

2D/3D  
CAD



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# RV Series

## Worm gear reducer

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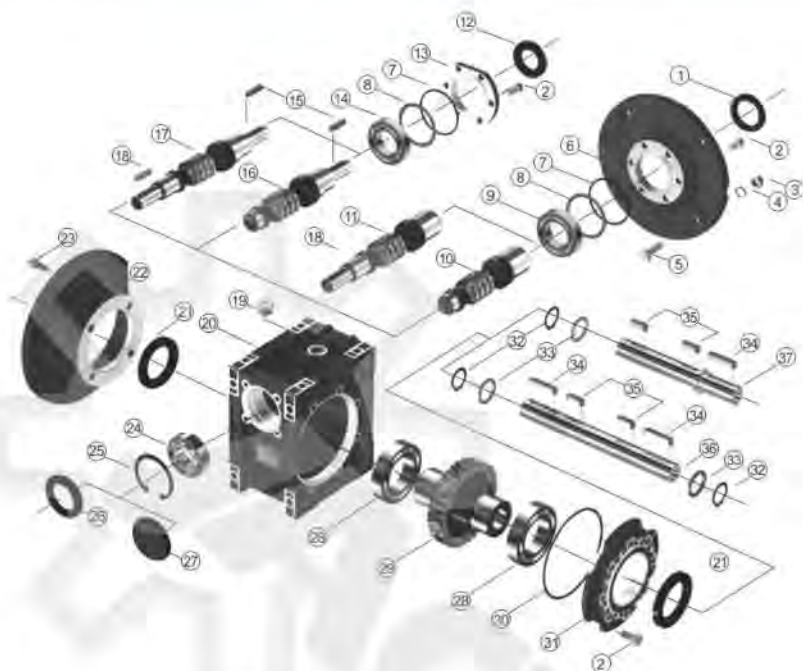
## Product Description

**RV Series Worm Gear Reducer** is made of high-quality aluminum alloy, lightweight, and non-rusting. And it has the features of high heat-radiating efficiency and high carrying ability. The whole machine adopts high-quality bearing transmission parts and seals to ensure durability and no leakage. What's more, the worm gear pair adopt precision machining and precision meshing detection to ensure the balance of the machine transmission, low temperature-rising, low noise, high efficiency and long service life. Besides, The input and output parts of the NRV worm gearbox adopt precision finishing and the whole machine is rust-free and high-grade. RV Series Worm Gear Reducer is Widely used in Metallurgy, Mine, Machine, Energy, Transportation, Water Conservancy, Tobacco, Pharmacy, Printing Package, Chemical industry, Food, Beverages, Textiles and Packaging Industries, Work Platforms and Lifts, and Robotics.

### •Features:

- \* Hollow Shaft Input with IEC Motor Flange Models: RV025, RV030, RV040, RV050, RV063, RV075, RV090, RV110, RV130, RV150.
- \* Solid Shaft Input Models: NRV025, NRV030, NRV040, NRV050, NRV063, NRV075, NRV090, NRV110, NRV130, NRV150.
- \* Housing: Die-cast Aluminum Alloy Gearbox (RV025 to RV090), Cast Iron Gearbox (RV110 to RV150).
- \* Rated Power: 0.06KW to 15KW(Single-stage), 0.06KW to 1.5KW(Two-stage).
- \* Reduction Ratio: 5:1 to 100:1(Single-stage), 100:1 to 5000:1(Two-stage).
- \* Output Speed: 17RPM to 186.7RPM(Single-stage), 0.3RPM to 14RPM(Two-stage).
- \* Output Torque: 2.6N.m to 1760N.m(Single-stage), 25N.m to 3182N.m(Two-stage).
- \* Mounting type: Flange Mounted, Foot Mounted, Torque Arm Mounted
- \* Lubrication: Grease Lubrication, Oil-bath and Splash Lubrication
- \* Input Configurations: Equipped with Electric Motors (AC Motor, Brake Motor, DC Motor, Servo Motor), IEC B5/B14 Motor Flange, NEMA C Frame Motor Flange and Solid Shaft Input.
- \* Output Configurations: Keyed Hollow Shaft Output, Hollow Shaft with Output Flange, and Plug-in Solid Shaft Output.
- \* Options: Worm Shaft Rear Extension, Single Output Shaft, Double Output Shaft, Output Flange, Torque Arm, Dust Cover.

Structure

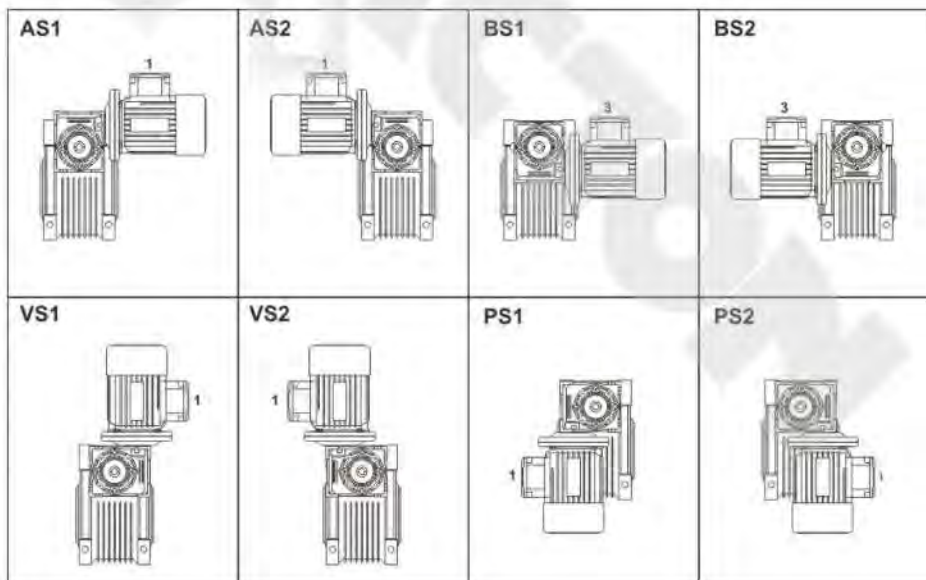
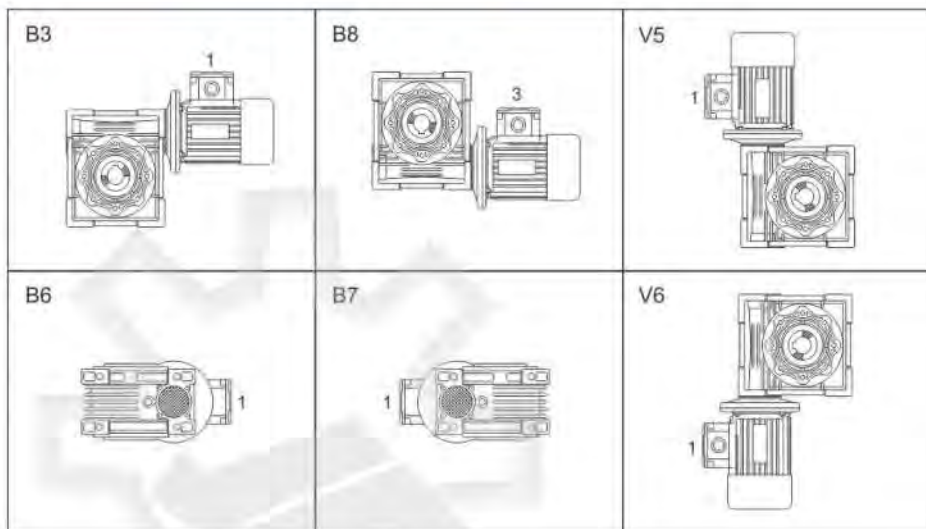


- 1. 油封
- 2. 内六角螺钉
- 3. 螺母
- 4. 弹性垫圈
- 5. 六角头螺栓
- 6. 输入法兰
- 7. O形圈
- 8. 调整垫片
- 9. 轴承
- 10. 孔输入蜗杆
- 11. 孔输入轴输入蜗杆
- 12. 油封
- 13. 输入盖
- 14. 轴承
- 15. 平键
- 16. 轴输入蜗杆
- 17. 双入轴
- 18. 平键

- Oil seal
- Inner hex screw
- Nut
- Spring washer
- Hex screw
- Input flange
- O-Ring
- Adjust spacer
- Bearing
- Hole input worm
- Hole input and shaft input worm
- Oil seal
- Input cover
- Bearing
- Key
- Input shaft
- Double input shaft
- Key

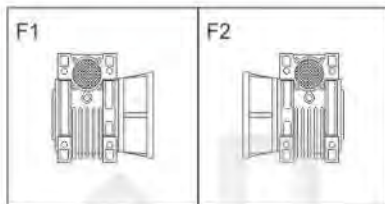
- 19. 油塞
  - 20. 箱体
  - 21. 油封
  - 22. 输出法兰
  - 23. 内六角螺钉
  - 24. 轴承
  - 25. 孔用挡圈
  - 26. 油封
  - 27. 油封闷盖
  - 28. 轴承
  - 29. 蜗轮
  - 30. O形圈
  - 31. 蜗轮闷盖
  - 32. 轴用挡圈
  - 33. 垫片
  - 34. 平键
  - 35. 平键
  - 36. 双向输出轴
  - 37. 单向输出轴
- Oil plug
  - Casing
  - Oil seal
  - Output flange
  - Inner hex screw
  - Bearing
  - Hole-circlip
  - Oil seal
  - Cover
  - Bearing
  - Worm wheel
  - O-Ring
  - Worm gear end cover
  - Shaft-circlip
  - Spacer
  - Key
  - Key
  - Double output shaft
  - Single output shaft

## Mounting Position

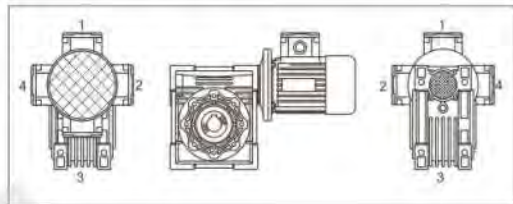


Mounting Position

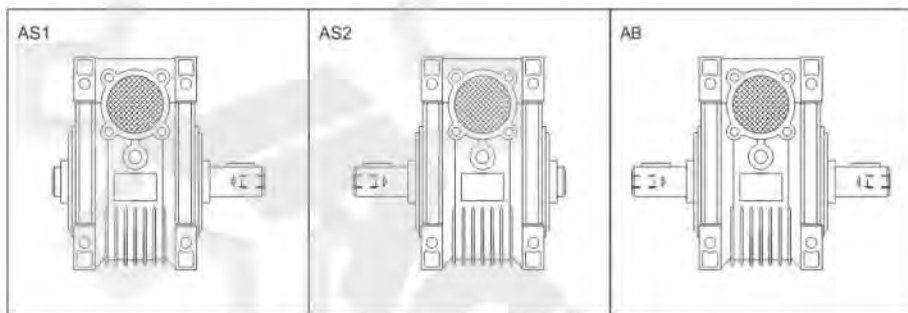
■ 法兰位置 Flange F-FL



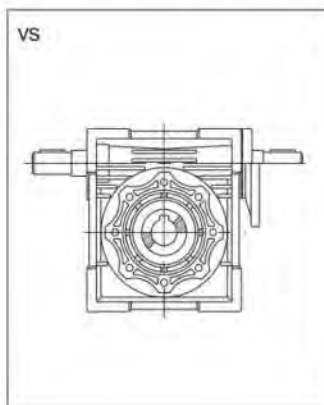
■ 接线盒安装方式 Pos.of Terminal Box



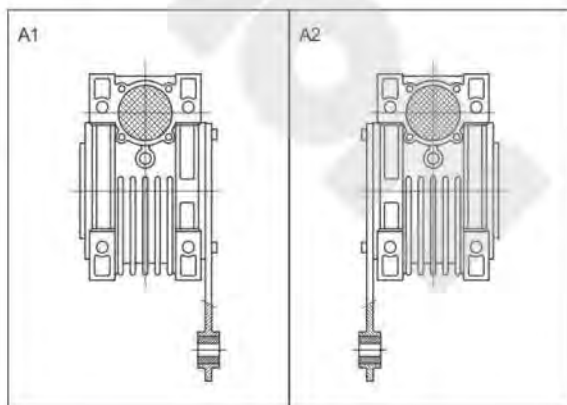
■ 输出轴配置 Pos.of Output Shaft



■ 双向输入轴  
Double Extensi On Worm Shaft



■ 扭力臂配置  
Pos.of Torque Arm



Selection Guide

**RV 063-40-E-FA1-AS1 71B5 B3-7124或/or0.37-4/1**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

NO	说 明	Comments
1	型号代码 1).RV:孔输入带输入法兰 2).NRV:轴输入不带输入法兰	Model code 1).RV: Hole input with flange 2).NRV: Shaft input without flange
2	蜗轮蜗杆减速器中心距 (规格)	Centeral distance of worm gear units(spec)
3	减速器速比 (I=5;7.5;10;15;20;25;30;40;50;60;80;100)	Speed ratio of reducer (I=5;7.5;10;15;20;25;30;40;50;60;80;100)
4	1). 无代号表示不带蜗杆同向输出轴 2). E: 带蜗杆同向输出轴	1). No Mark means single extension worm shaft 2). E: Double extension worm shaft
5	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
6	1). 无代号表示孔输出 2). AS(1/2):单向输出轴和位置 3). AB:双向输出轴	1). No Mark means hole output 2). AS(1/2):Single output shaft and position 3). AB:Double output shaft
7	输入法兰规格型式 (不带电机时)	Normalized form of input flange(without motor)
8	安装方位代号	Installation position code
9	1). 无代号表示不带电机 2). 电机型号或功率, 极数	1). No Mark means wighout motor 2). Model motors(poles of power)
10	电机接线盒位置, 默认位置1可以不写	Position diagram for motor terminal box default Position1 can be ni mention

### 蜗杆、蜗轮旋转方向

Direction of Rotation



RV



NRV

## ■ 选型方法 Method for model chosen

为正确选择RV蜗杆减速机，敬请用户首先了解以下几点：

Please understand the following at first in order to select the model of RV speed reducer properly:

- 负荷条件
- 使用转速范围或速比 (与双级组合可获得超低输出转速)
- 工作运转情况及环境 (温度、湿度、腐蚀等)
- 安装空间
- Loading condition.
- Speed scope or ratio in application.
- Working condition and environment.
- Installation space.

### 确定工作情况系数K1及工作情况修正系数K2

Define working condition Coefficient K1 and revise coefficient K2.

- 根据表1，决定机械负荷种类A、B、C
- 根据运转时间（小时/天）和启动频率（次数/小时）从图1中求得工作情况系数K1
- 根据表2，查取工作情况修正系数K2
- Ensure machinery load types A, B, C according to table 1.
- Get the working condition coefficient K1 from diagram 1 according to turning time (hour/day) and start frequency (time/hour).
- Inspect working condition and select coefficient K2 from table 2.

机械负荷种类选定（表1）

Table 1 Machinery Load classification selection

使用情况 Using situation	示范 Example	负荷种类 Load type
无冲击均匀负荷 Uniform load	传送带（匀速输送） Convey band (uniform conveying)	A（均匀负荷） A(Uniform load)
中等冲击负荷 Moderate Load	传送带（变速输送） Speed changed conveying	B（中等冲击负荷） B(Moderate load)
猛烈冲击负荷 Severe Load	压缩机，粉碎机等 Compressor, pulverizer, etc	C（强冲击负荷） C(Severe load)

工作情况修正系数K2选定（表2）

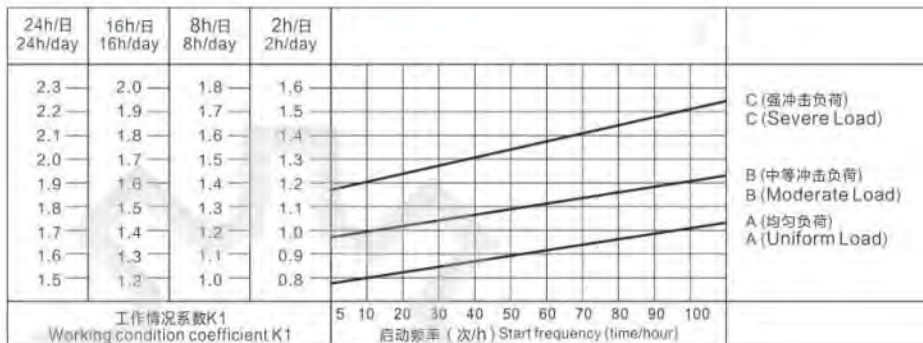
Table 2 Working condition coefficient K2

环境温度 Ambient temperature	工作情况修正系数K2 Working condition coefficient K2
-10℃~30℃	1
30℃~40℃	1.1~1.2

## Selection Guide

工作情况系数K1选定 (图1)

Diagram 1 working Condition coefficient K1



### 选定减速机

- 用户须先确定工作机输入机械负荷T (转矩), 以T乘以工作情况系数K1, 再乘以工作情况修正系数K2, 即获得减速机应有的输出转矩值, 以此为据, 并结合速比值或输出转速值, 选定所需减速机规格。
- 用户也可以根据已知的输入功率, 结合速比值或输出转速值, 计算输出转矩, 选定减速机。
- 本公司减速机均为右旋螺牙, 根据右手定则, 确定输入轴、输出轴回转方向。

### Reducer selected

- At first it is better to make sure the value input machinery load T (torque) and then you can get the output torque through T multiply with work situation coefficient K1 and work situation revise coefficient K2. The required model can be gained by the above and connecting ratio or output speed.
- You can also select the reducer as followings: calculate output torque according to known input power and then select the reducer in accordance with output torque and rotate speed.
- Our standard reducers all have right-hand helical tooth, deciding the rotating direction of input shaft and output shaft according to the right-hand criterion.

### 选型示例

#### 例1 通用传送带 (均匀负荷)

转矩: 19N.m,                      运转时间: 8小时/天,  
 转速: 约55r/min,                启动频率: 10次/小时,  
 减速机: 1/25,                      环境温度: 室内25℃,        电机直联

- ① 根据表1, 决定负荷种类  
 负荷种类: 无冲击均匀负荷, 选A;
- ② 根据图1, 在A线上取频率10次/小时的交点; 查出运转时间8小时/天的系数K1=1;
- ③ 根据表2, 查得系数K2=1;
- ④ 则转矩值为  $19 \times K1 \times K2 = 19 \times 1 \times 1 = 19\text{N.m}$ , 可选择最接近19N.m的减速机。

#### 选定结果: RV030-1/25

输入功率0.18kW, 输出转速56转/分, 输出转矩21N.m

校核: 实际输出转矩=输出转矩x使用系数(fs)=21x1.0=21N.m>19N.m, 满足使用要求。

## Selection Guide

### Examples for model chosen

#### Ex1 Common convey band (uniform load)

Torque: 19N.m      Turning time: 8hours/day  
 Speed: About 55r/min      Start frequency: 10times/hour  
 Ratio: 1/25      Environment temperature: indoor 25°C      Connect with motor directly

- Load classification: Uniform load, choose A, Select load classification according to table 1.
- As per cross point of 10 times/hour frequency on line A in diagram 1, get coefficient K1 value is 1 that turning time is 8 hours/day.
- Get the coefficient K2 according to table 2.
- So the torque value is 19N.m

#### Choose mode: RV030-1/25

Input power is 0.18kW, output speed is 56r/min, output torque is 21N.m

#### Check computation

You can get the actual output torque through the nominal output torque 21N.m multiply with the coefficient fs 1, so the actual output torque is 21N.m>19N.m, The selected model is suitable for use.

#### 例2 输送带（中等冲击负荷）

转矩：65N.m，      运转时间：16小时/天，  
 转速：约21r/min，      启动频率：100次/小时，  
 减速机：1/60，      环境温度：室内35°C，      电机直联

- 1 根据表1，决定负荷种类  
 负荷种类：轻度冲击负荷，选B；
- 2 根据图1，在B线上取频率100次/小时的交点；查出运转时间16小时/天的系数K1=1.65；
- 3 根据表2，查得系数K2=1.15；
- 4 则转矩值为  $65 \times K1 \times K2 = 65 \times 1.65 \times 1.15 = 123\text{N.m}$ ，可选择最接近123N.m的减速机。

#### 选定结果：RV063-1/60

输入功率0.55kW，输出转速23.3转/分，输出转矩140N.m

校核：实际输出转矩=输出转矩x使用系数(fs)=140x0.9=126N.m>123N.m，满足使用要求。

#### Ex2 Convey band (moderate load)

Torque: 65N.m      Turning time: 16hours/day  
 Speed: About 21r/min      Start frequency: 100times/hour  
 Ratio: 1/60      Environment temperature: indoor 35°C      Connect with motor directly

- As per load classification table 1 : moderate load, choose B.
- As per cross point of 100 times/hours frequency on line B in diagram 1, get coefficient K1 value is 1.68 that turning time is 16 hours/day.
- Get the coefficient K2 1.15 according to table 2.
- So the torque value is 65N.m. You can select the model that torque value most close to 123N.m.

#### Choose mode: RV063-1/60

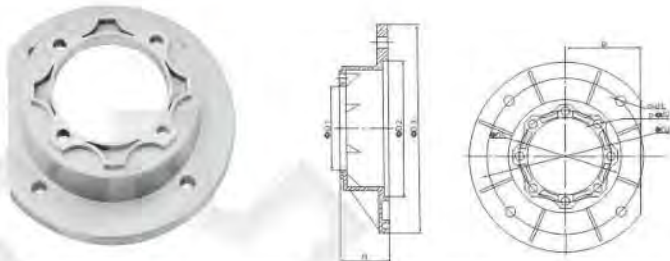
Input power is 0.55kW, output speed is 23.3r/min, output torque is 140N.m

#### Check computation

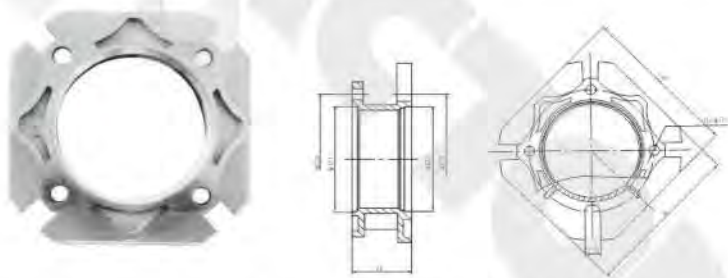
You can get the actual output torque through the nominal output torque 140N.m multiply with the coefficient fs 0.9, so the actual output torque is 126N.m>123N.m. The selected model is suitable for use.

## Output Flange Sizes & Allowable Radial Load

### 输出法兰数据 output flange

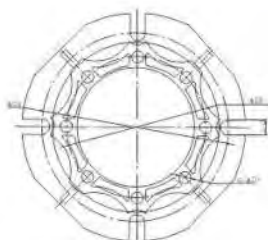
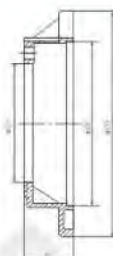


Part NO	Reducer NO	H	D1	D2	D3	D4	D5	B	n- $\phi$ 1	p- $\phi$ d2
			$\phi$	$\phi$	$\phi$	$\phi$	$\phi$			
FC-1	RV040	40	60	95	140	115	75	56	4- $\phi$ 9.5	4- $\phi$ 6.6
FD		21.5	60	80	120	100	75	50	4- $\phi$ 9	4- $\phi$ 6.6
FC-1	RV050	44	70	110	160	130	85	66	4- $\phi$ 9.5	4- $\phi$ 9
FC		45.5	70	110	160	130	85	66	4- $\phi$ 9.5	4- $\phi$ 9
FD		28.5	70	95	140	115	85	60	4-11u	4- $\phi$ 9
FC	RV063	45	80	130	200	165	95	80	4- $\phi$ 11	8- $\phi$ 9
FD		54	80	130	200	165	95	80	4- $\phi$ 11	8- $\phi$ 9
FB	RV090	55	110	160	250	215	130	105	4-14u	8- $\phi$ 11



Part NO	Reducer NO	H	Da	D1	D2	D3	B	n-b	q- $\phi$ d1
			$\phi$	$\phi$	$\phi$	$\phi$			
FA	RV025	22.5	55	45	40	55	70	4-6.5	3-M6
	RV030	25.5	65	55	50	68	70	4-6.5	4- $\phi$ 6.6
	RV040	30.5	75	60	60	75	95	4-9	4- $\phi$ 6.6
	RV050	46.5	85	70	70	85	110	4-11	4- $\phi$ 9
	RV063	29	95	80	115	150	142	4-11	8- $\phi$ 9
	RV075	54	115	95	130	165	170	4-14	8- $\phi$ 9
FB	RV040	60.5	75	60	60	75	95	4-9	4- $\phi$ 6.6
	RV050	78.5	85	70	70	85	110	4-11	4- $\phi$ 9
	RV063	59	95	80	115	150	142	4-11	8- $\phi$ 9
FC*	RV040	35.5	75	60	60	75	95	4-9	4- $\phi$ 6.6
FG	RV040	28	75	60	50	74.5	94	4-9	4- $\phi$ 6.6

## Output Flange Sizes & Allowable Radial Load

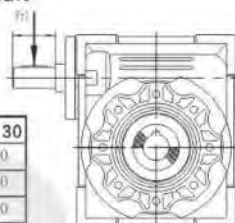


part NO.	Reducer NO	H	D1	D2	D3	D4	D5	n-d	q-φd1
			φ	φ	φ	φ	φ		
FH	RV030	55.5	55	60	110	87	65	4-φ9	4-φ7
FE	RV063	27.5	80	110	160	130	95	4-11	8-φ9
FB	RV075	33	95	110	160	130	115	4-11	4-φ9
FA	RV090	44	110	152	210	175	130	4-14	8-φ11
FC		43	110	130	200	165	130	4-11	8-φ11
FD		84	110	152	210	175	130	4-14	8-φ11
FG		46	110	152	210	176	130	8-φ12.5	8-φ11
FF		84	110	152	210	176	130	8-φ12.5	8-φ11
FH		84	110	152	210	176	130	8-φ12.5	8-φ11

### ■ 输入轴许用径向载荷 Applied mid-way along the input shaft

(N)

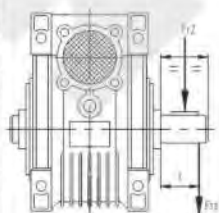
n1	NRV030	NRV040	NRV050	NRV063	NRV075	NRV090	NRV110	NRV130
1400	150	250	350	500	700	900	1200	1500
900	175	290	400	580	810	1040	1390	1740
500	210	350	490	700	980	1270	1700	2100



### ■ 输出轴许用径向载荷 Applied mid-way along the output shaft

(N)

n2	NRV025	NRV030	NRV040	NRV050	NRV063	NRV075	NRV090	NRV110	NRV130
400	390	530	1020	1400	1830	2160	2390	3020	3950
250	460	620	1200	1650	2150	2520	2800	3530	4610
150	550	740	1420	1960	2540	2990	3310	4180	5470
100	630	850	1620	2250	2910	3430	3800	4790	6260
60	740	1000	1920	2660	3450	4060	4500	5680	7420
40	850	1150	2200	3050	3950	4650	5150	6500	8500
25	990	1350	2570	3570	4620	5440	6020	7600	9940
10	1350	1830	3490	4840	6270	7380	8180	10320	13500
a	50	65	84	101	120	131	162	191	203
b	38	50	64	76	95	101	122	151	163



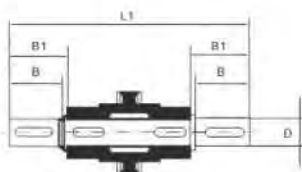
$$Fr_x = Fr \frac{a}{3r_x}$$

## Output Shaft & Torque Arm & Cover Sizes

### ■ 输出轴 Output Shaft



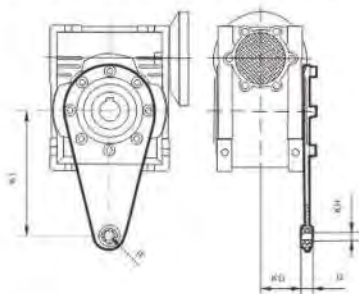
单向输出轴<AS> Single Output Shaft



双向输出轴<AB> Double Output Shaft

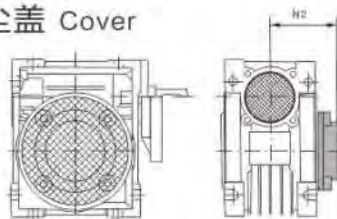
	Dh6	B	B1	G1	L	L1	F	H	T1
RV025	11g6	23	25.5	50	81	101	-	4	12.5
	9"	25"	30	50	85.5"	101	-	3"	10.2"
RV030	14	30	32.5	63	102	128	M6	5	16
RV040	18	40	43	78	128	164	M6	6	20.5
RV050	25	50	53.5	92	153	199	M10	8	28
RV063	25	50	53.5	112	173	219	M10	8	28
RV075	28	60	63.5	120	192	247	M10	8	31
RV090	35	80	84.5	140	234	309	M12	10	38
RV110	42	80	84.5	155	249	324	M16	12	45
RV130	45	80	85	170	265	340	M16	14	48.5
RV150	50	82	87	200	297	374	M16	14	53.5

### ■ 扭力臂 Torque Arm



	K1	G	KG	KH	R
RV025	70	14	17.5	8	15
RV030	85	14	24	8	15
RV040	100	14	31.5	10	18
RV050	100	14	38.5	10	18
RV063	150	14	49	10	18
RV075	200	25	47.5	20	30
RV090	200	25	57.5	20	30
RV110	250	30	62	25	35
RV130	250	30	69	25	35
RV150	250	30	84	25	35

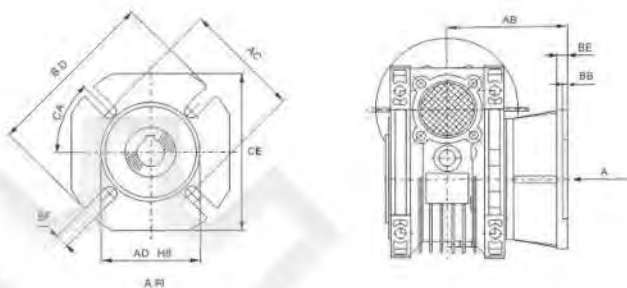
### ■ 防尘盖 Cover



	N2		N2
RV030	47	RV090	94
RV040	55	RV110	102
RV050	63	RV130	117
RV063	73	RV150	122
RV075	79		

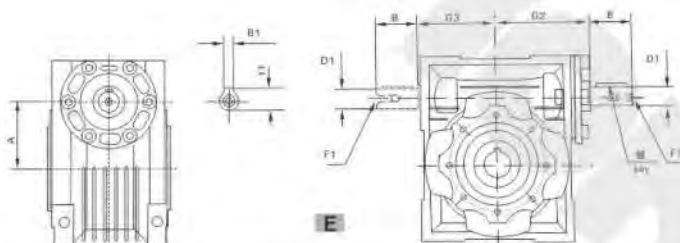
## Output Flange & NRV Mounting Dimensions

### ■ 输出法兰安装尺寸 Output Flange Mounting Dimensions



	25	30	40	50	63	75	90	110	130	150
AB	45	54.5(84.5)	67(97)	90(120)	82(112)	111(90)	111(122)	131	140	153
AC	55	68	80	85	150	165	175	230	255	255
AD	40	50	60	70	115	130	152	170	180	180
BE	3	4	4	5	6	6	6	6	6	6
BD	75	80	110	125	180	200	210	280	320	320
BF	6	6	7	9	10	13	13	15	15	15
CA	6.5(n.4)	6.5(n.4)	9(n.4)	11(n.4)	11(n.4)	14(n.4)	14(n.4)	φ14(n.B)	φ16(n.8)	φ16(n.8)
CE	45°	45°	45°	45°	45°	45°	45°	45°	22.5°	22.5°
CE	70	70	95	110	142	170	200	260	290	290

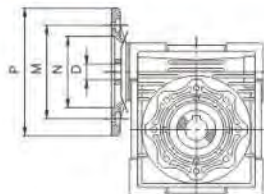
### ■ NRV 安装尺寸 NRV Mounting Dimensions



	030	040	050	063	075	090	110	130	150	
B	20	23	30	40	50	50	60	80	80	
D1/6	9	11	14	19	24	24	28	30	35	
G2	51	65	74	90	105	125	142	162	195	
G3	45	53	64	75	90	108	135	155	175	
A	30	40	50	63	75	90	110	130	150	
B1	3	4	5	6	8	8	8	8	10	
F1	-	-	M6	M6	M6	M8	M8	M10	M10	M12
TI	10.2	12.5	16	21.5	27	27	31	33	38	
输入轴平键										
规格	3x3	4x4	5x5	6x6	8x7	8x7	8x7	8x7	10x8	
长度	15	20	25	35	45	45	55	70	70	

Motor Mounting Dimensions

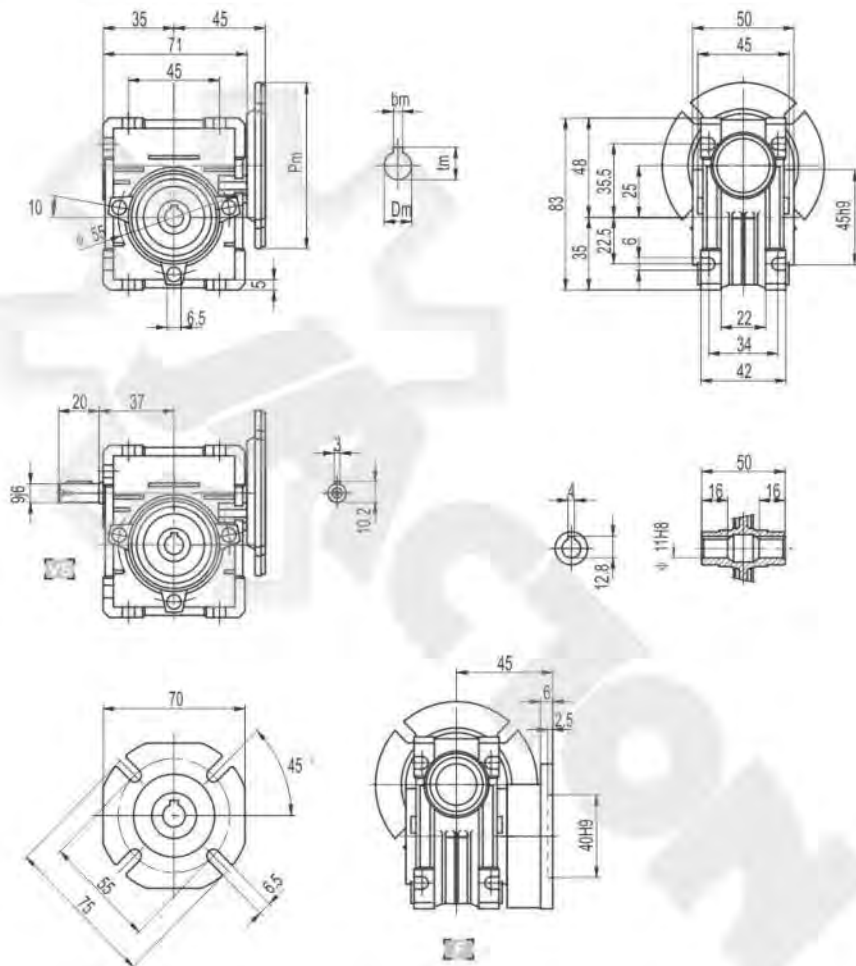
电机安装尺寸  
Motor Mounting Dimensions



RV	PAM IEC	N	M	P	D											
					5	7.5	10	15	20	25	30	40	50	60	80	100
025	56B14	50	65	80	9	9	9	9	9	-	9	9	9	9	-	-
030	63B5	95	115	140	11	11	11	11	11	11	11	11	11	11	-	-
	63B14	60	75	90		9	9	9	9	9	9	9	9	9	-	-
	56B5	80	100	120	9	9	9	9	9	9	9	9	9	9	9	-
	56B14	50	65	80		-	-	-	-	-	-	-	-	-	-	-
040	71B5	110	130	160	14	14	14	14	14	14	14	14	14	14	14	14
	71B14	70	85	105		11	11	11	11	11	11	11	11	11	11	11
	63B5	95	115	140	11	11	11	11	11	11	11	11	11	11	11	11
	63B14	60	75	90		-	-	-	-	-	-	-	-	9	9	9
56B5	80	100	120	-	-	-	-	-	-	-	-	-	9	9	9	
050	80B5	130	165	200	19	19	19	19	19	19	19	19	19	19	19	19
	80B14	80	100	120		19	19	19	19	19	19	19	19	19	19	19
	71B5	110	130	160	19	14	14	14	14	14	14	14	14	14	14	14
	71B14	70	85	105		-	-	11	11	11	-	11	11	11	11	11
63B5	95	115	140	-	-	-	-	-	-	-	-	-	9	9	9	
063	90B5	130	165	200	-	24	24	24	24	24	24	24	24	24	24	24
	90B14	95	115	140		19	19	19	19	19	19	19	19	19	19	19
	80B5	130	165	200	-	19	19	19	19	19	19	19	19	19	19	19
	80B14	80	100	120		14	14	14	14	14	14	14	14	14	14	
	71B5	110	130	160		-	-	14	14	14	14	14	14	14	14	14
71B14	70	85	105	-	-	-	-	-	-	-	-	-	14	14		
075	100/112B5	180	215	250	-	28	28	28	28	28	28	28	28	28	-	-
	100/112B14	110	130	160		24	24	24	24	24	24	24	24	24	24	24
	90B5	130	165	200	-	24	24	24	24	24	24	24	24	24	24	24
	90B14	95	115	140		-	-	-	-	19	19	19	19	19	19	19
	80B5	130	165	200		-	-	-	-	-	-	-	-	-	14	14
	80B14	80	100	120		-	-	-	-	-	-	-	-	-	-	-
71B5	110	130	160	-	-	-	-	-	-	-	-	-	-	-		
090	100/112B5	180	215	250	-	28	28	28	28	28	28	28	28	28	28	28
	100/112B14	110	130	160		24	24	24	24	24	24	24	24	24	24	24
	90B5	130	165	200	-	24	24	24	24	24	24	24	24	24	24	24
	90B14	95	115	140		-	-	-	-	19	19	19	19	19	19	19
	80B5	130	165	200		-	-	-	-	-	-	-	-	-	-	-
	80B14	80	100	120		-	-	-	-	-	-	-	-	-	-	-
110	132B5	230	265	300	-	38	38	38	38	38	38	38	38	-	-	-
	100/112B5	180	215	250	-	28	28	28	28	28	28	28	28	28	28	28
	90B5	130	165	200	-	24	24	24	24	24	24	24	24	24	24	24
	80B5	130	165	200	-	-	-	-	-	-	-	-	-	-	19	19
130	132B5	230	265	300	-	38	38	38	38	38	38	38	38	38	38	38
	100/112B5	180	215	250	-	28	28	28	28	28	28	28	28	28	28	28
	90B5	130	165	200	-	24	24	24	-	24	24	24	24	24	24	
150	160B5	250	300	350	-	42	42	42	42	42	-	-	-	-	-	
	132B5	230	265	300	-	-	-	-	38	38	38	38	38	38	38	
	100/112B5	180	215	250	-	-	-	-	-	-	-	-	-	28	28	

RV Mounting Dimensions(1-Stage)

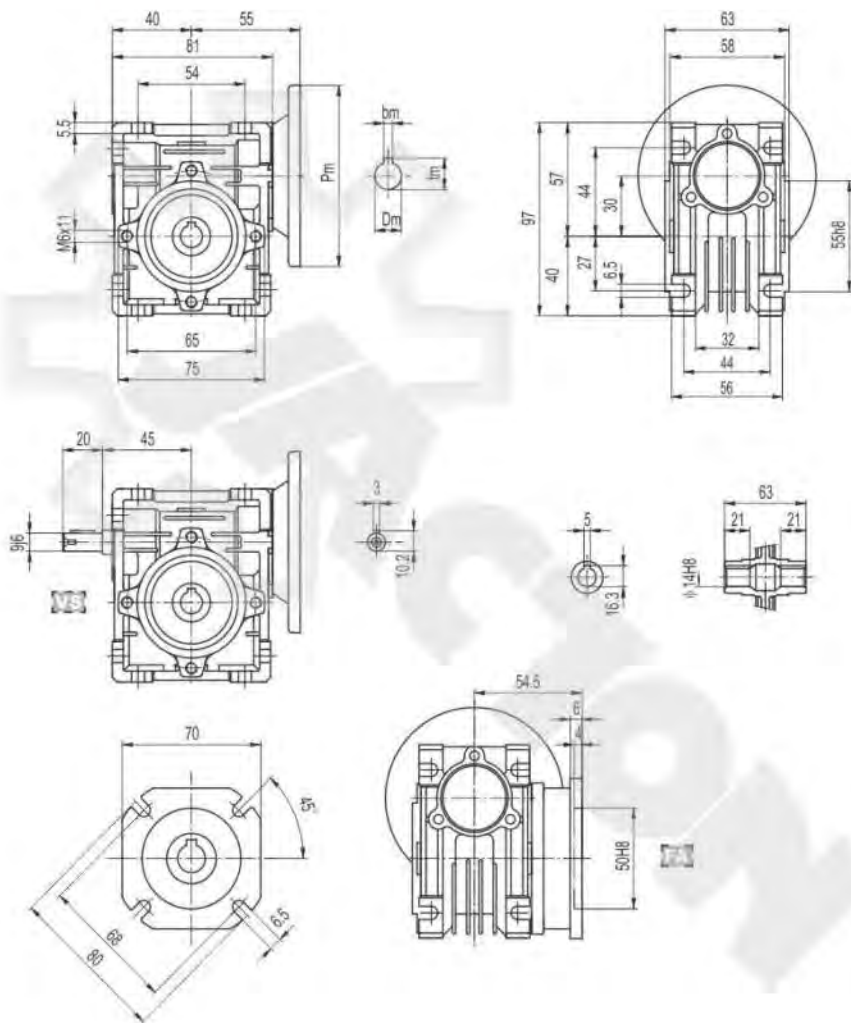
RV025



- \* 不带电机重量为 :0.7kg
- \* 输入尺寸 ( Pm, Dm, bm, tm )
- \* Weight without motor:0.7kg
- \* Input size (Pm, Dm, bm, tm)

## RV Mounting Dimensions(1-Stage)

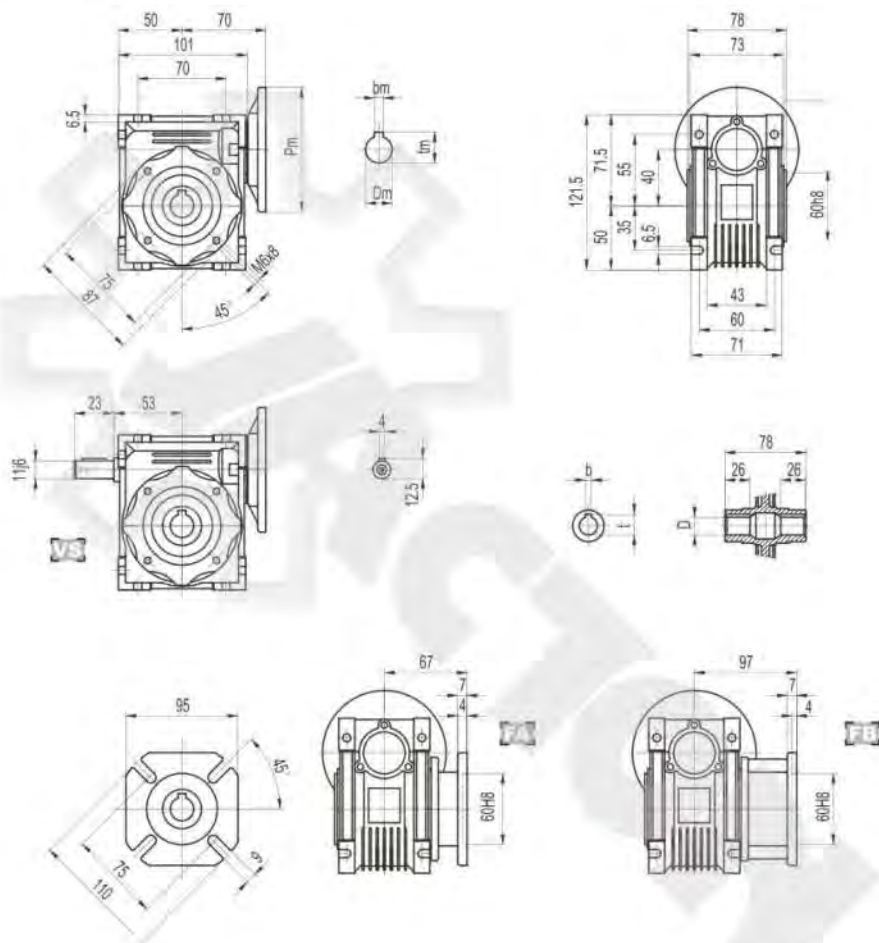
### RV030



- \* 不带电机重量为:1.2kg
- \* 输入尺寸 (Pm, Dm, bm, tm)
- \* Weight without motor:1.2kg
- \* input size (Pm, Dm, bm, tm)

RV Mounting Dimensions(1-Stage)

RV040

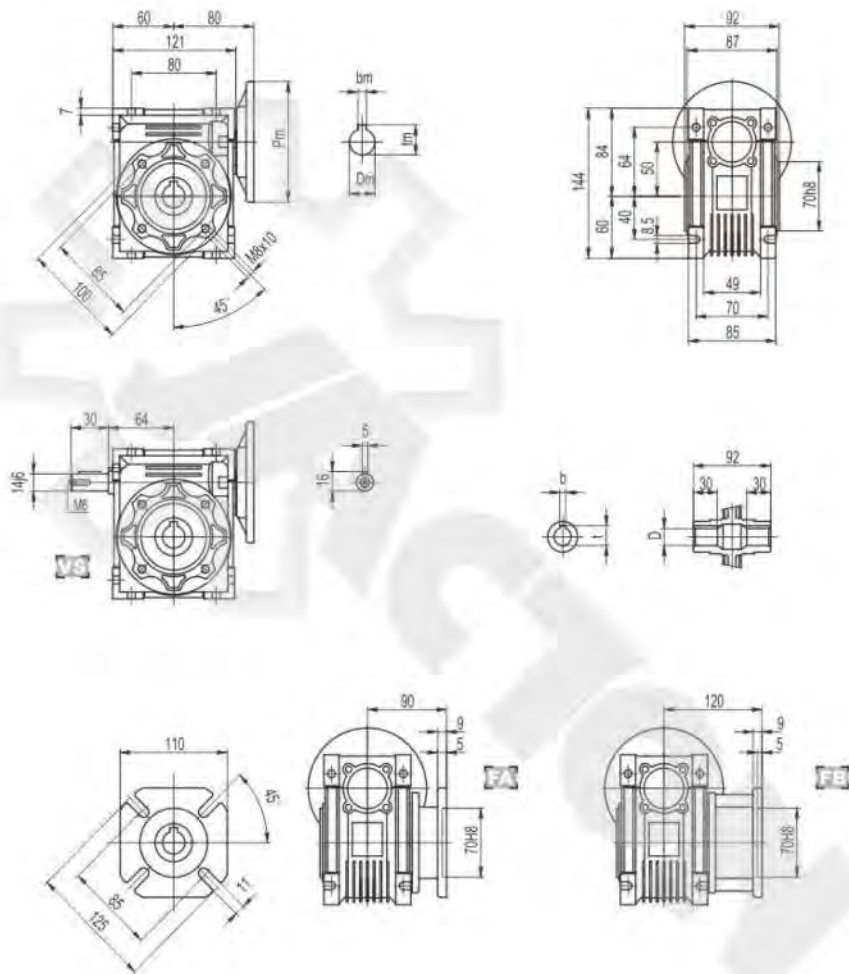


输出/Output		
D H8	b	t
18 (19)	6 (6)	20.8 (21.8)

- (L) 根据用户要求定制  
 \* 不带电机重量为:2.3kg  
 \* 输入尺寸 (Pm, Dm, bm, fm)  
 (L) Only on request  
 \* Weight without motor:2.3kg  
 \* Input size (Pm, Dm, bm, fm)

## RV Mounting Dimensions(1-Stage)

### RV050

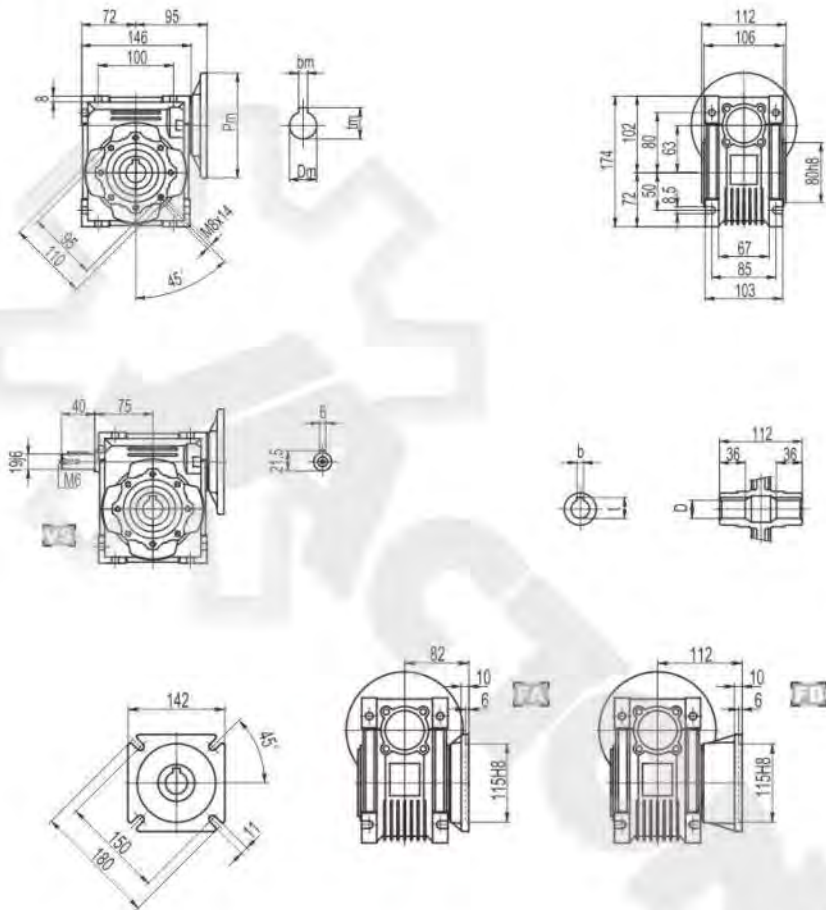


输出/Output		
D H8	b	t
25	8	28.3
(24)	(8)	(27.3)

(...)根据用户要求定制  
 \* 不带电机重量为:3.5kg  
 \* 输入尺寸 (Pm, Dm, bm, tm)  
 (...)Only on request  
 \* Weight without motor:3.5kg  
 \* input size (Pm, Dm, bm, tm)

RV Mounting Dimensions(1-Stage)

RV063

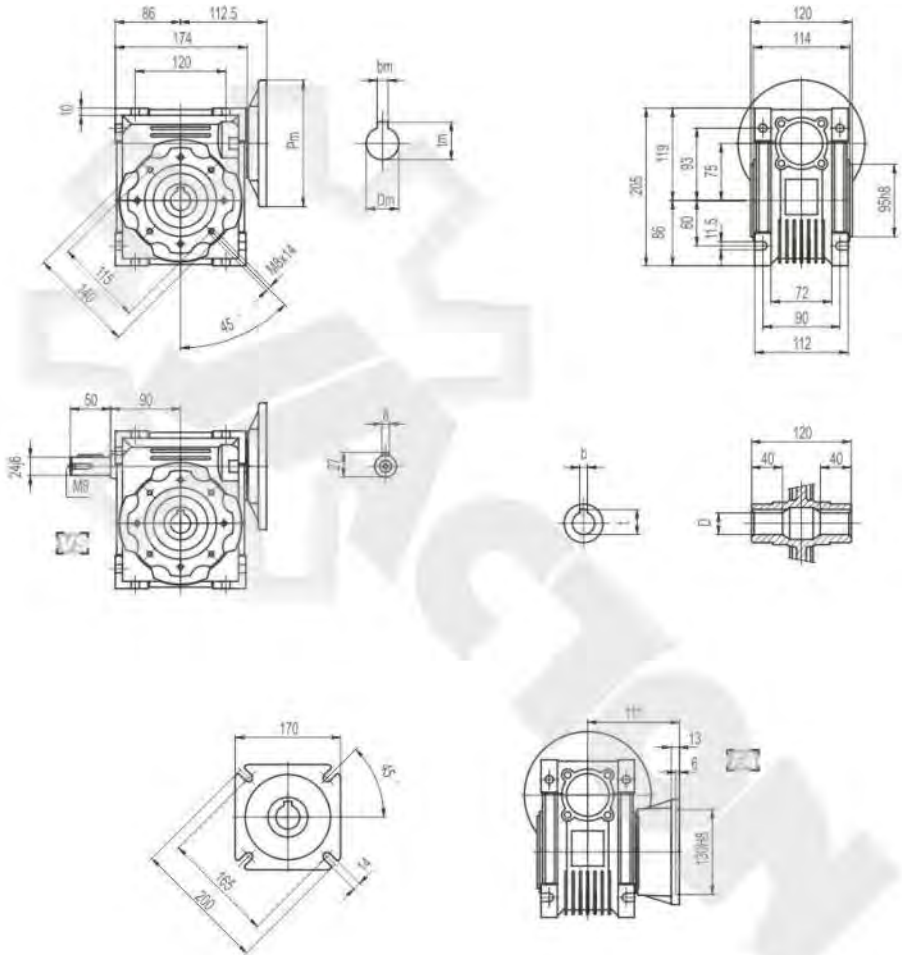


输出/Output		
D H8	b	t
25 (28)	8 (8)	28.3 (31.3)

- (.) 根据用户要求定制  
 \* 不带电机重量为: 6.2kg  
 \* 输入尺寸 (Pm, Dm, bm, tm)  
 (. ) Only on request  
 \* Weight without motor: 6.2kg  
 \* input size (Pm, Dm, bm, tm)

RV Mounting Dimensions(1-Stage)

RV075

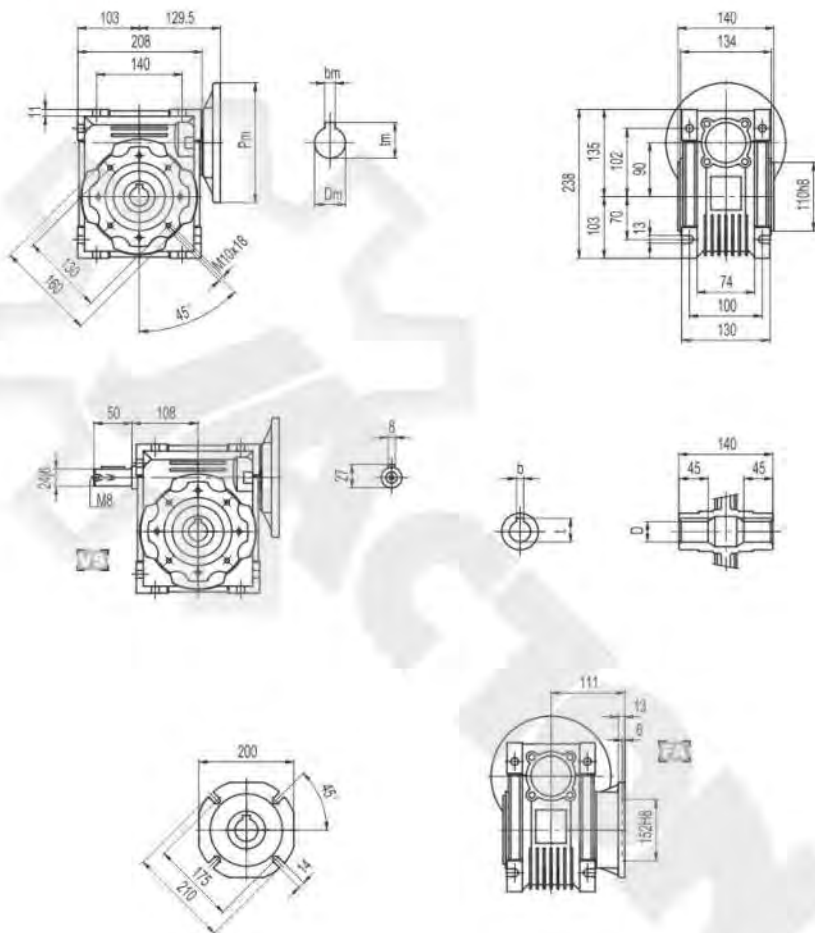


输出 /Output		
D H8	b	t
28 (35)	8 (10)	31.3 (38.3)

- (...) 根据用户要求定制
- \* 不带电机重量为 :9kg
- \* 输入尺寸 ( Pm, Dm, bm, tm )
- (...) Only on request
- \* Weight without motor:9kg
- \* Input size ( Pm, Dm, bm, tm)

RV Mounting Dimensions(1-Stage)

RV090

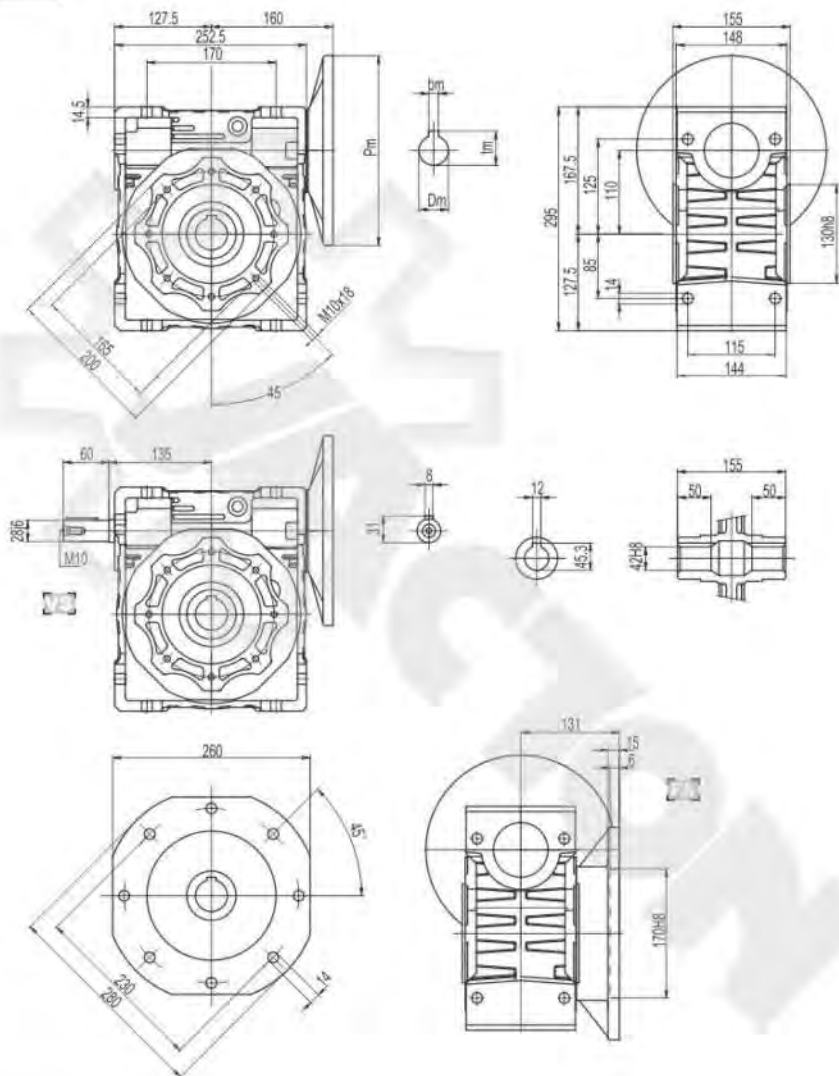


输出/Output		
D H8	b	t
35 (38)	10 (10)	38.3 (41.3)

(.) 根据用户要求定制  
 \* 不带电机重量为:13kg  
 \* 输入尺寸 (Pa, Da, bm, tm)  
 (.) Only on request  
 \* Weight without motor:13kg  
 \* input size (Pa, Da, bm, tm)

## RV Mounting Dimensions(1-Stage)

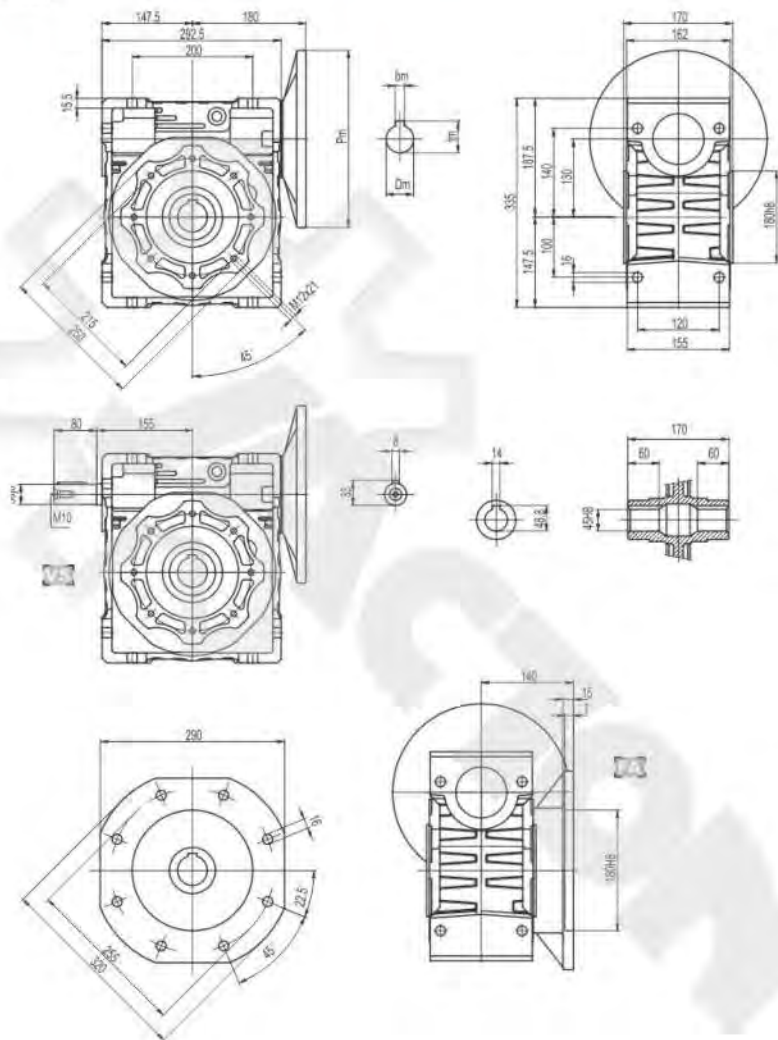
### RV110



- \* 不带电机重量为:35kg
- \* 输入尺寸 (Pm, Dm, bm, tm)
- \* Weight without motor:35kg
- \* input size (Pm, Dm, bm, tm)

RV Mounting Dimensions(1-Stage)

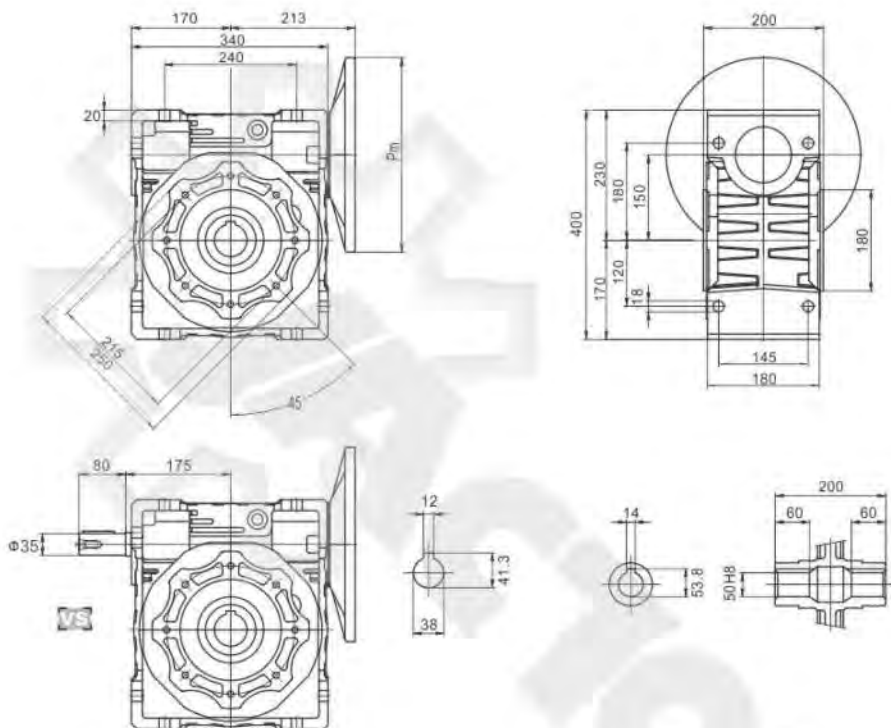
RV130



- \* 不带电机重量为:48kg
- \* 输入尺寸 (Pm, Dm, bm, tm)
- \* Weight without motor:48kg
- \* Input size (Pm, Dm, bm, tm)

## RV Mounting Dimensions(1-Stage)

### RV150

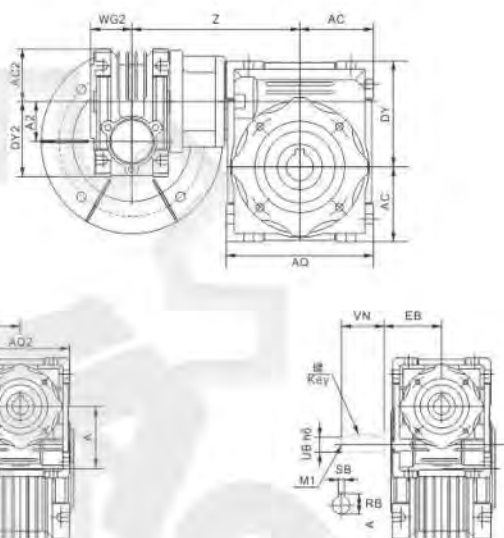


- \* 不带电机重量为:87.8kg
- \* 输入尺寸 (  $P_m, D_m, b_m, t_m$  )
- \* Weight without motor:87.8kg
- \* Input size ( $P_m, D_m, b_m, t_m$ )

## RV(D) Mounting Dimensions(2-Stage)

### 双级蜗杆减速机 Double Step Worm Gear Reducer

#### RV(D) 安装尺寸 RV(D) Mounting Dimensions



	25/30	25/40	30/40	30/50	30/63	40/75	40/90	50/110	63/130	63/150
A	30	40	40	50	63	75	90	110	130	150
A2	25	25	30	30	30	40	40	50	63	63
AC	40	50	50	60	72	86	103	127.5	147.5	170
AC2	35	35	40	40	40	50	50	60	72	72
AQ	80	100	100	120	144	172	206	252.5	292.5	340
AQ2	70	70	80	80	80	100	100	120	144	144
DY	57	71	71	84	102	119	135	167.5	187.5	230
DY2	48	48	57	57	57	71	71	84	102	102
EA	45	63	63	63	63	71	71	80	95	95
EB	-	-	50	50	50	61	61	74	90	90
M1	-	-	-	-	-	-	-	M6	M6	M6
RB	-	-	10.2	10.2	10.2	12.5	12.5	16	21.5	21.5
SB	-	-	3	3	3	4	4	5	6	6
UB	-	-	9	9	9	11	11	14	19	19
VN	-	-	20	20	20	23	23	30	40	40
WG2	22.5	22.5	29	29	29	36.5	36.5	43.5	53	53
Z	100	115	122	132	145	167.5	184.5	226	245	275
输入轴平键										
规格	-	-	3x3	3x3	3x3	4x4	4x4	5x5	6x6	6x6
长度	-	-	15	15	15	20	20	25	35	35

### Technical Parameter(1-Stage)

单级减速机 (法兰输入, 输入转速1400r/min) / (配4极电机)

Single step reducer (flange input, input speed is 1400r/min)/(matched with 4 poles motor)

机型代号 Model code	输出转速 Output speed r/min	输出转矩 Output torque N.m	传动比 Transmission ratio i	输出轴径 与力 Output radial force kN	使用 系数 fs	机型代号 Model code	输出转速 Output speed r/min	输出转矩 Output torque N.m	传动比 Transmission ratio i	输出轴径 与力 Output radial force kN	使用 系数 fs	
025	<b>0.06kw</b>					030	<b>0.12kw</b>					
	186.7	2.6	7.5	0.5	4.2		140	6.7	10	0.75	2.7	
	140	3.4	10	0.55	3.5		93.3	9.5	15	0.86	1.9	
	93.3	4.9	15	0.63	2.5		70	12	20	0.94	1.5	
	70	6.1	20	0.69	2.0		56	14	25	1.02	1.5	
	46.7	8.2	30	0.79	1.6		46.7	16	30	1.08	1.3	
	35	10	40	0.87	1.3		35	19	40	1.19	0.9	
	28	12	50	0.94	0.9		28	23	50	1.28	0.8	
23.3	14	60	1	0.7	040	46.7	17.2	30	2.08	2.6		
030	186.7	2.6	7.5	0.68		6.9	35	21	40	2.29	1.9	
	140	3.4	10	0.75		5.4	28	25	50	2.47	1.5	
	93.3	4.7	15	0.86		3.8	23.3	28	60	2.63	1.3	
	70	6	20	0.94		3.0	17.5	34	80	2.89	1.0	
	56	7	25	1.02		3.0	14	38	100	3.11	0.8	
	46.7	8	30	1.08	2.5	050	23.3	29	60	3.61	2.3	
	35	9.7	40	1.19	1.9		17.5	35	80	3.97	1.9	
	28	11	50	1.28	1.5		14	40	100	4.28	1.4	
23.3	13	60	1.36	1.3	<b>0.18kw</b>							
17.5	14	80	1.5	0.9	186.7	7.8	7.5	0.68	2.3			
025	<b>0.09kw</b>					030	140	10	10	0.75	1.8	
	186.7	3.9	7.5	0.5	2.8		93.3	14	15	0.86	1.3	
	140	5.1	10	0.55	2.4		70	18	20	0.94	1.0	
	93.3	7.3	15	0.63	1.6		56	21	25	1.02	1.0	
	70	9.2	20	0.69	1.3		46.7	24	30	1.08	0.8	
	46.7	12	30	0.79	1.1		040	70	19	20	1.82	2.0
	35	15	40	0.87	0.9			56	23	25	1.96	1.7
	030	186.7	3.9	7.5	0.68			4.8	46.7	26	30	2.08
140		5	10	0.75	3.6	35		32	40	2.29	1.3	
93.3		7.1	15	0.86	2.5	28		38	50	2.47	1.0	
70		9	20	0.94	2.0	23.3		43	60	2.83	0.8	
56		10	25	1.02	2.0	050	35	32	40	3.15	2.3	
46.7		12	30	1.08	1.7		28	39	50	3.39	1.9	
35		14	40	1.19	1.2		23.3	43	60	3.61	1.6	
28		17	50	1.28	1.0		17.5	52	80	3.97	1.2	
23.3	19	60	1.36	0.9	14		60	100	4.28	0.9		
040	28	19	50	2.47	2.0	<b>0.25kw</b>						
	23.3	21	60	2.63	1.7	186.7	11	7.5	1.31	3.6		
	17.5	26	80	2.89	1.3	140	14	10	1.44	2.8		
	14	29	100	3.11	1.0	93.3	21	15	1.65	1.9		
030	<b>0.12kw</b>					040	93.3	21	15	1.65	1.9	
	186.7	5.2	7.5	0.68	3.4		70	27	20	1.82	1.5	

## Technical Parameter(1-Stage)

机型代号 Model code	输出转速 Output speed r/min	输出转矩 Output torque N.m	传动比 Transmission ratio i	输出轴径 向力 Output radial force kN	使用系数 fs	机型代号 Model code	输出转速 Output speed r/min	输出转矩 Output torque N.m	传动比 Transmission ratio i	输出轴径 向力 Output radial force kN	使用系数 fs	
<b>0.25kw</b>						<b>0.55kw</b>						
040	56	32	25	1.96	1.2	063	70	60	20	3.27	2.2	
	46.7	36	30	2.08	1.3		56	73	25	3.52	1.8	
	35	44	40	2.29	0.9		46.7	83	30	3.74	1.9	
	28	37	50	2.47	0.8		35	105	40	4.12	1.4	
050	70	26	20	2.5	2.7	28	124	50	4.44	1.1		
	56	32	25	2.69	2.2	23.3	140	60	4.71	0.9		
	46.7	37	30	2.86	2.3	075	35	108	40	4.86	2.0	
	35	46	40	3.15	1.7		28	129	50	5.24	1.6	
	28	54	50	3.39	1.4		23.3	146	60	5.56	1.4	
	23.3	60	60	3.61	1.1		17.5	180	80	6.13	1.1	
17.5	72	80	3.97	0.9	14		206	100	6.6	0.9		
28	56	50	4.44	2.4	090		17.5	189	80	6.78	1.5	
23.3	63	60	4.71	2.0		14	221	100	7.3	1.2		
17.5	78	80	5.19	1.6		<b>0.75kw</b>						
063	14	87	100	5.59	1.4	050	186.7	34	7.5	1.8	2.1	
	<b>0.37kw</b>						140	44	10	1.98	1.6	
	186.7	16	7.5	1.31	2.4		93.3	63	15	2.27	1.2	
	140	21	10	1.44	1.9		70	81	20	2.5	0.9	
	93.3	31	15	1.65	1.3	063	93.3	63	15	2.97	2.2	
	70	39	20	1.82	1.0		70	83	20	3.27	1.6	
56	47	25	1.98	0.8	56		100	25	3.52	1.3		
46.7	53	30	2.08	0.8	46.7		114	30	3.74	1.4		
140	21	10	1.98	3.3	35		143	40	4.12	1.0		
93.3	31	15	2.27	2.4	075		56	102	25	4.16	2.0	
70	40	20	2.5	1.8		46.7	117	30	4.42	2.0		
56	48	25	2.69	1.5		35	147	40	4.86	1.5		
46.7	55	30	2.86	1.5		28	177	50	5.24	1.2		
35	68	40	3.15	1.1		23.3	200	60	5.56	1.0		
28	80	50	3.39	0.9		090	28	184	50	5.79	1.8	
23.3	89	60	3.61	0.8	23.3		212	60	6.16	1.5		
35	70	40	4.12	2.1	17.5		258	80	6.78	1.1		
28	83	50	4.44	1.6	14		302	100	7.3	0.9		
23.3	94	60	4.71	1.4	<b>1.1kw</b>							
17.5	115	80	5.19	1.1	063		186.7	49	7.5	2.35	2.6	
14	129	100	5.59	0.9		140	65	10	2.59	2.0		
<b>0.55kw</b>						93.3	93	15	2.97	1.5		
050	186.7	25	7.5	1.8	2.9							
	140	32	10	1.98	2.2							
	93.3	46	15	2.27	1.6							
	70	59	20	2.5	1.2							
	56	71	25	2.69	1.0							
	46.7	81	30	2.86	1.0							
35	80	40	3.15	0.9								

### Technical Parameter(1-Stage)

机型代号 Model code	输出转速 Output speed r/min	输出转矩 Output torque N.m	传动比 Transmission ratio i	输出轴径 向力 Output radial force kN	使用 系数 fs	机型代号 Model code	输出转速 Output speed r/min	输出转矩 Output torque N.m	传动比 Transmission ratio i	输出轴径 向力 Output radial force kN	使用 系数 fs	
	<b>1.1kw</b>						<b>2.2kw</b>					
063	70	122	20	3.27	1.1	090	140	134	10	3.39	2.3	
	56	146	25	3.52	0.9		93.3	194	15	3.88	1.9	
	46.7	167	30	3.74	1.0		70	252	20	4.27	1.4	
	35	165	40	3.59	0.9		56	308	25	4.6	1.1	
075	93.3	95	15	3.5	2.1	110	46.7	351	30	4.89	1.2	
	70	123	20	3.86	1.7		35	433	40	4.9	1.0	
	56	150	25	4.16	1.3		28	393	50	5.28	0.9	
	46.7	171	30	4.42	1.3		70	255	20	5.39	2.5	
	35	216	40	4.86	1.0		56	315	25	5.81	2.2	
090	28	264	50	4.6	0.9	130	46.7	356	30	6.18	2.0	
	23.3	223	60	4.89	0.8		35	468	40	6.8	1.5	
	35	225	40	5.38	1.6		28	563	50	7.32	1.2	
	28	270	50	5.79	1.3		23.3	648	60	7.78	1.0	
	23.3	311	60	6.16	1.0		35	468	40	8.89	2.2	
110	17.5	328	80	6.17	0.9	150	28	563	50	9.58	1.7	
	28	281	50	7.32	2.3		23.3	648	60	10.18	1.4	
	23.3	324	60	7.78	1.9		17.5	816	80	11.21	1.0	
	17.5	402	80	8.57	1.3		14	869	100	10.62	0.8	
	14	473	100	9.23	1.0		28	570	50	13.1	2.5	
063	<b>1.5kw</b>					075	23.3	657	60	13.92	1.9	
	186.7	67	7.5	2.35	1.9		17.5	816	80	15.32	1.4	
	140	89	10	2.59	1.5		14	960	100	16.5	1.0	
	93.3	127	15	2.97	1.3		186.7	136	7.5	2.78	1.4	
075	70	166	20	3.27	1.0	090	140	180	10	3.06	1.1	
	140	90	10	3.06	2.2		93.3	261	15	3.5	0.8	
	93.3	130	15	3.5	1.5		186.7	138	7.5	3.08	2.1	
	70	168	20	3.86	1.3		140	182	10	3.39	1.7	
	56	205	25	4.16	1.0		93.3	264	15	3.88	1.4	
090	46.7	233	30	4.42	1.0	110	70	344	20	4.27	1.0	
	70	171	20	4.27	2.1		56	420	25	4.6	0.8	
	56	210	25	4.6	1.6		46.7	479	30	4.89	0.9	
	46.7	239	30	4.89	1.7		93.3	264	15	4.9	2.5	
	35	307	40	5.38	1.2		70	348	20	5.39	1.9	
110	28	368	50	5.79	0.9	130	56	430	25	5.81	1.6	
	23.3	424	60	6.16	0.8		46.7	485	30	6.18	1.5	
	35	319	40	6.8	2.2		35	638	40	6.8	1.1	
	28	384	50	7.32	1.7		28	767	50	7.32	0.9	
	23.3	442	60	7.78	1.4		56	429	25	7.6	2.2	
075	17.5	548	80	8.57	0.9	090	46.7	491	30	8.08	2.1	
	<b>2.2kw</b>						110	35	638	40	8.89	1.6
	186.7	100	7.5	2.78	1.8			28	767	50	9.58	1.3
	140	132	10	3.06	1.5			23.3	884	60	10.18	1.0
	93.3	191	15	3.5	1.0			17.5	1113	80	11.21	0.8
70	240	20	3.38	0.9	46.7	269		30	3.89	0.8		
090	46.7	269	30	3.89	0.8	186.7	101	7.5	3.08	2.9		

### Technical Parameter(1-Stage)

机型代号 Model code	输出转速 Output speed r/min	输出转矩 Output torque N.m	传动比 Transmission ratio i	输出轴径 向力 Output radial force kN	使用系数 fs	机型代号 Model code	输出转速 Output speed r/min	输出转矩 Output torque N.m	传动比 Transmission ratio i	输出轴径 向力 Output radial force kN	使用系数 fs
150	<b>3kw</b>					110	<b>7.5kw</b>				
	28	777	50	13.1	1.8		186.7	345	7.5	3.89	1.6
	23.3	896	60	13.92	1.4		140	455	10	4.28	1.3
	17.5	1113	80	15.32	1.0		93.3	660	15	4.9	1.0
075	14	1310	100	16.5	0.8	130	186.7	349	7.5	5.09	2.1
	<b>4kw</b>						140	455	10	5.6	1.8
	186.7	182	7.5	2.44	1.0		93.3	668	15	6.41	1.4
140	240	10	3.06	0.8	70		880	20	7.06	1.0	
090	186.7	184	7.5	3.08	1.6	56	1074	25	7.6	0.9	
	140	243	10	3.39	1.3	46.7	1228	30	8.08	0.8	
	93.3	352	15	3.88	1.0	35	1596	40	8.89	0.7	
	70	458	20	4.27	0.8	150	70	880	20	9.65	1.5
140	242	10	4.28	2.5	56		1074	25	10.4	1.1	
93.3	352	15	4.9	1.9	46.7		1274	30	11.05	0.9	
70	464	20	5.39	1.4	35		1596	40	12.16	1.0	
130	56	573	25	5.81	1.2	<b>11kw</b>					
	46.7	647	30	6.18	1.1	186.7	512	7.5	6.96	2.3	
	56	573	25	7.6	1.6	140	675	10	7.66	1.8	
	46.7	655	30	8.08	1.6	93.3	990	15	8.77	1.3	
	35	851	40	8.89	1.2	70	1291	20	9.65	1.0	
150	28	1023	50	9.58	1.0	56	1576	25	10.4	0.8	
	23.3	1179	60	10.18	0.8	<b>15kw</b>					
	28	1036	50	13.1	1.4	186.7	698	7.5	6.96	1.7	
	23.3	1195	60	13.92	1.1	140	921	10	7.66	1.3	
110	17.5	1484	80	15.32	0.8	93.3	1351	15	8.77	0.9	
	186.7	253	7.5	3.89	2.2	70	1760	20	9.65	0.7	
	140	334	10	4.28	1.8	150	70	645	20	9.65	2.0
	93.3	484	15	4.9	1.4		56	788	25	10.4	1.5
	70	638	20	5.39	1.0		46.7	934	30	11.05	1.3
56	711	25	5.15	0.9	35		1171	40	12.16	1.3	
140	333	10	5.6	2.5	28		1426	50	13.1	1.0	
130	93.3	490	15	6.41	1.9	23.3	1643	60	13.92	0.8	
	70	645	20	7.06	1.4						
	56	788	25	7.6	1.2						
	46.7	900	30	8.08	1.2						
	35	1171	40	8.89	0.9						
150	28	1103	50	8.51	0.8						
	70	645	20	9.65	2.0						
	56	788	25	10.4	1.5						
	46.7	934	30	11.05	1.3						
	35	1171	40	12.16	1.3						

Technical Parameter(2-Stage)

双级减速机 (法兰输入、输入转速1400r/min) / (配4极电机)

Double step reducer(flanger input, input speed is 1400r/min)/(with 4 poles motor)

组合机 型规格 Combination Model code	输出转速 Output speed r/min	输出转矩 Output torque N.m	总传动比 General Transmission ratio i	高速级 传动比 High speed transmission ratio i <sub>1</sub>	低速级 传动比 Low speed transmission ratio i <sub>2</sub>	输出 轴径 高力 Output radial force kN	使用 系数 fs	组合机 型规格 Combination Model code	输出转速 Output speed r/min	输出转矩 Output torque N.m	总传动比 General Transmission ratio i	高速级 传动比 High speed transmission ratio i <sub>1</sub>	低速级 传动比 Low speed transmission ratio i <sub>2</sub>	输出 轴径 高力 Output radial force kN	使用 系数 fs	
<b>0.06kw</b>								<b>0.06kw</b>								
25/30	14	25	100	10	10	1.62	1.3	30/63	0.47	319	3000	60	50	6.27	0.7	
	9.3	32	150	10	15	1.83	0.9		0.35	306	4000	50	80	6.27	0.6	
	7.0	41	200	10	20	1.83	0.7		0.28	360	5000	50	100	6.27	0.4	
	5.6	44	250	10	25	1.83	0.8		<b>0.09kw</b>							
	4.7	59	300	10	30	3.49	1.2		25/30	14	37	100	10	10	1.62	0.8
3.5	71	400	10	40	3.49	0.9	9.3	49		150	10	15	1.83	0.6		
2.8	82	500	20	25	3.49	0.7	7.0	62		200	10	20	1.83	0.5		
2.3	101	600	20	30	3.49	0.6	5.6	66		250	10	25	1.83	0.5		
1.9	116	750	25	30	3.49	0.5	4.7	75		300	10	30	1.83	0.4		
25/40	1.6	143	900	30	30	3.49	0.5	3.5	107	400	10	40	1.83	0.3		
	1.2	171	1200	30	40	3.49	0.4	2.8	115	500	20	25	1.83	0.2		
	0.9	197	1500	50	30	3.49	0.3	2.3	135	600	20	30	1.83	0.2		
	0.78	217	1800	60	30	3.49	0.3	1.9	151	750	25	30	1.83	0.2		
	0.6	268	2400	60	40	3.49	0.2	1.6	178	900	30	30	1.83	0.2		
30/40	0.5	324	3000	60	50	3.49	0.2	1.2	212	1200	30	40	1.83	0.1		
	0.4	294	4000	50	80	3.49	0.1	0.9	247	1500	50	30	1.83	0.1		
	0.3	356	5000	50	100	3.49	0.1	0.78	304	1800	60	30	1.83	0.1		
	4.7	57	300	10	30	3.49	1.3	0.58	340	2400	60	40	1.83	0.1		
	3.5	70	400	10	40	3.49	0.9	0.47	405	3000	60	50	1.83	0.1		
30/50	2.8	96	500	20	25	3.49	0.6	30/40	4.7	88	300	10	30	3.49	0.8	
	2.3	104	600	20	30	3.49	0.7		30/50	3.5	107	400	10	40	4.84	1.2
	1.9	121	750	25	30	3.49	0.6			2.8	123	500	10	50	4.84	1.0
	1.6	139	900	30	30	3.49	0.5			2.3	159	600	20	30	4.84	0.9
	1.2	166	1200	30	40	3.49	0.4			1.9	185	750	25	30	4.84	0.8
0.9	196	1500	50	30	3.49	0.4	1.6	212		900	30	30	4.84	0.7		
30/63	0.78	218	1800	60	30	3.49	0.3	30/63	1.6	200	900	15	60	6.27	1.0	
	0.58	261	2400	60	40	3.49	0.2		1.2	263	1200	30	40	6.27	0.9	
	1.4	300	3200	80	40	3.49	0.2		0.93	305	1500	30	50	6.27	0.7	
	0.4	279	4000	50	80	3.49	0.1		40/75	0.9	359	1500	50	30	7.38	1.1
	0.28	338	5000	50	100	3.49	0.1			0.78	404	1800	60	30	7.38	1
1.6	141	900	30	30	4.84	1.0	0.58	496		2400	60	40	7.38	0.7		
1.2	169	1200	30	40	4.84	0.7	40/90	0.5		608	3000	60	50	8.18	0.9	
0.93	199	1500	50	30	4.84	0.7		0.35		548	4000	50	80	8.18	0.8	
0.78	222	1800	60	30	4.84	0.7										
0.6	266	2400	60	40	4.84	0.5										
0.5	307	3000	60	50	4.84	0.4										
30/63	0.35	288	4000	50	80	4.84	0.3									
	0.29	311	4800	60	80	4.84	0.3									
	0.9	203	1500	30	50	6.27	1.1									
	0.78	225	1800	30	60	6.27	0.9									
	0.58	276	2400	60	40	6.27	0.8									

**Technical Parameter(2-Stage)**

组合机 型规格 Combination Model code	输出转速 Output speed r/min	输出转矩 Output torque N.m	总传动比 General Transmission ratio	高速级 传动比 High speed transmission ratio	低速级 传动比 Low speed transmission ratio	输出 轴径 Output radial force mm	使用 系数 fs	组合机 型规格 Combination Model code	输出转速 Output speed r/min	输出转矩 Output torque N.m	总传动比 General Transmission ratio	高速级 传动比 High speed transmission ratio	低速级 传动比 Low speed transmission ratio	输出 轴径 Output radial force mm	使用 系数 fs
<b>0.12kw</b>								<b>0.25kw</b>							
30/50	4.7	118	300	10	30	4.84	1.2	63/130	0.35	2046	4000	50	80	13.5	0.6
	3.5	142	400	10	40	4.84	0.9		0.28	2430	5000	50	100	13.5	0.5
	2.8	164	500	10	50	4.84	0.7		0.78	1199	1800	60	30	18	1.8
30/63	2.8	171	500	10	50	6.27	1.3	63/150	0.6	1446	2400	60	40	18	1.8
	2.3	208	600	15	40	6.27	1.1		0.5	1713	3000	60	50	18	1.4
	1.9	241	750	15	50	6.27	0.9		0.4	2026	4000	50	80	18	0.9
40/75	1.6	324	900	30	30	7.38	1.2	40/90	0.3	2251	5000	50	100	18	0.7
	1.2	399	1200	30	40	7.38	0.9		4.7	405	300	10	30	7.38	1.0
40/90	0.78	546	1800	30	60	8.18	0.9	40/75	3.5	498	400	10	40	7.38	0.7
	0.58	695	2400	60	40	8.18	0.9		4.7	401	300	7.5	40	8.18	1.5
50/110	0.5	883	3000	60	50	10.32	1.2	40/90	3.5	523	400	10	40	8.18	1.2
	0.35	784	4000	50	80	10.32	1.0		2.8	611	500	10	50	8.18	0.9
	0.28	928	5000	50	100	10.32	0.8		2.3	757	600	15	40	8.18	0.8
<b>0.18kw</b>								<b>0.37kw</b>							
30/63	3.5	221	400	10	40	6.27	1.0	50/110	1.9	949	750	25	30	10.32	1.3
	2.8	257	500	10	50	6.27	0.8		1.6	1079	900	30	30	10.32	1.2
40/75	2.3	362	600	20	30	7.38	1.1		1.2	1396	1200	30	40	10.32	0.8
	1.9	435	750	25	30	7.38	0.9	63/130	0.9	1674	1500	50	30	13.5	1.1
	1.6	487	900	30	30	7.38	0.8		0.78	1887	1800	60	30	13.5	0.9
40/90	1.2	639	1200	30	40	8.18	1.0	63/150	0.78	1774	1800	60	30	18	1.2
	0.93	735	1500	30	50	8.18	0.8		0.6	2141	2400	60	40	18	1.2
50/110	0.78	860	1800	60	30	10.32	1.5		0.5	2535	3000	60	50	18	0.9
	0.58	1113	2400	60	40	10.32	1.1	<b>0.55kw</b>							
30/63	3.5	159	400	10	40	6.27	1.4	50/110	4.7	638	300	10	30	10.32	2.0
	2.8	185	500	10	50	6.27	1.2		3.5	826	400	10	40	10.32	1.4
40/75	3.5	336	400	10	40	7.38	1.1		2.8	984	500	10	50	10.32	1.1
	2.8	384	500	10	50	7.38	0.8	2.3	1181	600	15	40	10.32	1.0	
	2.3	511	600	15	40	8.18	1.2	1.9	1411	750	25	30	10.32	0.9	
40/90	1.9	598	750	15	50	8.18	0.9	63/130	2.8	995	500	10	50	13.5	1.6
	1.6	667	900	15	60	8.18	0.8		1.9	1471	750	25	30	13.5	1.2
50/110	1.2	943	1200	30	40	10.32	1.3		1.2	2132	1200	30	40	13.5	0.8
	0.93	1064	1500	50	30	10.32	1.2	63/150	0.78	2637	1800	60	30	18	0.8
	0.78	1195	1800	60	30	10.32	1.1		0.6	3182	2400	60	40	18	0.8
63/130	0.6	1624	2400	60	40	13.5	1.0								
	0.47	1935	3000	60	50	13.5	0.8								

### Technical Parameter(2-Stage)

组合机 型规格 Combination Model code	输出转速 Output speed r/min	输出转矩 Output torque Nm	总传动比 General Transmission ratio i	高速级 传动比 High speed transmission ratio i	低速级 传动比 Low speed transmission ratio i	输出 轴径 Output radial force kN	使用 系数 fs
<b>0.75kw</b>							
50/110	4.7	871	300	10	30	10.32	1.5
	3.5	1126	400	10	40	10.32	1.1
63/130	2.8	1357	500	10	50	13.5	1.1
	2.3	1631	600	15	40	13.5	1.0
	1.9	2005	750	25	30	13.5	0.9
	1.6	2283	900	30	30	13.5	0.8
	2.8	1290	500	10	50	18	1.8
63/150	2.3	1529	600	15	40	18	1.7
	1.9	1783	750	25	30	18	1.3
	1.6	2215	900	30	30	18	0.9
	1.2	2680	1200	30	40	18	1.0
<b>1.1kw</b>							
63/130	4.7	1312	300	10	30	13.5	1.3
	3.5	1671	400	10	40	13.5	1.0
	2.8	1991	500	10	50	13.5	0.8
63/150	9.3	752	150	10	15	18	3.1
	7.0	966	200	10	20	18	2.4
	5.6	1175	250	10	25	18	1.7
	4.7	1364	300	10	30	18	1.7
	3.5	1619	400	10	40	18	1.6
	2.8	1893	500	10	50	18	1.2
	2.3	2242	600	15	40	18	1.2
	1.9	2616	750	25	30	18	0.9
<b>1.5kw</b>							
63/130	4.7	1789	300	10	30	13.5	1.0
	3.5	2279	400	10	40	13.5	0.7
63/150	9.3	1026	150	10	15	18	2.3
	7.0	1317	200	10	20	18	1.8
	5.6	1602	250	10	25	18	1.3
	4.7	1860	300	10	30	18	1.3
	3.5	2208	400	10	40	18	1.2
	2.8	2582	500	10	50	18	0.9
	2.3	3057	600	15	40	18	0.9

## Technical Parameter(1-Stage) - Shaft Extend Input(1400RPM)

### 单级减速机 (轴伸输入、输入转速1400r/min)

Single step reducer (shaft extend input, input speed is 1400r/min)

机型号 Model code	输入轴 功率 Input power kW	输出转速 Output speed r/min	输出转矩 Output torque N.m	传动比 Transmission ratio i	输出轴 径向力 Output radial force kN	输入轴 径向力 Input radial force kN	机型号 Model code	输入轴 功率 Input power kW	输出转速 Output speed r/min	输出转矩 Output torque N.m	传动比 Transmission ratio i	输出轴 径向力 Output radial force kN	输入轴 径向力 Input radial force kN	
30	0.4	186.7	18	7.5	0.68	0.15	63	0.4	17.5	122	80	5.19	0.70	
	0.3	140	18	10	0.75	0.16		0.3	14	118	100	5.59	0.70	
	0.2	93.3	18	15	0.86	0.16		75	4.1	186.7	185	7.5	2.78	0.70
	0.2	70	18	20	0.94	0.19			3.2	140	195	10	3.06	0.83
	0.2	56	21	25	1.02	0.21			2.3	93.3	200	15	3.50	0.85
	0.2	46.7	20	30	1.08	0.21			1.9	70	210	20	3.86	0.98
	0.1	35	18	40	1.19	0.21			1.5	56	200	25	4.16	0.98
	0.1	28	17	50	1.28	0.21			1.5	46.7	230	30	4.42	0.98
	0.1	23.3	16	60	1.36	0.21			1.1	35	220	40	4.86	0.98
	0.1	17.5	13	80	1.5	0.21			0.9	28	210	50	5.24	0.98
0.9	186.7	40	7.5	1.31	0.29	0.8	23.3		200	60	5.56	0.98		
0.7	140	40	10	1.44	0.33	0.6	17.5		190	80	6.13	0.98		
40	0.5	93.3	40	15	1.65	0.33	90	0.5	14	180	100	6.60	0.98	
	0.4	70	39	20	1.82	0.35		6.3	186.7	290	7.5	3.08	0.90	
	0.3	56	38	25	1.96	0.35		5.1	140	310	10	3.39	1.08	
	0.3	46.7	45	30	2.08	0.35		4.1	93.3	360	15	3.88	1.25	
	0.2	35	41	40	2.29	0.35		3.1	70	355	20	4.27	1.27	
	0.2	28	39	50	2.47	0.35		2.4	56	340	25	4.60	1.27	
	0.2	23.3	36	60	2.63	0.35		2.6	46.7	410	30	4.89	1.27	
	0.1	17.5	33	80	2.89	0.35		1.8	35	360	40	5.38	1.27	
	0.1	14	29	100	3.11	0.35		1.4	28	340	50	5.79	1.27	
	1.6	186.7	71	7.5	1.8	0.4		1.1	23.3	320	60	6.16	1.27	
50	1.2	140	72	10	1.98	0.49	110	0.8	17.5	285	80	6.78	1.27	
	0.9	93.3	74	15	2.27	0.49		0.7	14	270	100	7.30	1.27	
	0.7	70	73	20	2.5	0.49		12	186.7	552	7.5	3.89	1.20	
	0.5	56	70	25	2.69	0.49		9.8	140	598	10	4.28	1.46	
	0.6	46.7	84	30	2.86	0.49		7.5	93.3	656	15	4.90	1.60	
	0.4	35	76	40	3.15	0.49		5.6	70	644	20	5.39	1.70	
	0.3	28	73	50	3.39	0.49		4.7	56	679	25	5.81	1.70	
	0.3	23.3	68	60	3.61	0.49		4.5	46.7	725	30	6.18	1.70	
	0.2	17.5	65	80	3.97	0.49		3.3	35	702	40	6.80	1.70	
	0.2	14	55	100	4.28	0.49		2.6	28	660	50	7.32	1.70	
63	2.8	186.7	128	7.5	2.35	0.5	130	2.1	23.3	616	60	7.78	1.70	
	2.2	140	130	10	2.59	0.57		1.4	17.5	515	80	8.57	1.70	
	1.6	93.3	140	15	2.97	0.61		1.1	14	483	100	9.23	1.70	
	1.2	70	135	20	3.27	0.66		16.1	186.7	750	7.5	5.09	1.50	
	1.0	56	130	25	3.52	0.70		13.5	140	820	10	5.60	1.84	
	1.1	46.7	160	30	3.74	0.70		10.3	93.3	920	15	6.41	2.07	
	0.8	35	145	40	4.12	0.70		7.8	70	910	20	7.06	2.10	
	0.6	28	135	50	4.44	0.70		6.5	56	930	25	7.60	2.10	
	0.5	23.3	130	60	4.71	0.70								

### Technical Parameter(1-Stage) - Shaft Extend Input(1400RPM)

机型代号 Model code	输入轴 功率 Input power kW	输出转速 Output speed r/min	输出转矩 Output torque N.m	传动比 Transmission ratio i	输出轴 径向力 Output radial force kN	输入轴 径向力 Input radial force kN
130	6.4	46.7	1040	30	8.08	2.10
	4.9	35	1050	40	8.89	2.10
	3.8	28	980	50	9.58	2.10
	3.1	23.3	900	60	10.18	2.10
	2.3	17.5	840	80	11.21	2.10
	1.7	14	740	100	12.07	2.10
	25.8	186.7	1200	7.5	6.96	1.95
20.2	140	1240	10	7.66	2.26	
13.9	93.3	1250	15	8.77	2.28	
11.1	70	1300	20	9.65	2.67	
8.4	56	1200	25	10.40	2.80	
7.1	46.7	1200	30	11.05	2.80	
7.3	35	1550	40	12.16	2.80	
5.4	28	1400	50	13.10	2.80	
4.2	23.3	1260	60	13.92	2.80	
3.1	17.5	1150	80	15.32	2.80	
2.3	14	1000	100	16.50	2.80	

### Technical Parameter(2-Stage) - Shaft Extend Input(1400RPM)

双级减速机 (轴伸输入、输入转速1400r/min)  
Double step reducer (shaft extend input, input speed is 1400r/min)

机型号 Model code	输入轴 功率 Input power kW	输出转速 Output speed r/min	输出转矩 Output torque N.m	传动比 Transmission ratio i	输出轴 径向力 Output radial force kN	输入轴 径向力 Input radial force kN	机型号 Model code	输入轴 功率 Input power kW	输出转速 Output speed r/min	输出转矩 Output torque N.m	传动比 Transmission ratio i	输出轴 径向力 Output radial force kN	输入轴 径向力 Input radial force kN	
30/40	0.1	4.7	73	300	3.49	0.21	40/75	0.2	2.3	390	600	7.38	0.35	
	0.1	3.5	65	400	3.49	0.21		0.2	1.9	390	750	7.38	0.35	
	0.08	2.8	61	500	3.49	0.21		0.14	1.6	390	900	7.38	0.35	
	0.06	2.3	73	600	3.49	0.21		0.11	1.2	360	1200	7.38	0.35	
	0.04	1.9	73	750	3.49	0.21		0.1	0.93	390	1500	7.38	0.35	
	0.03	0.6	73	900	3.49	0.21		0.1	0.78	390	1800	7.38	0.35	
	0.02	1.2	65	1200	3.49	0.21		0.1	0.58	360	2400	7.38	0.35	
	0.02	0.9	73	1500	3.49	0.21		0.1	0.47	320	3000	7.38	0.35	
	0.02	0.78	73	1800	3.49	0.21		0.08	0.35	250	4000	7.38	0.35	
	0.01	0.58	65	2400	3.49	0.21		0.06	0.28	230	5000	7.38	0.35	
	0.01	0.4	65	3200	3.49	0.21		40/90	0.6	4.7	610	300	8.18	0.35
	0.01	0.35	33	4000	3.49	0.21			0.43	3.5	610	400	8.18	0.35
	0.01	0.28	29	5000	3.49	0.21			0.34	2.8	560	500	8.18	0.35
30/50	0.15	4.7	145	300	4.84	0.21	0.3		2.3	610	600	8.18	0.35	
	0.1	3.5	124	400	4.84	0.21	0.23		1.9	560	750	8.18	0.35	
	0.1	2.8	120	500	4.84	0.21	0.2		1.6	505	900	8.18	0.35	
	0.1	2.3	145	600	4.84	0.21	0.2		1.2	610	1200	8.18	0.35	
	0.1	1.9	145	750	4.84	0.21	0.14		0.93	560	1500	8.18	0.35	
	0.1	1.6	145	900	4.84	0.21	0.11		0.78	505	1800	8.18	0.35	
	0.08	1.2	124	1200	4.84	0.21	0.11		0.58	610	2400	8.18	0.35	
	0.06	0.93	145	1500	4.84	0.21	0.1		0.47	560	3000	8.18	0.35	
	0.04	0.78	145	1800	4.84	0.21	0.1		0.35	460	4000	8.18	0.35	
	0.03	0.6	124	2400	4.84	0.21	0.1		0.28	410	5000	8.18	0.35	
	0.02	0.5	120	3000	4.84	0.21	50/110	1.1	4.7	1265	300	10.32	0.49	
	0.02	0.35	82	4000	4.84	0.21		0.8	3.5	1185	400	10.32	0.49	
	0.02	0.29	82	4800	4.84	0.21		0.61	2.8	1100	500	10.32	0.49	
30/63	0.24	4.7	230	300	6.27	0.21		0.6	2.3	1185	600	10.32	0.49	
	0.2	3.5	230	400	6.27	0.21		0.5	1.9	1265	750	10.32	0.49	
	0.2	2.8	216	500	6.27	0.21		0.43	1.6	1265	900	10.32	0.49	
	0.13	2.3	230	600	6.27	0.21		0.31	1.2	1186	1200	10.32	0.49	
	0.11	1.9	216	750	6.27	0.21		0.3	0.93	1265	1500	10.32	0.49	
	0.1	1.6	198	900	6.27	0.21		0.3	0.78	1265	1800	10.32	0.49	
	0.1	1.2	230	1200	6.27	0.21		0.2	0.58	1185	2400	10.32	0.49	
	0.1	0.93	216	1500	6.27	0.21		0.15	0.47	1100	3000	10.32	0.49	
	0.1	0.78	198	1800	6.27	0.21		0.13	0.35	819	4000	10.32	0.49	
	0.1	0.58	230	2400	6.27	0.21		0.1	0.28	746	5000	10.32	0.49	
	0.08	0.47	216	3000	6.27	0.21	63/130	1.5	4.7	1760	300	13.5	0.7	
	0.06	0.35	172	4000	6.27	0.21		1.1	3.5	1650	400	13.5	0.7	
	0.04	0.28	150	500	6.27	0.21		0.9	2.8	1550	500	13.5	0.7	
40/75	0.4	4.7	390	300	7.38	0.35		0.8	2.3	1650	600	13.5	0.7	
	0.3	3.5	360	400	7.38	0.35		0.7	1.9	1760	750	13.5	0.7	
	0.21	2.8	320	500	7.38	0.35								

### Technical Parameter(2-Stage) - Shaft Extend Input(1400RPM)

机型代号 Model code	输入轴 功率 Input power kW	输出转速 Output speed r/min	输出转矩 Output torque Nm	传动比 Transmission ratio i	输出轴 径向力 Output radial force kN	输入轴 径向力 Input radial force kN
63/130	0.6	1.6	1760	900	13.5	0.7
	0.4	1.2	1650	1200	13.5	0.7
	0.4	0.93	1760	1500	13.5	0.7
	0.3	0.78	1760	1800	13.5	0.7
	0.3	0.58	1650	2400	13.5	0.7
	0.2	0.47	1550	3000	13.5	0.7
	0.1	0.35	1220	4000	13.5	0.7
	0.1	0.28	1100	5000	13.5	0.7
63/150	3.4	9.3	2340	150	18	0.7
	2.7	7.0	2340	200	18	0.7
	1.9	4.6	2050	250	18	0.7
	1.9	4.7	2340	300	18	0.7
	1.8	3.5	2670	400	18	0.7
	1.4	2.8	2330	500	18	0.7
	1.3	2.3	2670	600	18	0.7
	1.0	1.9	2330	750	18	0.7
	0.7	1.6	2100	900	18	0.7
	0.7	1.2	2670	1200	18	0.7
	0.4	0.78	2100	1600	18	0.7
	0.5	0.6	2670	2400	18	0.7
	0.3	0.5	2330	3000	18	0.7
	0.2	0.4	1880	4000	18	0.7
0.2	0.3	1650	5000	18	0.7	

### ■ 使用说明 Operating Instructions

#### 1.1 安装注意事项

- 1.1.1 减速机须安装在平整坚固的底座上，底脚螺栓必须紧固、防震。
- 1.1.2 原动机—减速机—工作机的各联接轴伸，安装后必须互相准确对准轴线。
- 1.1.3 减速机输入端及输出端轴伸外径尺寸公差按h6制作，与之相匹配的联轴器、皮带轮、链轮等传动件内孔需按合适的公差尺寸配置，避免装配过紧损坏轴承，装配过松影响正常的动力传递。
- 1.1.4 链轮、齿轮等传动件装上轴伸时，应尽量靠近轴承，以减少轴伸弯曲应力。
- 1.1.5 减速机装配电机时，应在蜗杆头部内孔孔壁及键槽处涂抹黄油，避免装配过紧，防止轴孔日久生锈。
- 1.1.6 使用各类电机直联型减速机时，若电机重量偏大，应设支撑装置。

#### 1.1 Notes of Installation

- 1.1.1 The base-plate must be plane and stoutness, and the base-bolts must be screwed down and shockproof.
- 1.1.2 The connecting shafts of prime mover, reducer and operation device must be coaxial after installation.
- 1.1.3 The diameter tolerance zone of input and output shaft is h6,the holes of fittings (such as couplings, belt-pulley,sprocket wheel and so on) must properly mate the shaft ,which prevents bearing from breakage because of over-tight mate or avoid effecting normal power transmission because of over-loose mate.
- 1.1.4 Drives such as sprocket wheel and gear must be fitted close to bearing in order to reduce bending stress of hanging shaft.
- 1.1.5 While assembling motor to the reducer, it is necessary to add butters to the worm shaft input hole and key way, so as to avoid tightly assembling and rusting when it is used for a long time.
- 1.1.6 Supporting unit is required when reducers directly match with motors whose weight is bigger than normal.

#### 1.2 使用注意事项

- 1.2.1 使用前应注意检查减速机型式结构、中心距规格、传动比、输入轴联接方式、输出轴结构、输入轴输出轴指向和回转向等是否符合使用要求，蜗杆输入转速最高不宜超过2000r/min，一般使用范围为600~1800r/min。
- 1.2.2 开机时应逐步施加载荷，不能满载启动。
- 1.2.3 型号25~90减速机仅设加油孔，出厂时减速机内已加好ISO VG320合成润滑油，用户无需加油，机器连续运转约10000小时后，应该更换新润滑油。
- 1.2.4 型号110~150减速机设有加油孔、放油孔和油标，减速机内已加ISO VG460矿物润滑油，用户在使用前须拉掉通气器上的橡胶环。首次运行500小时后更换新油，以后每隔约5000小时换油一次。
- 1.2.5 减速机允许最高油温为95℃，超过时应停机检查。
- 1.2.6 若减速机使用环境温度超过或低于表中规定使用环境温度5℃以上，请与我公司人员联系。

## Operating Instructions

### 1.2 Operating Notes

1.2.1 Before using, please check carefully whether the reducer mode, centre distance size, ratio, input connecting method, output shaft structure, input and output shaft direction and revolving direction are Right revolving direction are right according to requirement. It is better that the input speed of worm shaft shouldn't exceed 2000 RPM, the general range is 600-1800 RPM.

1.2.2 The load should be added step by step when using the machine. Never running it with full load.

1.4.3 The reducer which model is among 25-90 has the oil add hole only. It has been full of synthetic lubrication oil ISO VG320. User doesn't need to think about oil adding, after about 10000 hours continuous running, please change new lubrication oil.

1.2.4 The reducer model of 110-150 has oil add hole, oil out hole and oil gauge. Mineral lubrication oil ISO VG460 has been filled in enough, before using, user must pull out the rubber ring of vent plug. After the first 500 hours running, clean the interior box and change new oil in it. Then change the oil once per 5000 hours.

1.2.5 The permitted temperature of the oil in reducer is 95°C. If up to this value, it must be stopped and checked.

1.2.6 When the ambient temperature is 5°C upper or lower than the normal level stated in the table, please contact with us.

### ■ 油品润滑 Lubricant

润滑油选用表 Lubricant oil chosen table

减速机规格 Reducer size	25-90	110-150	
润滑油类型 Type of lubrication oil	合成润滑油 Synthetic lubrication oil	矿物润滑油 Mineral lubrication oil	
环境温度℃ Ambient temperature	-25~+50	-5~+4(0)	-15~+25
ISO VG	ISO VG 320	ISO VG 460	ISO VG 220
AGIP	TELUM VSF320	BLASIA 460	BLASIA 220
SHELL	TIVELA S320	TIVELA S460	TIVELA S220
ESSO	S220	SPARTAN EP460	SPARTAN EP220
MOBIL	GLYGOYLE HE320	MOBIL GEAR 630xP	MOBIL GEAR 630xP
CASTROL	ALPHA SYN PG320	ALPHA MAX 460	ALPHA MAX 200
BP	ENERGOL SG-XP320	ENERGOL GR-XP460	ENERGOL GR-XP220

润滑油注油量(L) Adding Capacity of lubrication oil

安装型式 Installation	规格 Type									
		25	30	40	50	63	75	90	110	130
B3	0.02	0.01	0.08	0.15	0.3	0.55	1	3	4.5	7
B6 B7								2.5	3.5	5.4
BB								2.2	3.3	5.1
V5								3	4.5	7
V6								2.2	3.3	5.1

## Operating Instructions

### ■ 故障分析 Malfunctions Analysis

Fault Description	Reasons	Solutions
Overheating	Improper connection among prime mover, reducer and the operation device	Adjust to proper position
	Overloading	Adjust to proper load
	Over friction of oil seals	Drop lubricant at oil seal
	☆ Lubricant oil overmuch or shortage	Adjust to proper oil quantity as lubricant capacity table
	☆ Much impurity in oil or inferior oil	Refill proper oil
Vibration	Prime mover, reducer and the operation device mount badly	Find out the bad place, tighten it
	Tooth surface of worm gear sets worn-out or damaged	Replace worm gear sets (we will cooperate with you when necessary)
	Bearing worn-out	Replace Bearing
	Bolt loose	Tighten Screw
Noise	Improper connection among prime mover, reducer and the operation device	Adjust to proper position
	Bearing damaged or too large clearance	Replace Bearing
	Worm gear sets mesh badly	Mend tooth surface or replace worm gear sets (please contact to us)
	☆ Lubricant oil shortage	Fill in adequate oil as lubricant capacity table
Oil leakage	Oil seal lip worn-out	Replace oil seal
	Shaft of oil seal area worn-out	Replace input or output shaft with worm gear
	Oil screw plug loose	Tighten oil screw plug
Tooth surface of worm gear sets abrade extra-quickly	Oil gauge damaged	Replace oil gauge
	Overload	Adjust to proper loading
	☆ Lubricant oil not according with requirement	Replace proper lubricant oil
	☆ Lubricant oil shortage	Fill adequate oil as indication
	Not replacing lubricant oil in time according to requirement, oil deteriorates	Replacing oil in time according to requirement
	Overheating while running	1. Deal with it as "Overheating" 2. Adopting proper measures to make environment temperature fall

Annotation: 1. ☞ Accored after the lubricant changed.

2. If other faults not listed above occur, Please contact with us at any moment; Our company will supply thorough consultation and service.

