130	165	200	11	5	6	21.8	19	19	19	19	19	19	19	19	19	19	19	-	-	-	-	-	-	-
	80B14	80	100	120	7	5	6	21.8	19	19	19	19	19	19	19	19	19	19	19	-	-	-	-	-	-	-
	90B5	130	165	200	11	5	8	27.3	24	24	24	24	24	24	24	24	-	-	-	-	-	-	-	-	-	-
38	63B5	95	115	140	9	4	4	12.8	-	-	-	-	-	-	11	11	11	11	11	11	11	11	11	11	11	11
	71B5	110	130	160	9	5	5	16.3	-	-	-	-	-	14	14	14	14	14	14	14	14	14	-	-	-	-
	71B14	70	85	105	7	5	5	16.3	-	-	-	-	-	14	14	14	14	14	14	14	14	14	-	-	-	-
	80B5	130	165	200	11	5	6	21.8	19	19	19	19	19	19	19	19	19	19	19	-	-	-	-	-	-	-
	80B14	80	100	120	7	5	6	21.8	19	19	19	19	19	19	19	19	19	19	19	-	-	-	-	-	-	-
	90B5	130	165	200	11	5	8	27.3	24	24	24	24	24	24	24	24	24	24	24	-	-	-	-	-	-	-
48	63B5	95	115	140	9	4	4	12.8	-	-	-	-	-	-	-	-	-	-	11	11	11	11	11	11	11	11
	71B5	110	130	160	9	5	5	16.3	-	-	-	-	-	-	14	14	14	14	14	14	14	14	14	14	14	14
	80B5	130	165	200	11	5	6	21.8	-	-	-	19	19	19	19	19	19	19	19	19	19	19	19	19	-	-
	80B14	80	100	120	7	5	6	21.8	-	-	-	19	19	19	19	19	19	19	19	19	19	19	19	19	-	-
	90B5	130	165	200	11	5	8	27.3	24	24	24	24	24	24	24	24	24	24	24	24	-	-	-	-	-	-
	90B14	95	115	140	9	5	8	27.3	24	24	24	24	24	24	24	24	24	24	24	24	-	-	-	-	-	-
58	100/112B5	180	215	250	13	5	8	31.3	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
	100/112B14	110	130	160	9	5	8	31.3	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
	63B5	95	115	140	9	4	4	12.8	-	-	-	-	-	-	-	-	-	-	11	11	11	11	11	11	11	11
68	71B5	110	130	160	9	5	5	16.3	-	-	-	-	-	-	-	-	-	-	14	14	14	14	14	14	14	14
	80B5	130	165	200	11	5	6	21.8	-	-	-	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
	80B14	80	100	120	7	5	6	21.8	-	-	-	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
	90B5	130	165	200	11	5	8	27.3	24	24	24	24	24	24	24	24	24	24	24	24	-	-	-	-	-	-
	90B14	95	115	140	9	5	8	27.3	24	24	24	24	24	24	24	24	24	24	24	24	24	-	-	-	-	-
	100/112B5	180	215	250	13	5	8	31.3	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
100/112B14	110	130	160	9	5	8	31.3	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	
68																										

减速机选型表 / GEAR UNIT SELECTION TABLES

SKM 28..减速机组合表 ($n_1 = 1400\text{r/min}$)

SKM 28..Possible geometrical combinations ($n_1 = 1400\text{r/min}$)

130Nm

减速机型号 Gear units	i 公称 Nominal	i 实际 Actual	n_2 [r/min]	M_{2max} [Nm]	F_{r2} [N]	MV63	MV71	MV80	MV90
3级/Stage									
SKM28C	300	303.19	4.6	130	4100				
SKM28C	250	256.09	5.5	130	4100				
SKM28C	200	205.11	6.8	130	4100				
SKM28C	150	151.82	9.2	130	4000				
SKM28C	125	127.76	11	100	3770				
SKM28C	100	102.32	13.7	80	3560				
SKM28C	75	75.74	18.5	130	3220				
2级/Stage									
SKM28B	60	59.55	23.5	130	2960				
SKM28B	50	50.30	27.8	130	2790				
SKM28B	40	40.29	34.7	130	2610				
SKM28B	30	29.82	46.9	130	2350				
SKM28B	25	25.10	55.8	130	2200				
SKM28B	20	20.10	69.7	100	2080				
SKM28B	15	14.88	94.1	80	1880				
SKM28B	12.5	12.83	109.1	130	1770				
SKM28B	10	10.28	136.2	100	1670				
SKM28B	7.5	7.61	184	80	1510				

SKM 38..减速机组合表 ($n_1 = 1400\text{r/min}$)

SKM 38..Possible geometrical combinations ($n_1 = 1400\text{r/min}$)

200Nm

减速机型号 Gear units	i 公称 Nominal	i 实际 Actual	n_2 [r/min]	M_{2max} [Nm]	F_{r2} [N]	MV63	MV71	MV80	MV90
3级/Stage									
SKM38C	300	302.36	4.6	200	4800				
SKM38C	250	255.39	5.5	200	4800				
SKM38C	200	204.54	6.8	180	4800				
SKM38C	150	149.26	9.4	200	4650				
SKM38C	125	127.41	11	180	4330				
SKM38C	100	102.04	13.7	150	4070				
SKM38C	75	74.46	18.8	110	3650				
2级/Stage									
SKM38B	60	59.55	23.5	200	3430				
SKM38B	50	50.30	27.8	200	3190				
SKM38B	40	40.29	34.7	180	2970				
SKM38B	30	29.40	47.6	200	2720				
SKM38B	25	25.10	55.8	180	2530				
SKM38B	20	20.10	69.7	150	2380				
SKM38B	15	14.67	95.4	110	2130				
SKM38B	12.5	12.83	109.1	180	2030				
SKM38B	10	10.28	136.2	150	1910				
SKM38B	7.5	7.50	186.7	110	1710				

减速机选型表 / GEAR UNIT SELECTION TABLES

SKM 48..减速机组合表 ($n_1 = 1400\text{r/min}$)

SKM 48..Possible geometrical combinations ($n_1 = 1400\text{r/min}$)

350Nm

减速机型号 Gear units	i 公称 Nominal	i 实际 Actual	n_2 [r/min]	M_{2max} [Nm]	F_{r2} [N]	MV63	MV71	MV80	MV90	MV100	MV112
3级/Stage											
SKM48C	300	302.72	4.6	350	6500						
SKM48C	250	255.69	5.5	350	6500						
SKM48C	200	204.78	6.8	300	6500						
SKM48C	150	149.44	9.4	350	6500						
SKM48C	125	127.56	11	300	5980						
SKM48C	100	102.16	13.7	240	5520						
SKM48C	75	74.55	18.8	200	5040						
2级/Stage											
SKM48B	60	59.55	23.5	350	4660						
SKM48B	50	50.30	27.8	350	4340						
SKM48B	40	40.29	34.7	300	4080						
SKM48B	30	29.40	47.6	350	3720						
SKM48B	25	25.10	55.8	300	3500						
SKM48B	20	20.10	69.7	240	3230						
SKM48B	15	14.67	95.4	200	2950						
SKM48B	12.5	12.83	109.1	300	2770						
SKM48B	10	10.28	136.2	240	2550						
SKM48B	7.5	7.50	186.7	200	2330						

SKM 58..减速机组合表 ($n_1 = 1400\text{r/min}$)

SKM 58..Possible geometrical combinations ($n_1 = 1400\text{r/min}$)

500Nm

减速机型号 Gear units	i 公称 Nominal	i 实际 Actual	n_2 [r/min]	M_{2max} [Nm]	F_{r2} [N]	MV63	MV71	MV80	MV90	MV100	MV112
3级/Stage											
SKM58C	300	303.73	4.6	500	8300						
SKM58C	250	256.55	5.5	500	8300						
SKM58C	200	205.47	6.8	480	8300						
SKM58C	150	149.94	9.3	500	8050						
SKM58C	125	127.98	11	480	7580						
SKM58C	100	102.50	13.7	380	7000						
SKM58C	75	74.80	18.7	300	6390						
2级/Stage											
SKM58B	60	59.55	23.5	500	5890						
SKM58B	50	50.30	27.8	500	5500						
SKM58B	40	40.29	34.7	480	5170						
SKM58B	30	29.40	47.6	500	4710						
SKM58B	25	25.10	55.8	480	4430						
SKM58B	20	20.10	69.7	380	4090						
SKM58B	15	14.67	95.4	300	3730						
SKM58B	12.5	12.83	109.1	480	3510						
SKM58B	10	10.28	136.2	380	3240						
SKM58B	7.5	7.50	186.7	300	2950						

减速机选型表 / GEAR UNIT SELECTION TABLES

SKM68..减速机组合表 ($n_1 = 1400r/min$)

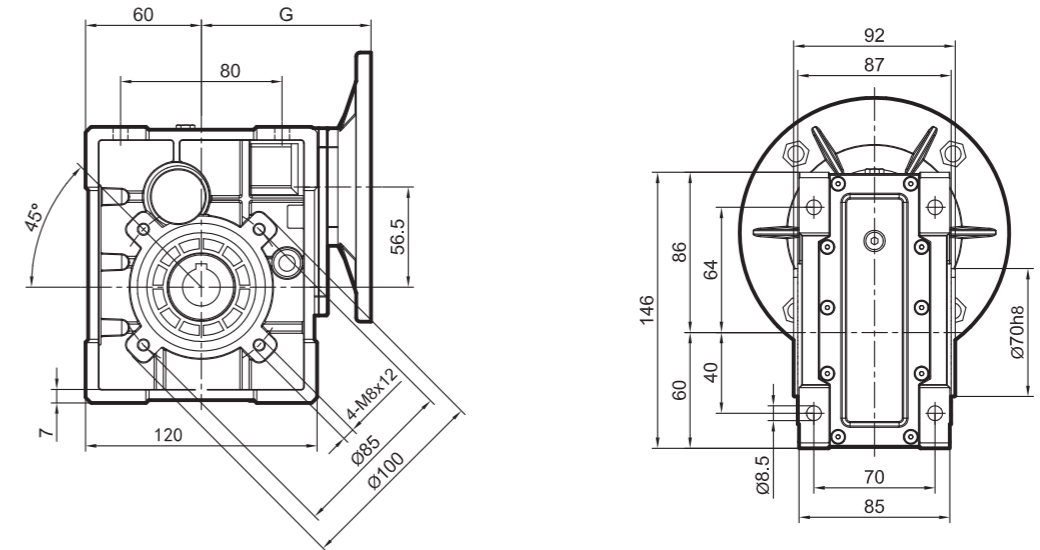
SKM68..Possible geometrical combinations ($n_1 = 1400r/min$)

350Nm

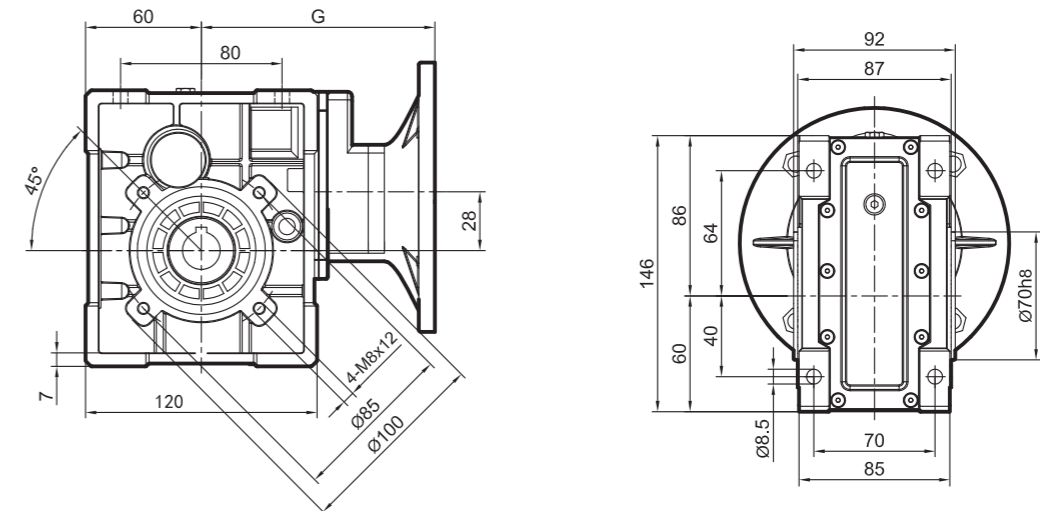
减速机型号 Gear units	i 公称 Nominal	i 实际 Actual	n_2 [r/min]	M_{2max} [Nm]	F_{r2} [N]	MV63	MV71	MV80	MV90	MV100	MV112
3级/Stage											
SKM68C	300	296.10	4.7	750	10000						
SKM68C	250	244.29	5.7	750	10000						
SKM68C	200	206.29	6.8	750	9920						
SKM68C	150	153.33	9.1	750	8980						
SKM68C	125	129.48	10.8	750	8490						
SKM68C	100	103.64	13.5	650	7880						
SKM68C	75	75.55	18.5	520	7090						
2级/Stage											
SKM68B	60	59.22	24	750	6540						
SKM68B	50	48.86	29	750	6130						
SKM68B	40	41.26	34	750	5800						
SKM68B	30	30.67	46	750	5250						
SKM68B	25	25.90	54	750	4960						
SKM68B	20	20.73	68	650	4610						
SKM68B	15	15.11	93	520	4150						
SKM68B	12.5	12.84	109	750	3930						
SKM68B	10	10.27	136	650	3650						
SKM68B	7.5	7.49	187	520	3280						

外形尺寸图表 / OUTLINE DIMENSION SHEET

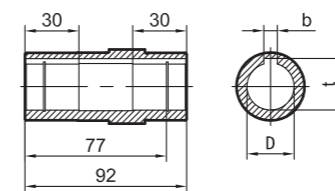
SKM28-B-IEC



SKM28-C-IEC



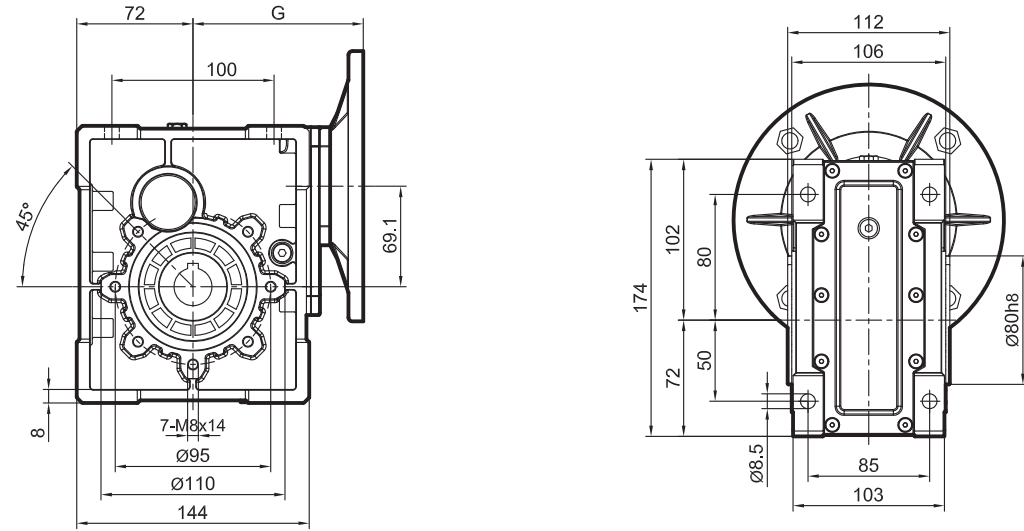
输出孔/Output hole



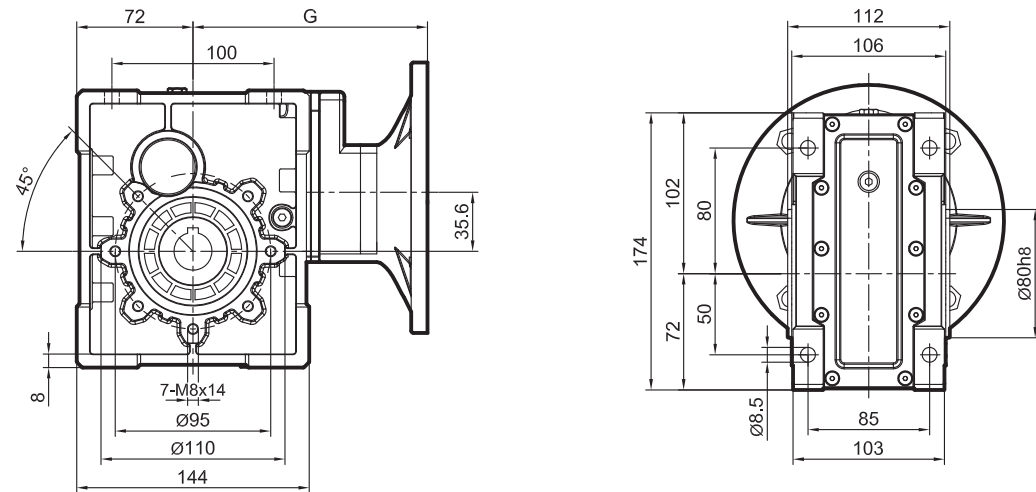
IEC	SKM	G	D _{H8}	b	t	SKM	Kg(重量)
63B5	28B	101.5	20*	6	22.8	28B	4.2
	28C	119.5	25	8	28.3	28C	5
71B5/B14	28B	102.5	*非标孔, 订单时请说明。 *Only on request		不包括马达 Weight without motor		
	28C	120.5					
80B5/B14	28B	122.5					
90B5/B14	28B	122.5					

外形尺寸图表 / OUTLINE DIMENSION SHEET

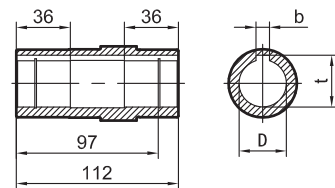
SKM38-B-IEC



SKM38-C-IEC



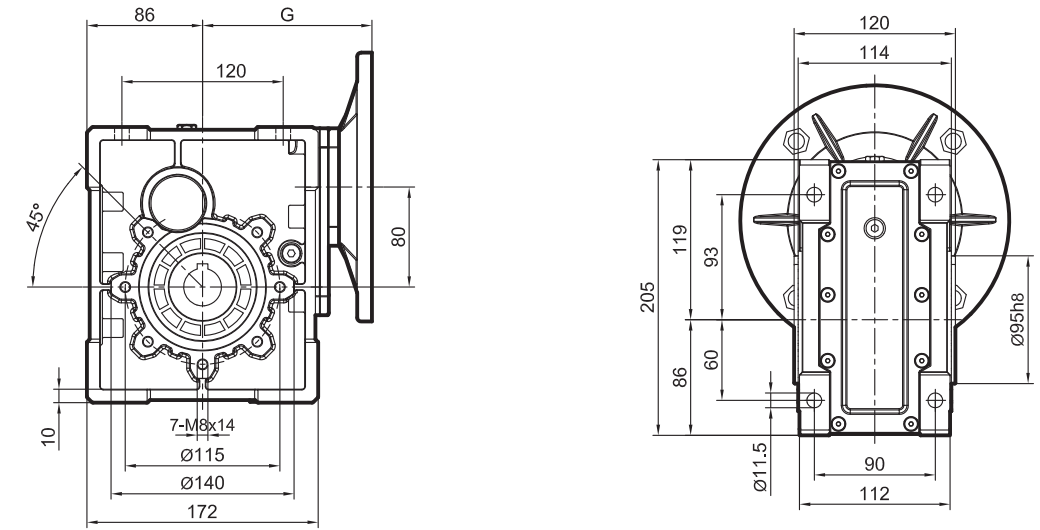
输出孔/Output hole



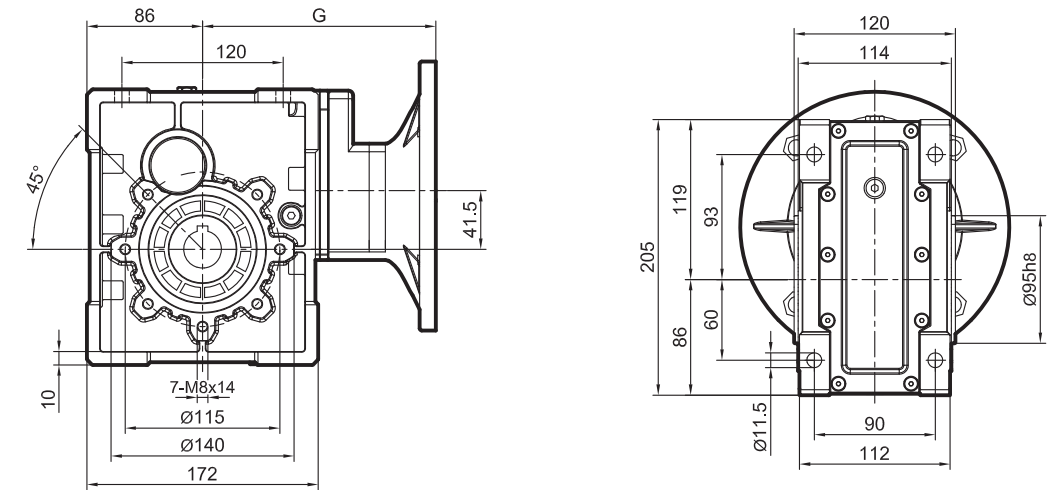
IEC	SKM	G	D _{H8}	b	t	SKM	Kg(重量)
63B5	38B	112.5	25	8	28.3	38B	6.0
	38C	137.5	28*	8	31.3	38C	6.8
71B5/B14	38B	119.5	*非标孔, 订单时请说明。 *Only on request	8	31.3	不包括马达 Weight without motor	
	38C	144.5					
80B5/B14	38B	139.5		8	31.3		
	38C	164.5					
90B5/B14	38B	139.5		8	31.3		

外形尺寸图表 / OUTLINE DIMENSION SHEET

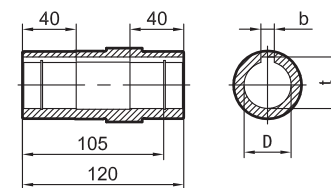
SKM48-B-IEC



SKM48-C-IEC



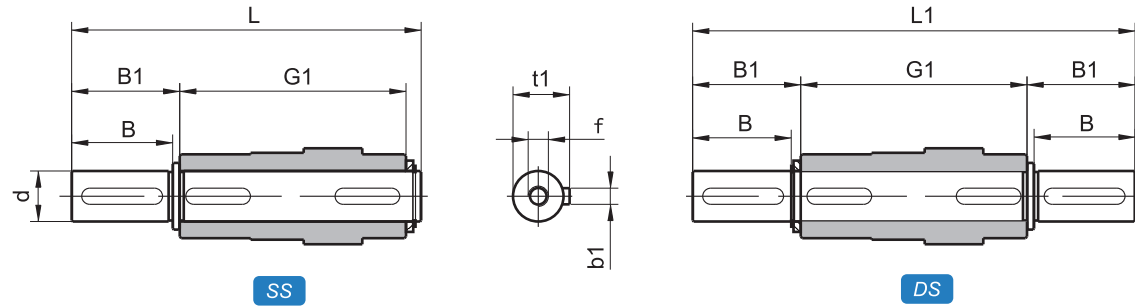
输出孔/Output hole



IEC	SKM	G	D _{H8}	b	t	SKM	Kg(重量)
63B5	48C	154	28	8	31.3	48B	9.2
71B5	48B	161	30*	8	33.3	48C	10.8
	48C	191	35*	10	38.3		
80B5/B14	48B	151	*非标孔, 订单时请说明。 *Only on request	8	31.3	不包括马达 Weight without motor	
	48C	181					
90B5/B14	48B	151		8	31.3		
	48C	181					
100/112B5	48B	161		8	31.3		
100/112B14	48B	161		8	31.3		

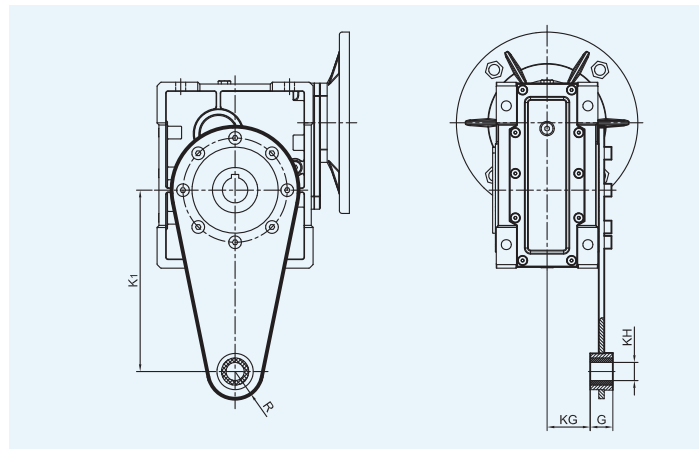
附件尺寸图表 / ACCESSORIES DIMENSION SHEET

输出轴/Output Shafts



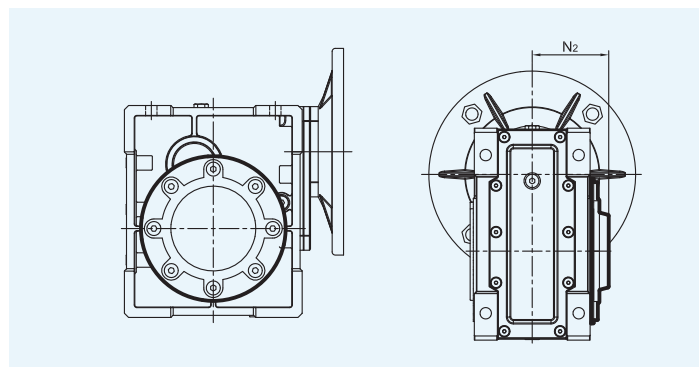
SKM	d _{h6}	B	B ₁	G ₁	L	L ₁	f	b ₁	t ₁
28	25	50	53.5	92	153	199	M10*27	8	28
38	25	50	53.5	112	173	219	M10*27	8	28
48	28	60	63.5	120	192	247	M10*27	8	31
58	35	80	84.5	140	234	309	M12*34	10	38

扭力臂/Torque Arm



SKM	K1	G	KG	KH	R
28	100	14	38.5	10	18
38	150	14	49	10	18
48	200	25	47.5	20	30
58	200	25	57.5	20	30

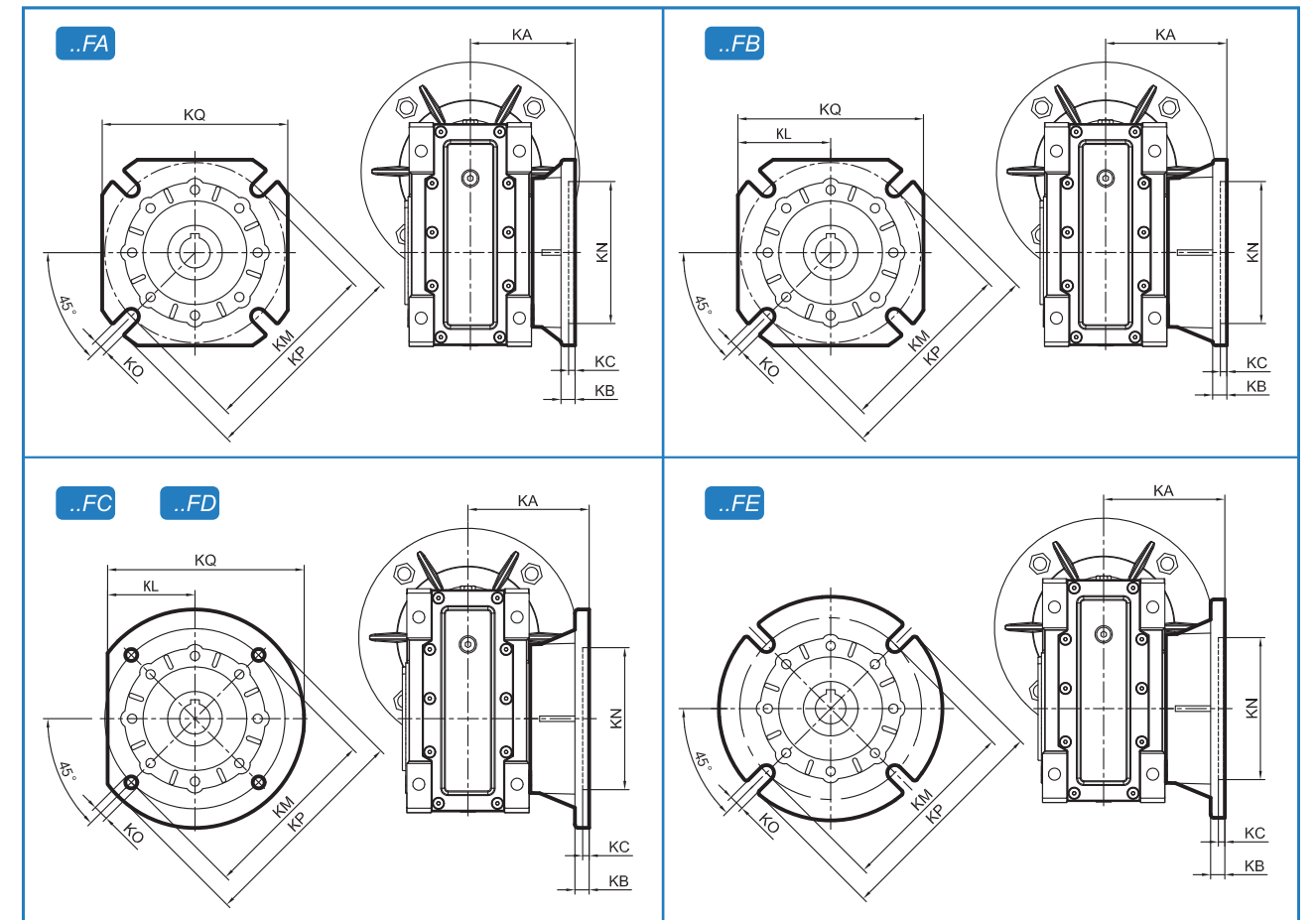
防尘盖/Cover



SKM	N2
28	58
38	69
48	74
58	85

附件尺寸图表 / ACCESSORIES DIMENSION SHEET

输出法兰 / Output flange



SKM	FA							
	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
28	90	9	5	85	70	11(n=4)	125	110
38	82	10	6	150	115	11(n=4)	180	142
48	111	13	6	165	130	14(n=4)	200	170
58	111	13	6	175	152	14(n=4)	210	200

SKM	FC								
	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KL
28	89	10	5	130	110	9(n=4)	160	-	66
38	98	10	5	165	130	11(n=4)	200	-	80
58	110	17	6	165	130	11(n=4)	200	-	-

SKM	FB								
	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KL
28	120	9	5	85	70	11(n=4)	125	110	-
38	112	10	6	150	115	11(n=4)	180	142	-
48	90	13	6	130	110	11(n=4)	160	-	-
58	122	18	6	215	180	14(n=4)	250	-	105

SKM	FD								
	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KL
28	72	14.5	5	115	95	11(n=4)	140	-	60
38	107	10	5	165	130	11(n=4)	200	-	80
58	151	13	6	175	152	14(n=4)	210	200	-

SKM	FE			
	KA	KB	KC	KP
38	80.5	16.5	5	160

* 当KQ不存在时, 说明法兰为圆形。
* If KQ isn't existing, the flange is circular.

* 当KL存在时, 说明法兰为圆形且切边。
* If KQ is existing, the flange isn't completely circular.