

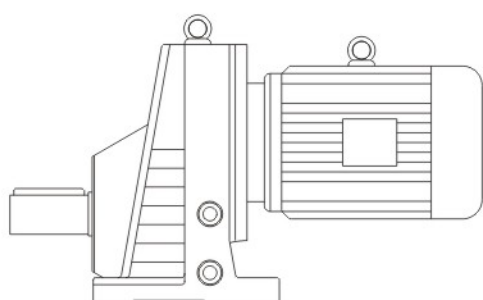


REC系列-级减速斜齿减速器
REC series single-stage helical motor

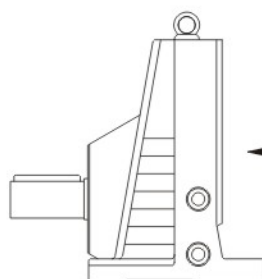


友环传动
YOUHUAN TRANSMISSION

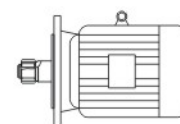
REC系列-级减速斜齿减速器
REC series single-stage helical motor



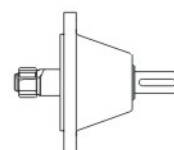
RECW...Y



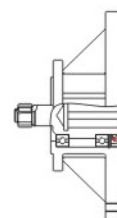
RECW



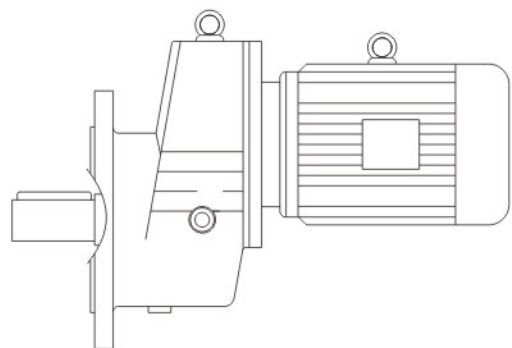
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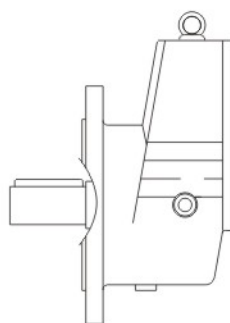
S



F



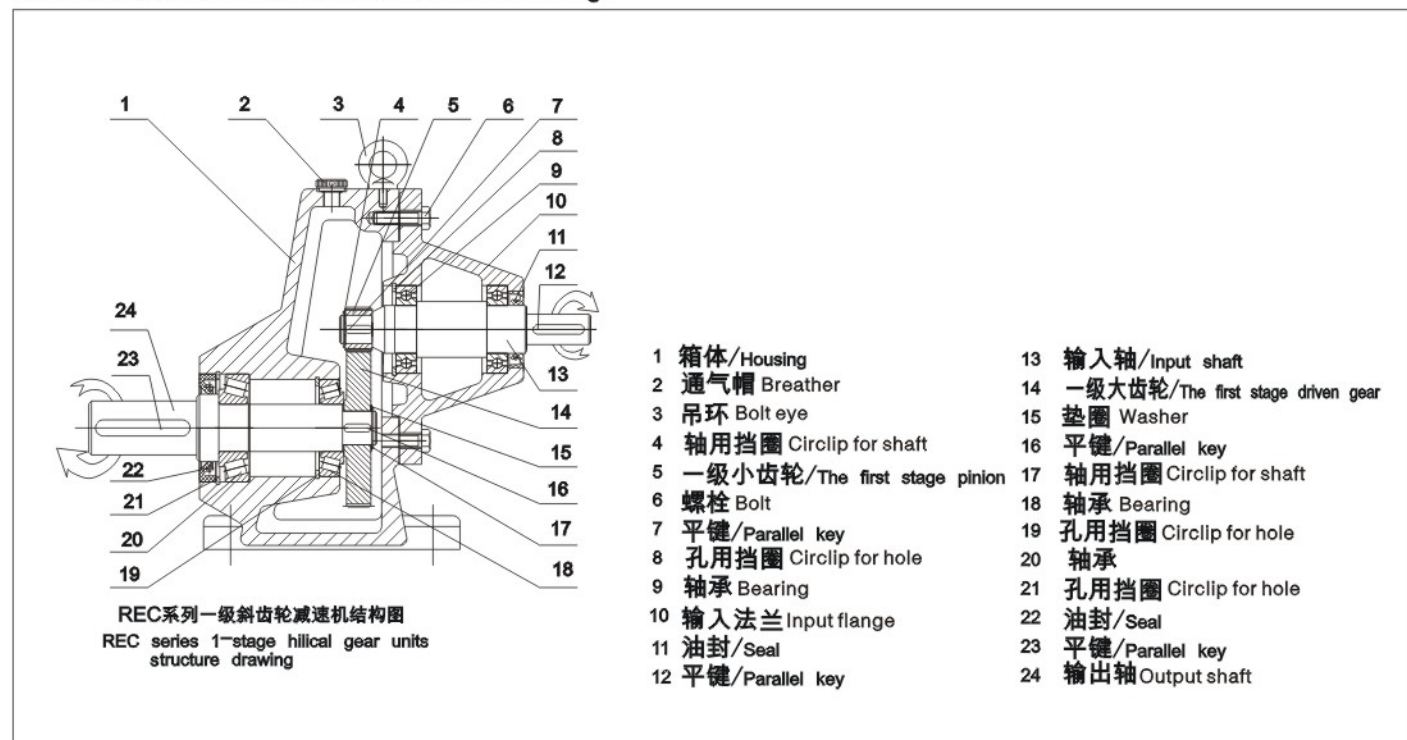
RECL...Y



RECL



REC系列结构图:/REC series structure drawing:



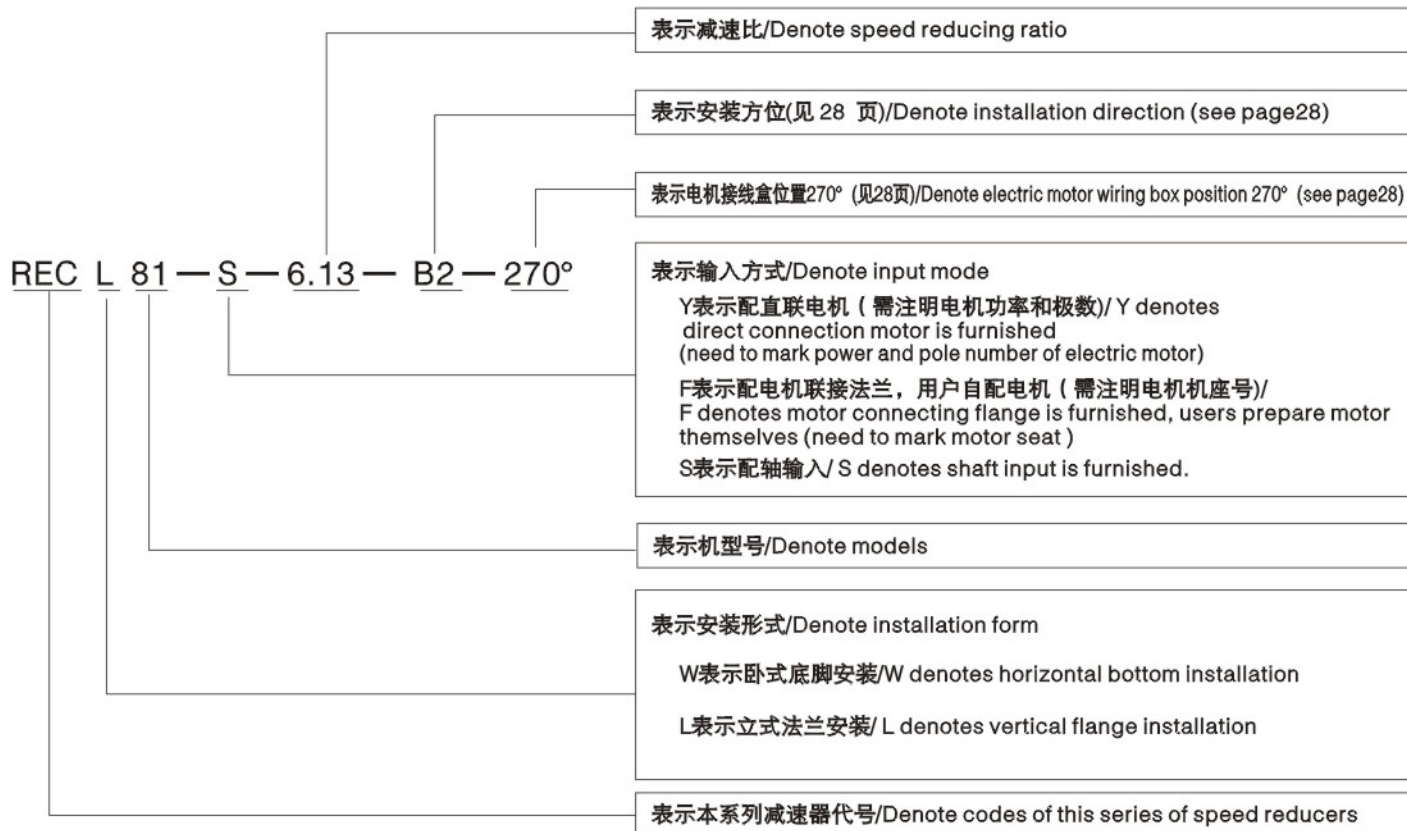
REC系列一级减速斜齿轮减速机型号规格及机型表示方法/

本系列减速器的型号规格有:REC31、41、61、71、81、91、101等7种, 减速比有1.56~6.45等多种速比, 可分别配置0.18~45kW。

Type, specification and model notation for REC series primary deceleration bevel gear speed reducers

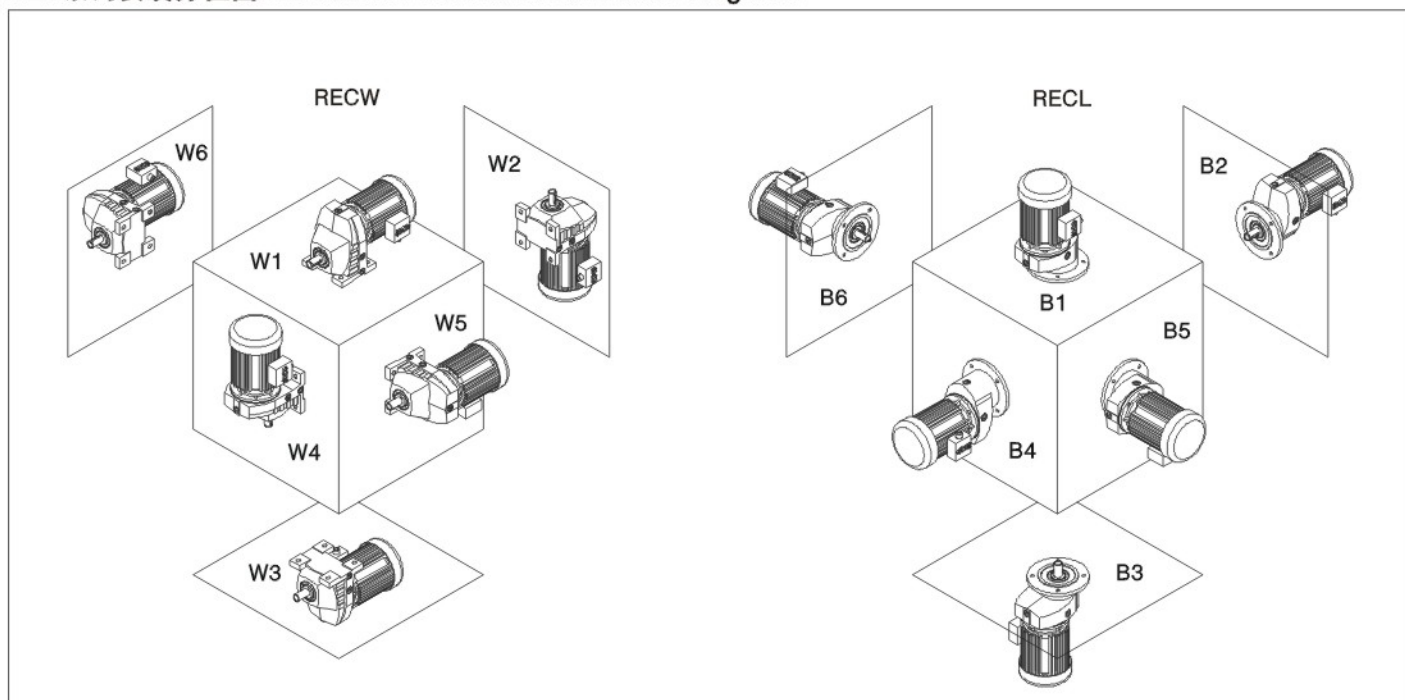
The series speed reducers have seven kinds of types and specifications including REC31、41、61、71、81、91、101 etc, speed reducing ratio range: 1.56~6.45, which can be allocated to 0.18~45kW.

机型表示方法/Model expression:

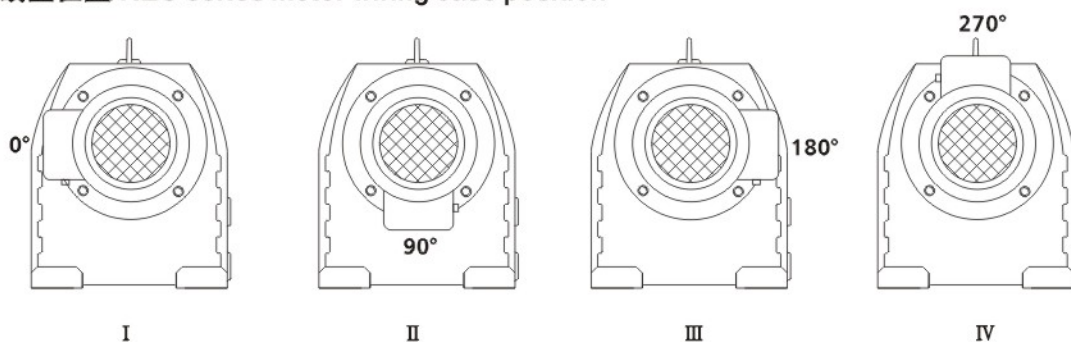




REC系列安装方位图/REC series installation direction diagram:



REC系列电机接线盒位置/REC series motor wiring case position



REC系列油量表(单位L)/ REC series oil capacity table (unit:L)

油量(L) Oil capacity (L)	安装方位 Installation direction	W1	W2	W3	W4	W5	W6	B1	B2	B3	B4	B5	B6
机型号type													
REC31		0.5	0.4	0.5	0.7	0.3	0.4	0.4	0.3	0.4	0.4	0.3	0.4
REC41		0.7	0.5	0.7	0.9	0.4	0.5	0.5	0.4	0.5	0.5	0.4	0.5
REC61		0.8	0.6	0.9	1	0.5	0.6	0.6	0.5	0.5	0.6	0.5	0.6
REC71		1.5	1.1	1.5	2	1	1	1.5	1	1	0.7	1	1
REC81		2.5	2	2.5	3.5	1.5	1.5	2.5	1.5	1.5	1	1.5	1.5
REC91		3.5	2.5	3.5	4.5	2.2	2.5	3	2	2.2	1.3	2.2	2.5
REC101		6.5	4.5	7.5	8.5	4.5	4	4.5	3.5	3.5	3	4.5	4

REC系列重量表/ REC series weight table:

机型号/Type	REC31	REC41	REC61	REC71	REC81	REC91	REC101
重量kg/Weight kg	5	7.5	13	22	33	61	77

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: Inside the table are the weights when oil is not added. Weight should be added with 10% when input shaft and connection flange are furnished; If there is a motor, please add weight according to motor type.

REC系列输出轴额定径向力/ REC series output shaft rated radial force:

REC31		REC41		REC61		REC71	
is	4P (1450 rpm)	is	4P (1450 rpm)	is	4P (1450 rpm)	is	4P (1450 rpm)
	Fr2(N)		Fr2(N)		Fr2(N)		Fr2(N)
1.59	45	1.58	80	1.61	195	1.61	250
1.96	45	1.88	85	1.92	195	1.92	265
2.19	65	2.16	85	2.18	205	2.18	345
2.46	80	2.38	105	2.42	1200	2.42	405
2.77	160	2.77	220	2.71	1600	2.71	888
3.15	205	3.08	515	3.05	2080	3.05	2040
3.37	265	3.46	1100	3.45	2080	3.45	2560
3.88	350	3.67	1320	3.78	2400	3.78	3430
4.53	365	4.44	1380	4.50	2640	4.50	3600
		5.13	1500	5.11	2860	5.24	3920
		5.53	1600	5.47	2960	5.55	4190
				6.33	3200	6.28	4480

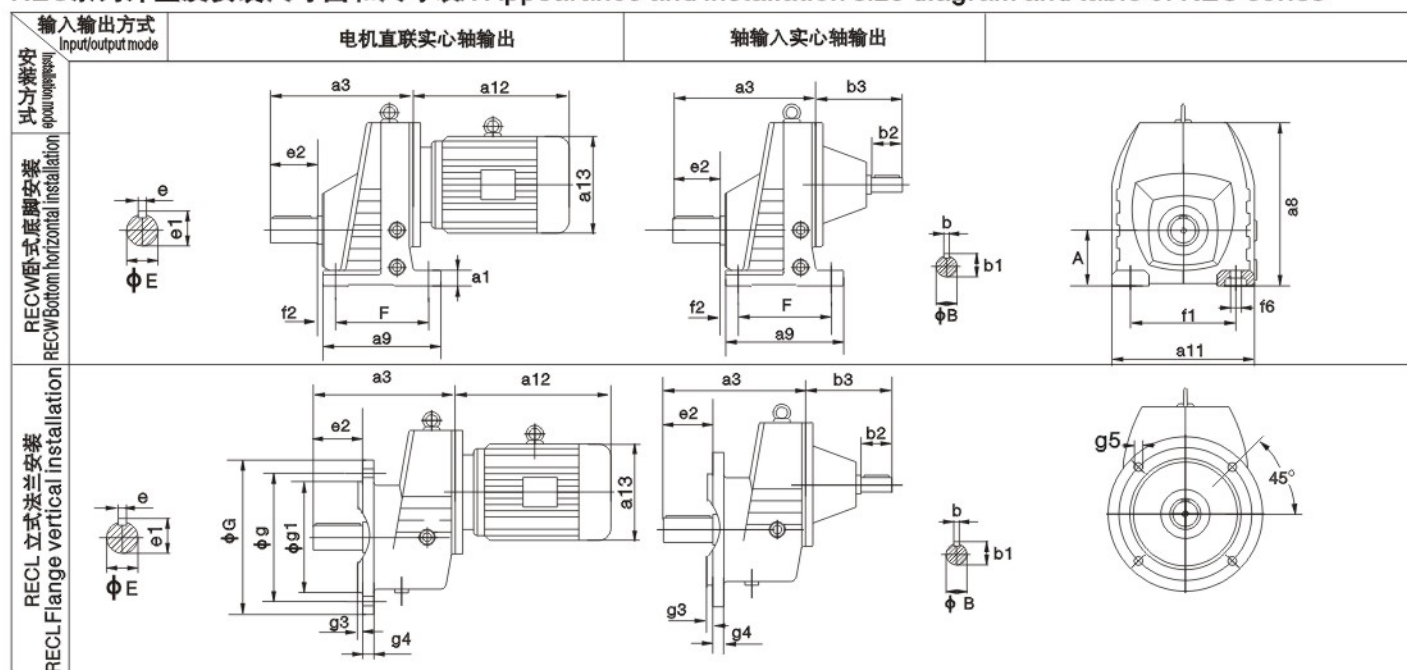
REC81		REC91		REC101	
is	4P (1450 rpm)	is	4P (1450 rpm)	is	4P (1450 rpm)
	Fr2(N)		Fr2(N)		Fr2(N)
1.56	145	1.62	265	1.56	385
1.93	145	1.93	280	1.93	440
2.15	335	2.15	395	2.15	720
2.48	375	2.48	1240	2.48	760
2.76	960	2.76	1580	2.76	1680
3.09	1560	3.09	2240	3.09	3040
3.48	2180	3.48	2980	3.48	3440
3.78	4020	3.78	3620	3.78	4480
4.50	4400	4.50	4940	4.50	5200
5.07	4780	5.07	5770	5.07	6160
5.56	5050	5.56	6100	5.56	7120
6.13	5480	6.45	6800	6.45	7760

注 表中is表示减速器精确传动比,Fr2:减速器输出轴额定径向载荷。

Note is in the above table denotes precise drive ratio of speed reducer, Fr2: rated radial load of speed reducer output shaft



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



尺寸部位 Size position	尺寸代号 Size code	机型号 /Type						
		REC31	REC41	REC61	REC71	REC81	REC91	REC101
外型尺寸 Appearance size	A(h13)	55	70	80	90	100	120	140
	a1	14	18	20	25	30	35	45
	a3	140	162	170	230	250	283	327
	a8	172	202	218	263	318	385	445
	a9	140	140	155	190	210	240	270
	a11	160	180	180	230	290	340	400
	a12	详见末页电机一览表(见 280 页) See motor summary table on last page for details (see page280)						
	a13							
轴输入尺寸 Input shaft size	ϕB(k6)	16	19	19	24	28	38	42
	b	5	6	6	8	8	10	12
	b1	18	21.5	21.5	27	31	41	45
	b2	40	40	40	50	60	80	110
	b3	115	120	120	140	180	222	270
实心轴输出尺寸 Solid shaft output size	ϕE	20k6	25k6	25k6	40k6	45k6	50k6	60m6
	e	6	8	8	12	14	14	18
	e1	22.5	28	28	43	48.5	53.5	64
	e2	40	50	50	80	90	100	120
底脚安装尺寸 Bottom horizontal installation size	F	110	110	120	150	160	180	210
	f1	125	135	135	170	215	260	310
	f2	12	22	25	25	30	33	32
	f6	4-ϕ9	4-ϕ11	4-ϕ14	4-ϕ18	4-ϕ18	4-ϕ20	4-ϕ22
法兰立式安装尺寸 Flange vertical installation size	ϕG	160	200	200	250	350	400	450
	ϕg	130	165	165	215	300	350	400
	ϕg1(h7)	110	130	130	180	250	300	350
	g3	3	3.5	3.5	4	5	5	5
	g4	10	12	12	15	18	20	22
	g5	4-ϕ9	4-ϕ11	4-ϕ11	4-ϕ14	4-ϕ18	4-ϕ18	8-ϕ18

*注: 配电机联接法兰请见样本第 100页。 / *Note: furnish with motor connecting flange, please see catalogue pag100.

REC系列传动能力表: REC series drive capacity table:

P1	参数代号 Parameter code	REC31传动能力选型参数表/ REC31 series of transmission power parameter form										
		is精确传动比/Exact ratio is										
		1.59	1.96	2.19	2.46	2.77	3.15	3.37	3.88	4.53		
0.12kW 4P	T2 (N.m)	1.2	1.5	1.7	1.9	2.1	2.4	2.6	3.0	3.5		
	FB	20.22	19.89	19.55	19.37	19.19	9.39	8.84	5.22	5.15		
0.18kW 4P	T2 (N.m)	1.8	2.3	2.5	2.9	3.2	3.7	3.9	4.5	5.3		
	FB	13.48	13.26	13.03	12.91	12.79	6.26	5.89	3.48	3.43		
0.25kW 4P	T2 (N.m)	2.6	3.2	3.5	4.0	4.5	5.1	5.4	6.3	7.3		
	FB	9.71	9.55	9.38	9.30	9.21	4.50	4.24	2.50	2.55		
0.37kW 4P	T2 (N.m)	3.8	4.7	5.2	5.9	6.6	7.5	8.0	9.3	11		
	FB	6.56	6.45	6.34	6.28	6.22	3.04	2.86	1.69	1.72		
0.55kW 4P	T2 (N.m)	5.6	7.0	7.8	8.7	10	11	12	14	16		
	FB	4.41	4.34	4.26	4.23	4.19	2.05	1.93	1.14	1.16		
0.75kW 4P	T2 (N.m)	7.7	9.5	11	12	13	15	16	19	22		
	FB	3.24	3.18	3.13	3.10	3.07	1.50	1.41	0.83	0.85		
1.1kW 4P	T2 (N.m)	11	14	16	17	20	22	24				
	FB	2.21	2.17	2.13	2.11	2.09	1.02	0.96				
1.5kW 4P	T2 (N.m)	15	19	21	24	27						
	FB	1.62	1.59	1.56	1.55	1.53						
2.2kW 4P	T2 (N.m)	23	28	31	35	39						
	FB	1.1	1.09	1.07	1.06	1.05						
4P n1=1450 rpm	n2 rpm	912	740	662	589	523	460	430	374	320		

*REC31型减速器许用扭矩TN2为40 N.m。 REC31 type speed reducer allowable torque TN2 is 40N.m

P1	参数代号 Parameter code	REC41传动能力选型参数表/ REC41 series of transmission power parameter form										
		is精确传动比/Exact ratio is										
		1.58	1.88	2.16	2.38	2.77	3.08	3.46	3.67	4.44	5.13	5.53
0.18kW 4P	T2 (N.m)									5.2	6.0	6.4
	FB									3.50	3.44	3.28
0.25kW 4P	T2 (N.m)							5.6	5.9	7.2	8.3	8.9
	FB							4.64	4.40	2.52	2.48	2.36
0.37kW 4P	T2 (N.m)							8.3	8.8	11	12	13
	FB							3.14	2.97	14.70	1.68	1.59
0.55kW 4P	T2 (N.m)					10	11	12	13	16	18	20
	FB					4.29	4.31	2.11	2.00	1.15	1.13	1.07
0.75kW 4P	T2 (N.m)				12	13	15	17	18	21	25	
	FB				4.99	3.15	3.16	1.55	1.47	0.84	0.83	
1.1kW 4P	T2 (N.m)			15	17	20	22	25	26			
	FB			4.51	3.40	2.15	2.15	1.05	1.00			
1.5kW 4P	T2 (N.m)	15	18	21	23	27	30					
	FB	4.04	3.98	3.31	2.49	1.57	1.58					
2.2kW 4P	T2 (N.m)	22	27	31	34	39	44					
	FB	2.75	2.71	2.25	1.7	1.07	1.1					
3kW 4P	T2 (N.m)	31	36	42	46							
	FB	2.02	1.99	1.65	1.25							
4kW 4P	T2 (N.m)	41	49	56	61							
	FB	1.52	1.49	1.24	1.14							
4P n1=1450 rpm	n2 rpm	918	771	671	609	523	471	419	395	327	283	262

*REC41型减速器许用扭矩TN2为70 N.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 2、表中黑色方框内参数需配电机联接法兰;

REC41 type speed reducer allowable torque TN2 is 70N.m

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.

2. Parameters inside black square frame of the table need to be furnished with motor connecting flange.



P1	参数代号 Parameter code	REC61传动能力选型参数表/ REC61 series of transmission power parameter form											
		is精确传动比/Exact ratio is											
		1.61	1.92	2.18	2.42	2.71	3.05	3.45	3.78	4.50	5.11	5.47	6.33
0.25kW 4P	T2 (N.m)										8.2	8.8	10
	FB										4.16	4.12	3.88
0.37kW 4P	T2 (N.m)										12	13	15
	FB										2.81	2.78	2.62
0.55kW 4P	T2 (N.m)									16	18	19	22
	FB									3.38	1.89	1.87	1.76
0.75kW 4P	T2 (N.m)								18	22	25	26	31
	FB								4.65	2.48	1.39	1.37	1.29
1.1kW 4P	T2 (N.m)						22	24	27	32	36	39	45
	FB						4.79	3.60	3.17	1.69	0.95	0.94	0.88
1.5kW 4P	T2 (N.m)					26	30	33	37	44	49	53	
	FB					4.41	3.52	2.64	2.33	1.24			
2.2kW 4P	T2 (N.m)	23	27	31	34	38	43	49	54	64			
	FB	4.91	4.53	4.24	3.51	3.00	2.40	1.80	1.59	0.85			
3kW 4P	T2 (N.m)	31	37	42	47	52	59	67	73				
	FB	3.60	3.32	3.11	2.57	2.20	1.76	1.32	1.16				
4kW 4P	T2 (N.m)	42	50	56	62	70	79	89	98				
	FB	2.70	2.49	2.33	1.93	1.65	1.32	0.99	0.87				
5.5kW 4P	T2 (N.m)	57	68	77	86	96	108						
	FB	1.96	1.81	1.70	1.40	1.20	0.96						
7.5kW 4P	T2 (N.m)	78	93	105	117	131							
	FB	1.44	1.33	1.24	1.03	0.88							
4P n1=1450 rpm	n2 rpm	901	755	665	599	535	475	420	384	322	284	265	229

*REC61型减速器许用扭矩TN2为100 N.m。REC61 type speed reducer allowable torque TN2 is 100 N.m

P1	参数代号 Parameter code	REC61传动能力选型参数表/ REC71 series of transmission power parameter form											
		is精确传动比/Exact ratio is											
		1.61	1.92	2.18	2.42	2.71	3.05	3.45	3.78	4.50	5.24	5.55	6.28
0.25kW 4P	T2 (N.m)												22
	FB												3.51
0.37kW 4P	T2 (N.m)											27	30
	FB											4.95	2.57
0.55kW 4P	T2 (N.m)									32	37	39	45
	FB									3.55	3.48	3.37	1.75
0.75kW 4P	T2 (N.m)									44	51	54	61
	FB									2.61	2.55	2.47	1.29
1.1kW 4P	T2 (N.m)						43	49	54	64	74	79	89
	FB						4.53	4.47	4.40	1.78	1.74	1.69	0.88
1.5kW 4P	T2 (N.m)			42	47	52	59	67	73	87	101	107	
	FB			4.93	4.63	4.50	3.32	3.28	3.23	1.30	1.28	1.24	
2.2kW 4P	T2 (N.m)	42	50	56	62	70	79	89	98	116	135	143	
	FB	4.75	4.08	3.70	3.48	3.38	2.49	2.46	2.42	0.98	0.96	0.93	
3kW 4P	T2 (N.m)	57	68	77	86	96	108	122	134				
	FB	3.45	2.96	2.69	2.53	2.45	1.81	1.79	1.76				
4kW 4P	T2 (N.m)	78	93	106	117	131	148	167	183				
	FB	2.53	2.17	1.97	1.85	1.80	1.33	1.31	1.29				
5.5kW 4P	T2 (N.m)	114	136	155	172	192	217	245	268				
	FB	1.73	1.48	1.35	1.26	1.23	0.91	0.89	0.88				
7.5kW 4P	T2 (N.m)	156	185	210	234	262							
	FB	1.27	1.09	0.99	0.93	0.9							
4P n1=1450 rpm	n2 rpm	901	755	665	599	535	475	420	384	322	277	261	231

*REC71型减速器许用扭矩TN2为200 N.m。REC71 type speed reducer allowable torque TN2 is 200 N.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.



P1	参数代号 Parameter code	REC81传动能力选型参数表/ REC81 series of transmission power parameter form											
		is精确传动比/Exact ratio is											
		1.56	1.93	2.15	2.48	2.76	3.09	3.48	3.78	4.50	5.07	5.56	6.13
1.5kW 4P	T2 (N.m)										49	54	59
	FB										4.99	2.64	2.56
2.2kW 4P	T2 (N.m)									64	72	79	87
	FB									4.45	3.40	1.80	1.75
3kW 4P	T2 (N.m)								73	87	98	108	119
	FB								4.10	3.26	2.50	1.32	1.28
4kW 4P	T2 (N.m)						80	90	98	116	131	143	158
	FB						4.98	4.43	3.08	2.45	1.87	0.99	0.96
5.5kW 4P	T2 (N.m)			76	88	98	110	124	134	160	180		
	FB			4.95	4.51	4.05	3.62	3.22	2.24	1.78	1.36		
7.5kW 4P	T2 (N.m)	76	93	104	120	134	150	168	183	218	245		
	FB	4.09	3.72	3.63	3.31	2.97	2.65	2.36	1.64	1.30	1.00		
11kW 4P	T2 (N.m)	111	137	153	176	196	219	247	268	319			
	FB	2.79	2.54	2.47	2.25	2.03	1.81	1.61	1.12	0.89			
15kW 4P	T2 (N.m)	151	187	208	240	267	299	336	365				
	FB	2.05	1.86	1.81	1.65	1.49	1.33	1.18	0.82				
18.5kW 4P	T2 (N.m)	185	228	255	294	327	366	416					
	FB	1.66	1.51	1.47	1.34	1.21	1.08	0.96					
22kW 4P	T2 (N.m)	221	274	305	352	392	439	494					
	FB	1.40	1.27	1.24	1.13	1.01	0.90	0.80					
4P n1=1450 rpm	n2 rpm	929	751	674	585	525	469	417	384	322	286	261	237

*REC81型减速器许用扭矩TN2为380 N.m。 REC81 type speed reducer allowable torque TN2 is 380N.m

P1	参数代号 Parameter code	REC91传动能力选型参数表/ REC91 series of transmission power parameter form											
		is精确传动比/Exact ratio is											
		1.62	1.93	2.15	2.48	2.76	3.09	3.48	3.78	4.50	5.07	5.56	6.45
3kW 4P	T2 (N.m)										98	108	125
	FB										3.93	3.19	2.35
4kW 4P	T2 (N.m)									116	131	144	167
	FB									4.99	2.95	2.39	1.77
5.5kW 4P	T2 (N.m)							124	134	160	180	197	228
	FB							4.73	4.35	3.65	2.15	1.74	1.28
7.5kW 4P	T2 (N.m)				120	134	150	168	183	218	245	269	331
	FB				4.85	4.36	3.89	3.47	3.19	2.68	1.57	1.27	0.94
11kW 4P	T2 (N.m)	115	137	153	176	196	219	247	268	319	360	395	
	FB	4.30	4.07	3.82	3.31	2.97	2.65	2.36	2.17	1.83	1.07	0.87	
15kW 4P	T2 (N.m)	157	187	208	240	267	299	337	366	436			
	FB	3.15	2.99	2.80	2.43	2.18	1.95	1.73	1.59	1.34			
18.5kW 4P	T2 (N.m)	193	230	257	296	330	369	413	448	533			
	FB	2.56	2.42	2.27	1.97	1.77	1.58	1.41	1.29	1.09			
22kW 4P	T2 (N.m)	230	274	305	352	392	438	494	537	639			
	FB	2.15	2.04	1.91	1.65	1.49	1.33	1.18	1.09	0.91			
30kW 4P	T2 (N.m)	313	372	416	479	532	596	674	732				
	FB	1.58	1.49	1.40	1.21	1.09	0.97	0.87	0.80				
37kW 4P	T2 (N.m)	387	461	513	592	659							
	FB	1.28	1.21	1.14	0.98	0.88							
45kW 4P	T2 (N.m)	471	561	624	720								
	FB	1.05	1.10	0.93	0.81								
4P n1=1450 rpm	n2 rpm	895	751	674	585	525	469	417	384	322	286	261	225

*REC91型减速器许用扭矩TN2为580 N.m。 REC91 type speed reducer allowable torque TN2 is 580N.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.



P1	参数代号 Parameter code	REC101传动能力选型参数表/ REC101 series of transmission power parameter form											
		is精确传动比/Exact ratio is											
		1.56	1.93	2.15	2.48	2.76	3.09	3.48	3.78	4.50	5.07	5.56	6.45
3kW 4P	T2 (N.m)											108	125
	FB											4.14	3.61
4kW 4P	T2 (N.m)											144	167
	FB											3.11	2.71
5.5kW 4P	T2 (N.m)										180	197	229
	FB										3.78	2.26	1.97
7.5kW 4P	T2 (N.m)							168	183	218	245	269	312
	FB							4.83	4.44	3.73	2.77	1.66	1.44
11kW 4P	T2 (N.m)				176	196	219	247	268	319	360	395	458
	FB				4.62	4.15	3.71	3.29	3.03	2.55	1.89	1.13	0.98
15kW 4P	T2 (N.m)	151	187	208	240	267	299	337	366	436	491	538	
	FB	4.19	4.01	3.91	3.39	3.04	2.72	2.41	2.22	1.87	1.39	0.83	
18.5kW 4P	T2 (N.m)	186	230	257	296	330	369	416	451	537	605		
	FB	3.39	3.25	3.17	2.75	2.47	2.20	1.96	1.80	1.51	1.12		
22kW 4P	T2 (N.m)	222	274	305	352	392	439	494	537	639	738		
	FB	2.85	2.74	2.66	2.31	2.08	1.85	1.65	1.52	1.27	0.95		
30kW 4P	T2 (N.m)	302	374	416	480	534	598	656	733	868			
	FB	2.09	2.01	1.95	1.69	1.52	1.36	1.21	1.11	0.93			
37kW 4P	T2 (N.m)	380	452	523	571	642	737	810	903				
	FB	1.70	1.63	1.58	1.37	1.23	1.1	1.0	0.90				
45kW 4P	T2 (N.m)	464	550	638	696	783	900	1011					
	FB	1.40	1.34	1.30	1.13	1.01	0.9	0.8					
55kW 4P	T2 (N.m)	554	685	763	880	980							
	FB	1.14	1.09	1.07	0.92	0.83							
4P n1=1450 rpm	n2 rpm	929	751	674	585	525	469	417	384	322	286	261	225

*REC101型减速器许用扭矩TN2为800 N.m。REC101 type speed reducer allowable torque TN2 is 800N.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.