

四、E-UDL 无级变速器

E-UDL STEPLESS SPEED VARIATOR

产品概述 Summary



E-UDL...B3



E-UDL...B5

无线变速器简介 BRIEF INTRODUCTION TO STEPLESS SPEED VARIATOR

E-UDL系列无级变速器的设计，融合了国内外的先进技术，产品有以下主要特点：

- 1、调速精度高：达0.5-1转。
- 2、变速范围大，输出速比可在1: 1.4至1:7之间变化；
- 3、强度高，寿命长。
- 4、调速方便。
- 5、可连续工作运转，且可正反方向运转，运转平稳，性能稳定，噪音低。
- 6、全密封，对环境要求低。
- 7、机构紧凑，体积小。
- 8、采用优质铝合金压铸成型，外形美观，重量轻，永不生锈。
- 9、适应性好。E-UDL系列无级变速器可与各种减速机组合，实现低速无级变速。

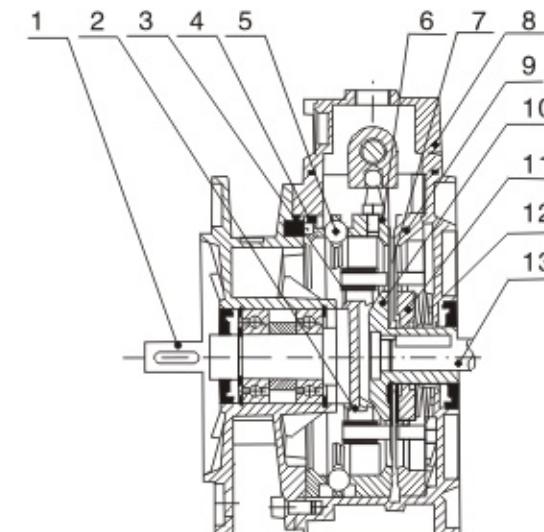
E-UDL系列无级变速器可广泛用于食品、包装、化工、制药、塑料、造纸、机床、交通以及各种需调速的自动生产线，输送装配流水线，是您机器上理想的伙伴。

The design of E-UDL series stepless speed variator compromises the advanced technology both at home and abroad. The products include the following main characteristics:

- 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、Convenient to regulate the speed.
- 5、Continuous in running , front-to-back in running direction , smooth in driving , stable in performance and low in noise.
- 6、Full in sealing and suitable for any environment.
- 7、Compact in structure and small in volume.
- 8、Made in high-quality aluminium alloy diecast into forming , good-looking in appearance , light in weight and it never gets rusty.
- 9、Good in adaptation: E-UDL series stepless speed variators can be combined with all kinds of speed reducers, as to achieve low stepless speed-changing.

E-UDL series stepless speed variators are widely used for foodstuffs, ceramics, packing, chemicals, pharmacy, plastics , paper-making, machine-tools, communications, and all kinds of automatic lines, pipelines and assembly lines which need speed-regulation, it is a good companion for your production.

结构 STRUCTURE



1、输出轴	1、Output shaft
2、行星架	2、Planet carrier
3、滑块	3、Friction bearing–planet disk
4、调整轨	4、Cam ring
5、钢珠环	5、Ball ring
6、滑动轨	6、Adjustable annulus ring
7、行星轮	7、Planet disk
8、操作盒	8、Control cover
9、固定轨	9、Fixed annulus ring
10、太阳轮	10、Fixed sun race
11、太阳轮片	11、Adjustable sun race
12、蝶形弹簧	12、Belleville spring
13、电机轴	13、Motor shaft

E-UDL 型号标记 E-UDL MODEL MARK

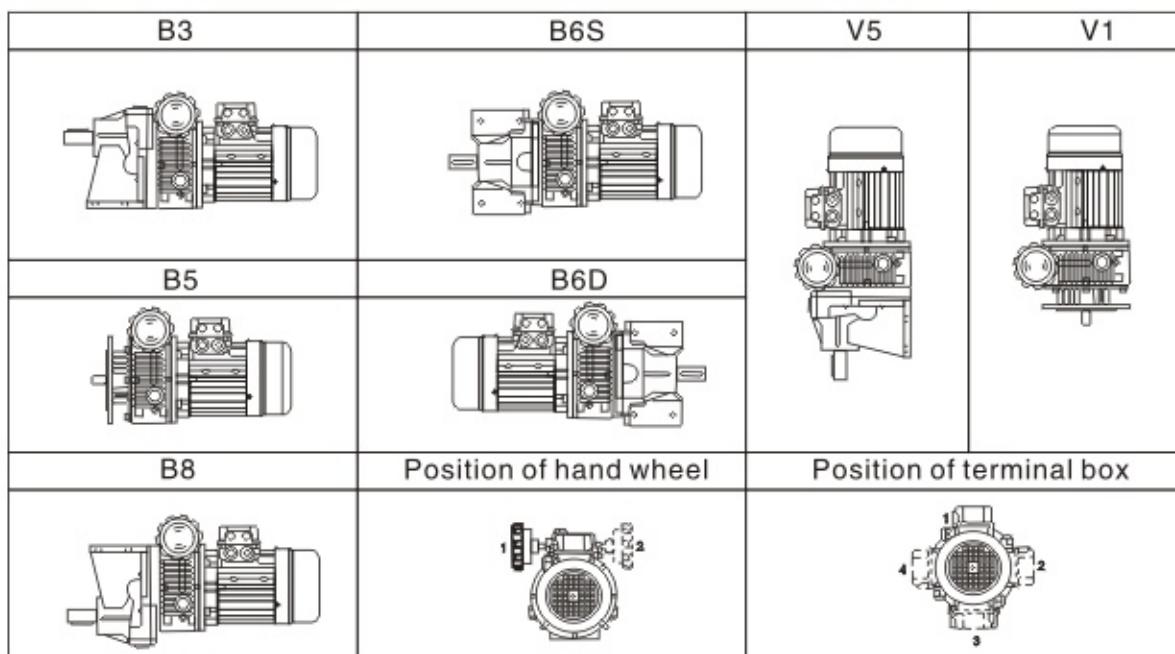
E-UD-L-0.75 B5 B5
 (1) (2) (3) (4) (5)

NO	说 明	Comments
1	无级变速器代号	Code of step less speed variator
2	1) L铝合金机壳 2) 不标注时为铸铁机壳	1)L:Aluminium alloy casing 2)No mark means iron casting
3	电机功率	Motor power
4	1) B3脚底安装机型 2) B5法兰安装机型	1)B3:Foot-mounted model 2)B5:Flange-mounted model
5	安装方位代号	Code of installation position

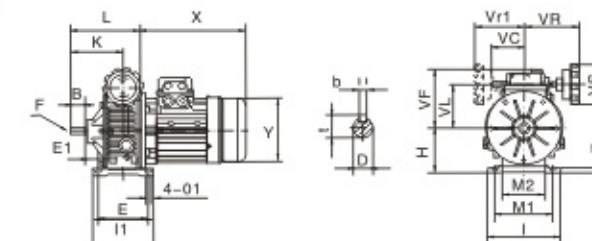
E-UDL 系列无级变速器性能参数**PERFORMANCE TABLE FOR E-UDL SERIES SPEED VARIATOR**

N1=1400 r/min

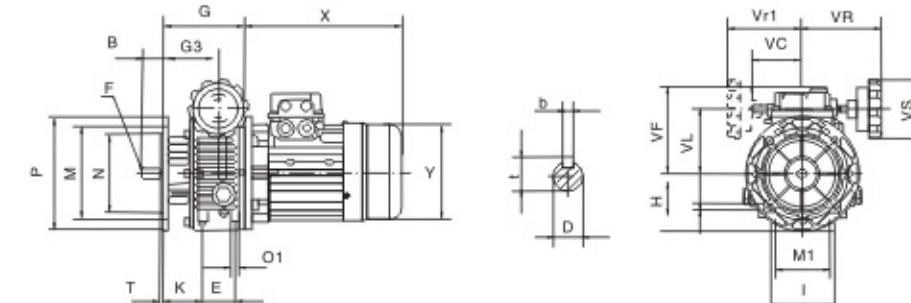
B	型号 Model	I	N ₂ [r/min]	M ₂ [Nm]
0.18KW	E-UDL0.18	1.6~8.2	880~170	1.5~3
0.37KW	E-UDL0.37	1.4~7	1000~200	3~6
0.55KW	E-UDL0.55	1.4~7	1000~200	4~8
0.75KW	E-UDL0.75	1.4~7	1000~200	6~12
1.1KW	E-UDL1.1	1.4~7	1000~200	9~18
1.5KW	E-UDL1.5	1.4~7	1000~200	12~24
2.2KW	E-UDL2.2	1.4~7	1000~200	18~36
3.0KW	E-UDL3.0	1.4~7	1000~200	24~48
4.0KW	E-UDL4.0	1.4~7	1000~200	32~64
5.5KW	E-UDL5.5	1.4~7	1000~200	45~90
7.5KW	E-UDL7.5	1.4~7	1000~200	59~118

安装方位图 INSTALLATION POSITION DIAGRAM

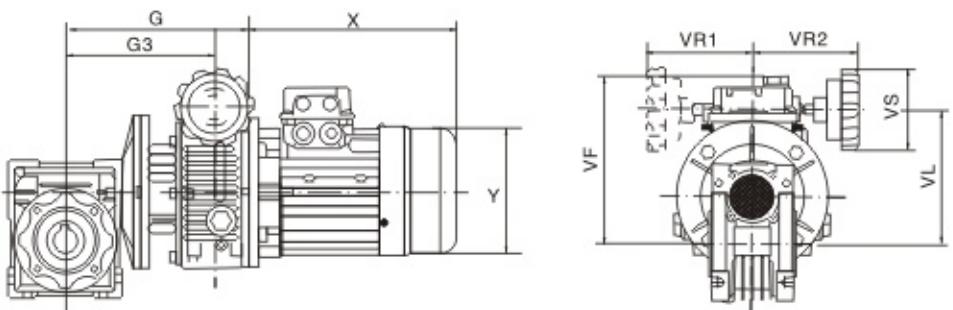
- 如果对接线盒位置有特殊要求,请在下单时如上图所示来指定接线盒安装方位,否则接线盒的位置按标准1形式提供.
- 如没有特殊要求,一般按出厂的标准位置B3或B5形式提供.
- 如需要特殊的位置,请与我们技术服务人员联系.
- For special requirements,orders must specify the position of the terminal box with reference to the diagram. Unless otherwise specified the terminal box , the position of that will be mounted as shown in the diagram for the mounting position.
- Unless specified otherwise , the standard positions are B3 or B5.
- For positions not envisaged , it is necessary to call our Technical Service.

B3型 (MODEL)

	B	D _p	E	E1	H	I	I1	K	L	M1	M2	O1	VC	VF	VL	VR	VR1	VS	B	F	T	X	Y	Z
E-UDL0.18B3	23	11	105	18	80	145	120	88	136	110	71	9	71	111	78	110	110	85	4	-	12.5	200	120	10
E-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
E-UDL0.75B3	40	19	125	26	113	190	150	126	179	160	135	11	79	140	107	120	120	110	6	M6	21.5	268	160	15
E-UDL1.1B3	40	24	105	35	100	207	130	136	187	160	115	13	-	124	102	150	-	110	8	M8	27	265	195	15
E-UDL1.5B3	50	30	115	54	123	241	150	165	238	190	143	13	-	144	122	150	-	110	8	M8	27	290	195	18
E-UDL2.2B3	60	30	230	25	150	300	270	191	268	245	190	14	-	188	150	150	-	110	8	M8	33	320	215	25
E-UDL3.0B3	60	30	230	25	150	300	270	191	268	245	190	14	-	188	150	150	-	110	8	M8	33	320	215	25
E-UDL4.0B3	60	30	230	25	150	300	270	191	268	245	190	14	-	188	150	150	-	110	8	M8	33	340	240	25
E-UDL5.5B3	70	35	250	33	200	365	290	201	319	315	245	18	-	-	192	192	-	110	10	M10	38	395	275	30
E-UDL7.5B3	70	35	250	33	200	365	290	201	319	315	245	18	-	-	192	192	-	110	10	M10	38	435	275	30

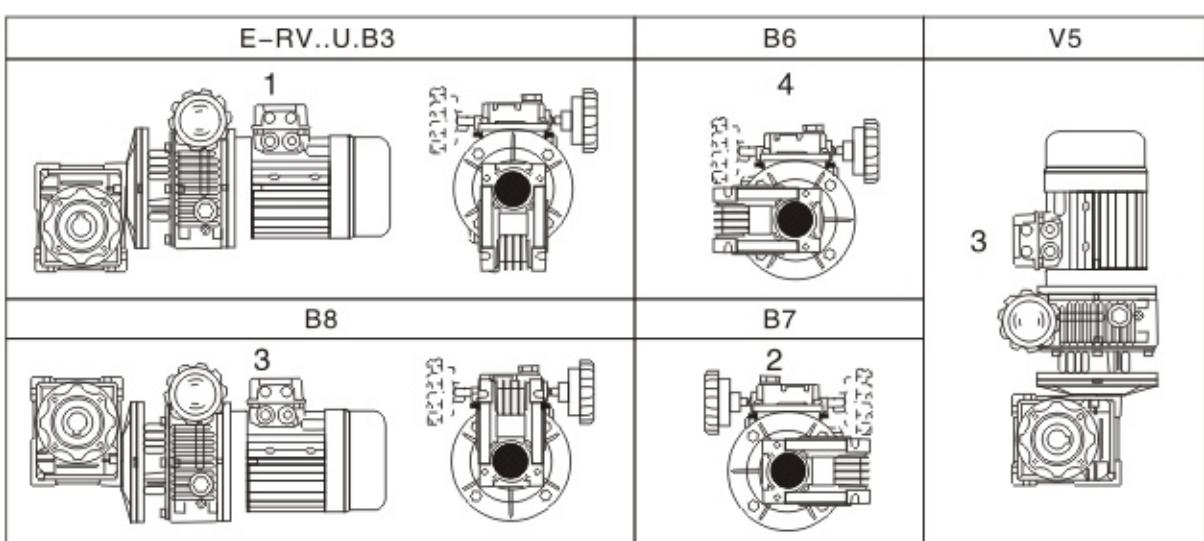
B5型 (MODEL)

	B	D _p	E	G	G3	H	I	M	M1	N	D	D1	P	T	K	VC	VF	VL	VR	VR1	VS	B	F	T	X	Y
E-UDL0.18B3	23	11	50	113	64.5	70	72	115	60	95	9	M6	140	3.5	46	71	111	78	110	110	85	4	-	13	200	120
E-UDL0.37B3	30	14	40	110	74	80	90	130	77	110	9	M8	160	3.5	53	71	123	90	100	110	85	5	M6	16	227	141
E-UDL0.75B3	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	22	268	160
E-UDL1.1B3	40	24	-	147	95	98	207	165	-	130	11	-	200	3.5	-	-	124	102	150	-	110	8	M8	27	265	195
E-UDL1.5B3	50	24	-	188	115	126	241	165	-	130	11	-	200	3.5	-	-	144	122	150	-	110	8	M8	27	290	195
E-UDL2.2B3	60	30	-	208	131	150	270	165	-	230	15	-	300	4	-	-	188	150	160	-	100	8	M8	33	320	215
E-UDL3.0B3	60	30	-	208	131	150	270	265	-	230	15	-	300	4	-	-	188	150	160	-	100	8	M8	33	320	215
E-UDL4.0B3	60	30	-	208	131	150	270	265	-	230	15	-	300	4	-	-	188	150	160	-	110	8	M8	33	320	240
E-UDL5.5B3	70	35	-	244	131	200	-	300	-	250	19	-	350	5	-	-	192	194	-	110	10	M10	38	395	275	
E-UDL7.5B3	70	35	-	244	131	200	-	300	-	250	19	-	350	5	-	-	192	194	-	110	10	M10	38	435	275	



Model	G	G3	VF	VL	VS	VR	VR1	机座号4P Base No.4P n1=1400r/min	X	Y
E-UDL0.18-E-RV040	183	135	151	118	85	110	110	63	200	120
E-UDL0.18-E-RV050	193	145	161	128	85	110	110	71	227	141
E-UDL0.37-E-RV050	190	154	173	140	85	110	110	80	268	160
E-UDL0.37-E-RV063	205	169	186	153	85	110	110	71	227	141
E-UDL0.55-E-RV063	234	181	203	170	110	120	120	80	268	160
E-UDL0.75-E-RV063	234	181	203	170	110	120	120	80	268	160
E-UDL0.37-E-RV0.75	223	187	198	165	85	110	110	80	268	160
E-UDL0.55-E-RV075	252	198	215	182	110	120	120	80	268	160
E-UDL0.75-E-RV075	252	198	215	182	110	120	120	90S	265	195
E-UD1.1-E-RV075	259.5	207.5	199	177	110	150	-	90L	290	195
E-UD1.5-E-RV075	300.5	227.5	219	197	110	150	-	90L	290	195
E-UDL0.55-E-RV090	269	215	230	197	110	120	120	80	268	160
E-UDL0.75-E-RV090	269	215	230	197	110	120	120	90S	265	195
E-UD1.1-E-RV090	276.5	224.5	214	192	110	150	-	90L	290	195
E-UD1.5-E-RV090	317.5	244.5	234	212	110	150	-	90L	290	195
E-UD1.1-E-RV110	307	255	234	212	110	120	-	90S	265	195
E-UD1.5-E-RV110	348	275	254	232	110	150	-	90L	290	195
E-UD2.2-E-RV110	368	291	298	260	110	160	-	100L	320	215
E-UD3.0-E-RV110	368	291	298	260	110	160	-	112M	340	240
E-UD4.0-E-RV110	368	291	298	260	110	160	-	90L	290	195
E-UD1.5-E-RV130	368	295	274	252	110	150	-	100L	320	215
E-UD2.2-E-RV130	388	311	318	280	110	160	-	112M	340	240
E-UD3.0-E-RV130	388	311	318	280	110	160	-	90L	290	195
E-UD4.0-E-RV130	388	311	318	280	110	160	-	112M	340	240

E-UDL…-E-RV…安装方位图 E-UDL - E-RV MOUNTED POSITION



使用与保养 Operation & Maintenance

1、轴伸形式全部圆柱形、按《圆柱形轴伸》GB1569-1990选定，键联接按《普通平键》GB1095-2003选定。

2、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。

3、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！

4、机械无级变速器不宜用于可能超负荷或堵转使用场合。

5、调速应在运转中进行，严禁停车转动调速手轮。

6、操作盒下的两端调速限位螺钉已调整好，请勿再动！

7、本机不宜工作在高于40℃的环境中，温升不得高于45℃。关于本机的温升，请看下面介绍：

变速器采用四极电机时，此时部件在跑合（空车运转）开始时，温度高于正常工作的环境温度约40℃-50℃。跑合60-80小时后，温升逐渐下降，此后温度高于环境20℃，并保持稳定的温升。跑合时高的温升影响正常允许的工作条件，但对部件的使用寿命并无有害影响。

8、变速器采用润湿油油浴润滑。润滑油牌号为UBb-3x，使用前请检查油位。

9、出厂前润滑油已加入，首次使用2000小时后应更换润滑油，以后每隔5000小时换一次油。

10、变速器内润滑油应保持在油标的三分之二高度，用户应经常检查油位高度，严禁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 shapes of shaft extension are all cylindrical. It is subject to GB 1569-1990 Cylindrical shaft extension. The key joint refers to GE1095-2003 Ordinary flat key.

2、The shaft lines should be kept concentric when the coupling is connected with a motor. The instalation error should be no more than the tolerance value of the coupling.

3、When the output shaft is installed with the coupling or belt wheel , they should be pressed into the screw hole on shaft end or assembled by heating.No hammering on it.

4、The mechinal stepless speed variator is not used in such an occasion where overload or running-blockage happen to occur.

5、Speed-regulation should be effected in running . Do not turn the hand wheel of speed-regulation when the machine stops!

6、The limit screws of speed-regulation on two ends under the operating box are well adjusted , Please don't touch them!

7、This set is not suited to work in the environment over 40 temperature , especially no more than 45 temperature when the temperature rises . In regard to its temperature rise , please read the explanation as follows.

If a 4-pole motor is used for the speed variatcr , the temperature under running-in(empty running)is 40-50temperature higher than that of normal working environment . After running-in up to 60-80 hours , the temperature rise will go down gradually .

From that time on , it is 20 temperature higher than of environment ; and the temperatuer will keep on rising stably . The high temperature rise in running will affect normal permissive working condition , but it won 't bring any bad effects to the service life of parts.

8、The liquid lubricating oil is used for the speed variator . Its trade mark is Ub-3x , Please check up the oil level before use.

9、The machine is filled with lubricating oil before leaving factory. When it starts to work up to 2000 hours for the first time , its lubricating oil should be replaced , changing the lubricating oil every 5000 hours later.

10、The lubricating oil level inside the speed variator should be kept at the height of tow-third in the oil scale Users should usually check the height of oil level . It is strictly prohibited to operate it when short of lubricating oil . The air screw nut on the operating box is screwed up for preventing from oil leakage in moving before leaving factory . It should be loosed when it starts to run . It is strictly forbidden to use it before loosing!