

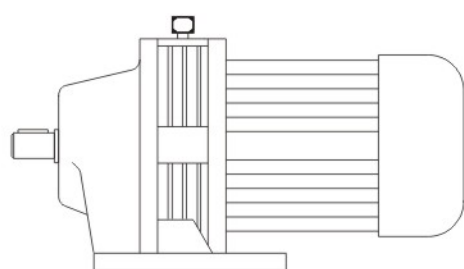


友环传动
YOUHUAN TRANSMISSION

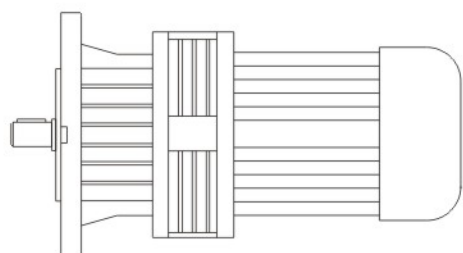
WB系列微型摆线针轮减速器
WB series micro
cycloidal reducer



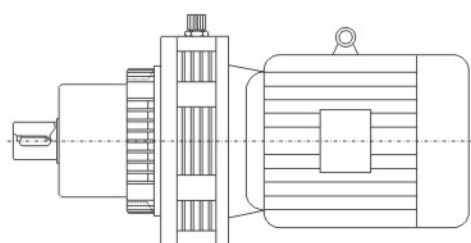
WB系列微型摆线针轮减速器
WB series micro cycloidal reducer



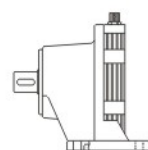
WB...WD



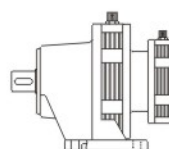
WB...LD



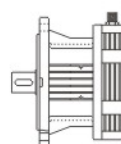
WB...L1D



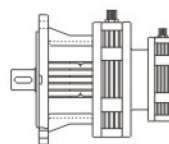
WB...W



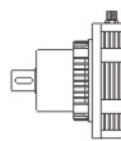
WBE...W



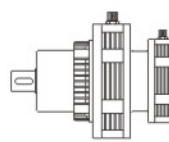
WB...L



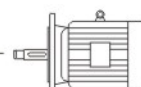
WBE...L



WB...L1



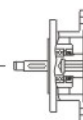
WBE...L1



Y



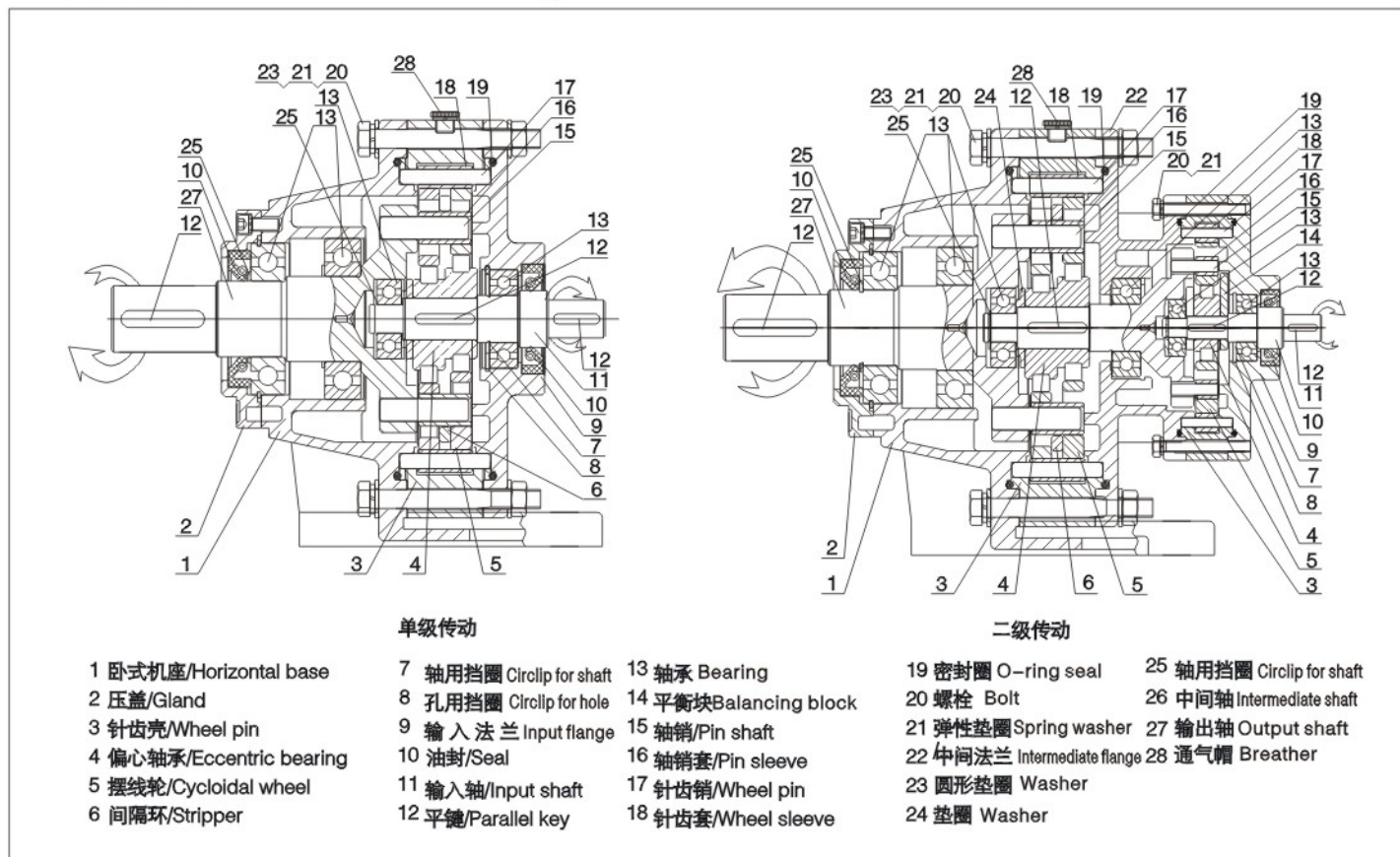
S



F



WB系列结构图:WBseries structrue drawing:



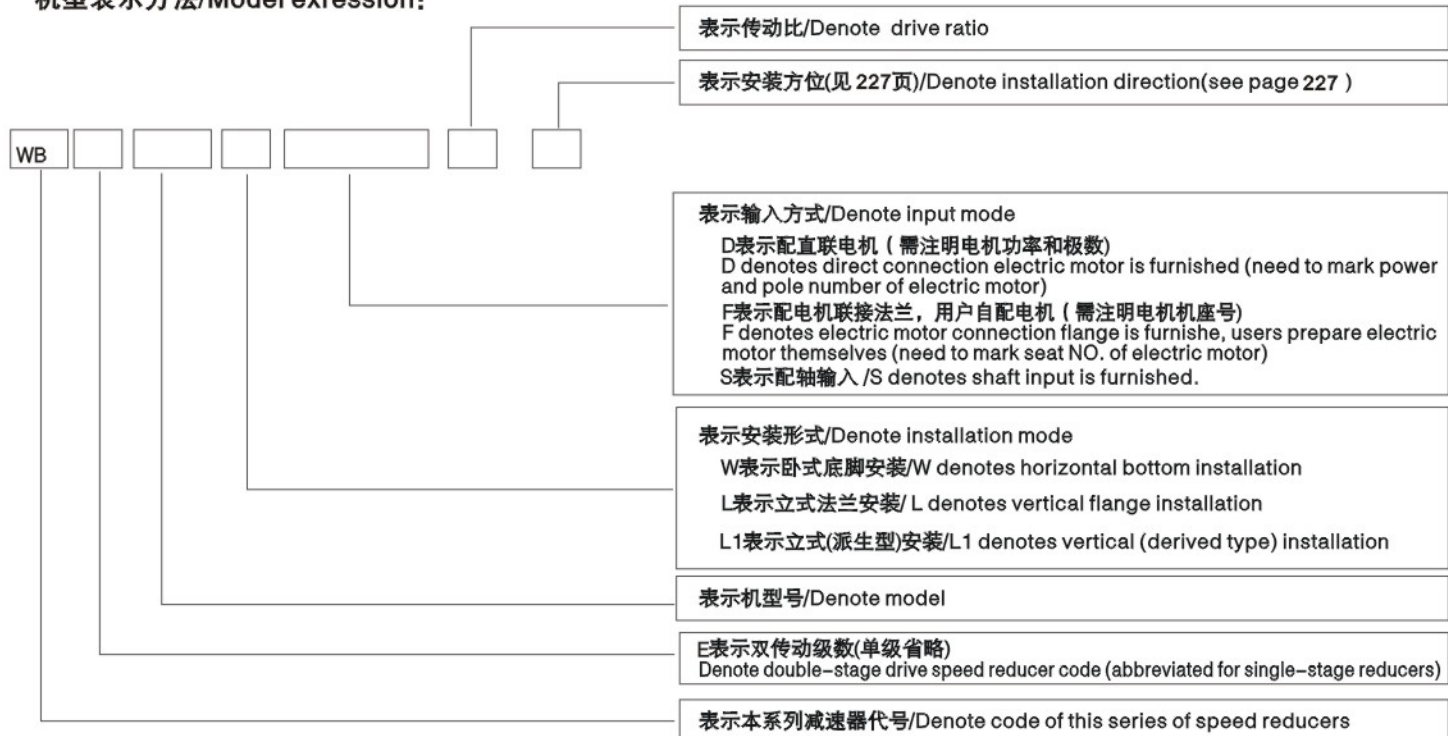
WB系列摆线针轮减速器型号规格及机型表示方法:

本系列减速器的型号规格有:WB(65、85、100、120、150), WBE(1065、1285、1510) 等八种传动型号。
其中单级传动型号规格有:WB(65、85、100、120、150)等五种规格,传动比有7~121等多种速比,可分别配置0.04~3kW。
其中二级传动型号规格有:WBE(1065、1285、1510)等三种规格,传动比有121~5959等多种速比,可分配0.04~0.37kW。

Type, specification and model notation for WB series cycloidal pinwheel speed reducers:

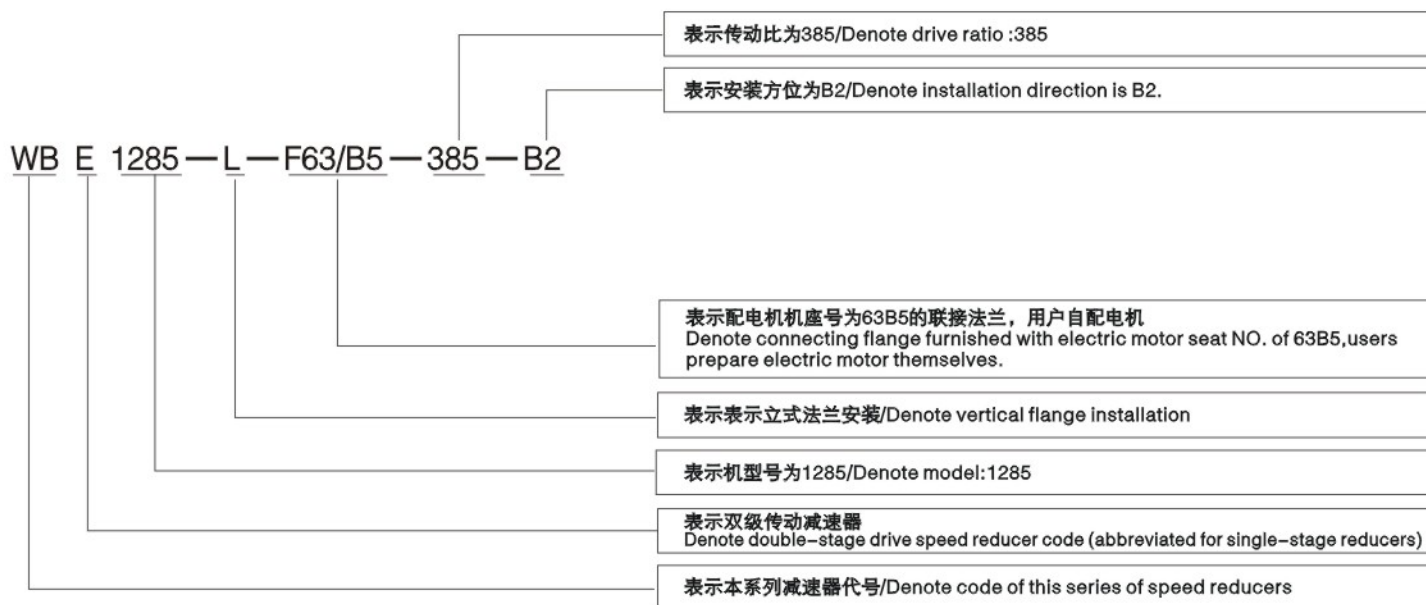
This series speed reducers have eight kinds of drive models including WB (65、85、100、120、150), WBE(1065、1285、1510). Single-stage models and specifications include WB(65、85、100、120、150), drive ratio ranges from 7~121, allocable power: 0.04~3kW. Two-stage drive models and specifications include WBE(1065、1285、1510), drive ratio ranges from 121~5959, allocable power: 0.04~0.37kW.

机型表示方法/Model expression:

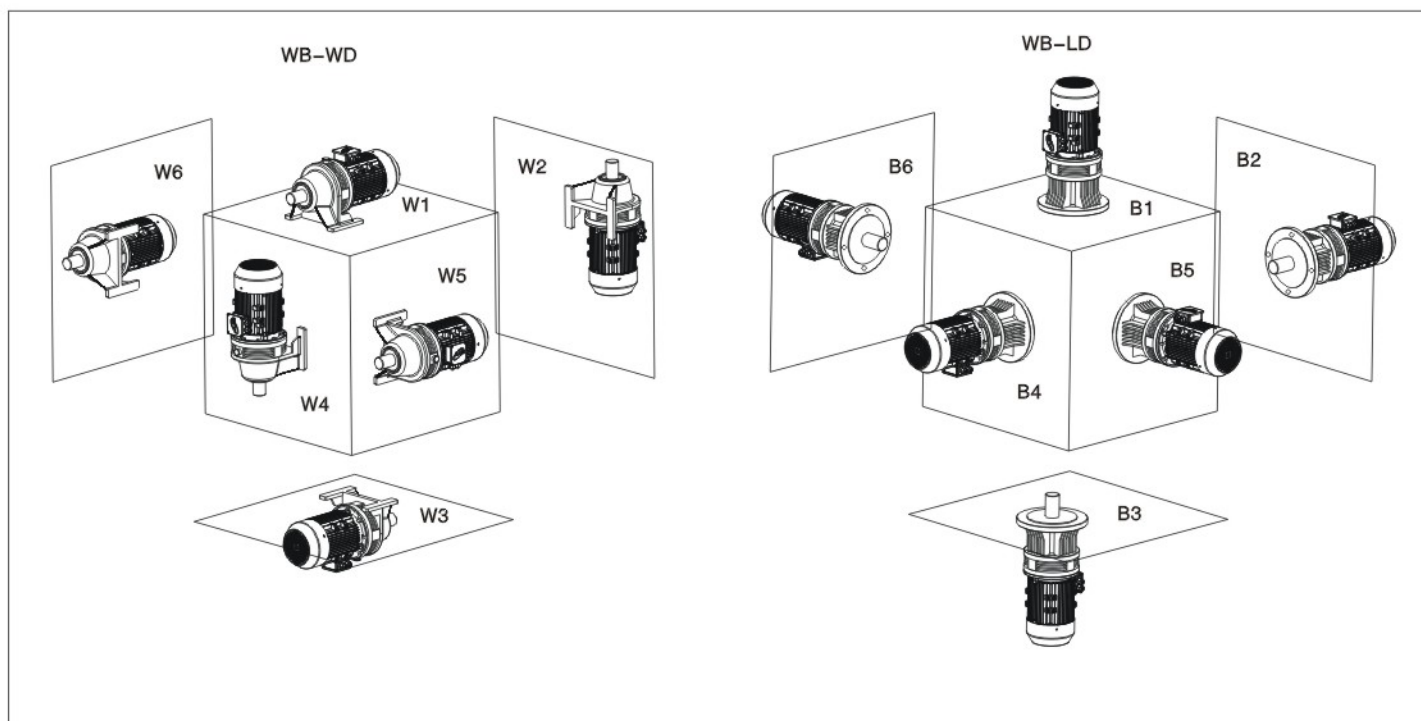




机型表示方法举例/Model notation examples



WB系列安装方位图/WB series installation direction diagram



WB系列重量表 /WB series weight table

机型号/Type	WB65	WB85	WB100	WB120	WB150	WB1065	WB1285	WB1510
重量kg/Weight kg	1.5	2	3.5	6	12.5	5.5	9	18

注：表中重量为不加油时重量，带输入轴、输入法兰另加10%；带电机根据所配规格另加。

Note: Weight in the table means the weight when oil is not added. When input shaft is furnished, 10% weight should be added; If there is a motor, please add weight according to motor type.



WB系列传动能力表 WB series drive capacity table

机型号 Model	P1	参数代号 Parameter code	is精确传动比/Exact ratio													
			5	7	9	11	17	23	29	35	43	59	71	87	101	121
WB65	0.04kW 4P	T2 (N.m)				3	4	6	7	9	11	15				
		FB				13.3	10.0	6.67	5.71	4.44	3.64	2.67				
	0.06kW 4P	T2 (N.m)				4	6	9	11	13	16	22				
		FB				10.0	6.67	4.44	3.64	3.08	2.50	1.82				
	0.09kW 4P	T2 (N.m)				6	9	13	16	19	24	34				
		FB				6.67	4.44	3.08	2.50	2.11	1.67	1.18				
	0.12kW 4P	T2 (N.m)				8	13	17	21	26	33	43				
		FB				5.00	3.08	2.35	1.90	1.54	1.21	0.93				
	4P n1=1450rpm	n2 (rpm)				132	85.3	63.0	50.0	41.4	33.7	24.6				

*WB65型减速器许用扭矩TN2=40N.m。 *WB65 type speed reducer allowable torque TN2=40N.m

机型号 Model	P1	参数代号 Parameter code	is精确传动比/Exact ratio													
			5	7	9	11	17	23	29	35	43	59	71	87	101	121
WB85	0.09kW 4P	T2 (N.m)								19	24	34	39			
		FB								4.74	3.75	2.65	2.31			
	0.12kW 4P	T2 (N.m)							21	26	33	43	52			
		FB							4.29	3.46	2.73	2.09	1.73			
	0.18kW 4P	T2 (N.m)					19	25	31	39	47	67	80			
		FB					4.74	3.60	2.90	2.31	1.91	1.34	1.13			
	0.25kW 4P	T2 (N.m)					26	35	45	54	68	90	108			
		FB					3.46	2.57	2.00	1.67	1.32	1.00	0.83			
	0.37kW 4P	T2 (N.m)			20	25	39	52	68	82	97					
		FB			4.41	3.61	2.34	1.73	1.33	1.10	0.93					
	4P n1=1450rpm	n2 (rpm)			161	132	85.3	63.0	50.0	41.4	33.7	24.6	20.4			

*WB85型减速器许用扭矩TN2=90N.m。 *WB85 type speed reducer allowable torque TN2=90N.m

机型号 Model	P1	参数代号 Parameter code	is精确传动比/Exact ratio													
			5	7	9	11	17	23	29	35	43	59	71	87	101	121
WB100	0.18kW 4P	T2 (N.m)								39	47	67	80	96		
		FB							4.40	3.59	2.54	2.13	1.77			
	0.25kW 4P	T2 (N.m)						35	45	54	68	90	108	133		
		FB						4.80	3.82	3.17	2.50	1.89	1.57	1.28		
	0.37kW 4P	T2 (N.m)					39	52	68	82	97	133	162	191		
		FB					4.42	3.26	2.51	2.07	1.75	1.28	1.05	0.89		
	0.55kW 4P	T2 (N.m)			30	37	57	78	97	117	162	205				
		FB			5.61	4.58	2.96	2.19	1.75	1.45	1.05	0.83				
	0.75kW 4P	T2 (N.m)		32	41	51	78	106	133	161	203					
		FB		5.28	4.11	3.37	2.17	1.60	1.28	1.06	0.84					
	0.18kW 6P	T2 (N.m)						37	47	56	69	95	114	149		
		FB						4.59	3.64	3.01	2.45	1.79	1.49	1.14		
	0.25kW 6P	T2 (N.m)					38	51	65	78	96	130	168	194		
		FB					4.49	3.31	2.63	2.18	1.77	1.31	1.01	0.88		
	0.37kW 6P	T2 (N.m)				36	56	76	96	116	151	195				
		FB				4.67	3.02	2.23	1.77	1.47	1.13	0.87				
	0.55kW 6P	T2 (N.m)		34	44	54	84	113	152	172						
		FB		4.94	3.84	3.14	2.03	1.50	1.12	0.99						
4P n1=1450rpm	n2 (rpm)		207	161	132	85.3	63.0	50.0	41.4	33.7	24.6	20.4	16.7			
6P n1=960rpm	n2 (rpm)		137	107	87.3	56.5	41.7	33.1	27.4	22.3	16.3	13.5	11.0			

*WB100型减速器许用扭矩TN2=170N.m。 *WB1005 type speed reducer allowable torque TN2=170N.m

注 1、表中P1表示配置电机额定功率，n1表示减速器输入转速，n2表示减速器输出转速，T2表示减速器输出扭矩，FB表示减速器使用系数，
 Note 1.P1 in the table denotes rated power of motor is furnished, n1 denotes input revolution of speed reducer, n2 denotes its output revolution, T2 denotes its output torque, and FB denotes its performance coefficient.



机型号 Model	P1	参数代号 Parameter code	is精确传动比/Exact ratio													
			5	7	9	11	17	23	29	35	43	59	71	87	101	121
WB120	0.25kW 4P	T2 (N.m)								54	68	90	108	133	155	
		FB								4.66	3.68	2.78	2.31	1.88	1.61	
	0.37kW 4P	T2 (N.m)						52	68	82	97	133	162	191	236	
		FB						4.80	3.69	3.05	2.57	1.88	1.54	1.31	1.06	
	0.55kW 4P	T2 (N.m)					57	78	97	117	162	205	247	302		
		FB					4.36	3.22	2.57	2.14	1.54	1.22	1.01	0.83		
	0.75kW 4P	T2 (N.m)				51	78	106	133	161	203	271				
		FB				4.95	3.19	2.36	1.88	1.55	1.23	0.92				
	1.1kW 4P	T2 (N.m)			61	74	114	155	195	252	310					
		FB			4.13	3.38	2.19	1.61	1.28	0.99	0.81					
	1.5kW 4P	T2 (N.m)	46	65	83	100	156	211	266							
		FB	5.43	3.88	3.02	2.50	1.60	1.18	0.94							
	0.18kW 6P	T2 (N.m)								56	69	95	114	149	174	
		FB								4.43	3.61	2.63	2.19	1.68	1.44	
	0.25kW 6P	T2 (N.m)						51	65	78	96	130	168	194	240	
		FB						4.87	3.87	3.21	2.61	1.92	1.49	1.29	1.04	
	0.37kW 6P	T2 (N.m)					56	76	96	116	151	195	250	307		
		FB					4.45	3.29	2.60	2.16	1.66	1.28	1.00	0.81		
	0.55kW 6P	T2 (N.m)				54	84	113	152	172	225	310				
		FB				4.62	2.99	2.21	1.64	1.45	1.11	0.81				
	0.75kW 6P	T2 (N.m)			60	74	114	165	194	250	308					
		FB			4.14	3.39	2.19	1.52	1.29	1.00	0.81					
	1.1kW 6P	T2 (N.m)	49	69	89	108	167	226	305							
		FB	5.08	3.63	2.82	2.31	1.50	1.11	0.82							
	4P n1=1450rpm	n2 (rpm)	290	207	161	132	85.3	63.0	50.0	41.4	33.7	24.6	20.4	16.7	14.4	
	6P n1=960rpm	n2 (rpm)	192	137	107	87.3	56.5	41.7	33.1	27.4	22.3	16.3	13.5	11.0	9.50	

*WB120型减速器许用扭矩TN2=250N.m。*WB120 type speed reducer allowable torque TN2=250N.m

机型号 Model	P1	参数代号 Parameter code	is精确传动比/Exact ratio													
			5	7	9	11	17	23	29	35	43	59	71	87	101	121
WB150	0.55kW 4P	T2 (N.m)						78	97	117	162	205	247	302	350	421
		FB						4.51	3.60	2.99	2.16	1.71	1.42	1.16	1.00	0.83
	0.75kW 4P	T2 (N.m)					78	106	133	161	203	271	335	400		
		FB					4.47	3.30	2.63	2.17	1.72	1.29	1.04	0.88		
	1.1kW 4P	T2 (N.m)				74	114	155	195	252	310	397				
		FB				4.73	3.07	2.26	1.79	1.39	1.13	0.88				
	1.5kW 4P	T2 (N.m)			83	100	156	211	266	330	396					
		FB			4.22	3.50	2.24	1.66	1.32	1.06	0.88					
	2.2kW 4P	T2 (N.m)		95	121	148	229	320	391							
		FB		3.70	2.89	2.36	1.53	1.09	0.90							
	3kW 4P	T2 (N.m)	92	128	165	202	322	423								
		FB	3.80	2.73	2.12	1.73	1.09	0.83								
	0.37kW 6P	T2 (N.m)						76	96	116	151	195	250	307	356	428
		FB						4.60	3.65	3.02	2.32	1.79	1.40	1.14	0.98	0.82
	0.55kW 6P	T2 (N.m)					84	113	152	172	225	310	370	457		
		FB					4.19	3.10	2.30	2.03	1.56	1.13	0.95	0.77		
	0.75kW 6P	T2 (N.m)				74	114	165	194	250	308	395				
		FB				4.74	3.07	2.12	1.80	1.40	1.14	0.89				
	1.1kW 6P	T2 (N.m)			89	108	167	226	305	365						
		FB			3.95	3.24	2.10	1.55	1.15	0.96						
	1.5kW 6P	T2 (N.m)		94	120	147	227	330	388							
		FB		3.73	2.92	2.38	1.54	1.06	0.90							
	2.2kW 6P	T2 (N.m)	98	138	177	216	350									
		FB	3.56	2.54	1.98	1.62	1.00									
	4P n1=1450rpm	n2 (rpm)	290	207	161	132	85.3	63.0	50.0	41.4	33.7	24.6	20.4	16.7	14.4	12.0
	6P n1=960rpm	n2 (rpm)	192	137	107	87.3	56.5	41.7	33.1	27.4	22.3	16.3	13.5	11.0	9.50	7.93

*WB150型减速器许用扭矩TN2=350N.m。*WB150 type speed reducer allowable torque TN2=350N.m

注 1、表中P1表示配置电机额定功率，n1表示减速器输入转速，n2表示减速器输出转速，T2表示减速器输出扭矩，FB表示减速器使用系数，
Note 1.P1 in the table denotes rated power of motor is furnished, n1 denotes input revolution of speed reducer, n2 denotes its output revolution, T2 denotes its output torque, and FB denotes its performance coefficient.



机型号 Model	P1	参数代号 Parameter code	is精确传动比/Exact ratio													
			121 11x11	187 11x17	289 17x17	385 11x35	473 11x43	595 17x35	731 17x43	989 23x43	1225 35x35	1849 43x43	2537 43x59	3481 59x59	5133 59x87	5959 59x101
WBE1065	0.04kW 4P	T2 (N.m)	26	41	63	83	103	129	160	215	267	403	558	765	1129	
		FB	6.54	4.15	2.70	2.05	1.65	1.32	1.06	0.79	0.64	0.42	0.30	0.22	0.15	
	0.06kW 4P	T2 (N.m)	40	61	94	125	154	194	239	323	400	604	837	1148	1693	
		FB	4.25	2.79	1.81	1.36	1.10	0.88	0.71	0.53	0.43	0.28	0.20	0.15	0.10	
	0.09kW 4P	T2 (N.m)	59	92	143	198	232	292	358	485	601	908	1243	1705	2515	
		FB	2.86	1.85	1.19	0.86	0.73	0.58	0.47	0.35	0.28	0.19	0.14	0.10	0.07	
	0.12kW 4P	T2 (N.m)	79	121	186	254	309	388	478	647	801	1209	1649	2262	3336	
		FB	2.15	1.40	0.91	0.67	0.55	0.44	0.36	0.26	0.21	0.14	0.10	0.08	0.05	
	4P n1=1450rpm	n2 (rpm)	12.0	7.75	5.02	3.77	3.07	2.44	1.98	1.47	1.18	0.78	0.57	0.42	0.28	

*WB1065型减速器许用扭矩TN2=170N.m。*WB1065 type speed reducer allowable torque TN2=170N.m

机型号 Model	P1	参数代号 Parameter code	is精确传动比/Exact ratio													
			121 11x11	187 11x17	289 17x17	385 11x35	473 11x43	595 17x35	731 17x43	989 23x43	1225 35x35	1849 43x43	2537 43x59	3481 59x59	5133 59x87	5959 59x101
WBE1285	0.09kW 4P	T2 (N.m)	59	92	143	198	232	292	358	485	601	908	1243	1705	2515	3002
		FB	4.21	2.72	1.75	1.26	1.08	0.86	0.70	0.52	0.42	0.28	0.20	0.15	0.10	0.08
	0.12kW 4P	T2 (N.m)	79	121	186	254	309	388	478	647	801	1209	1649	2262	3336	3900
		FB	3.16	2.07	1.34	0.98	0.81	0.64	0.52	0.39	0.31	0.21	0.15	0.11	0.07	0.06
	0.18kW 4P	T2 (N.m)	108	183	283	377	464	583	716	969	1201	1815	2486	3411	5030	5839
		FB	2.31	1.37	0.88	0.66	0.54	0.43	0.35	0.26	0.21	0.14	0.10	0.07	0.05	0.04
	0.25kW 4P	T2 (N.m)	164	255	394	525	645	812	997	1350	1672	2524	3424	4699	6929	8044
		FB	1.52	0.98	0.63	0.48	0.39	0.31	0.25	0.19	0.15	0.10	0.07	0.05	0.04	0.03
	0.37kW 4P	T2 (N.m)	244	376	583	776	953	1200	1473	1978	2470	3728	5074	6962	10266	11918
		FB	1.02	0.66	0.43	0.32	0.26	0.21	0.17	0.13	0.10	0.07	0.05	0.04	0.02	0.02
	4P n1=1450rpm	n2 (rpm)	11.6	7.8	5.0	3.8	3.07	2.44	1.98	1.47	1.18	0.78	0.57	0.42	0.28	0.24

*WB1285型减速器许用扭矩TN2=250N.m。*Wb1285 type speed reducer allowable torque TN2=250N.m

机型号 Model	P1	参数代号 Parameter code	is精确传动比/Exact ratio													
			121 11x11	187 11x17	289 17x17	385 11x35	473 11x43	595 17x35	731 17x43	989 23x43	1225 35x35	1849 43x43	2537 43x59	3481 59x59	5133 59x87	5959 59x101
WBE1510	0.18kW 4P	T2 (N.m)	108	183	283	377	464	583	716	969	1201	1815	2486	3411	5030	5839
		FB	3.24	1.91	1.24	0.93	0.75	0.60	0.49	0.36	0.29	0.19	0.14	0.10	0.07	0.06
	0.25kW 4P	T2 (N.m)	164	255	394	525	645	812	997	1350	1672	2524	3424	4699	6929	8044
		FB	2.13	1.37	0.89	0.67	0.54	0.43	0.35	0.26	0.21	0.14	0.10	0.07	0.05	0.04
	0.37kW 4P	T2 (N.m)	244	376	583	776	953	1200	1473	1978	2470	3728	5074	6962	10266	11918
		FB	1.43	0.93	0.60	0.45	0.37	0.29	0.24	0.18	0.14	0.09	0.07	0.05	0.03	0.03
	4P n1=1450rpm	n2 (rpm)	11.6	7.8	5.0	3.8	3.07	2.44	1.98	1.47	1.18	0.78	0.57	0.42	0.28	0.24

*WB1510型减速器许用扭矩TN2=350N.m。*WB 1510type speed reducer allowable torque TN2=350N.m

注 1、表中P1表示配置电机额定功率，n1表示减速器输入转速，n2表示减速器输出转速，T2表示减速器输出扭矩，FB表示减速器使用系数，
Note 1.P1 in the table denotes rated power of motor is furnished, n1 denotes input revolution of speed reducer, n2 denotes its output revolution, T2 denotes its output torque, and FB denotes its performance coefficient.



WB系列外型及安装尺寸图和尺寸表 / Appearance and installation size diagram and table of WBseries:

安装方式 Installation mode	输入输出方式 Input/output mode	WB电机直联 WB Motor direct connection	WB配轴输入 WB Furnished with shaft input	WB 配电机联接法兰 WB Furnished with motor connection flange	
		WB...WD....	WB...WS....	WB...WF....	
WB 卧式底脚安装 WB horizontal installation (with bottom)					
		WBE...WD....	WBE...WS....	WBE...WF....	
WB 立式法兰安装 WB vertical flange Installation size					
		WBE...LD....	WBE...LS....	WBE...LF....	
WBL(派生型)立式法兰安装 WBL(derived type) vertical flange installation					
		WBE...L1D...	WBE...L1S...	WBE...L1F...	
输出轴尺寸 Output shaft size		轴输入尺寸 Input shaft size		WB 配电机联接法兰安装孔分布图 WB Furnished with installation hole distribution graph of motor connection flange	
				减速机型号:WB(65.100.120.150) WBL(1065.1285.1510) 电机机座号:F(80-200)B5	



尺寸部位 Size position	尺寸代号 Size code	机型号 /Type							
		WB65	WB85	WB100	WB120	WB150	WBE1065	WBE1285	WBE1510
外型尺寸 Appearance size	A(h13)	60	70	80	100	120	80	100	120
	a1	10	10	12	15	18	12	15	18
	a2	65	82	95	118	141	95	118	141
	a3	95	110	130	165	200	130	165	200
	a6						55	65	95
	a8	120	140	155	190	235	155	190	235
	a9	90	100	110	120	160	110	120	160
	a10	110	122	142	168	210	142	168	210
	a11	150	175	185	185	250	185	185	250
	a12 a13	详见电机一览表(见 282页)Please see motor summary table on last page for deails. (See page282)							
轴输入尺寸 Input shaft size	φ B(k6)	10	12	14	15	20	10	12	14
	b	3	4	4	5	6	3	4	4
	b1	11.2	13.5	16	17	22.5	11.2	13.5	16
	b2	16	16	20	22	30	16	16	20
	b3	46	46	50	57	65	46	46	50
轴输出尺寸 Solid shaft output size	φ E(k6)	12	14	18	30	35	18	30	35
	e	4	5	6	8	10	6	8	10
	e1	13.8	16.3	20.8	33.3	38	20.8	33	38
	e2	20	23	25	35	55	25	35	55
	e4	25	28	30	42	62	30	42	62
卧式底脚安装尺寸 horizontal installation size (with bottom)	F	60	70	80	90	120	80	90	120
	f1	130	150	160	150	210	160	150	210
	f2	45	53	63	93	119	63	93	119
	f6	4-φ 7	4-φ 9	4-φ 9	4-φ 11	4-φ 15	4-φ 9	4-φ 11	4-φ 15
	φ G	120	140	160	190	230	160	190	230
立式法兰安装尺寸 vertical flange installation size	φ g	100	120	134	160	200	134	160	200
	φ g1(h7)	65	85	100	140	170	100	140	170
	g3	2.5	3	3	4	4	3	4	4
	g4	10	10	10	10	14	10	10	14
	g5	4-φ 7	4-φ 9	4-φ 9	4-φ 11	6-φ 13	4-φ 9	4-φ 11	6-φ 11
立式(派生型)安装尺寸 Vertical (derived type) installation size	JXJ	105	125	140	170	210	140	170	210
	φ j	125	140	160	185	240	160	185	240
	φ j1(h7)	65	85	100	120	150	100	120	150
	j3	3.5	3.5	5	5	9	5	5	9
	j4	4-φ 7	4-φ 9	4-φ 9	4-φ 11	4-φ 13	4-φ 9	4-φ 11	4-φ 13
电机联接法兰尺寸 Electric motor connecting flange size	φ K(H8)		11	11	14	19		11	11
			14	14	19	24		14	14
				19	24	28			
	K		4	4	5	6		4	4
			5	5	6	8		5	5
				6	8	8			
	k1		12.8	12.8	16.3	21.8		12.8	12.8
			16.3	16.3	21.8	27.3		16.3	16.3
				21.8	27.3	31.3			
	φ k2		140	140	160	200		140	140
			160	160	200	200		160	160
				200	200	250			
	φ k3		115	115	130	165		115	115
			130	130	165	165		130	130
				165	165	215			
	φ k4(H8)		95	95	110	130		95	95
			110	110	130	130		110	110
				130	130	180			
	k5		4	4	5	5		4	4
			5	5	5	5		5	5
				5	5	5			
	k6		10	10	10	12		10	10
			10	10	12	12		10	10
				12	12	14			
	k7		25	25	32	42		25	25
			32	32	42	52		32	32
				42	52	62			
	k8		40	40	50	71		40	40
			42	42	66	71		42	42
				66	66	75			
	φ k9		4-φ 10	4-φ 10	4-φ 10	4-φ 12		4-φ 10	4-φ 10
			4-φ 10	4-φ 10	4-φ 12	4-φ 12		4-φ 10	4-φ 10
				4-φ 12	4-φ 12	4-φ 14			