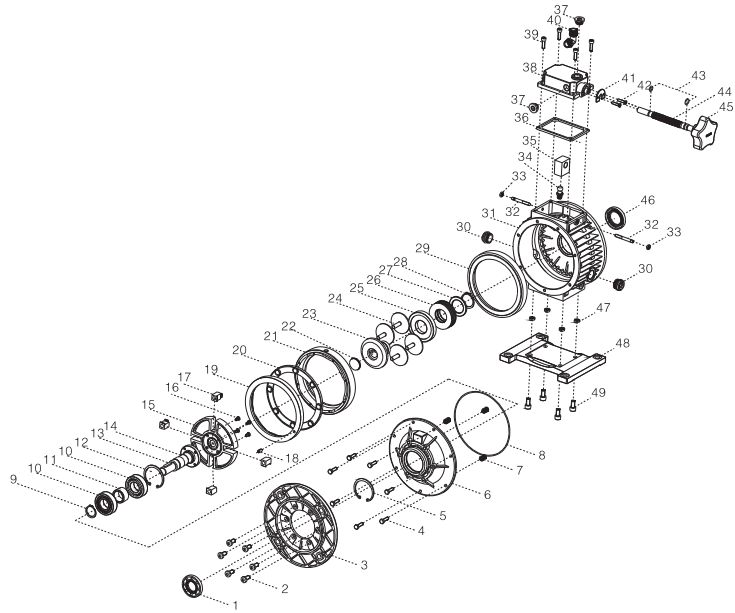


TBC

• Reducer & Motor • UDL-RV无极调速组合



UDL结构分解图 / UDL STRUCTURE DIAGRAM



1	油封 (Oil seal)	11	轴承隔套 (Bearing every set of)	21	调速凸轮 (Speed CAM)	31	箱体 (Cabinet)	41	挡板 (Baffle)
2	六角圆柱头螺栓 (Hexagonal cylindrical head bolts)	12	孔用挡圈 (Hole block circle in)	22	平面油封 (Plane oil seal)	32	螺栓 (Bolt)	42	螺钉 (Screws)
3	输出法兰 (Output flanges)	13	平键 (Parallel key)	23	主动轮 (Active wheel)	33	螺母 (Nut)	43	O型橡胶密封圈 (O-ring)
4	外六角圆柱头螺栓 (Hexagonal cylindrical head bolts)	14	输出轴 (Output shaft)	24	行星锥盘 (Planet cone-disk)	34	球头调速柄 (Ball head speed control handle)	44	丝杆 (Screw)
5	孔用挡圈 (Hole block circle in)	15	转臂 (Turn arm)	25	压盘 (Pressure plate)	35	调速螺母 (Speed nuts)	45	调速柄 (Speed control handle)
6	输出端盖 (Output cover)	16	螺钉 (Screws)	26	蝶形弹簧 (Will spring)	36	橡胶垫片 (Rubber gaskets)	46	油封 (Oil seal)
7	弹簧 (Spring)	17	滑块 (Slider)	27	挡圈 (Block circle)	37	油塞 (Oil plug)	47	螺母 (Nut)
8	O型橡胶密封圈 (O-ring)	18	弹性圆柱销 (Elastic cylindrical pin)	28	轴用挡圈 (Shaft block)	38	操作盖 (Operating cover)	48	底脚 (Foot bottom)
9	轴用挡圈 (Shaft block)	19	固定凸轮 (Fixed CAM)	29	定环 (Set ring)	39	内六角圆柱头螺栓 (In-hexagonal cylindrical head bolts)	49	内六角圆柱头螺栓 (In-hexagonal cylindrical head bolts)
10	轴承 (bearing)	20	滚珠环 (Ball ring)	30	视油镜 (Depending on oil mirror)	40	弯管 (Bent pipe)		

UDL-B3产品介绍 / UDL-B3 PRODUCT INTRODUCTION



产品概述 / PRODUCTS OVERVIEW

UDL系列无级变速器的设计，融合了国内外的先进技术，产品具有以下特点：

1. 调整精度高：达0.5 - 1转。
2. 变速范围大，输出速比可在1：1.4至1：7之间任意变化。
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. 采取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。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。

UDL系列无级变速器可广泛应用于食品、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、输送线、装配流水线，是您机器上理想的伙伴。

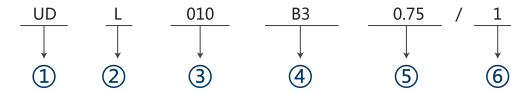
The design of UDL series stepless speed variator compromises the advanced technology both at home and abroad. The products include the following main characteristics:

1. High speed precision: 0.5-1 shaft
2. High 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 of high-quality aluminium alloy diecast into forming, good-looking in appearance, light in weight and it never gets rusty
9. Good in adaptation: UDL series stepless speed variators can be combined with all kinds of speed reducers, as to achieve low stepless speed-changing.

UDL series stepless speed variators are widely used for foodstuffs, 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 production.

型号说明 / MODEL ILLUMINATE

无级变速器 STEPLESS SPEED VARIATOR

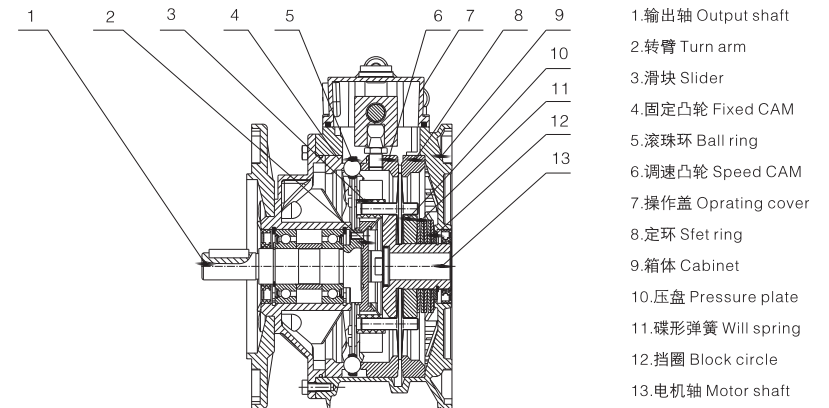


NO	说明	Comments
1	无级变速器代号	Code of stepless speed variator
2	L: 铝合金机壳 不标注时为铸铁机壳	L: Aluminium alloy casing No mark means cast iron casing
3	无级变速器机座号	Seat NO. of stepless speed variator
4	B3: 底脚安装机型 B5: 法兰安装机型	B3: Foot-mounted model B5: Flange-mounted position
5	电机功率	Motor power
6	电机接线盒位置, 默认位置1可以不写	Position diagram for motor terminal box default position 1 not to write out is ok

订单时请说明是否带电机，一般按不带电机供应。

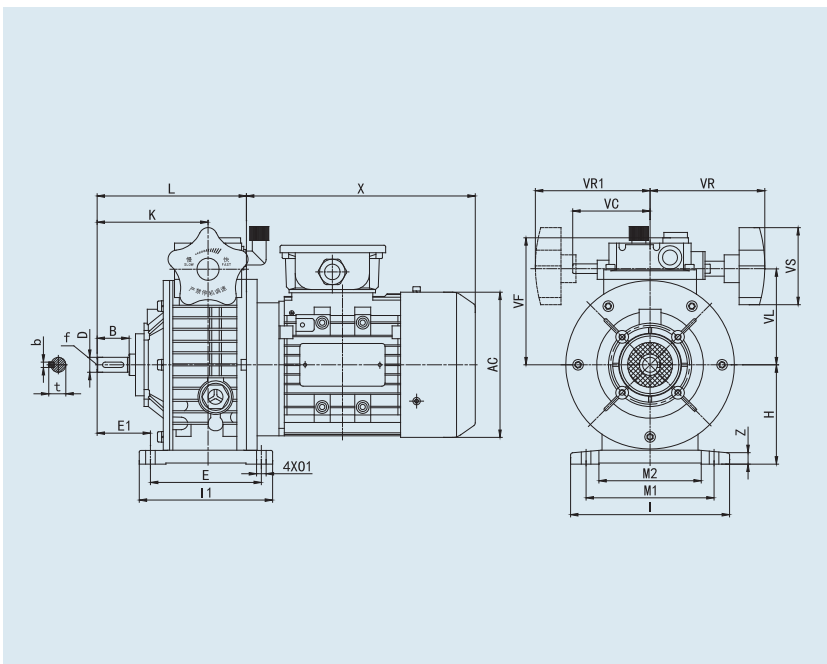
When ordering, you should show whether the reducers are equipped with motors, otherwise reducers aren't supplied with motors.

结构 STRUCTURE



1. 输出轴 Output shaft
2. 转臂 Turn arm
3. 滑块 Slider
4. 固定凸轮 Fixed CAM
5. 滚珠环 Ball ring
6. 调速凸轮 Speed CAM
7. 操作盖 Operating cover
8. 定环 Set ring
9. 箱体 Cabinet
10. 压盘 Pressure plate
11. 碟形弹簧 Will spring
12. 挡圈 Block circle
13. 电机轴 Motor shaft

UDL-B3尺寸 / UDL - B3 SIZE



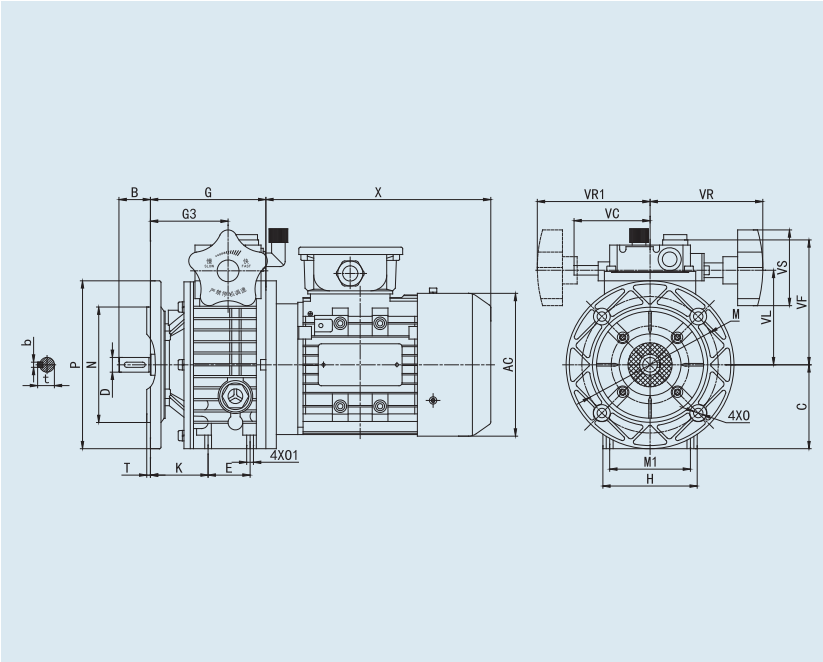
UDL-B3型机座安装形式 / UDL - B3 type frame installation form

TYPE	B	D(φ)	E	E1	H	I	I1	K	L	M1	M2	O1	VC	VF	VL	VR	VR1	VS	b	ε	X	AC	Z
UDL002B3-0.18	23	11	105	80	80	145	120	87.5	135.5	110	71	9	71	111	78	110	110	85	4	12.5	194	120	10
UDL005B3-0.25	30	14	104	93	93	149	125	104	140	120	96								123	90	110	110	
UDL005B3-0.37	40	19	125	113	113	190	150	125.5	179	160	135	11	79	140	107	120	120	110	6	21.5	247	155	15
UDL010B3-0.55	40	19	125	113	113	190		125.5	179	160	135										11	79	
UDL010B3-0.75	50	24	140	123	123	241	150	165	238	180	143	12	-	144	122	150	-	110	8	27	260	175	18
UD020B3-1.1	50	24	140	123	123	241		165	238	180	143										12	-	
UD020B3-1.5	60	28	230	150	150	300	270	191	268	245	190	14	-	188	150	160	-	110	8	31	323	195	25
UD030B3-2.2	60	28	230	150	150	300		270	191	268	245										190	14	
UD030B3-3.0	70	38	250	200	200	365	290	201	319	315	245	18	-	192	194	-	-	110	10	41	341	219	30
UD030B3-4.0	70	38	250	200	200	365		290	201	319	315										245	18	
UD050B3-5.5	70	38	250	200	200	365	290	201	319	315	245	18	-	192	194	-	-	110	10	41	395	258	30
UD050B3-7.5	70	38	250	200	200	365		290	201	319	315										245	18	

UDL-B5产品介绍 / UDL - B5 PRODUCT INTRODUCTION



UDL-B5尺寸 / UDL - B5 SIZE



UDL-B5型机座安装形式 / UDL - B5 type frame installation form

TYPE	B	C	D (J6)	E	G	G3	H	M	M1	O	O1	P	T	K	VC	VF	VL	VR	VR1	b	t	X	AC
UDL002B5-0.18	23	70	11	50	112.5	64.5	72	115	60	9	M6	140	3.5	46	71	111	78	110	110	4	12.5	194	120
UDL005B5-0.25	30	80	14	40	110	74	90	130	77	9	M8	160		53	71	123	90	110	110	5	16	215	136
UDL005B5-0.37														60	79	140	107	120	120	6	21.5	247	155
UDL010B5-0.55	40	100	19	58	139	85.5	98	165	84	11	M8	200	3.5	60	79	140	107	120	120	6	21.5	247	155
UDL010B5-0.75																							
UD020B5-1.1	50	109	24	-	188	115	241	165	-	11	-	200	3.5	-	-	144	122	150	-	8	27	260	175
UD020B5-1.5																							
UD030B5-2.2	60	130	28	-	208	131	270	215	-	15	-	250	4	-	-	188	150	160	-	8	31	323	195
UD030B5-3.0																							
UD030B5-4.0																							
UD030B5-4.0																							
UD050B5-5.5	70	200	38	-	244	131	-	265	-	19	-	300	5	-	-	-	192	194	-	10	41	395	258
UD050B5-7.5																							

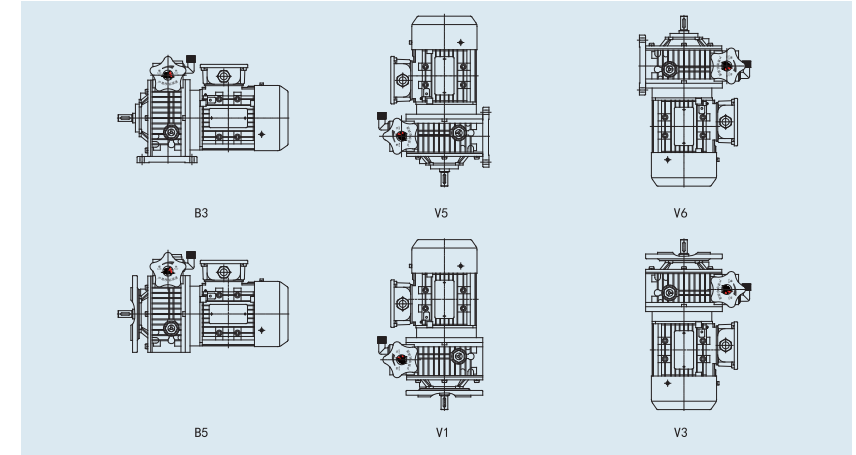
性能参数 / PERFORMANCE PARAMETER

UDL系列无级变速器性能参数

Performance table for udl series speed variator ($n_1=1400r/min$)

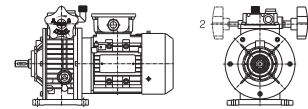
电机功率 Motor power	型号 Model	i	n_2 [r/min]	M_2 (Nm)
0.18KW	UDL002	1.6-8.2	880-170	1.5-3
0.25KW	UDL005	1.4-7	1000-200	2.2-6
0.37KW	UDL005	1.4-7	1000-200	3-6
0.55KW	UDL010	1.4-7	1000-200	4-8
0.75KW	UDL010	1.4-7	1000-200	6-12
1.1KW	UD020	1.4-7	1000-200	9-18
1.5KW	UD020	1.4-7	1000-200	12-24
2.2KW	UD030S	1.4-7	1000-200	18-36
3.0KW	UD030L	1.4-7	1000-200	24-48
4.0KW	UD030L	1.4-7	1000-200	32-64
5.5KW	UD050S	1.4-7	1000-200	45-90
7.5KW	UD050L	1.4-7	1000-200	59-118

UDL与NMRV安装方位 / UDL AND NMRV INSTALLATION POSITION

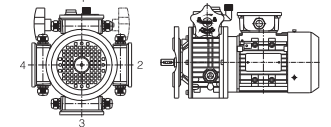


附件位置 / THE ATTACHMENT POSITION

手轮位置 THE POSITION OF THE HAND WHEEL



电机接线盒位置 MOTOR TERMINAL BOX POSITION



注:如没有特别说明,手轮将按照如图1位和B3安装方位的组合方式提供。
Note: if no special note, the handwheel will be in accordance with the figure 1 and B3 installation azimuth combination is provided.

系列

型号说明 / MODEL ILLUMINATE

UDL-NMRV无级变速器与蜗轮蜗杆减速机组合 / COMBINATION OF STEPLESS SPEED VARIATOR AND WORM GEAR UNITS

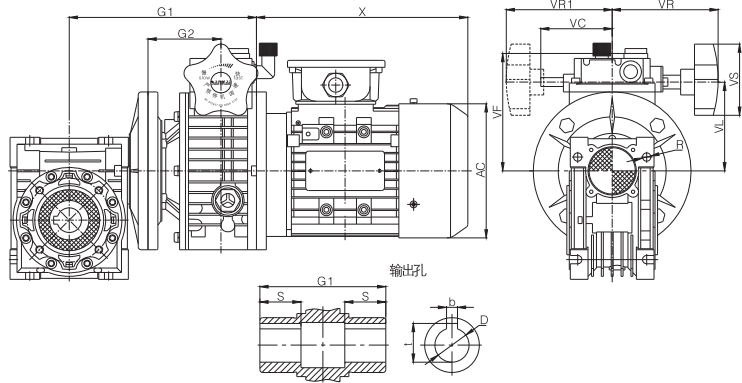
UD L 010 - NMRV 063 - 40 E FA1 DZ1 B3
 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

NO	说明	Comments
1	无级变速器代号	Code of stepless speed variator
2	铝合金机壳，不标注时为铸铁机壳	Aluminium alloy housing, and no mark means cast iron casing
3	无级变速器机座号	Continuously variable transmission model
4	蜗轮蜗杆减速机代码	Code of worm gear units
5	蜗轮蜗杆减速机中心距（规格）	Central distance of worm gear units(spec)
6	蜗轮蜗杆减速机速比	Speed ratio of worm gear units
7	1.无代号表示不带输出法兰 2.E：带蜗杆同向输出轴	1.No mark means single extension worm shaft 2.E:Double extension worm shaft
8	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
9	1.无代号表示孔输出 2.DZ（1/2）：单向输出轴和位置 3.SZ：双向输出轴	1.No mark means hole output 2.DZ（1/2）:Single output shaft and position 3.SZ:Double output shaft
10	安装方位代号	Installation position code

UDL+NMRV产品介绍 / UDL+NMRV DURING INTRODUCTION



UDL+NMRV尺寸 / UDL+NMRV SIZE



型号 (model)	D(H8)	b	t	G1	G2	S	VF	VL	VR	VR1
UDL002-NMRV030	14	5	16.3	167.5	119.5	21	111	78	110	110
UDL002-NMRV040	18(19)	6	20.8(21.8)	182.5	134.5	26	111	78	110	110
UDL005-NMRV040				180	144		123	90	110	110
UDL002-NMRV050	25(24)	8	28.3(27.3)	192.5	144.5	30	111	78	110	110
UDL005-NMRV050				190	154		123	90	110	110
UDL005-NMRV063	25(28)	8	28.3(31.3)	205	169	36	123	90	110	110
UDL010-NMRV063				234	180.5		140	107	120	120
UDL005-NMRV075	28(35)	8(10)	31.3(38.3)	222.5	186.5	40	123	90	110	110
UDL010-NMRV075				251.5	198		140	107	120	120
UD020-NMRV075				300.5	227.5		144	122	150	-
UDL010-NMRV090				268.5	215		140	107	120	120
UD020-NMRV090	35(38)	10	38.3(41.3)	317.5	244.5	45	144	122	150	-
UDL010-NMRV110				299	245.5		140	107	120	120
UD020-NMRV110	42	12	45.3	348	275	50	144	122	150	-
UD030-NMRV110				368	291		188	150	160	-
UD020-NMRV130	45	14	48.8	368	295	60	144	122	150	-
UD030-NMRV130				388	311		188	150	160	-

注：1. NMRV的其它尺寸请参考24页
2. UDL的其它尺寸请参考57, 59页
3. X、AC尺寸请参考94页

减速机选型表 / GEAR UNIT SELECTION TABLES

UDL..NMRV..(n₁=1400r/min) 性能参数 PERFORMANCE PARAMETER

P _{in} (kw)	n ₂ (r/min)	i	M ₂ (Nm)		
0.18	117-22.5	12-61.5	9-18	UDL002-NMRV040 6324	
	88-17	16-82	12-23		
	58.7-11.3	24-123	17-32		
	44-8.5	32-164	22-40		
	35.2-6.8	40-205	27-47		
	29.3-5.7	48-246	30-51		
	22-4.3	64-328	37-62		
	17.6-3.4	80-410	43-60		
	22-4.3	64-328	38-63		
	17.6-3.4	80-410	44-73		
0.37	14.7-2.8	96-492	50-80	UDL002-NMRV050 6324	
	11-2.1	128-656	59-82		
	8.8-1.7	160-820	66-79		
	133-26.7	10.5-52.5	19-36		UDL005-NMRV050 7124
	100-20	14-70	25-47		
	66.7-13.3	21-105	36-65		
	50-10	28-140	46-82		
	40-8	35-175	55-97		
	33.3-6.7	42-210	61-107		
	25-5	56-280	76-124		
20-4	70-350	89-120			
25-5	56-280	79-134			
20-4	70-350	92-155			
0.55	16.7-3.3	84-420	104-173	UDL005-NMRV063 7124	
	12.5-2.5	112-560	125-173		
	10-2	140-700	139-150		
	133-26.7	10.5-52.5	26-49		UDL010-NMRV063 8014
	100-20	14-70	34-63		
	66.7-13.3	21-105	48-88		
	50-10	28-140	62-112		
	40-8	35-175	75-133		
	33.3-6.7	42-210	81-146		
	25-5	56-280	105-179		
20-4	70-350	123-207			
20-4	70-350	129-216			
16.7-3.3	84-420	146-242			
0.75	12.5-2.5	112-560	176-250	UDL010-NMRV075 8014	
	12.5-2.5	112-560	189-309		
	10-2	140-700	218-350		
	133-26.7	10.5-52.5	39-73		UDL010-NMRV090 8014
	100-20	14-70	51-94		
	66.7-13.3	21-105	72-132		
	50-10	28-140	92-168		
	40-8	35-175	112-199		
	33.3-6.7	42-210	126-219		
	25-5	56-280	156-232		
20-4	70-350	185-310			
20-4	70-350	192-320			
16.7-3.3	84-420	219-300			
0.75	133-26.7	10.5-52.5	39-73	UDL010-NMRV063 8024	
	100-20	14-70	51-94		
	66.7-13.3	21-105	72-132		
	50-10	28-140	92-168		
	40-8	35-175	112-199		
	33.3-6.7	42-210	126-219		
	25-5	56-280	156-232		
	20-4	70-350	185-310		
	20-4	70-350	192-320		
	16.7-3.3	84-420	219-300		
0.75	133-26.7	10.5-52.5	39-73	UDL010-NMRV075 8024	
	100-20	14-70	51-94		
	66.7-13.3	21-105	72-132		
	50-10	28-140	92-168		
	40-8	35-175	112-199		
	33.3-6.7	42-210	126-219		
	25-5	56-280	156-232		
	20-4	70-350	185-310		
	20-4	70-350	192-320		
	16.7-3.3	84-420	219-300		

系列

减速机选型表 / GEAR UNIT SELECTION TABLES

UDL..NMRV..(n₁=1400r/min) 性能参数 PERFORMANCE PARAMETER

P ₁ (kw)	n ₁ (r/min)	i	M ₂ (Nm)				
0.75	16.7~3.3	84~420	230~389	UDL010~NMRV090	8024		
	12.5~2.5	112~560	265~428				
	10~2	140~700	303~410				
	12.5~2.5	112~560	302~503				
1.1	10~2	140~700	348~575	UDL010~NMRV110	8024		
	133~26.7	10.5~52.5	59~111	UD020~NMRV075	90S4		
	100~20	14~70	77~144				
	66.7~13.3	21~105	110~203				
	50~10	28~140	142~258				
	40~8	35~175	172~308				
	33.3~6.7	42~210	195~340				
	25~5	56~280	245~360				
	100~20	14~70	78~146				
	66.7~13.3	21~105	113~208	UD020~NMRV090	90S4		
	50~10	28~140	146~266				
	40~8	35~175	177~320				
	33.3~6.7	42~210	202~356				
	25~5	56~280	256~442				
	20~4	70~350	304~517				
	20~4	70~350	320~550				
	16.7~3.3	84~420	368~625				
	12.5~2.5	112~560	455~754	UD020~NMRV110	90S4		
	10~2	140~700	522~710				
	16.7~3.3	84~420	373~623				
12.5~2.5	112~560	460~749					
1.5	10~2	140~700	531~868	UD020~NMRV130	90S4		
	133~26.7	10.5~52.5	78~148				
	100~20	14~70	102~192				
	66.7~13.3	21~105	147~270				
	2.2	50~10	28~140	190~344	UD020~NMRV075	90L4	
		40~8	35~175	229~330			
		33.3~6.7	42~210	260~390			
		25~5	56~280	327~360			
		133~26.7	10.5~52.5	77~150			
		100~20	14~70	104~195			
		66.7~13.3	21~105	150~277			
		50~10	28~140	194~355			
		4.0	40~8	35~175	236~427	UD020~NMRV090	90L4
			33.3~6.7	42~210	270~474		
			25~5	56~280	341~589		
			20~4	70~350	406~560		
			20~4	70~350	426~733		
			16.7~3.3	84~420	490~833		
			16.7~3.3	84~420	498~831		
			12.5~2.5	112~560	614~999		
10~2	140~700		696~1100	UD020~NMRV110	90L4		
133~26.7	10.5~52.5		120~226				
100~20	14~70		157~294				
66.7~13.3	21~105		228~418				

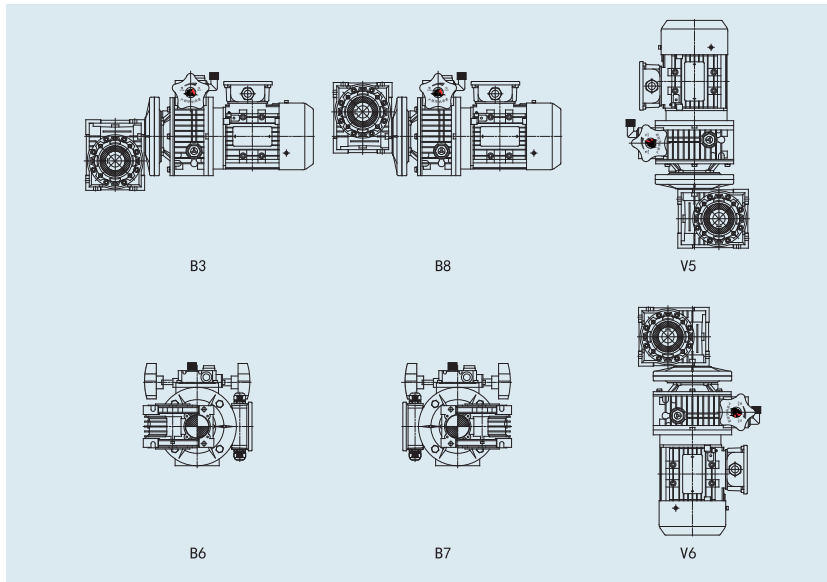
系列

减速机选型表 / GEAR UNIT SELECTION TABLES

UDL..NMRV..(n₁=1400r/min) 性能参数 PERFORMANCE PARAMETER

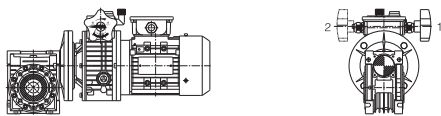
P ₁ (kw)	n ₁ (r/min)	i	M ₂ (Nm)			
2.2	50~10	28~140	298~549	UD030~NMRV110	100L1~4	
	40~8	35~175	364~664			
	33.3~6.7	42~210	413~717			
	25~5	56~280	533~931			
	3.0	25~5	56~280	542~932	UD030~NMRV130	100L1~4
		20~4	70~350	648~1097		
		16.7~3.3	84~420	746~1246		
		12.5~2.5	112~560	921~1499		
10~2		140~700	1040~169			
133~26.7		10.5~52.5	160~302	UD030~NMRV110		
100~20	14~70	210~392				
66.7~13.3	21~105	304~558				
50~10	28~140	398~732				
40~8	35~175	485~885				
33.3~6.7	42~210	547~956				
25~5	56~280	711~1030				
133~26.7	10.5~52.5	160~301	UD030~NMRV130		100L2~4	
100~20	14~70	211~395				
66.7~13.3	21~105	307~563				
50~10	28~140	402~733				
40~8	35~175	490~885				
33.3~6.7	42~210	562~973				
25~5	56~280	720~1242				
20~4	70~350	864~1463		UD050~NMRV110		112M4
133~26.7	10.5~52.5	213~402				
100~20	14~70	279~523				
66.7~13.3	21~105	405~744				
50~10	28~140	530~975				
40~8	35~175	647~1020				
133~26.7	10.5~52.5	214~401	UD050~NMRV130		112M4	
100~20	14~70	281~527				
66.7~13.3	21~105	410~751				
50~10	28~140	536~978				
40~8	35~175	653~1180				
33.3~6.7	42~210	749~1298				
25~5	56~280	960~1650				

UDL与NMRV安装方位 UDL AND NMRV INSTALLATION POSITION



附件位置 / THE ATTACHMENT POSITION

NMRV...UDL...手轮位置 THE POSITION OF THE HAND WHEEL



注:如没有特别说明,手轮将按照如图1位和B3安装方位的组合方式提供。
Note: if no special note, the handwheel will be in accordance with the figure 1 and B3 installation azimuth combination is provided.

NMRV...UDL...电机接线盒位置 MOTOR TERMINAL BOX POSITION



注:如对电机接线盒位置有特别要求,订购时须参考上图的要求指定接线盒方位,否则接线盒方位将按安装方位图表中的方位提供。
Note: if the motor terminal box position have special requirements, when ordering reference is made to the above requirements specified terminal box position, or junction box range according to installation position chart position is provided.