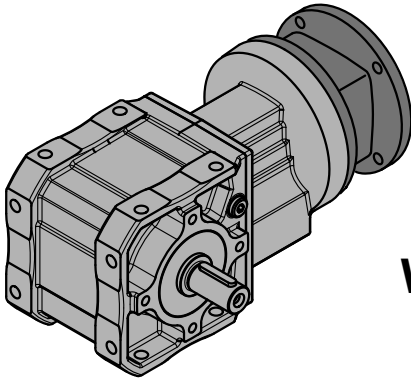
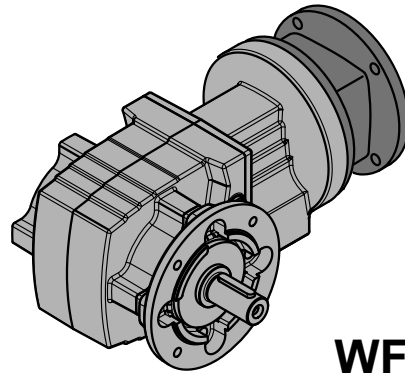


12 W..

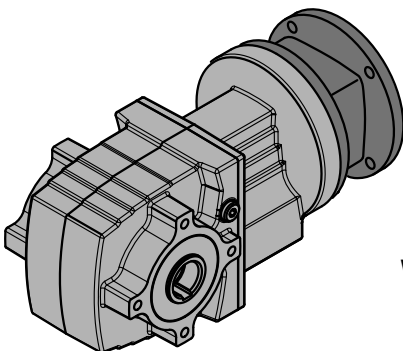
12.1 W.. AM.. [Nm]



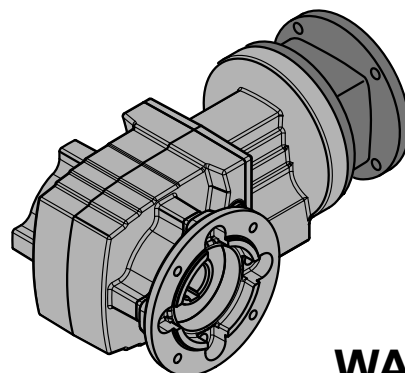
**W.7/AM..**



**WF.7/AM..**

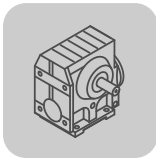


**WA.7/AM..**

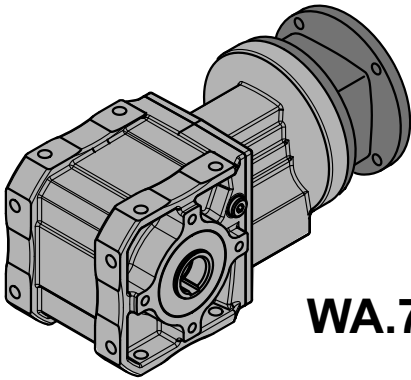


**WAF.7/AM..**

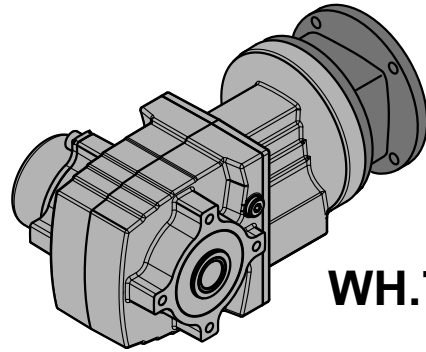
68395AXX



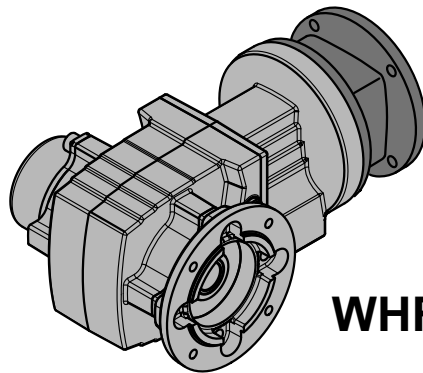
W..  
W.. AM.. [Nm]



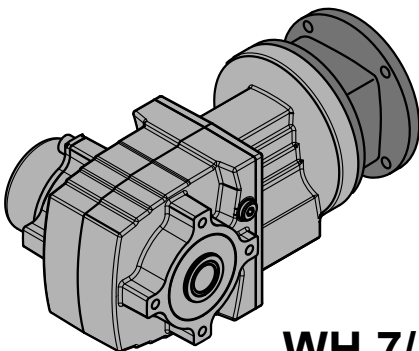
**WA.7B/AM..**



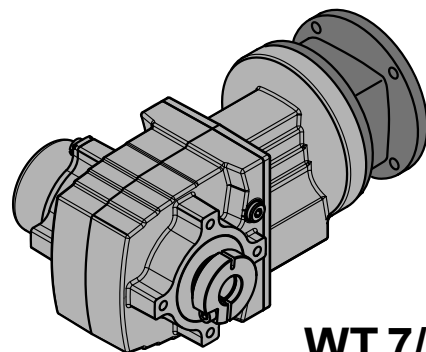
**WH.7/AM..**



**WHF.7/AM..**

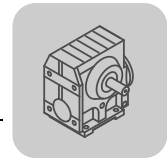


**WH.7/AM..**






**WT.7/AM..**

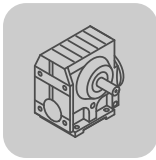
68394AXX



12.1.1 W37

$n_e = 1400$ 1/min						110 Nm			
	i	$n_a$ [1/min]	$M_{a\ max}$ [Nm]	$F_{Ra}$ [N]	$\varphi$ (/R) [ ' ]	AM			
						63	71	80	90
<b>W37</b> 	3.20	438	70	2220	-				
	3.93	356	70	2410	-				
	5.11	274	70	2680	-				
	5.77	243	70	2810	-				
	6.97	201	70	3020	-				
	8.55	164	70	3270	-				
	9.92	141	70	3460	-				
	10.67	131	90	2880	-				
	11.65	120	70	3680	-				
	12.70	110	70	3800	-				
	13.89	101	90	3250	-				
	15.67	89	90	3430	-				
	18.94	74	90	3610	-				
	21.33	66	110	3320	-				
	23.25	60	90	3610	-				
	26.96	52	90	3610	-				
	27.78	50	110	3320	-				
	31.33	45	110	3320	-				
	31.67	44	90	3610	-				
	34.52	41	90	3610	-				
37.88	37	110	3320	-					
46.49	30	110	3320	-					
53.92	26	110	3320	-					
63.33	22	110	3320	-					
69.05	20	110	3320	-					

m [kg]		AM			
IEC	s	63	71	80	90
W37	 2	8.2	8.5	11	11
NEMA		-	56	143	145
W37	 2	-	8.8	11	11
WF: + 0.0 kg / WA: + 0.0 kg / WAF: + 0.0 kg					



W..  
W.. AM.. [Nm]

## 12.1.2 W47

$n_e = 1400$ 1/min						180 Nm			
i	$n_a$ [1/min]	$M_{a\ max}$ [Nm]	$F_{Ra}$ [N]	$\varphi$ (/R) [ ' ]	AM				
					63	71	80	90	
3.27	428	110	2690	-					
3.89	360	110	2900	-					
4.40	318	110	3050	-					
5.23	268	110	3270	-					
5.58	251	110	3360	-					
6.53	214	110	3580	-					
7.32	191	110	3750	-					
8.61	163	110	4000	-					
9.96	141	110	4240	-					
10.66	131	110	4350	-					
11.32	124	160	3500	-					
12.30	114	110	4600	-					
13.44	104	160	3810	-					
14.35	98	160	3930	-					
16.80	83	160	4230	-					
18.82	74	160	4460	-					
22.15	63	160	4800	-					
25.07	56	180	4490	-					
25.62	55	160	5130	-					
26.76	52	180	4640	-					
27.41	51	160	5280	-					
31.33	45	180	5010	-					
31.62	44	160	5620	-					
35.09	40	180	5290	-					
41.30	34	180	5720	-					
47.78	29	180	6110	-					
51.12	27	180	6300	-					
58.98	24	180	6500	-					
68.93	20	180	6500	-					
74.98	19	180	6500	-					

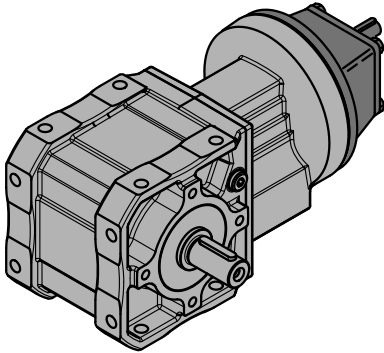
W47  
 2

m [kg]		AM						
IEC	s	63	71	80	90	100	112	132S/M
W47		14	15	17	17	22	22	29
NEMA		-	56	143	145	182	184	213/215
W47		-	15	17	17	21	21	26

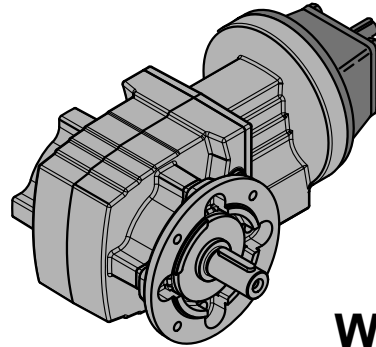
WF: + 0.5 kg / WA: + -1.5 kg / WAF: + -0.7 kg



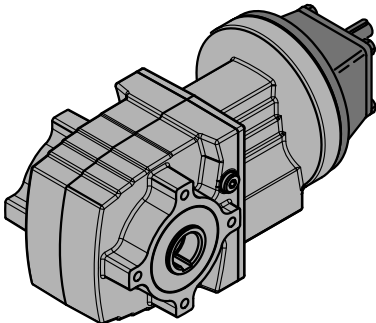
12.2 W.. AD.. [kW]



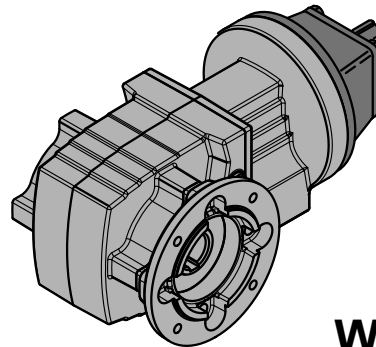
**W.7/AD..**



**WF.7/AD..**

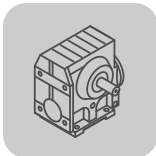


**WA.7/AD..**

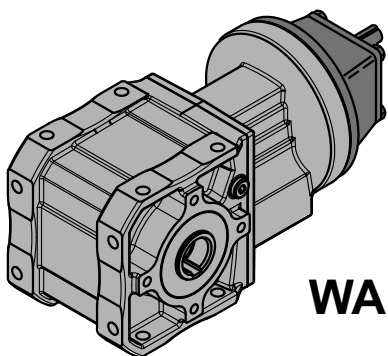


**WAF.7/AD..**

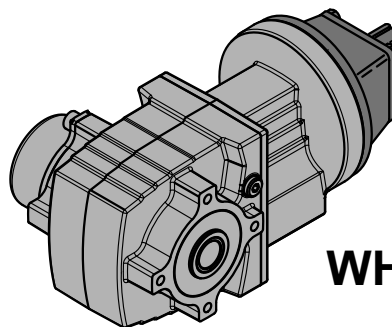
68396AXX



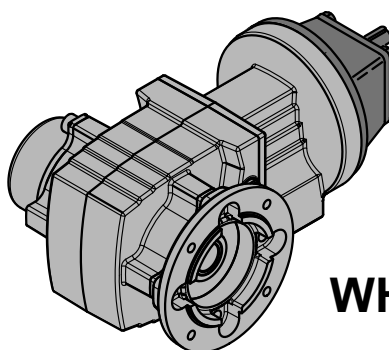
W..  
W.. AD.. [kW]



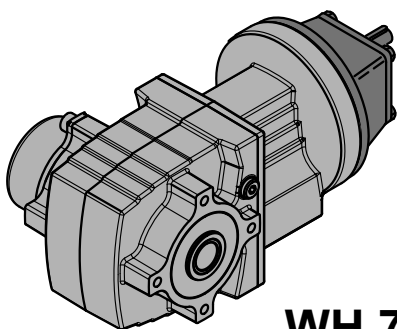
**WA.7B/AD..**



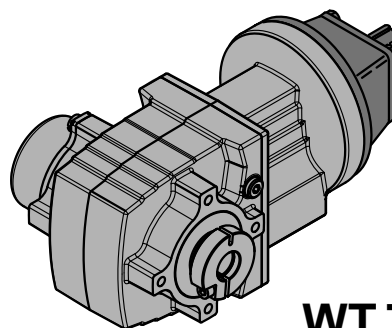
**WH.7/AD..**



**WHF.7/AD..**

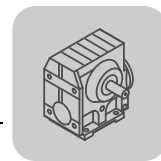


**WH.7/AD..**

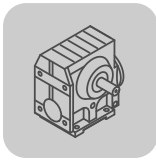


**WT.7/AD..**

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i	$n_a$ [1/min]	$M_{amax}$	$P_e$ [kW]	$F_{Ra}^{1)}$ [N]	$F_{Re}$ [N]	$\varphi$ (R)			m [kg]	
<b>W37 AD.. , <math>n_e = 1400</math> 1/min</b>										<b>110 Nm</b>
69.05	20	110	0.36	3320	555	-	-			
63.33	22	110	0.39	3320	550	-	-			
53.92	26	110	0.45	3320	545	-	-			
46.49	30	110	0.51	3320	540	-	-			
37.88	37	110	0.61	3320	525	-	-			
34.52	41	90	0.48	3610	400	-	-			
31.67	44	90	0.52	3610	395	-	-	W 37	AD1	7.7
31.33	45	110	0.72	3320	505	-	-	WF 37	AD1	7.7
27.78	50	110	0.80	3320	490	-	-	WA 37	AD1	7.7
26.96	52	90	0.60	3610	380	-	-	WAF 37	AD1	7.7
23.25	60	90	0.69	3610	365	-	-			
21.33	66	110	1.0	3320	445	-	-			
18.94	74	90	0.84	3610	335	-	-			
15.67	89	90	1.0	3430	305	-	-			
13.89	101	90	1.1	3250	280	-	-			
12.70	110	70	0.91	3800	860	-	-			
11.65	120	70	0.99	3680	830	-	-			
10.67	131	90	1.4	2880	1670	-	-			
9.92	141	70	1.2	3460	1540	-	-	W 37	AD2	8.9
8.55	164	70	1.3	3270	1530	-	-	WF 37	AD2	8.9
6.97	201	70	1.6	3020	1510	-	-	WA 37	AD2	8.9
5.77	243	70	2.0	2810	1490	-	-	WAF 37	AD2	8.9
5.11	274	70	2.2	2680	1480	-	-			
3.93	357	70	2.8	2410	1430	-	-			
3.20*	438	70	3.5	2220	1380	-	-			
<b>W47 AD.. , <math>n_e = 1400</math> 1/min</b>										<b>180 Nm</b>
74.98	19	180	0.52	6400	1490	-	-			
68.93	20	180	0.56	6400	1480	-	-			
58.98	24	180	0.63	6400	1690	-	-			
51.12	27	180	0.72	6230	1680	-	-			
47.78	29	180	0.76	6040	1680	-	-			
41.30	34	180	0.87	5650	1680	-	-			
35.09	40	180	1.0	5230	1670	-	-			
31.62	44	160	0.91	5560	1590	-	-			
31.33	45	180	1.1	4950	1670	-	-			
27.41	51	160	1.0	5220	1580	-	-			
26.76	52	180	1.3	4580	1660	-	-			
25.62	55	160	1.1	5070	1580	-	-			
25.07	56	180	1.4	4430	1650	-	-			
22.15	63	160	1.3	4750	1560	-	-	W 47	AD2	15
18.82	74	160	1.5	4410	1560	-	-	WF 47	AD2	15
16.80	83	160	1.6	4180	1550	-	-	WA 47	AD2	13
14.35	98	160	1.9	3880	1530	-	-	WAF 47	AD2	14
13.44	104	160	2.0	3760	1530	-	-			
12.30	114	110	1.4	4550	1400	-	-			
11.32	124	160	2.4	3460	1500	-	-			
10.66	131	110	1.6	4300	1390	-	-			
9.96	141	110	1.8	4190	1380	-	-			
8.61	163	110	2.0	3960	1360	-	-			
7.32	191	110	2.4	3710	1340	-	-			
6.53	214	110	2.6	3540	1320	-	-			
5.58	251	110	3.1	3320	1300	-	-			
5.23	268	110	3.3	3240	1280	-	-			
4.40	318	110	3.9	3020	1240	-	-			
3.89	360	110	4.4	2860	1200	-	-			
3.27	429	110	5.2	2660	1140	-	-			

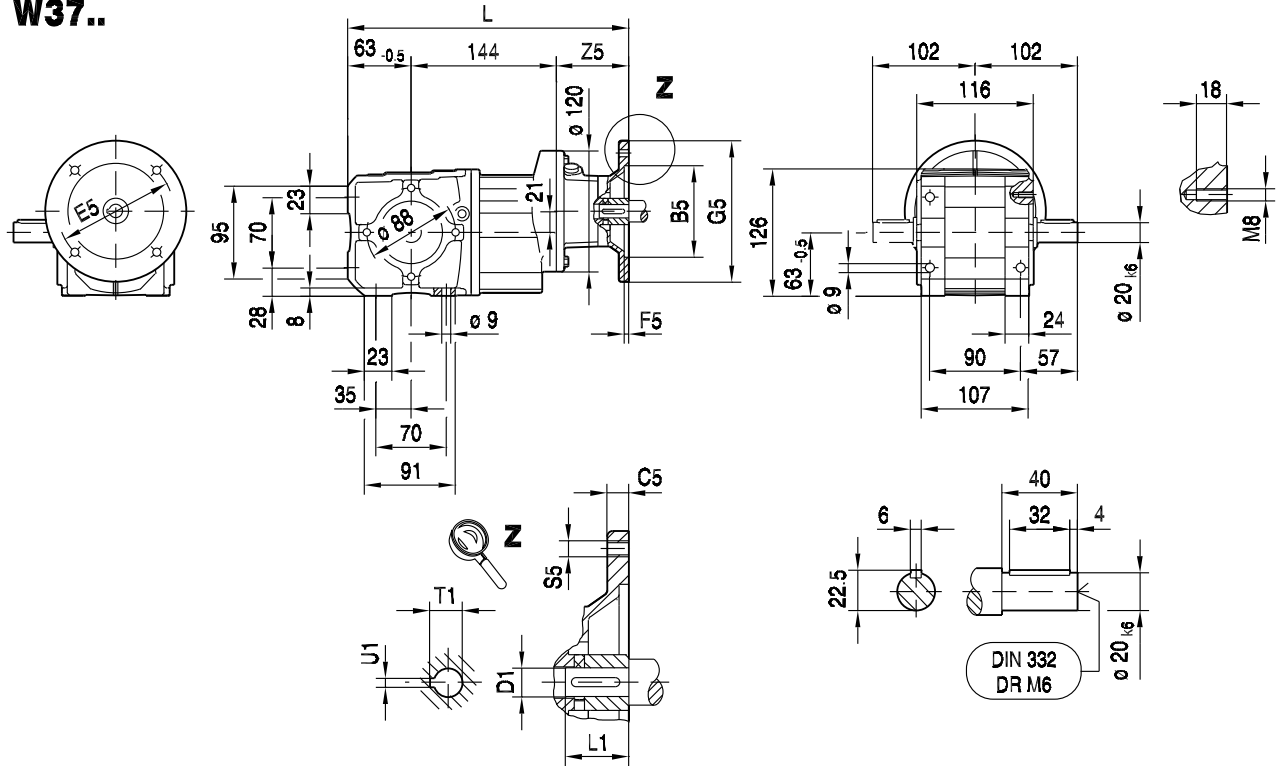


W..  
W.. AM.. (IEC) [mm]

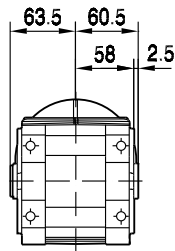
12.3 W.. AM.. (IEC) [mm]

20 004 00 07

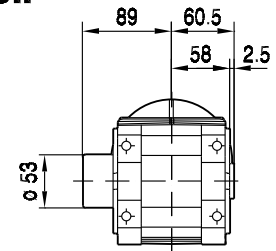
W37..



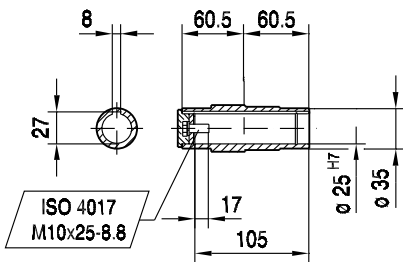
WA37B..



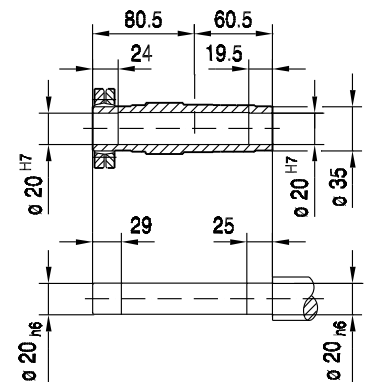
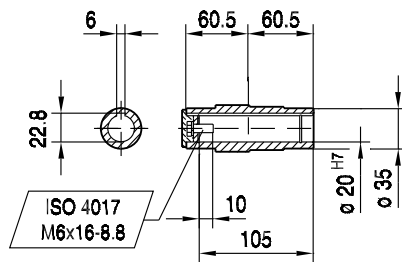
WH37B..



Ø 25 H7  
DIN 6985-3

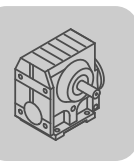


Ø 20 H7



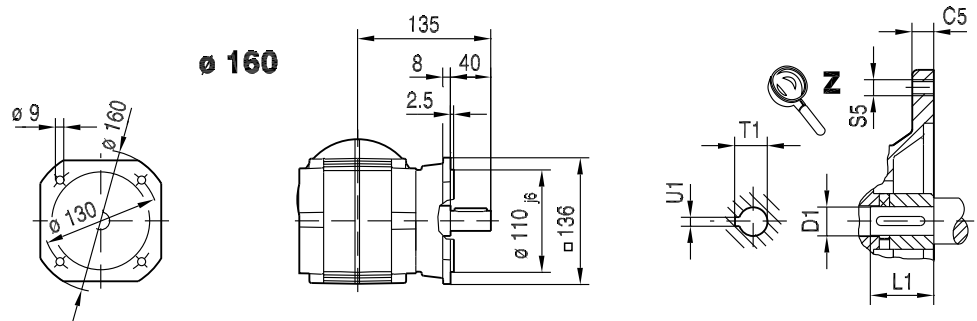
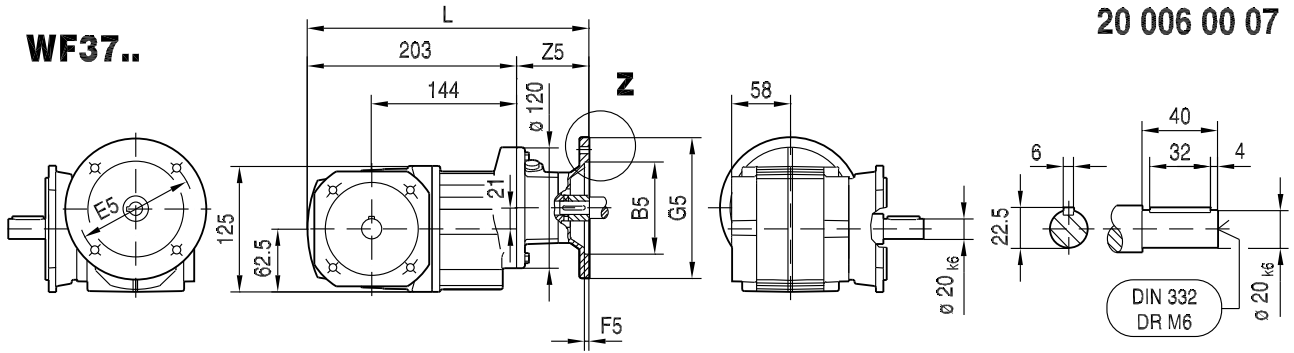
(→ 130)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1	
AM63	95	10	115	3.5	140	279	M8	72	11	23	12.8	4	
AM71	110	10	130	4.0	160	279	M8	72	14	30	16.3	5	
AM80	130	12	165	4.5	200	313	M10	106	19	40	21.8	6	
AM90	130	12	165	4.5	200	313	M10	106	24	50	27.3	8	





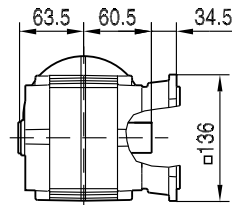
**WF37..**

20 006 00 07

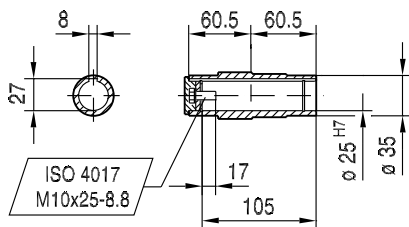


**WAF37..**

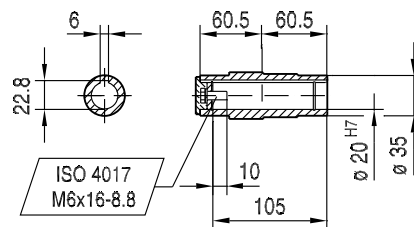
ø 160



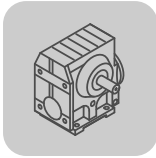
ø 25 H7  
DIN 6885-3



ø 20 H7



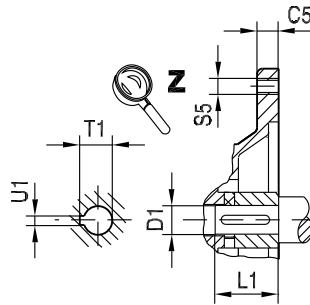
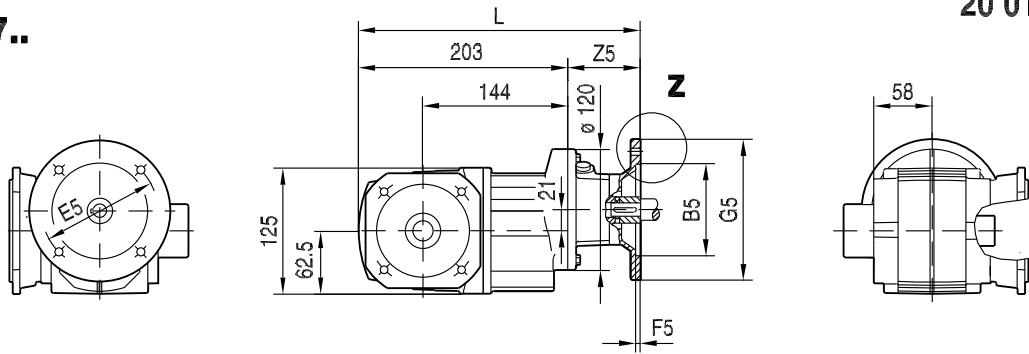
(→ 130)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AM63	95	10	115	3.5	140	275	M8	72	11	23	12.8	4
AM71	110	10	130	4.0	160	275	M8	72	14	30	16.3	5
AM80	130	12	165	4.5	200	309	M10	106	19	40	21.8	6
AM90	130	12	165	4.5	200	309	M10	106	24	50	27.3	8



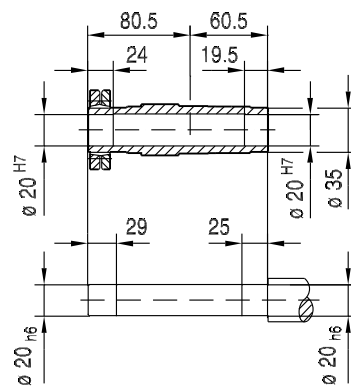
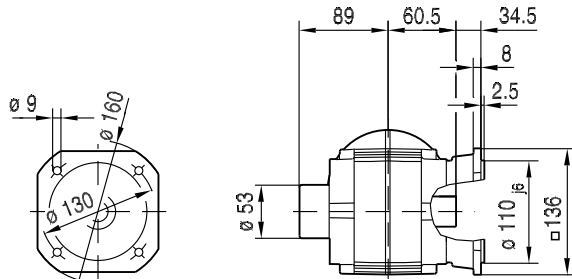
W..  
W.. AM.. (IEC) [mm]

20 019 00 07

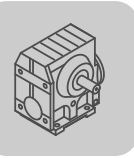
WHF37..



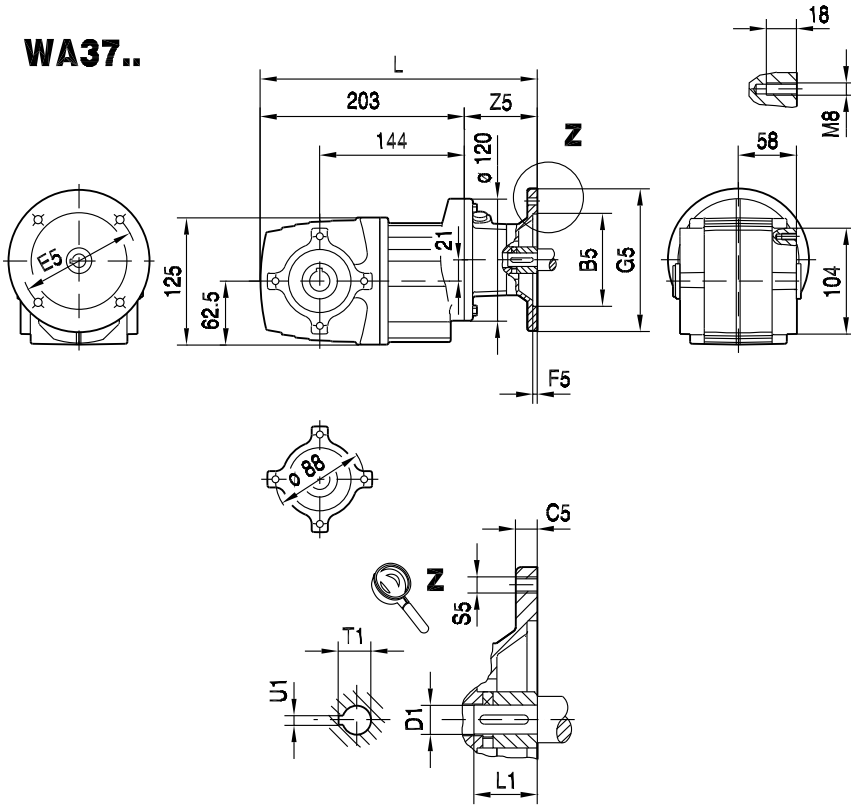
ø 160



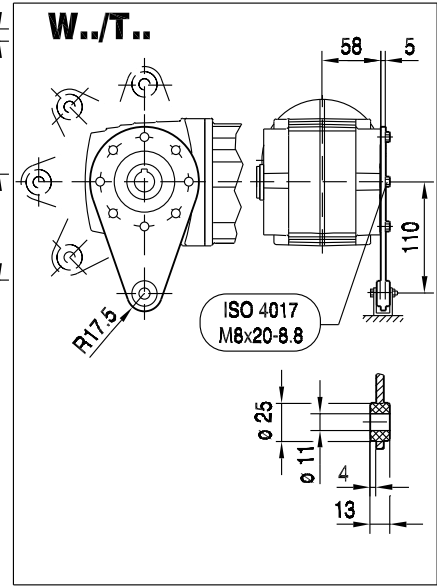
(→ 130)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AM63	95	10	115	3.5	140	275	M8	72	11	23	12.8	4
AM71	110	10	130	4.0	160	275	M8	72	14	30	16.3	5
AM80	130	12	165	4.5	200	309	M10	106	19	40	21.8	6
AM90	130	12	165	4.5	200	309	M10	106	24	50	27.3	8



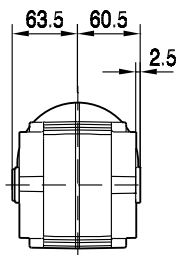
**WA37..**



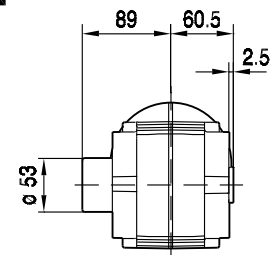
20 005 00 07



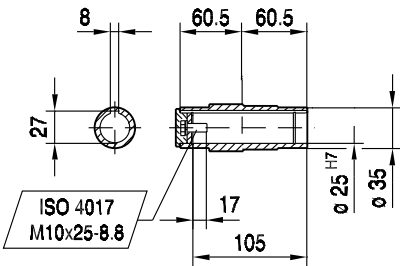
**WA37..**



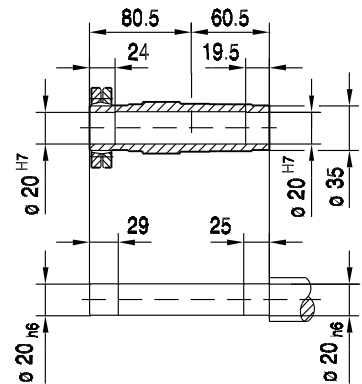
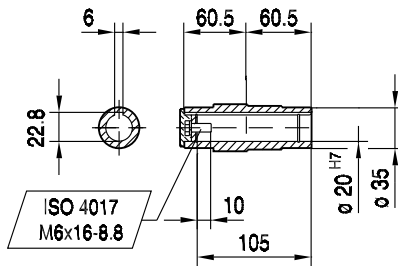
**WH37..**



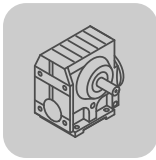
Ø 25 H7  
DIN 6885-3



Ø 20 H7



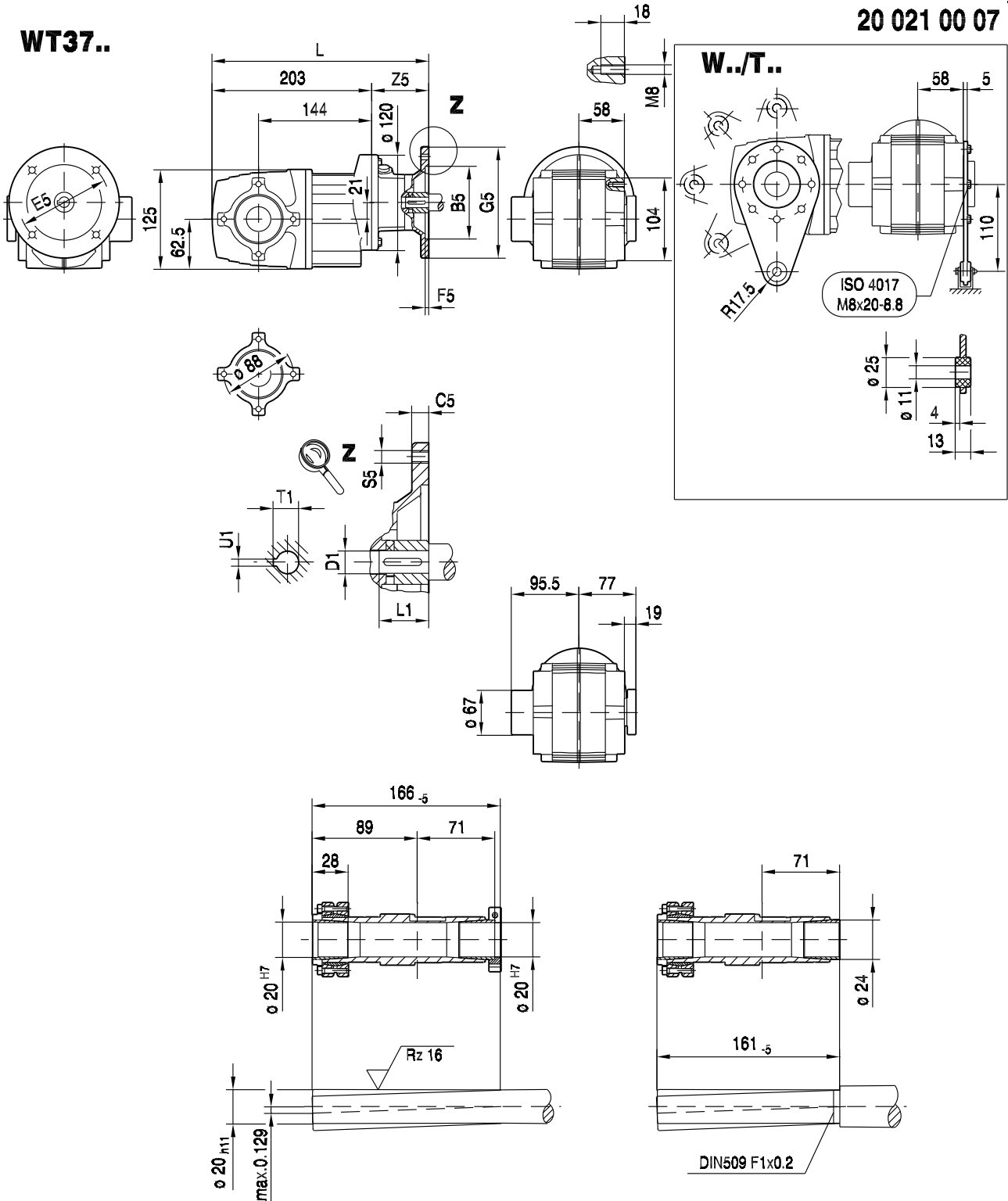
(→ 130)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AM63	95	10	115	3.5	140	275	M8	72	11	23	12.8	4
AM71	110	10	130	4.0	160	275	M8	72	14	30	16.3	5
AM80	130	12	165	4.5	200	309	M10	106	19	40	21.8	6
AM90	130	12	165	4.5	200	309	M10	106	24	50	27.3	8



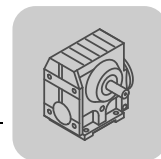
W..  
W.. AM.. (IEC) [mm]

WT37..

20 021 00 07

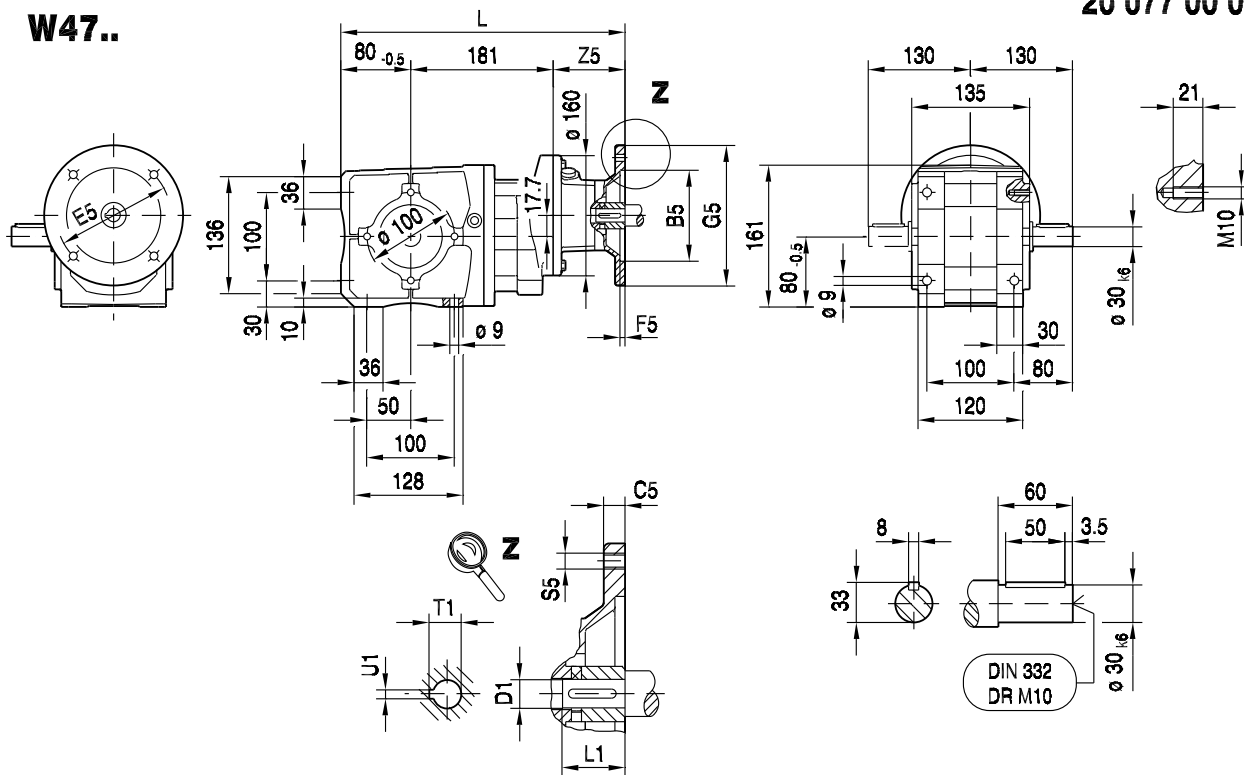


(→ 130)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1	
AM63	95	10	115	3.5	140	275	M8	72	11	23	12.8	4	
AM71	110	10	130	4.0	160	275	M8	72	14	30	16.3	5	
AM80	130	12	165	4.5	200	309	M10	106	19	40	21.8	6	
AM90	130	12	165	4.5	200	309	M10	106	24	50	27.3	8	

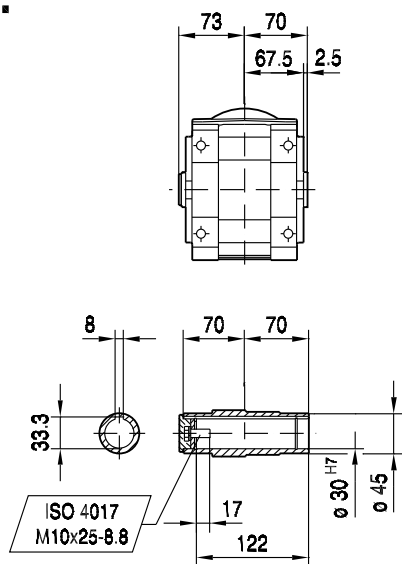


20 077 00 08

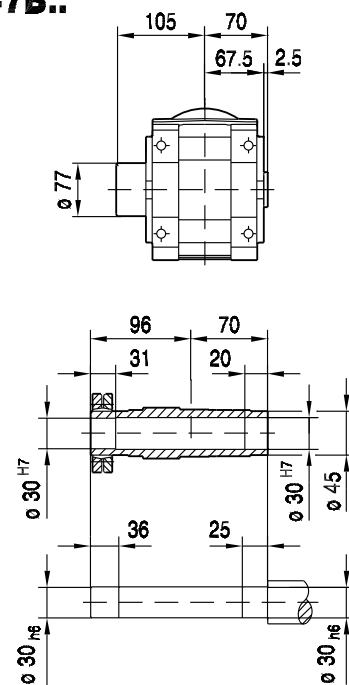
**W47..**



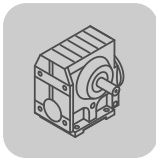
**WA47B..**



**WH47B..**



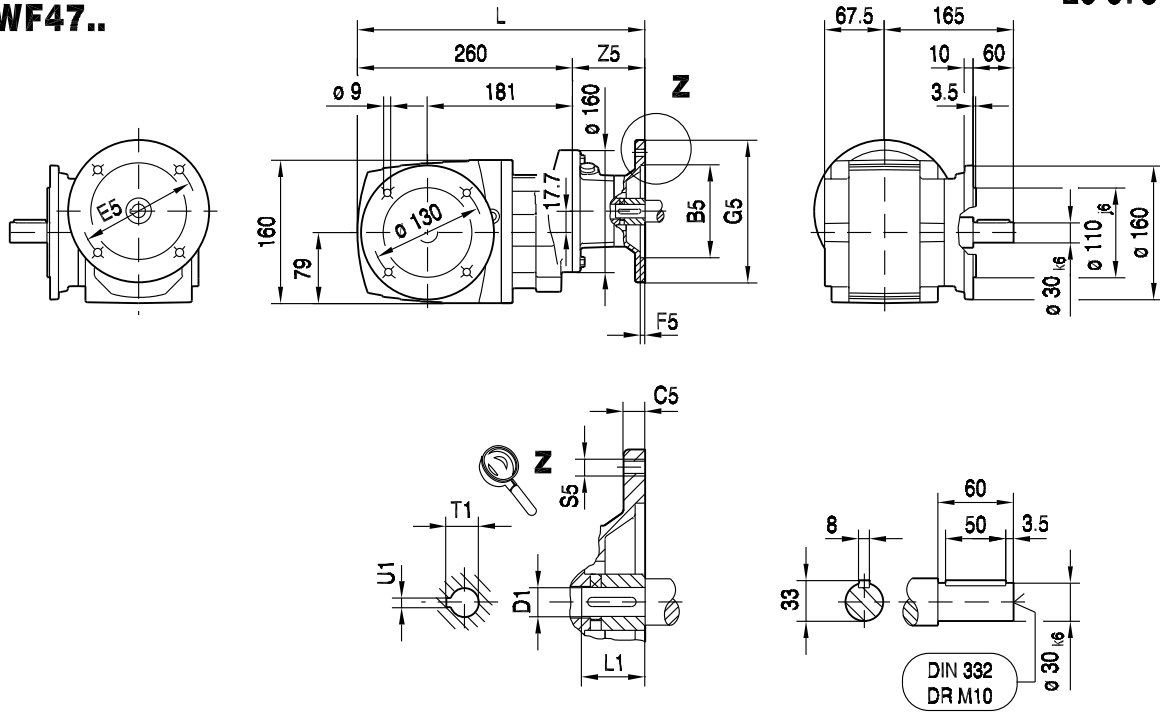
(→ 130)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AM63	95	10	115	3.5	140	279	M8	72	11	23	12.8	4
AM71	110	10	130	4.0	160	279	M8	72	14	30	16.3	5
AM80	130	12	165	4.5	200	313	M10	106	19	40	21.8	6
AM90	130	12	165	4.5	200	313	M10	106	24	50	27.3	8



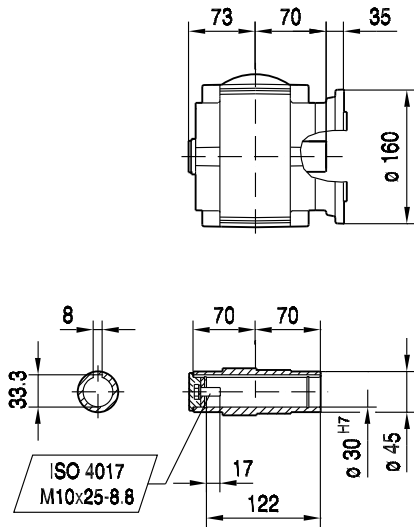
W..  
W.. AM.. (IEC) [mm]

20 078 00 08

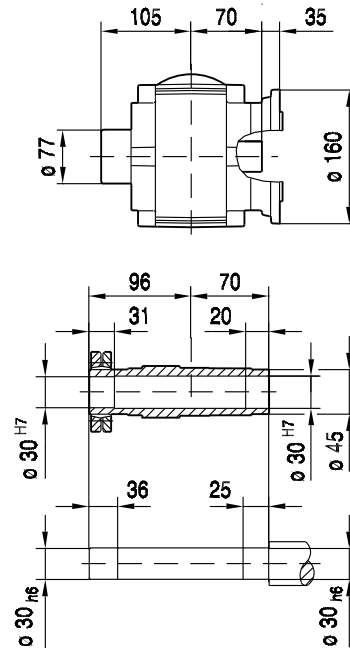
**WF47..**



**WAF47..**



**WHF47..**

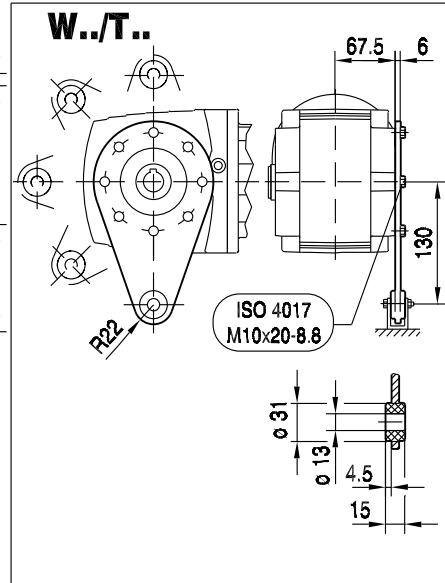
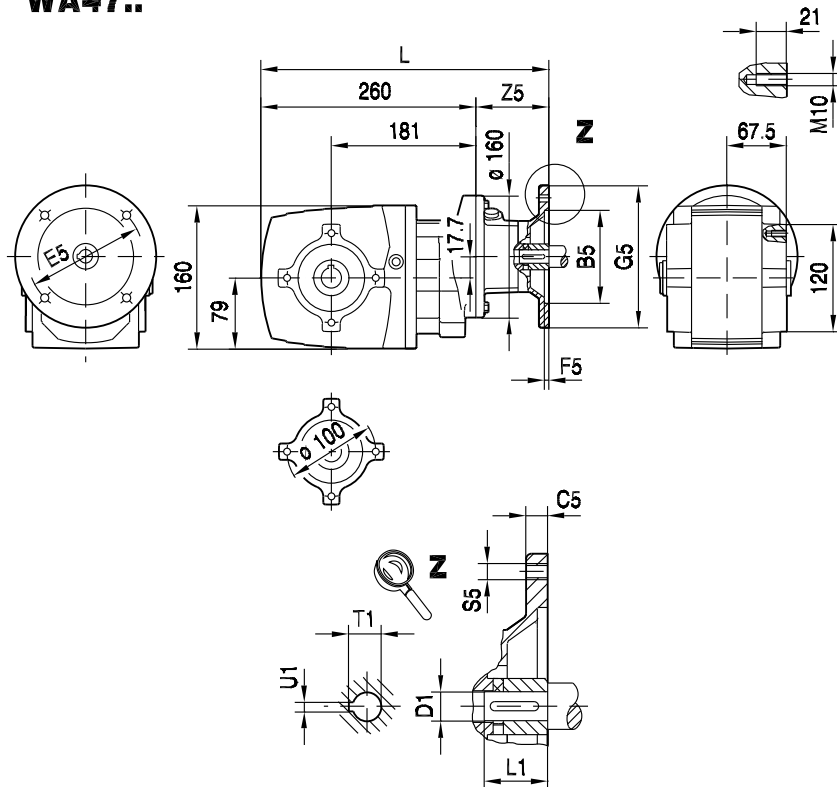


(→ 130)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1	
AM63	95	10	115	3.5	140	275	M8	72	11	23	12.8	4	
AM71	110	10	130	4.0	160	275	M8	72	14	30	16.3	5	
AM80	130	12	165	4.5	200	309	M10	106	19	40	21.8	6	
AM90	130	12	165	4.5	200	309	M10	106	24	50	27.3	8	

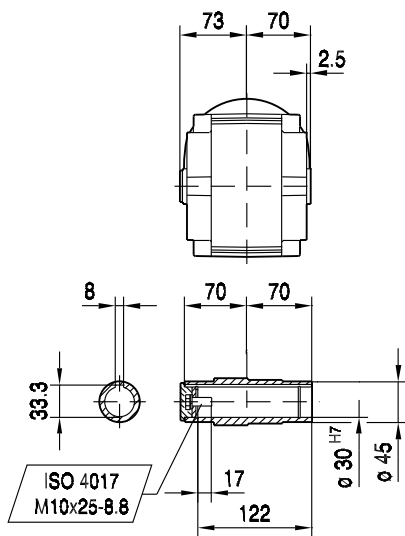


20 079 00 08

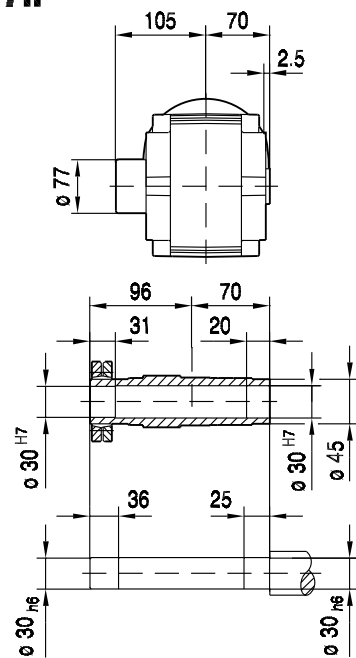
WA47..



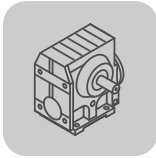
WA47..



WH47..



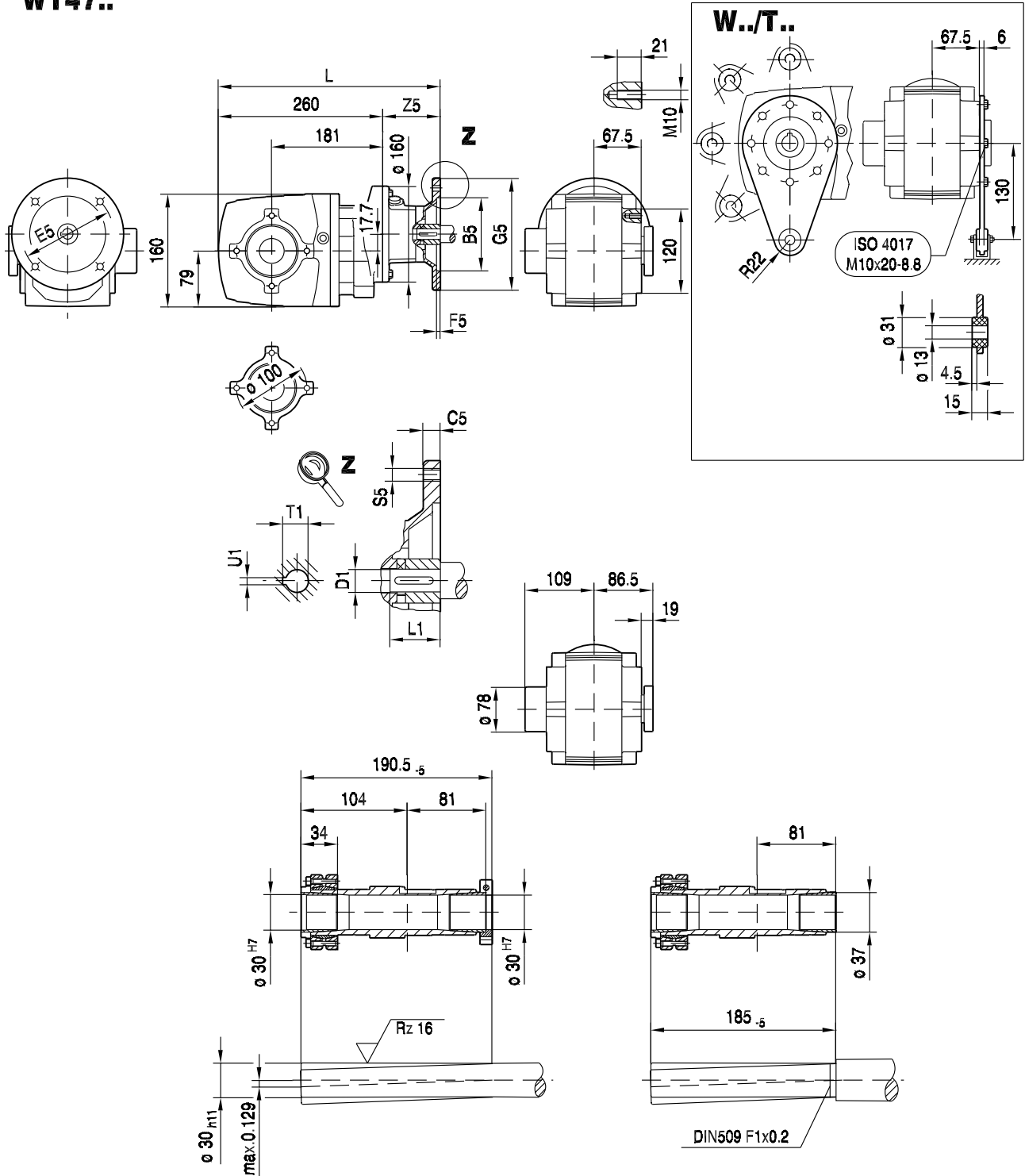
(→ 130)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AM63	95	10	115	3.5	140	275	M8	72	11	23	12.8	4
AM71	110	10	130	4.0	160	275	M8	72	14	30	16.3	5
AM80	130	12	165	4.5	200	309	M10	106	19	40	21.8	6
AM90	130	12	165	4.5	200	309	M10	106	24	50	27.3	8



W..  
W.. AM.. (IEC) [mm]

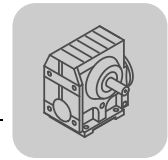
WT47..

20 080 00 08



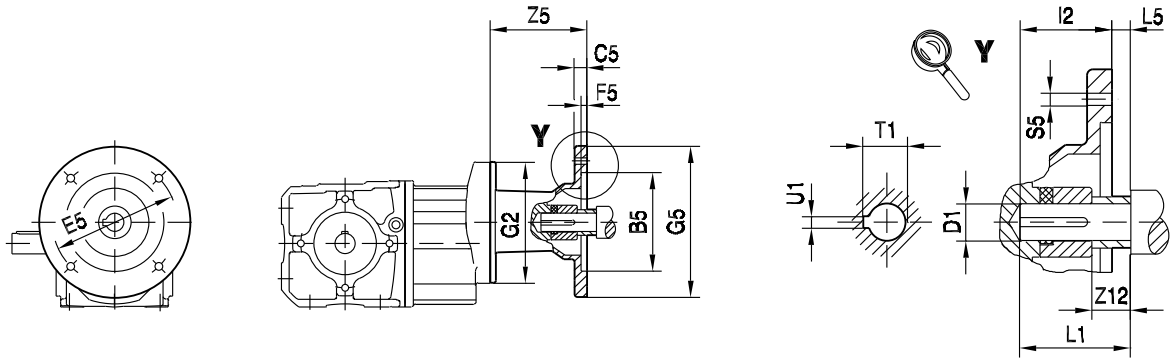
(→ 130)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1	
AM63	95	10	115	3.5	140	275	M8	72	11	23	12.8	4	
AM71	110	10	130	4.0	160	275	M8	72	14	30	16.3	5	
AM80	130	12	165	4.5	200	309	M10	106	19	40	21.8	6	
AM90	130	12	165	4.5	200	309	M10	106	24	50	27.3	8	



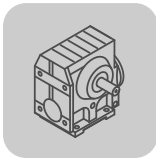


12.4 W.. AM.. (NEMA) [mm]

20 007 00 07

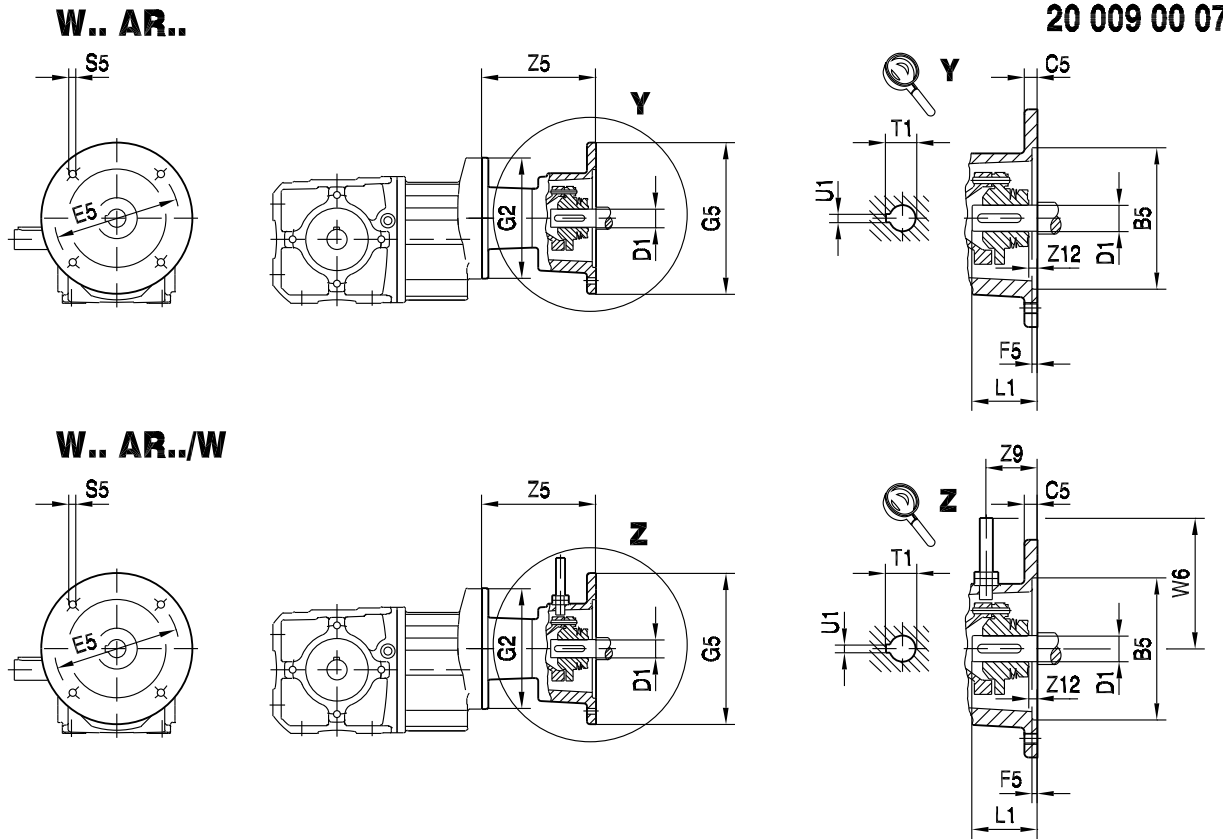


		B5	C5	E5	F5	G2	G5	I2	L5	S5	Z5	Z12	D1	L1	T1	U1
W..37	AM56	114.3	11	149.2	4.5	120	170	52.55	-4.8	10.5	93.5	16.5	15.875	47.75	18.1	4.76
	AM143		12					54.1	3.05		117	14.5	22.225	57.15	24.7	
	AM145		11					52.55	-4.8		87	16.5	15.875	47.75	18.1	
W..47	AM56	114.3	11	149.2	4.5	160	170	52.55	-4.8	10.5	87	16.5	15.875	47.75	18.1	4.76
	AM143		12					54.1	3.05		110.5	14.5	22.225	57.15	24.7	
	AM145		11					52.55	-4.8		87	16.5	15.875	47.75	18.1	

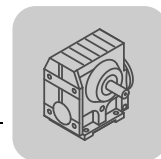


W..  
W.. AR.. [mm]

12.5 W.. AR.. [mm]



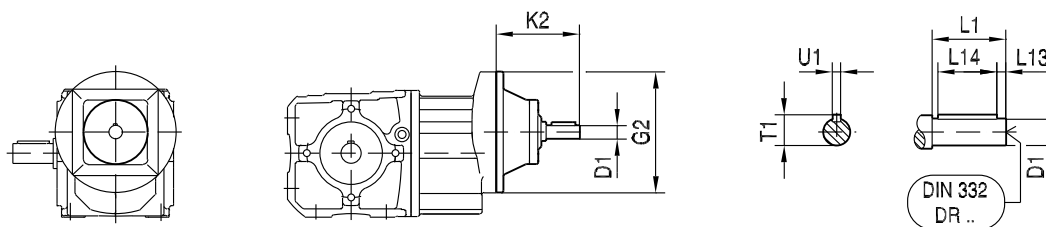
		B5	C5	E5	F5	G2	G5	S5	W6	Z5	Z9	Z12	D1	L1	T1	U1
W..37	AR71	110	10	130	3.5	120	160	M8	120	104	37	0	14	30	16.3	5
	AR80	130	12	165	4.5		200	M10		140.5			19	40	21.8	6
	AR90						24	50		27.3			8			
W..47	AR71	110	10	130	3.5	160	160	M8	120	104	37	0	14	30	16.3	5
	AR80	130	12	165	4.5		200	M10		134			19	40	21.8	6
	AR90						24	50		27.3			8			



12.6 W.. AD.. [mm]

20 010 01 07

W.. AD..



		G2	K2	D1	L1	L13	L14	T1	U1
W..37	AD1	120	102	16	40	4	32	18	5
	AD2		130	19	40	4	32	21.5	6
W..47	AD2	160	123	19	40	4	32	21.5	6