

系列斜齿轮减速机

G SERIES HELICAL GEARED MOTORS



上海毅源液压传动设备有限公司

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结构特点 STRUCTURE FEATURES

- 铝合金和铸铁两种箱体，外型美观，分为底脚安装和法兰安装两种机座，适应全方位的安装；
 - 高强度合金材料的斜齿轮，结构更紧凑，箱体体积更小，效率更高，输出扭矩更大；
 - 精密加工的硬齿面传动齿轮，变形小，精度高，平稳运转，噪音低，能适应在恶劣环境中长期连续工作；
 - 输出轴直径分为 $\varnothing 18$ 、 $\varnothing 22$ 、 $\varnothing 28$ 、 $\varnothing 32$ 、 $\varnothing 40$ 、 $\varnothing 50$ 六种规格；
 - 两级或三级传动，速比范围大，每个机座具有从5: 1到200: 1的14种减速比；
 - 采用优质轴承，延长使用寿命；
 - 高性能的油封可防止润滑油回漏电机内部；
 - 三相电机：采用标准全封闭型专用铝壳电机，具较佳防水性，易散热及运转效率高；
 - 模块化组合使传动比范围拓展至： $i = 5: 1 \sim 1400: 1$ 。
-
- Two types of housings: Aluminum alloy and cast iron; Two kinds of frames: foot mounting and flange mounting. They are good-looking in appearance, suitable for universal mount.
 - Helical gear with the high-tensile alloy material makes the construction more compact, housing smaller, efficiency higher, output torque larger.
 - Hardened facing transmission gear that fine finished has the advantages below: seldom distortion, high precision, stable running, low noise, It also can work continually under the dreadful conditions.
 - With 6 specification for the diameter of output shaft: $\varnothing 18$ 、 $\varnothing 22$ 、 $\varnothing 28$ 、 $\varnothing 32$ 、 $\varnothing 40$ 、 $\varnothing 50$.
 - Two or three-stage transmission, large in ratio range, each single frame size with 14 ratios from 5:1 to 200:1.
 - Using high quality bearing prolongs the use life.
 - High-performance oil seal prevents the lubricant from leaking back to the inner of motor.
 - Three-phase motor combined the standard and full-enclosed aluminum motor, which is good in waterproof, easy in heat dissipation, high in running efficiency.
 - Modular combination extends the transmission ratio from $i=5:1$ to 1400:1.

表面涂装 SURFACE PAINTING

- 抛丸处理后，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）；
 - 磷化处理后，喷涂蓝色和灰色两种涂料。
-
- Shot blasting firstly and then special antiseptic treatment on aluminum alloy surface (remain the metalline silver white; also is corrosion resistance to organic solvent, such as gasoline, xylene and so on).
 - After phosphating, painted with blue and gray coating.

型号标记 MODEL & MARK

● G 系列减速器 G Series model reducer

G F M - 28 - 030 - T040
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No	说 明	Comments
1	型号代码	Model code
2	安装方式 1). F : 法兰安装 2). L : 底脚安装	Mount mode 1). F : Flange mounted 2). L : Foot-mounted
3	动力方式 1). M : 标准型(电机不带制动器) 2). B : 制动型(电机带制动器) 3). S : IEC输入 4). 无字符表示轴输入	Power mode 1). M : Standard model (motor without brake) 2). B : Brake model(motor with brake) 3). S : IEC input 4). Without character means shaft input
4	输出轴直径 (Ø18; Ø22; Ø28; Ø32; Ø40; Ø50)	Output shaft diameter (Ø18; Ø22; Ø28; Ø32; Ø40; Ø50)
5	减速器速比 (i = 5; 10; 15; 20; 25; 30; 40; 50; 60; 80; 100; 120; 160; 200)	Speed ratio of reducer (i = 5; 10; 15; 20; 25; 30; 40; 50; 60; 80; 100; 120; 160; 200)
6	电机功率 (0.1; 0.20; 0.40; 0.75; 1.5; 2.2KW) 1). T : 三相电机 2). 不带 T 表示单相电机 3). (...): IEC 电机功率	Motor power (0.1; 0.20; 0.40; 0.75; 1.5; 2.2KW) 1). T : Three phase motor 2). Without T means single phase motor 3). (...) IEC Motor power

● 无级变速器配IEC输入型减速器

Combination of speed variator and and IEC input reducer

UDL - 075 - G F S - 28 - 030
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No	说 明	Comments
1	铝合金机壳无级变速器代号	Code of aluminium alloy casing speed variator
2	电机功率	Motor power (0.18; 0.37; 0.75KW)
3	型号代码	Model code
4	安装方式 1). F : 法兰安装 2). L : 底脚安装	Mount mode 1). F : Flange mounted 2). L : Foot-mounted
5	S : 表示IEC输入	S : Means IEC input
6	输出轴直径 (Ø18; Ø22; Ø28; Ø32; Ø40; Ø50)	Output shaft diameter (Ø18; Ø22; Ø28; Ø32; Ø40; Ø50)
7	减速器速比 (i = 5; 10; 15; 20; 25; 30; 40; 50; 60; 80; 100; 120; 160; 200)	Speed ratio of reducer (i = 5; 10; 15; 20; 25; 30; 40; 50; 60; 80; 100; 120; 160; 200)

减速器机型选定 SELECT THE REDUCER TYPE

	GLM	底脚式带三相电机减速器 Three-phase motor reducer with foot	page12
	GFM	法兰式带三相电机减速器 Three-phase motor reducer with flange	page13
	GLS	底脚式IEC输入型减速器 IEC input reducer with foot	page14
	GFS	法兰式IEC输入型减速器 IEC input reducer with flange	page15
	GL	底脚式轴输入型减速器 Shaft input reducer with foot	page16
	GF	法兰式轴输入型减速器 Shaft input reducer with flange	page17
	UDL-GLS	无级变速器配底脚式IEC输入型减速器 Combination of speed variator and IEC input reducer with foot	page18
	UDL-GFS	无级变速器配法兰式IEC输入型减速器 Combination of speed variator and IEC input reducer with flange	page19

定货须知 NOTICE FOR ORDER

用户在订购本公司 G 系列减速器产品时，请向本公司说明以下产品信息：

- 减速器的基本参数（包括型号代码、安装方式、动力方式、输出轴直径、速比、电机功率）；
- 外壳喷涂：如无指定，所有本公司的 G 系列减速机和电机外壳均为蓝色，如有指定，可按用户要求喷涂。

The customer should provide us the following information when you want to order G series reducers from our company:

- Basic parameters of reducer (including model code、mount mode、motor mode、output shaft diameter、speed ratio、motor power);
- Painting on outside body: the color of G series reducers and motors are painted with blue, also we can paint according to customer's request.

相关参数 RELEVANT PARAMETER

1) 功率 Power

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

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

P₁ 输入功率 Input power**P₂** 输出功率 Output power**P_{1n}** 选用电机功率 Selected motor power**f_s** 使用系数 Service factor**η** 传动效率 Transmission efficiency**G3**系列齿轮减速器的传动效率η为95%。**G3** Series gear units transmission efficiency η=95%.

2) 转速 Rotation speed

n₁ 减速器输入转速 Gear units input speed**n₂** 减速器输出转速 Gear units output speed

选择表中输入转速指的是电机转速为1400r/min，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**M₂**会下降。

which in selection table means the motor rotation speed 1400/min. If driven by the external gearing, 1400r/min or lower rotation speed is suggested so as to optimize the working conditions and prolong the service life. Higher input rotation speed is permitted, but in this situation, the rated torque **M₂** will be reduced.

3) 传动比 i Transmission ratio i

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

传动比通常为小数，在选择表中保留两位小数。

Usually transmission ratio is decimal fraction with 2 radix point tagged in selection tables.

4) 扭矩 Torque

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

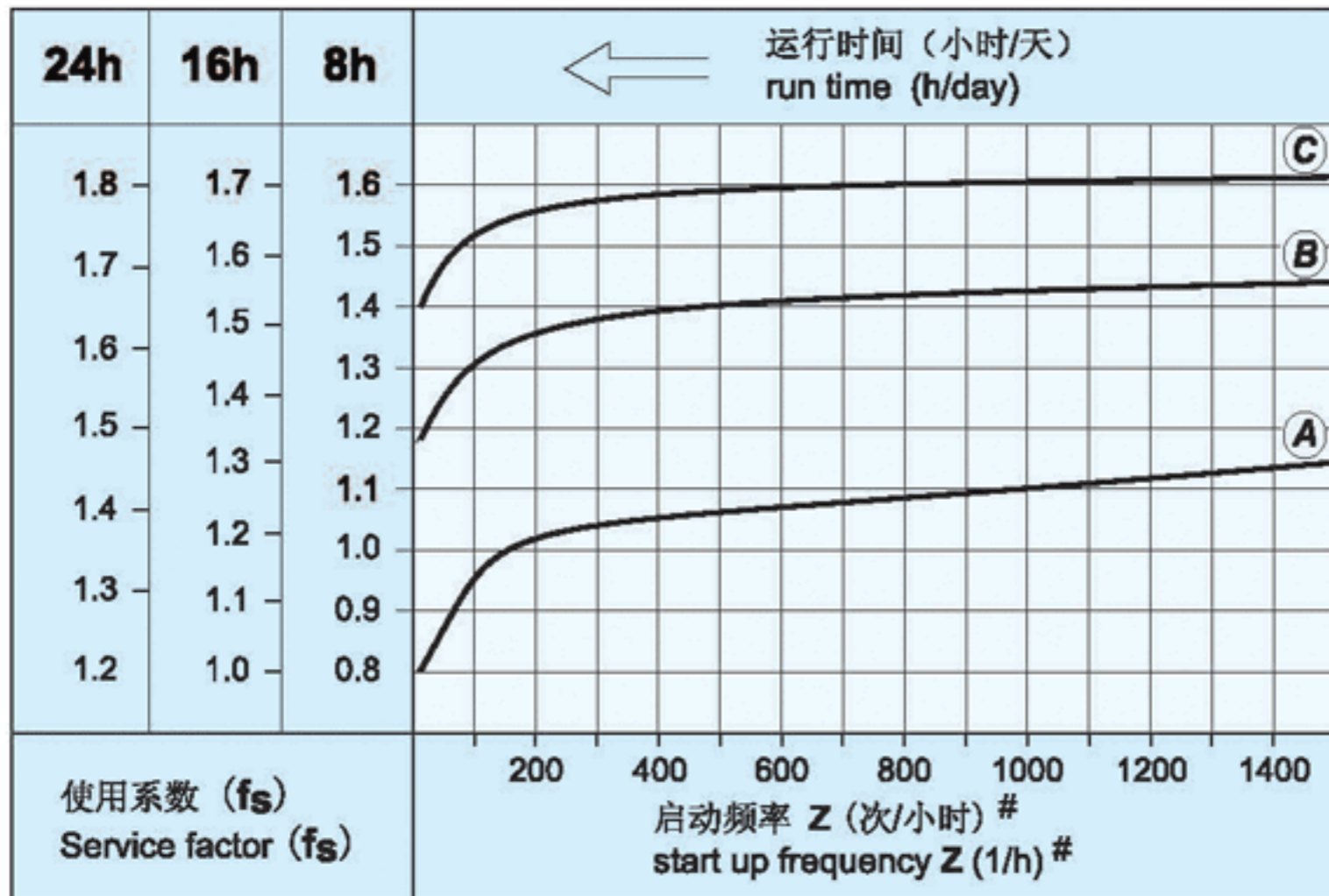
$$M_{2n} \geq M_2 \cdot f_s \text{ [Nm]}$$

M₂ 输出扭矩 Output torque**M_{2n}** 选用输出扭矩 Selected output torque**P₁** 输入功率 Input power**η** 传动效率 Transmission efficiency**f_s** 使用系数 Service factor5) 使用系数 **f_s** Service factor **f_s**

减速器上的从动机构的受驱动效果是用使用系数**f_s**这个系数来衡量的。该使用系数根据每天的运转时间和启动频率Z而定的。三种负载分类取决于惯性加速系数，在下图中可以读取实际应用的使用系数，按这图表选取的使用系数必须小于或者等于性能参数表中提供的使用系数。

The effect of the driven machine on the gear unit is taken into account to a sufficient level of accuracy using the service factor **f_s**. The service factor is determined according to the daily operating time and the

starting frequency Z. Three load classifications are considered depending on the mass acceleration factor. You can read off the service factor applicable to your application in following Figure. The service factor selected using this diagram must be less than or equal to the service factor as given in the performance parameter table.



- # 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。
- # starting frequency Z: The cycles include all starting and braking procedures as well as change overs from low to high speed.

负载类型 load classifications:

- Ⓐ 均匀冲击负载, 允许惯性加速系数 ≤ 0.2
Uniform, permitted mass acceleration factor ≤ 0.2
- Ⓑ 中等冲击负载, 允许惯性加速系数 ≤ 3
Moderate shock load, permitted mass acceleration factor ≤ 3
- Ⓒ 重冲击负载, 允许惯性加速系数 ≤ 10
Heavy shock load, permitted mass acceleration factor ≤ 10

负载类型见附录。

Load classifications see the addendum.

惯性加速系数计算如下:

The mass acceleration factor is calculated as follows:

$$fa = \frac{Jc}{Jm}$$

- fa** 惯性加速系数 Mass acceleration factor
- Jc** 所有外部传动惯量 All external mass moments of inertia (kgm²)
- Jm** 驱动电机的传动惯量 Mass moment of inertia on the motor end (kgm²)

如果惯性加速系数 $fa > 10$, 请与我们技术部联系。

If mass acceleration factors $fa > 10$, please call our Technical Service.

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

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

6) 径向载荷和轴向载荷 F_{r2}

Radial loads & axial loads F_{r2}

在决定影响径向载荷时，安装在轴端上的传动件类型必须考虑在内，不同类型的传动件对应不同传动附加系数 f_z ，列表如下：

When determining the resulting radial loads, the type of transmission elements, mounted on the shaft end must be considered. Various transmission elements are corresponding with following transmission element factors f_z :

传动件 Transmission element	传动附加系数 F_z Transmission element factor F_z	注释 Comments
齿轮 Gears	1.00	≥ 17 齿 teeth
	1.15	< 17 齿 teeth
链轮 Chain sprockets	1.00	≥ 20 齿 teeth
	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 the tensile force
平带轮 Flat belt pulleys	2.50	有预紧力作用 Influence of the tensile force
齿带轮 Toothed belt pulleys	2.50	有预紧力作用 Influence of the 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 overhung loads exerted on the motor or gear shaft is then calculated as follows:

$$F_{r2} = \frac{M_d \cdot 2000 \cdot f_z}{d_0} \text{ [N]}$$

F_{r2} 径向载荷 Radial loads [N]

M_d 扭矩 Orque [Nm]

d_0 所安装传动件的平均直径 Mean diameter of the mounted transmission element [mm]

f_z 传动附加系数 Transmission element factor

选型举例 SELECTION EXAMPLE

1) 减速电机 Gear motor

例：被驱动设备所需功率1kW，工作8小时/天，中等冲击，即可选使用系数 $f_s=1.3$ ，输出转速 $n_2=47r/min$ ，减速机要求底脚安装，则：

Example: Required power 1kW on driven machine, work for 8h/day, moderate shock load, so $f_s=1.3$, M6 foot-mounted, $n_2=47$ r/min

$$i = \frac{n_1}{n_2} = \frac{1400}{47} = 30$$

$$P_{1n} \geq P_1 \cdot f_s = \frac{P_2}{\eta} \cdot f_s = \frac{1}{0.95} \times 1.3 = 1.37 \text{ [kW]}$$

查G系列性能参数表可确定减速电机型号为：

Choose type:

GLM - 40 - 030 - T150

2) 减速器 Gear units

例：被驱动设备所需扭矩为20Nm，工作6小时/天，均匀冲击负载，可选使用系数 $f_s=1.1$ ，输出转速 $n_2=144$ r/min，减速机要求法兰安装，IEC输入。

Example: Reclured torquc 20Nrn on driven machine, work 6h/day, uniform load, so $f_s=1.1, n_2=144$ r/min, flange-mounted, IEC input.

$$i = \frac{n_1}{n_2} = \frac{1400}{144} = 9.72$$

$$M_{2n} \geq M_2 \cdot f_s = 20 \times 1.1 = 22 \text{ [Nm]}$$

$$P_{1n} \geq P_1 \cdot f_s = \frac{M_2 \cdot n_1}{9550 \cdot \eta \cdot i} \cdot f_s = \frac{20 \times 1400}{9550 \times 0.95 \times 9.72} \times 1.1 = 0.349 \text{ [kW]}$$

查G系列性能参数表可确定减速电机型号为：

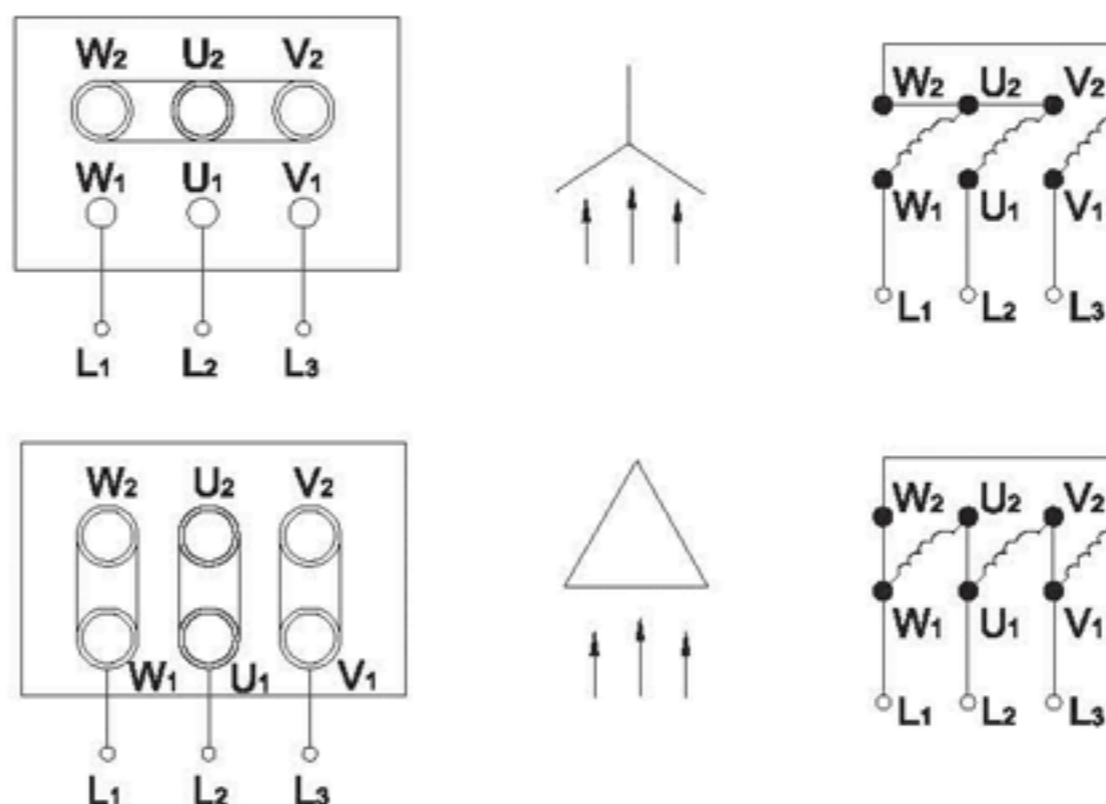
Choose type:

GFS - 22 - 010 - (037)

电动机接线法 MOTOR CONNECTION

电动机的接线板上有6个接线柱，采用星形和三角形接线法接线时，输入的三相电压也不相同，(如下图所示)。任意两根线对调，减速机反转。

There are six connection poles on the motor's connection board, when selecting starlike and triangle connection, three phase pressure inputted will be different(as following drawing shows), if you exchange any two lines, the reducer will reverse.



性能参数 PERFORMANCE PARAMETER

公称速比 Normal ratio		5	10	15	20	25	30	40	50	60	80	100	100	120	160	200		
0.1kW	输出轴 output shaft	Ø18								Ø22								
	实际速比 actual speed ratio	4.97	10.12	15.16	20.08	24.89	30.46	40.11	50.14	62.17	79.12	98.18	-	122.27	155.62	194.52		
	n2* (1/min)	282	138	92	70	58	46	35	28	23	18	14	-	11	9	7		
	M ₂ (Nm)	50Hz	3.2	6.5	9.8	12.9	16.1	19.6	25.7	31.1	37.5	49.5	62.9	-	76.1	100.7	125.4	
		60Hz	3	5	8	11	13	17	21	26	31	41	52	-	63	84	105	
	Fr ₁ (N)	588	882	980	1180	1270	1370	1470	1570	2160	2450	2450	2450	2450	2450	2450	2450	
	Fr ₂ (N)	176																
0.2kW	输出轴 output shaft	Ø18					Ø22					Ø28						
	实际速比 actual speed ratio	4.97	10.12	15.16	20.08	24.89	30.86	39.56	49.09	62.17	79.12	98.18	104.08	120.88	165	196.43		
	n2* (1/min)	282	138	92	70	58	45	35	29	23	18	14	13	12	8	7		
	M ₂ (Nm)	50Hz	6.5	12.6	19.1	26.3	32.6	38.9	50.4	63	75.6	100.8	103.9	125.40	150	200.4	250.7	
		60Hz	5.4	10.5	16.6	21.9	27.1	32.4	42	52.5	63	84	86.6	104.50	125	167	208.9	
	Fr ₁ (N)	588	882	980	1180	1270	1760	1860	1960	2160	2450	2450	2840.00	3330	3430	3430		
	Fr ₂ (N)	196																
0.4kW	输出轴 output shaft	Ø22					Ø28					Ø32						
	实际速比 actual speed ratio	4.86	9.71	15.27	19.43	24.29	30	38.96	48.29	58.22	79.48	98.51	98.29	121.56	158.48	202.5		
	n2* (1/min)	288	144	92	72	58	47	36	29	24	18	14	14	12	9	7		
	M ₂ (Nm)	50Hz	12.9	25	38.6	51.4	65.4	78.2	100.7	125.4	150	200.4	206.8	250.70	301.1	400.7	461.8	
		60Hz	10.7	20.8	32.1	42.9	54.5	65.2	83.9	104.5	125.0	167.0	172.3	208.9	250.9	333.9	384.8	
	Fr ₁ (N)	882	1180	1370	1470	1670	2550	2840	3140	3430	3430	3430	4900	5880	5880	5880		
	Fr ₂ (N)	245																
0.75kW	输出轴 output shaft	Ø28					Ø32					Ø40						
	实际速比 actual speed ratio	5.04	10	14.95	20.4	24.29	30.67	39.69	49.09	59.54	79.38	98.18	98.90	122.08	155.56	194.44		
	n2* (1/min)	278	140	94	69	58	46	35	29	24	18	14	14	11	9	7		
	M ₂ (Nm)	50Hz	24.6	48.2	72.9	97.5	122.1	145.7	187.5	235.7	282.9	376.1	387.9	439	527	703	764	
		60Hz	20.5	40.2	60.7	81.3	201.8	121.4	156.3	196.4	235.7	313.4	323.2	366	439	585	732	
	Fr ₁ (N)	1270	1760	2160	2350	2450	4020	4210	4610	5490	5880	5880	7060	7060	7060	7060		
	Fr ₂ (N)	294																
1.5kW	输出轴 output shaft	Ø32					Ø40					Ø50						
	实际速比 actual speed ratio	5	10	15	20	25.56	30	41.54	51.27	59.34	83.08	102.55	104.72	116.79	165.88	194.37		
	n2* (1/min)	280	140	93	70	55	47	34	27	24	17	14	13	12	8	7		
	M ₂ (Nm)	50Hz	48.2	97.5	145.7	193.9	242.1	272	351	439	527	703	724	878	1080	1230	1230	
		60Hz	40.2	81.3	121.4	161.6	201.8	226	293	366	439	585	603	732	878	1170	1230	
	Fr ₁ (N)	1760	2450	2840	3230	3820	5100	5880	7060	7060	7060	7060	9800	9800	9800	9800		
	Fr ₂ (N)	343																
2.2kW	输出轴 output shaft	Ø40					Ø50											
	实际速比 actual speed ratio	5.14	10.29	14.69	20.57	25.71	30.8	38.82	50.73	59.27	77.45	100.76						
	n2* (1/min)	272	136	95	68	54	45	36	28	24	18	14						
	M ₂ (Nm)	50Hz	67	133	200	266	332	399	515	644	773	1029	1230					
		60Hz	58	111	167	221	277	332	429	537	644	858	1080					
	Fr ₁ (N)	2160	3140	3530	4020	4700	6960	7250	8620	9800	9800	9800						
	Fr ₂ (N)	392																

(“*” : n₁ = 1400r / min 50Hz)

IEC输入型减速器输出扭矩 OUTPUT TORQUE OF IEC INPUT REDUCER

公称速比 Normal ratio		5	10	15	20	25	30	40	50	60	80	100	100	120	160	200	
0.12kW	输出轴 output shaft	Ø18									Ø22						
	M ₂ (Nm)	50Hz	3.9	7.8	11.7	15.4	19.3	23.5	30.9	37.3	45.0	59.4	75.5	—	91.3	120.9	150.4
		60Hz	3.2	6.5	9.8	12.9	16.1	20.4	25.7	31.1	37.5	49.5	62.9	—	76.1	100.7	125.4
0.18kW	输出轴 output shaft	Ø18						Ø22					Ø28				
	M ₂ (Nm)	50Hz	5.9	11.4	17.2	23.6	29.3	35	45.3	56.7	68.1	90.7	93.5	112.8	135	180.3	225.6
		60Hz	4.9	9.5	14.9	19.7	24.4	29.2	37.8	47.3	56.7	75.6	77.9	94	112.5	150.3	188
0.37kW	输出轴 output shaft	Ø22						Ø28					Ø32				
	M ₂ (Nm)	50Hz	11.9	23.1	35.7	47.6	60.5	72.3	93.2	116	138.8	185.3	191.3	231.9	278.5	370.7	427.2
		60Hz	9.9	19.2	29.7	39.6	50.4	60.3	77.6	96.6	115.6	154.4	159.4	193.3	232.1	308.9	356
0.75kW	输出轴 output shaft	Ø28						Ø32					Ø40				
	M ₂ (Nm)	50Hz	24.6	48.2	72.9	97.5	122.1	145.7	187.5	235.7	282.9	376.1	387.9	439	527	703	764
		60Hz	20.5	40.2	60.7	81.3	201.8	121.4	156.3	196.4	235.7	313.4	323.2	366	439	585	732
1.5kW	输出轴 output shaft	Ø32						Ø40					Ø50				
	M ₂ (Nm)	50Hz	48.2	97.5	145.7	193.9	242.1	272	351	439	527	703	724	878	1060	1230	1230
		60Hz	40.2	81.3	121.4	161.6	201.8	226	293	366	439	585	603	732	878	1170	1230
2.2kW	输出轴 output shaft	Ø40						Ø50									
	M ₂ (Nm)	50Hz	67	133	200	266	332	399	515	644	773	1029	1230				
		60Hz	56	111	167	221	277	332	429	537	644	858	1080				

无级变速器配IEC输入型减速器性能参数

PERFORMANCE TABLE FOR COMBINED OF SPEED VARIATOR AND IEC INPUT REDUCER

功率与转速 motor & rev	型号 Model	i	n ₂ r/min	M ₂ N.M	功率与转速 motor & rev	型号 Model	i	n ₂ r/min	M ₂ N.M	
0.18kw 4P n ₁ =1400r/min	UDL0.18-G3-18	5	34.4 ~ 176	7.5 ~ 36.1	0.37kw 4P n ₁ =1400r/min	UDL0.37-G3-28	60	3.4 ~ 17.2	167 ~ 755	
		10	16.9 ~ 86.3	15.3 ~ 73.6			80	2.5 ~ 12.6	228 ~ 1030	
		15	11.3 ~ 57.7	23 ~ 110			100	2 ~ 10.2	283 ~ 1277	
		20	8.5 ~ 43.6	30.4 ~ 146		UDL0.37-G3-32	100	2 ~ 10.2	282 ~ 1274	
		25	6.8 ~ 35.2	37.7 ~ 181			120	1.6 ~ 8.2	349 ~ 1576	
	30	5.5 ~ 28.4	46.8 ~ 224	160			1.3 ~ 6.3	455 ~ 2055		
	40	4.3 ~ 22.1	59.9 ~ 288	200			1 ~ 4.9	581 ~ 2625		
	UDL0.18-G3-22	50	3.5 ~ 17.8	74.4 ~ 357		0.75kw 4P n ₁ =1400r/min	UDL0.75-G3-28	5	39.7 ~ 198	29.3 ~ 132
		60	2.7 ~ 14.1	64.2 ~ 452				10	20 ~ 100	58.2 ~ 263
		80	2.2 ~ 11.1	120 ~ 575				15	13.4 ~ 66.9	87 ~ 393
		100	1.7 ~ 8.9	149 ~ 714				20	9.8 ~ 49	119 ~ 536
		100	1.6 ~ 8.4	158 ~ 757				25	8.2 ~ 41.2	141 ~ 638
		120	1.4 ~ 7.2	183 ~ 877				30	6.5 ~ 32.6	178 ~ 806
		160	1 ~ 5.3	250 ~ 1199				40	5 ~ 25.2	231 ~ 1043
UDL0.18-G3-28	200	0.9 ~ 4.5	298 ~ 1428	UDL0.75-G3-32	50		4.1 ~ 20.4	287 ~ 1290		
	5	41.2 ~ 206	13.9 ~ 63		60		3.4 ~ 16.8	346 ~ 1565		
	10	20.6 ~ 103	27.9 ~ 126		80		2.5 ~ 12.6	462 ~ 2086		
UDL0.37-G3-22	15	13.1 ~ 65.5	43.8 ~ 198		100		2 ~ 10.2	571 ~ 2580		
	20	10.3 ~ 51.5	55.8 ~ 250							
	25	8.2 ~ 41.2	69.7 ~ 315							
	30	6.7 ~ 33.3	86.1 ~ 389							
	40	5.1 ~ 25.7	112 ~ 505							
UDL0.37-G3-28	50	4.1 ~ 20.7	139 ~ 625							

制动型减速器特点和应用

制动型减速器是带有制动电机的减速器。电机制动装置由弹簧、摩擦片、制动板、整流器、线圈等构成，实现通电运转，断电即时制动。电机与制动器一体化设计，结构精巧；摩擦片采用进口高效非石棉材质，可耐高频使用，磨损率低且环保，使用次数可达100万次以上；整流器实现了一个开关就能控制电机启动和紧急停止，制动响应时间短；硬齿面斜齿轮减速器，延长使用寿命，适合用于制动频率高，紧急停止和启动的自动化场合。

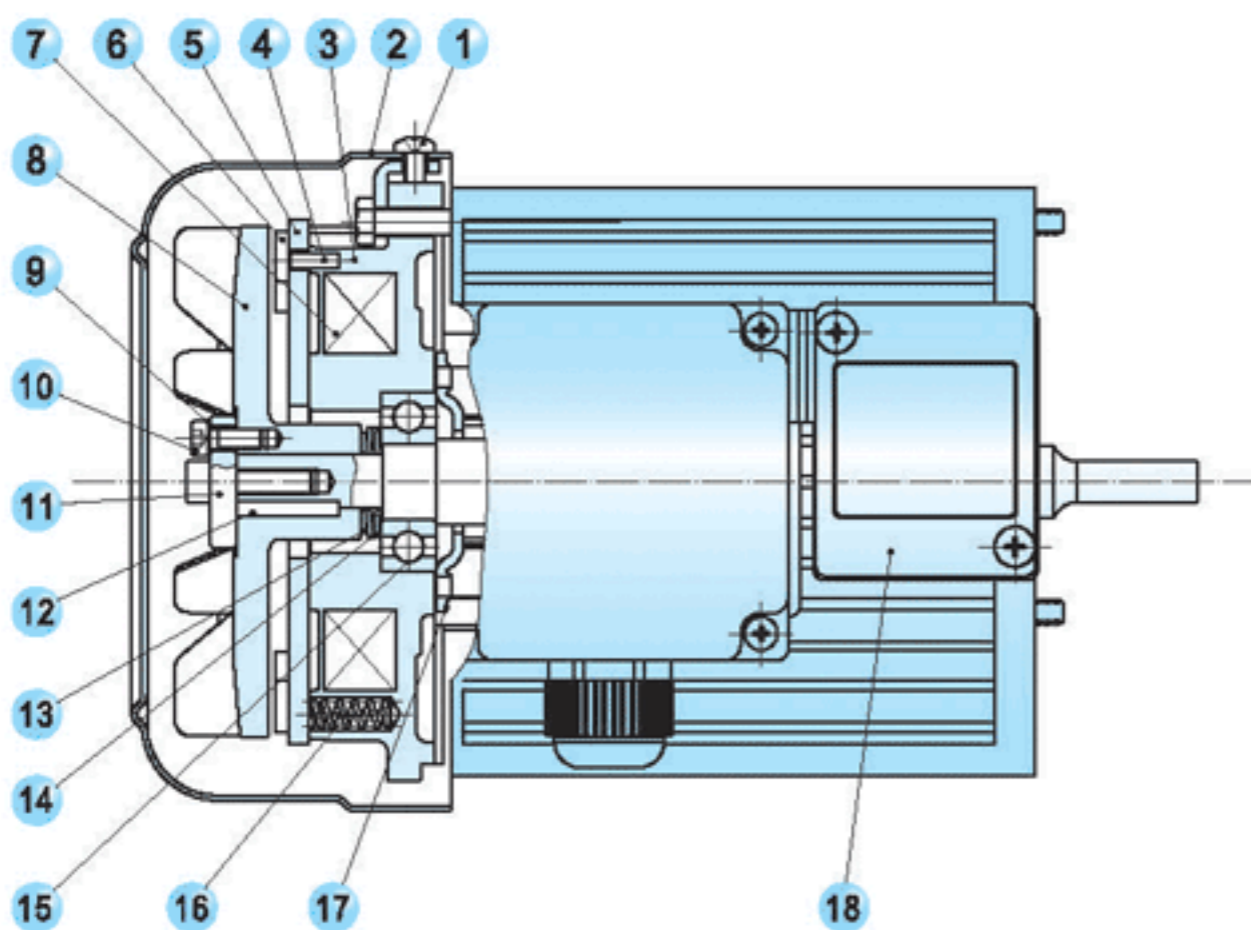
TRAIT OF THE BRAKING REDUCER AND ITS APPLICATION

Braking reducer is the reducer with brake motor. The motor brake apparatus consists of spring, lining, brake plate, rectifier and winding. It realizes running upon power-on condition while braking upon power-off condition. The integrated design of the motor and brake makes the configuration compact; The lining, which uses the imported and high-efficient non-asbestos material, is wearable during high-frequency usage, and low in wear rate, also environment-protected. It can be used more than 1,000,000 times; the rectifier actualizes the controlling motor starting and emergency stop by a switch; and it is short in response time. The hard facing helical gear reducer with a longevity usage is suitable to be applied on the automatic occasion such as high braking frequency, emergency stop and starting.

特性表 CHARACTERISTICS TABLE

功率 power (KW)	额定力矩 rated torque (Nm)	励磁电压 excitation pressure (V)	励磁功率 excitation power (W)	间隙调整工作量 clearance adjust workload (J)	总工作量 overall workload (J)	吸引时间 magnetize time (ms)	释放时间 release time (ms)	间隙 clearance	
								规定值 stated value (mm)	界限值 limited value (mm)
0.2	2	90	20	9X10 ⁷	45X10 ⁷	30	80	0.3	0.7
0.4	4	90	26	15X10 ⁷	75X10 ⁷	30	100	0.3	0.7
0.75	8	90	39.4	30X10 ⁷	100X10 ⁷	60	120	0.3	1
1.5	15	90	48	30X10 ⁷	100X10 ⁷	90	140	0.4	1
2.2	30	90	52.2	50X10 ⁷	160X10 ⁷	90	150	0.4	1

制动器结构图 BRAKE STRUCTURAL VIEW



1. 螺钉 screw
2. 罩壳 fan cover
3. 磁极组 pole group
4. 弹簧销 spring pin
5. 衔铁盘 gag bit plate
6. 摩擦片 friction piece
7. 线圈 winding
8. 制动板 brake board
9. 弹簧垫片 spring washer
10. 内六角螺钉 inner hex screw
11. 间隙调整螺钉 clearance adjust screw
12. 平键 key
13. 间隙垫片 clearance washer
14. 碟形弹簧 papilionaceous spring
15. 轴承 bearing
16. 制动弹簧 brake spring
17. 轴承压扣 bearing press buckle
18. 电源装置 electrical source set

G 系列减速器已添加壳牌Alvania GL 00合成润滑油脂，在正常条件下首次运转20,000小时可不必更换可不必更换润滑油脂，但在特殊环境条件下运转时，如高温、长时间运转、重冲击载荷等，则换油频率为10,000-15,000小时。

G series reducers are supplied with lubricant, synthetic oil, SHELL Alvania GL00 before delivery, It doesn't need to replace lubricant for first 20,000 hours running, But if works in special application, Such as high temperature, long-time running heavy impact load, It should be changed every 10,000-15,000 working hours.

润滑油脂 LUBRICANT GREASE

	标准 Standard	ISO	SHELL	MOBIL	BP	冠格爾	广研	
G...	-15 +40	000 - 0	Alvania GL 00	Mobilux EP 00	Energrease LS-EP 00	8125A 00		合成油 Synthetic oil
	-25 +60	00	Tivela GL 00	Glygoyle Grease 00				合成油 Synthetic oil
UDL ...	-25 +40	VG32	A.T.F.DXRON	A.T.F.220	Autran DX		Ub3	矿物油 Mineral oil

油量 QUANTITY OF LUBRICANT

输出轴 output shaft	Ø18	Ø22	Ø28	Ø32	Ø40	Ø50
油量 (g) quantity of lubricant (g)	140	200	400	600	900	1600

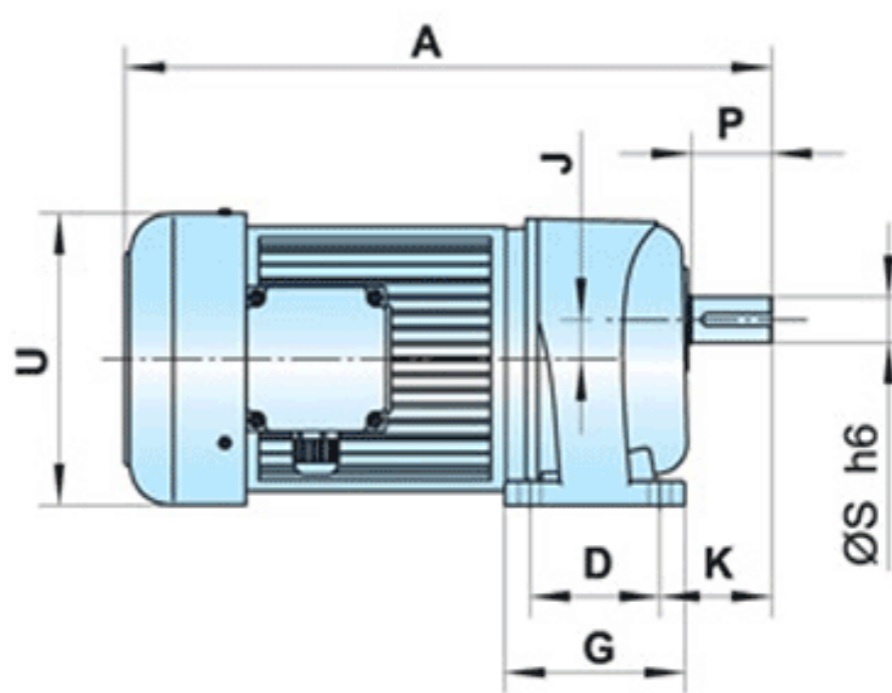
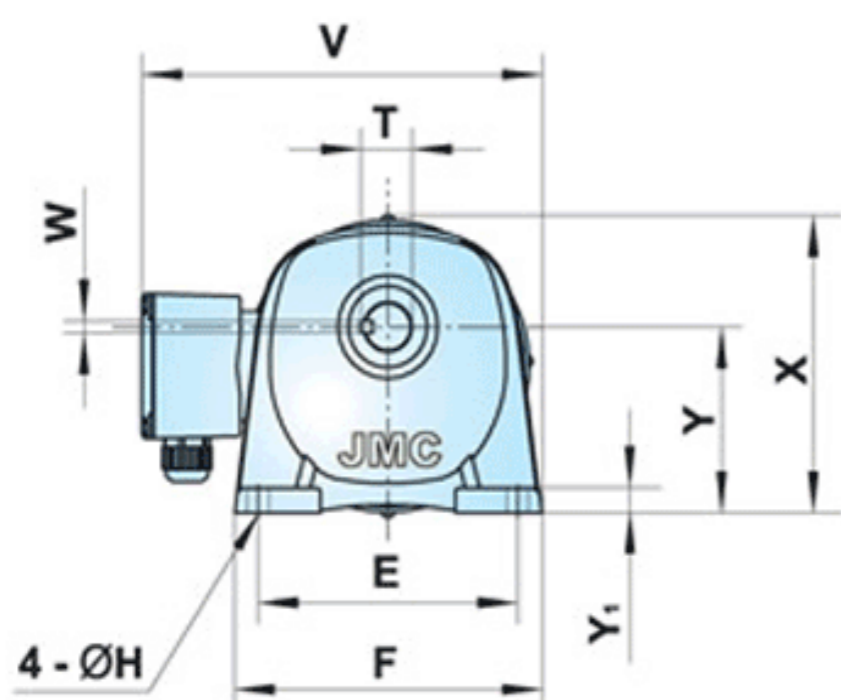
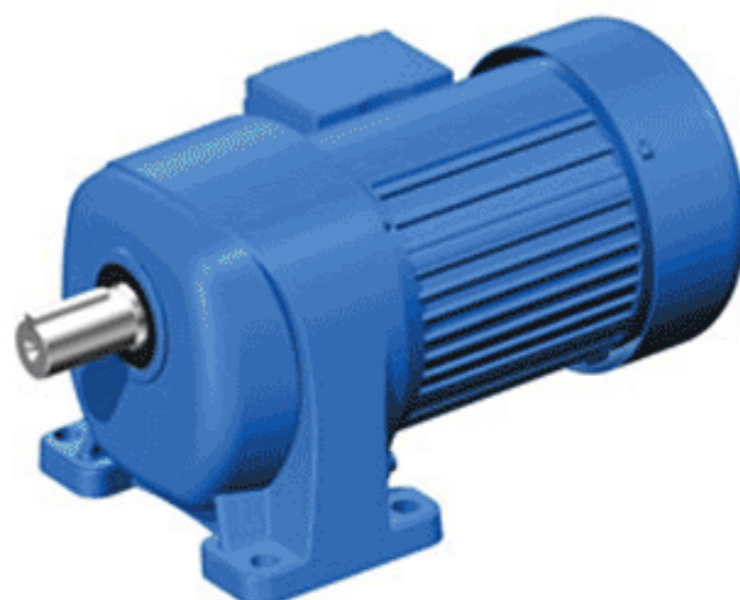
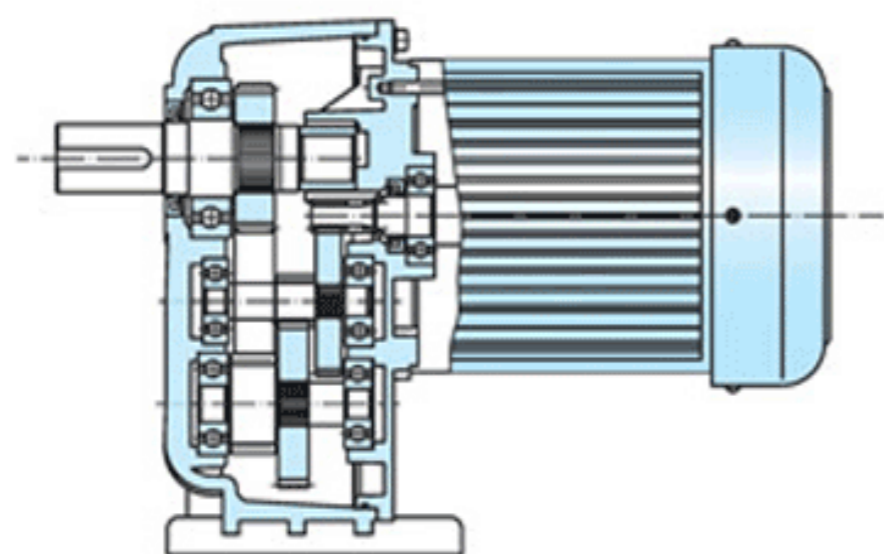
使用环境:

周围环境温度介于-10℃~40℃，周围环境湿度在85%以下，海拔1,000m 以下，无腐蚀性、爆炸性气体或液体或多灰尘环境中，安装在建筑物内。

APPLICATION ENVIRONMENT :

Ambient temperature between -10℃ to 40℃, Ambient humidity below 85%RH, the altitude below 1,000m, no corrosive and explosive gas or liquid or dust, mounted in indoor.

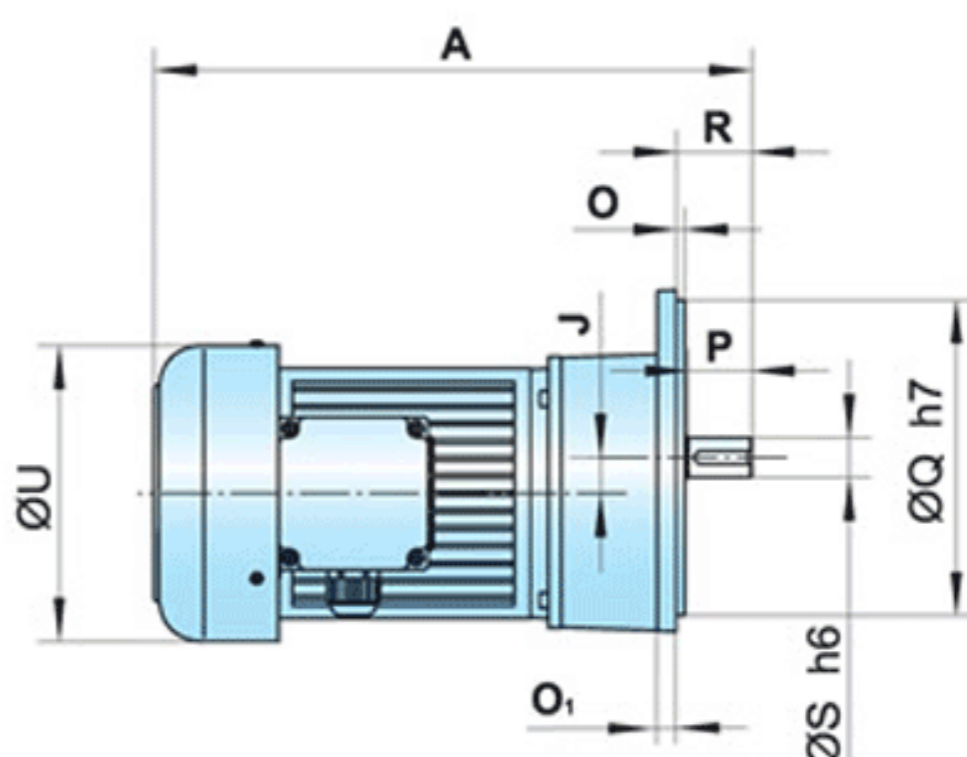
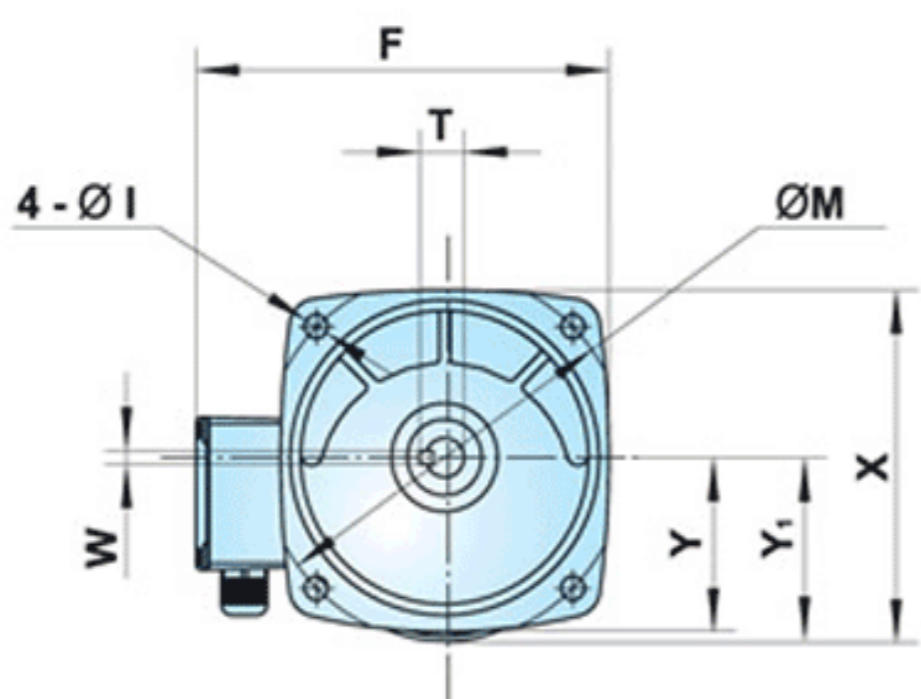
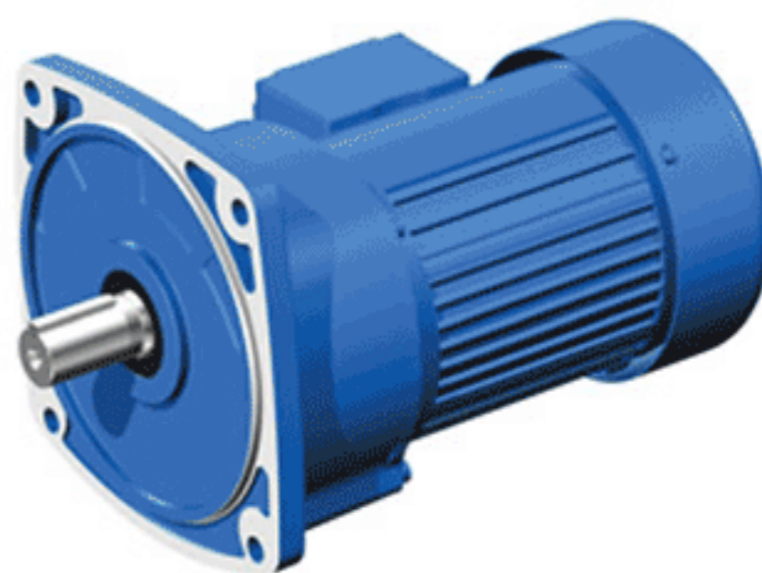
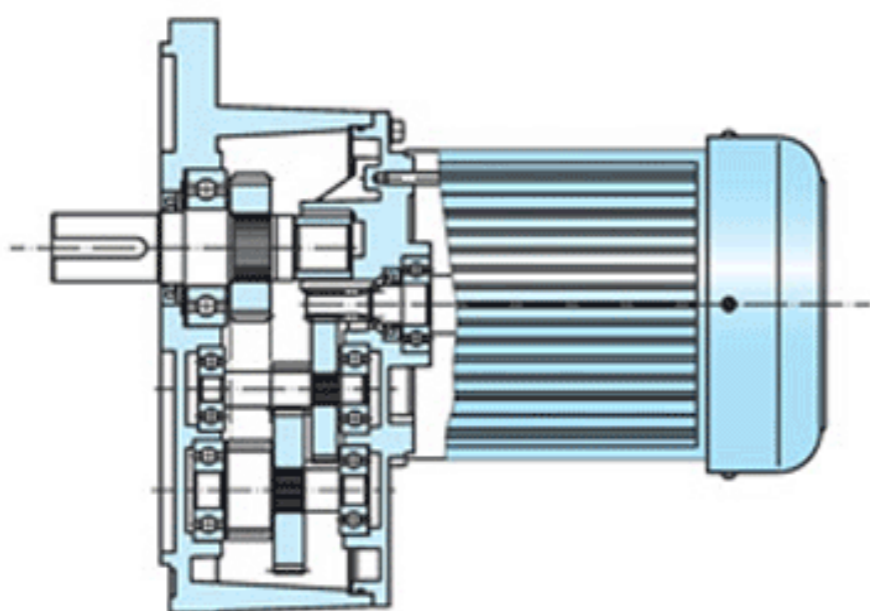
GLM 底脚式带三相电机减速器
THREE-PHASE MOTOR REDUCER WITH FOOT



电机转速 1400 r / min
 motor rotate speed 1400 r / min

功率 power kW	输出轴 output shaft	减速比 ratio	主要外型及安装尺寸 primary outline and dimension-mount																	
			A		D	E	F	J	G	H	K	P	S	T	U	V	W	X	Y	Y ₁
			标准型	制动型																
0.1	Ø18	5,10,15,20,25,30,40,50	236	270	40	110	135	16.5	65	9	45	30	18	20.5	129	183	6	133	85	10
	Ø22	60,80,100,120,160,200	262	296	65	130	155	19	90	11	55	40	22	24.5	129	193	6	139.5	90	12
0.2	Ø18	5,10,15,20,25	267	270	40	110	135	16.5	65	9	45	30	18	20.5	129	183	6	133	85	10
	Ø22	30,40,50,60,80,100	293	296	65	130	155	19	90	11	55	40	22	24.5	129	193	6	139.5	90	12
	Ø28	100,120,160,200	306	309.5	90	140	175	23.5	125	11	65	45	28	31	129	203	8	170	110	15
0.4	Ø22	5,10,15,20,25	314	324.5	65	130	155	19	90	11	55	40	22	24.5	139	199.5	6	141.5	90	12
	Ø28	30,40,50,60,80,100	330	337.5	90	140	175	23.5	125	11	65	45	28	31	139	210	8	170	110	15
	Ø32	100,120,160,200	349	357	130	170	208	28.5	170	13	70	55	32	35	139	226	10	198	130	18
0.75	Ø28	5,10,15,20,25	350.5	343.5	90	140	175	23.5	125	11	65	45	28	31	159	222	8	170	110	15
	Ø32	30,40,50,60,80,100	379.5	387	130	170	208	28.5	170	13	70	55	32	35	159	238.5	10	198	130	18
	Ø40	100,120,160,200	401.5	408.5	150	210	254	34	196	15	90	65	40	43	185	249	12	230	150	20
1.5	Ø32	5,10,15,20,25	420.5	441	130	170	208	28.5	170	13	70	55	32	35	185	250.5	10	198	130	18
	Ø40	30,40,50,60,80,100	457.5	478	150	210	254	34	196	15	90	65	40	43	185	260	12	230	150	20
	Ø50	100,120,160,200	485.5	506	160	230	290	40	210	18	100	75	50	53.5	185	288	14	265	170	25
2.2	Ø40	5,10,15,20,25	466.5	487	150	210	254	34	196	15	90	65	40	43	185	260	12	230	150	20
	Ø50	30,40,50,60,80,100	510.5	531	160	230	290	40	210	18	100	75	50	53.5	185	288	14	265	170	25

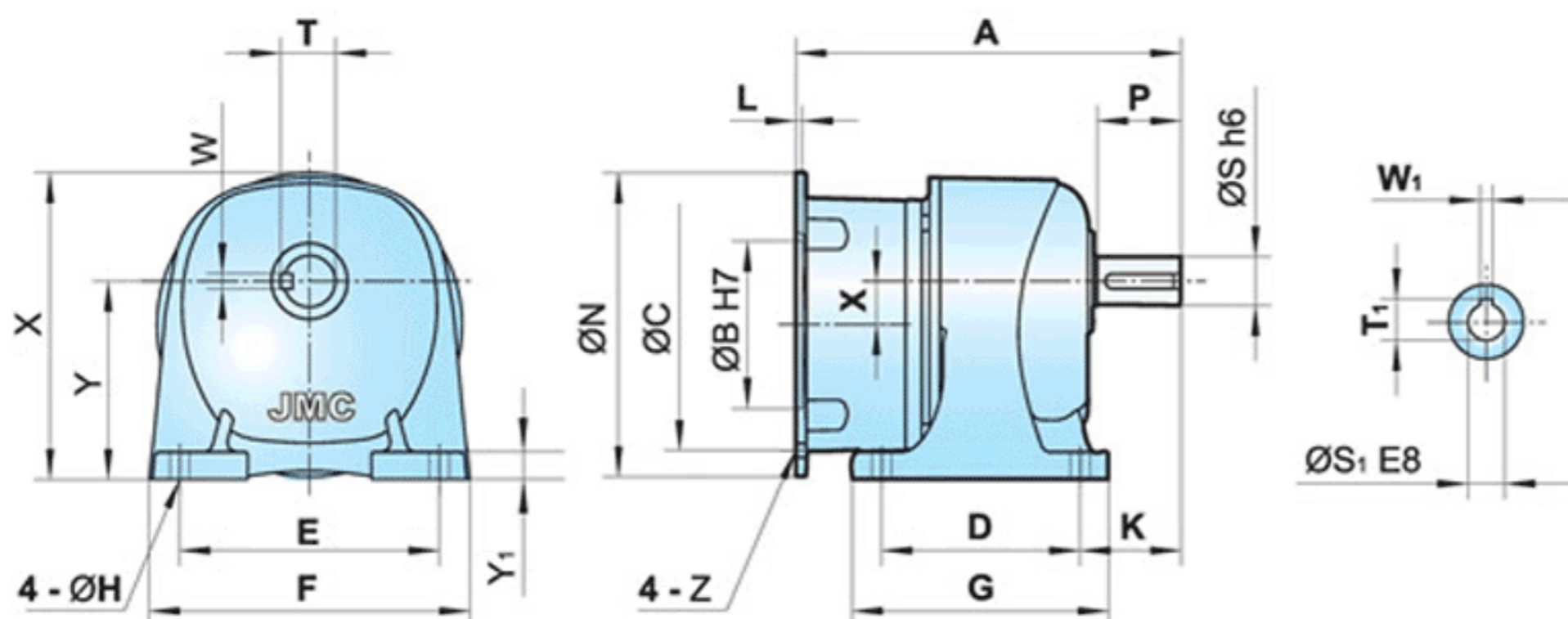
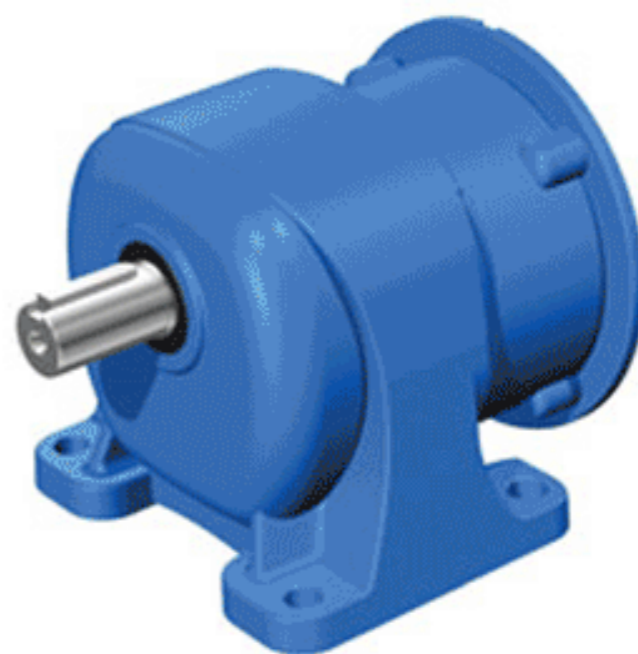
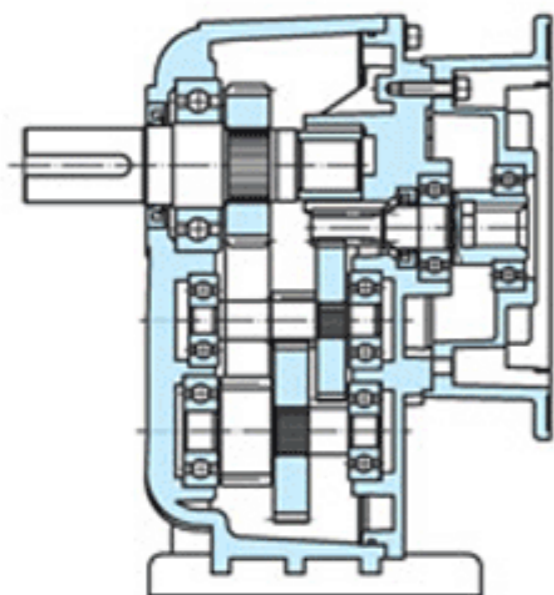
GFM 法兰式带三相电机减速器
THREE-PHASE MOTOR REDUCER WITH FLANGE



电机转速 1400 r / min
 motor rotate speed 1400 r / min

功率 power kW	输出轴 output shaft	减速比 ratio	主要外型及安装尺寸 primary outline and dimension-mount																	
			A		F	I	J	M	O	O ₁	P	Q	R	S	T	U	W	X	Y	Y ₁
			标准型	制动型																
0.1	Ø18	5,10,15,20 25,30,40,50	236	270	192.5	11	16.5	170	4	10	30	145	35	18	20.5	129	6	157	80	81
	Ø22	60,80,100,120,160,200	262	296	197.5	11	19	185	4	12	40	148	47	22	24.5	129	6	171.5	89.5	83.5
0.2	Ø18	5,10,15,20,25	267	270	192.5	11	16.5	170	4	10	30	145	35	18	20.5	129	6	161	80	81
	Ø22	30,40,50,60 80,100	293	296	197.5	11	19	185	4	12	40	148	47	22	24.5	129	6	171.5	89.5	83.5
	Ø28	100,120,160,200	306	309.5	208.5	11	23.5	215	4	15	45	170	50	28	31	129	8	198.5	105.5	88
0.4	Ø22	5,10,15,20,25	314	324.5	204	11	19	185	4	12	40	148	47	22	24.5	139	6	171.5	89.5	88.5
	Ø28	30,40,50,60 80,100	330	337.5	215	11	23.5	215	4	15	45	170	50	28	31	139	8	198.5	105.5	93
	Ø32	100,120,160,200	349	357	229.5	13	28.5	250	4	15	55	180	60	32	35	139	10	234	126	98
0.75	Ø28	5,10,15,20,25	350.5	343.5	227.5	11	23.5	215	4	15	45	170	50	28	31	159	8	198.5	105.5	103
	Ø32	30,40,50,60 80,100	379.5	387	242	13	28.5	250	4	15	55	180	60	32	35	159	10	234	126	108
	Ø40	100,120,160,200	401.5	408.5	270	18	34	310	5	18	65	230	71	40	43	185	12	284	149	126.5
1.5	Ø32	5,10,15,20,25	420.5	441	254	13	28.5	250	5	15	55	180	60	32	35	185	10	234	126	121
	Ø40	30,40,50,60 80,100	457.5	478	270	18	34	310	5	18	65	230	71	40	43	185	12	284	149	126.5
	Ø50	100,120,160,200	485.5	506	300	22	40	360	5	25	75	270	83	50	53.5	185	14	32.5	173.5	132.5
2.2	Ø40	5,10,15,20,25	466.5	487	270	18	34	310	5	18	65	230	71	40	43	185	12	284	149	126.5
	Ø50	30,40,50,60 80,100	510.5	531	300	22	40	360	5	25	75	270	83	50	53.5	185	14	32.5	173.5	132.5

GLS 底脚式IEC输入型减速器
IEC INPUT REDUCER WITH FOOT

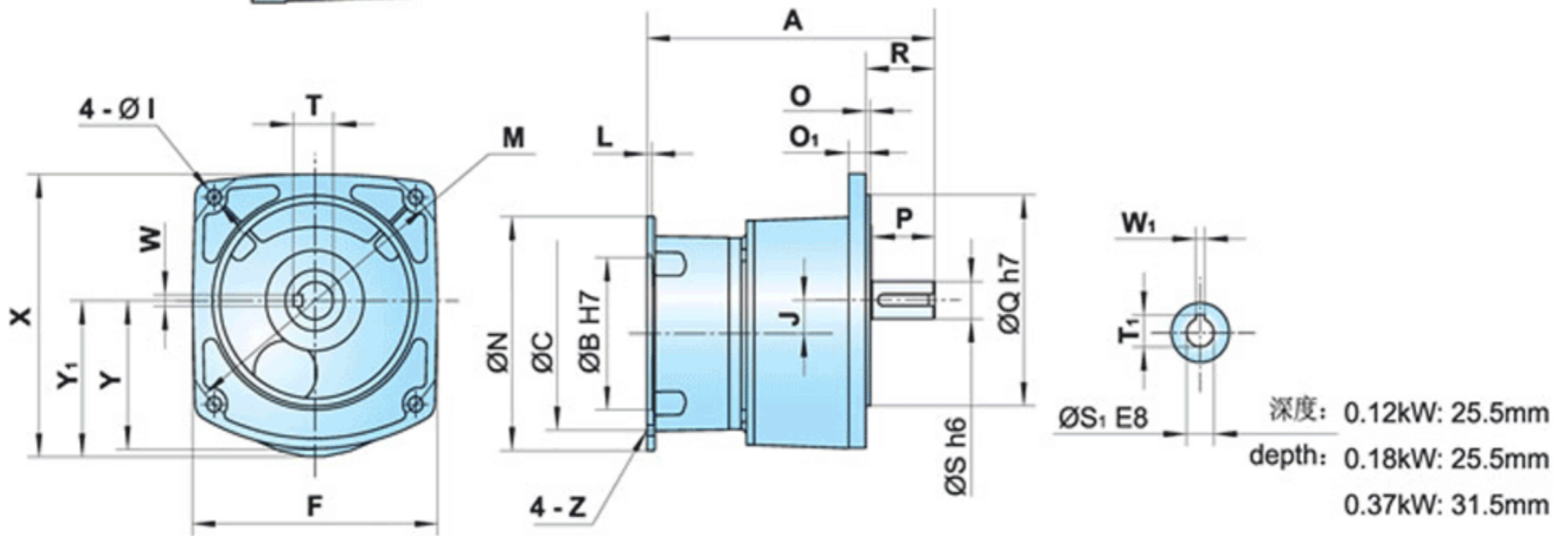
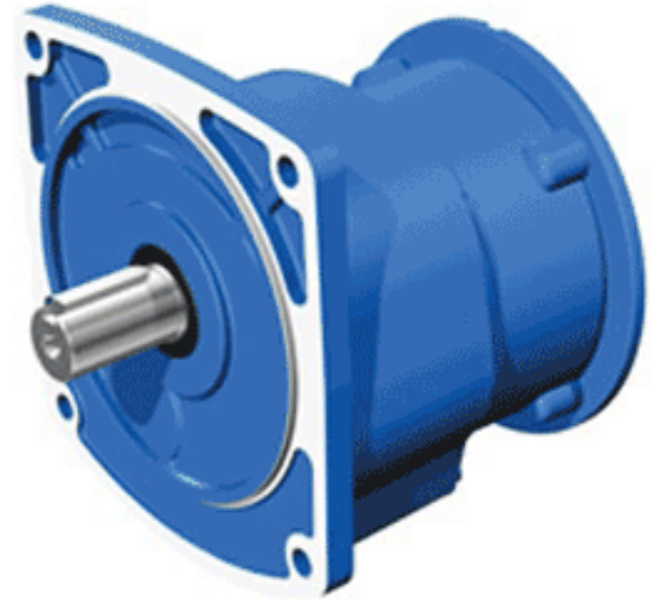
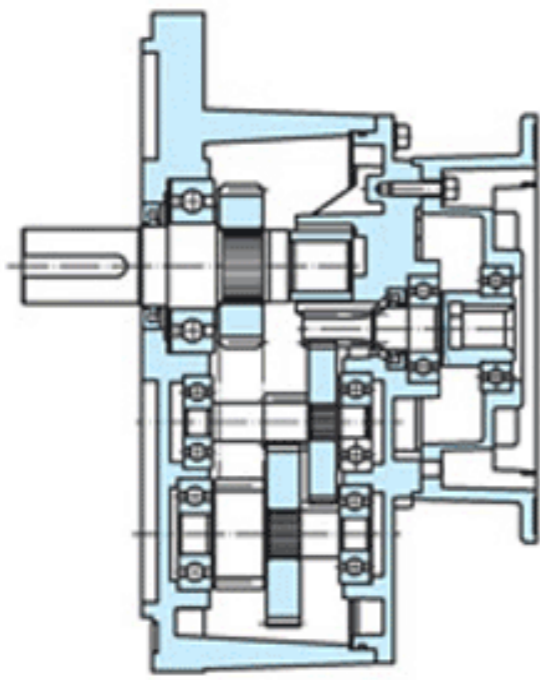


深度: 0.12kW: 25.5mm
 depth: 0.18kW: 25.5mm
 0.37kW: 31.5mm
 0.75kW: 42.0mm
 1.50kW: 52.5mm
 2.20kW: 62.0mm

电机转速 1400 r / min
 motor rotate speed 1400 r / min

功率 power kW	输出轴 output shaft	减速比 ratio	主要外型及安装尺寸 primary outline and dimension-mount																						
			A	B	C	D	E	F	G	H	J	K	L	N	P	S	S ₁	T	T ₁	W	W ₁	X	Y	Y ₁	Z
0.12	Ø18	5,10,15,20 25,30,40,50	147	95	115	40	110	135	65	9	16.5	45	4.5	140	30	18	11	20.5	12.8	6	4	138.5	85	10	M8
	Ø22	60,80,100,120,160,200	173	95	115	65	130	154	90	11	19	55	4.5	140	40	22	11	24.5	12.8	6	4	141	90	12	M8
0.18	Ø18	5,10,15,20,25	147	95	115	40	110	135	65	9	16.5	45	4.5	140	30	18	11	20.5	12.8	6	4	138.5	85	10	M8
	Ø22	30,40,50,60 80,100	173	95	115	65	130	154	90	11	19	55	4.5	140	40	22	11	24.5	12.8	6	4	141	90	12	M8
	Ø28	100,120,160,200	186.5	95	115	90	140	175	125	11	23.5	65	4.5	140	45	28	11	31	12.8	8	4	170	110	15	M8
0.37	Ø22	5,10,15,20,25	181.5	110	130	65	130	154	90	11	19	55	4.5	160	40	22	14	24.5	16.3	6	5	151	90	12	M8
	Ø28	30,40,50,60 80,100	198	110	130	90	140	175	125	11	23.5	65	4.5	160	45	28	14	31	16.3	8	5	170	110	15	M8
	Ø32	100,120,160,200	216.5	110	130	130	170	208	170	13	28.5	70	4.5	160	55	32	14	35	16.3	10	5	198	130	18	M8
0.75	Ø28	5,10,15,20,25	206.5	130	165	90	140	175	125	11	23.5	65	4.5	200	45	28	19	31	21.8	8	6	186.5	110	15	M10
	Ø32	30,40,50,60 80,100	235	130	165	130	170	208	170	13	28.5	70	4.5	200	55	32	19	35	21.8	10	6	201.5	130	18	M10
	Ø40	100,120,160,200	260.5	130	165	150	210	254	196	15	34	90	4.5	200	65	40	19	43	21.8	12	8	230	150	20	M10
1.5	Ø32	5,10,15,20,25	252	130	165	130	170	208	170	13	28.5	70	4.5	200	55	32	24	35	27.3	10	8	201.5	130	18	M10
	Ø40	30,40,50,60 80,100	293.5	130	165	150	210	254	196	15	34	90	4.5	200	65	40	24	43	27.3	12	8	230	150	20	M10
	Ø50	100,120,160,200	321.5	130	165	160	230	290	210	18	40	100	4.5	200	75	50	24	53.5	27.3	14	8	265	170	25	M10
2.2	Ø40	5,10,15,20,25	290	180	215	150	210	254	196	15	34	90	5.5	250	65	40	28	43	31.3	12	8	230	150	20	M12
	Ø50	30,40,50,60 80,100	334	180	215	160	230	290	210	18	40	100	5.5	250	75	50	28	53.5	31.3	14	8	265	170	25	M12

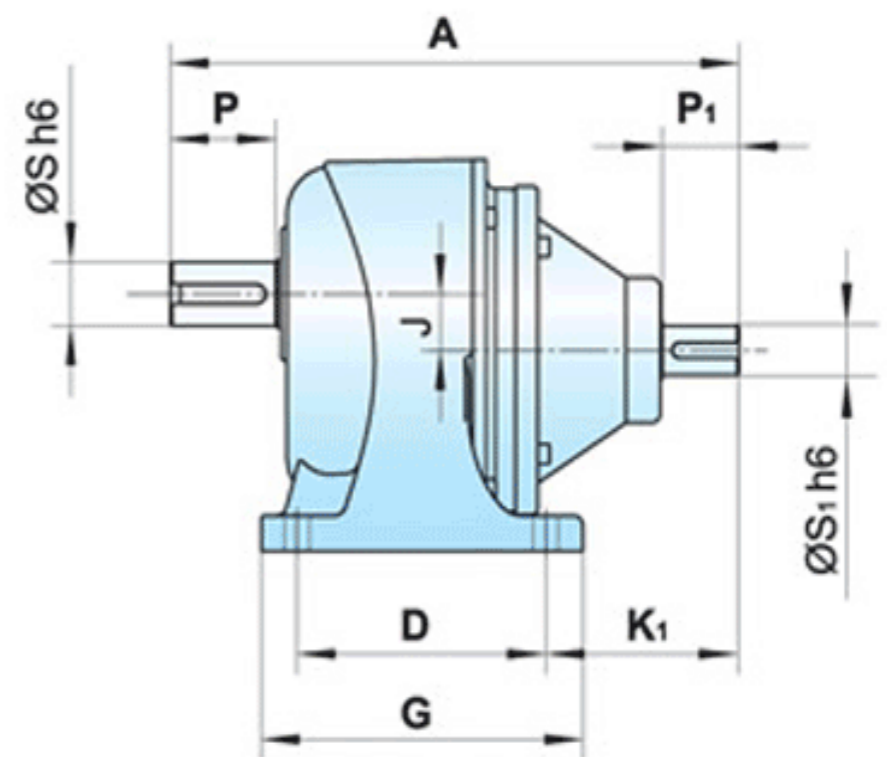
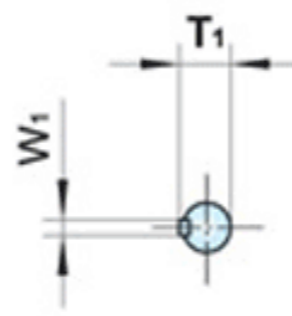
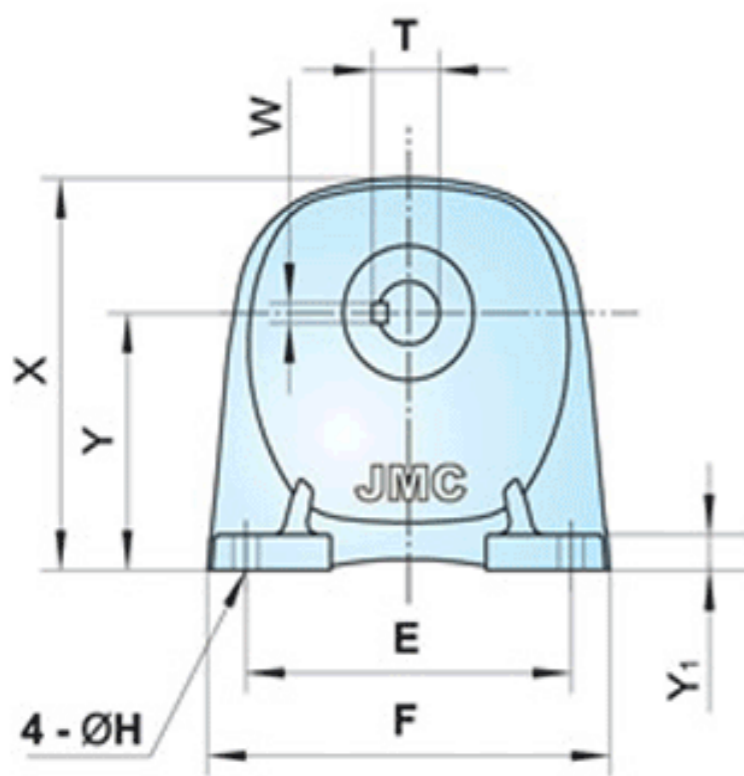
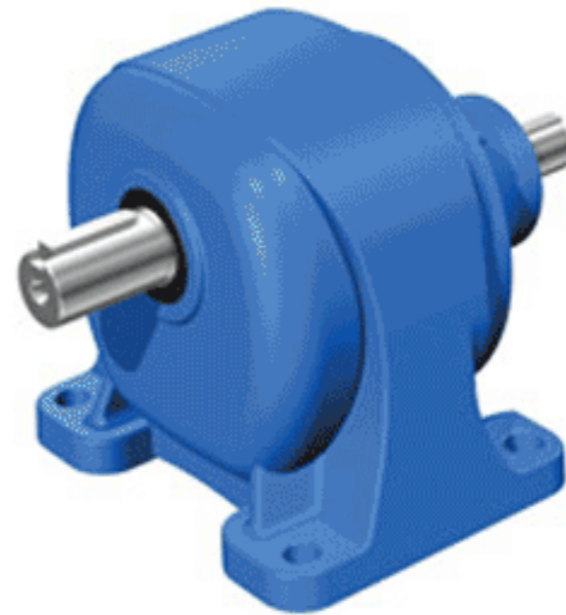
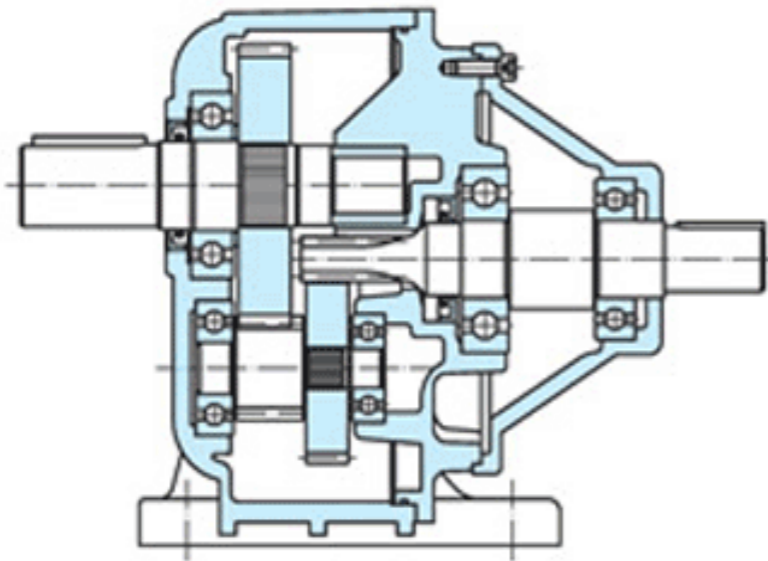
GFS 法兰式IEC输入型减速器
IEC INPUT REDUCER WITH FLANGE



电机转速 1400 r / min
motor rotate speed 1400 r / min

功率 power kW	输出轴 output shaft	减速比 ratio	主要外型及安装尺寸 primary outline and dimension-mount																							
			A	B	C	F	I	J	L	M	N	O	O ₁	P	Q	R	S	S ₁	T	T ₁	W	W ₁	X	Y	Y ₁	Z
0.12	Ø18	5,10,15,20 25,30,40,50	147	95	115	154	11	16.5	4.5	170	140	4	10	30	145	35	18	11	20.5	12.8	6	4	163.5	80	86.5	M8
	Ø22	60,80,100,120,160,200	173	95	115	164	11	19	4.5	185	140	4	12	40	148	47	22	11	24.5	12.8	6	4	171.5	89.5	89	M8
0.18	Ø18	5,10,15,20,25	147	95	115	154	11	16.5	4.5	170	140	4	10	30	145	35	18	11	20.5	12.8	6	4	163.5	80	86.5	M8
	Ø22	30,40,50,60 80,100	173	95	115	164	11	19	4.5	185	140	4	12	40	148	47	22	11	24.5	12.8	6	4	171.5	89.5	89	M8
	Ø28	100,120,160,200	186.5	95	115	186	11	23.5	4.5	215	140	4	15	45	170	50	28	11	31	12.8	8	4	198.5	105.5	93.5	M8
0.37	Ø22	5,10,15,20,25	181.5	110	130	164	11	19	4.5	185	160	4	12	40	148	47	22	14	24.5	16.3	6	5	201	89.5	99	M8
	Ø28	30,40,50,60 80,100	198	110	130	186	11	23.5	4.5	215	160	4	15	45	170	50	28	14	31	16.3	8	5	198.5	105.5	103.5	M8
	Ø32	100,120,160,200	216.5	110	130	215	13	28.5	4.5	250	160	4	15	55	180	60	32	14	35	16.3	10	5	234	126	108.5	M8
0.75	Ø28	5,10,15,20,25	206.5	130	165	185	11	23.5	4.5	215	200	4	15	45	170	50	28	19	31	21.8	8	6	216.5	105.5	123.5	M10
	Ø32	30,40,50,60 80,100	235	130	165	215	13	28.5	4.5	250	200	4	15	55	180	60	32	19	35	21.8	10	6	236.5	126	128.5	M10
	Ø40	100,120,160,200	260.5	130	165	270	18	34	4.5	310	200	5	18	65	230	71	40	19	43	21.8	12	6	284	149	134	M10
1.5	Ø32	5,10,15,20,25	252	130	165	215	13	28.5	4.5	250	200	4	15	55	180	60	32	24	35	27.3	10	8	236.5	126	128.5	M10
	Ø40	30,40,50,60 80,100	293.5	130	165	270	18	34	4.5	310	200	5	18	65	230	71	40	24	43	27.3	12	8	284	149	134	M10
	Ø50	100,120,160,200	321.5	130	165	300	22	40	4.5	360	200	5	25	75	270	83	50	24	53.5	27.3	14	8	323.5	173.5	140	M10
2.2	Ø40	5,10,15,20,25	290	180	215	270	18	34	5	310	250	5	18	65	230	71	40	28	43	31.3	12	8	284	149	134	M12
	Ø50	30,40,50,60 80,100	334	180	215	300	22	40	5	360	250	5	25	75	270	83	50	28	53.5	31.3	14	8	323.5	173.5	140	M12

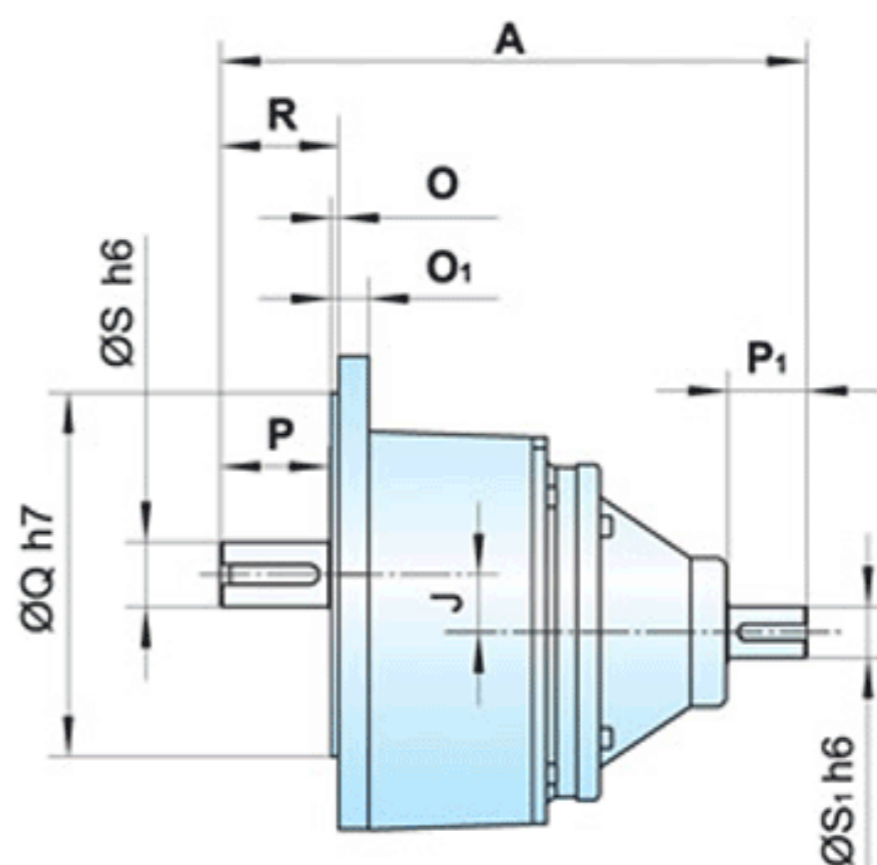
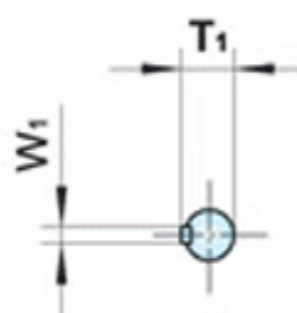
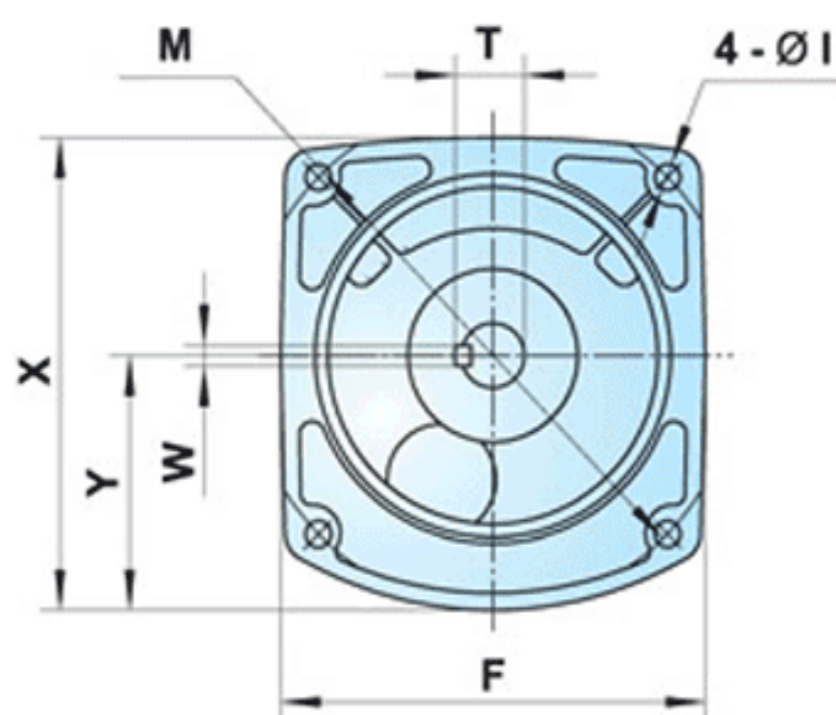
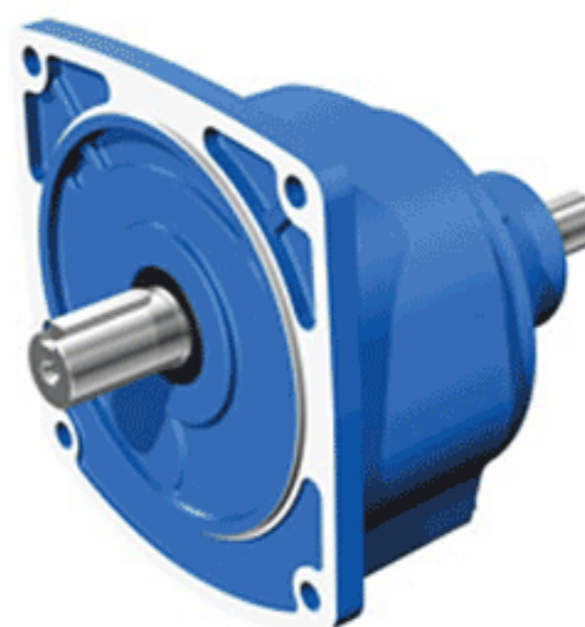
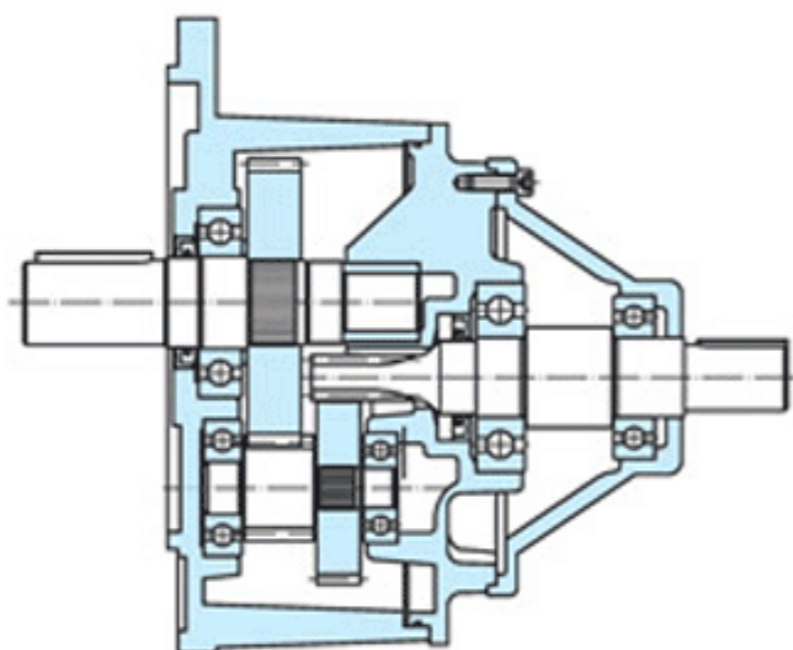
GL 底脚式轴输入型减速器
SHAFT INPUT REDUCER WITH FOOT



电机转速 1400 r / min
 motor rotate speed 1400 r / min

功率 power kW	输出轴 output shaft	减速比 ratio	主要外型及安装尺寸 primary outline and dimension-mount																		
			A	D	E	F	G	H	J	K ₁	P	P ₁	S	S ₁	T	T ₁	W	W ₁	X	Y	Y ₁
0.1	Ø18	5,10,15,20 25,30,40,50	181.5	40	110	135	65	9	16.5	96.5	30	25	18	12	20.5	13.5	6	4	131	85	10
	Ø22	60,80,100,120,160,200	207.5	65	130	154	90	11	19	87.5	40	25	22	12	24.5	13.5	6	4	139.5	90	12
0.2	Ø18	5,10,15,20,25	181.5	40	110	135	65	9	16.5	96.5	30	25	18	12	20.5	13.5	6	4	131	85	10
	Ø22	30,40,50,60 80,100	207.5	65	130	154	90	11	19	87.5	40	25	22	12	24.5	13.5	6	4	139.5	90	12
	Ø28	100,120,160,200	220.5	90	140	175	125	11	23.5	65.5	45	25	28	12	31	13.5	8	4	170	110	15
0.4	Ø22	5,10,15,20,25	219	65	130	154	90	11	19	99	40	30	22	15	24.5	17	6	5	139.5	90	12
	Ø28	30,40,50,60 80,100	235	90	140	175	125	11	23.5	80	45	30	28	15	31	17	8	5	170	110	15
	Ø32	100,120,160,200	254	130	170	208	170	13	28.5	54	55	30	32	15	35	17	10	5	198	130	18
0.75	Ø28	5,10,15,20,25	244.5	90	140	175	125	11	23.5	89.5	45	35	28	20	31	22.5	8	6	170	110	15
	Ø32	30,40,50,60 80,100	273.5	130	170	208	170	13	28.5	73.5	55	35	32	20	35	22.5	10	6	198	130	18
	Ø40	100,120,160,200	295.5	150	210	254	196	15	34	55.5	65	35	40	20	43	22.5	12	6	230	150	20
1.5	Ø32	5,10,15,20,25	297	130	170	208	170	13	28.5	97	55	40	32	25	35	28	10	8	198	130	18
	Ø40	30,40,50,60 80,100	334	150	210	254	196	15	34	94	65	40	40	25	43	28	12	8	230	150	20
	Ø50	100,120,160,200	362	160	230	290	210	18	40	102	75	40	50	25	53.5	28	14	8	265	170	25
2.2	Ø40	5,10,15,20,25	330	150	210	254	196	15	34	90	65	45	40	30	43	33	12	8	230	150	20
	Ø50	30,40,50,60 80,100	374	160	230	290	210	18	40	114	75	45	50	30	53.5	33	14	8	265	170	25

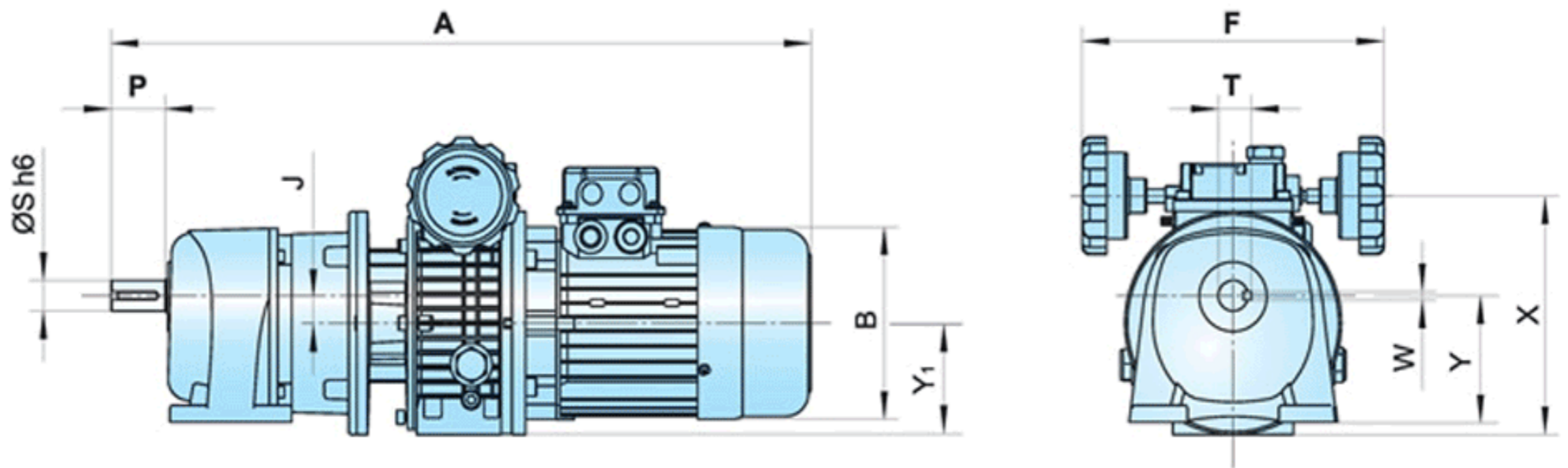
GF 法兰式输入型减速器
SHAFT INPUT REDUCER WITH FLANGF



电机转速 1400 r / min
 motor rotate speed 1400 r / min

功率 power kW	输出轴 output shaft	减速比 ratio	主要外型及安装尺寸 primary outline and dimension-mount																		
			A	F	I	J	M	O	O ₁	P	P ₁	Q	R	S	S ₁	T	T ₁	W	W ₁	X	Y
0.1	Ø18	5,10,15,20 25,30,40,50	181.5	154	11	16.5	170	4	10	30	25	145	35	18	12	20.5	13.5	6	4	157	80
	Ø22	60,80,100,120,160,200	207.5	164	11	19	185	4	12	40	25	148	47	22	12	24.5	13.5	6	4	171.5	89.5
0.2	Ø18	5,10,15,20,25	181.5	154	11	16.5	170	4	10	30	25	145	35	18	12	20.5	13.5	6	4	157	80
	Ø22	30,40,50,60 80,100	207.5	164	11	19	185	4	12	40	25	148	47	22	12	24.5	13.5	6	4	171.5	89.5
	Ø28	100,120,160,200	220.5	186	11	23.5	215	4	15	45	25	170	50	28	12	31	13.5	8	4	198.5	105.5
0.4	Ø22	5,10,15,20,25	219	164	11	19	185	4	12	40	30	148	47	22	15	24.5	17	6	5	171.5	89.5
	Ø28	30,40,50,60 80,100	235	186	11	23.5	215	4	15	45	30	170	50	28	15	31	17	8	5	198.5	105.5
	Ø32	100,120,160,200	254	215	13	28.5	250	4	15	55	30	180	60	32	15	35	17	10	5	234	126
0.75	Ø28	5,10,15,20,25	244.5	185	11	23.5	215	4	15	45	35	170	50	28	20	31	22.5	8	6	198.5	105.5
	Ø32	30,40,50,60 80,100	273.5	215	13	28.5	250	4	15	55	35	180	60	32	20	35	22.5	10	6	234	126
	Ø40	100,120,160,200	295.5	270	18	34	310	5	18	65	35	230	71	40	20	43	22.5	12	6	284	149
1.5	Ø32	5,10,15,20,25	297	215	13	28.5	250	4	15	55	40	180	60	32	25	35	28	10	8	234	126
	Ø40	30,40,50,60 80,100	334	270	18	34	310	5	18	65	40	230	71	40	25	43	28	12	8	284	149
	Ø50	100,120,160,200	362	300	22	40	360	5	25	75	40	270	83	50	25	53.5	28	14	8	323.5	173.5
2.2	Ø40	5,10,15,20,25	330	270	18	34	310	5	18	65	45	230	71	40	30	43	33	12	8	284	149
	Ø50	30,40,50,60 80,100	374	300	22	40	360	5	25	75	45	270	83	50	30	53.5	33	14	8	323.5	173.5

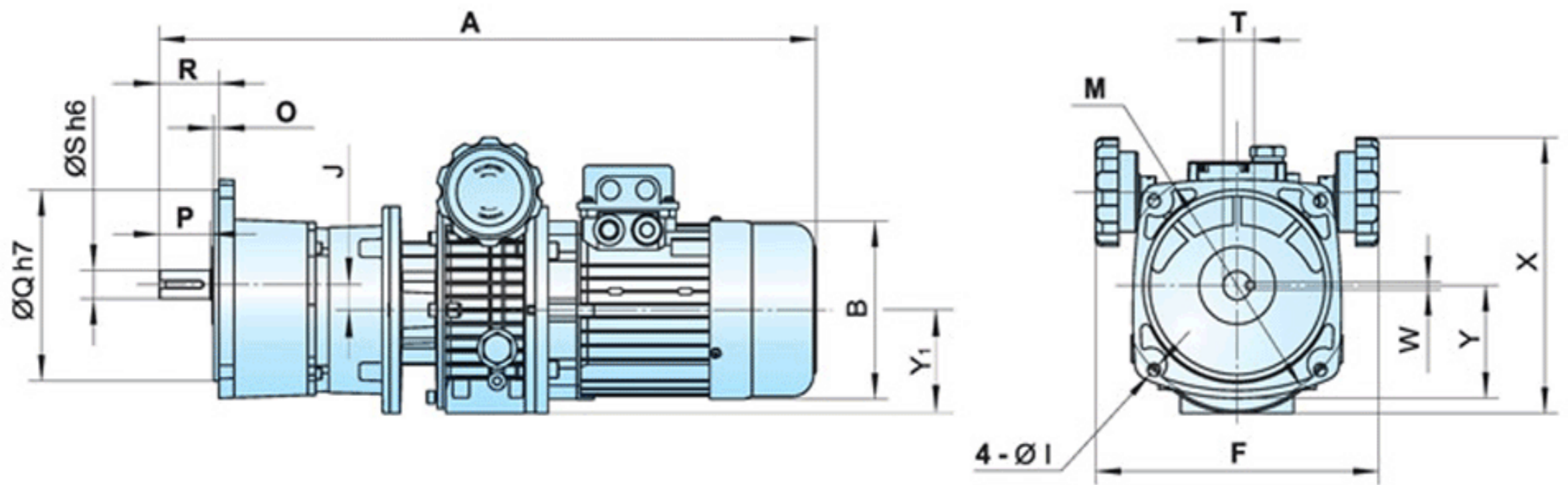
UDL - GLS 无级变速器配底脚式IEC输入型减速器
 COMBINATION OF SPEED VARIATOR AND IEC INPUT
 REDUCER WITH FOOT



电机转速 1400 r / min
 motor rotate speed 1400 r / min

功率 power kW	输出轴 output shaft	GLS i_1	UDL i_2	主要外型及安装尺寸 primary outline and dimension-mount										
				A	B	F	J	P	S	T	W	X	Y	Y ₁
0.18	Ø18	5,10,15,20,25	1.6~8.2	459.5	120	220	16.5	30	18	20.5	6	148	85	70
	Ø22	30,40,50,60 80,100	1.4~7.0	485.5	120	220	19	40	22	24.5	6	148	90	70
	Ø28	100,120,160,200	1.4~7.0	499	120	220	23.5	45	28	31	8	148	110	70
0.37	Ø22	5,10,15,20,25	1.4~7.0	494	141	220	19	40	22	24.5	6	170	90	80
	Ø28	30,40,50,60 80,100	1.4~7.0	510.5	141	220	23.5	45	28	31	8	170	110	80
	Ø32	100,120,160,200	1.4~7.0	583.5	141	220	28.5	55	32	35	10	170	130	80
0.75	Ø28	5,10,15,20,25	1.4~7.0	649.5	160	240	23.5	45	28	31	8	207	110	100
	Ø32	30,40,50,60 80,100	1.4~7.0	678.5	160	240	28.5	55	32	35	10	207	130	100

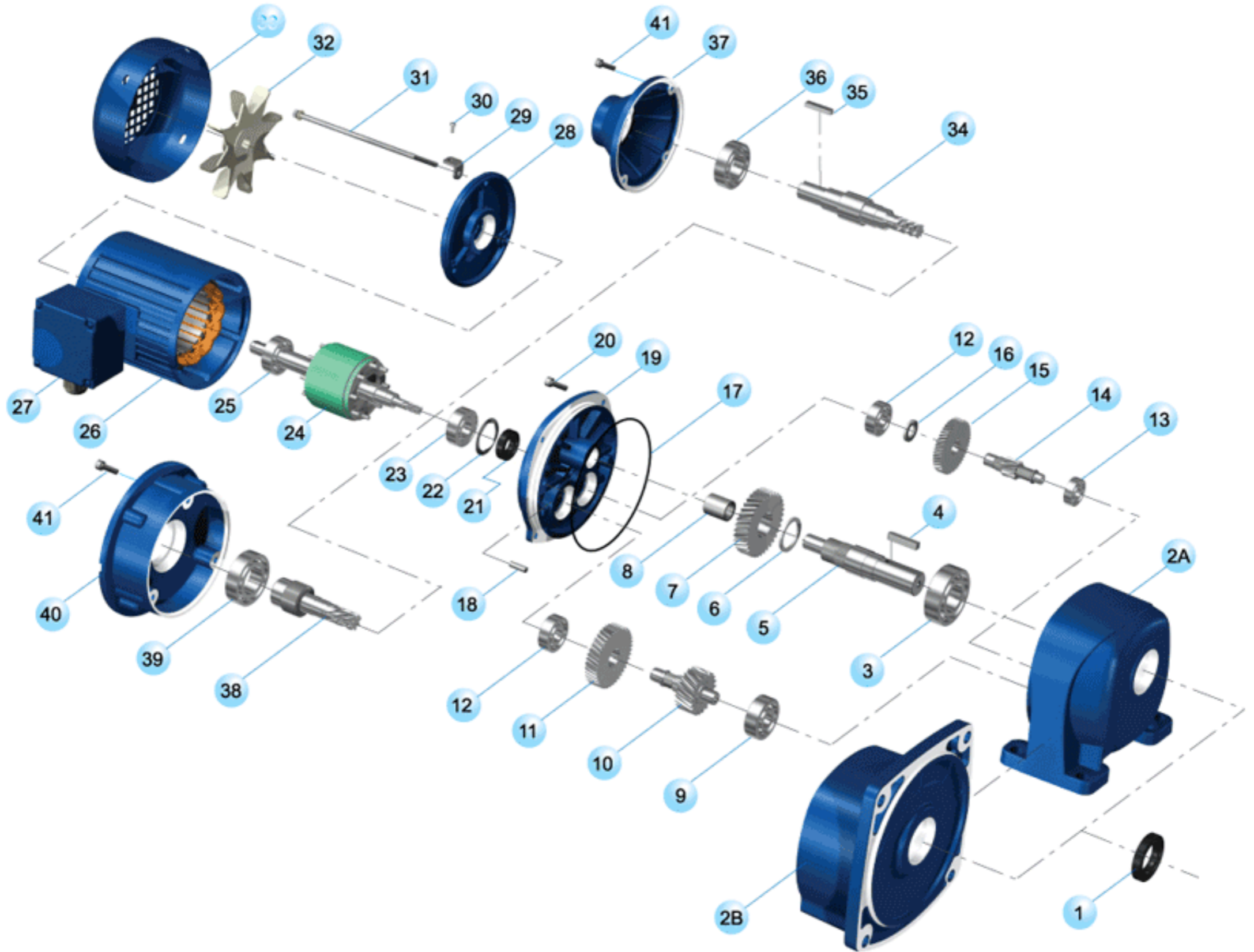
UDL - GFS 无级变速器配法兰式IEC输入型减速器
 COMBINATION OF SPEED VARIATOR AND IEC INPUT REDUCER WITH FLANGE



电机转速 1400 r / min
 motor rotate speed 1400 r / min

功率 power kW	输出轴 output shaft	GFS i_1	UDL i_2	主要外型及安装尺寸 primary outline and dimension-mount														
				A	B	F	I	J	O	P	Q	R	S	T	W	X	Y	Y_1
0.18	Ø18	5,10,15,20,25	1.6~8.2	459.5	120	220	11	16.5	4	30	145	35	18	20.5	6	148	80	70
	Ø22	30,40,50,60 80,100	1.4~7.0	485.5	120	220	11	19	4	40	148	47	22	24.5	6	148	89.5	70
	Ø28	100,120,160,200	1.4~7.0	499	120	220	11	23.5	4	45	170	50	28	31	8	148	105.5	70
0.37	Ø22	5,10,15,20,25	1.4~7.0	494	141	220	11	19	4	40	148	47	22	24.5	6	170	89.5	80
	Ø28	30,40,50,60 80,100	1.4~7.0	510.5	141	220	11	23.5	4	45	170	50	28	31	8	170	105.5	80
	Ø32	100,120,160,200	1.4~7.0	583.5	141	220	13	28.5	4	55	180	60	32	35	10	170	126	80
0.75	Ø28	5,10,15,20,25	1.4~7.0	649.5	160	240	11	23.5	4	45	170	50	28	31	8	207	105.5	100
	Ø32	30,40,50,60 80,100	1.4~7.0	678.5	160	240	13	28.5	4	55	180	60	32	35	10	207	126	100

2级/3级爆炸图 2 STAGES /3 STAGE EXPLODED VIEW



序号	零件名称	序号	零件名称	序号	零件名称
1	输出轴油封 oil seal-output shaft	14	二级小齿轴 pinion-2 nd stage	28	电机后盖 rear cover-motor
2A	底脚式箱体 foot housing	15	一级大齿轮 gear-1 st stage	29	支架 bracket
2B	法兰式箱体 flange housing	16	垫片 spacer	30	风罩螺钉 screw-fan cover
3	输出轴轴承 bearing-output shaft	17	O形圈 O-RING	31	电机长螺栓 long bolt-motor
4	输出轴平键 key-output shaft	18	定位销 pin	32	风叶 cooling fan
5	输出轴 output shaft	19	电机法兰 motor flange	33	风罩 fan cover-motor
6	垫片 spacer	20	内六角螺钉 inner hexangular screw	34	轴输入齿轮轴 input shaft gear shaft
7	三级大齿轮 gear-3 rd stage	21	电机轴油封 oil seal-motor shaft	35	输入轴平键 key-input shaft
8	含油轴承 oiliness bearing	22	弹性垫片 spring washer	36	轴输入齿轮轴轴承 bearing-input shaft gear shaft
9	三级齿轴轴承 bearing-3 rd stage pinion	23	电机轴轴承 bearing-motor shaft	37	输入端盖 input cover
10	三级小齿轴 pinion-3 rd stage	24	转子 rotor	38	孔输入齿轮轴 input hole gear shaft
11	二级大齿轮 bearing-2 nd stage	25	电机轴轴承 bearing-motor shaft	39	孔输入齿轮轴轴承 bearing-input hole gear shaft
12	电机法兰轴承 bearing-motor flange	26	电机定子 motor stator	40	输入端法兰 flange-input
13	二级小齿轴轴承 bearing-2 nd stage pinion	27	铝接线盒 wire box	41	内六角螺钉 Inner hexagon screw

故障排除 CORRECT THE MALFUNCTION

不良原因 defective reason		原因分析 analysis	解决方式 solution method
噪音 noise	齿轮敲击声 knocking	齿轮表面受伤 gear surface damaged	请与厂家联系, 更换受伤齿轮组 contact manufacturer, replace gear set
	连续性杂音 continual cacophony	轴承损坏 bearing damaged	更换损坏轴承 replace the damaged bearing
	周期性杂音 periodical cacophony	异物附着齿面 particle on the gear surface	检查齿轮齿面 check gear surface
	嘶嘶声 neigh	油量不足 lack of lubricant	添加润滑油 fill with lubricant
	断续性杂音 intermittent cacophony	润滑油不洁 dirty lubricant	更换新的润滑油 replace the new lubricant
震动 shake	固定底座振动 fixed foundation shake	安装平面歪斜 deflective mount on the surface	重新调整固定底座 re-adjust fixed pedestal
	输出轴振动 output shaft shake	轴承损坏 bearing damaged	更换损坏的轴承 replace the damaged bearing
	内部齿轮零件振动 inner gear parts shake	齿轮损坏 gear damaged	更换受伤齿轮 replace the damaged gear
	箱体振动 housing shake	齿轮组安装不良 defective gear assembly	重新调整齿轮组 re-adjust the gear set
漏油 leakage	油封漏油 oil seal leakage	油封硬化 oil seal vulcanize	更换损坏油封 replace the damaged oil seal
	箱体漏油 housing leakage	箱体有砂孔 housing with the sand hole	更换砂孔箱体 replace housing with the sand hole
	结合面漏油 combined surface leakage	O形圈损坏 o-ring damaged	更换损坏O形圈 replace the damaged o-ring
过热 over-heating	油封损坏 oil seal damaged	油封太紧 over-tighten oil seal	更换太紧油封 replace over-tighten oil seal
	箱体过热 over-heat housing	过负载 over-load	重新计算负载马力 re-calculate load
	缺润滑油 lack of lubricant	油量不足 low lubricant	加入润滑油 fill with lubricant
	电机过热 over-heat motor	1. 环境温度过高。2. 电动机通风不良。 3. 电压过高或过低 1.the temperature of environment is too high.2.airiness is bad.3.pressure is too high or too low.	1. 采取降温措施。2. 清除通风道, 检查电机风叶是否损坏。3. 调整电源电压 1.take measure to reduce the temperature 2.clean out the wind passage, and check the motor if cooling fan has been damaged 3.adjust electrical source pressure
电动机不动 the motor can't work	电源未接通 electrical source haven't been switched on	检查开关插头是否松动, 熔丝是否断了, 电动机引线是否断裂。 check if the switch is contacted well, if the fuse wise is broken or the motor down-lead is broken.	
减速器输出轴转速过低 the rotate speed of the output shaft is too low	外部控制线路接线有错误 wrong control connection outside 负载过重 over loading 减速比不正确 wrong ratio 电源电压过低 electrical source pressure too low 负载过重 over-load	按正确接法改正 correct it on the right connection 减轻负载 reduce the load 手动检查风叶与输出轴转速比 check the rotation ratio of the cooling fan and output shaft by hand 调整电源电压 adjust electrical source pressure 减轻负载 reduce load	
电机旋转, 输出轴不动 motor circumrotate, output shaft don't circumrotate	内部齿轮组损伤 inner gear set damaged	请与厂家联系, 更换齿轮组 please contact the manufacture to replace the gear set	