

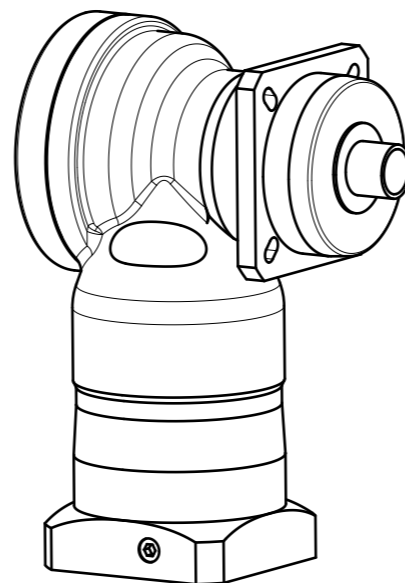
**Materials / Surfaces:**


Input flange: Aluminum / untreated  
 Angle housing: Aluminum / Anodized (black)  
 Output flange: Steel / untreated

**Hints:**

Please pay attention to the operating and mounting instructions.  
 Subject to modifications.

Variables on the drawing are dependent upon the motor.  
 The given dimensions are exemplary



	Scale: 7:10	DIN A3	ISO
	Revision status: F from: 12/2022		
Changed revision status: E from: 09/2018			
General tolerance DIN ISO 2768-cL	W GN070-aii-SSSG3AD-Z(D20) /(L20)/(D21)/(D22)/B5/(G3)		
Neugart GmbH Keltenstr. 16 D-77971 Kippenheim	Sheet 1/2		

General gearbox data	Character	Unit	
Bevel gearbox - gearing type	-	-	Hypoid teeth
Rotation direction	-	-	Input and output in opposite directions
Number of stages	p	-	1-stage
Output shaft bearing	-	-	Tapered roller bearing
Service life (L10h)	$t_L$	h	20.000
Max. operating temperature	$T_{min} / T_{max}$	°C	-25 / +90
Protection class	-	-	IP 65
Lubrication (Lifetime lubrication)	-	-	Standard Lubrication (Castrol Optigear Synthetic 800)
Installation position	-	-	Any
Max. bending moment based on the gearbox input flange (for motor weight) (1)	$M_b$	Nm	12
Motor shaft concentricity / Coaxiality and axial runout Motor flange	-	-	0,02 / 0,04 (Measuring methods according to DIN EN 50347)
Required motor shaft tolerance	-	-	j6; k6
Min. permissible motor shaft length	$L_{20min}$	mm	15
Reference operating mode	-	-	S1
Reference operating factor	$K_A$	-	1
Reference speed	$n_2$	rpm	100
Reference ambient temperature	$T_{Amb}$	°C	20
Radial force for output bearing based on shaft center after L10h=20.000h with Fa=0N	$F_r 20.000h$	N	2700
Axial force for output bearing based on gearbox axis after L10h=20.000h with Fr=0N	$F_a 20.000h$	N	4300
Radial force for output bearing based on shaft center after L10h=30.000h with Fa=0N	$F_r 30.000h$	N	2700
Axial force for output bearing based on gearbox axis after L10h=30.000h with Fr=0N	$F_a 30.000h$	N	3700
Maximum radial force based on shaft center and T2=0Nm	$F_r Max$	N	2700
Maximum axial force based on gearbox axis and T2=0Nm	$F_a Max$	N	4300

$$(1) \text{ Max. motor weight* in kg} = \frac{0,2 \times M_b}{\text{motor length in m}}$$

- \* with symmetrically distributed motor weight
- \* with horizontal and stationary mounting

Ratio-dependent gearbox data	Character	Unit					
Ratio	aii	-	4	5	7	8	10
Nominal output torque	$T_{2N}$	Nm	45	42	28	27	22
Max. output torque for 30,000 output shaft rotations (2)	$T_{2max}$	Nm	72	67	45	43	35
Emergency stop torque permitted 1000 times	$T_{2stop}$	Nm	100	100	75	75	75
Average idle torque for $n_1=3,000$ rpm and 20 °C gearbox temperature	$T_0$	Nm	1,5	1,4	1,3	1,25	1,2
Average thermal input speed at 50% $T_{2N}$ , S1, and $T_{Amb}$ Operating temperature may not be exceeded!	$n_{1N 50\%}$	rpm	1750	1900	2250	2300	2400
Average thermal input speed at 100% $T_{2N}$ , S1, and $T_{Amb}$ Operating temperature may not be exceeded!	$n_{1N 100\%}$	rpm	1400	1600	2050	2050	2250
Max. mechanical input speed Operating temperature may not be exceeded!	$n_1 Limit$	rpm	16000	16000	16000	16000	16000
Torsional backlash based on output shaft	$j_f$	arcmin	< 5	< 5	< 5	< 5	< 5
Torsional stiffness based on output shaft	$c_g$	Nm/arcmin	2,2	2,1	1,9	1,8	1,6
Efficiency at $T_{2N}$ , gearbox temperature 70 °C and $n_1=1,000$ rpm	$\eta$	%	94	93	89	89	86
Running noise at $n_1=3,000$ rpm without load at a distance of 1m	$Q_g$	dB(A)	66	66	66	66	66
Gearbox weight	$m_G$	kg	3,3	3,3	3,2	3,3	3,3
Mass moment of inertia based on clamping system diameter input	J	kgcm <sup>2</sup>	0,834	0,604	0,536	0,521	0,502

Subject to modifications.



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