



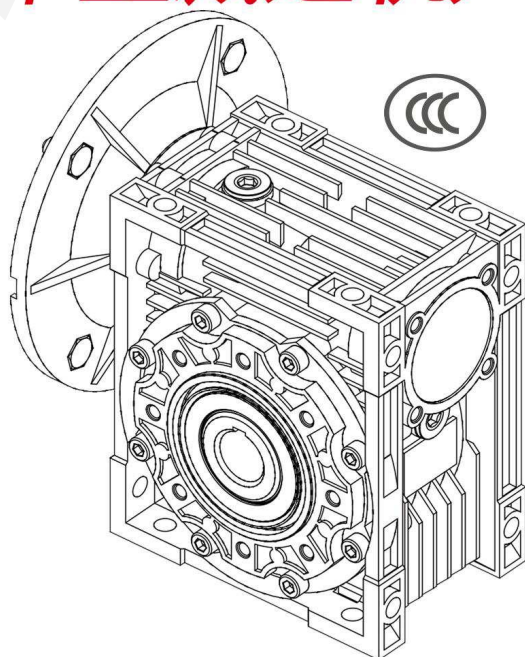
**WANSHSIN®**

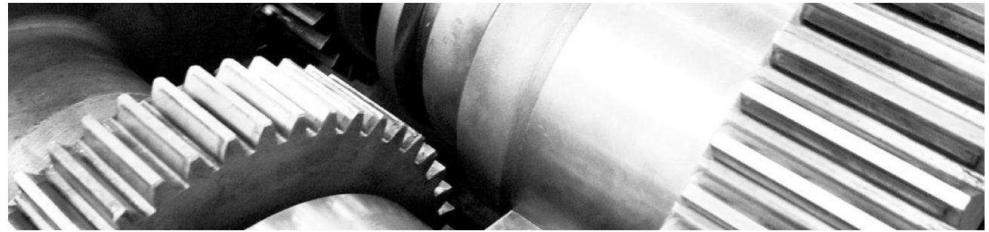
**萬鑫精工**

**WORM GEAR REDUCERS**

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**中型减速机产品目录**





# COMPANY PROFILE





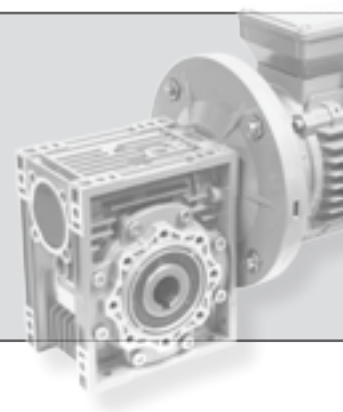
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## Legend

P = Power (kW)  
 M = Torque (Nm)  
 n = Speed (rpm)  
 i = Ratio  
 F = Load (N)  
 m = Weight (kg)  
 $\eta$  = Efficiency  
 $\gamma$  = Helix angle  
 f. s. = Service factor

1 = Input shaft  
 2 = Output shaft  
 r = Radial  
 a = Axial  
 s = Static  
 d = Dynamic  
 max = Maximum  
 min = Minimum







## Service Factor

The service factors (f.s.) of the gearbox mainly depends on its operating conditions.

While the determining conditions are as following:

- Loading type of the gearbox: A - B - C
- Operating hours per day: hours/day( $\Delta$ )
- Switching on frequency: times/hour ( $\Delta$ )

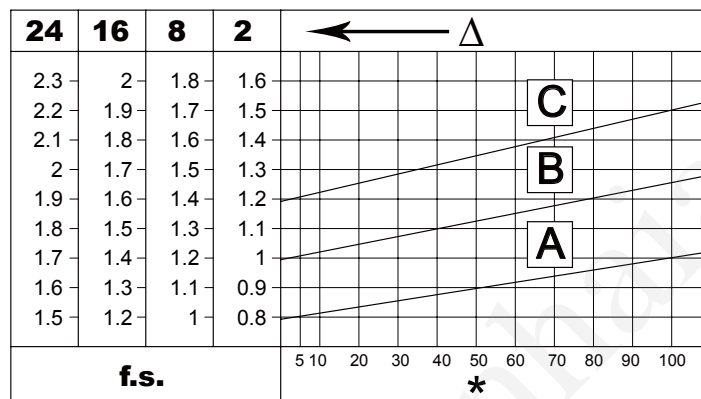
Three loading type:

- A-fair load,  $f_a \leq 0.3$
  - B-moderate load,  $f_a \leq 3$
  - C-heavy load,  $f_a \leq 10$
- $f_a = J_{ex} / J_m$

$J_{ex}(\text{kgm}^2)$  moment of the external inertia reduced at the drive shaft

$J_m(\text{kgm}^2)$  moment of inertia of motor

Note: please contact Wanshsin when  $f_a > 10$



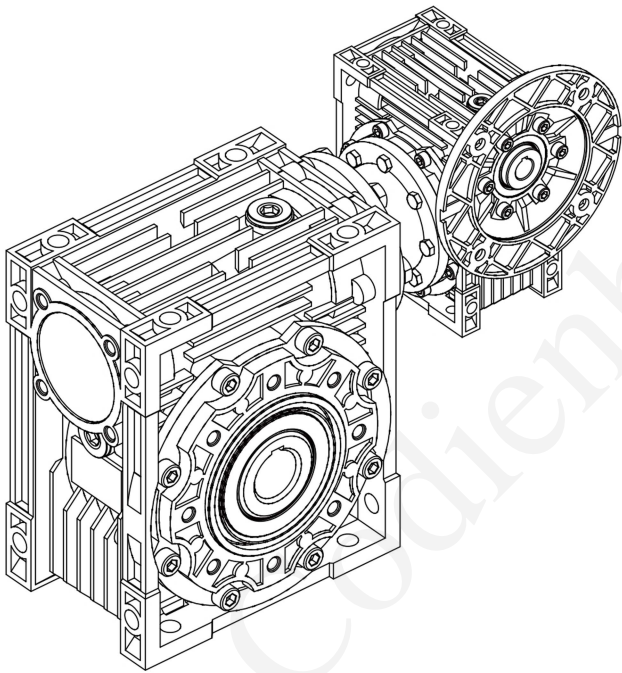
## Installation

1. The reducer should be securely mounted to avoid any vibration.
2. Before mounting, make sure the output shaft of the reducer will turn to the correct direction required.
3. In cases of prolonged storage (greater than 4 months), check the seal first, as it may stick to the shaft - caused by lack of lubricant (loss of flexibility). If necessary, change the seal.
4. For reduction units with hollow output shafts, please use the torque arms. If it is not possible ensure the shaft is without axial load.
5. Whenever possible, protect the reducer from direct sunlight and any other bad weather.
6. Ensure ventilating conditions are adequate.
7. In the case of ambient temperatures  $< -5^{\circ}\text{C}$  or  $> +40^{\circ}\text{C}$ , contact Wanshsin.
8. Paint must not encroach onto rubber components or holes on breather plugs.
9. Check the oil level.
10. For supply of gear units only - Ensure the motor to be fitted has correct shaft and flange
11. Ensure the tolerance between shafts and motor flanges comply to the appropriate standard.
12. Clean any dirt and paint on the surface of the shafts, centre bores and flanges.
13. Lubricate the surface to avoid corrosion. Lubricate mating surfaces
14. Starting must take place gradually, without immediately applying the maximum load.

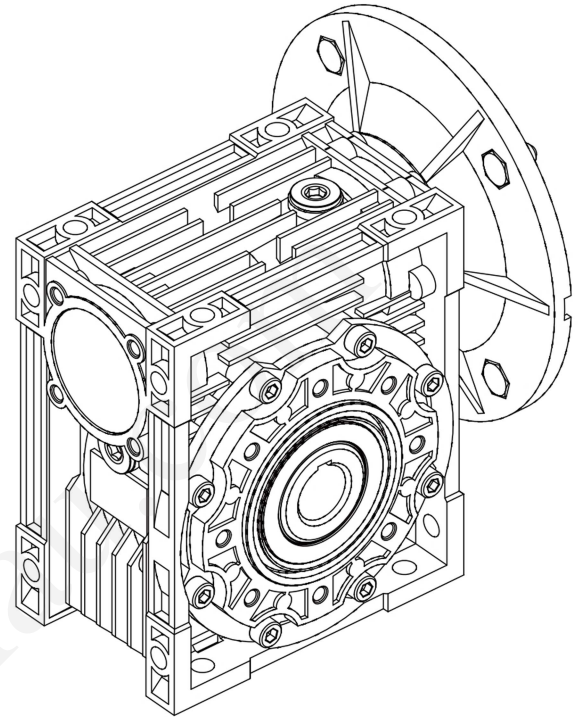




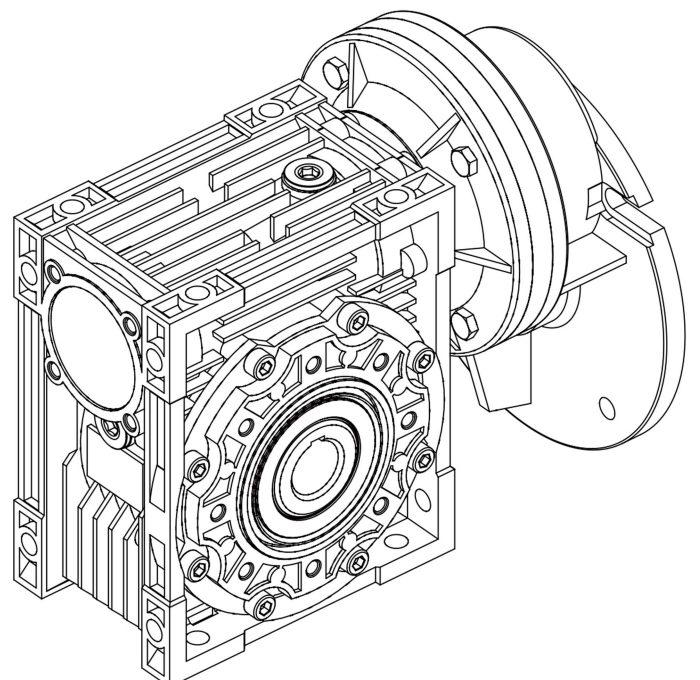
## Worm Gear Motors & Reducers



**NMRV + NMRV**



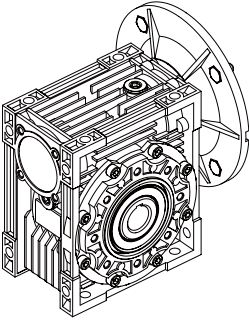
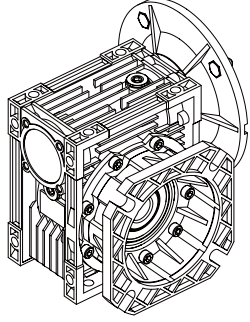
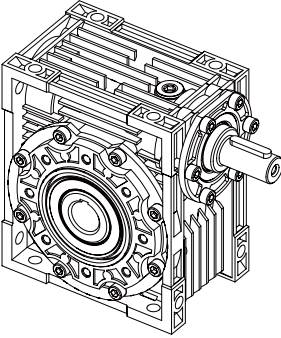
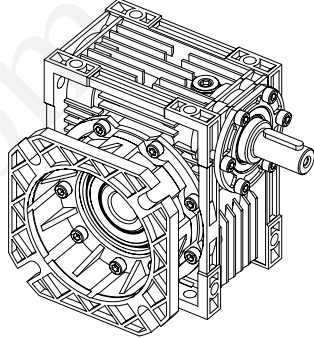
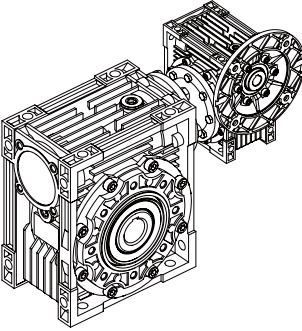
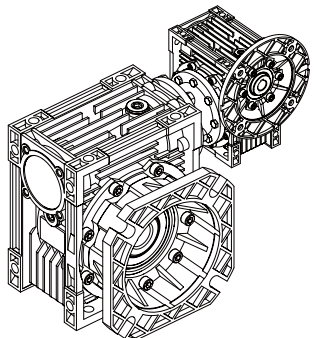
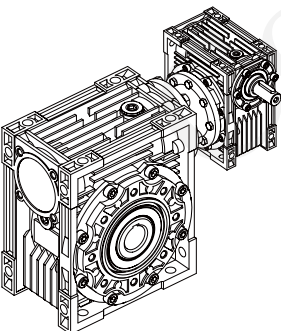
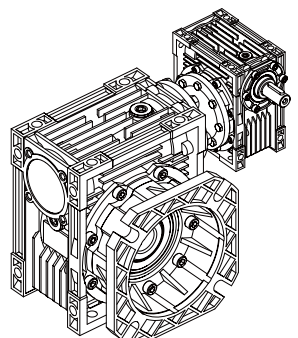
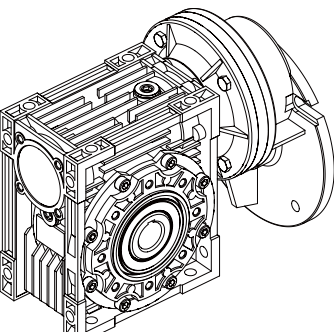
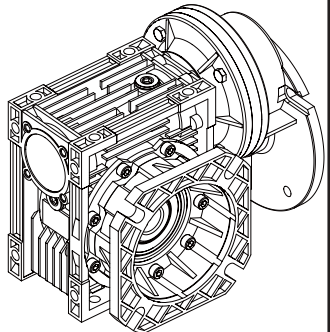
**NMRV**



**PC + NMRV**

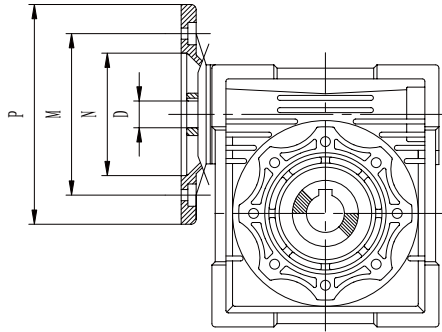


## Versions

	<p>NMRV 025-130</p>	<p>NMRV 025-130 F</p>	
	<p>NRV 025-130</p>	<p>NRV 025-130 F</p>	
	<p>NMRV-NMRV 025-130</p>	<p>NMRV-NMRV 025-130 F</p>	
	<p>NRV-NMRV 025-130</p>	<p>NRV-NMRV 025-130 F</p>	
	<p>PC-NMRV 063/040-090/130</p>	<p>PC-NMRV 063/040-090/130 F</p>	



## Motor Mounting Dimensions



NMRV	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	-	-	-	
	63B14	60	75	90	9	9	9	9	9	9	9	9	9	9	9	-	
	56B5	80	100	120	-	-	-	-	-	-	-	-	9	9	9	9	
	56B14	50	65	80	9	9	9	9	9	9	9	9	9	9	9	9	
040	71B5	110	130	160	14	14	14	14	14	14	14	14	-	-	-	-	
	71B14	70	85	105	11	11	11	11	11	11	11	11	11	11	11	11	
	63B5	95	115	140	-	-	-	-	-	-	-	-	9	9	9	9	
	63B14	60	75	90	9	9	9	9	9	9	9	9	9	9	9	9	
	56B5	80	100	120	-	-	-	-	-	-	-	-	9	9	9	9	
050	80B5	130	165	200	19	19	19	19	19	19	19	-	-	-	-	-	
	80B14	80	100	120	14	14	14	14	14	14	14	14	14	14	14	-	
	71B5	110	130	160	-	-	-	-	-	-	-	11	11	11	11	11	
	71B14	70	85	105	14	14	14	14	14	14	14	14	14	14	14	-	
	63B5	95	115	140	-	-	-	-	-	-	-	11	11	11	11	11	
063	90B5	130	165	200	-	24	24	24	24	24	24	-	-	-	-	-	
	90B14	95	115	140	-	19	19	19	19	19	19	19	19	19	-	-	
	80B5	130	165	200	-	-	-	-	-	-	-	14	14	14	14	14	
	80B14	80	100	120	-	-	-	-	-	-	-	14	14	14	14	14	
	71B5	110	130	160	-	-	-	-	-	-	-	14	14	14	14	14	
	71B14	70	85	105	-	-	-	-	-	-	-	14	14	14	14	14	
075	100/112B5	180	215	250	-	28	28	28	-	-	-	-	-	-	-	-	
	100/112B14	110	130	160	-	24	24	24	24	24	24	24	-	-	-	-	
	90B5	130	165	200	-	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	
	80B14	80	100	120	-	-	-	-	-	-	-	14	14	14	14	14	
	71B5	110	130	160	-	-	-	-	-	-	-	14	14	14	14	14	
090	100/112B5	180	215	250	-	28	28	28	28	28	28	-	-	-	-	-	
	100/112B14	110	130	160	-	24	24	24	24	24	24	24	24	24	-	-	
	90B5	130	165	200	-	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	
	80B14	80	100	120	-	-	-	-	-	-	-	19	19	19	19	19	
110	132B5	230	265	300	-	38	38	38	38	-	-	-	-	-	-	-	
	100/112B5	180	215	250	-	28	28	28	28	28	28	28	28	28	-	-	
	90B5	130	165	200	-	-	-	-	-	24	24	24	24	24	24	24	
	80B5	130	165	200	-	-	-	-	-	-	-	-	-	-	19	19	
	132B5	230	265	300	-	38	38	38	38	38	38	38	-	-	-	-	
130	100/112B5	180	215	250	-	-	-	-	-	28	28	28	28	28	28	28	
	90B5	130	165	200	-	-	-	-	-	-	-	-	-	-	24	24	
	132B5	230	265	300	-	38	38	38	38	38	38	38	-	-	-	-	





## Mesh Data

### Worm thread, worm wheel tooth and efficiency

NRV	i	5	7.5	10	15	20	25	30	40	50	60	80	100
<b>025</b>	Z1	4	4	3	2	2		1	1	1	1		
	$\gamma$	30° 57'	25° 18'	19° 31'	13° 18'	10° 53'		6° 44'	5° 29'	4° 34'	3° 56'		
	mx	1.8	1.3	1.3	1.3	1		1.3	1	0.8	0.67		
	$\eta_d$	0.86	0.84	0.82	0.78	0.74		0.66	0.61	0.57	0.54		
	$\eta_s$	0.71	0.70	0.67	0.60	0.55		0.46	0.41	0.36	0.34		
<b>030</b>	Z1	4	4	3	2	2	1	1	1	1	1	1	
	$\gamma$	21° 48'	18° 50'	14° 21'	9° 40'	7° 44'	5° 34'	4° 52'	3° 53'	3° 11'	2° 46'	2° 07'	
	mx	2	1.44	1.44	1.44	1.1	1.7	1.44	1.1	0.88	0.75	0.56	
	$\eta_d$	0.86	0.84	0.81	0.76	0.72	0.67	0.64	0.58	0.54	0.50	0.44	
	$\eta_s$	0.71	0.66	0.62	0.54	0.50	0.43	0.39	0.35	0.31	0.27	0.23	
<b>040</b>	Z1	4	4	4	2	2	2	1	1	1	1	1	1
	$\gamma$	27° 24'	21° 48'	17° 31'	11° 18'	8° 58'	7° 41'	5° 42'	4° 30'	3° 51'	3° 17'	2° 32'	2° 05'
	mx	2.8	2	1.5	2	1.5	1.25	2	1.5	1.25	1.04	0.78	0.63
	$\eta_d$	0.88	0.86	0.85	0.81	0.77	0.74	0.69	0.64	0.61	0.57	0.51	0.47
	$\eta_s$	0.72	0.69	0.65	0.58	0.53	0.5	0.44	0.4	0.36	0.32	0.28	0.24
<b>050</b>	Z1	4	4	4	2	2	2	1	1	1	1	1	1
	$\gamma$	23° 49'	21° 48'	17° 42'	11° 18'	9° 04'	7° 36'	5° 42'	4° 33'	3° 49'	3° 17'	2° 33'	2° 04'
	mx	3.4	2.5	1.9	2.5	1.9	1.54	2.5	1.9	1.54	1.3	0.98	0.78
	$\eta_d$	0.87	0.86	0.84	0.8	0.77	0.74	0.7	0.65	0.61	0.57	0.51	0.49
	$\eta_s$	0.73	0.69	0.65	0.58	0.54	0.5	0.44	0.39	0.35	0.32	0.27	0.23
<b>063</b>	Z1		4	4	2	2	2	1	1	1	1	1	1
	$\gamma$		24° 31'	20° 19'	12° 50'	10° 29'	8° 44'	6° 30'	5° 17'	4° 23'	3° 47'	2° 59'	2° 25'
	mx		3.25	2.5	3.25	2.5	2	3.25	2.5	2	1.68	1.28	1.02
	$\eta_d$		0.87	0.86	0.82	0.8	0.77	0.73	0.69	0.65	0.61	0.56	0.5
	$\eta_s$		0.7	0.65	0.59	0.54	0.5	0.45	0.4	0.36	0.33	0.28	0.24
<b>075</b>	Z1		4	4	2	2	2	1	1	1	1	1	1
	$\gamma$		26° 33'	21° 48'	14° 02'	11° 18'	9° 37'	7° 07'	5° 42'	4° 50'	4° 05'	3° 15'	2° 40'
	mx		4	3	4	3	2.45	4	3	2.45	2	1.54	1.24
	$\eta_d$		0.88	0.87	0.84	0.81	0.79	0.75	0.71	0.68	0.64	0.59	0.54
	$\eta_s$		0.7	0.67	0.6	0.57	0.52	0.46	0.42	0.38	0.35	0.29	0.26
<b>090</b>	Z1		4	4	2	2	2	1	1	1	1	1	1
	$\gamma$		28° 20'	23° 26'	15° 05'	12° 14'	10° 37'	7° 40'	6° 11'	5° 21'	4° 36'	3° 36'	2° 57'
	mx		4.8	3.6	4.8	3.6	3	4.8	3.6	3	2.5	1.88	1.5
	$\eta_d$		0.89	0.88	0.85	0.83	0.81	0.77	0.74	0.71	0.68	0.62	0.58
	$\eta_s$		0.72	0.69	0.63	0.59	0.55	0.49	0.45	0.41	0.38	0.32	0.28
<b>110</b>	Z1		4	4	2	2	2	1	1	1	1	1	1
	$\gamma$		28° 17'	27° 35'	15° 03'	14° 38'	12° 37'	7° 39'	7° 26'	6° 23'	5° 31'	4° 23'	3° 38'
	mx		5.89	4.6	5.89	4.6	3.75	5.89	4.6	3.75	3.12	2.36	1.9
	$\eta_d$		0.89	0.88	0.85	0.84	0.83	0.78	0.77	0.74	0.71	0.66	0.62
	$\eta_s$		0.71	0.68	0.62	0.61	0.58	0.48	0.48	0.44	0.41	0.36	0.32
<b>130</b>	Z1		4	4	2	2	2	1	1	1	1	1	1
	$\gamma$		28° 46'	26° 15'	15° 21'	13° 51'	11° 49'	7° 48'	7° 01'	5° 58'	5° 12'	4° 05'	3° 25'
	mx		7	5.4	7	5.4	4.37	7	5.4	4.37	3.68	2.75	2.24
	$\eta_d$		0.9	0.88	0.86	0.85	0.83	0.79	0.77	0.74	0.71	0.67	0.63
	$\eta_s$		0.71	0.68	0.62	0.6	0.57	0.49	0.46	0.43	0.39	0.34	0.3

The helix is right-handed.  $\eta_d(1400)$ ....dynamic efficiency at  $n_1=1400$   $\eta_s$ ....static efficiency  
*i*....ratio Z1:Worm teeth number  $\gamma$ :Helical angle mx:Mold number



## Performance

P1 (kW)	n2 (1/min)	M2 (Nm)	f. s.	i	Type	Fr2 (N)	Page	
<b>0.06</b>	280	1.8	6.2	5	NMRV025	439	24	
	186.7	2.6	4.2	7.5		503		
	140	3.4	3.5	10		553		
	93.3	4.9	2.5	15		633		
	70	6.1	2	20		697		
	46.7	8.2	1.6	30		798		
	35	10	1.3	40		878		
	28	12	0.9	50		946		
	23.3	14	0.7	60		1006		
	280	1.8	10.1	5		597		
	186.7	2.6	6.9	7.5		683		
	140	3.4	5.4	10		752		
	93.3	4.7	3.8	15		861		
	70	6	3	20		948		
56	7	3	25	1021	25			
46.7	8	2.5	30	1085				
35	9.7	1.9	40	1194				
28	11	1.5	50	1286				
23.3	13	1.3	60	1367				
17.5	14	0.9	80	1504				
14	25.1	1.3	100	1620				
9.3	32	0.9	150	1830		NMRV025/030	48	
7	41	0.7	200	1830				
5.6	44	0.8	250	1830				
4.7	59.1	1.2	300	3490				
3.5	71	0.9	400	3490				
2.8	82	0.7	500	3490				
2.3	101	0.6	600	3490				
1.9	116	0.5	750	3490				
1.6	143	0.5	900	3490				
1.2	171	0.4	1200	3490	NMRV025/040	48		
0.9	197	0.3	1500	3490				
0.8	217	0.3	1800	3490				
0.6	268	0.2	2400	3490				
0.5	324	0.2	3000	3490				
0.4	294	0.1	4000	3490				
0.3	356	0.1	5000	3490				
4.7	57.4	1.3	300	3490				
3.5	70	0.9	400	3490				
2.8	96	0.6	500	3490				
2.3	104	0.7	600	3490				
1.9	121	0.6	750	3490				
1.6	139	0.5	900	3490				
1.2	166	0.4	1200	3490			NMRV030/040	48
0.9	196	0.4	1500	3490				
0.8	218	0.3	1800	3490				
0.58	261	0.2	2400	3490				
0.4	300	0.2	3200	3490				
0.4	279	0.1	4000	3490				
0.28	338	0.1	5000	3490				
1.6	141.3	1	900	4840				
1.2	169	0.7	1200	4840				
0.93	199	0.7	1500	4840				
0.78	222	0.7	1800	4840	NMRV030/050	49		
0.6	266	0.5	2400	4840				
0.5	307	0.4	3000	4840				
0.35	288	0.3	4000	4840				
0.29	311	0.3	4800	4840				



## Performance

P1 (kW)	n2 (1/min)	M2 (Nm)	f. s.	i	Type	Fr2 (N)	Page		
<b>0.06</b>	0.9	203.5	1.1	1500	NMRV030/063	6270	49		
	0.78	225	0.9	1800		6270			
	0.58	276	0.8	2400		6270			
	0.47	319	0.7	3000		6270			
	0.35	306	0.6	4000		6270			
	0.28	360	0.4	5000		6270			
	NMRV040/075	0.6	330.4	1.1	2400	7380	49		
		0.47	377	0.8	3000	7380			
		0.35	355	0.7	4000	7380			
		0.28	419	0.5	5000	7380			
		NMRV040/090	0.5	405.9	1.4	3000		8180	50
			0.35	365	1.3	4000		8180	
0.28	431		1	5000	8180				
<b>0.09</b>	280	2.7	4.1	5	NMRV025	439	24		
	186.7	3.9	2.8	7.5		503			
	140	5.1	2.4	10		553			
	93.3	7.3	1.6	15		633			
	70	9.2	1.3	20		697			
	46.7	12	1.1	30		798			
	35	15	0.9	40		878			
	NMRV030	280	2.7	6.7		5		597	25
		186.7	3.9	4.6	7.5	683			
		140	5	3.6	10	752			
		93.3	7.1	2.5	15	861			
		70	9	2	20	948			
		56	10	2	25	1021			
		46.7	12	1.7	30	1085			
		35	14	1.2	40	1194			
		28	17	1	50	1286			
		23.3	19	0.9	60	1367			
		NMRV025/030	14	37.7	0.8	100	1620	48	
			9.3	49	0.6	150	1830		
			7	62	0.5	200	1830		
			5.6	66	0.5	250	1830		
			4.7	75	0.4	300	1830		
			3.5	107	0.3	400	1830		
	2.8		115	0.3	500	1830			
	2.3		135	0.2	600	1830			
	1.9		151	0.2	750	1830			
	1.6		178	0.2	900	1830			
	1.2		212	0.1	1200	1830			
	0.9		247	0.1	1500	1830			
	0.78		304	0.1	1800	1830			
	0.58		340	0.1	2400	1830			
	0.47		405	0.1	3000	1830			
	NMRV040		28	19	2	50	2475		26
		23.3	21	1.7	60	2630			
		17.5	26	1.3	80	2895			
		14	29	1	100	3118			
	NMRV030/040	4.7	87.6	0.8	300	3490	48		
		3.5	106.7	1.2	400	4840			
	NMRV030/050	2.8	123	1	500	4840	49		
		2.3	159	0.9	600	4840			
		1.9	185	0.8	750	4840			
		1.6	212	0.7	900	4840			
		1.6	200	1	900	6270			
	NMRV030/063	1.2	263	0.9	1200	6270	49		
		0.93	305	0.7	1500	6270			





## Performance

P1 (kW)	n2 (1/min)	M2 (Nm)	f. s.	i	Type	Fr2 (N)	Page		
<b>0.09</b>	0.9	359.7	1.1	1500	NMRV040/075	7380	49		
	0.78	404	1	1800		7380			
	0.58	496	0.7	2400		7380			
		0.5	608.9	0.9	3000	NMRV040/090	8180	50	
		0.35	548	0.8	4000		8180		
<b>0.12</b>	280	3.6	5.1	5	NMRV030	597	25		
	186.7	5.2	3.4	7.5		683			
	140	6.7	2.7	10		752			
	93.3	9.5	1.9	15		861			
	70	12	1.5	20		948			
	56	14	1.5	25		1021			
	46.7	16	1.3	30		1085			
	35	19	0.9	40		1194			
	28	23	0.8	50		1286			
	NMRV040	46.7	17.2	2.6	30	2087	26		
		35	21	1.9	40	2298			
		28	25	1.5	50	2475			
		2.3	28	1.3	60	2630			
		17.5	34	1	80	2895			
		14	38	0.8	100	3118			
		PC063+NMRV040	19.1	41.5	1.2	73.3		2833	42
			15.9	45	1.2	88		3011	
			11.9	56	0.9	117.3		3314	
			9.5	64.6	0.7	146.7		3490	
	7.9		73	0.6	176	3490			
	NMRV050	23.3	29	2.3	60	3610	27		
		17.5	35	1.9	80	3973			
		14	40	1.4	100	4280			
	PC063+NMRV050	9.5	66	1.3	146.7	4840	42		
		7.9	74	1.1	176	4840			
		6.0	85	0.8	234.6	4840			
		4.8	96	0.7	293.3	4840			
	NMRV030/050	4.7	118.8	1.2	300	4840	49		
		3.5	142	0.9	400	4840			
		2.8	164	0.7	500	4840			
	PC063+NMRV063	6.0	89	1.5	234.6	6270	42		
		4.8	101	1.2	293.3	6270			
	NMRV030/063	2.8	171.2	1.3	500	6270	49		
		2.3	208	1.1	600	6270			
		1.9	241	0.9	750	6270			
NMRV040/075	1.6	324.9	1.2	900	7370	49			
	1.2	399	0.9	1200	7380				
NMRV040/090	0.8	546.6	0.9	1800	8180	50			
	0.58	695	0.9	2400	8180				
NMRV050/110	0.5	883.8	1.2	3000	10320	50			
	0.35	784	1	4000	10320				
	0.28	928	0.8	5000	10320				
<b>0.18</b>	280	5.3	3.4	5	NMRV030	597	25		
	186.7	7.8	2.3	7.5		683			
	140	10	1.8	10		752			
	93.3	14	1.3	15		861			
	70	18	1	20		948			
	56	21	1	25		1021			
	46.7	24	0.8	30		1085			
	NMRV040	70	19.2	2		20		1824	26
		56	23	1.7		25		1964	
		46.7	26	1.7	30	2087			
		35	32	1.3	40	2298			



## Performance

P1 (kW)	n2 (1/min)	M2 (Nm)	f. s.	i	Type	Fr2 (N)	Page
<b>0.18</b>	28	38	1	50	NMRV040	2475	26
	23.3	43	0.8	60		2630	
	19.1	62	0.8	73.3	PC063+NMRV040	2833	42
	15.9	69	0.8	88		3011	
	11.9	84	0.6	117.3		3314	
	35	32.9	2.3	40		3153	
	28	39	1.9	50	NMRV050	3397	27
	23.3	43	1.6	60		3610	
	17.5	52	1.2	80		3973	
	14	60	0.9	100		4280	
	19.1	62	1.4	73.3	PC063+NMRV050	3889	42
	15.9	70	1.5	88		4132	
	11.9	86	1.1	117.3		4548	
	9.5	99	0.9	146.7		4840	
	7.9	112	0.7	176		4840	
	6.0	129	0.6	234.6		4840	
	9.5	101	1.7	146.7	PC063+NMRV063	6270	42
	7.9	116	1.4	176		6270	
	6.0	135	1	234.6		6270	
	4.8	152	0.8	293.3		6270	
3.5	221.5	1	400	NMRV030/063	6270	49	
2.8	257	0.8	500		6270		
2.3	362	1.1	600	NMRV040/075	7380	49	
1.9	435	0.9	750		7380		
1.6	487	0.8	900		7380		
1.2	629.2	1	1200	NMRV040/090	8180	50	
0.93	735	0.8	1500		8180		
0.8	860.6	1.5	1800	NMRV050/110	10320	50	
0.58	1113	1.1	2400		10320		
<b>0.22</b>	280	6.5	2.8	5	NMRV030	597	25
	186.7	10	1.9	7.5		683	
	140	12	1.5	10		752	
	93.3	17	1	15		861	
	70	22	0.8	20		948	
	93.3	18.5	2.2	15	NMRV040	1657	26
	70	23	1.7	20		1824	
	56	28	1.4	25		1964	
	46.7	32	1.4	30		2087	
	35	39	1.1	40		2298	
	28	47	0.8	50	2475		
	28	47.3	1.5	50	NMRV050	3397	27
	23.3	53	1.3	60		3610	
	17.5	64	1	80		3973	
	19.1	76	1.2	73.3	PC063+NMRV050	3889	42
	15.9	84	1.2	88		4132	
	11.9	104	0.9	117.3		4548	
	9.5	123	1.4	146.7		6270	
	7.9	141	1.1	176		6270	
	4.7	210.5	1.1	300	NMRV030/063	6270	49
3.5	271	0.8	400	6270			
<b>0.25</b>	280	7.6	4.5	5	NMRV040	1149	26
	186.7	11	3.6	7.5		1315	
	140	14	2.8	10		1447	
	93.3	21	1.9	15		1657	
	70	27	1.5	20		1824	
	56	32	1.2	25		1964	
	46.7	36	1.3	30		2087	
	35	44	0.9	40		2298	

## Performance

P1 (kW)	n2 (1/min)	M2 (Nm)	f. s.	i	Type	Fr2 (N)	Page
<b>0.25</b>	70	26.9	2.7	20	NMRV050	2503	27
	56	32	2.2	25		2696	
	46.7	37	2.3	30		2865	
	35	46	1.7	40		3153	
	28	54	1.4	50		3397	
	23.3	60	1.1	60		3610	
	17.5	72	0.9	80		3973	
	19.1	86	1	73.4	PC071+NMRV050	3889	43
	15.9	96	1.1	88.1		4132	
	11.9	119	0.8	117.5		4548	
	28	56.3	2.4	50	NMRV063	4440	28
	23.3	63	2	60		4719	
	17.5	78	1.6	80		5193	
	14	87	1.4	100		5595	
	19.1	89	1.8	73.4	PC071+NMRV063	5083	43
	15.9	98	2	88.1		5401	
	11.9	123	1.5	117.5		5945	
	9.5	140	1.2	146.9		6270	
	7.9	161	1	176.3		6270	
	6.0	185.6	0.7	235		6270	
	4.8	211	0.6	293.8		6270	
	7	159.5	1.4	400		NMRV030/063	
	5.6	185	1.2	500		6270	
	17.5	81.9	2.3	80	NMRV075	6130	29
	14	94	1.9	100		6603	
	9.5	148	1.7	146.9	PC071+NMRV075	7380	43
	7.9	170	1.4	176.3		7380	
6.0	195	1.1	235	7380			
4.8	225	0.9	293.8	7380			
3.5	336.3	1.1	400	NMRV040/075		7380	
2.8	384	0.8	500		7380		
2.3	511.8	1.2	600	NMRV040/090	8180	50	
1.9	598	0.9	750		8180		
1.6	667	0.8	900		8180		
1.2	943	1.3	1200	NMRV050/110	10320	50	
0.93	1064	1.2	1500		10320		
0.78	1195	1.1	1800		10320		
0.6	1624	1	2400	NMRV063/130	13500	50	
0.47	1935	0.8	3000		13500		
0.35	2046	0.6	4000		13500		
0.28	2430	0.5	5000		13500		
<b>0.37</b>	280	11.2	3	5	NMRV040	1149	26
	186.7	16	2.4	7.5		1315	
	140	21	1.9	10		1447	
	93.3	31	1.3	15		1657	
	70	39	1	20		1824	
	56	47	0.8	25		1964	
	46.7	53	0.8	30		2087	
	140	21.7	3.3	10	NMRV050	1987	27
	93.3	31	2.4	15		2274	
	70	40	1.8	20		2503	
	56	48	1.5	25		2696	
	46.7	55	1.5	30		2865	
	35	68	1.1	40		3153	
	28	80	0.9	50		3397	
	23.3	89	0.8	60		3610	
	35	70.7	2.1	40	NMRV063	4122	28
	28	83	1.6	50		4440	



## Performance

P1 (kW)	n2 (1/min)	M2 (Nm)	f. s.	i	Type	Fr2 (N)	Page
<b>0.37</b>	23.3	94	1.4	60	NMRV063	4719	28
	17.5	115	1.1	80		5193	
	14	129	0.9	100		5595	
	19.1	131	1.2	73.4	PC071+NMRV063	5083	43
	15.9	145	1.4	88.1		5401	
	11.9	182	1	117.5		5945	
	9.5	208	0.8	146.9		6270	
	23.3	98.4	2	60	NMRV075	5569	29
	17.5	121	1.6	80		6130	
	14	139	1.3	100		6603	
	19.1	135	1.8	73.4	PC071+NMRV075	6000	43
	15.9	151	1.9	88.1		6375	
	11.9	188	1.5	117.5		7017	
	9.5	218	1.1	146.9		7380	
	7.9	251	0.9	176.3		7380	
	4.7	405.5	1	300	NMRV040/075	7380	49
	3.5	498	0.7	400		7380	
	7.9	265	1.5	176.3	PC071+NMRV090	8180	43
	6.0	312	1.1	235		8180	
	4.8	363	0.9	293.8		8180	
	4.7	401.8	1.5	300	NMRV040/090	8180	50
	3.5	523	1.2	400		8180	
	2.8	611	0.9	500		8180	
	2.3	757	0.8	600		8180	
1.9	949.5	1.3	750	NMRV050/110	10320	50	
1.6	1079	1.2	900		10320		
1.2	1396	0.8	1200		10320		
0.9	1674.1	1.1	1500	NMRV063/130	13500	50	
0.78	1887	0.9	1800		13500		
<b>0.55</b>	280	16.7	2	5	NMRV040	1149	26
	186.7	24	1.6	7.5		1315	
	140	32	1.3	10		1447	
	93.3	46	0.9	15		1657	
	280	16.7	3.7	5	NMRV050	1577	27
	186.7	25	2.9	7.5		1805	
	140	32	2.2	10		1987	
	93.3	46	1.6	15		2274	
	70	59	1.2	20		2503	
	56	71	1	25		2696	
	46.7	81	1	30		2865	
	70	60.8	2.2	20	NMRV063	3272	29
	56	73	1.8	25		3524	
	46.7	83	1.9	30		3745	
	35	105	1.4	40		4122	
	28	124	1.1	50		4440	
	23.3	140	0.9	60	4719		
	19.1	196	0.8	73.4	PC071+NMRV063	5083	43
	15.9	215	0.9	88.1		5401	
	35	108.1	2	40	NMRV075	4865	29
	28	129	1.6	50		5241	
	23.3	146	1.4	60		5569	
	17.5	180	1.1	80		6130	
	14	206	0.9	100		6603	
	19.1	201	1.2	73.4		PC071+NMRV075	
	15.9	229	1.3	88.1	6375		
	11.9	279	1	176.3	7017		
	18.7	205.4	1.2	75	PC080+NMRV075	6000	44
	15.6	230	1.3	90		6375	



## Performance

P1 (kW)	n2 (1/min)	M2 (Nm)	f. s.	i	Type	Fr2 (N)	Page
<b>0.55</b>	11.7	284	1	120	PC080+NMRV075	7017	44
	9.3	332	0.8	150		7380	
	17.5	189.1	1.5	80	NMRV090	6783	30
	14	221	1.2	100		7306	
	15.6	239.7	2.3	90	PC080+NMRV090	7054	44
	11.7	297	1.6	120		7764	
	9.3	355	1.3	150		8180	
	7.8	398	1	180		8180	
	5.8	477	0.8	240		8180	
	17.5	201.1	2.6	80	NMRV110	8571	31
	14	236	2	100		9232	
	7.8	425.5	1.8	180	PC080+NMRV110	10320	44
	5.8	513	1.3	240		10320	
	4.7	597	1	300		10320	
	4.7	638.9	2	300		10320	
	3.5	826	1.4	400		10320	
	2.8	984	1.1	500	NMRV050/110	10320	50
	2.3	1181	1	600		10320	
	1.9	1411	0.9	750		10320	
	2.8	995.5	1.6	500	NMRV063/130	13500	50
1.9	1471	1.2	750	13500			
1.2	2132	0.8	1200	13500			
<b>0.75</b>	280	22.8	2.7	5	NMRV050	1577	27
	186.7	34	2.1	7.5		1805	
	140	44	1.6	10		1987	
	93.3	63	1.2	15		2274	
	70	81	0.9	20		2503	
	93.3	63.7	2.2	15	NMRV063	2973	28
	70	83	1.6	20		3272	
	56	100	1.3	25		3524	
	46.7	114	1.4	30		3745	
	35	143	1	40		4122	
	56	102.3	2	25	NMRV075	4160	29
	46.7	117	2	30		4421	
	35	147	1.5	40		4865	
	28	177	1.2	50		5241	
	23.3	200	1	60		5569	
	18.7	280.1	0.9	75	PC080+NMRV075	6000	44
	15.6	313	1	90		6375	
	28	184.2	1.8	50	NMRV090	5799	30
	23.3	212	1.5	60		6163	
	17.5	258	1.1	80		6783	
	14	302	0.9	100		7306	
	15.6	326.9	1.7	90		7054	
	11.7	405	1.2	120	PC080+NMRV090	7764	44
	9.3	483	0.9	150		8180	
	7.8	543	0.7	180		8180	
	17.5	274.2	1.9	80		8571	
	14	322	1.5	100	NMRV110	9232	31
	11.7	429.8	2.2	120	PC080+NMRV110	9811	44
	9.3	506	1.7	150		10320	
	7.8	580	1.3	180		10320	
5.8	700	0.9	240	10320			
4.7	871.2	1.5	300	10320			
3.5	1126	1.1	400	NMRV050/110	10320	50	
5.8	712.2	1.4	240	PC080+NMRV130	13500	44	
4.7	813	1.1	300		13500		
2.8	1357.5	1.1	500		NMRV063/130		13500



## Performance

P1 (kW)	n2 (1/min)	M2 (Nm)	f. s.	i	Type	Fr2 (N)	Page
<b>0.75</b>	2.3	1631	1	600		13500	
	1.9	2005	0.9	750	NMRV063/130	13500	50
	1.6	2283	0.8	900		13500	
<b>1.1</b>	186.7	49.5	2.6	7.5		2359	
	140	65	2	10		2597	
	93.3	93	1.5	15	NMRV063	2973	28
	70	122	1.1	20		3272	
	56	146	0.9	25		3524	
	46.7	167	1	30		3745	
	93.3	95.7	2.1	15		3509	
	70	123	1.7	20		3862	
	56	150	1.3	25	NMRV075	4160	29
	46.7	171	1.3	30		4421	
	35	216	1	40		4865	
	35	225.1	1.6	40		5383	
	28	270	1.3	50	NMRV090	5799	30
	23.3	311	1	60		6163	
	28	281.4	2.3	50		7328	
	23.3	324	1.9	60	NMRV110	7787	31
	17.5	402	1.3	80		8571	
	14	473	1	100		9232	
19	398	2.5	73.6		8298		
14.3	515	1.8	98.2		9133		
11.4	609	1.5	122.7	PC090+NMRV110	9838	44	
9.5	693	1.1	147.3		10320		
7.1	840	0.8	196.4		10320		
17.5	408.2	2.1	80		11210		
14	480	1.5	100	NMRV130	12076	32	
19	404	3.5	73.6		10853		
14.3	515	2.6	98.2		11945		
11.4	619	2	122.7	PC090+NMRV130	12868	44	
9.5	693	1.6	147.3		13500		
7.1	855	1.2	196.4		13500		
5.7	978	0.9	245.5		13500		
4.7	1312.1	1.3	300		13500		
3.5	1671	1	400	NMRV063/130	13500	50	
2.8	1991	0.8	500		13500		
<b>1.5</b>	186.7	67.5	1.9	7.5		2359	
	140	89	1.5	10		2597	
	93.3	127	1.1	15	NMRV063	2973	28
	70	166	0.8	20		3272	
	140	90	2.2	10		3065	
	93.3	130	1.5	15		3509	
	70	168	1.3	20	NMRV075	3862	29
	56	205	1	25		4160	
	46.7	233	1	30		4421	
	70	171.9	2.1	20		4273	
	56	210	1.6	25		4603	
	46.7	239	1.7	30		4891	
	35	307	1.2	40	NMRV090	5383	30
	28	368	0.9	50		5799	
	23.3	424	0.8	60		6163	
	35	319.2	2.2	40		6803	
	28	384	1.7	50		7328	
	23.3	442	1.4	60	NMRV110	7787	31
	17.5	548	0.9	80		8571	
	19	543	1.9	73.6		8298	
	14.3	703	1.3	98.2	PC090+NMRV110	9133	44



## Performance

P1 (kW)	n2 (1/min)	M2 (Nm)	f. s.	i	Type	Fr2 (N)	Page
<b>1.5</b>	11.4	831	1.1	122.7	PC090+NMRV110	9838	44
	9.5	946	0.8	147.3		10320	
	17.5	556.6	1.5	80	NMRV130	11210	32
	14	655	1.1	100		12076	
	19	550	2.6	73.6	PC090+NMRV130	10853	44
	14.3	703	1.9	98.2		11945	
	11.4	845	1.5	122.7		12868	
	9.5	998	1.1	147.3		13500	
	7.1	1165	0.8	196.4		13500	
	4.7	1789.3	1	300		NMRV063/130	
3.5	2279	0.7	400	13500			
<b>2.2</b>	186.7	100.2	1.8	7.5	NMRV075	2785	29
	140	132	1.5	10		3065	
	93.3	191	1	15		3509	
	186.7	101.3	2.9	7.5	NMRV090	3081	30
	140	134	2.3	10		3391	
	93.3	194	1.9	15		3882	
	70	252	1.4	20		4273	
	56	308	1.1	25		4603	
	46.7	351	1.2	30		4891	
	70	255.1	2.5	20	NMRV110	5399	31
	56	315	2.2	25		5816	
	46.7	356	2	30		6181	
	35	468	1.5	40		6803	
	28	563	1.2	50		7328	
	23.3	648	1	60		7787	
	35	468.2	2.2	40	NMRV130	8897	32
	28	563	1.7	50		9584	
	23.3	648	1.4	60		10185	
17.5	816	1	80	11210			
<b>3</b>	186.7	136.6	1.4	7.5	NMRV075	2785	29
	140	180	1.1	10		3065	
	93.3	261	0.8	15		3509	
	186.7	138.1	2.1	7.5	NMRV090	3081	30
	140	182	1.7	10		3391	
	93.3	264	1.4	15		3882	
	70	344	1	20		4273	
	56	420	0.8	25		4603	
	46.7	479	0.9	30		4891	
	93.3	264	2.5	15	NMRV110	4905	31
	70	348	1.9	20		5399	
	56	430	1.6	25		5816	
	46.7	485	1.5	30		6181	
	35	638	1.1	40		6803	
	28	767	0.9	50		7328	
	56	429.8	2.2	25	NMRV130	7607	32
	46.7	491	2.1	30		8084	
	35	638	1.6	40		8897	
28	767	1.3	50	9584			
23.3	884	1	60	10185			
17.5	1113	0.8	80	11210			
<b>4</b>	186.7	184.2	1.6	7.5	NMRV090	3081	30
	140	243	1.3	10		3391	
	93.3	352	1	15		3882	
	70	458	0.8	20		4273	
	140	242.8	2.5	10	NMRV110	4285	31
	93.3	352	1.9	15		4905	
	70	464	1.4	20		5399	



## Performance

P1 (kW)	n2 (1/min)	M2 (Nm)	f. s.	i	Type	Fr2 (N)	Page	
<b>4</b>	56	573	1.2	25	NMRV110	5816	31	
	46.7	647	1.1	30		6181		
	56	573	1.6	25	NMRV130	7607	32	
	46.7	655	1.6	30		8084		
	35	851	1.2	40		8897		
	28	1023	1	50		9584		
23.3	1179	0.8	60	10185				
<b>4.8</b>	186.7	221	1.3	7.5	NMRV090	3081	30	
	140	291	1.1	10		3391		
	93.3	422	0.9	15		3882		
	186.7	221	2.5	7.5	NMRV110	3893	31	
	140	291	2.1	10		4285		
	93.3	422	1.6	15		4905		
	70	557	1.2	20		5399		
	56	688	1	25		5816		
	56	687.6	1.4	25		7607		
	46.7	786	1.3	30	8084	32		
	35	1022	1	40	8897			
	28	1228	0.8	50	9584			
<b>5.5</b>	186.7	253.2	2.2	7.5	NMRV110	3893	31	
	140	334	1.8	10		4285		
	93.3	484	1.4	15		4905		
	70	638	1	20		5399		
	140	333.9	2.5	10	NMRV130	5605	32	
	93.3	490	1.9	15		6416		
	70	645	1.4	20		7062		
	56	788	1.2	25		7607		
	46.7	900	1.2	30		8084		
	35	1171	0.9	40		8897		
	<b>7.5</b>	186.7	345.3	1.6	7.5	NMRV110	3893	31
		140	455	1.3	10		4285	
93.3		660	1	15	4905			
186.7		349.2	2.1	7.5	NMRV130	5092	32	
140		455	1.8	10		5605		
93.3		668	1.4	15		6416		
70		880	1	20		7062		
56		1074	0.9	25		7607		
46.7		1228	0.8	30		8084		
35		1596	0.7	40	8897			
<b>9.2</b>		186.7	423.6	1.3	7.5	NMRV110	3893	31
		186.7	428.3	1.8	7.5	NMRV130	5092	32
	140	559	1.5	10	5605			
	93.3	819	1.1	15	6416			
	70	1079	0.8	20	7062			
	56	1318	0.7	25	7607			





## NRV Performance

(n1=1400)

M2 (Nm)	i	P1 (kW)	n2 (1/min)	Type	Fr2 (N)	Fr1 (N)	Page
18	5	0.6	280	NRV030	597	150	25
18	7.5	0.4	186.7		683	150	
18	10	0.3	140		752	169	
18	15	0.2	93.3		861	169	
18	20	0.2	70		948	190	
21	25	0.2	56		1021	210	
20	30	0.2	46.7		1085	210	
18	40	0.1	35		1194	210	
17	50	0.1	28		1286	210	
16	60	0.1	23.3		1367	210	
13	80	0.1	17.5		1504	210	
34	5	1.1	280	NRV040	1149	250	26
40	7.5	0.9	186.7		1315	294	
40	10	0.7	140		1447	331	
40	15	0.5	93.3		1657	331	
39	20	0.4	70		1824	350	
38	25	0.3	56		1964	350	
45	30	0.3	46.7		2087	350	
41	40	0.2	35		2298	350	
39	50	0.2	28		2475	350	
36	60	0.2	23.3		2630	350	
33	80	0.1	17.5		2895	350	
29	100	0.1	14	3118	350		
62	5	2	280	NRV050	1577	350	27
71	7.5	1.6	186.7		1805	401	
72	10	1.2	140		1987	490	
74	15	0.9	93.3		2274	490	
73	20	0.7	70		2503	490	
70	25	0.5	56		2696	490	
84	30	0.6	46.7		2865	490	
76	40	0.4	35		3153	490	
73	50	0.3	28		3397	490	
68	60	0.3	23.3		3610	490	
65	80	0.2	17.5		3973	490	
55	100	0.2	14	4280	490		
128	7.5	2.8	186.7	NRV063	2359	500	28
130	10	2.2	140		2597	571	
140	15	1.6	93.3		2973	615	
135	20	1.2	70		3272	667	
130	25	1	56		3524	700	
160	30	1.1	46.7		3745	700	
145	40	0.8	35		4122	700	
135	50	0.6	28		4440	700	
130	60	0.5	23.3		4719	700	
122	80	0.4	17.5		5193	700	
118	100	0.3	14		5595	700	
185	7.5	4.1	186.7	NRV075	2785	700	29
195	10	3.2	140		3065	830	
200	15	2.3	93.3		3509	851	
210	20	1.9	70		3862	980	
200	25	1.5	56		4160	980	
230	30	1.5	46.7		4421	980	
220	40	1.1	35		4865	980	
210	50	0.9	28		5241	980	
200	60	0.8	23.3		5569	980	
190	80	0.6	17.5		6130	980	
180	100	0.5	14		6603	980	



## NRV Performance

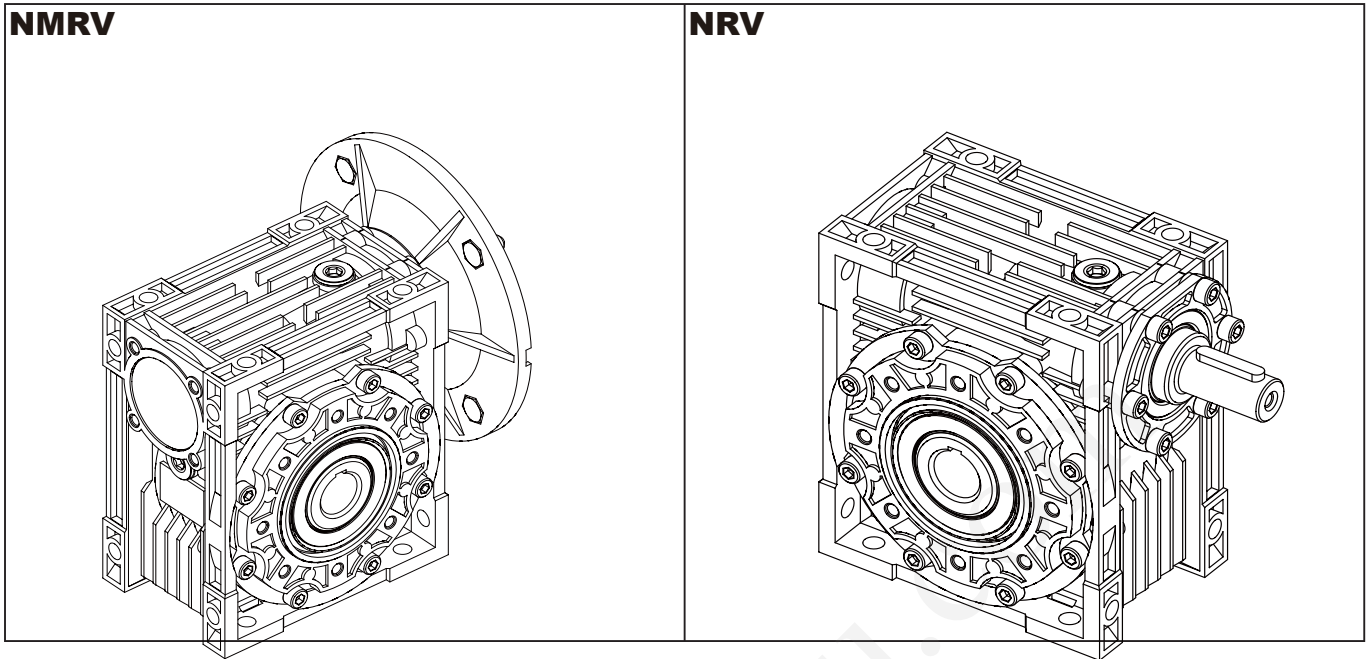
(n1=1400)

M2 (Nm)	i	P1 (kW)	n2 (1/min)	Type	Fr2 (N)	Fr1 (N)	Page
290	7.5	6.3	186.7	NRV090	3081	900	30
310	10	5.1	140		3391	1082	
360	15	4.1	93.3		3882	1257	
355	20	3.1	70		4273	1270	
340	25	2.4	56		4603	1270	
410	30	2.6	46.7		4891	1270	
360	40	1.8	35		5383	1270	
340	50	1.4	28		5799	1270	
320	60	1.1	23.3		6163	1270	
285	80	0.8	17.5		6783	1270	
270	100	0.7	14	7306	1270		
552	7.5	12	186.7	NRV110	3893	1200	31
598	10	9.8	140		4285	1463	
656	15	7.5	93.3		4905	1604	
644	20	5.6	70		5399	1700	
679	25	4.7	56		5816	1700	
725	30	4.5	46.7		6181	1700	
702	40	3.3	35		6803	1700	
660	50	2.6	28		7328	1700	
616	60	2.1	23.3		7787	1700	
515	80	1.4	17.5		8571	1700	
483	100	1.1	14	9232	1700		
750	7.5	16.1	186.7	NRV130	5092	1500	32
820	10	13.5	140		5605	1845	
920	15	10.3	93.3		6416	2070	
910	20	7.8	70		7062	2100	
930	25	6.5	56		7607	2100	
1040	30	6.4	46.7		8084	2100	
1050	40	4.9	35		8897	2100	
980	50	3.8	28		9584	2100	
900	60	3.1	23.3		10185	2100	
840	80	2.3	17.5		11210	2100	
740	100	1.7	14	12076	2100		





# NMRV / NRV

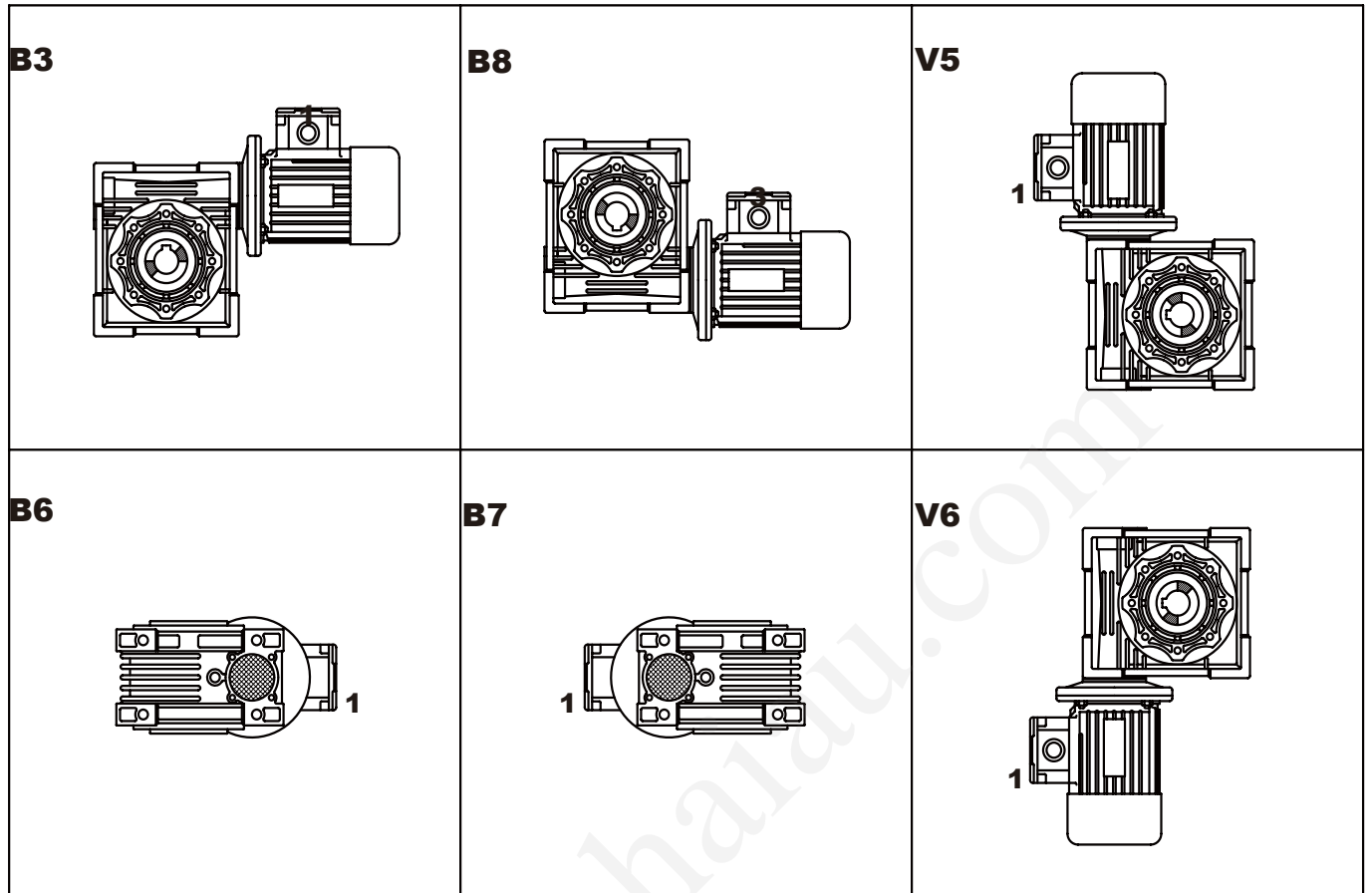


## NMRV model & marker

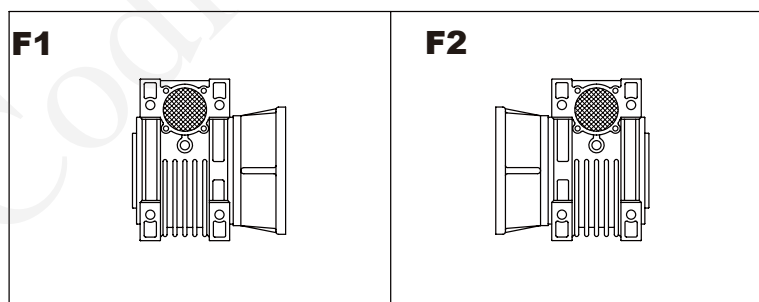
<b>NMRV-063-30-VS-F1(FA)-AS-80B5-0.75kW-B3</b>			
<b>NMRV</b>	Worm geared motor		
<b>NRV</b>	Worm reduction unit		
<b>063</b>	Center distance		
<b>30</b>	Reduction ratio		
<b>VS</b>	Double input shaft	<b>F1(FA)</b>	Output flange
<b>AS</b>	Single output shaft	<b>AB</b>	Double output shaft
<b>PAM</b>	Fitted for motor coupling	<b>80B5</b>	Motor size & mounting position
<b>0.75kW</b>	Power of electric motor	<b>B3</b>	Mounting position



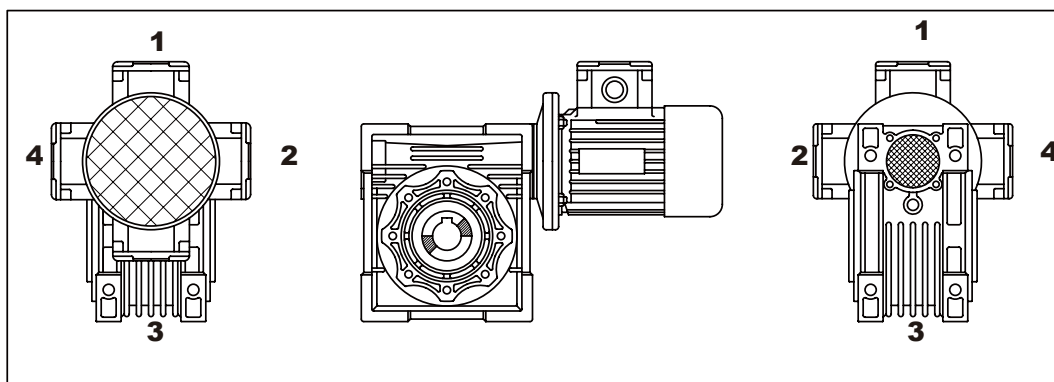
## Mounting Positions



## Flange F-FL



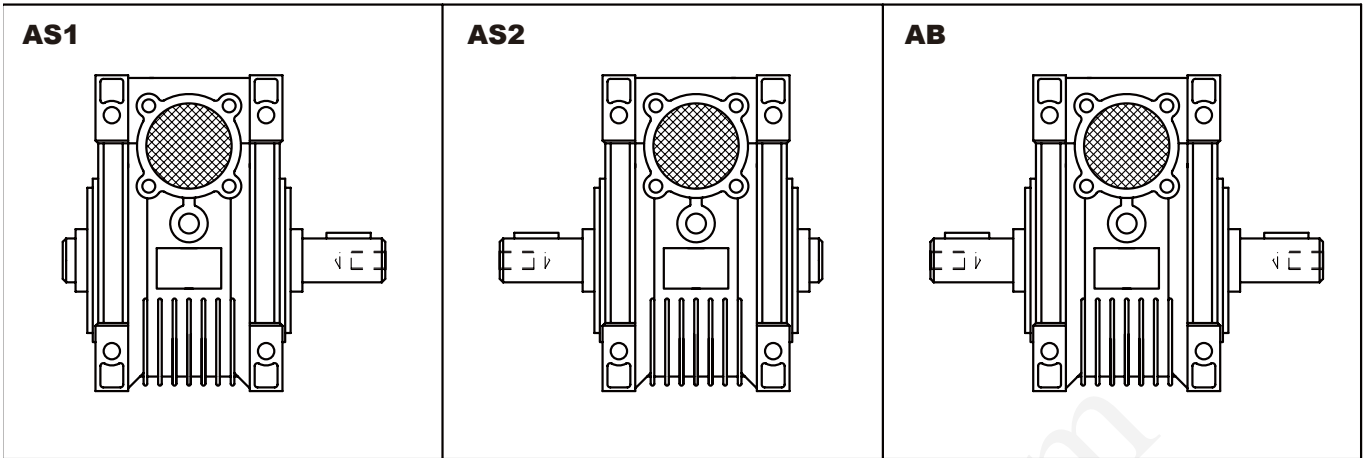
## Position of terminal box



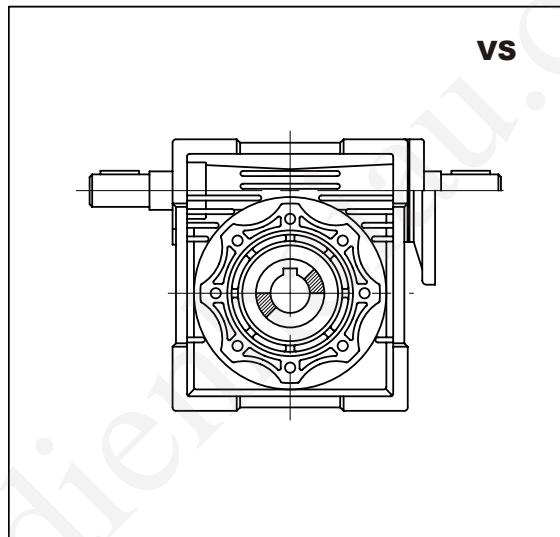




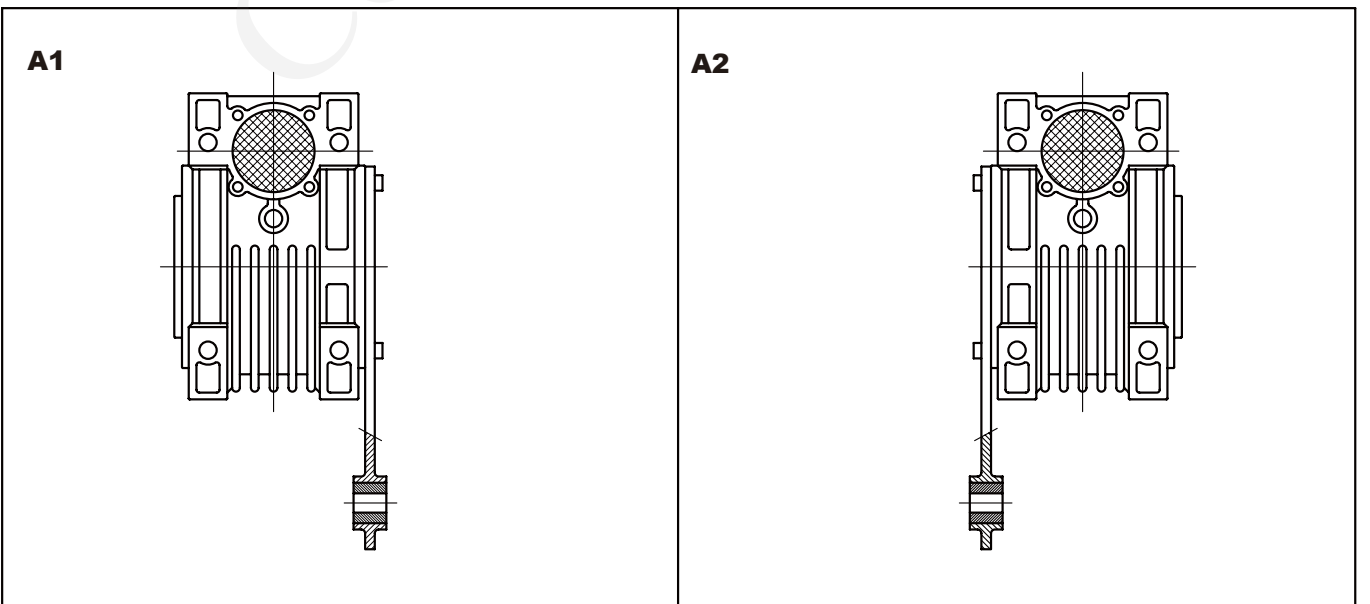
**Position of Output Shaft**



Double extension worm shaft



Positon of torque arm



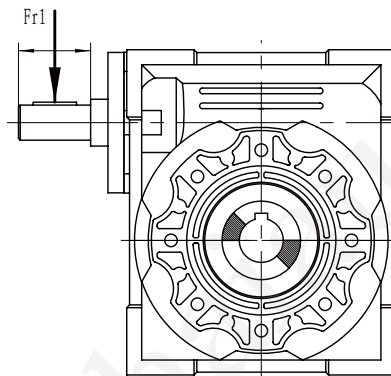


## Choice of Lubrication

Q. ty of oil in litres									
NMRV	025	030	040	050	063	075	090	110	130
<b>B3</b>								3	4.5
<b>B8</b>	0.02	0.04	0.08	0.15	0.3	0.55	1	2.2	3.3
<b>B6-B7</b>								2.5	3.5
<b>V5</b>								3	4.5

Oil Type Used	IP	TELIUM VSF	MELLANA OIL 220
	SHELL	TIVELA OIL SC320	OMALA OIL 220
	AGIP	BLASIA S320	BLASIA 220
	MOBIL	GLYGOYLE 30	MOBILGEAR 220
	CASTROL	ALPHASYN PG 320	ALPHA MAX 220

## Applied radial load of the input shaft



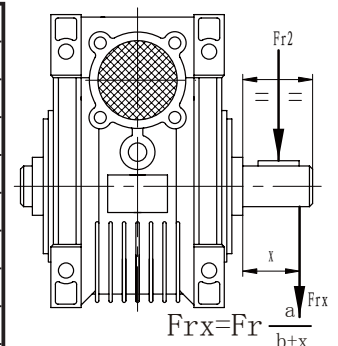
(N)

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

## Applied radial load of the output shaft

(N)

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

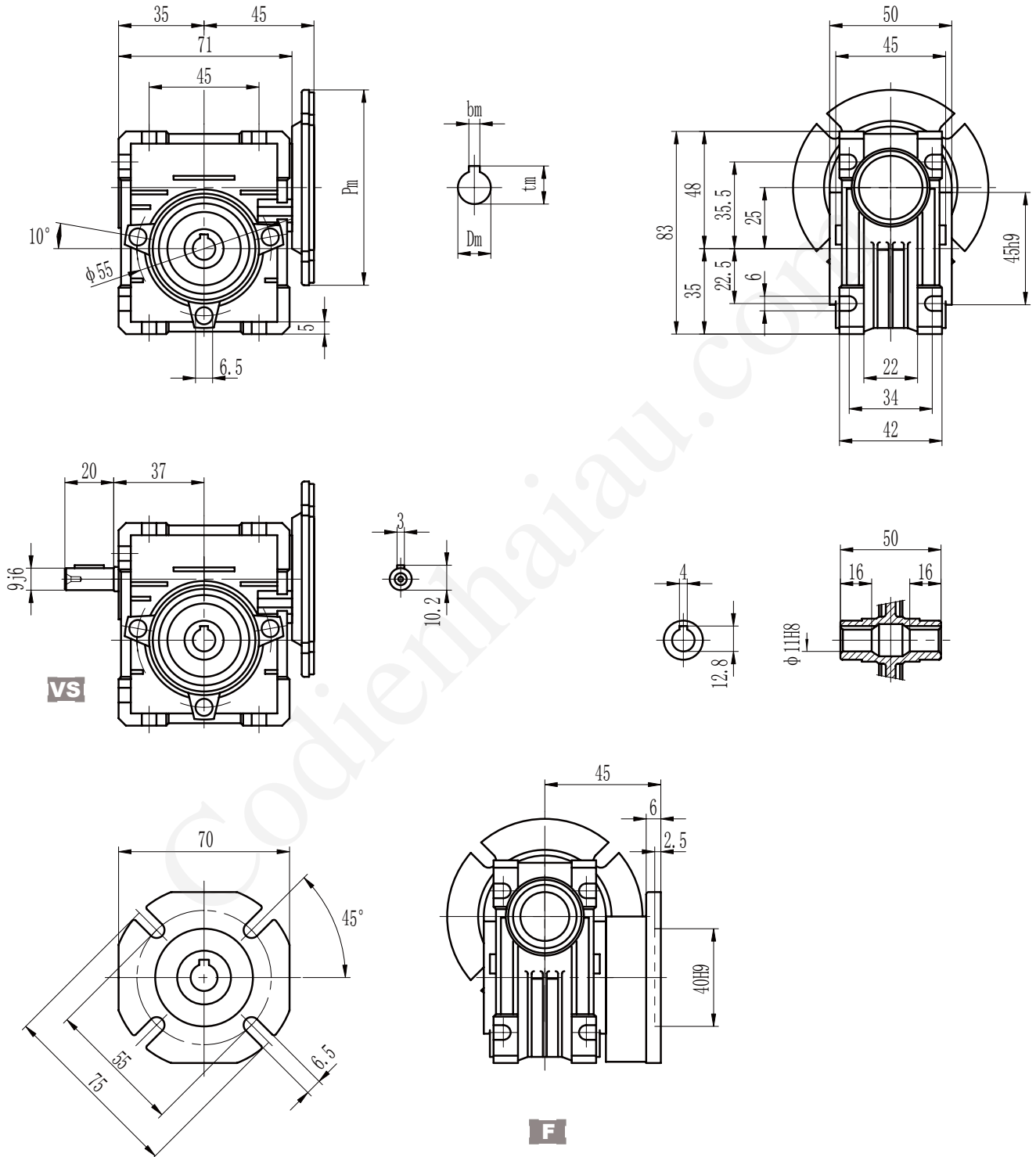


- The data in above table are of the permitted force on the midpoint of the output shaft.
- When the reducer is with double output shafts, the resultant radial power at the edge of shaft should not exceed the values specified as in the above table.
- The maximum allowed axial force is 1/5 of radial force, when the radial force and axial force are applied together.



## Dimensions

### NMRV025



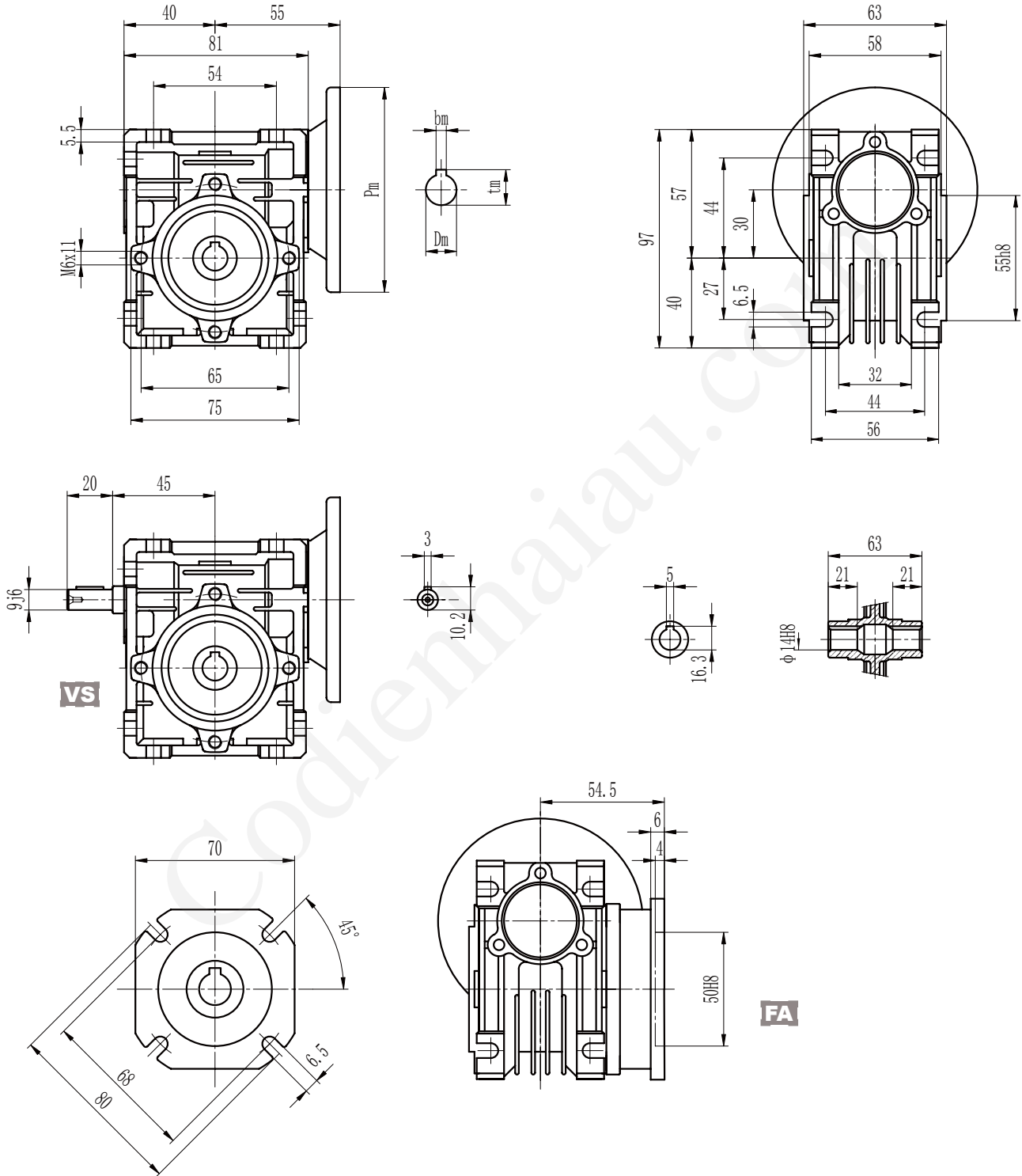
**Weight without motor: 0.7kg**

For the dimensions concerning the motor mounting data (Pm, Dm, bm, tm) please refer to the table shown at page 53



## Dimensions

### NMRV030

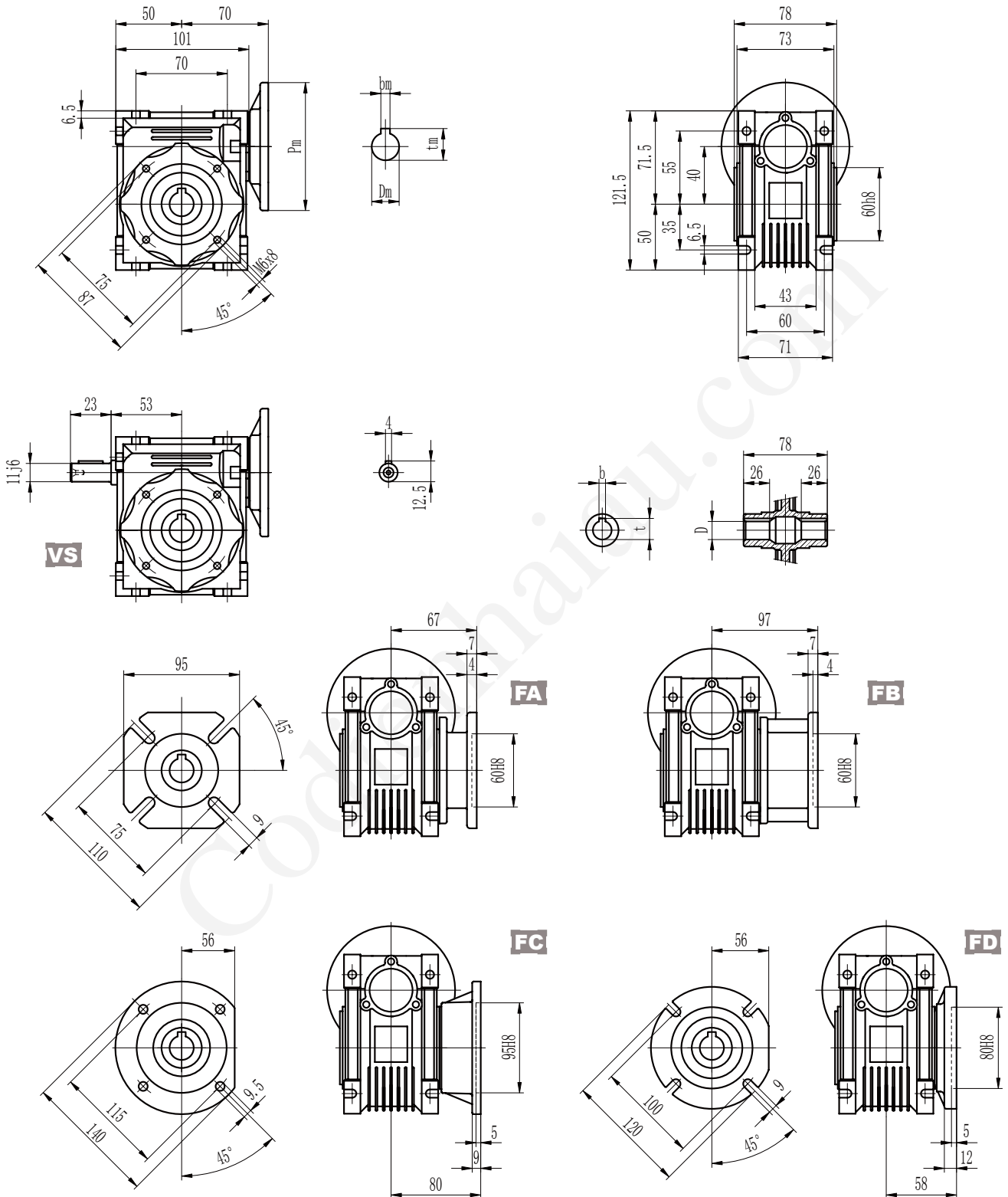


**Weight without motor: 1.2kg**

For the dimensions concerning the motor mounting data (Pm, Dm, bm, tm) please refer to the table shown at page 53



**Dimensions**  
**NMRV040**



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

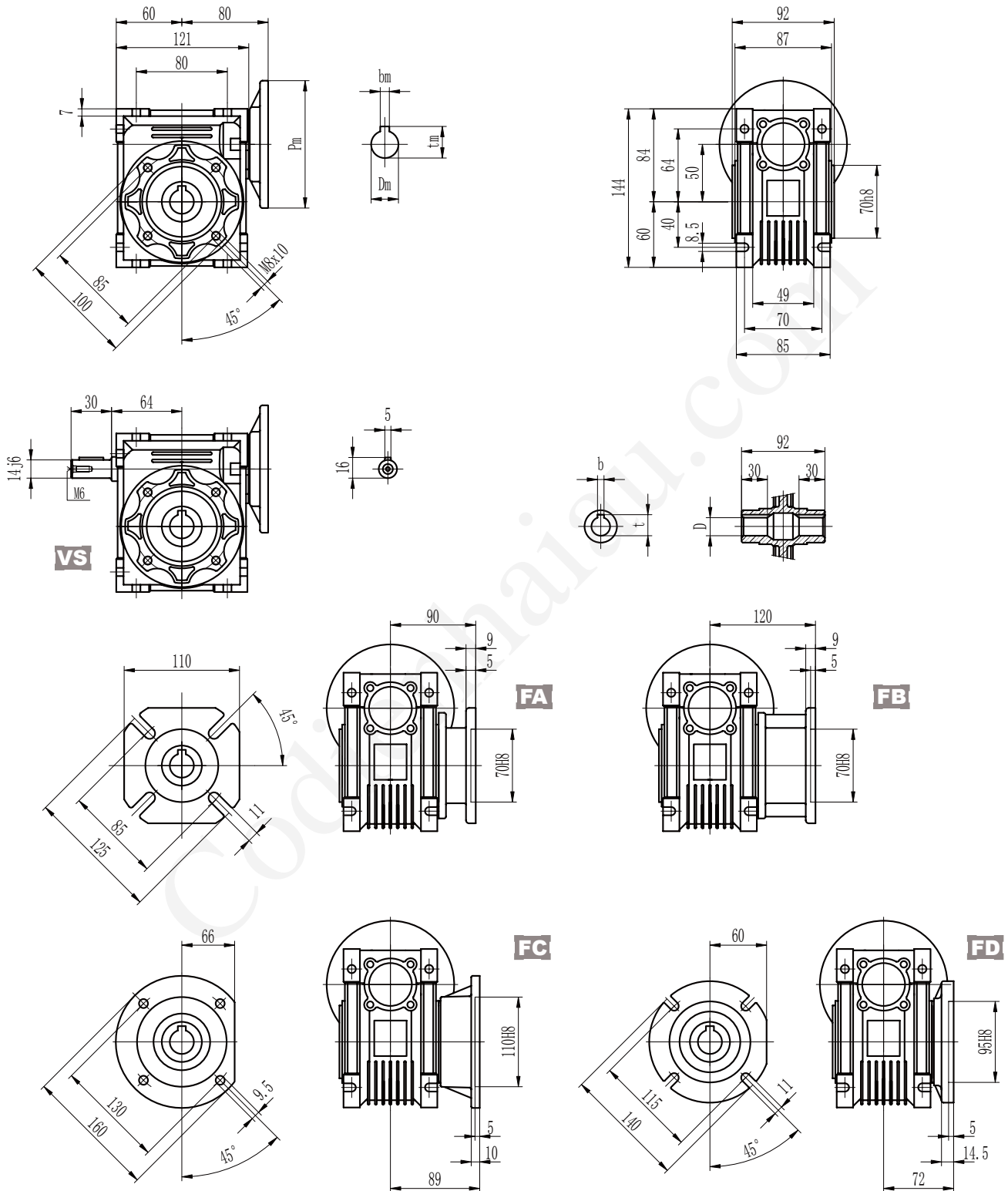
(D19) Only on request

**Weight without motor: 2.3kg**

For the dimensions concerning the motor mounting data (Pm,Dm,bm,tm) please refer to the table shown at page 53



**Dimensions**  
**NMRV050**



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

(D 24) Only on request

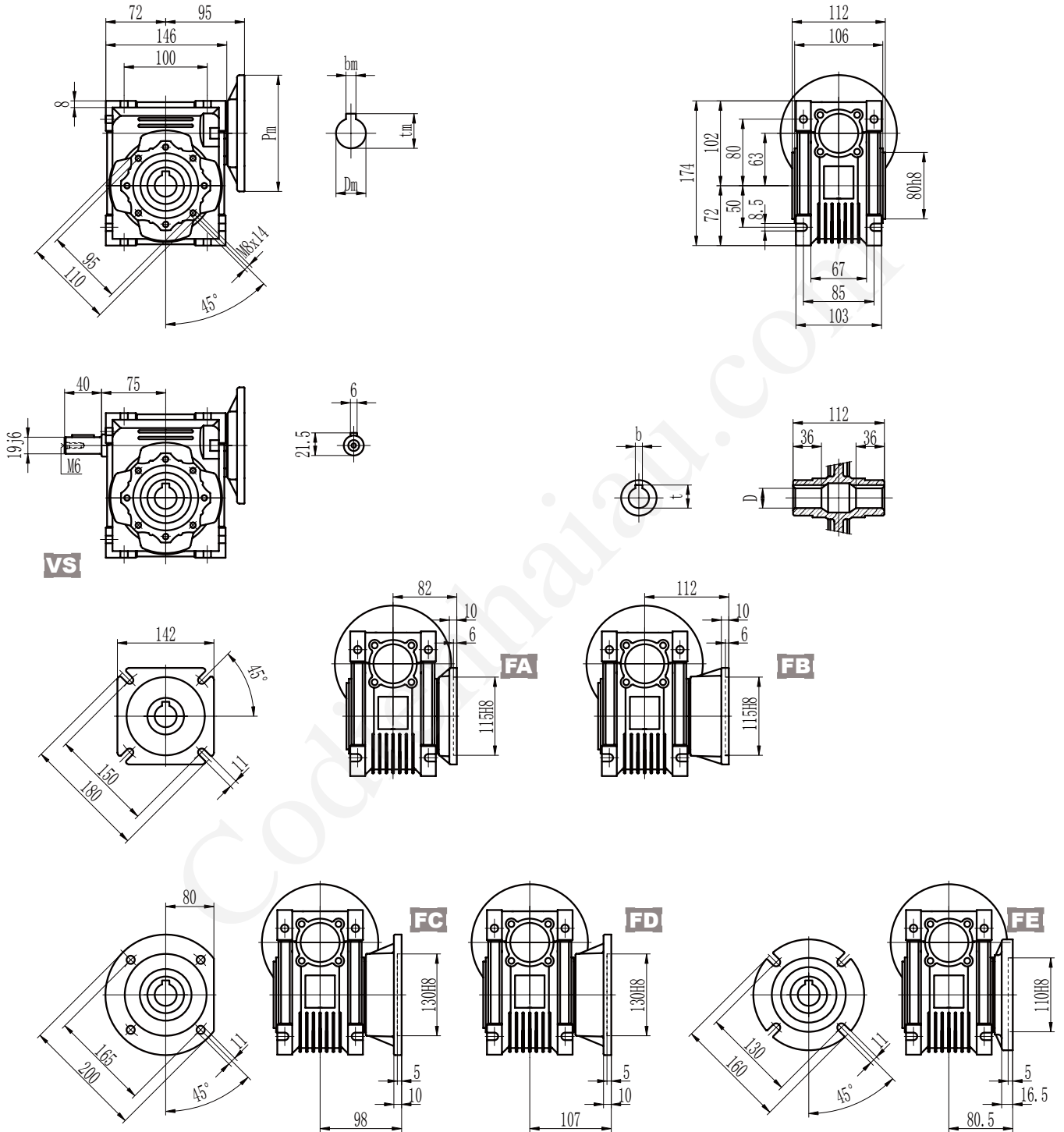
**Weight without motor: 3.5kg**

For the dimensions concerning the motor mounting data (Pm, Dm, bm, tm) please refer to the table shown at page 53





**Dimensions**  
**NMRV063**



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

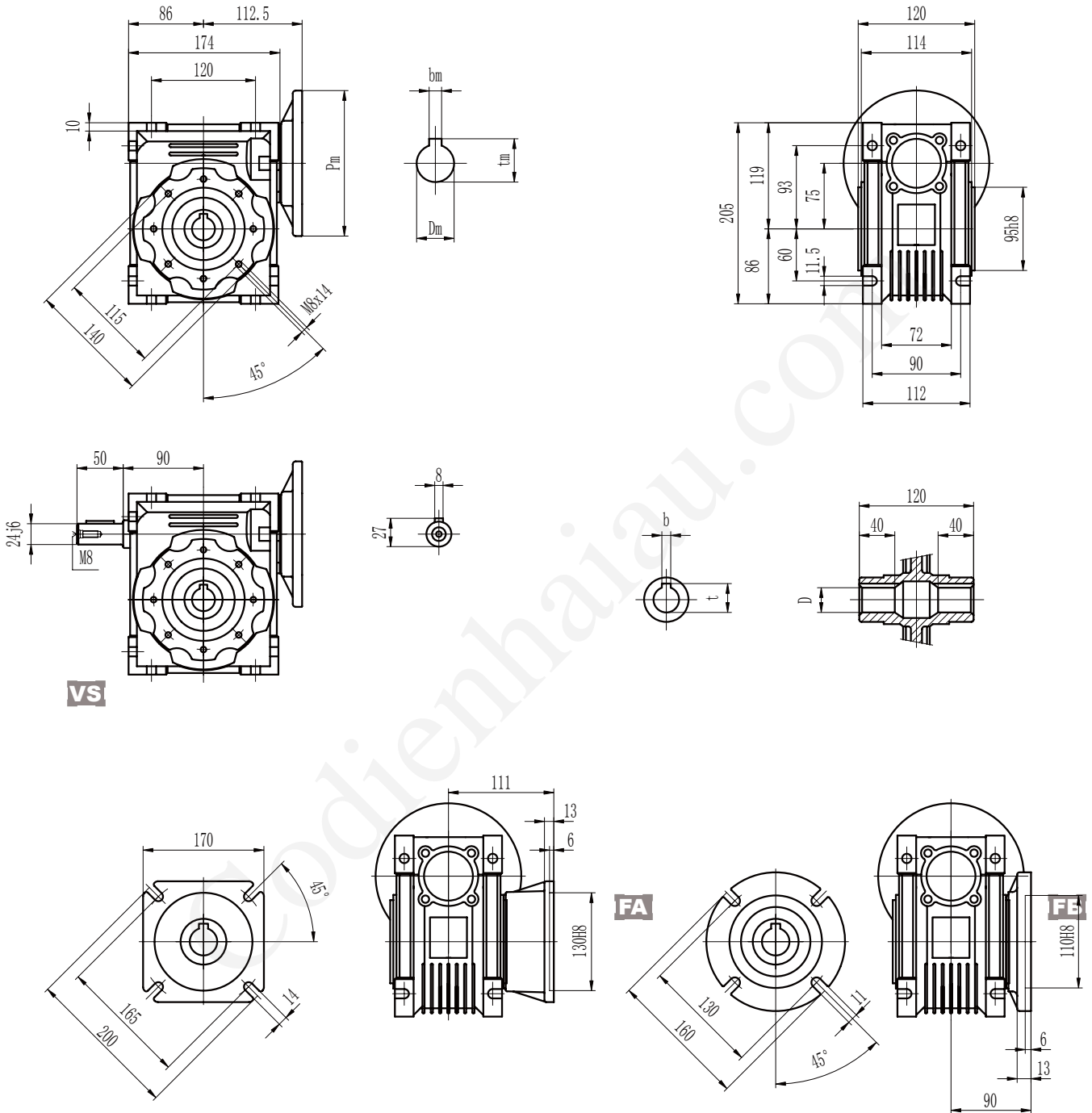
(D 28) Only on request

**Weight without motor: 6.2kg**

For the dimensions concerning the motor connection data (Pm, Dm, bm, tm) please refer to the table shown at page 53



**Dimensions**  
**NMRV075**



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

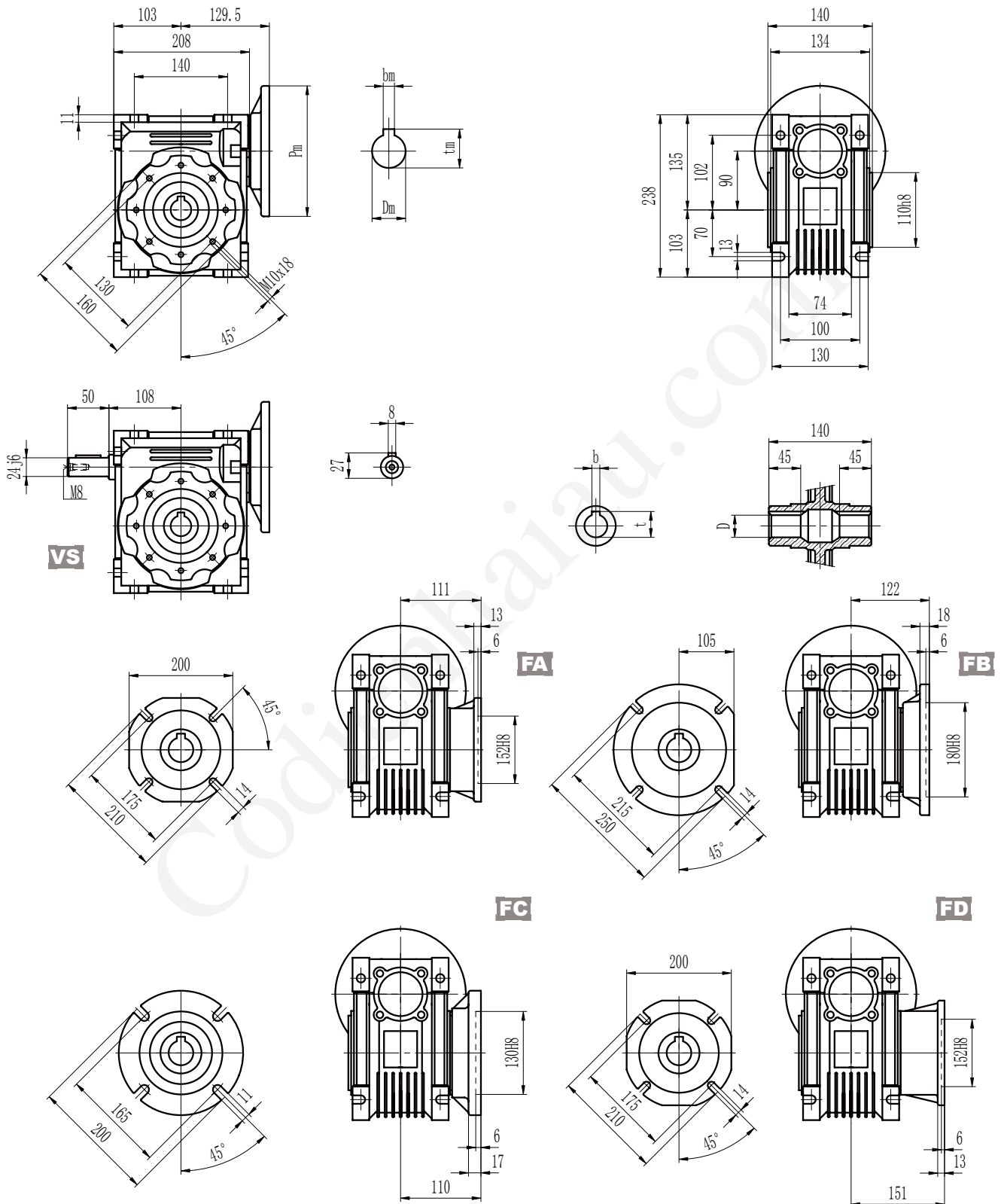
(D 35) Only on request

**Weight without motor: 9kg**

For the dimensions concerning the motor connection data (Pm, Dm, bm, tm) please refer to the table shown at page 53



**Dimensions**  
**NMRV090**



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

(D 38) Only on request

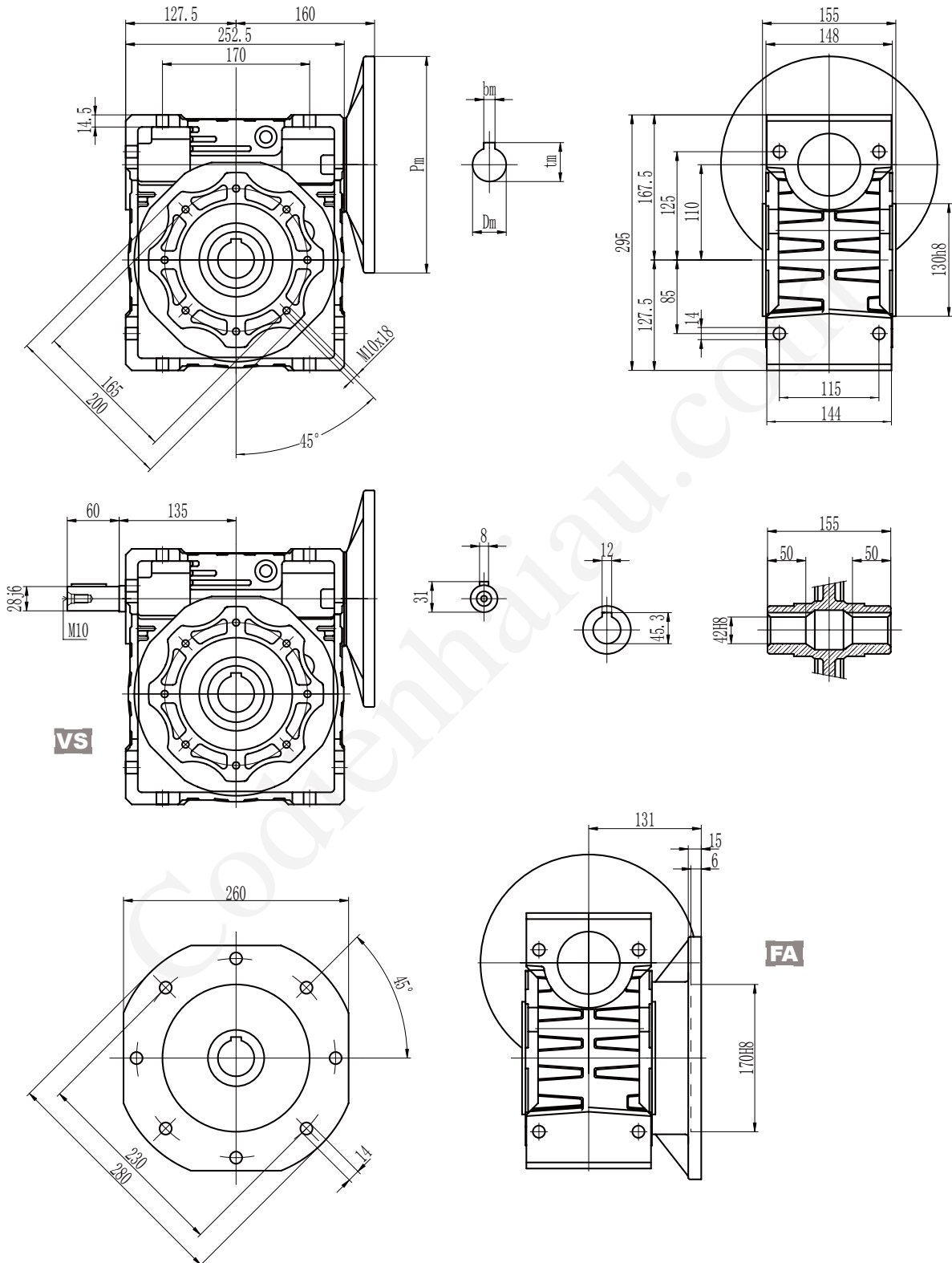
**Weight without motor: 13kg**

For the dimensions concerning the motor connection data (Pm, Dm, bm, tm) please refer to the table shown at page 53



## Dimensions

### NMRV110

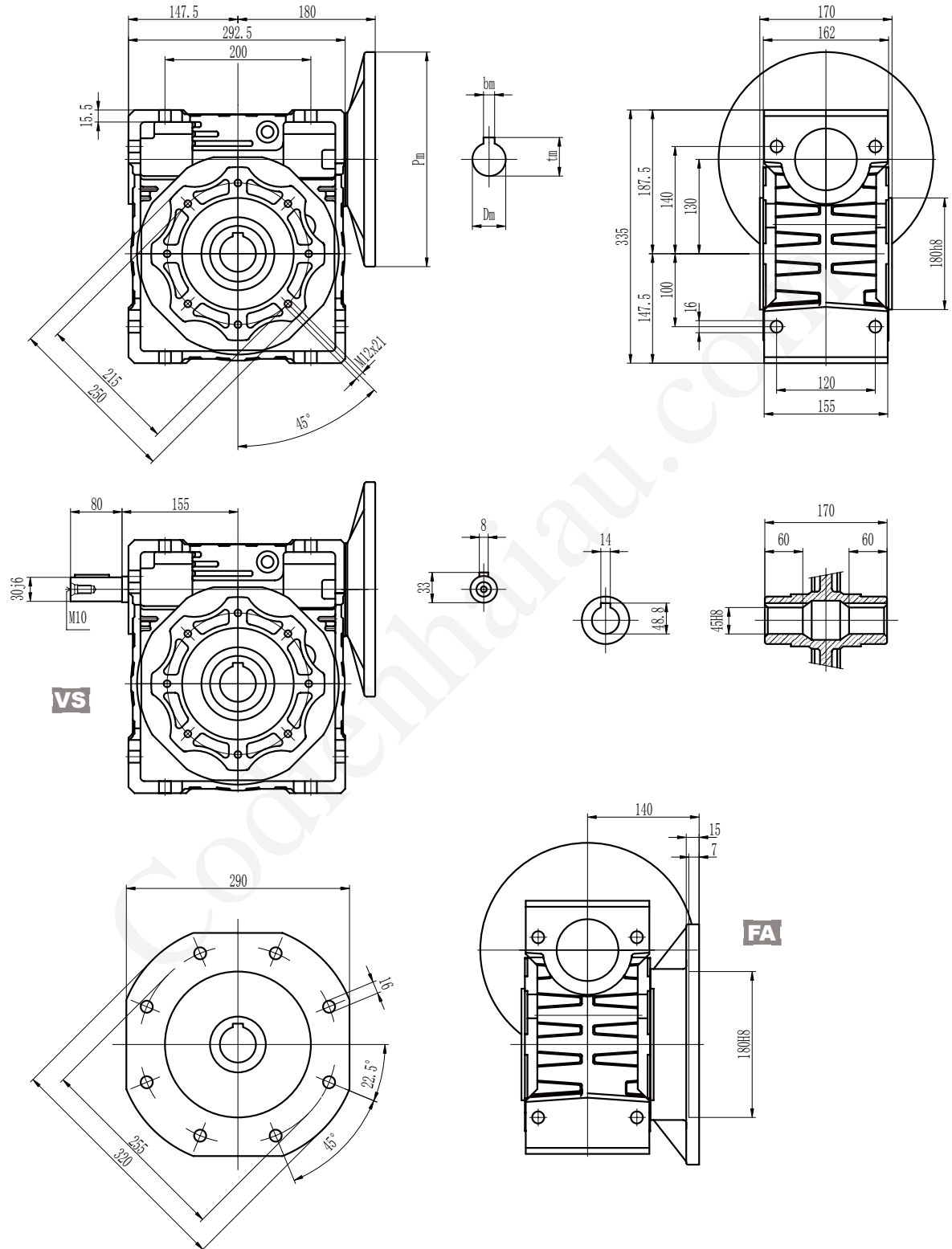


**Weight without motor: 35kg**

For the dimensions concerning the motor connection data (P<sub>m</sub>, D<sub>m</sub>, b<sub>m</sub>, t<sub>m</sub>) please refer to the table shown at page 53



**Dimensions**  
**NMRV130**

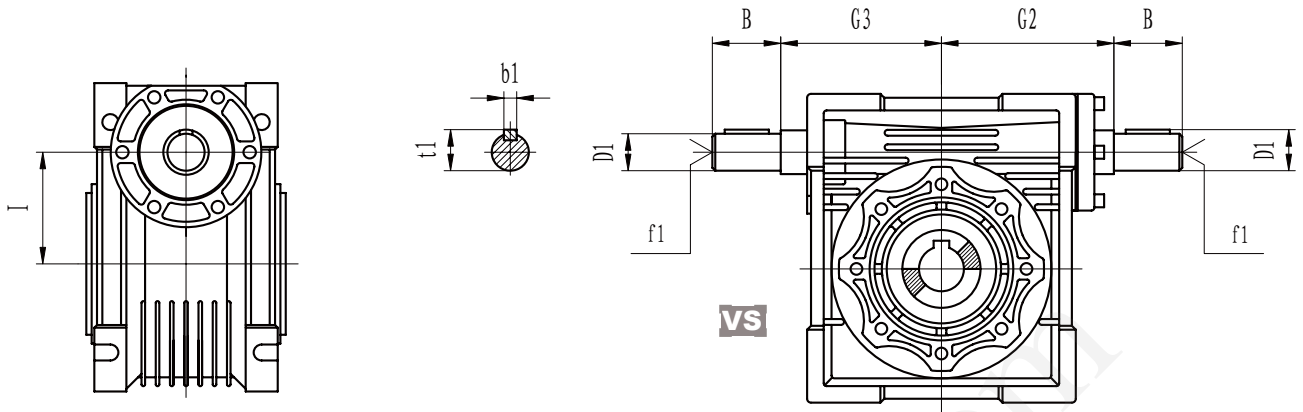


**Weight without motor: 48kg**

For the dimensions concerning the motor connection data (Pm, Dm, bm, tm) please refer to the table shown at page 53

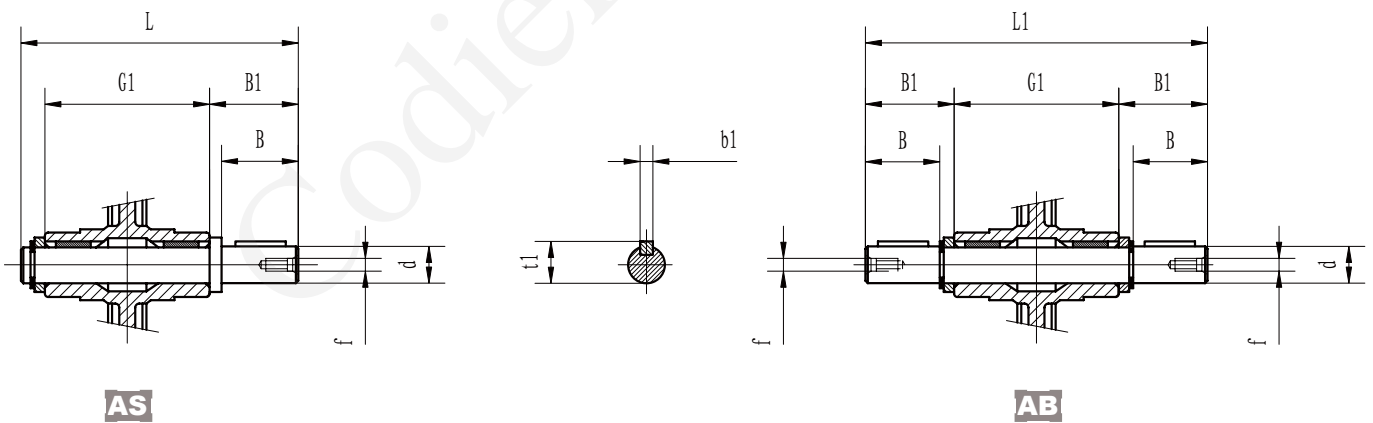


**Dimensions**  
**NRV**



NRV	025	030	040	050	063	075	090	110	130
<b>B</b>	20	20	23	30	40	50	50	60	80
<b>D1</b>	9 j6	9 j6	11 j6	14 j6	19 j6	24 j6	24 j6	28 j6	30 j6
<b>G2</b>	38	51	60	74	90	105	125	142	162
<b>G3</b>	37	45	53	64	75	90	108	135	155
<b>I</b>	25	30	40	50	63	75	90	110	130
<b>b1</b>	3	3	4	5	6	8	8	8	8
<b>f1</b>	-	-	-	M6	M6	M8	M8	M10	M10
<b>t1</b>	10.2	10.2	12.5	16	21.5	27	27	31	33

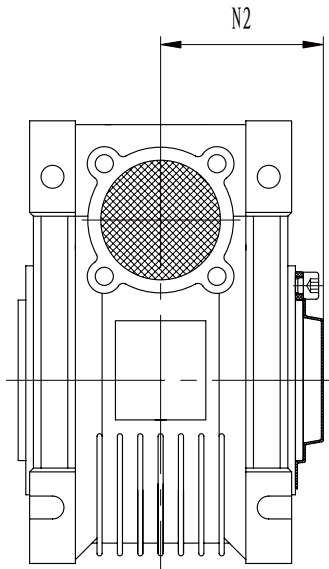
**Low speed shafts**



	<b>d</b>	<b>B</b>	<b>B1</b>	<b>G1</b>	<b>L</b>	<b>L1</b>	<b>f</b>	<b>b1</b>	<b>t1</b>
<b>025</b>	11g6 (9)	23 (25)	25.5 (30)	50	81 (85.5)	101	-	4 (3)	12.5 (10.2)
<b>030</b>	14g6	30	32.5	63	102	128	M6	5	16
<b>040</b>	18h6	40	43	78	128	164	M6	6	20.5
<b>050</b>	25h6	50	53.5	92	153	199	M10	8	28
<b>063</b>	25h6	50	53.5	112	173	219	M10	8	28
<b>075</b>	28h6	60	63.5	120	192	247	M10	8	31
<b>090</b>	35h6	80	84.5	140	234	309	M12	10	38
<b>110</b>	42h6	80	84.5	155	249	324	M16	12	45
<b>130</b>	45h6	80	85	170	265	340	M16	14	48.5

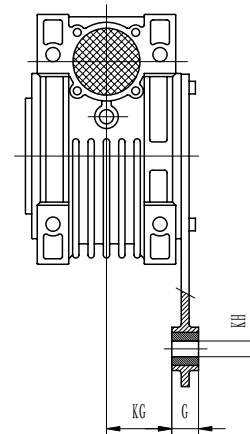
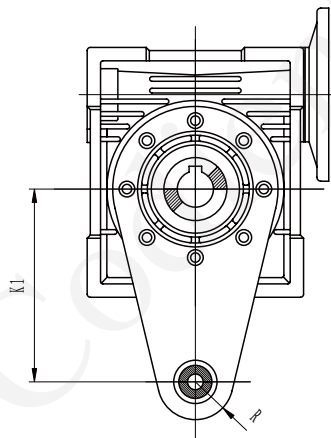


**Cover**



	<b>N2</b>
<b>030</b>	42
<b>040</b>	50
<b>050</b>	58
<b>063</b>	69
<b>075</b>	74
<b>090</b>	86
<b>110</b>	94
<b>130</b>	102

**Torque arm**

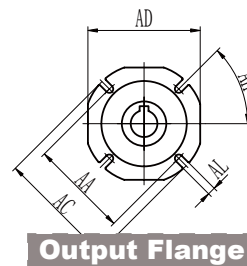
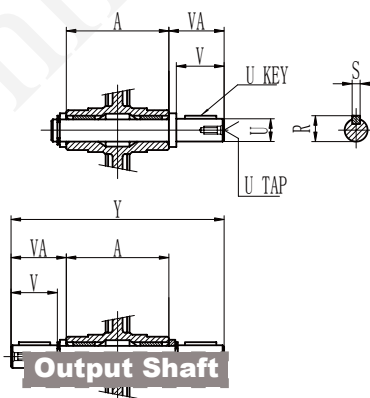
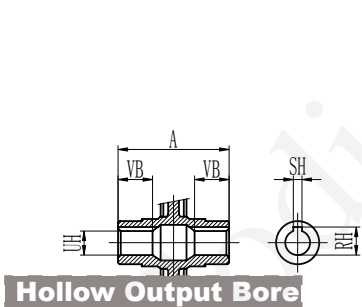
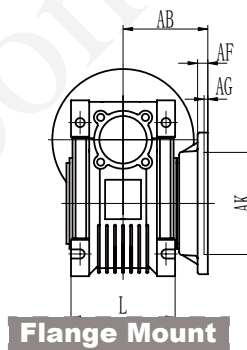
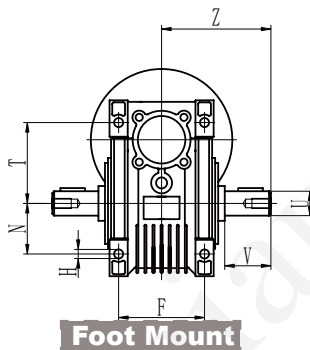
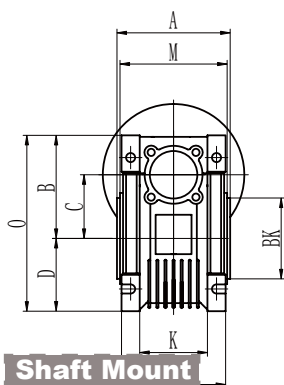
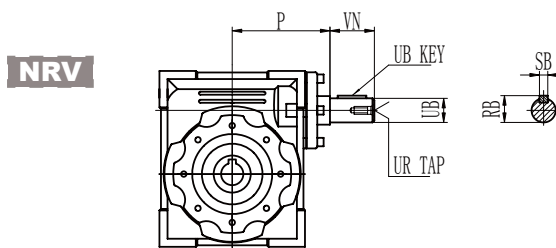
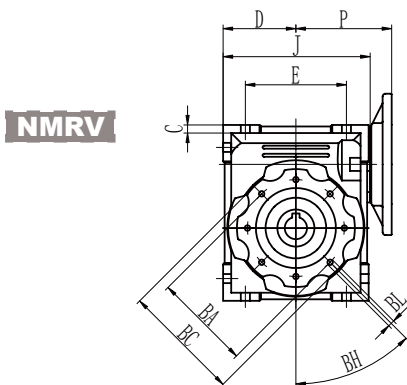


	<b>K1</b>	<b>G</b>	<b>KG</b>	<b>KH</b>	<b>R</b>
<b>025</b>	70	14	17.5	8	15
<b>030</b>	85	14	24	8	15
<b>040</b>	100	14	31.5	10	18
<b>050</b>	100	14	38.5	10	18
<b>063</b>	150	14	49	10	18
<b>075</b>	200	25	47.5	20	30
<b>090</b>	200	25	57.5	20	30
<b>110</b>	250	30	62	25	35
<b>130</b>	250	30	69	25	35





## NMRV Inch Series



Hollow Output Bore	030	040	050	063	075	090	110	130
<b>RH</b>	0.71	0.84	1.12	1.24	1.37	1.52	1.8	1.93
<b>SH</b>	0.188	0.188	0.25	0.25	0.25	0.313	0.375	0.375
<b>UH</b>	$0.625^{+0.001}_0$	$0.75^{+0.001}_0$	$1^{+0.001}_0$	$1.125^{+0.001}_0$	$1.25^{+0.001}_0$	$1.375^{+0.001}_0$	$1.625^{+0.001}_0$	$1.75_0$
<b>VB</b>	0.83	1.14	1.28	1.42	1.56	1.77	1.97	2.24

Output Shaft	030	040	050	063	075	090	110	130
<b>R</b>	0.7	0.83	1.11	1.23	1.36	1.51	1.79	1.92
<b>S</b>	0.188	0.188	0.25	0.25	0.25	0.313	0.375	0.375
<b>U</b>	$0.625^{0}_{-0.0005}$	$0.75^{0}_{-0.0005}$	$1^{0}_{-0.0005}$	$1.125^{0}_{-0.0005}$	$1.25^{0}_{-0.0005}$	$1.375^{0}_{-0.0005}$	$1.625^{0}_{-0.0005}$	$1.75^{0}_{-0.0005}$
<b>U KEY</b>	0.1875x1.125	0.1875x1.5	0.25x1.5	0.25x1.875	0.25x2.25	0.3125x2.5	0.375x2.75	0.375x2.75
<b>UT</b>	1/4-20	1/4-20	3/8-16	3/8-16	1/2-13	1/2-13	5/8-11	5/8-11
<b>V</b>	1.57	1.97	1.97	2.36	2.76	3.15	3.54	3.54
<b>VA</b>	1.67	2.09	2.11	2.5	2.89	3.33	3.72	3.74
<b>Y</b>	5.82	7.25	7.84	9.41	10.5	12.17	13.54	14.17



## NMRV Inch Series

	030	040	050	063	075	090	110	130
<b>A</b>	2.48	3.07	3.62	4.41	4.72	5.51	6.1	6.69
<b>B</b>	2.24	2.81	3.31	4.02	4.69	5.31	6.59	7.38
<b>BA</b>	2.56	2.95	3.35	3.74	4.53	5.12	6.5	8.46
<b>BC</b>	2.95	3.43	3.94	4.33	5.51	6.3	7.87	9.84
<b>BH</b>	90 °	45 °	45 °	45 °	45 °	45 °	45 °	45 °
<b>BK</b>	2.165 <sup>0</sup> <sub>-0.0018</sub>	2.362 <sup>0</sup> <sub>-0.0018</sub>	2.756 <sup>0</sup> <sub>-0.0018</sub>	3.15 <sup>0</sup> <sub>-0.0021</sub>	3.74 <sup>0</sup> <sub>-0.0021</sub>	4.331 <sup>0</sup> <sub>-0.0021</sub>	5.118 <sup>0</sup> <sub>-0.0025</sub>	7.087 <sup>0</sup> <sub>-0.0025</sub>
<b>BL</b>	M6x11	M6x10	M8x10	M8x14	M8x14	M10x18	M10x18	M12x21
<b>C</b>	1.18	1.57	1.97	2.48	2.95	3.54	4.33	5.12
<b>D</b>	1.57	1.97	2.36	2.83	3.39	4.06	5.02	5.81
<b>E</b>	2.13	2.76	3.15	3.94	4.72	5.51	6.69	7.87
<b>F</b>	1.73	2.36	2.76	3.35	3.54	3.94	4.53	4.72
<b>G</b>	0.22	0.26	0.28	0.31	0.39	0.43	0.57	0.61
<b>H</b>	0.26	0.26	0.33	0.33	0.45	0.51	0.55	0.63
<b>J</b>	3.15	3.98	4.76	5.75	6.85	8.19	9.94	11.52
<b>K</b>	1.26	1.69	1.93	2.64	2.83	2.91	-	-
<b>L</b>	2.2	2.8	3.35	4.06	4.41	5.12	5.67	6.1
<b>M</b>	2.28	2.87	3.43	4.17	4.49	5.28	5.83	6.38
<b>N</b>	1.06	1.38	1.57	1.97	2.36	2.76	3.35	3.94
<b>O</b>	3.82	4.78	5.67	6.85	8.07	9.37	11.61	13.19
<b>P</b>	2.64	3.15	3.54	4.13	4.96	5.63	6.81	7.6
<b>Q</b>	0.83	2.36	2.91	3.54	4.13	4.92	5.59	6.38
<b>T</b>	1.73	2.17	2.52	3.15	3.66	4.02	4.92	5.51
<b>Z</b>	2.91	3.63	3.92	4.71	5.25	6.09	6.77	7.09

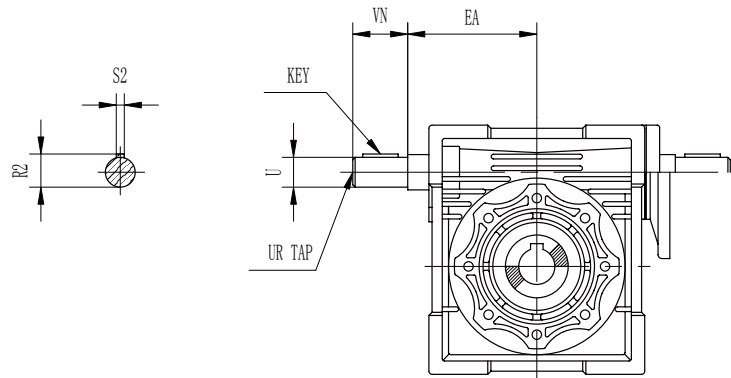
Output Flange	AA	AB	AC	AD	AF	AG	AH	AK	AL	
<b>030</b>	<b>FA</b>	2.68	2.15	3.15	2.76	0.24	0.16	45°	1.969 <sup>+0.0015</sup> <sub>0</sub>	0.26
<b>040</b>	<b>FA</b>	2.95	2.64	4.33	3.74	0.28	0.16	45°	2.362 <sup>+0.0018</sup> <sub>0</sub>	0.35
	<b>FB</b>	2.95	3.82	4.33	3.74	0.28	0.16	45°	2.362 <sup>+0.0018</sup> <sub>0</sub>	0.35
	<b>FC</b>	4.53	3.15	5.51	-	0.35	0.2	45°	3.74 <sup>+0.0021</sup> <sub>0</sub>	0.37
	<b>FD</b>	3.94	2.28	4.72	-	0.47	0.2	45°	3.15 <sup>+0.0018</sup> <sub>0</sub>	0.35
<b>050</b>	<b>FA</b>	3.35	3.54	4.92	4.33	0.35	0.2	45°	2.756 <sup>+0.0018</sup> <sub>0</sub>	0.43
	<b>FB</b>	3.35	4.72	4.92	4.33	0.35	0.2	45°	2.756 <sup>+0.0018</sup> <sub>0</sub>	0.43
	<b>FC</b>	5.12	3.5	6.3	-	0.39	0.2	45°	4.331 <sup>+0.0021</sup> <sub>0</sub>	0.37
	<b>FD</b>	4.53	2.83	5.51	-	0.57	0.2	45°	3.543 <sup>+0.0021</sup> <sub>0</sub>	0.43
<b>063</b>	<b>FA</b>	4.13	3.23	7.09	5.59	0.39	0.24	45°	4.528 <sup>+0.0021</sup> <sub>0</sub>	0.43
	<b>FB</b>	5.91	4.41	7.09	5.59	0.39	0.24	45°	4.528 <sup>+0.0021</sup> <sub>0</sub>	0.43
	<b>FC</b>	6.5	3.86	7.87	-	0.39	0.2	45°	5.118 <sup>+0.0025</sup> <sub>0</sub>	0.43
	<b>FD</b>	6.5	4.21	7.87	-	0.39	0.2	45°	5.118 <sup>+0.0025</sup> <sub>0</sub>	0.43
<b>075</b>	<b>FE</b>	5.12	3.17	6.3	-	0.65	0.2	45°	4.331 <sup>+0.0021</sup> <sub>0</sub>	0.43
	<b>FA</b>	6.5	4.37	7.87	6.69	0.51	0.24	45°	5.118 <sup>+0.0025</sup> <sub>0</sub>	0.55
<b>090</b>	<b>FB</b>	5.12	3.54	6.3	-	0.51	0.24	45°	4.331 <sup>+0.0021</sup> <sub>0</sub>	0.55
	<b>FA</b>	6.89	4.37	8.27	8.27	0.51	0.24	45°	5.984 <sup>+0.0025</sup> <sub>0</sub>	0.55
	<b>FB</b>	8.46	4.8	9.84	-	0.71	0.24	45°	7.087 <sup>+0.0025</sup> <sub>0</sub>	0.55
	<b>FC</b>	6.5	4.33	7.87	-	0.67	0.24	45°	5.118 <sup>+0.0025</sup> <sub>0</sub>	0.43
<b>110</b>	<b>FD</b>	6.89	5.94	8.27	-	0.51	0.24	45°	5.984 <sup>+0.0025</sup> <sub>0</sub>	0.55
	<b>FA</b>	9.06	5.16	11.02	10.24	0.59	0.24	45°	6.693 <sup>+0.0025</sup> <sub>0</sub>	0.55
<b>130</b>	<b>FB</b>	9.06	7.09	11.02	10.24	0.59	0.24	45°	6.693 <sup>+0.0025</sup> <sub>0</sub>	0.55
	<b>FA</b>	10.04	5.51	12.6	11.42	0.59	0.24	22.5°	7.087 <sup>+0.0025</sup> <sub>0</sub>	0.63

Input Shaft	030	040	050	063	075	090	110	130
<b>SB</b>	0.094	0.125	0.188	0.188	0.188	0.188	0.25	0.25
<b>RB</b>	0.42	0.55	0.7	0.83	0.96	0.96	1.24	1.36
<b>UB</b>	0.375 <sup>0</sup> <sub>-0.0005</sub>	0.5 <sup>0</sup> <sub>-0.0005</sub>	0.625 <sup>0</sup> <sub>-0.0005</sub>	0.75 <sup>0</sup> <sub>-0.0005</sub>	0.875 <sup>0</sup> <sub>-0.0005</sub>	0.875 <sup>0</sup> <sub>-0.0005</sub>	1.125 <sup>0</sup> <sub>-0.0005</sub>	1.25 <sup>0</sup> <sub>-0.0005</sub>
<b>UB KEY</b>	0.094x0.875	0.125x0.875	0.1875x1.125	0.1875x1.5	0.1875x1.875	0.1875x1.875	0.25x2.25	0.25x2.5
<b>UR</b>	-	1/4-20	1/4-20	1/4-20	1/4-20	1/4-20	3/8-16	1/2-13
<b>VN</b>	1.18	1.18	1.58	1.97	2.36	2.36	2.76	3.15



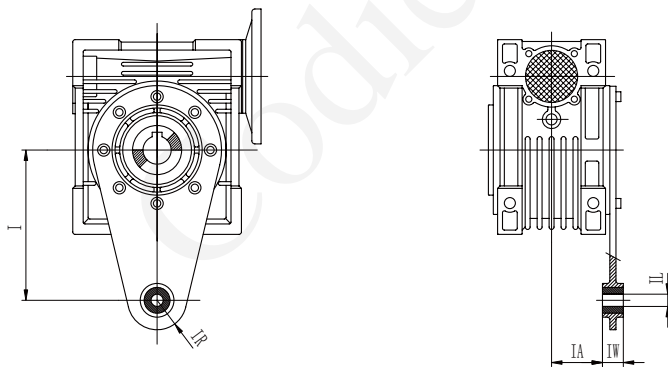
## NMRV Inch Series

### High Speed Extension Shaft

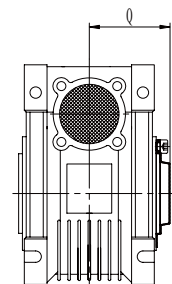


	EA	U	VN	UR	S2	R2	KEY	
							Length	Square
<b>030</b>	1.772	0.375 <sup>0</sup> <sub>-0.0005</sub>	1.18	-	0.093	0.42	0.875	0.094
<b>040</b>	2.087	0.5 <sup>0</sup> <sub>-0.0005</sub>	1.18	1/4-20	0.13	0.55	0.875	0.125
<b>050</b>	2.52	0.625 <sup>0</sup> <sub>-0.0005</sub>	1.58	1/4-20	0.19	0.7	1.125	0.188
<b>063</b>	2.953	0.75 <sup>0</sup> <sub>-0.0005</sub>	1.97	1/4-20	0.19	0.83	1.5	0.188
<b>075</b>	3.543	0.875 <sup>0</sup> <sub>-0.0005</sub>	2.36	1/4-20	0.19	0.96	1.875	0.188
<b>090</b>	4.252	0.875 <sup>0</sup> <sub>-0.0005</sub>	2.36	1/4-20	0.19	0.96	1.875	0.188
<b>110</b>	5.315	1.125 <sup>0</sup> <sub>-0.0005</sub>	2.76	3/8-16	0.25	1.24	2.25	0.25
<b>130</b>	6.102	1.25 <sup>0</sup> <sub>-0.0005</sub>	3.15	1/2-13	0.25	1.36	2.5	0.25

### Torque Arm



### Protective Cover



	I	IA	IL	IR	IW
<b>025</b>	2.76	0.69	0.31	0.59	0.55
<b>030</b>	3.35	0.94	0.31	0.59	0.55
<b>040</b>	3.94	1.24	0.39	0.71	0.55
<b>050</b>	3.94	1.52	0.39	0.71	0.55
<b>063</b>	5.91	1.93	0.39	0.71	0.55
<b>075</b>	7.87	1.87	0.79	1.18	0.98
<b>090</b>	7.87	2.26	0.79	1.18	0.98
<b>110</b>	9.84	2.44	0.98	1.38	1.18
<b>130</b>	9.84	2.72	0.98	1.38	1.18

	Q
<b>030</b>	1.65
<b>040</b>	1.97
<b>050</b>	2.28
<b>063</b>	2.72
<b>075</b>	2.91
<b>090</b>	3.39
<b>110</b>	3.7
<b>130</b>	4.02

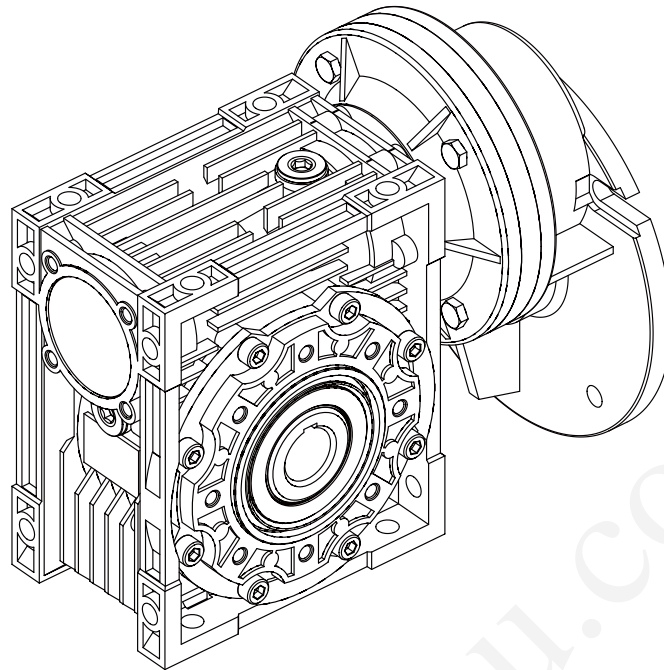


## NEMA Flange Availability

	NEMA Flange	Input Bore Diameter	Available Ratios											
			5	7.5	10	15	20	25	30	40	50	60	80	100
030	48C	0.5	●	●	●	●	●	●	●	●	●	●	●	
040	56C	0.625	●	●	●	●	●	●	●	●	●	●	●	●
050	56C	0.625	●	●	●	●	●	●	●	●	●	●	●	●
063	56C	0.625					●	●	●	●	●	●	●	●
	140TC	0.875		●	●	●	●	●	●	●				
075	56C	0.625									●	●	●	●
	140TC	0.875				●	●	●	●	●	●			
	180TC	1.125		●	●	●								
090	56C	0.625											●	●
	140TC	0.875						●	●	●	●	●		
	180TC	1.125		●	●	●	●	●	●	●				
110	140TC	0.875									●	●	●	●
	180TC	1.125					●	●	●	●	●	●		
	210TC	1.375		●	●	●	●							
130	140TC	0.875											●	●
	180TC	1.125							●	●	●	●	●	
	210TC	1.375		●	●	●	●	●	●	●				



# PC-NMRV



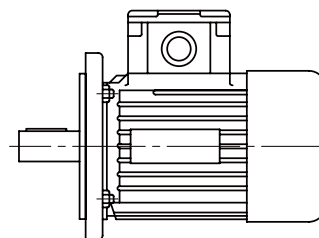
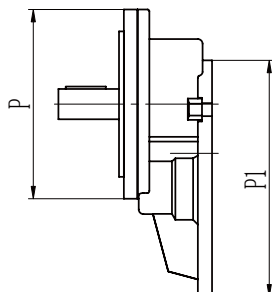
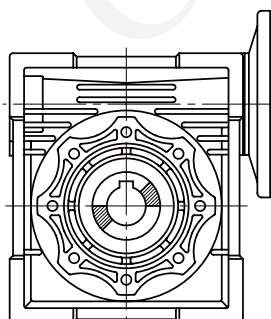
## PC-NMRV model & marker

<b>PC-071-NMRV-063-30-VS-F1(FA)-AS-71B5-0.37kW-B3</b>			
<b>PC</b>	Pre-stage helical module		
<b>071</b>	Size		
<b>NMRV</b>	Worm geared motor		
<b>063</b>	Center distance		
<b>30</b>	Reduction ratio		
<b>VS</b>	Double input shaft	<b>F1(FA)</b>	Output flange
<b>AS</b>	Single output shaft	<b>AB</b>	Double output shaft
<b>PAM</b>	Fitted for motor coupling	<b>71B5</b>	Motor size & mounting position
<b>0.37kW</b>	Power of Electric motor	<b>B3</b>	Mounting position



## PC + NMRV Combinations

NMRV	i	PC063		PC071		PC080			PC090		
		105/11 2.93	105/14 i=2.93	120/14 i=2.94	120/19 i=2.94	160/19 i=3	160/24 i=3	160/28 i=3	160/19 i=2.45	160/24 i=2.45	160/28 i=2.45
040	25										
	30										
	40										
	50										
	60										
	80										
	100										
050	25										
	30										
	40										
	50										
	60										
	80										
	100										
063	25										
	30										
	40										
	50										
	60										
	80										
	100										
075	25										
	30										
	40										
	50										
	60										
	80										
	100										
090	25										
	30										
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	100										
110	25										
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	60										
	80										
	100										
130	25										
	30										
	40										
	50										
	60										
	80										
	100										

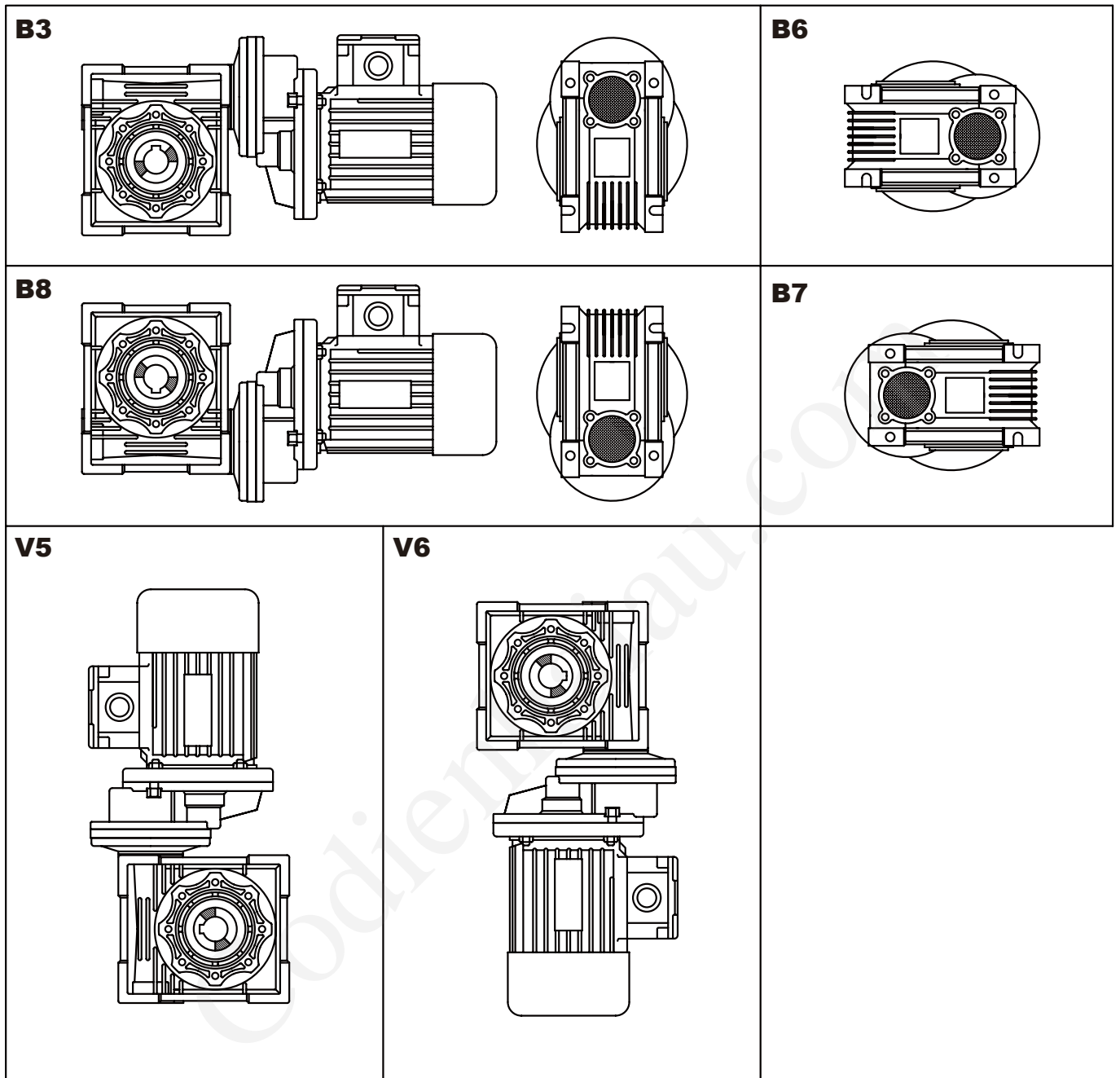


	P1	P	(P)
<b>PC 063</b>	63B5-140/11	105/11	(105/14)
<b>PC 071</b>	71B5-160/14	120/14	(120/19)
<b>PC 080</b>	80B5-200/19	160/19	(160/24)
			(160/28)
<b>PC 090</b>	90B5-200/24	160/24	(160/19)
			(160/28)

(..)Only on request



## PC - NMRV Mounting Positions



## Choice of lubrication

Q. ty of oil in litres			
<b>063</b>	<b>071</b>	<b>080</b>	<b>090</b>
0.16	0.25	0.28	0.28

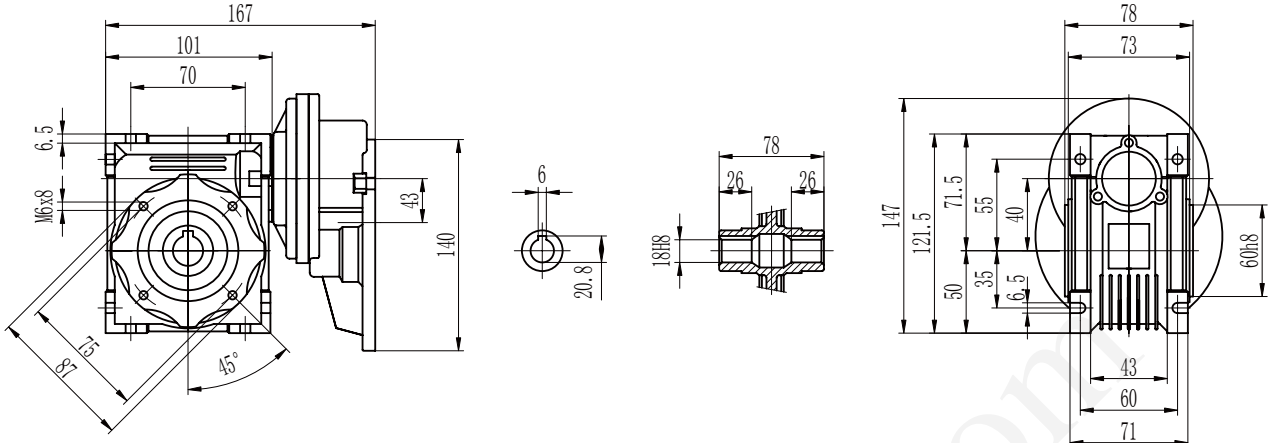
<b>Oil Type Used</b>	IP	TELIUM VSF
	SHELL	TIVELA OIL SC320
	AGIP	BLASIA S320
	MOBIL	GLYGOYLE 30
	CASTROL	ALPHASYN PG 320



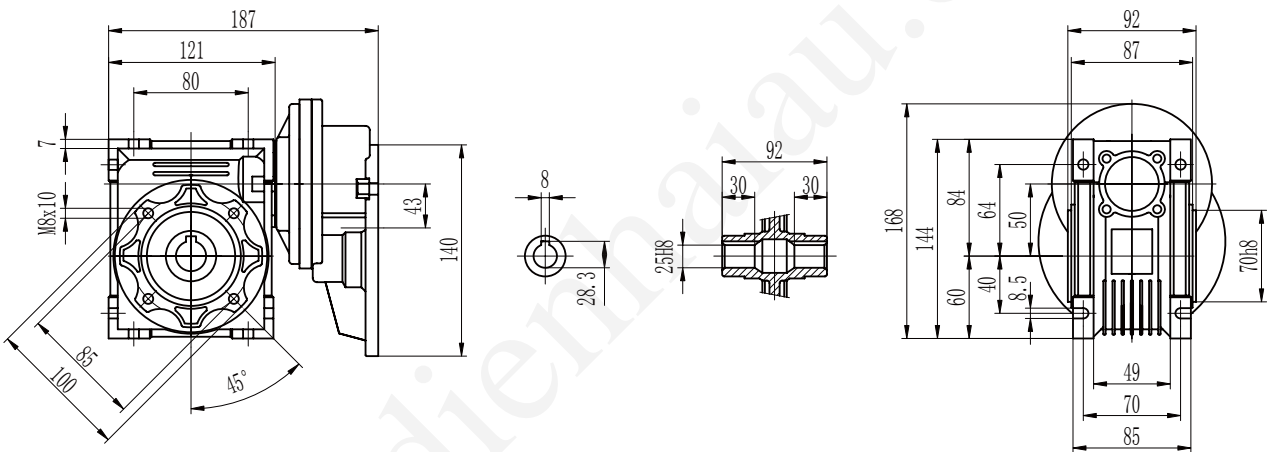


**PC + NMRV Dimensions**

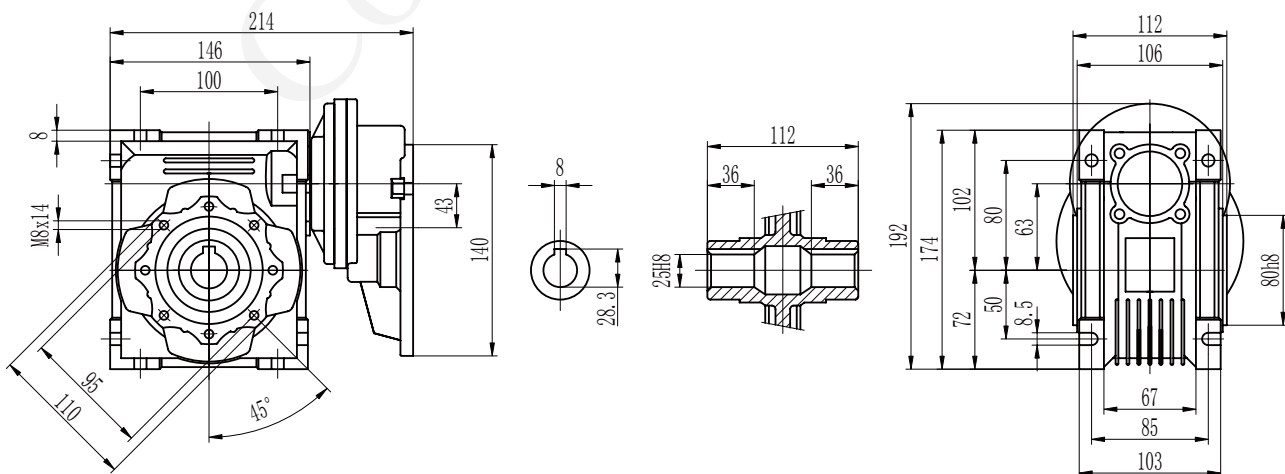
**PC 063 - NMRV 040**



**PC 063 - NMRV 050**



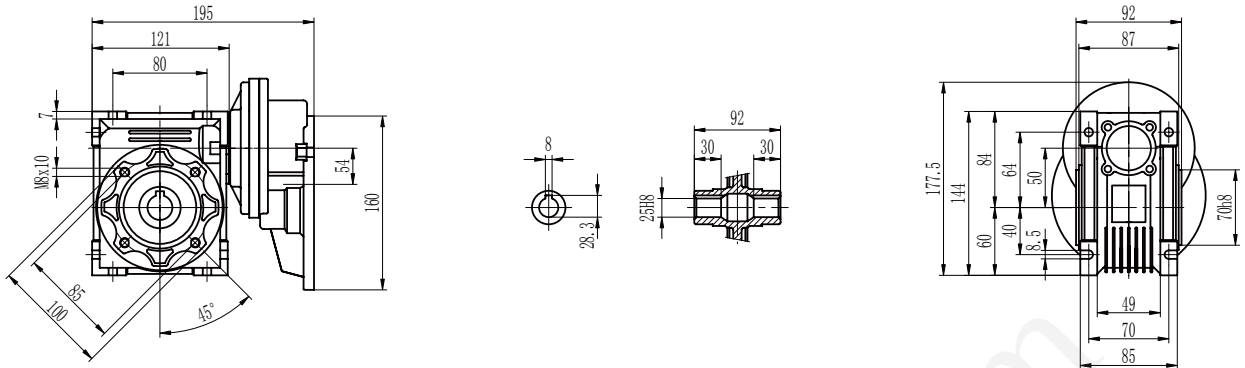
**PC 063 - NMRV 063**



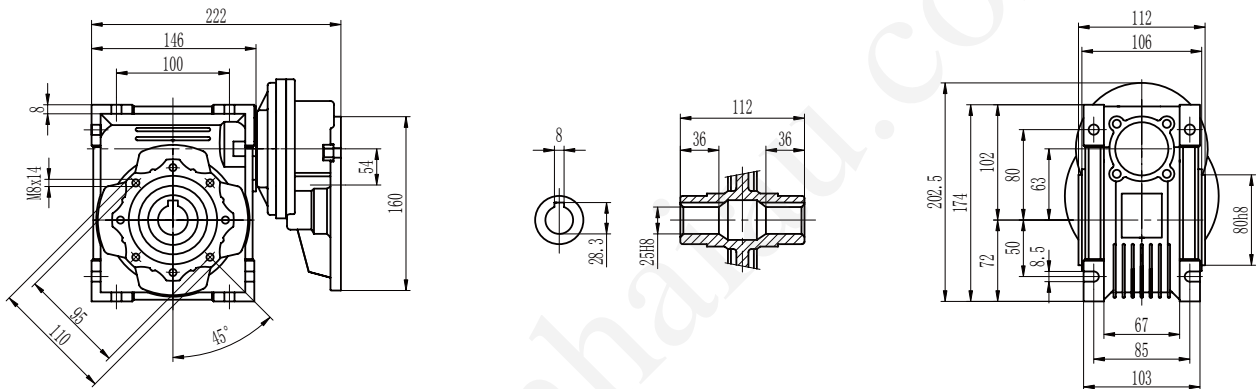


**PC + NMRV Dimensions**

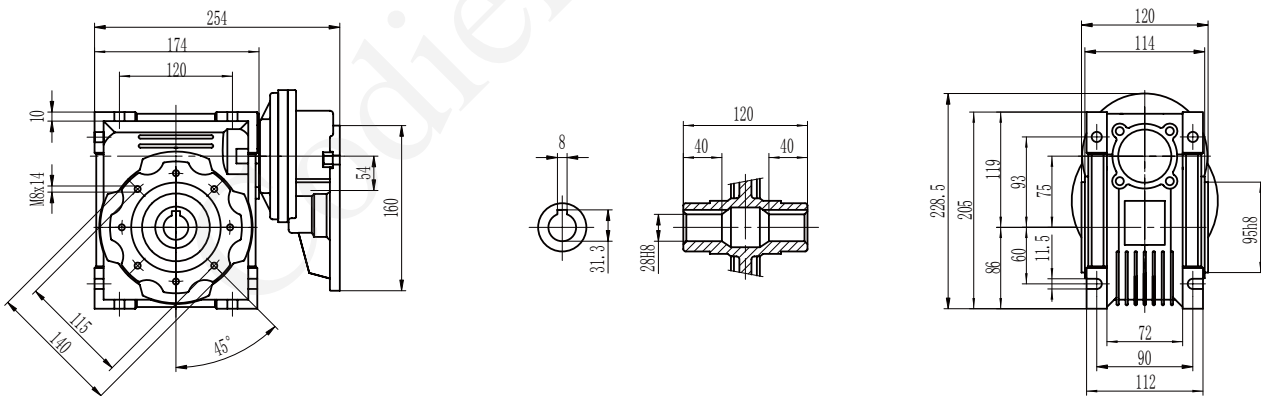
**PC 071 - NMRV 050**



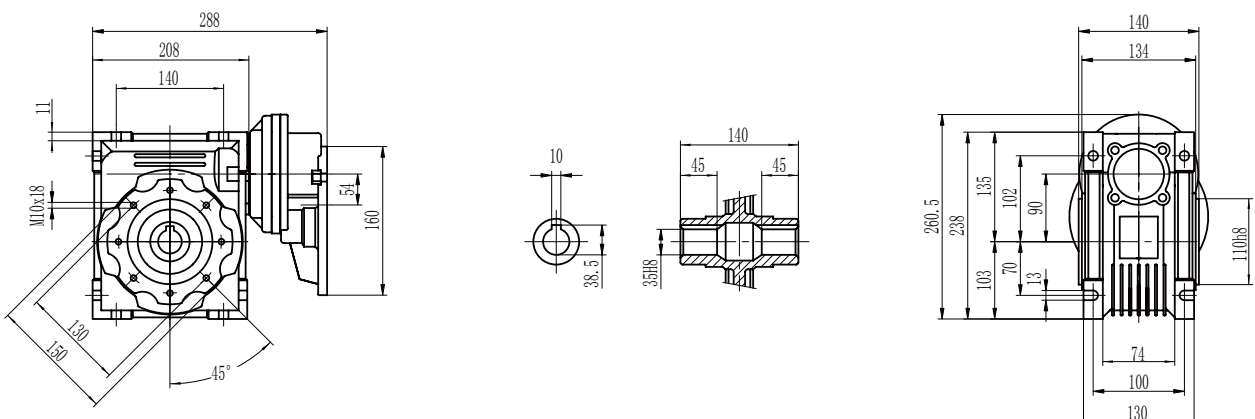
**PC 071 - NMRV 063**



**PC 071 - NMRV 075**



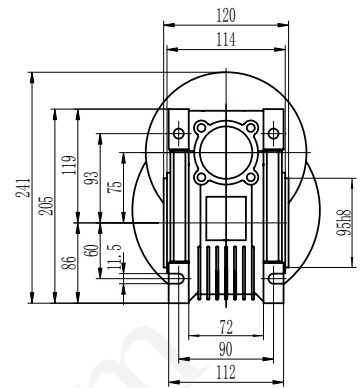
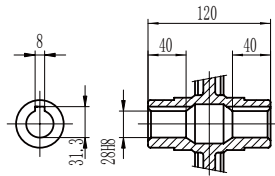
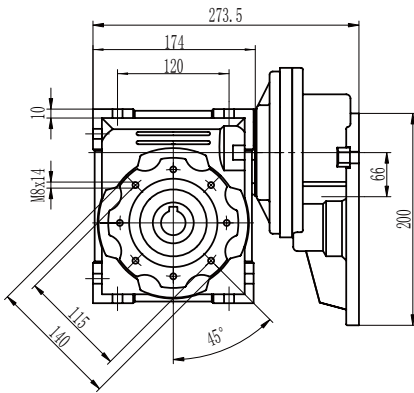
**PC 071 - NMRV 090**



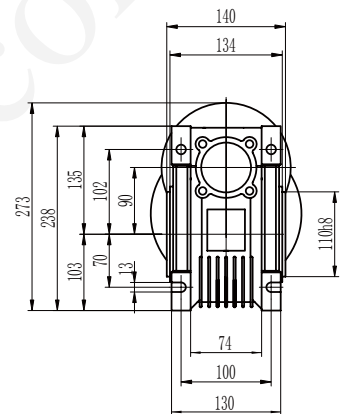
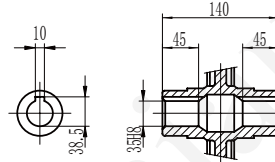
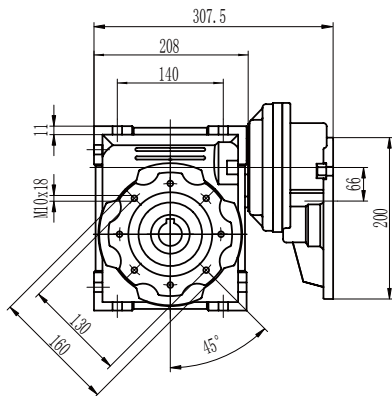


**PC + NMRV Dimensions**

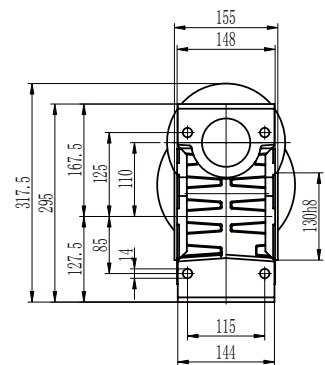
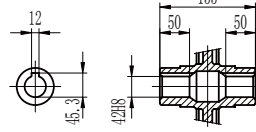
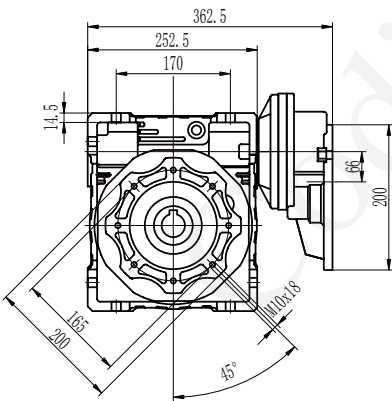
**PC 080 - NMRV 075**



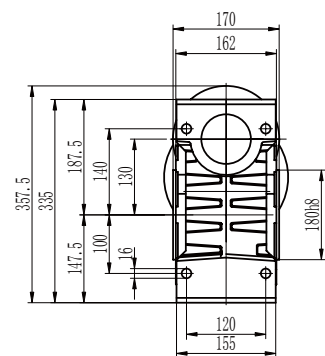
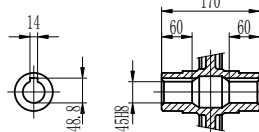
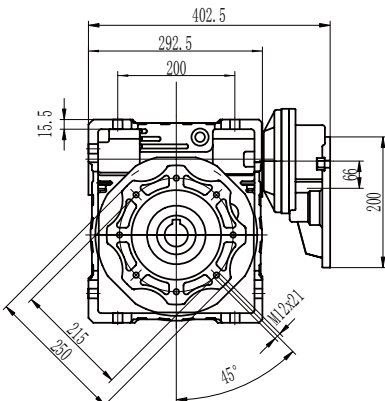
**PC 080 - NMRV 090**



**PC 080(090) - NMRV 110**

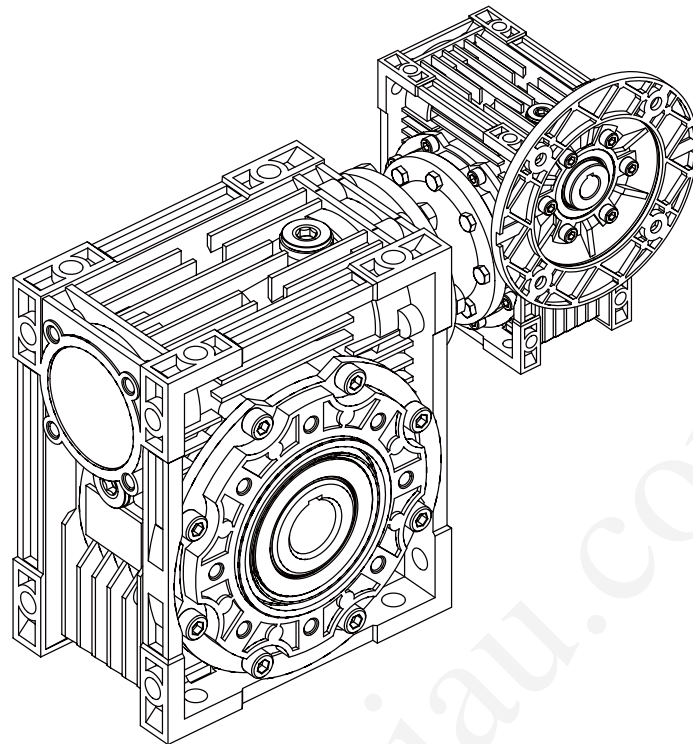


**PC 080(090) - NMRV 130**





# NMRV-NMRV



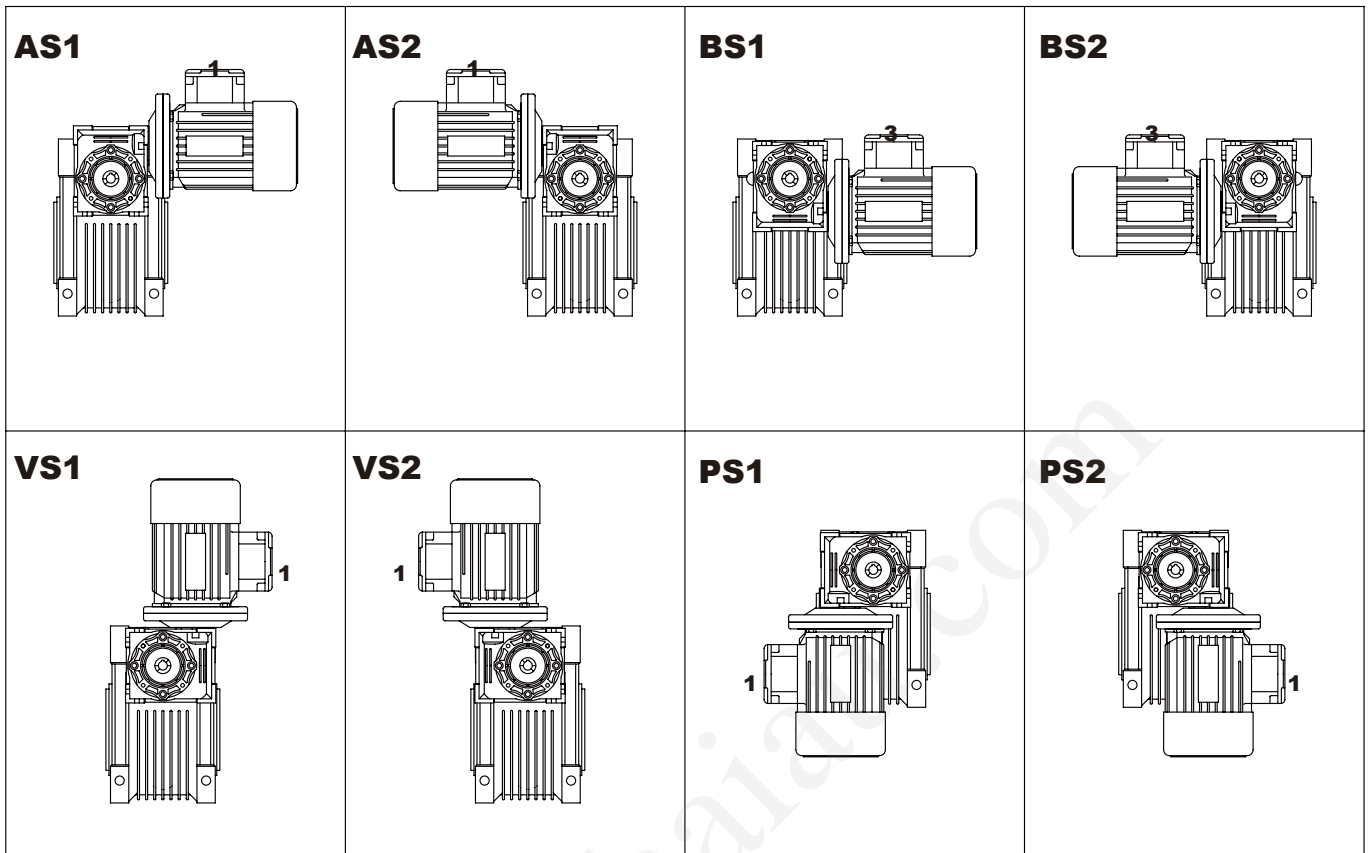
## Model & marker

**NMRV-040/090-500-VS-F1(FA)-AS-71B5-0.37kW-AS1**

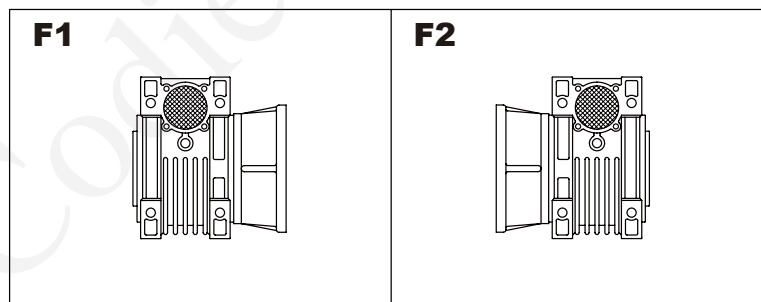
<b>NMRV+NMRV</b>	Combined worm geared motor		
<b>NRV+NMRV</b>	Combined worm reduction unit		
<b>040/090</b>	Center distance		
<b>500</b>	Reduction ratio		
<b>VS</b>	Double input shaft	<b>F1(FA)</b>	Output flange
<b>AS</b>	Single output shaft	<b>AB</b>	Double output shaft
<b>PAM</b>	Fitted for motor coupling	<b>71B5</b>	Motor size & position
<b>0.37kW</b>	Power of electric motor	<b>AS1</b>	Mounting position



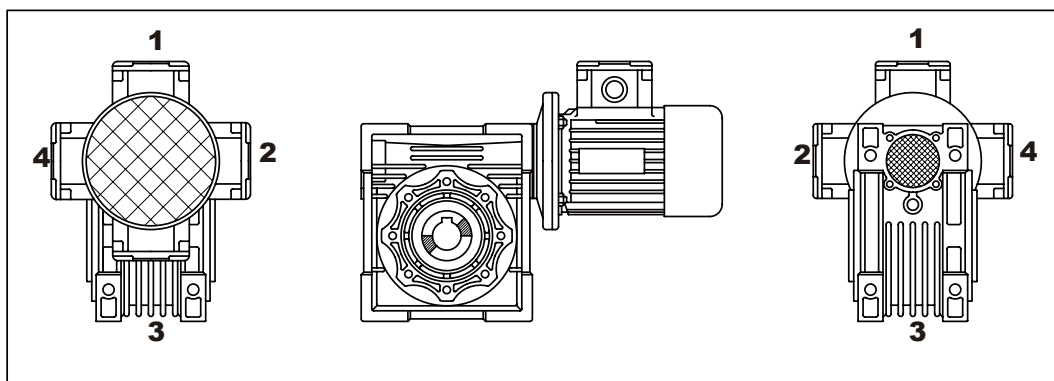
## NMRV-NMRV Mounting Positions



## Flange F-FL



## Position of terminal box





## NMRV-NMRV Parameter Table

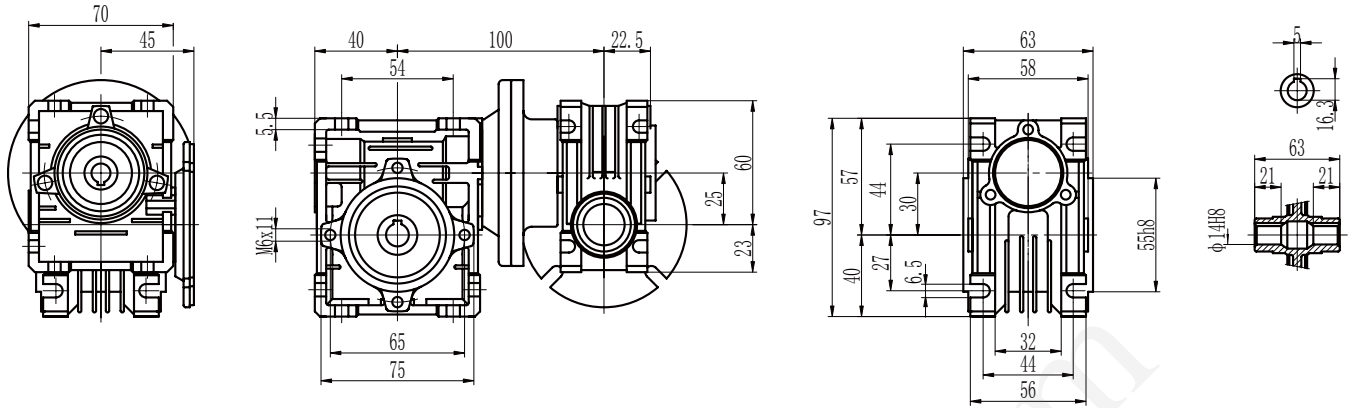
\*n1=1400rpm

	i	n2	kW1	M2 (Nm)	i1	i2		i	n2	kW1	M2 (Nm)	i1	i2
<b>NRV 030/040</b>	300	4.7	0.08	73	10	30	<b>NRV 040/090</b>	300	4.7	0.56	610	7.5	40
	400	3.5	0.06	65	10	40		400	3.5	0.43	610	10	40
	500	2.8	0.04	61	20	25		500	2.8	0.34	560	10	50
	600	2.3	0.04	73	20	30		600	2.3	0.3	610	15	40
	750	1.9	0.04	73	25	30		750	1.9	0.23	560	15	50
	900	1.6	0.03	73	30	30		900	1.6	0.19	505	15	60
	1200	1.2	0.02	65	30	40		1200	1.2	0.17	610	30	40
	1500	0.9	0.02	73	50	30		1500	0.93	0.14	560	30	50
	1800	0.8	0.02	73	60	30		1800	0.78	0.11	505	30	60
	2400	0.58	0.01	65	60	40		2400	0.58	0.11	610	60	40
	3200	0.4	0.01	65	80	40		3000	0.47	0.08	560	60	50
	4000	0.4	0.01	33	50	80		4000	0.35	0.08	460	50	80
5000	0.28	0.01	29	50	100	5000	0.28	0.06	410	50	100		
<b>NRV 030/050</b>	300	4.7	0.15	145	10	30	<b>NRV 050/110</b>	300	4.7	0.95	1100	10	30
	400	3.5	0.1	124	10	40		400	3.5	0.69	1030	10	40
	500	2.8	0.09	120	10	50		500	2.8	0.56	1000	10	50
	600	2.3	0.08	145	20	30		600	2.3	0.48	1030	15	40
	750	1.9	0.07	145	25	30		750	1.9	0.43	1100	25	30
	900	1.6	0.06	145	30	30		900	1.6	0.38	1100	30	30
	1200	1.2	0.04	124	30	40		1200	1.2	0.27	1030	30	40
	1500	0.93	0.04	145	50	30		1500	0.93	0.28	1100	50	30
	1800	0.78	0.04	145	60	30		1800	0.78	0.23	1100	60	30
	2400	0.6	0.03	124	60	40		2400	0.58	0.17	1030	60	40
	3000	0.5	0.02	120	60	50		3000	0.47	0.14	1000	60	50
	4000	0.35	0.02	82	50	80		4000	0.35	0.12	780	50	80
4800	0.29	0.02	82	60	80	5000	0.28	0.09	710	50	100		
<b>NRV 030/063</b>	300	4.7	0.24	230	7.5	40	<b>NRV 063/130</b>	300	4.7	1.48	1760	10	30
	400	3.5	0.19	230	10	40		400	3.5	1.09	1650	10	40
	500	2.8	0.15	216	10	50		500	2.8	0.86	1550	10	50
	600	2.3	0.13	230	15	40		600	2.3	0.76	1650	15	40
	750	1.9	0.11	216	15	50		750	1.9	0.66	1760	25	30
	900	1.6	0.09	198	15	60		900	1.6	0.58	1760	30	30
	1200	1.2	0.08	230	30	40		1200	1.2	0.43	1650	30	40
	1500	0.93	0.06	216	30	50		1500	0.93	0.39	1760	50	30
	1800	0.78	0.05	198	30	60		1800	0.78	0.35	1760	60	30
	2400	0.58	0.05	230	60	40		2400	0.58	0.25	1650	60	40
	3000	0.47	0.04	216	60	50		3000	0.47	0.2	1550	60	50
	4000	0.35	0.03	172	50	80		4000	0.35	0.15	1220	50	80
5000	0.28	0.02	150	50	100	5000	0.28	0.11	1100	50	100		
<b>NRV 040/075</b>	300	4.7	0.36	390	10	30							
	400	3.5	0.27	360	10	40							
	500	2.8	0.21	320	10	50							
	600	2.3	0.19	390	20	30							
	750	1.9	0.16	390	25	30							
	900	1.6	0.14	390	30	30							
	1200	1.2	0.11	360	30	40							
	1500	0.93	0.1	390	50	30							
	1800	0.78	0.09	390	60	30							
	2400	0.58	0.07	360	60	40							
	3000	0.47	0.05	320	60	50							
	4000	0.35	0.04	250	50	80							
5000	0.28	0.03	230	50	100								

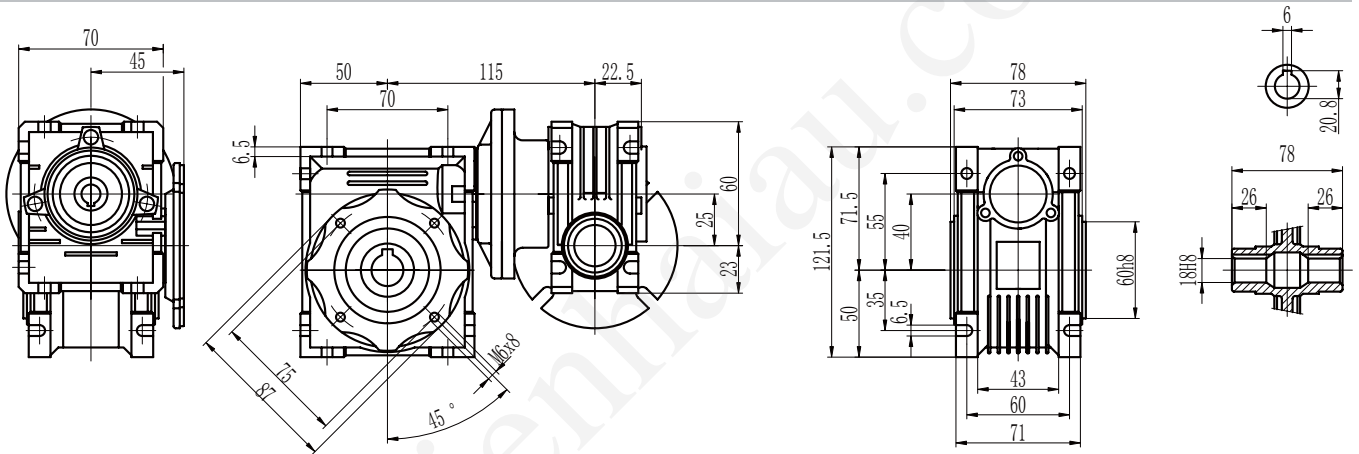


## Dimensions

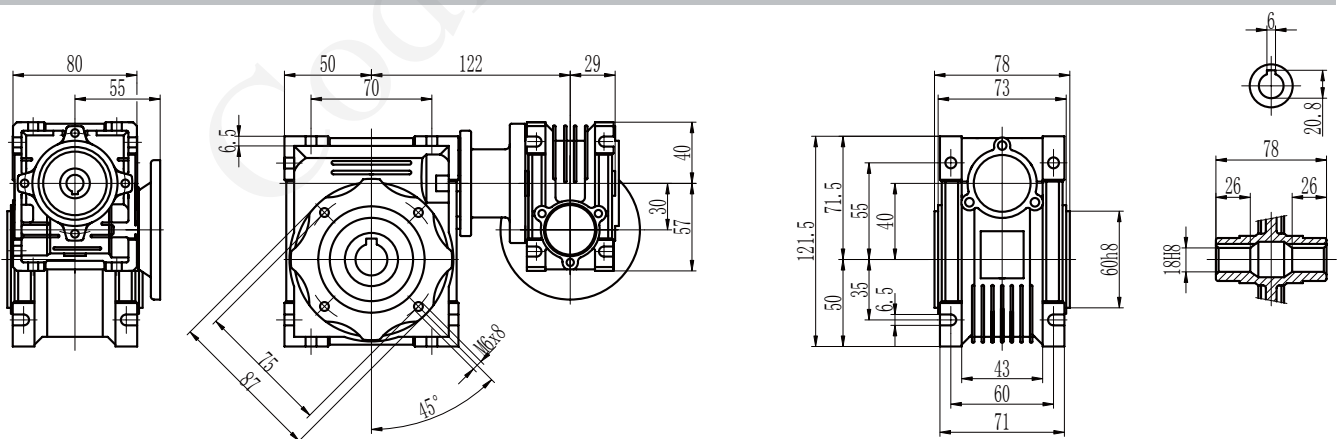
### NMRV 025 - NMRV 030



### NMRV 025 - NMRV 040



### NMRV 030 - NMRV 040

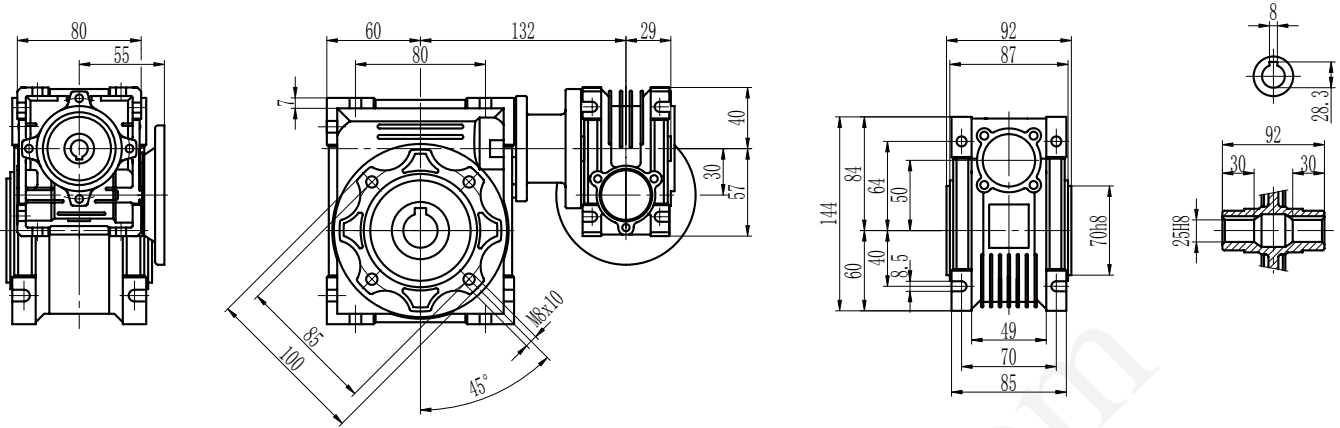




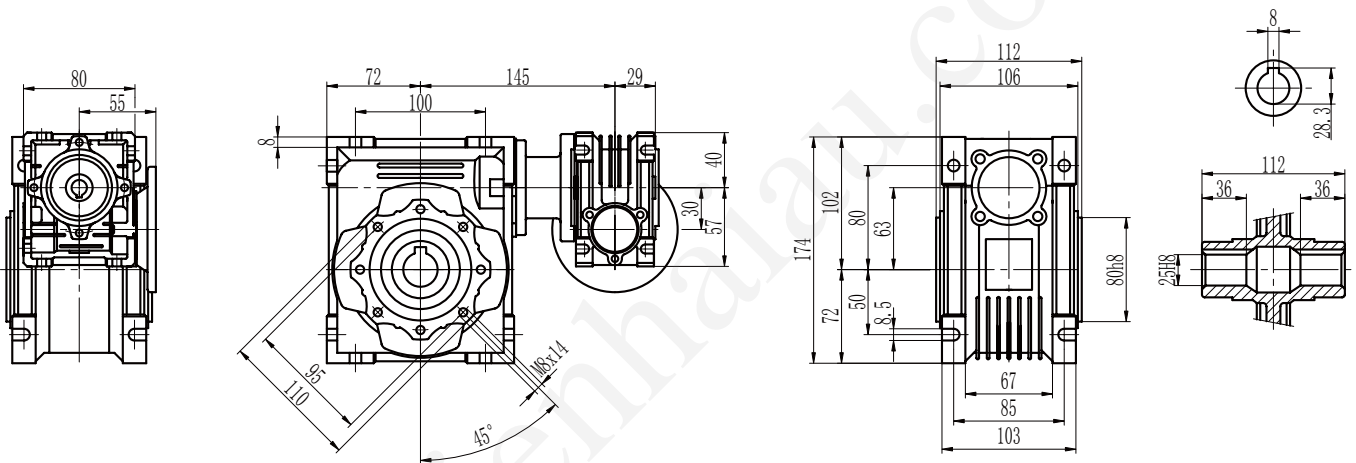


## Dimensions

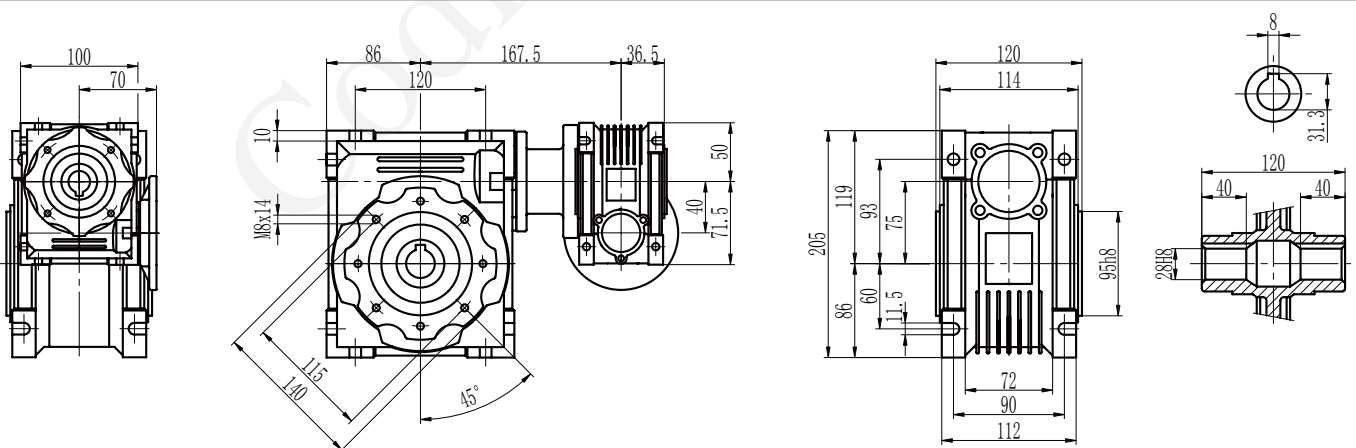
### NMRV 030 - NMRV 050



### NMRV 030 - NMRV 063



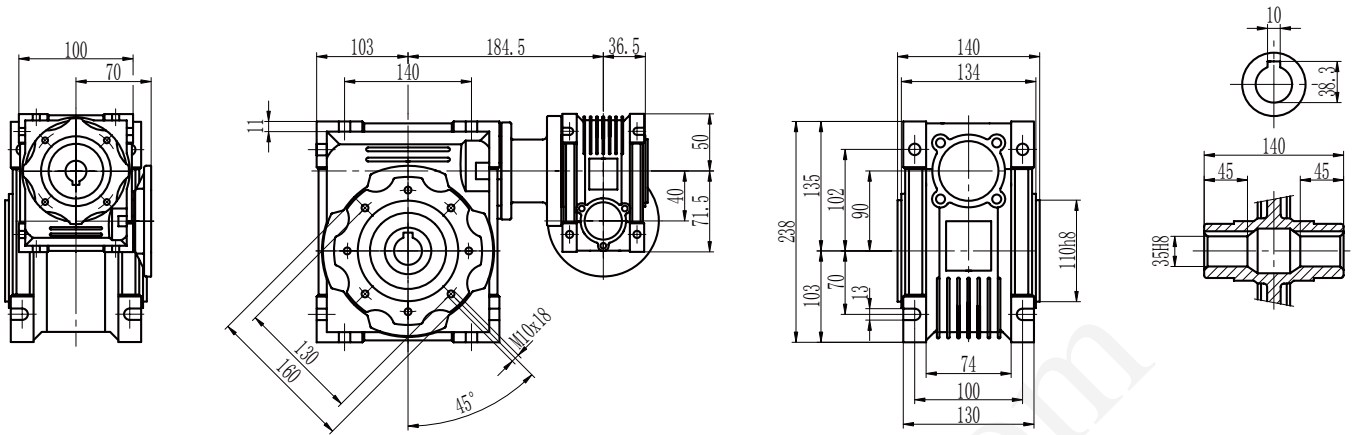
### NMRV 040 - NMRV 075



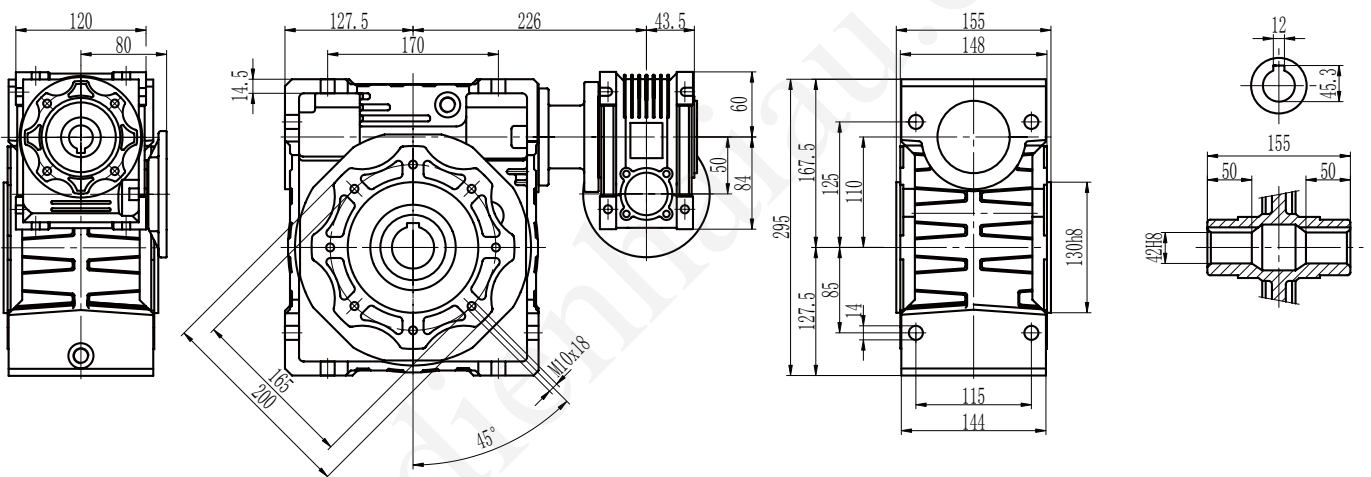


## Dimensions

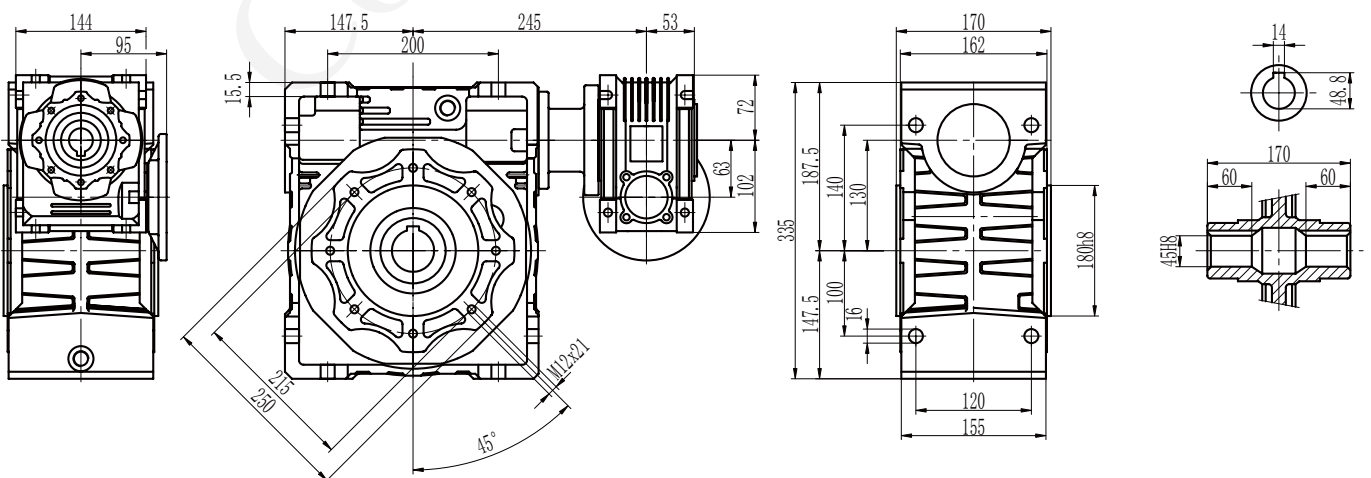
### NMRV 040 - NMRV 090



### NMRV 050 - NMRV 110

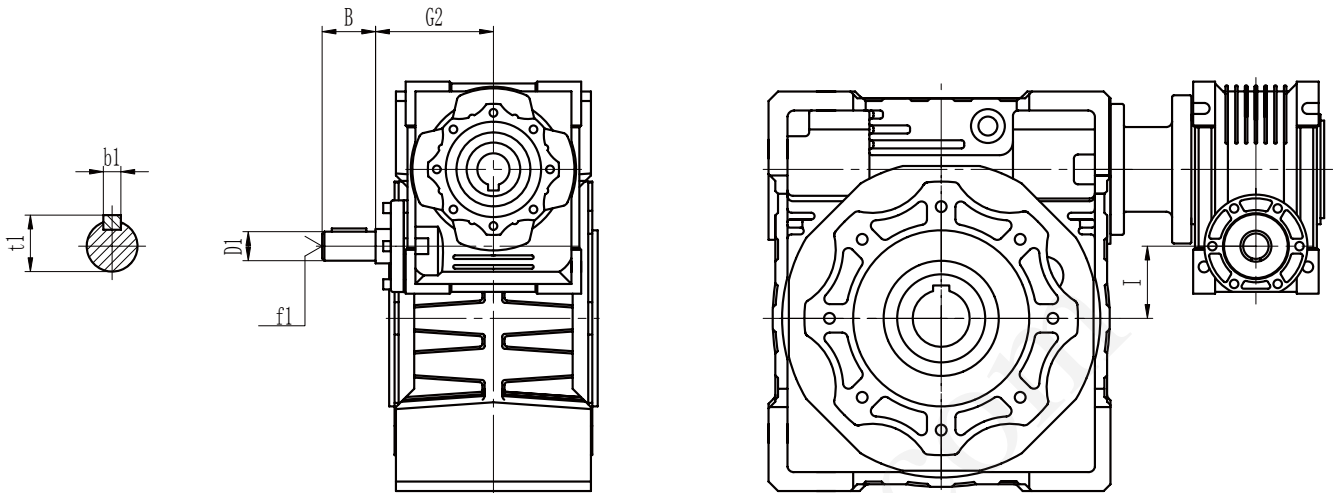


### NMRV 063 - NMRV 130





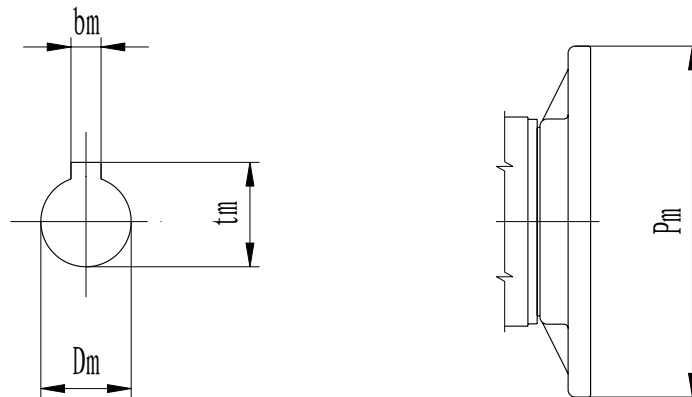
## Dimensions



NRV-NMRV	030-040	030-050	030-063	040-075	040-090	050-110	063-130
<b>B</b>	20	20	20	23	23	30	40
<b>D1</b>	9 j6	9 j6	9 j6	11 j6	11 j6	14 j6	19 j6
<b>G2</b>	51	51	51	60	60	74	90
<b>I</b>	10	20	33	35	50	50	67
<b>b1</b>	3	3	3	4	4	5	6
<b>f1</b>	-	-	-	-	-	M6	M6
<b>t1</b>	10.2	10.2	10.2	12.5	12.5	16	21.5

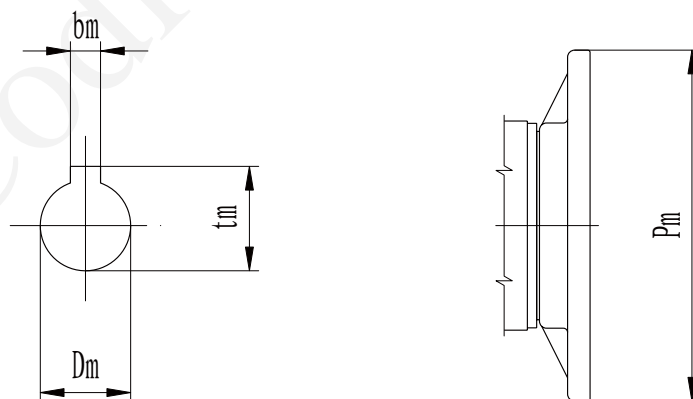


## Dimensions



B5	IEC										
	056	063	071	080	090	100	112	132	160	180	200
<b>Pm</b>	120	140	160	200	200	250	250	300	350	350	400
<b>Dm</b>	9	11	14	19	24	28	28	38	42	48	55
<b>bm</b>	3	4	5	6	8	8	8	10	12	14	16
<b>tm</b>	10.4	12.8	16.3	21.8	27.3	31.3	31.3	41.3	45.3	51.8	59.3

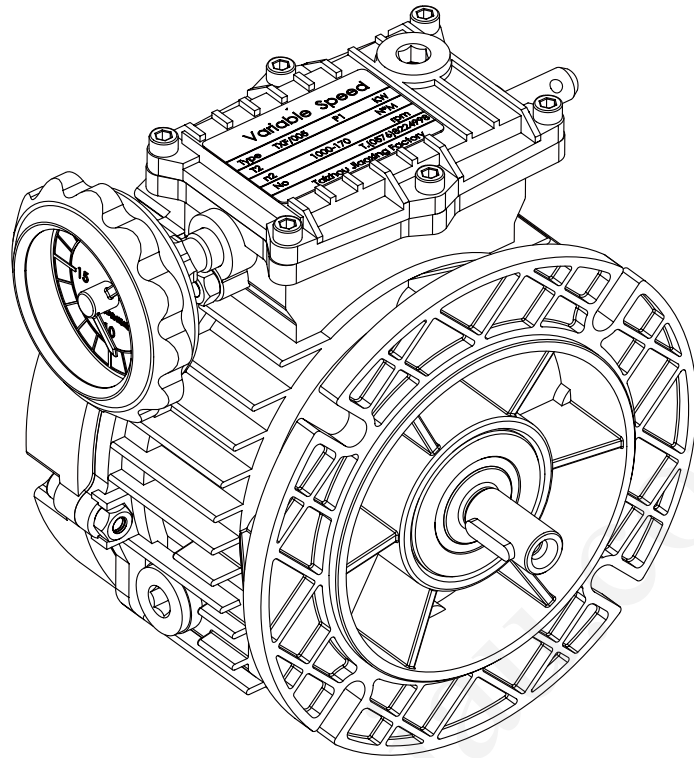
## Dimensions



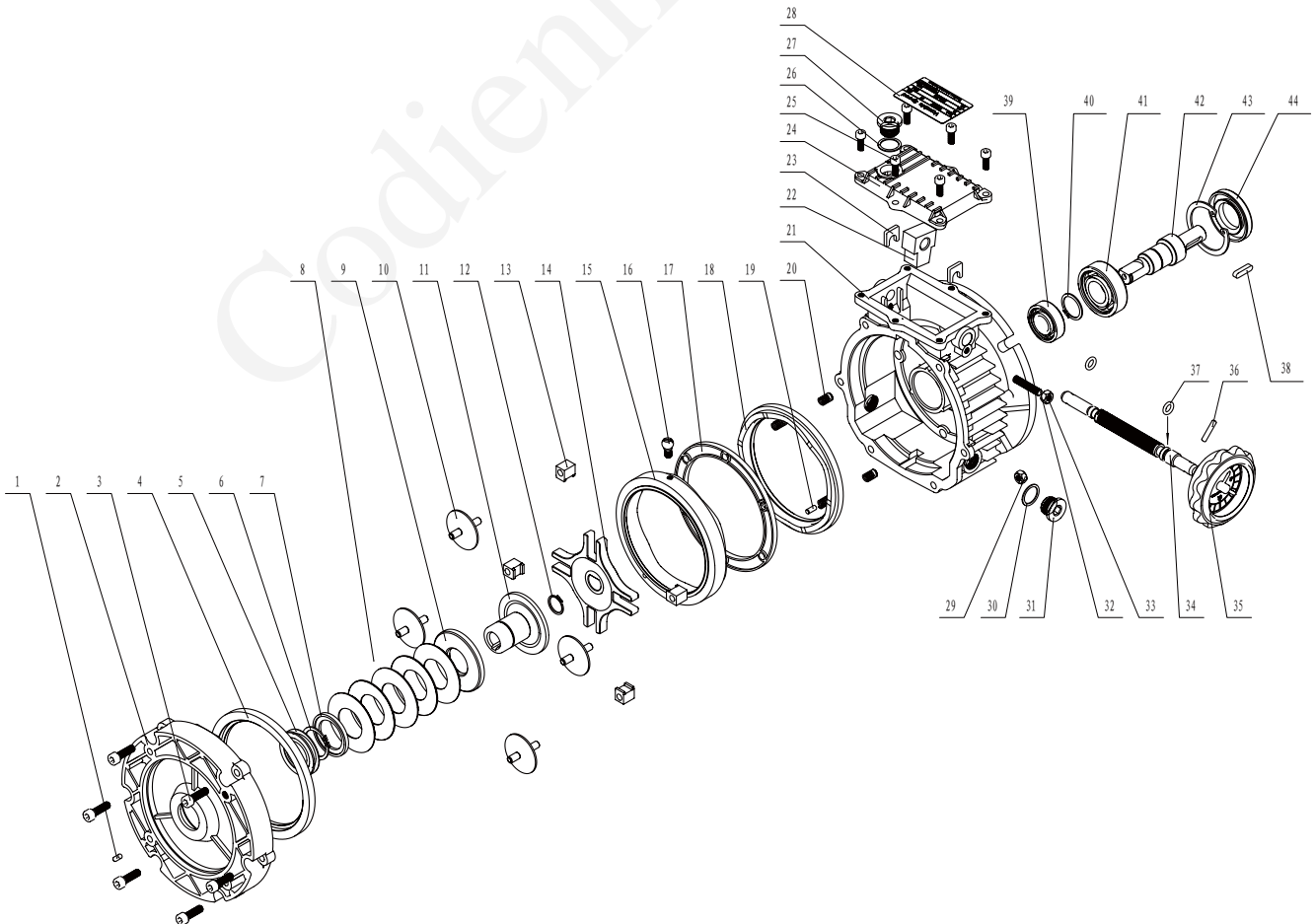
B14	IEC							
	056	063	071	080	090	110	112	132
<b>Pm</b>	80	90	105	120	140	160	160	200
<b>Dm</b>	9	11	14	19	24	28	28	38
<b>bm</b>	3	4	5	6	8	8	8	10
<b>tm</b>	10.4	12.8	16.3	21.8	27.3	31.3	31.3	41.3



## UDL Series Planetary Discone Step-Less Speed Variator



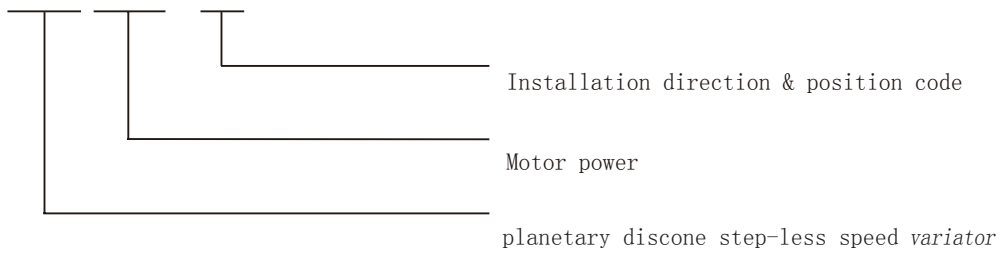
Structural exploded drawing





## UDL Model & Marker

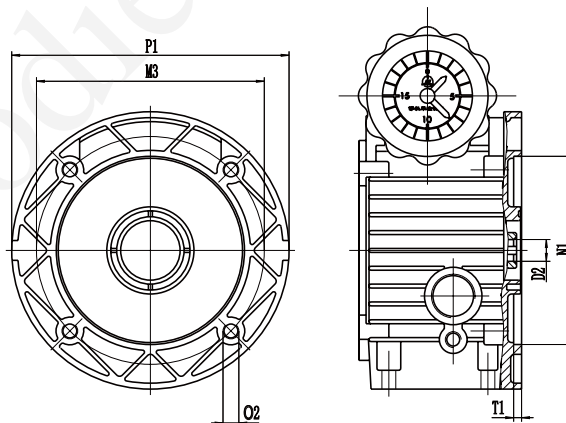
### UDL 0.37 - B3



## UDL performance

n1	Electrical power	frame size	n2 max	n2 min	M2 min	M2 max	Speed tolerance %	temperature increasing <° C
1400	0.18KW/4P	UDL002	880	170	1.5	3	3-3.8	46
	0.25KW/4P	UDL005	1000	170	2	6	3-8.8	46
	0.37KW/4P	UDL005	1000	170	3	6	3-8.8	46
	0.55KW/4P	UDL010	1000	170	4.4	12	3-8.8	46
	0.75KW/4P	UDL010	1000	170	6	12	3-8.8	46
	1.1KW/4P	UD020	950	165	9	18	3-8.8	46
	1.5KW/4P	UD020	950	165	12	24	3-8.8	46
	2.2KW/4P	UD030	1000	200	18	36	3-8.8	46
	3KW/4P	UD030/050	1000	200	24	48	3-8.8	46
	4KW/4P	UD050	1000	200	32	64	3-8.8	46
	5.5KW/4P	UD100	1000	200	45	90	3-8.8	50
	7.5KW/4P	UD100	1000	200	59	118	3-8.8	50

## Motor interface



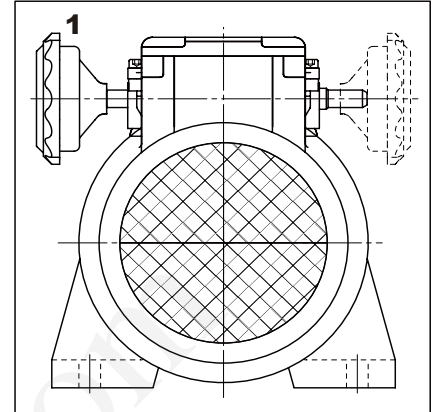
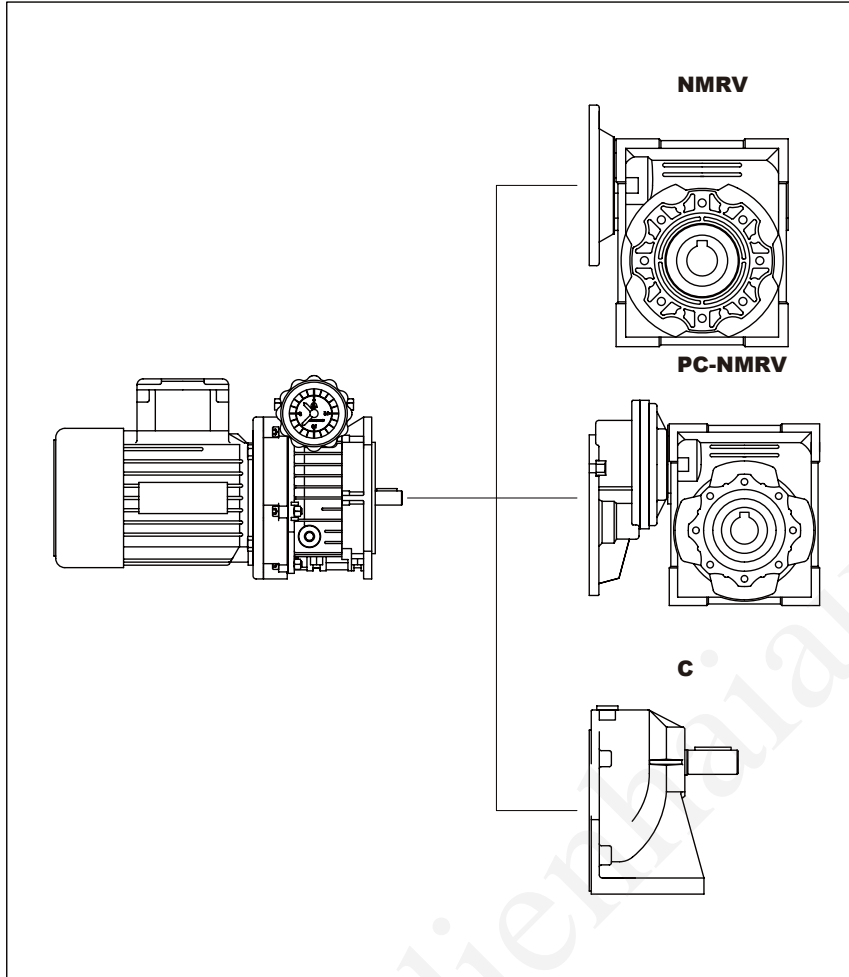
	PAM	P1	N1(H8)	M3	O2	D2(F7)	T1
	IEC						
UDL0.18	63B5	140	95	115	M8	11	5
UDL0.25/0.37	71B5	160	110	130	M8	14	5
UDL0.55	80B5	200	130	165	M10	19	6
UDL0.75	90B5	200	130	165	M10	24	6
UD1.1/1.5	90B5	200	130	165	M10	24	6
UD2.2	100B5	250	180	215	M12	28	6
UD3.0/4.0	100/112B5						
UD5.5	132B5	300	230	265	M12	38	6
UD7.5							



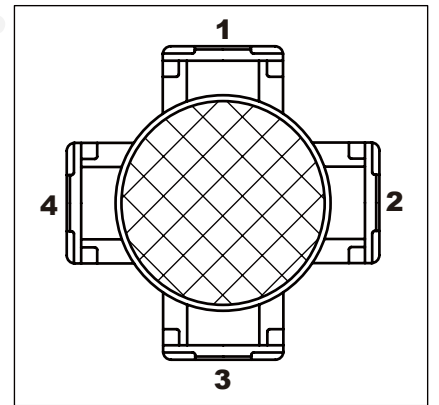
## Possible Combinations

For detailed dimensions, please refer to UD series catalogue

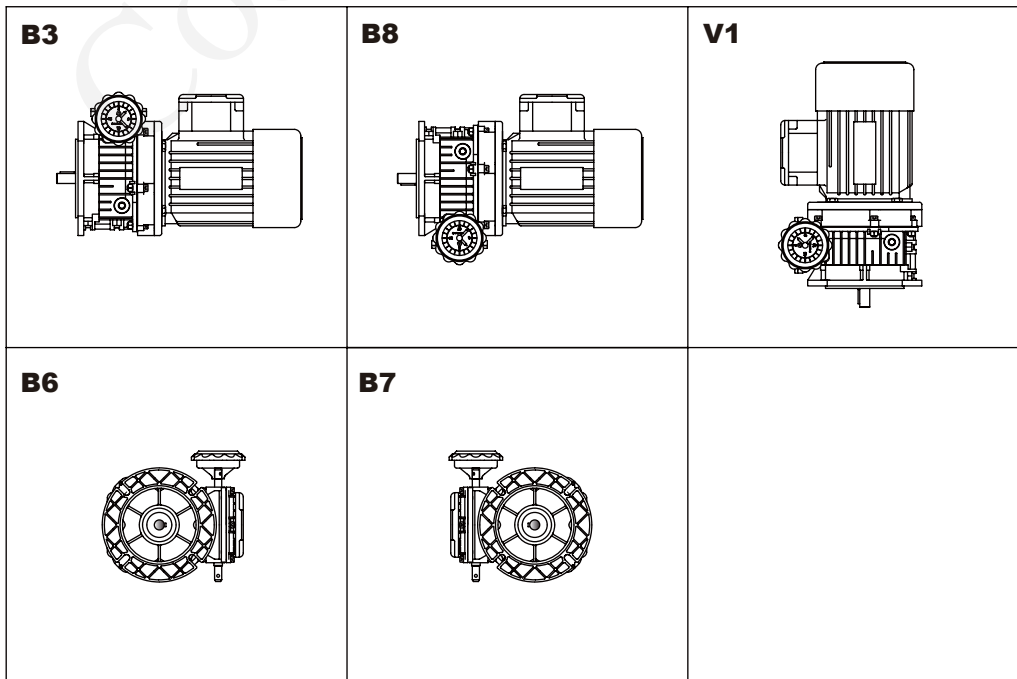
Hand-wheel position diagram  
Standard=POS. 1



Motor terminal box position diagram



## Mounting



## 14. UDL系列无级变速器 / UDL series speed variator

### 14.1 UDL系列无级变速器性能参数 / Performance table UDL series speed variator

( $n_1=1400$  r/min)

	型号 Model	i	$n_2$ [r/min]	$M_2$ [Nm]
0.18KW	UDL0.18	1.6~8.2	880~170	1.5~3
0.37KW	UDL0.37	1.4~7	1000~200	3~6
0.55KW	UDL0.55	1.4~7	1000~200	4~8
0.75KW	UDL0.75	1.4~7	1000~200	6~12
1.10KW	UD1.1	1.4~7	1000~200	9~18
1.50KW	UD1.5	1.4~7	1000~200	12~24
2.20KW	UD2.2	1.4~7	1000~200	18~36
3.00KW	UD3.0	1.4~7	1000~200	24~48
4.00KW	UD4.0	1.4~7	1000~200	32~64
5.5KW	UD5.5	1.4~7	1000~200	45~90
7.5KW	UD7.5	1.4~7	1000~200	59~118

### 14.2 无级变速器与齿轮减速器组合性能参数

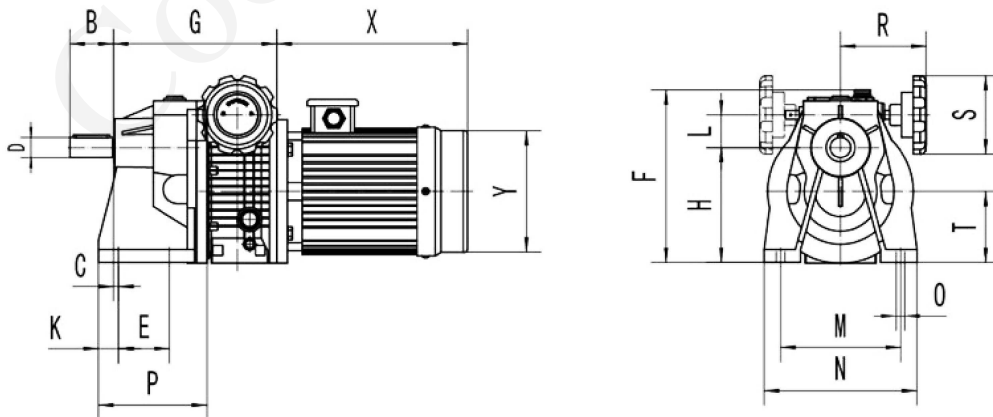
Performance table for stepless speed variator & gear speed reducer

( $n_1=1400$  r/min)

型号 Model	i	$n_2$ [r/min]	$M_2$ [Nm]
UDL0.37-CB3	5	200~40	15~30
UDL0.75-CB3	5	200~40	30~60
UD1.5-CB3	5	200~40	60~120

## 15. 无级变速器一级齿轮减速器组合底脚式外形尺寸及安装尺寸B3

Combined outline & installation sizes for stepless speed variator & gear speed reducer with foot screws

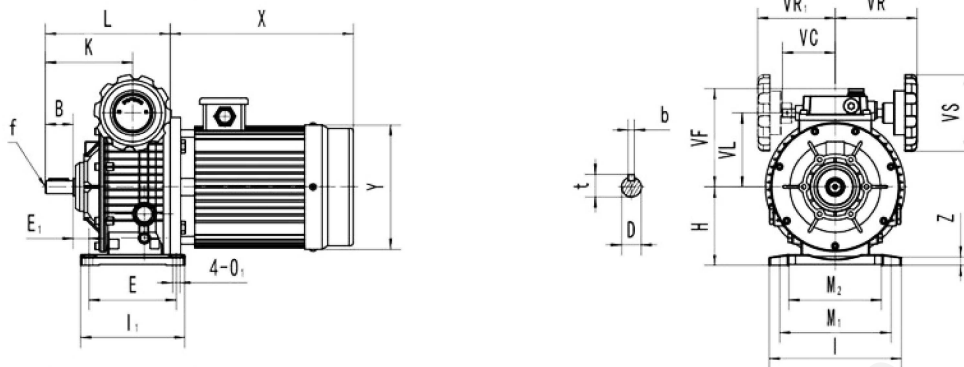


型号Model	B	C	D	E	F	G	H	Y	L	M	N	O	P	R	S	T	X	K
UDL0.37-CB3	50	5.8	24	70	267	190	130	141	39.5	150	190	10	109	110	85	79	227	15
UDL0.75-CB3	60	7.0	28	70	267	225	160	160	45.5	165	210	12	132	120	110	99	268	27.5
UD1.5-CB3	70	0.2	38	85	267	262	195	195	42.5	186	240	14	155	123	110	117	290	32



## 16. UDL外形尺寸图表 / OUTLINE DIMENSION SHEET

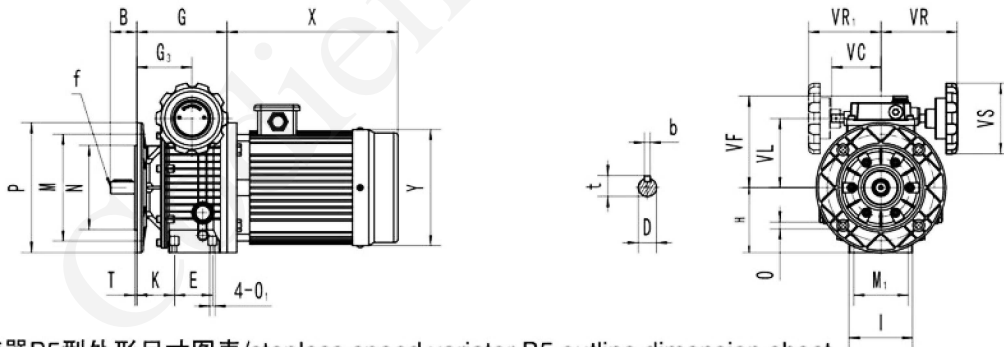
### 16.1 无级变速器B3型 / Steplss speed variator B3



无级变速器B3型外形尺寸图表/stepless speed variator B3 outline dimension sheet

	B	D <sub>6</sub>	E	E <sub>1</sub>	H	I	I <sub>1</sub>	K	L	M <sub>1</sub>	M <sub>2</sub>	O <sub>1</sub>	VC	VF	VL	VR	VR <sub>1</sub>	VS	b	f	t	X	Y	Z
UDL0.18B3	23	11	105	18	80	145	120	88	136	110	71	9	71	111	78	110	110	85	4	-	12.5	200	120	10
UDL0.37B3	30	14	104	20	93	149	125	104	140	120	96	9	71	123	90	100	100	85	5	M6	16	227	141	10
UDL0.75B3	40	19	125	23	113	190	150	126	179	160	135	11	79	140	107	118	118	110	6	M6	21.5	268	160	15
UD1.1B3	50	24	140	52	124	240	165	163	236	180	130	13	89	150	120	123	123	110	8	M8	27	265	195	21
UD1.5B3	50	24	140	52	124	240	165	163	236	180	130	13	89	150	120	123	123	110	8	M8	27	290	195	21
UD2.2B3	60	28	230	25	152	300	270	190	275	245	190	14	118	190	150	137	137	110	8	M8	33	320	215	25
UD3.0B3	60	28	230	25	152	300	270	190	275	245	190	14	118	190	150	137	137	110	8	M8	33	320	215	25
UD4.0B3	60	28	230	25	152	300	270	190	275	245	190	14	118	190	150	137	137	110	8	M8	33	340	240	25
UD5.5B3	70	38	250	33	200	365	290	201	319	315	245	18	-	-	192	194	-	110	10	M10	38	395	275	30
UD7.5B3	70	38	250	33	200	365	290	201	319	315	245	18	-	-	192	194	-	110	10	M10	38	435	275	30

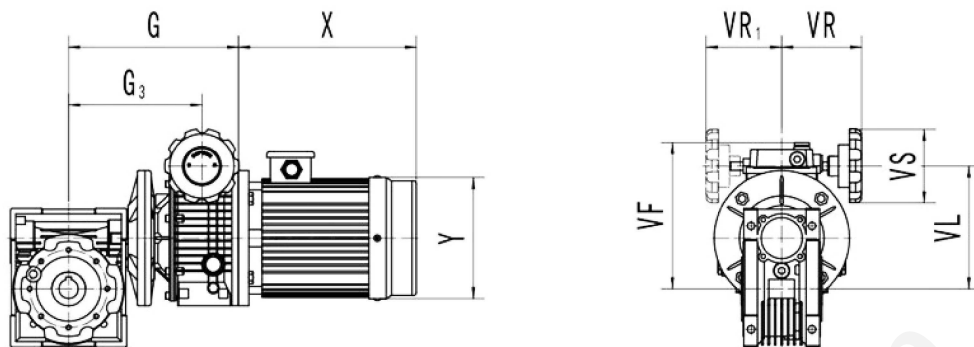
### 16.2 无级变速器B5型 / Steplss speed variator B5



无级变速器B5型外形尺寸图表/stepless speed variator B5 outline dimension sheet

	B	D <sub>6</sub>	E	G	G <sub>3</sub>	H	I	M	M <sub>1</sub>	N	O	O <sub>1</sub>	P	T	K	VC	VF	VL	VR	VR <sub>1</sub>	VS	b	f	t	X	Y
UDL0.18B5	23	11	50	113	64.5	70	72	115	60	95	9	M6	140	3.5	46	71	111	78	110	110	85	4	-	12.5	200	120
UDL0.37B5	30	14	40	110	74	80	90	130	77	110	9	M8	160	3.5	53	71	123	90	100	100	85	5	M6	16	227	141
UDL0.75B5	40	19	58	139	84.5	100	98	165	84	130	11	M8	200	3.5	60	79	140	107	118	118	110	6	M6	21.5	268	160
UD1.1B5	40	24	-	186	113.5	108	240	165	-	130	11	-	200	3.5	-	89	150	120	123	123	110	8	M8	27	265	195
UD1.5B5	50	24	-	186	113.5	108	240	165	-	130	11	-	200	3.5	-	89	150	120	123	123	110	8	M8	27	290	195
UD2.2B5	60	28	-	208	130	132	260	215	-	180	15	-	250	4.0	-	118	190	150	137	137	110	8	M8	33	320	215
UD3.0B5	60	28	-	208	130	132	260	215	-	180	15	-	250	4.0	-	118	190	150	137	137	110	8	M8	33	320	215
UD4.0B5	60	28	-	208	130	132	260	215	-	180	15	-	250	4.0	-	118	190	150	137	137	110	8	M8	33	340	240
UD5.5B5	70	38	-	244	131	200	-	265	-	230	19	-	300	5.0	-	-	-	192	194	-	110	10	M10	38	395	275
UD7.5B5	70	38	-	244	131	200	-	265	-	230	19	-	300	5.0	-	-	-	192	194	-	110	10	M10	38	435	275

## 17. UDL+NMRV变速器与蜗轮减速机组合 COMBINATION OF SPEED VARIATOR AND WORM GEAR UNITS



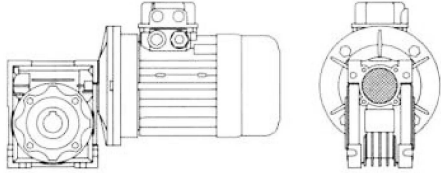
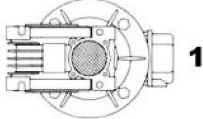
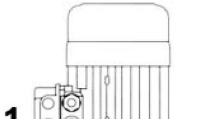
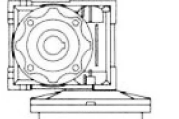
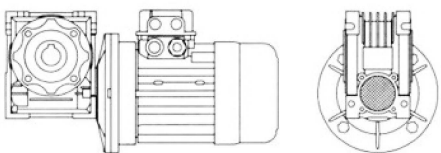
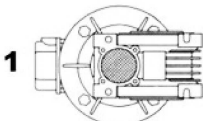
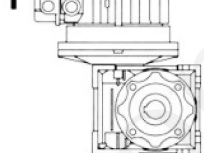
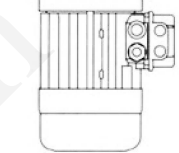
规格型号	G	G <sub>3</sub>	VF	VL	VS	VR	VR <sub>1</sub>	机座号 4P n=1400r/min	X	Y
UDL0.18-NMRV040	183	135	151	118	85	110	110	63	200	120
UDL0.18-NMRV050	193	145	161	128	85	110	110			
UDL0.37-NMRV050	190	154	173	140	85	110	110	71	227	141
UDL0.37-NMRV063	205	169	186	153	85	110	110			
UDL0.55-NMRV063	234	181	203	170	110	120	120	80	268	160
UDL0.75-NMRV063	234	181	203	170	110	120	120			
UDL0.37-NMRV075	222.5	187	198	165	85	110	110	71	227	141
UDL0.55-NMRV075	252	198	215	182	110	120	120			
UDL0.75-NMRV075	252	198	215	182	110	120	120	80	268	160
UD1.1-NMRV075	298.5	226.5	225	195	110	123	123			
UD1.5-NMRV075	298.5	226.5	225	195	110	123	123	90S	265	195
UDL0.55-NMRV090	289	215	230	197	110	120	120			
UDL0.75-NMRV090	269	215	230	197	110	120	120	80	268	160
UD1.1-NMRV090	315.5	243	240	210	110	123	123			
UD1.5-NMRV090	315.5	243	240	210	110	123	123	90L	290	195
UD1.1-NMRV110	346	273.5	260	230	110	123	123			
UD1.5-NMRV110	346	273.5	260	230	110	123	123	90L	290	195
UD2.2-NMRV110	368	290	300	260	110	137	137			
UD3.0-NMRV110	368	290	300	260	110	137	137	100L	320	215
UD4.0-NMRV110	368	290	300	260	110	137	137			
UD1.5-NMRV130	366	293.5	280	250	110	123	123	90L	290	195
UD2.2-NMRV130	388	310	320	280	110	137	137			
UD3.0-NMRV130	388	310	320	280	110	137	137	100L	320	215
UDL4.0-NMRV130	388	310	320	280	110	137	137			

没有列出的外形尺寸，请分别查阅UDL或NMRV页面相关参数。

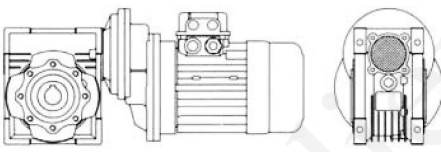
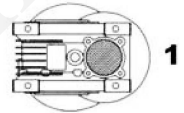
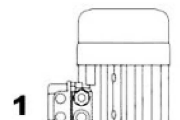
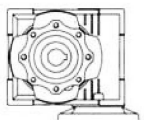
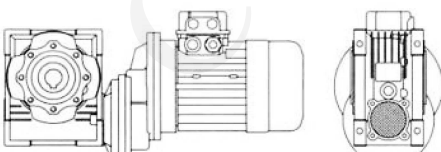
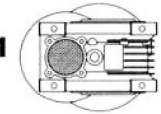
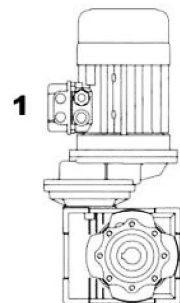
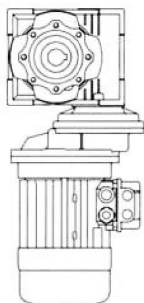


**18. 安装方位图 / INSTALLATION POSITIONS DIAGRAM**

**18.1 NMRV..安装方位 / Mounting Positions**

<b>NMRV... - B3</b>	<b>B6</b>	<b>V5</b>	<b>V6</b>
<p style="text-align: center;"><b>1</b></p> 	<p style="text-align: center;"><b>1</b></p> 	<p style="text-align: center;"><b>1</b></p> 	<p style="text-align: center;"><b>1</b></p> 
<p style="text-align: center;"><b>B8</b></p>	<p style="text-align: center;"><b>B7</b></p>		
<p style="text-align: center;"><b>3</b></p> 	<p style="text-align: center;"><b>1</b></p> 		<p style="text-align: center;"><b>1</b></p> 

**18.2 PC.. - NMRV. 安装方位 / Mounting Positions**

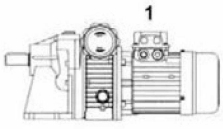
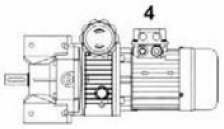
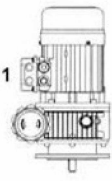
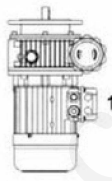
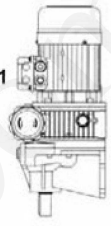
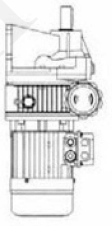
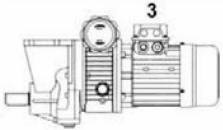
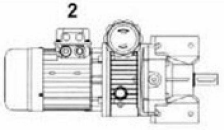
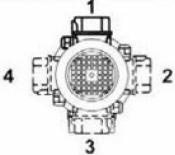
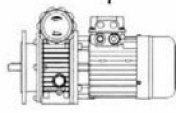
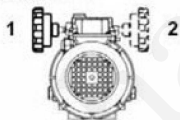
<b>PC.. - NMRV - B3</b>	<b>B6</b>	<b>V5</b>	<b>V6</b>
<p style="text-align: center;"><b>1</b></p> 	<p style="text-align: center;"><b>1</b></p> 	<p style="text-align: center;"><b>1</b></p> 	<p style="text-align: center;"><b>1</b></p> 
<p style="text-align: center;"><b>B8</b></p>	<p style="text-align: center;"><b>B7</b></p>		
<p style="text-align: center;"><b>3</b></p> 	<p style="text-align: center;"><b>1</b></p> 		<p style="text-align: center;"><b>1</b></p> 

- 如无特殊说明，标准的安装位置为B3。
- 如需要特别的安装位置，请与我们技术服务人员联系。

- Unless specified otherwise, the standard positions are B3
- For positions not envisaged, it is necessary to call our Technical Service.



**18.3 UDL安装方位图 / UDL Installation positions diagram**

<b>B3</b>	<b>B6S</b>	<b>V1</b>	<b>V3</b>	<b>V5</b>	<b>V6</b>
					
<b>B8</b>	<b>B6D</b>				
		<b>手轮位置 Pos.of hand wheel</b>		<b>接线盒位置 Pos.of terminal box</b>	
<b>B5</b>	标准位置 / Standard pos. = 1				
					

- 如对接线盒位置有特殊要求，请在下单时如上图所示来指定接线盒安装方位，否则接线盒的位置按标准位置1形式提供。
- 如没有特殊要求，一般按出厂的标准位置B3或B5形式提供。
- 如需要特殊的安装位置，请与我们技术服务人员联系。

- For special requirements, orders must specify the position of the terminal box with reference to the diagram. Unless otherwise specified the terminal box, the position of that will be mounted as shown in the diagram for the mounting position.
- Unless specified otherwise, the standard positions are B3 or B5.
- For positions not envisaged, it is necessary to call our Technical Service.





- AC Speed Controllers up to 800 amps
- Soft Starters up to 1100 amps
- Brake Motors up to 110 Kw
- Hazardous Motors Including: Ex'd', Ex'e', Ex'n', DIP & Ex'd' Single Phase
- Single Phase Motors
- Incremental Shaft Encoders
- Electronic Motor Protection Relays
- High Performance Output Drive Filters
- High Voltage Motors
- Slip Ring Motors
- Motor Starters & Control Packages

