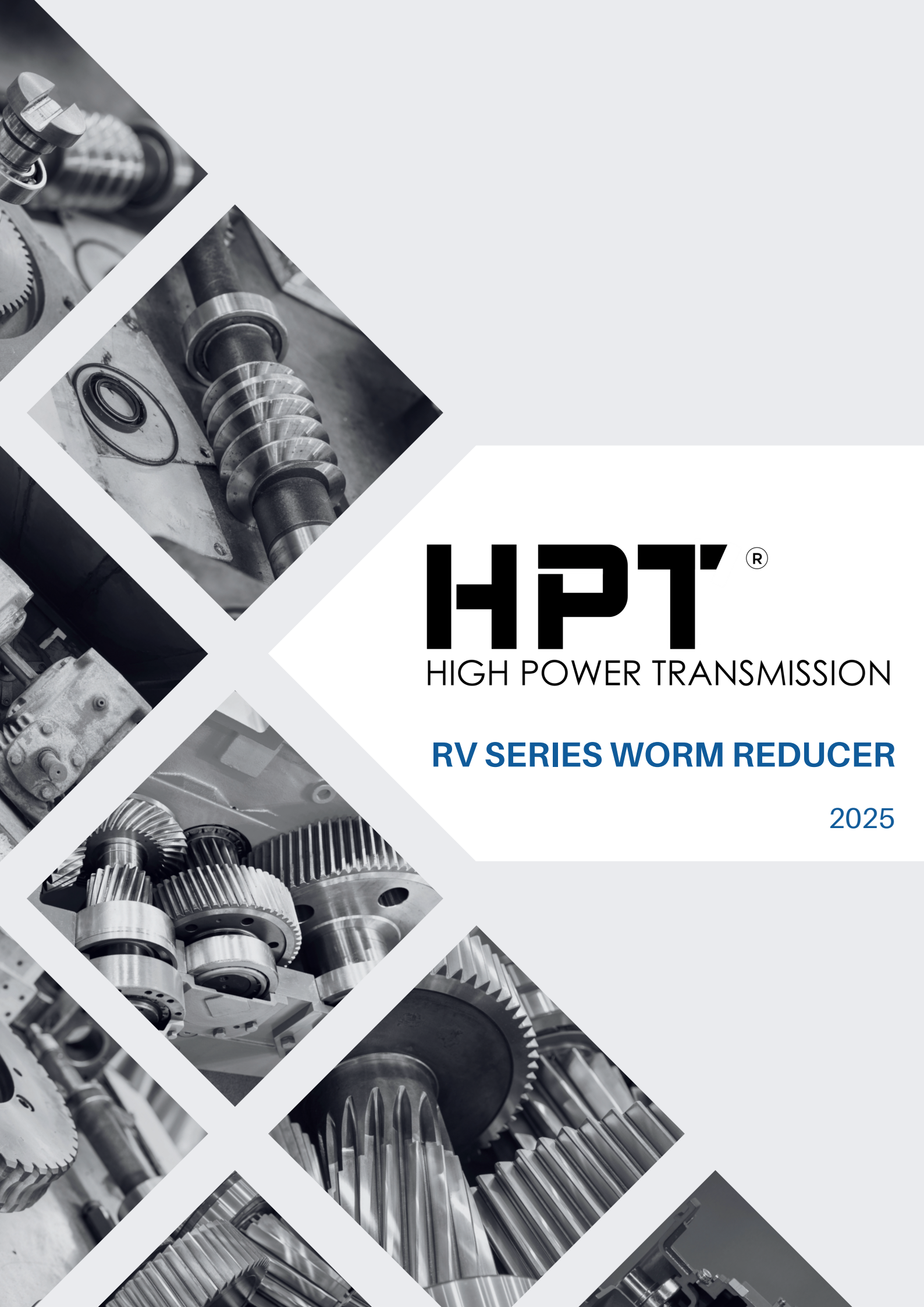




HPT[®]

HIGH POWER TRANSMISSION

RV SERIES WORM REDUCER

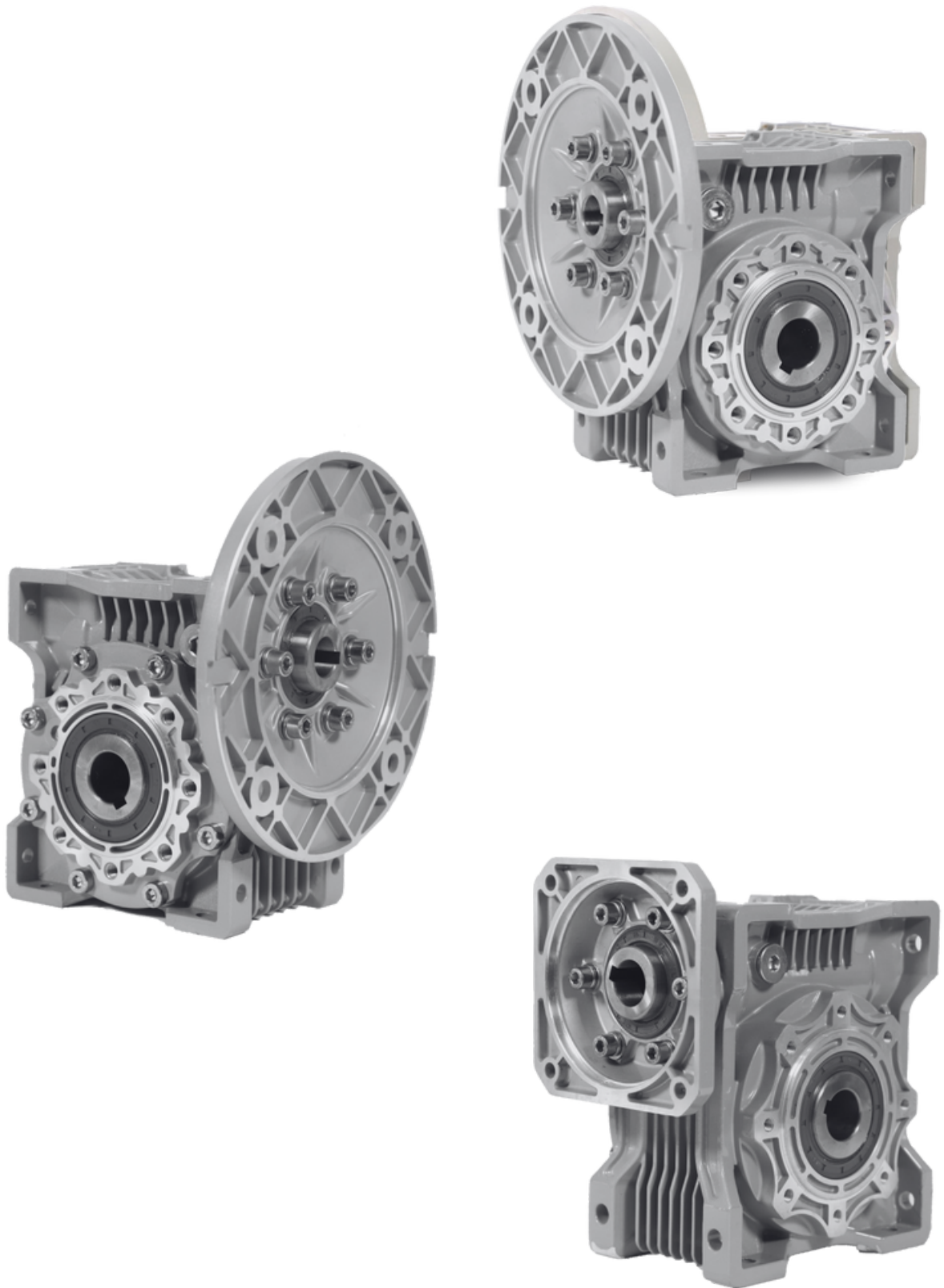
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RV SERIES

worm reducer

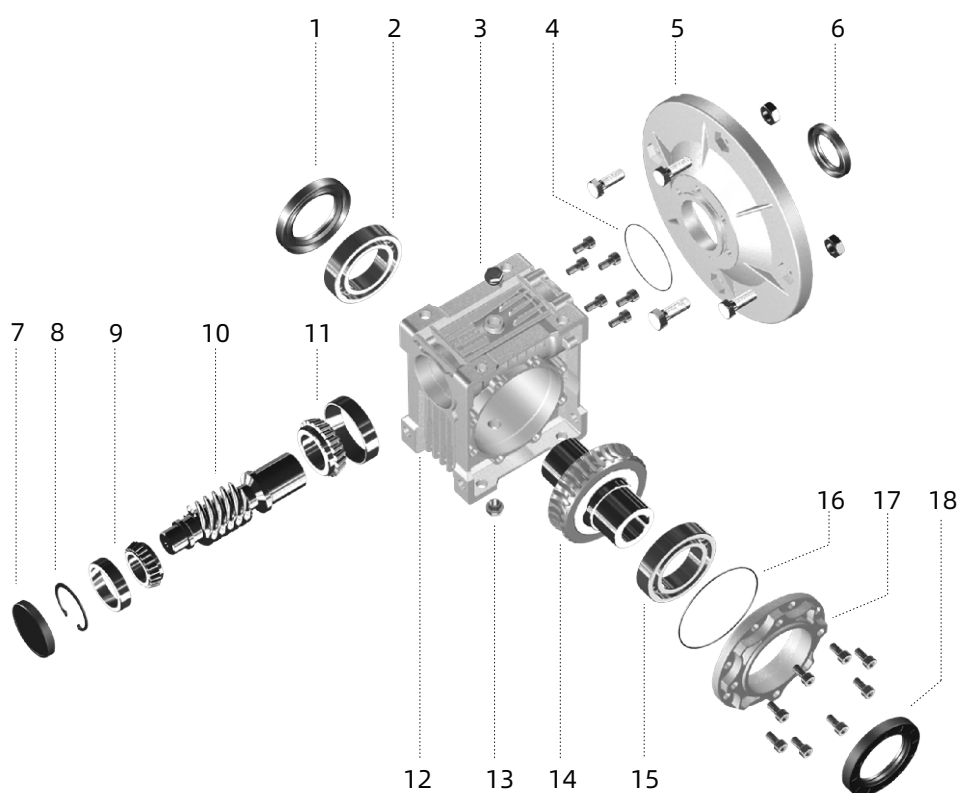


RV Series worm reducer

The advantages of worm reducer

1. High quality Aluminum alloy ,appearance elegant, efficient thermally, high load carrying capacity.
2. Installed in multi-surfaces,hollow output shaft, various type of input and output end accessories.
3. Strong adaptability: easily combined with other transmission machinery
4. Compact structure, small size, light weight and save space for mounting.
5. Stable operation and low noise.
6. High reliability and high efficiency.

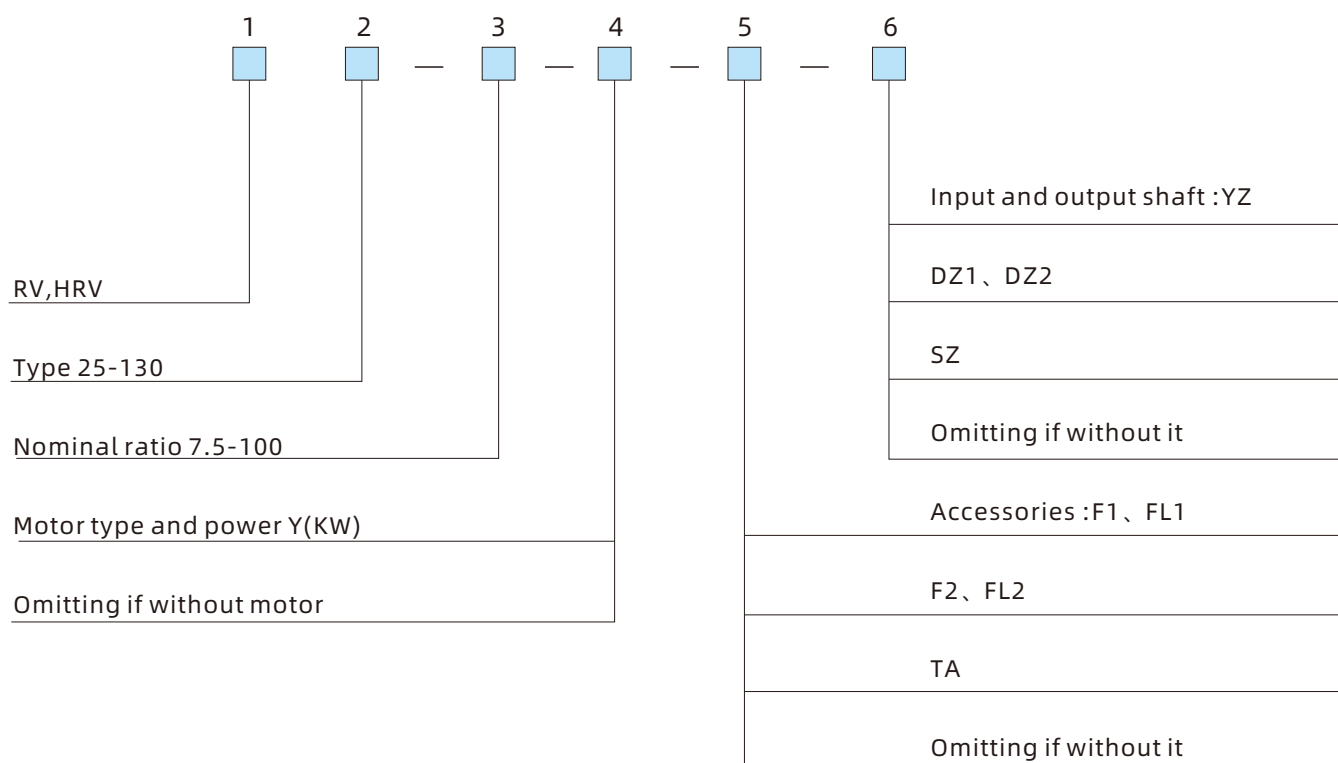
Basic structure



	Name
1	Oil seal
2	Bearing
3	vent cap
4	O-type seal ring
5	Input flange
6	Oil seal
7	Seal cover
8	Circlip
9	Bearing
10	Worm shaft

	Name
11	Bearing
12	Housing
13	Plug screw
14	Worm gear
15	Bearing
16	O-type seal ring
17	Bearing cover
18	Oil seal

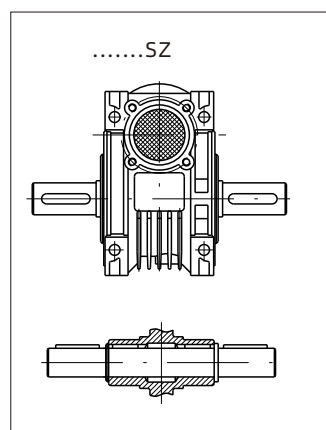
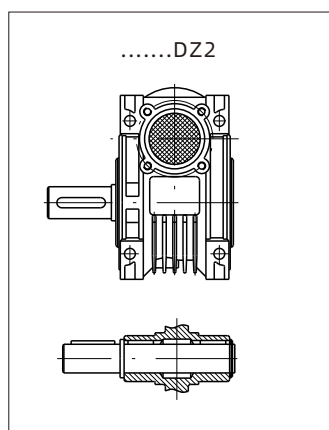
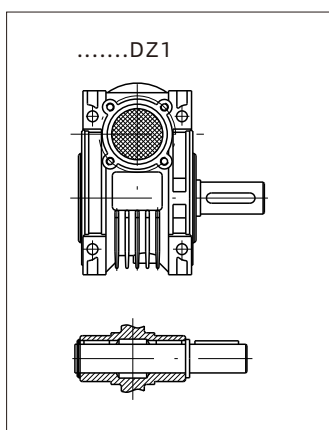
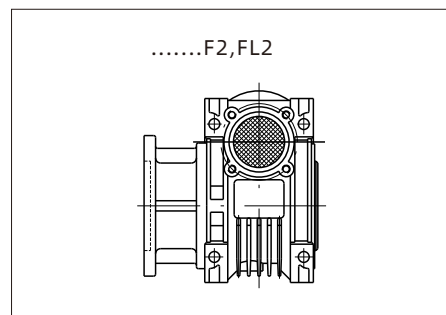
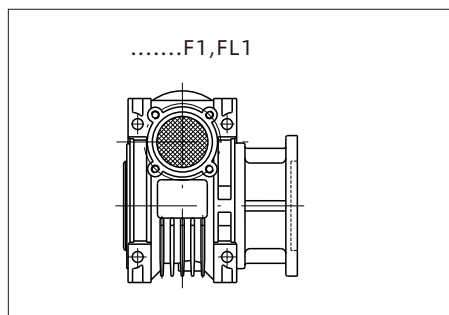
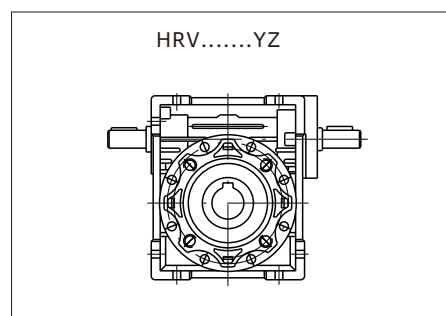
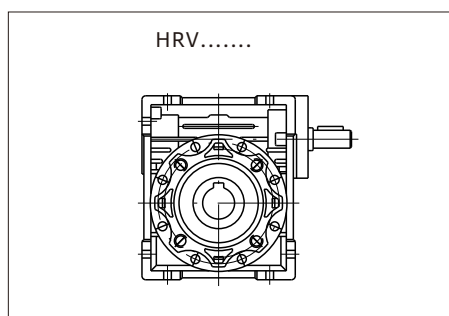
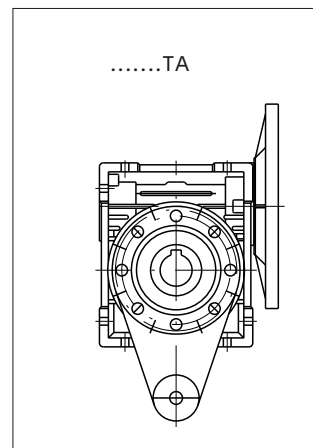
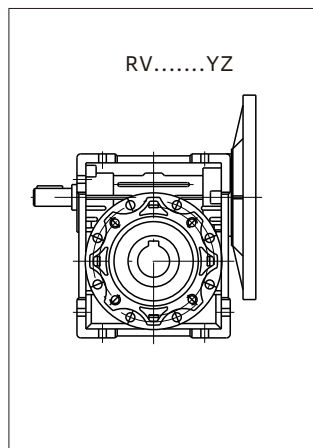
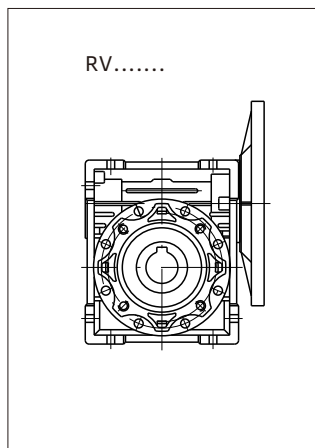
Model designation



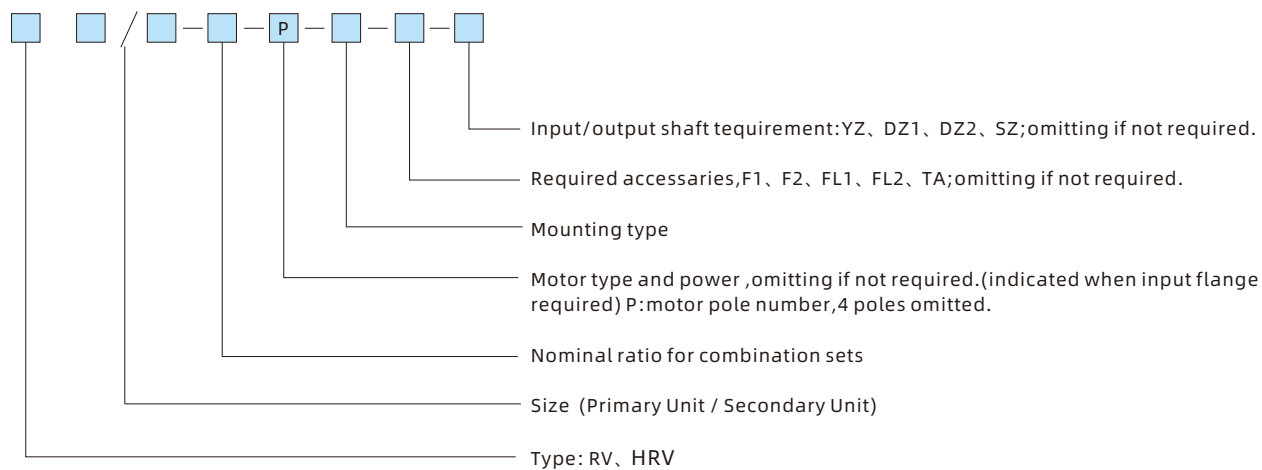
Sign Explanation

RV	With input flange (using with electric motor)
HRV	With input shaft
25-30-40-50-63-75-90-110-130	Type(centre distance)
7.5-10-15-20-25-30-40-50-60-80-100	Nominal ratio
Y0.18	With electric motor in series Y, the power is 0.18KW
YEJ0.18	With breaking motor, the power is 0.18KW
F.....(1-2).FL.....(1-2)	Output flange and mounting position (F- short output flange. FL- long output flange)
TA	With torque arm
YZ	With extension worm shaft
DZ1,DZ2	With single output shaft
SZ	With double output shaft

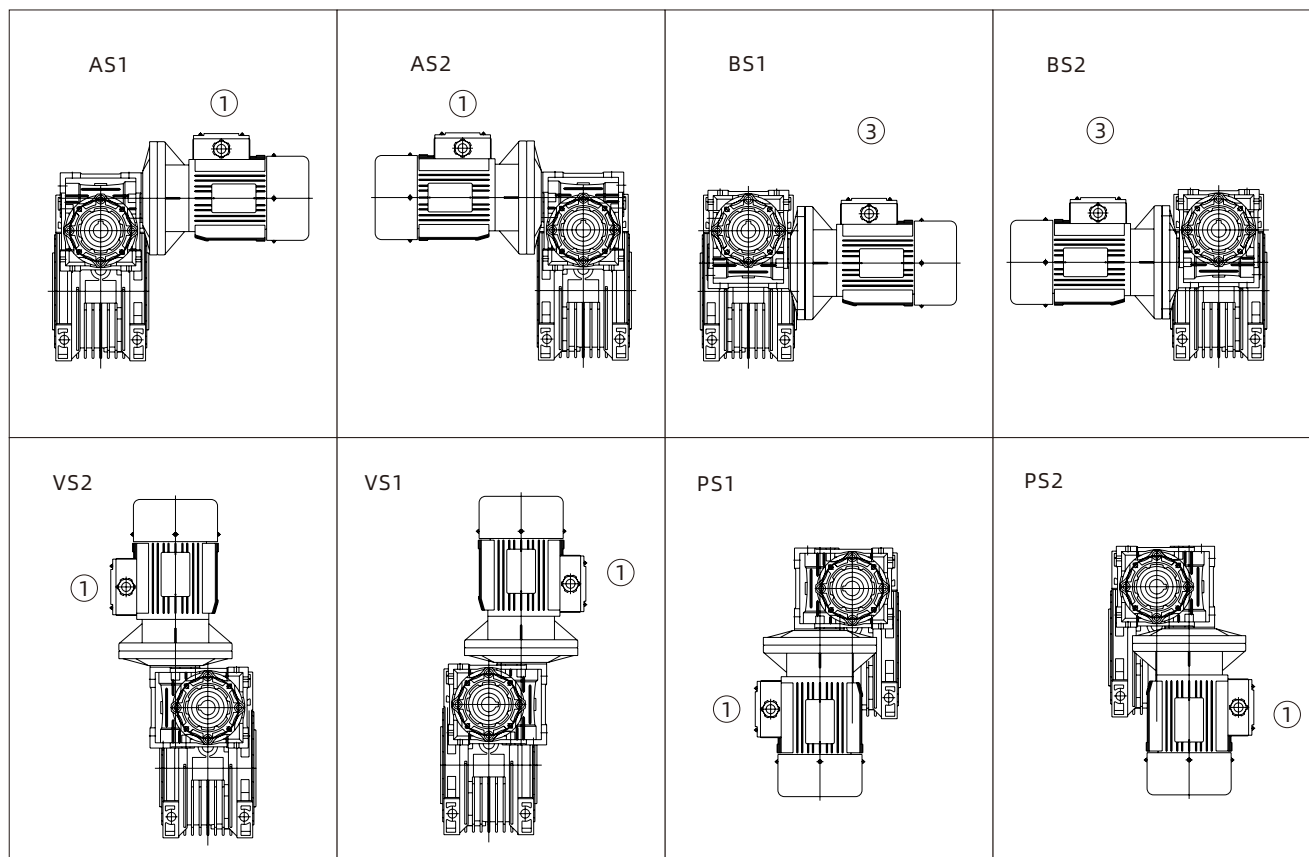
(Chart 1)



Indication for combination RV series worm speed reducer



Mounting type and codes



Examples :

1.RV40-30-Y0.18-F1-SZ

Means:

Model: RV size:40

Nominal ratio:30

With electric motor:0.18KW in series Y

Output flange:F1

Double output shaft: SZ

2.HRV40-30-F1

Means:

Model:HRV size:40

Nominal ratio:30

Without electric motor

Output flange:F1

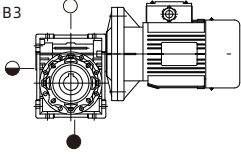
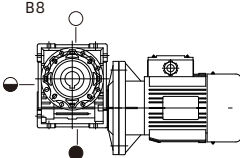
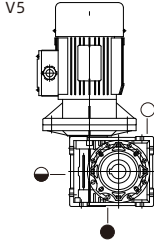
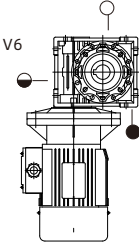
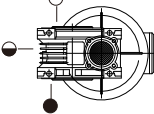
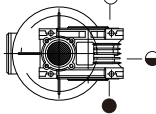
The necessity of utilizing and maintaining

1. Do not make pressure on output part and box when mounting it ,
2. It must replace lubrication oil after it runs 400 hours when first using it ,after it , replace lubrication oil per running 4000 hours.
3. It must keep coaxial degree and vertical degree in just lever when conjoining reducer with other device .
4. Must keep plenty of oil lubrication in the reducer and check it often.

Must add or replace in time when oil reduce or get bad. (lubrication type see attached table)

It is useful to keep reducer clean so that reducer radiates warmth more efficiently.

Mounting position of reducer and the corresponding oil filling amount and lubricant varieties

1. Mounting Position		○ Oil filling hole and air hole ● Oil level view glass ● Oil drain plug	
			
			

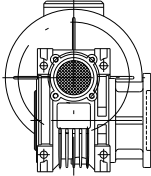
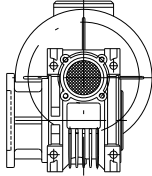
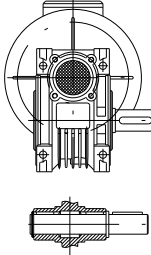
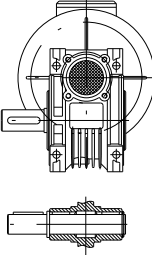
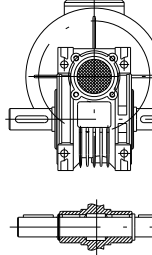
2. Oil quantities against different mounting positions

Types of worm speed reducers		RV25	RV30	RV40	RV50	RV63	RV75	RV90	RV110	RV130
Lubricating oil	B3	0.02	0.04	0.08	0.15	0.3	0.55	1.0	3.0	4.5
	B6.B7								2.5	3.5
	B8								2.2	3.3
	V5								3.0	4.5
	V6								2.2	3.3

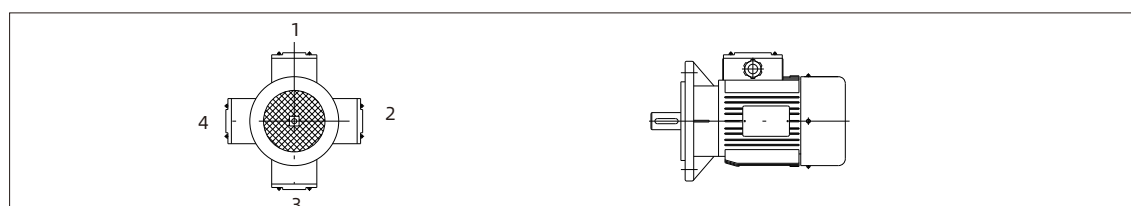
3. Lubricating Oil

Types of worm speed reducers		RV25, RV30, RV40, RV50, RV63, RV75		RV90, RV110, RV130	
	Lubricant	Synthetic Oil		Synthetic Oil	Mineral Oil
	Ambient Temperature	-25°C ~ +50°C		-25°C ~ +50°C	-5°C ~ +40°C
ISO		VG320		VG320	VG460
Used in International	AGIP	TELUM VSF320		TELUM VSF320	BLASIA 460
	SHELL	TIVELA S320		TIVELA S320	OMALA OIL 460
	ESSO	S220		S220	SPARTAN EP 460
	MOBIL	GLYGOYLE 30		GLYGOYLE 30	MOBIL GEAR 634
	CASTROL	ALPHASYN PG 320		ALPHASYN PG 320	ALPHA MAX 460
	BP	ENERGOL SG-XP 320		ENERGOL SG-XP 320	ENETGOL SG-XP 460

Installation Position of Output flange(F,FL), Output Shaft(DZ,SZ) of Gearboxes

				
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Position of Motor Terminal Box



Load carrying capacity of worm gearbox

Attached table

Reference circle of worm slide(m/s)	Lubricant Grade
≤ 2.2	G-N680W(G-N460W)
$> 2.5-5$	G-N320W
$> 5-12$	G-N220W

By table 2 and 3,selection criteria to find out service factor of worm gearbox. (Table 2)

NO of starts per hour <10			
Nature of load generated by driven machine	Hours running per day		
	< 2	2~8	8~16
Uni form	sf=0.8	sf=1	sf=1.25
Moderate shock	sf=1	sf=1.25	sf=1.5
heavy shock	sf=1.25	sf=1.5	sf=1.75

(Table 3)

NO of starts per hour >10			
Nature of load generated by driven machine	Hours running per day		
	< 2	2~8	8~24
Uni form	sf=1	sf=1.25	sf=1.75
Moderate shock	sf=1.5	sf=1.75	sf=2
heavy shock	sf=1.75	sf=2	sf=2.25

Parameter Selections

Selection Parameter of Single Stage Worm Gear Reducer (Input Speed 1400 rpm, 4 Pole)

Output speed (r/min)	Output torque (N.m)	Service Factor	Ratio (i)	Type	Output speed (r/min)	Output torque (N.m)	Service Factor	Ratio (i)	Type
0.06kW					0.12kW				
186.7	2.6	4.2	7.5	RV25	46.7	17.2	2.6	30	RV40
140	3.4	3.5	10		35	21	1.9	40	
93.3	4.9	2.5	15		28	25	1.5	50	
70	6.1	2.0	20		23.3	28	1.3	60	
46.7	8.2	1.6	30		17.5	34	1.0	80	
35	10	1.3	40		14	38	0.8	100	
28	12	0.9	50						
23.3	14	0.7	60						
186.7	2.6	6.9	7.5	RV30	23.3	29	2.3	60	RV50
140	3.4	5.4	10		17.5	35	1.9	80	
93.3	4.7	3.8	15		14	40	1.4	100	
70	6	3.0	20		0.18kW				
56	7	3.0	25		186.7	7.8	2.3	7.5	RV30
46.7	8	2.5	30		140	10	1.8	10	
35	9.7	1.9	40		93.3	14	1.3	15	
28	11	1.5	50		70	18	1.0	20	
23.3	13	1.3	60	56	21	1.0	25		
17.5	14	0.9	80	46.7	24	0.8	30		
0.09kW					70	19	2.0	20	RV40
186.7	3.9	2.8	7.5	RV25	56	23	1.7	25	
140	5.1	2.4	10		46.7	26	1.7	30	
93.3	7.3	1.6	15		35	32	1.3	40	
70	9.2	1.3	20		28	38	1.0	50	
46.7	12	1.1	30		23.3	43	0.8	60	
35	15	0.9	40						
186.7	3.9	4.6	7.5	RV30	35	32	2.3	40	RV50
140	5	3.6	10		28	39	1.9	50	
93.3	7.1	2.5	15		23.3	43	1.6	60	
70	9	2.0	20		17.5	52	1.2	80	
56	10	2.0	25		14	60	0.9	100	
46.7	12	1.7	30		0.25kW				
35	14	1.2	40		186.7	11	3.6	7.5	RV40
28	17	1.0	50		140	14	2.8	10	
23.3	19	0.9	60	93.3	21	1.9	15		
				70	27	1.5	20		
				56	32	1.2	25		
				46.7	36	1.3	30		
				35	44	0.9	40		
				28	37	0.8	50		
0.12kW					70	26	2.7	20	RV50
186.7	5.2	3.4	7.5	RV30	56	32	2.2	25	
140	6.7	2.7	10		46.7	37	2.3	30	
93.3	9.5	1.9	15		35	46	1.7	40	
70	12	1.5	20		28	54	1.4	50	
56	14	1.5	25		23.3	60	1.1	60	
46.7	16	1.3	30		17.5	72	0.9	80	
35	19	0.9	40						
28	23	0.8	50						

Output speed (r/min)	Output torque (N.m)	Service Factor	Ratio (i)	Type	
0.25kW					
28	56	2.4	50	RV63	
23.3	63	2.0	60		
17.5	78	1.6	80		
14	87	1.4	100		
0.37kW					
186.7	16	2.4	7.5	RV40	
140	21	1.9	10		
93.3	31	1.3	15		
70	39	1.0	20		
56	47	0.8	25		
46.7	53	0.8	30		
140	21	3.3	10	RV50	
93.3	31	2.4	15		
70	40	1.8	20		
56	48	1.5	25		
46.7	55	1.5	30		
35	68	1.1	40		
28	80	0.9	50	RV63	
23.3	89	0.8	60		
35	70	2.1	40		
28	83	1.6	50		
23.3	94	1.4	60		
17.5	115	1.1	80		
14	129	0.9	100	RV50	
0.55kW					
186.7	25	2.9	7.5		
140	32	2.2	10		
93.3	46	1.6	15		
70	59	1.2	20		
56	71	1.0	25		
46.7	81	1.0	30		
35	80	0.9	40	RV63	
70	60	2.2	20		
56	73	1.8	25		
46.7	83	1.9	30		
35	105	1.4	40		
28	124	1.1	50		
23.3	140	0.9	60	RV75	
35	108	2.0	40		
28	129	1.6	50		
23.3	146	1.4	60		
17.5	180	1.1	80		
14	206	0.9	100		
17.5	189	1.5	80	RV90	
14	221	1.2	100		

Output speed (r/min)	Output torque (N.m)	Service Factor	Ratio (i)	Type
0.75kW				
93.3	63	1.2	15	RV50
70	81	0.9	20	
93.3	63	2.2	15	RV63
70	83	1.6	20	
56	100	1.3	25	
46.7	114	1.4	30	
35	143	1.0	40	RV75
56	102	2.0	25	
46.7	117	2.0	30	
35	147	1.5	40	
28	177	1.2	50	
23.3	200	1.0	60	
28	184	1.8	50	RV90
23.3	212	1.5	60	
17.5	258	1.1	80	
14	302	0.9	100	
1.1kW				
186.7	49	2.6	7.5	RV63
140	65	2.0	10	
93.3	93	1.5	15	
70	122	1.1	20	
56	146	0.9	25	
46.7	167	1.0	30	
35	210	0.7	40	RV75
93.3	95	2.1	15	
70	123	1.7	20	
56	150	1.3	25	
46.7	171	1.3	30	
35	216	1.0	40	
28	264	0.9	50	RV90
23.3	223	0.8	60	
35	225	1.6	40	
28	270	1.3	50	
23.3	311	1.0	60	RV110
17.5	328	0.9	80	
28	281	2.3	50	
23.3	324	1.9	60	
17.5	402	1.3	80	RV63
14	473	1.0	100	
1.5kW				
186.7	67	1.9	7.5	RV63
140	89	1.5	10	
93.3	127	1.1	15	
70	166	0.8	20	

Output speed (r/min)	Output torque (N.m)	Service Factor	Ratio (i)	Type	Output speed (r/min)	Output torque (N.m)	Service Factor	Ratio (i)	Type	
1.5kW					3kW					
140	90	2.2	10	RV75	186.7	136	1.4	7.5	RV75	
93.3	130	1.5	15		140	180	1.1	10		
70	168	1.3	20		93.3	261	0.8	15		
56	205	1.0	25		186.7	138	2.1	7.5	RV90	
46.7	233	1.0	30		140	182	1.7	10		
70	171	2.1	20	93.3	264	1.4	15			
56	210	1.6	25	70	344	1.0	20			
46.7	239	1.7	30	56	420	0.8	25			
35	307	1.2	40	RV90	46.7	479	0.9	30	RV110	
28	368	0.9	50		93.3	264	2.5	15		
23.3	424	0.8	60		70	348	1.9	20		
35	319	2.2	40		56	430	1.6	25		
28	384	1.7	50		46.7	485	1.5	30		
23.3	442	1.4	60	RV110	35	638	1.1	40	RV130	
17.5	548	0.9	80		28	767	0.9	50		
2.2kW					56	429	2.2	25		
186.7	100	1.8	7.5		RV75	46.7	491	2.1		30
140	132	1.5	10			35	638	1.6		40
93.3	191	1.0	15	28		767	1.3	50		
70	240	0.9	20	23.3		884	1.0	60		
46.7	269	0.8	30	17.5		1113	0.8	80		
186.7	101	2.9	7.5	RV90	4kW					
140	134	2.3	10		186.7	182	1.0	7.5	RV75	
93.3	194	1.9	15		140	240	0.8	10		
70	252	1.4	20		186.7	184	1.6	7.5	RV90	
56	308	1.1	25		140	243	1.3	10		
46.7	351	1.2	30	93.3	352	1.0	15			
35	450	0.8	40	70	458	0.8	20			
70	255	2.5	20	RV110	140	242	2.5	10		RV110
56	315	2.2	25		93.3	352	1.9	15		
46.7	356	2.0	30		70	464	1.4	20		
35	468	1.5	40		56	573	1.2	25		
28	563	1.2	50		46.7	647	1.1	30		
23.3	648	1.0	60	RV130	56	573	1.6	25	RV130	
35	468	2.2	40		46.7	655	1.6	30		
28	563	1.7	50		35	851	1.2	40		
23.3	648	1.4	60		28	1023	1.0	50		
17.5	816	1.0	80		23.3	1179	0.8	60		
14	869	0.8	100							

Output speed (r/min)	Output torque (N.m)	Service Factor	Ratio (i)	Type
5.5kW				
186.7	253	2.2	7.5	RV110
140	334	1.8	10	
93.3	484	1.4	15	
70	638	1.0	20	
56	711	0.9	25	
140	333	2.5	10	RV130
93.3	490	1.9	15	
70	645	1.4	20	
56	788	1.2	25	
46.7	900	1.2	30	
35	1171	0.9	40	
28	1103	0.8	50	
7.5kW				
186.7	345	1.6	7.5	RV110
140	455	1.3	10	
93.3	660	1.0	15	
186.7	349	2.1	7.5	RV130
140	455	1.8	10	
93.3	668	1.4	15	
70	880	1.0	20	
56	1074	0.9	25	
46.7	1228	0.8	30	
35	1596	0.7	40	

Selection Parameter of Double Stage Worm Gear Reducer (Input Speed 1400 rpm, 4 Pole)

Output speed (r/min)	Output torque (N.m)	Service Factor	High speed transmission ratio (i1)	Low speed transmission ratio (i2)	General transmission ratio (i)	Combination model size
0.06kw						
14	25	1.3	10	10	100	25/30
9.3	32	0.9	10	15	150	
7	41	0.7	10	20	200	
5.6	44	0.8	10	25	250	
4.7	57	1.3	10	30	300	30/40
3.5	70	0.9	10	40	400	
2.8	96	0.6	20	25	500	
2.3	104	0.7	20	30	600	
1.9	121	0.6	25	30	750	
1.6	139	0.5	30	30	900	
1.2	166	0.4	30	40	1200	
0.9	196	0.4	50	30	1500	
0.78	218	0.3	60	30	1800	
0.58	261	0.2	60	40	2400	
0.4	300	0.2	80	40	3200	
0.4	279	0.1	50	80	4000	
0.28	338	0.1	50	100	5000	30/50
1.6	141	1.0	30	30	900	
1.2	169	0.7	30	40	1200	
0.93	199	0.7	50	30	1500	
0.78	222	0.7	60	30	1800	
0.6	266	0.5	60	40	2400	
0.5	307	0.4	60	50	3000	
0.35	288	0.3	50	80	4000	
0.29	311	0.3	60	80	4800	30/63
0.9	203	1.1	30	50	1500	
0.78	225	0.9	30	60	1800	
0.58	276	0.8	60	40	2400	
0.47	319	0.7	60	50	3000	
0.35	306	0.6	50	80	4000	
0.28	360	0.4	50	100	5000	
0.6	330	1.1	60	40	2400	40/75
0.47	377	0.8	60	50	3000	
0.35	355	0.7	50	80	4000	
0.28	419	0.5	50	100	5000	
0.5	405	1.4	60	50	3000	40/90
0.35	365	1.3	50	80	4000	
0.28	431	1.0	50	100	5000	

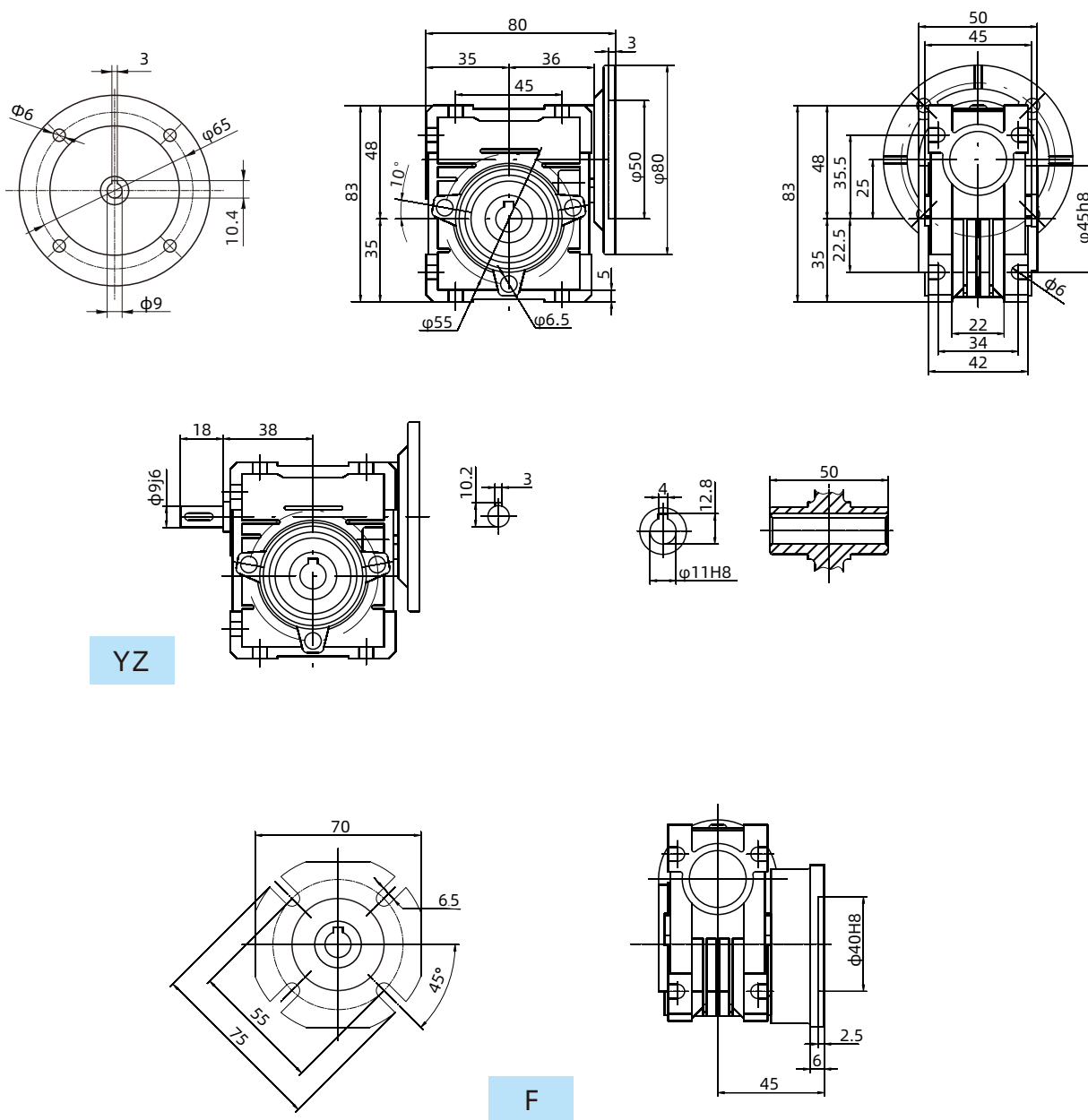
Output speed (r/min)	Output torque (N.m)	Service Factor	High speed transmission ratio (i1)	Low speed transmission ratio (i2)	General transmission ratio (i)	Combination model size
0.09kw						
14	37	0.8	10	10	100	25/30
9.3	49	0.6	10	15	150	
7	62	0.5	10	20	200	
5.6	66	0.5	10	25	250	
4.7	75	0.4	10	30	300	
3.5	107	0.3	10	40	400	
2.8	115	0.2	20	25	500	
2.3	135	0.2	20	30	600	
1.9	151	0.2	25	30	750	
1.6	178	0.2	30	30	900	
1.2	212	0.1	30	40	1200	
0.9	247	0.1	50	30	1500	
0.78	304	0.1	60	30	1800	
0.58	340	0.1	60	40	2400	
0.47	405	0.1	60	50	3000	
4.7	88	0.8	10	30	300	30/40
3.5	107	1.2	10	40	400	30/50
2.8	123	1.0	10	50	500	
2.3	159	0.9	20	30	600	
1.9	185	0.8	25	30	750	
1.6	212	0.7	30	30	900	
1.6	200	1.0	15	60	900	
1.2	263	0.9	30	40	1200	
0.93	305	0.7	30	50	1500	
0.9	359	1.1	50	30	1500	40/75
0.78	404	1.0	60	30	1800	
0.58	496	0.7	60	40	2400	
0.5	608	0.9	60	50	3000	
0.35	548	0.8	50	80	4000	40/90
0.12kw						
4.7	118	1.2	10	30	300	30/50
3.5	142	0.9		40	400	
2.8	164	0.7	10	50	500	
2.8	171	1.3	10	50	500	30/63
2.3	208	1.1	15	40	600	
1.9	241	0.9	15	50	750	

Output speed (r/min)	Output torque (N.m)	Service Factor	High speed transmission ratio (i1)	Low speed transmission ratio (i2)	General transmission ratio (i)	Combination model size
0.12kW						
1.6	324	1.2	30	30	900	40/75
1.2	399	0.9	30	40	1200	
0.78	546	0.9	30	60	1800	40/90
0.58	695	0.9	60	40	2400	
0.5	883	1.2	60	50	3000	50/110
0.35	784	1.0	50	80	4000	
0.28	928	0.8	50	100	5000	
0.18kW						
3.5	221	1.0	10	40	400	30/63
2.8	257	0.8	10	50	500	
2.3	362	1.1	20	30	600	40/75
1.9	435	0.9	25	30	750	
1.6	487	0.8	30	30	900	
1.2	629	1.0	30	40	1200	40/90
0.93	735	0.8	30	50	1500	
0.78	860	1.5	60	30	1800	50/110
0.58	1113	1.1	60	40	2400	
0.25kW						
3.5	336	1.1	10	40	400	40/75
2.8	384	0.8	10	50	500	
2.3	511	1.2	15	40	600	40/90
1.9	598	0.9	15	50	750	
1.6	667	0.8	15	60	900	
1.2	943	1.3	30	40	1200	50/110
0.93	1064	1.2	50	30	1500	
0.78	1195	1.1	60	30	1800	
0.6	1624	1.0	60	40	2400	63/130
0.47	1935	0.8	60	50	3000	
0.35	2046	0.6	50	80	4000	
0.28	2430	0.5	50	100	5000	
0.37kW						
4.7	405	1.0	10	30	300	40/75
3.5	498	0.7	10	40	400	
4.7	401	1.5	7.5	40	300	40/90
3.5	523	1.2	10	40	400	
2.8	611	0.9	10	50	500	
2.3	757	0.8	15	40	600	

Output speed (r/min)	Output torque (N.m)	Service Factor	High speed transmission ratio (i1)	Low speed transmission ratio (i2)	General transmission ratio (i)	Combination model size
0.37kW						
1.9	949	1.3	25	30	750	50/110
1.6	1079	1.2	30	30	900	
1.2	1396	0.8	30	40	1200	
0.9	1674	1.1	50	30	1500	63/130
0.78	1887	0.9	60	30	1800	
0.55kW						
4.7	639	2.0	10	30	300	50/110
3.5	826	1.4	10	40	400	
2.8	984	1.1	10	50	500	
2.3	1181	1.0	15	40	600	
1.9	1411	0.9	25	30	750	
2.8	995	1.6	10	50	500	63/130
1.9	1470	1.2	25	30	750	
1.2	2132	0.8	30	40	1200	
0.75kW						
4.7	871	1.5	10	30	300	50/110
3.5	1126	1.1	10	40	400	
2.8	1357	1.1	10	50	500	63/130
2.3	1631	1.0	15	40	600	
1.9	2005	0.9	25	30	750	
1.6	2283	0.8	30	30	900	
1.1 kW						
4.7	1312	1.3	10	30	300	63/130
3.5	1671	1.0	10	40	400	
2.8	1991	0.8	10	50	500	
1.5kW						
4.7	1789	1.0	10	30	300	63/130
3.5	2279	0.7	10	40	400	

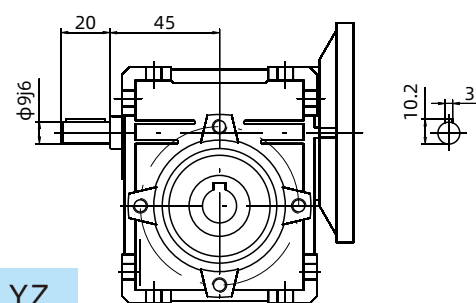
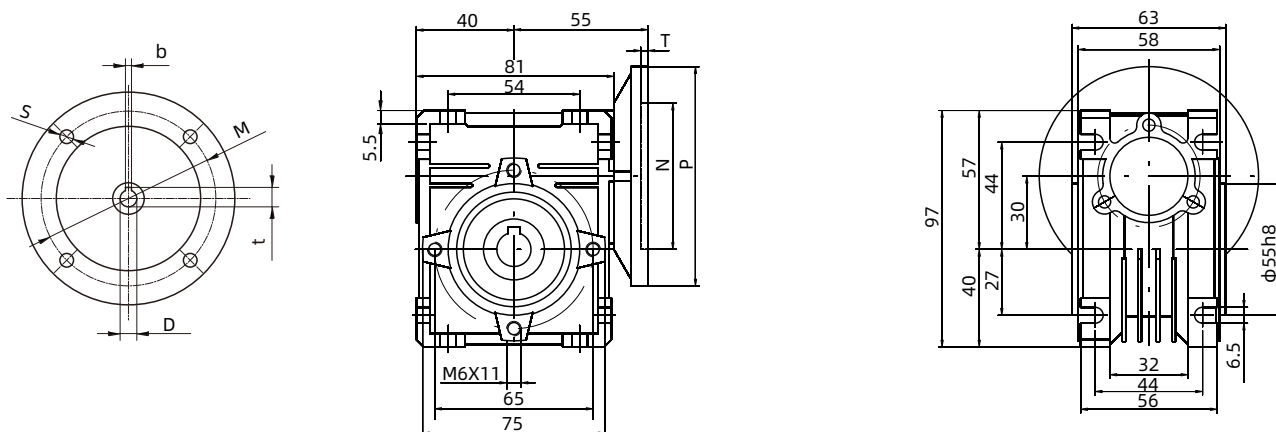
OUTLINE DIMENSION SHEET

RV25

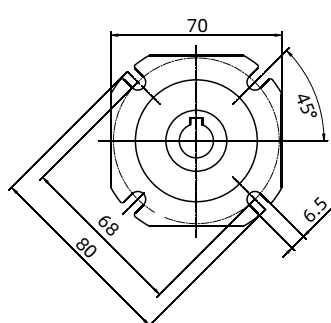
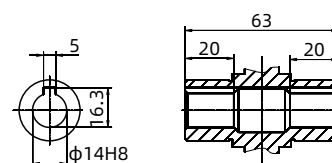


Weight without motor $\approx 0.8\text{kg}$

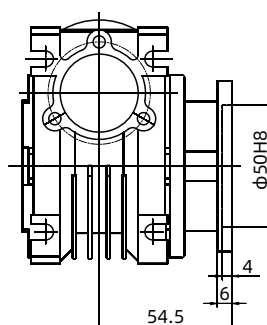
RV30



YZ



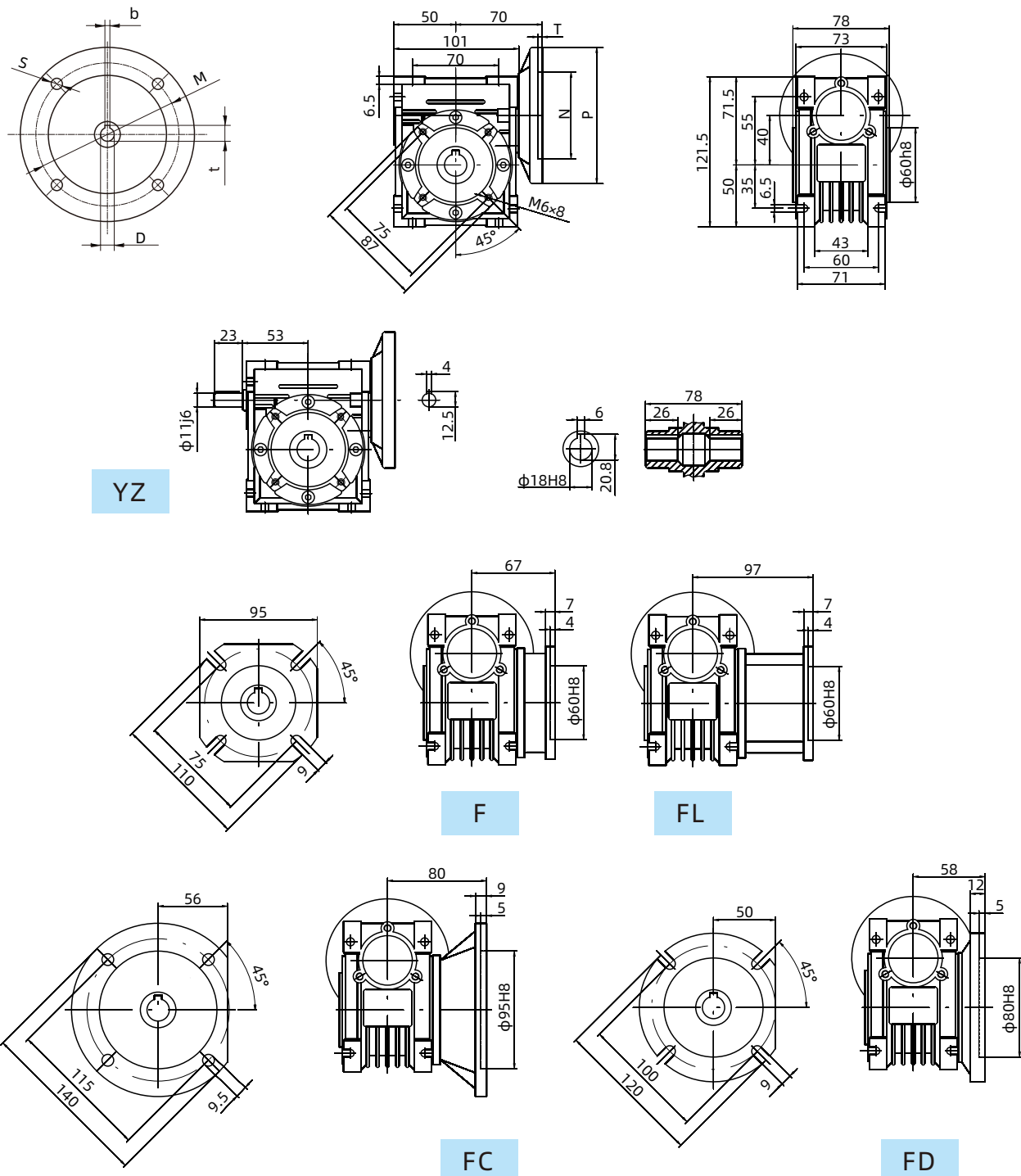
F



IEC	D _{E8}	b	t	P	M	N	S	T
56B5	9	3	10.4	120	100	80	7	3.5
56B14	9	3	10.4	80	65	50	5.5	3
63B14	11	4	12.8	90	75	60	5.5	3
63B5	11	4	12.8	140	115	95	9	3.5

Weight without motor ≈ 1.2kg

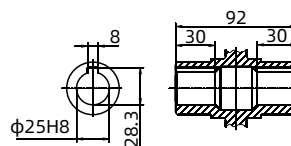
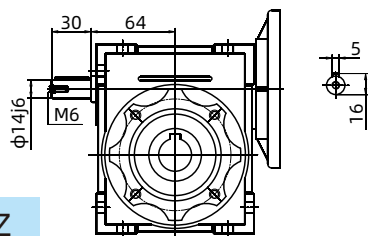
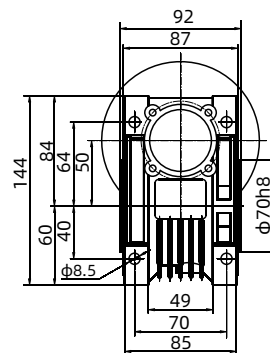
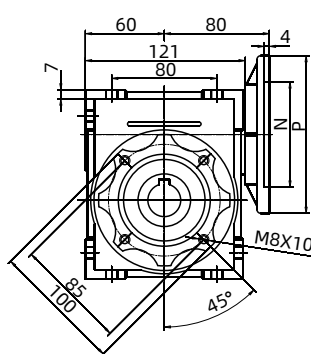
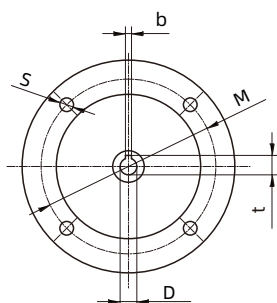
RV40



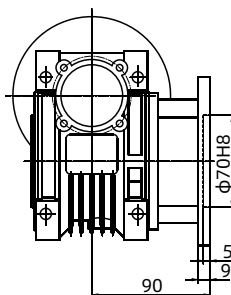
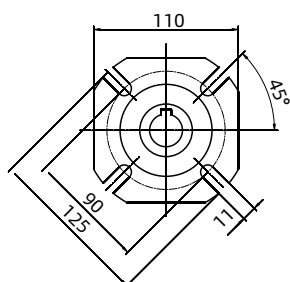
IEC	DE8	b	t	P	M	N	S	T
56B14	9	3	10.4	80	65	50	5.5	3
63B5	11	4	12.8	140	115	95	9	3.5
63B14	11	4	12.8	90	75	60	5.5	3
71B5	14	5	16.3	160	130	110	9	4
71B14	14	5	16.3	105	85	70	7	3

Weight without motor $\approx 2.2\text{kg}$

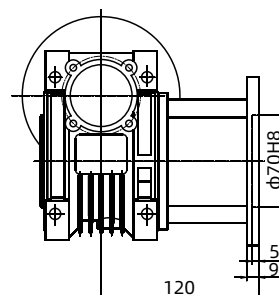
RV50



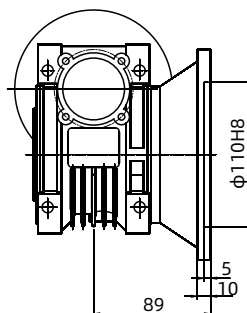
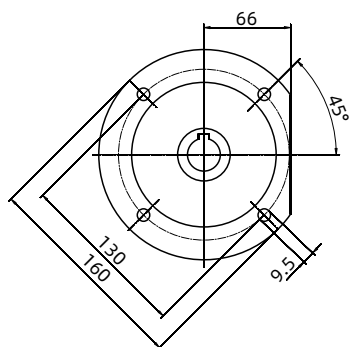
YZ



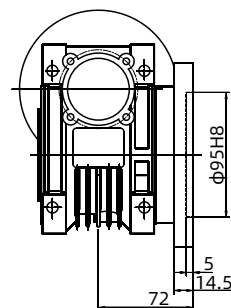
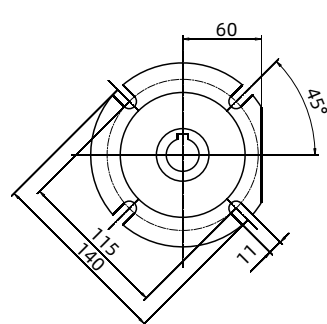
F



FL



FC

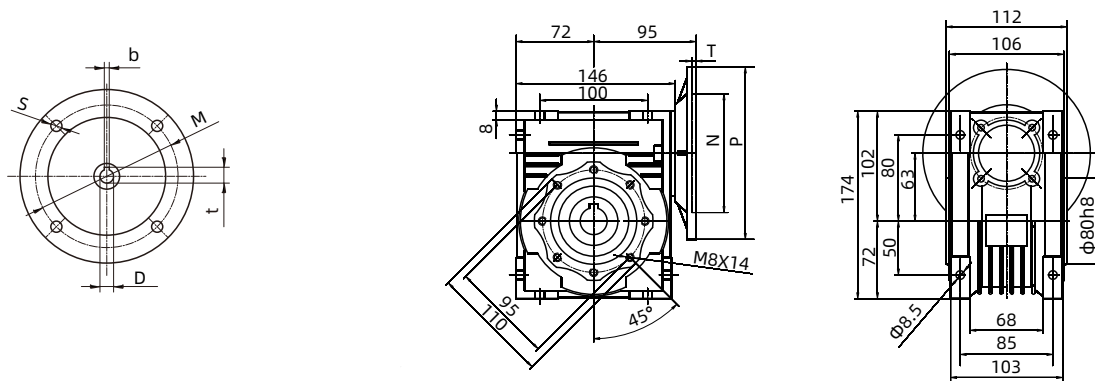


FD

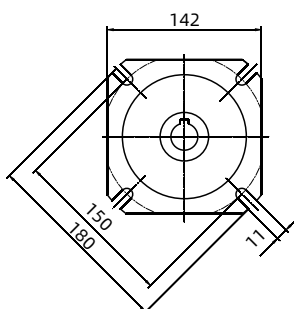
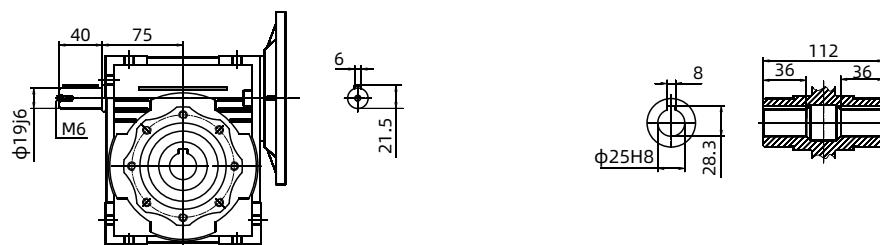
IEC	DE8	b	t	P	M	N	S	T
63B14	11	4	12.8	90	75	60	5.5	3
63B5	11	4	12.8	140	115	95	9	3.5
71B5	14	5	16.3	160	130	110	9	4
71B14	14	5	16.3	105	85	70	7	3
80B5	19	6	21.8	200	165	130	11	4
80B14	19	6	21.8	120	100	80	7	3.5

Weight without motor ≈ 3.8kg

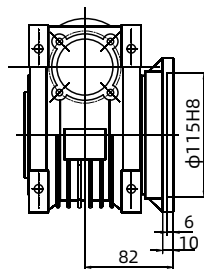
RV63



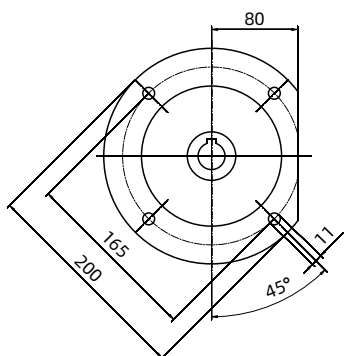
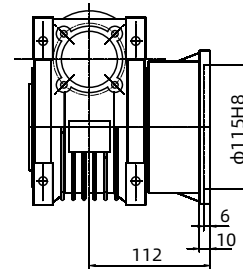
YZ



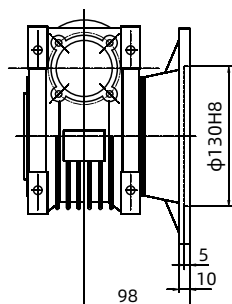
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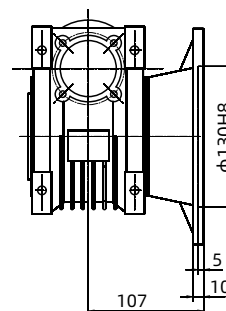
FL



FC

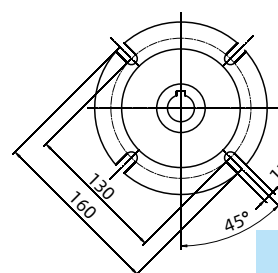


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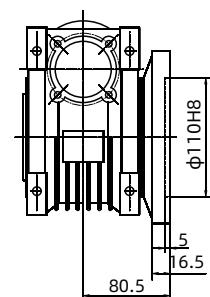


Weight without motor ≈ 6.2kg

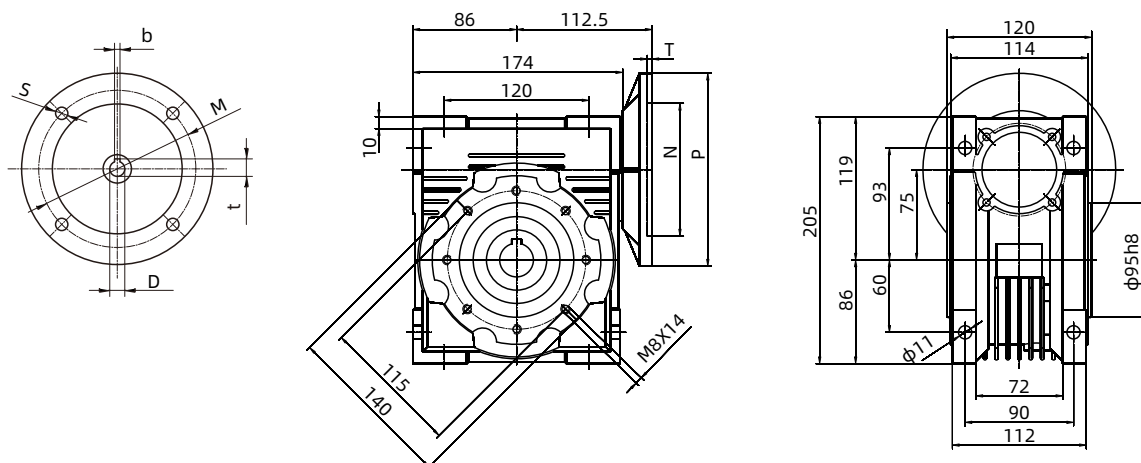
IEC	DE8	b	t	P	M	N	S	T
71B5	14	5	16.3	160	130	110	9	4
71B14	14	5	16.3	105	85	70	7	3
80B5	19	6	21.8	200	165	130	11	4
80B14	19	6	21.8	120	100	80	7	3.5
90B5	24	8	27.3	200	165	130	11	4
90B14	24	8	27.3	140	115	95	9	3.5



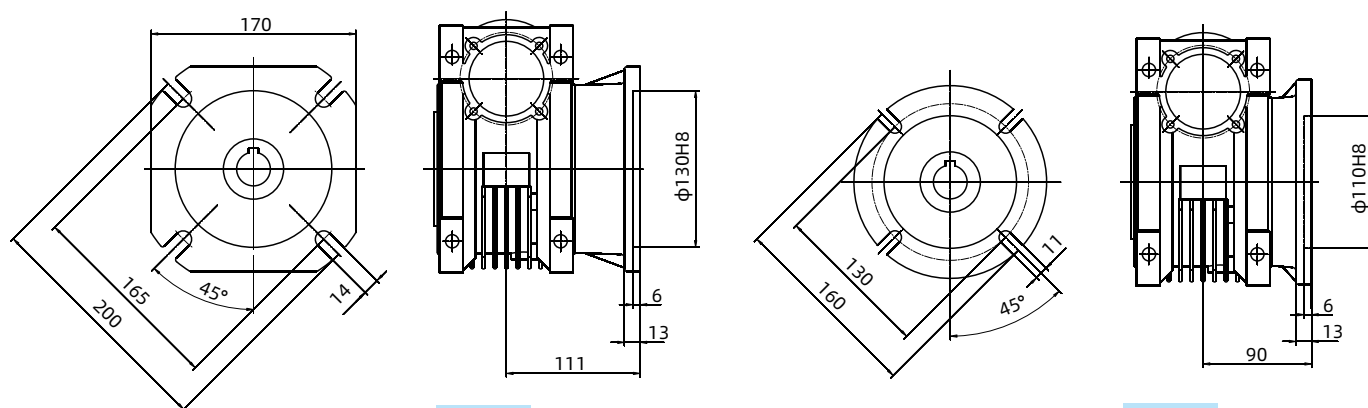
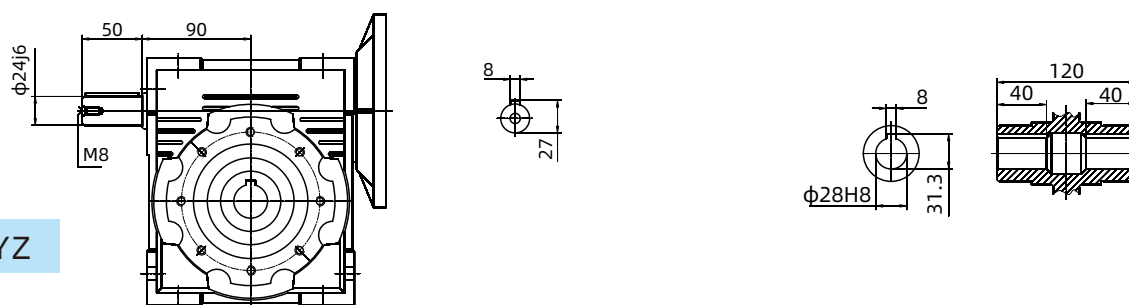
FE



RV75



YZ



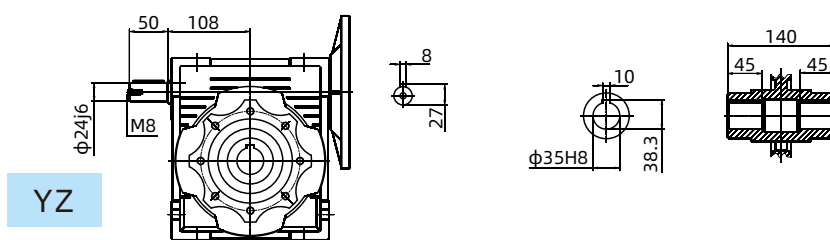
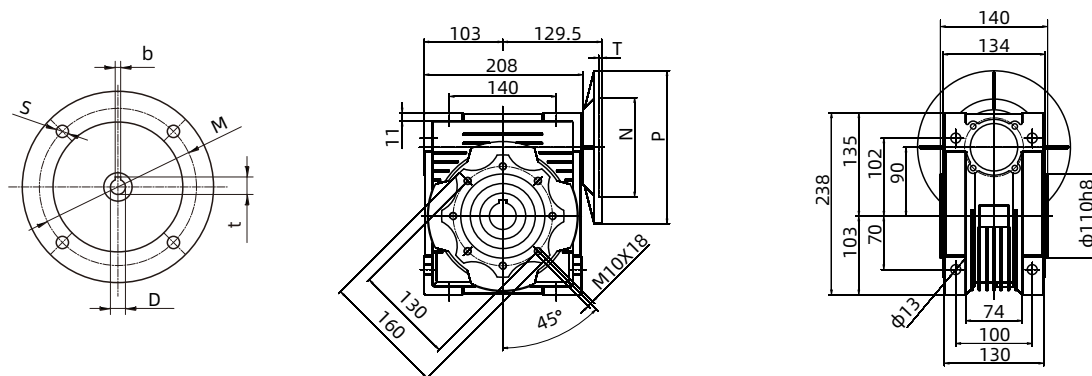
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FB

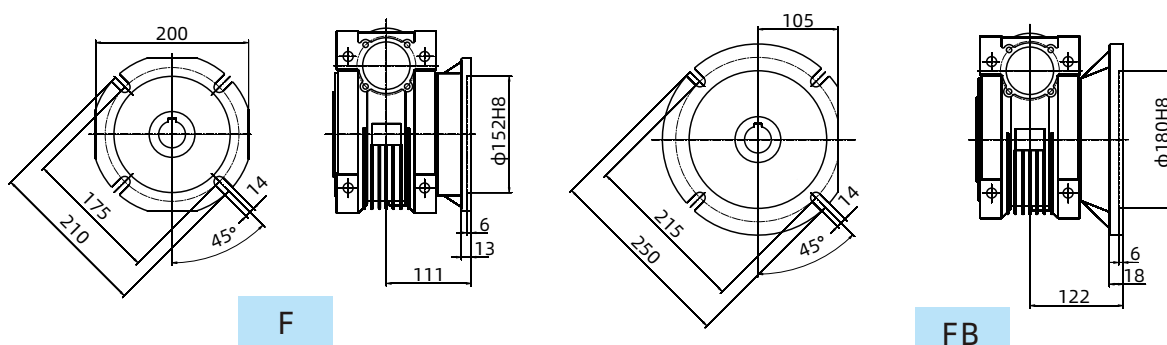
IEC	DE8	b	t	P	M	N	S	T
80B5	19	6	21.8	200	165	130	11	4
80B14	19	6	21.8	120	100	80	6.5	3.5
90B5	24	8	27.3	200	165	130	11	4
90B14	24	8	27.3	140	115	95	9	3.5
100/112B5	28	8	31.3	250	215	180	13.5	4
100/112B14	28	8	31.3	160	130	110	9	4.5

Weight without motor ≈ 9kg

RV90

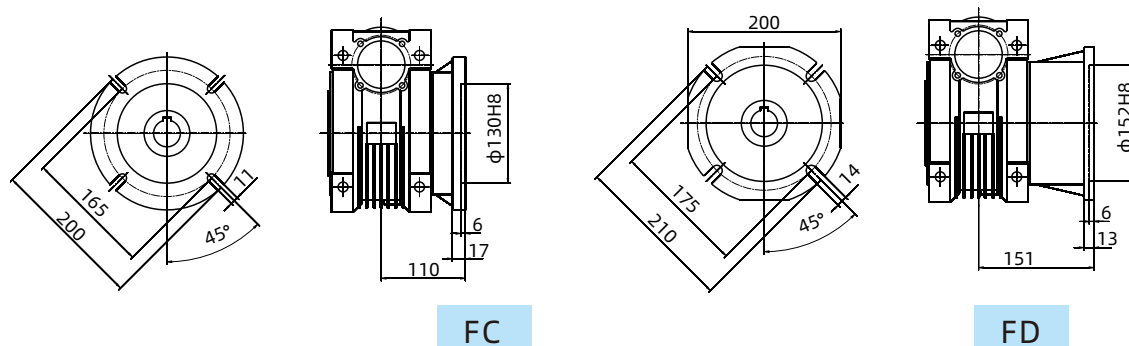


YZ



F

FB



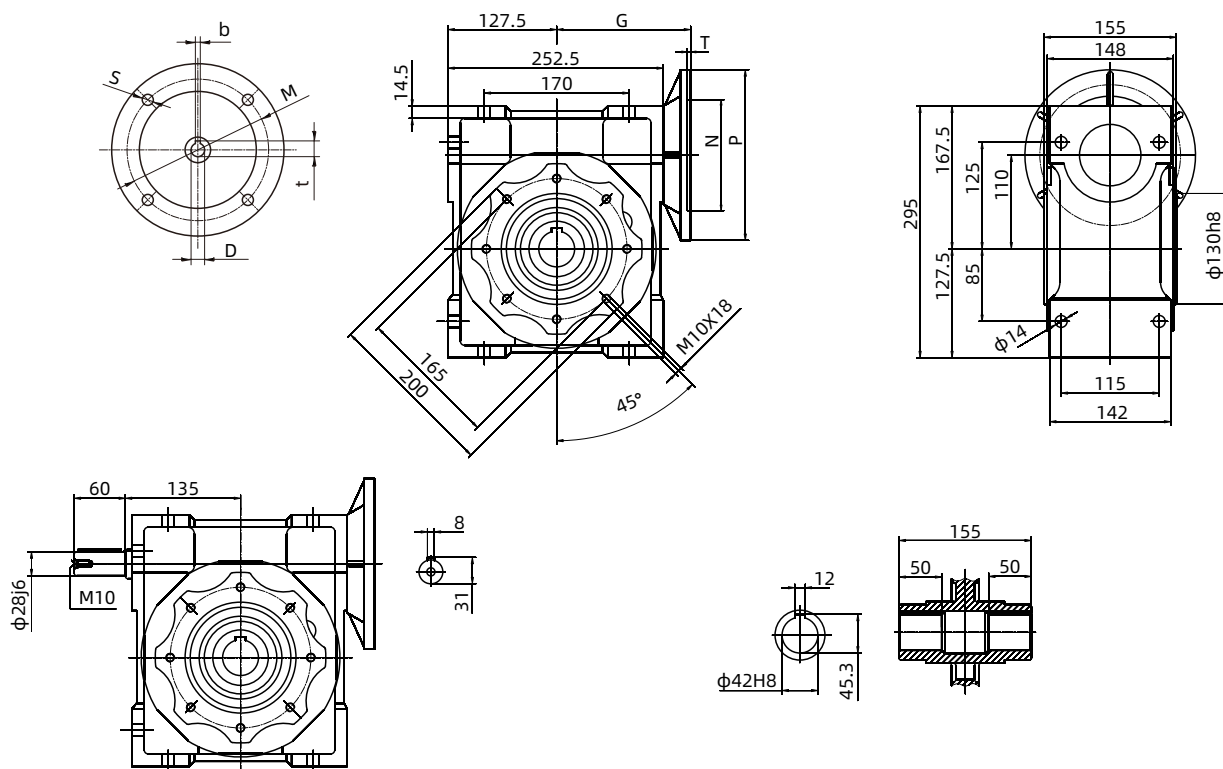
FC

FD

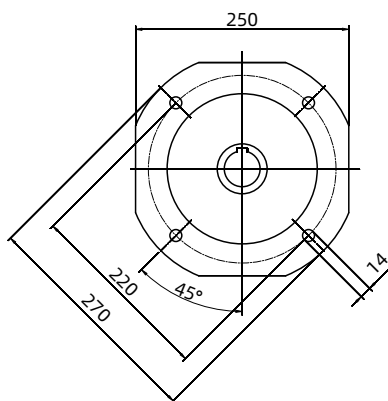
IEC	D _{E8}	b	t	P	M	N	S	T
80B5	19	6	21.8	200	165	130	11	4
80B14	19	6	21.8	120	100	80	6.5	3.5
90B5	24	8	27.3	200	165	130	11	4
90B14	24	8	27.3	140	115	95	9	3.5
100/112B5	28	8	31.3	250	215	180	13.5	4
100/112B14	28	8	31.3	160	130	110	9	4.5

Weight without motor ≈ 12kg

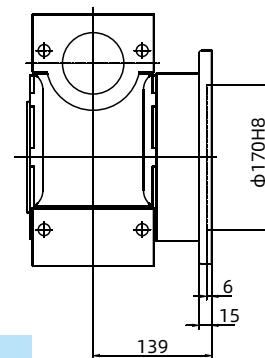
RV110



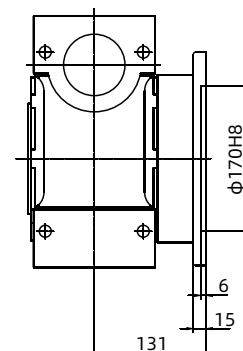
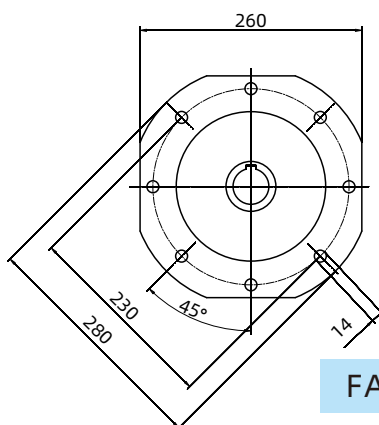
YZ



F



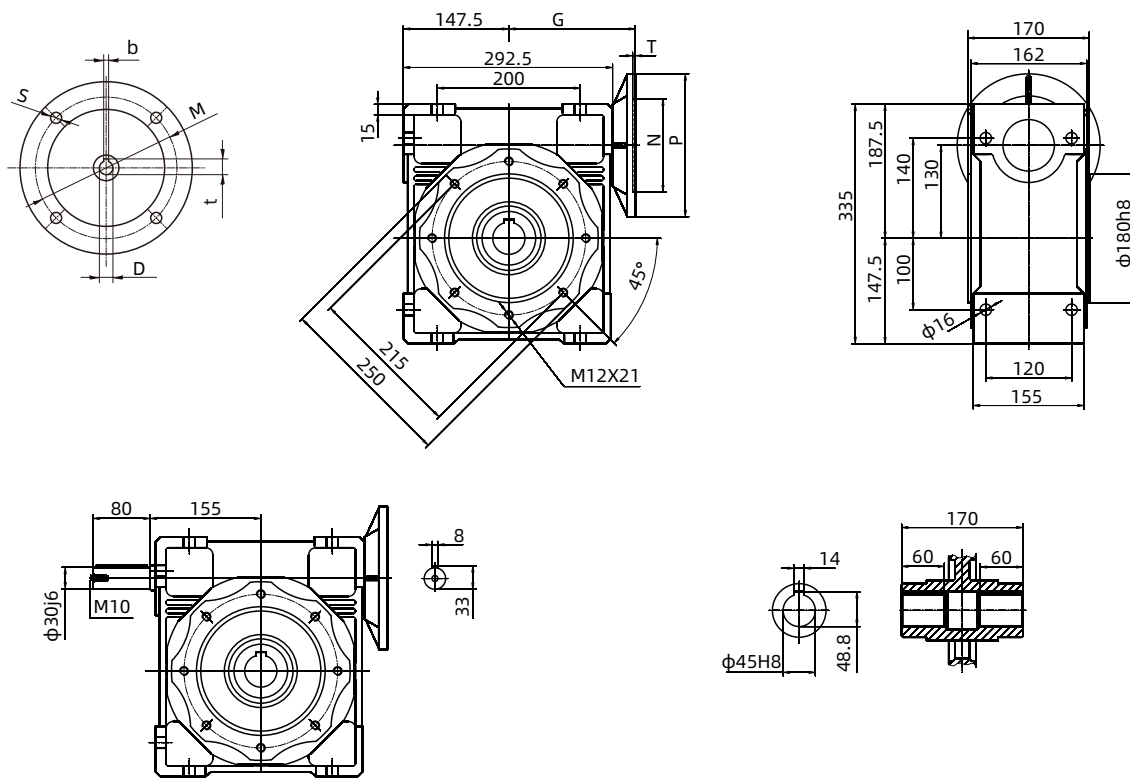
FA



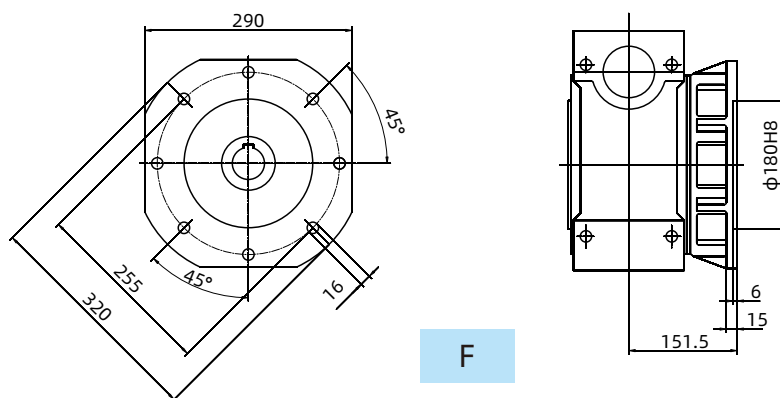
Weight without motor ≈ 38kg

IEC	DE8	b	t	P	M	N	S	T	G
90B5	24	8	27.3	200	165	130	11	4	157
90B14	24	8	27.3	140	115	95	9	3.5	157
100/112B5	28	8	31.3	250	215	180	13.5	4	155
100/112B14	28	8	31.3	160	130	110	9	4.5	155
132B5	38	10	41.3	300	265	230	13.5	4.5	159

RV130



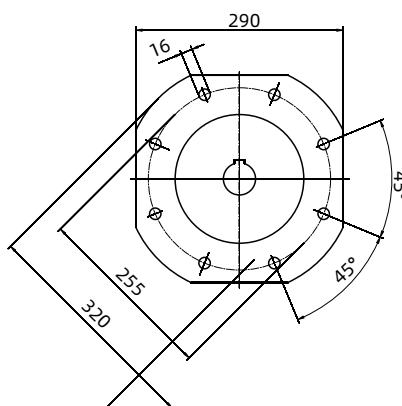
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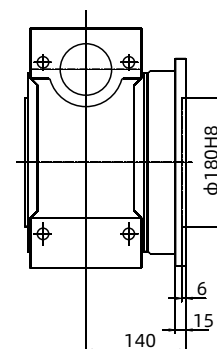
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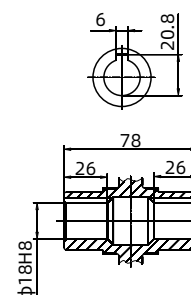
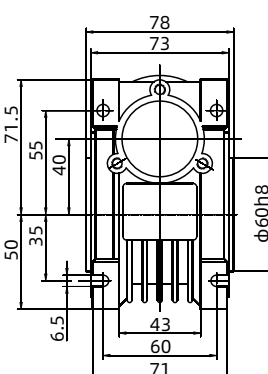
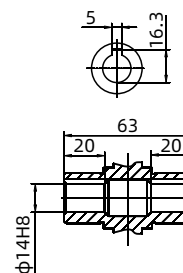
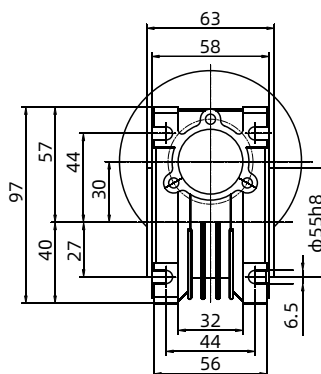
Weight without motor ≈ 55kg

IEC	DE8	b	t	P	M	N	S	T	G
90B5	24	8	27.3	200	165	130	11	4	177
90B14	24	8	27.3	140	115	95	9	3.5	177
100/112B5	28	8	31.3	250	215	180	13.5	4	175
100/112B14	28	8	31.3	160	130	110	9	4.5	175
132B5	38	10	41.3	300	265	230	13.5	4.5	179



FA



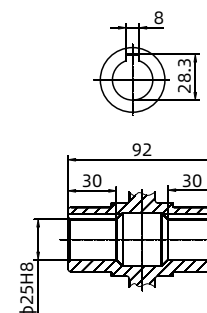
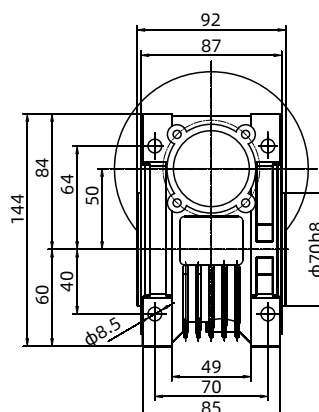
[illegible]

Technical drawing of the 1000 series pump assembly, showing front, side, and detail views with dimensions in millimeters.

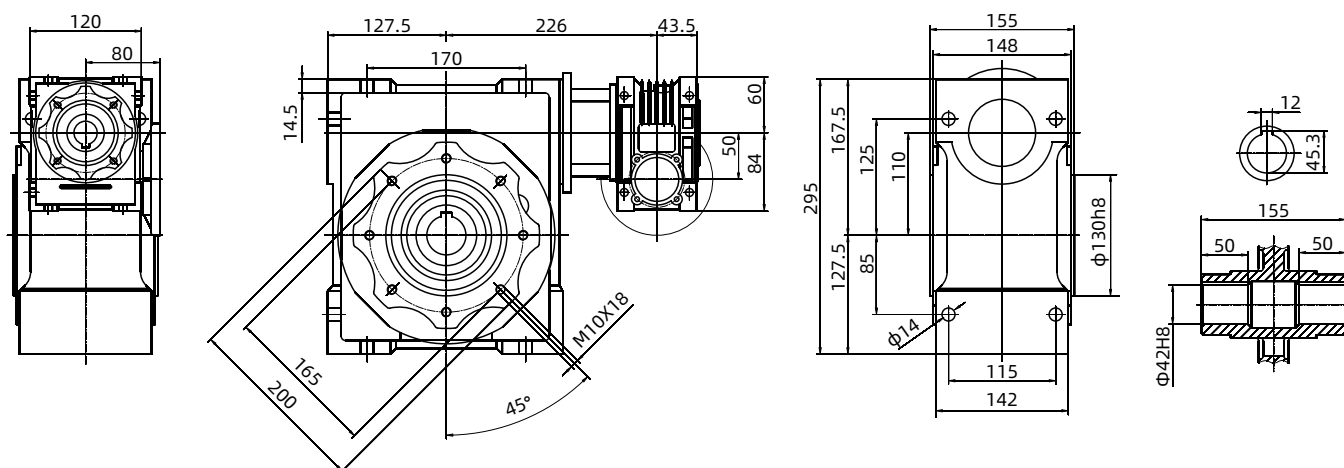
Front View (Left): Shows the pump head with a total width of 80 mm and a mounting bracket width of 55 mm.

Side View (Right): Shows the pump head with a total width of 132 mm and a mounting bracket width of 29 mm. The pump head has a diameter of 80 mm. The mounting bracket has a height of 40 mm and a base width of 57 mm. The pump head is secured with four M8x10 screws.

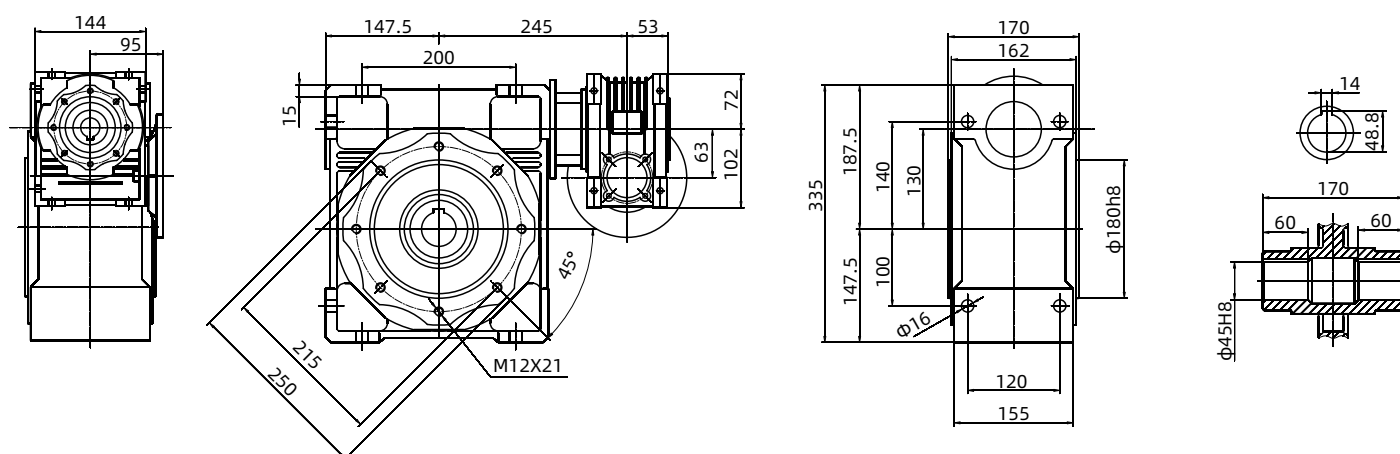
Detail View (Bottom Right): A 45° section view showing the internal structure of the pump head. The detail view has a width of 85 mm and a height of 100 mm.

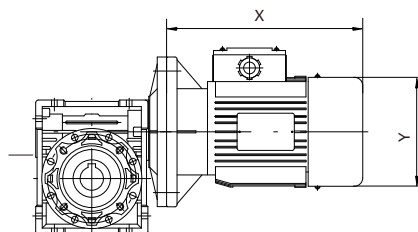


RV50/110



RV63/130



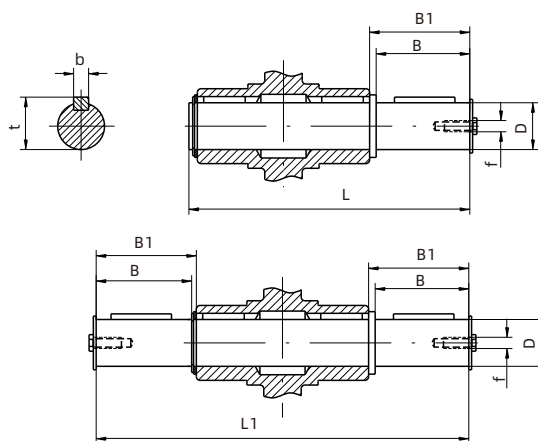


Overall dimensions for electric motor

Type	56		63		71		80		90		100		112	132		160		180	
Power (kw)	0.06	0.09	0.12	0.18	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15	18.5	22
X	175		200		240		245		270	295	315		340	390	430	520	565	580	615
Y	120		130		140		160		175		195		225	275		320		360	

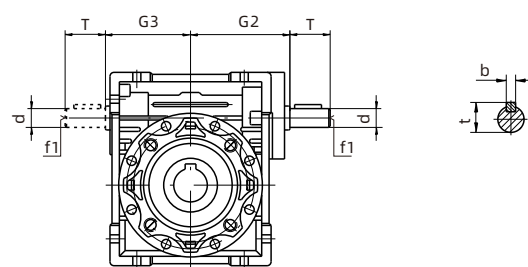
Dimensions of single/double output shaft

Type	D(h6)	B	B1	L	L1	f	b	t
25	11	23	25.5	81	101	-	4	12.5
30	14	30	32.5	102	128	M6	5	16
40	18	40	43	128	164	M6	6	20.5
50	25	50	53.5	152	199	M10	8	28
63	25	50	53.5	173	219	M10	8	28
75	28	60	63.5	192	247	M10	8	31
90	35	80	84	234	308	M12	10	38
110	42	80	84.5	249	324	M16	12	45
130	45	80	85	265	340	M16	14	48.5
150	50	102	110	324	420	M20	14	53.5
185	60	112	120	374	480	M20	18	64



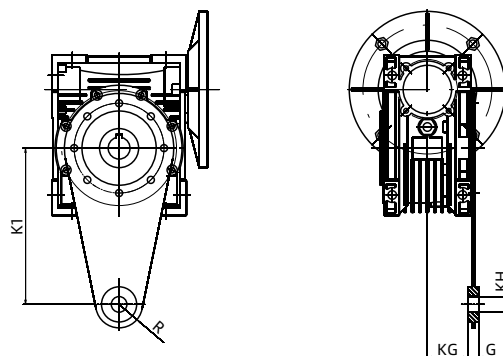
Dimensions of extension worm shafts

Type	G3	G2	T	d(j6)	b	t	f1
25	38	42	18	9	3	10.2	-
30	45	51	20	9	3	10.2	-
40	53	60	23	11	4	12.5	M5
50	64	74	30	14	5	16	M6
63	76.5	88.5	40	19	6	21.5	M6
75	90	105	50	24	8	27	M8
90	108	125	50	24	8	27	M8
110	135	142	60	28	8	31	M10
130	155	162	80	30	8	33	M10



Dimensions of torque arms

Type	K1	R	KH	G	KG
25	70	15	8	14	17.5
30	85	15	8	14	24
40	100	18	10	14	31.5
50	100	18	10	14	38.5
63	150	18	10	14	49
75	200	30	20	25	47.5
90	200	30	20	25	57.5
110	250	35	25	30	62
130	250	35	25	30	69



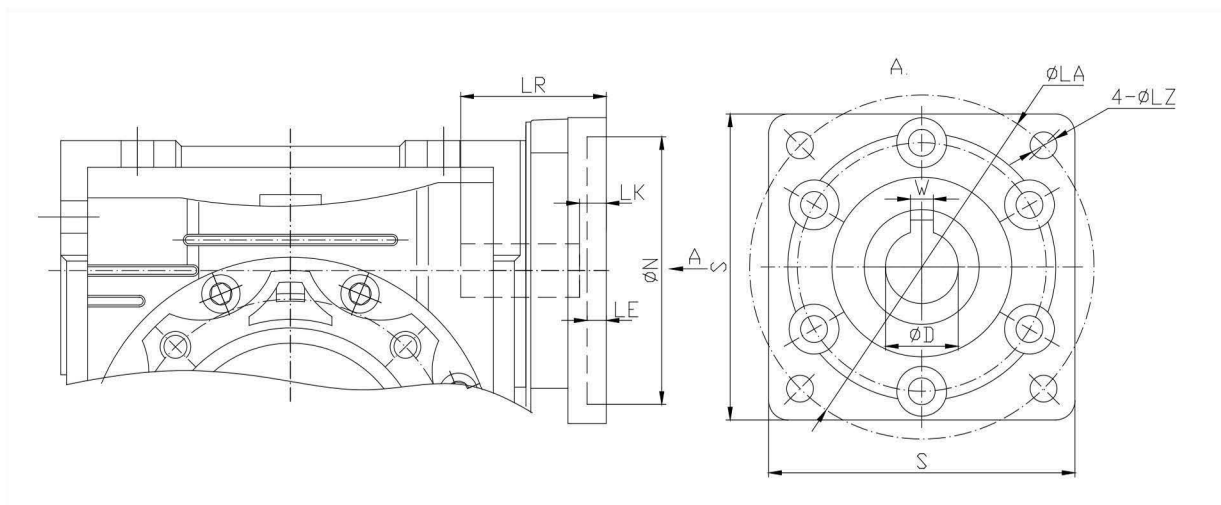
BRUSHELESS FLANGES

For Example

RV40, ratio 30, servo motor flange 60×60mm, stop diameter 50mm, shaft diameter 11mm. After checking the compatibility of the reducer input size and the motor size, the selection is as follows: RV40-30-S60N50D11

Selection Precautions

1. Reducer worm hole depth LR should be deeper than motor shaft depth LR;
2. Reducer flange stop depth LE should be $\geq$ motor LE;
3. A few brands of motor shafts have protruding stop, need to check the LK size, the reducer LK should be bigger than the motor LE+LM;
4. A few brands of motor key specifications are non-standard, need to check W size (typically for servo motors with shaft diameters of $\phi 19$ and $\phi 22$);
5. If the corresponding model is not found in the table, please send the motor drawing to Technical Department for evaluation.



Dimensions of servo motor flange

Type	Model Number	S	N 70	D	W	LR	LE	LK	LA	LZ
RV30	S85N70D11	85	73	11	4	37	5	12	90-100	7
	S85N73D11	85	83	11	4	37	5	12	90-100	7
	S90N83D11	90	94	11	4	40	5	13	99-105	7
	S104N94D11	104	95	11	5	42	6	15	115- 121	9
	S104N95D11	104	98	11	5	42	6	15	115- 121	9
	S104N98D11	104	50	11	5	42	6	15	115- 121	9
RV40	S60N50D11	60	50	11	4	34	4	7	70	7
	S60N50D14	60	70	14	5	34	4	7	70	7
	S85N70D11	85	70	11	4	41	6	7	90-100	7
	S85N70D14	85	73	14	5	41	6	7	90-100	7
	S85N73D11	85	73	11	4	41	6	7	90-100	7
	S85N73D14	85	83	14	5	41	6	7	90-100	7
	S90N83D11	90	83	11	4	39	5	8	99-105	7
	S90N83D14	90	94	14	5	39	5	8	99-105	7
	S104N94D11	104	94	11	4	41	6	10	115- 121	9
	S104N94D14	104	70	14	5	41	6	10	115- 121	9
	S80N70D14	80	70	14	5	38	5	7	90- 94	7
	S80N70D19	80	73	19	6	44	5	10	90- 94	7
RV50	S80N73D14	80	73	14	5	38	5	7	90- 94	7
	S80N73D19	80	70	19	6	44	5	10	90- 94	7
	S85N70D14	85	70	14	5	38	5	7	90- 94	7
	S85N70D19	85	73	19	6	44	5	10	90- 94	7
	S85N73D14	85	73	14	5	38	5	7	90- 94	7
	S85N73D19	85	80	19	6	44	5	10	90- 94	7
	S90N80D14	90	80	14	5	40	5	9	99-105	7
	S90N80D19	90	83	19	6	57	5	9	99-105	7
	S90N83D11	90	85	11	4	45	5	9	99-105	7
	S110N85D14	110	85	14	5	42	6	6	126- 131	9
	S110N85D19	110	70	19	6	42	6	6	126- 131	9
	S80N70D19	80	73	19	6	44	4	7	90	M5-M6
	S85N73D19	85	95	19	6	44	4	7	90	7
	S110N95D14	110	95	14	5	60	6	23.5	115- 130	9
	S110N95D19	110	95	19	6	60	6	23.5	115- 130	9
RV63	S110N95D22W8	110	95	22	8	60	6	23.5	115- 130	9
	S110N95D24	110	110	24	8	60	6	23.5	115- 130	9
	S130N110D19	130	110	22	6	63	6.5	17	129- 156	9
	S130N110D22W6	130	110	22	6	63	6.5	17	129- 156	9
	S130N110D22W8	130	110	22	8	63	6.5	17	129- 156	9
	S130N110D24	130	110	24	8	63	6.5	17	129- 156	9
	S130N110D24L	130	95	24	8	66	6.5	20	129- 156	9
	S110N95D19	110	110	19	6	67	6	23.5	115- 121	9
	S130N110D19	130	110	19	6	59	6.5	11.5	129- 156	9
	S130N110D22W6	130	110	22	6	59	6.5	11.5	129- 156	9
RV75	S130N110D22W8	130	110	22	8	59	6.5	11.5	129- 156	9
	S130N110D24	130	110	24	8	67	6.5	11.5	129- 156	9
	S130N110D28	130	95	28	8	67	6.5	11.5	129- 156	9
	S110N95D19	110	110	19	6	67	6	23.5	115- 121	9
	S130N110D22W6	130	110	22	6	59	6.5	11	129- 156	9
RV90	S130N110D22W8	130	110	22	8	59	6.5	11	129- 156	9
	S130N110D24	130	110	24	8	59	6.5	11	129- 156	9
	S130N110D24L	130	110	24	8	71	6.5	23	129- 156	9
	S130N110D28	130	110	28	8	69	6.5	11	129- 156	9

NOTE

[illegible]

[illegible]




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