

SC
TRANSMISSION

SC Transmission
Hangzhou Speed Control Transmission

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ABOUT US

SC Transmission (Hangzhou Speed Control Transmission) , set by Frank and Tarina, dedicated to export, design, manufacture and distribution of products for power transmission, on the strength of their full knowledge and 10 years experience in this field.

SC Transmission tries to provide exceptional service to their customers in order to meet their needs in the field of power transmission such as gear reducers, gear motors, sprockets, gears (helical, spur, worm, bevel), racks, taper lock, bushes, couplings, pulleys and custom requirements as per their sample or drawings.

OUR VISION

offer the best solution for transmission in the world, make the transmission world more economic & efficient



UD 系列无级变速器 UD Series Stepless Variator

概述

UD 系列无级变速器:即行星锥盘无级变速器,是为适应社会需求,并结合国外技术开发的新一代产品。可广泛应用于运输、陶瓷、包装、化工、轻纺、食品、医药、印刷、橡塑、机床及各种需调速的自动生产线、运输线、装配流水线等场合。产品主要特点如下:

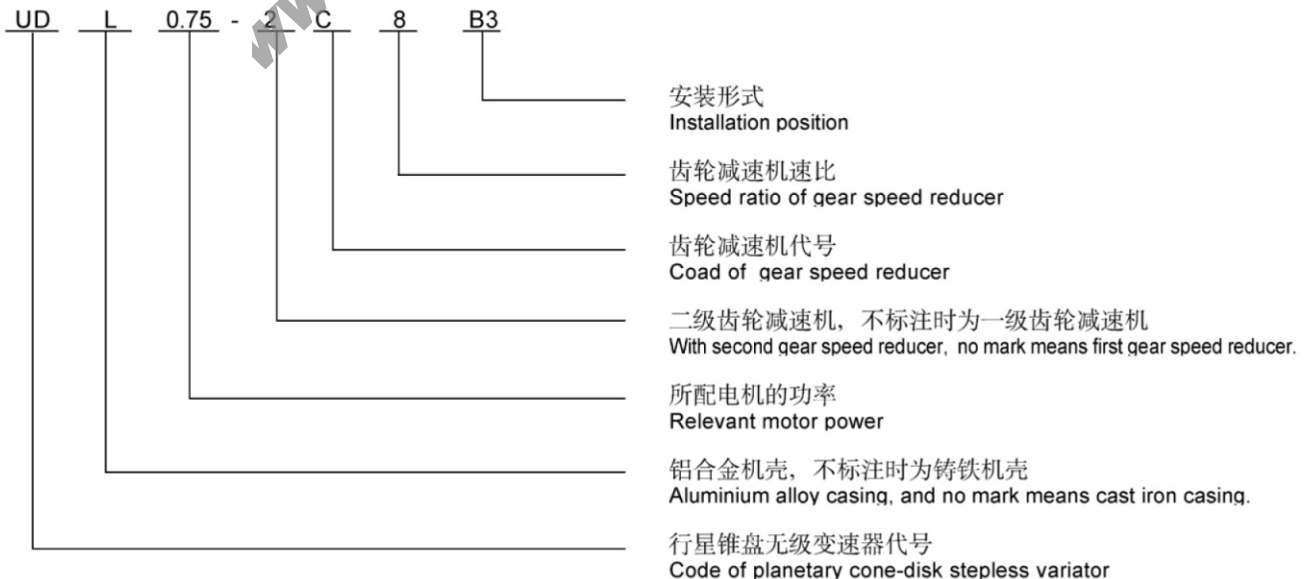
- 1.调速精度高,达到 0.5 ~ 1 转;
- 2.变速范围大,速比可在 1/1.4 ~ 1/7 之间任意调节;
- 3.强度高,寿命长;
- 4.运转平稳、噪音低、性能稳定,可连续运转工作,还可正反向运转;
- 5.调速方便,结构紧凑、体积小;
- 6.全密封,环境适应性强;
- 7.适应性好,与减速机组合可实现低速无级变速;
- 8.采用优质铝合金压铸成型,且外型美观、重量轻、永不生锈。

Summary

UD series planet cone-disk stepless variator is a new generation of products developed by ourselves on the basis of introducing foreign advanced technology. UD series stepless variator are widely used for conveying, ceramics, packing, chemical, textile, foodstuffs, medicine, printing, rubber, Machine-tools, and all kinds of automatic production lines, pipelines and assembly lines which need speed-regulation, etc. Its main features are follows:

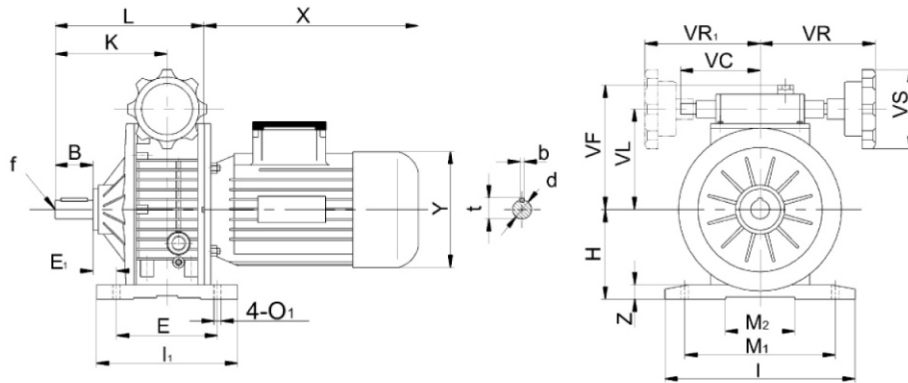
- 1.High speed-regulating precision: up to 0.5~1 rotation.
- 2.Large speed-changing range: The speed ratio ranges from 1/1.4 to 1/7 freely.
- 3.High in strength and long in service life.
- 4.Smooth in driving, low in noise, stable in performance, continuous in running and front-to-back in running direction.
- 5.Convenient to regulate the speed, and compact in structure and small in volume.
- 6.Full in sealing and suitable for any environment.
- 7.Easy in adaptation: it can be combined with all kinds of speed reducers, as to achieve low stepless speed-changing.
- 8.Made of high-quality aluminium alloy diecast in to forming, good-looking in appearance, light in weight and it never gets rusty.

型号及表示方法 Type & Expressions



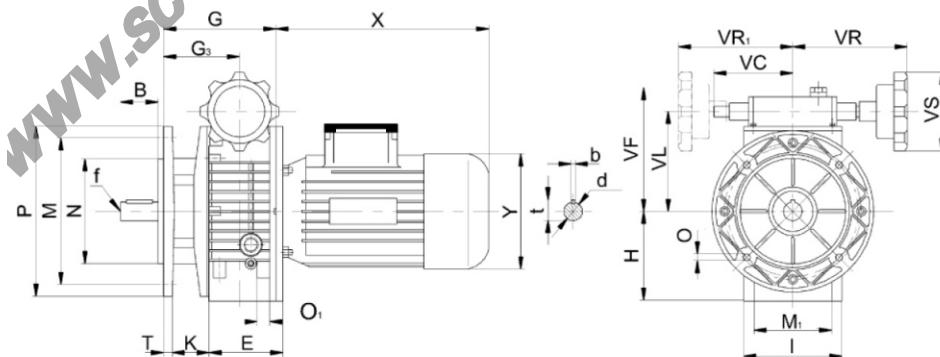
UD 基本型外形及安装尺寸 UD basic model installation dimensions

B3 型 Model



型号 Type	B	d(j6)	E	E ₁	H	I	I ₁	K	L	M ₁	M ₂	O ₁	VC	VF	VL	VR	VR ₁	VS	b	f	t	X	Y	Z
UDL0.18B3	23	11	105	17.5	80	145	120	87.5	135.5	110	71	9	71	111	78	110	110	85	4	-	12.5	200	120	10
UDL0.37B3	30	14	104	20	93	149	125	104	140	120	96	9	71	123	90	110	110	85	5	M6	16	227	141	10
UDL0.75B3	40	19	125	26	113	190	150	125.5	179	160	135	11	79	140	107	120	120	110	6	M6	21.5	268	160	15
UD1.1B3	40	24	105	34.5	100	207	130	136	187	160	115	13	-	124	102	150	-	110	8	M8	27	265	195	15
UD1.5B3	50	24	115	53.5	123	241	150	165	238	190	143	13	-	144	122	150	-	110	8	M8	27	290	195	18
UD2.2B3	60	30	230	25	150	300	270	191	268	245	190	14	-	188	150	160	-	110	8	M8	33	320	215	25
UD3.0B3	60	30	230	25	150	300	270	191	268	245	190	14	-	188	150	160	-	110	8	M8	33	320	215	25
UD4.0B3	60	30	230	25	150	300	270	191	268	245	190	14	-	188	150	160	-	110	8	M8	33	340	240	25
UD5.5B3	70	35	250	33	200	365	290	201	319	315	245	18	-	-	192	194	-	110	10	M10	38	395	275	30
UD7.5B3	70	35	250	33	200	365	290	201	319	315	245	18	-	-	192	194	-	110	10	M10	38	435	275	30

B5 型 Model

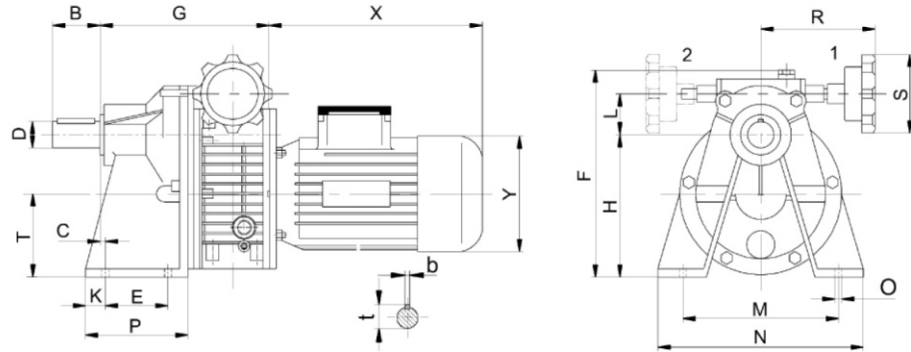


型号 Type	B	d(j6)	E	G	G ₃	H	I	M	M ₁	N	D	D ₁	P	T	K	VC	VF	VL	VR	VR ₁	VS	b	f	t	X	Y
UDL0.18B5	23	11	50	112.5	64.5	70	72	115	60	95	9	M6	140	3.5	46	71	111	78	110	110	85	4	-	12.5	200	120
UDL0.37B5	30	14	40	110	74	80	90	130	77	110	9	M8	160	3.5	53	71	123	90	110	110	85	5	M6	16	227	141
UDL0.75B5	40	19	58	139	85.5	100	98	165	84	130	11	M8	200	3.5	60	79	140	107	120	120	110	6	M6	21.5	268	160
UD1.1B5	40	24	-	147	95	98	207	165	-	130	11	-	200	3.5	-	-	124	102	150	-	110	8	M8	27	265	195
UD1.5B5	50	24	-	188	115	126	241	165	-	130	11	-	200	3.5	-	-	144	122	150	-	110	8	M8	27	290	195
UD2.2B5	60	30	-	208	131	150	270	265	-	230	15	-	300	4	-	-	188	150	160	-	110	8	M8	33	320	215
UD3.0B5	60	30	-	208	131	150	270	265	-	230	15	-	300	4	-	-	188	150	160	-	110	8	M8	33	320	215
UD4.0B5	60	30	-	208	131	150	270	265	-	230	15	-	300	4	-	-	188	150	160	-	110	8	M8	33	340	240
UD5.5B5	70	35	-	244	131	200	-	300	-	250	19	-	350	5	-	-	-	192	194	-	110	10	M10	38	395	275
UD7.5B5	70	35	-	244	131	200	-	300	-	250	19	-	350	5	-	-	-	192	194	-	110	10	M10	38	435	275

基本型与一级齿轮减速机组合外形及安装尺寸

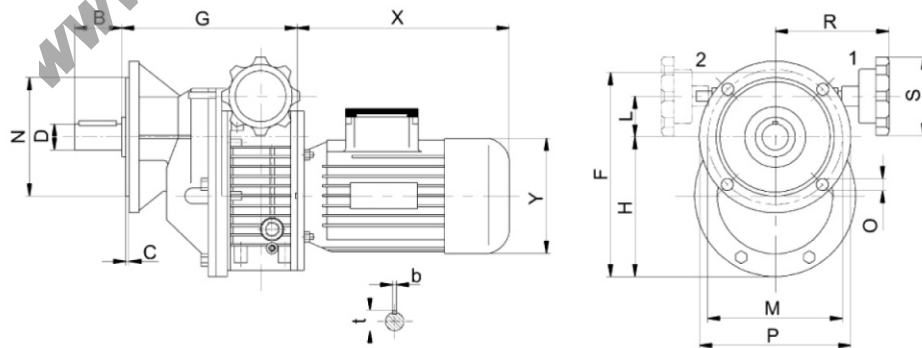
Basic model-single stage gear reducer installation dimensions

B3 型 Model



型号 Type	B	C	D	t	b	E	F	G	H	Y	L	M	N	O	P	R	S	T	X	K
UDL0.18-CB3	40	18	19	21.5	6	45	162	189	108	120	33	115	130	9	80	110	85	66	200	16
UDL0.37-CB3	50	6	24	27	8	70	187	190	130	141	39	150	190	10	110	110	85	79	227	15
UDL0.75-CB3	60	7	28	31	8	70	228	225	150	160	46	165	210	12	130	130	110	99	268	25

B5 型 Model

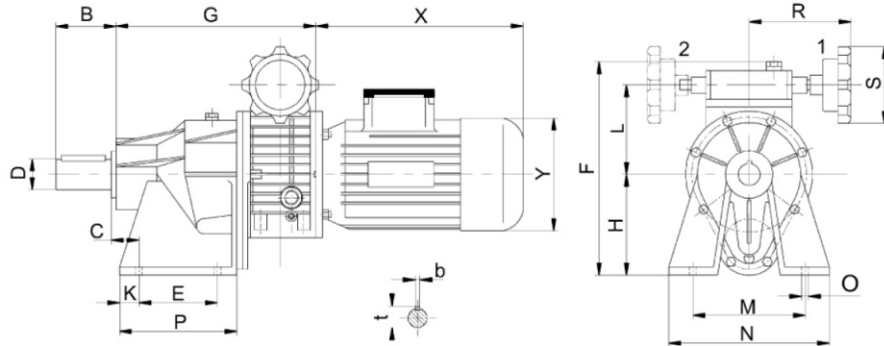


型号 Type	B	C	D	t	b	F	G	H	Y	L	M	N	O	P	R	S	X
UDL0.18-CB5	40	3	19	21.5	6	176	191	105	120	33	115	95	9	140	110	85	200
UDL0.37-CB5	50	4	24	27	8	208	192	128	141	39	130	110	10.5	160	110	85	227
UDL0.75-CB5	60	4	28	31	8	255	227	155	160	46	165	130	12.5	200	130	110	268

基本型与二级齿轮减速机组合外形及安装尺寸

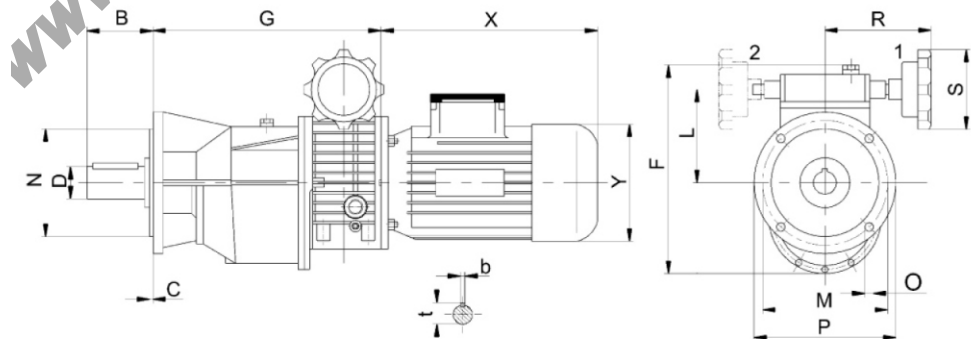
Basic model-double stage gear reducer installation dimensions

B3型 Model



型号Type	B	C	D	t	b	E	F	G	H	Y	L	M	N	O	P	R	S	X	K
UDL0.18-2CB3	40	27	19	21.5	6	70	201	229	105	120	78	105	130	9	120	110	85	200	21
UDL0.37-2CB3	55	25	28	31	8	85	216	238	110	141	90	150	190	10	140	110	85	227	19
UDL0.75-2CB3	65	34	32	35	10	90	261	278	154	160	107	185	230	12	150	130	110	268	21

B5型 Model



型号Type	B	C	D	t	b	F	G	Y	L	M	N	O	P	R	S	X
UDL0.18-2CB5	40	3	19	21.5	6	198	231	120	78	115	95	9	140	110	85	200
UDL0.37-2CB5	65	4	28	31	8	223	240	141	90	130	110	10.5	160	110	85	227
UDL0.75-2CB5	65	4	32	35	10	262	280	160	107	165	130	12.5	200	130	110	268

性能参数 Performance parameters

基本型

Basic Model

输入 Input	型号 Type	减速比 Ratio	输出 Output	
			n_2 (r/min)	M_2 (N.m)
0.18KW	UDL0.18	1.6~8.2	880~170	1.5~3
0.37KW	UDL0.37	1.4~7	1000~200	3~6
0.55KW	UDL0.55	1.4~7	1000~200	4~8
0.75KW	UDL0.75	1.4~7	1000~200	6~12
1.1KW	UD1.1	1.4~7	1000~200	9~18
1.5KW	UD1.5	1.4~7	1000~200	12~24
2.2KW	UD2.2	1.4~7	1000~200	18~36
3.0KW	UD3.0	1.4~7	1000~200	24~48
4.0KW	UD4.0	1.4~7	1000~200	32~64
5.5KW	UD5.5	1.4~7	1000~200	45~90
7.5KW	UD7.5	1.4~7	1000~200	59~118

基本型与齿轮减速机组合

Basic model-gear speed reducer

输入 Input	型号 Type	减速比 Ratio	输出 Output	
			n_2 (r/min)	M_2 (N.m)
0.18KW 4P $n_1=1400$ r/min	UDL0.18-C	2.5	352~68	3.5~7.4
		3.3	266~51.5	4.7~10
		5	176~34	7~15
	UDL0.18-2C	8	110~21	10~20
		11	80~15.5	14~28
		13.3	66~13	17~34
		16.6	53~10	21~42
0.37KW 4P $n_1=1400$ r/min	UDL0.37-C	2.5	400~80	7.3~15
		3.3	300~60	9.5~20
		5	200~40	15~30
	UDL0.37-2C	8	125~25	20~40
		11	90~18	28~56
		13.3	75~15	34~68
		16.6	60~12	42~84
0.75KW 4P $n_1=1400$ r/min	UDL0.75-C	2.5	400~80	15~29
		3.3	300~60	19~38
		5	200~40	30~60
	UDL0.75-2C	8	125~25	40~80
		11	90~18	54~108
		13.3	75~15	68~136
		16.6	60~12	84~168
		20	50~10	96~140

使用说明 Usage specifications

- 1、联轴器与电动机联接时应使轴线保持同心，安装误差不应大于所用联轴器的允许误差值。
- 2、输出轴装联轴器或带轮时，用轴端螺孔压入，或加热装配，严禁锤击。
- 3、机械无级变速器不宜用于可能超负载或堵转使用场合。
- 4、调速应在运转中进行，严禁停车时转动调速手轮。
- 5、操作盒下的两端调速限位螺钉已调整好，请勿再动。
- 6、本机不宜工作在高于 40℃ 的环境中，温升不得高于 45℃。

变速器跑合（空车运转）开始时，温度可高于正常工作环境温度约 40~50℃。跑合 60~80 小时后，温升逐渐下降，此后，温度高于环境温度约 20℃，并保持稳定的温升。跑合时的高温对部件的使用寿命并无有害影响（建议：在使用前进行空车运转）。

- 7、变速器采用润滑油油浴润滑。润滑油牌号为 Ub-3。使用前请检查油位。
- 8、出厂前润滑油已加入，首次使用 1000 小时后应更换润滑油。
- 9、变速器内润滑油应保持油标三分之一高度，用户应经常检查油位高度，严禁在润滑不良的情况下使用。操作盒上透气螺母出厂时为防止搬运中漏油已旋紧，运转时须松开，严禁未松开使用。

1. The shaft lines should be kept concentric when the coupling is connected with a motor. The installation error should be no more than the tolerance value of the coupling.
2. When the output shaft is installed with the coupling or belt wheel, they should be press into the screw hole on shaft end, or assembled by heating. No hammering on it.
3. The mechanical stepless speed variator is not used in such a occasion where overload or running-blockage happen to occur.
4. Speed-regulation should be effected in running. No turning the hand wheel of speed-regulation when the machine stops.
5. The banking screws of speed-regualtion on two ends under the operating box are well adjusted. Please don't touch them.
6. This set is not suited to work in the environment of above 40℃, especially no more than 45℃ when the temperature goes up.

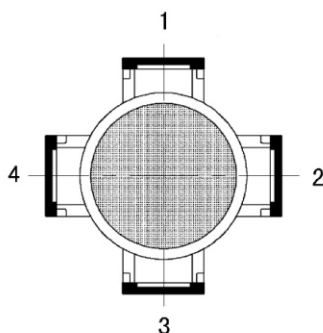
When the variator starts to work (without load), the temperature rise higher than normal, up to 40~50℃ above the environment temperature. After 60~80 hours running, the temperature will decrease gradually. Finally, the temperature will be about 20℃ higher than surrounding and keep stable. The high temperature at beginning do not damage any parts

of variator and do not affect its service life. (Suggestion: running without load at first.)

7. The liquid lubricating oil is used for the speed variator. Its trade mark is Ub-3. please check up the oil level before use.
8. The machine is filled with lubricating oil before leaving the factory. When it starts to work up to 1000 hours for the first time, its lubricating oil should be replaced.
9. The lubricating oil level inside the speed variator should be kept at the height of one-third in the oil scale. Users should usually check up the height of oil level.

It is strictly prohibited to operate it short of lubricating oil. The air screw nut on the operating box is screwed up for preventing from oil leakage in moving when leaving the factory.

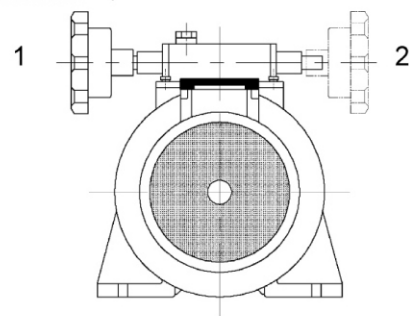
It should be loosed when it start to run. It is strictly forbidden to use it before loosing.



电机接线盒位置图

Position diagram for motor terminal box

(基本位置)
Standard Position



手轮位置图

Hand wheel position diagram