

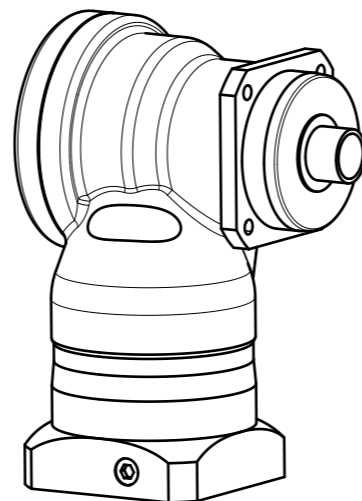
Materials / Surfaces:


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: 3:5	DIN A3	ISO
	Revision status: F from: 12/2022		
Changed revision status: E from: 09/2018			
General tolerance DIN ISO 2768-cl	W GN090-aii-SSSG3AE-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	25,5
Motor shaft concentricity / Coaxiality and axial runout Motor flange	-	-	0,02 / 0,05 (Measuring methods according to DIN EN 50347)
Required motor shaft tolerance	-	-	j6; k6
Min. permissible motor shaft length	L_{20min}	mm	18
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	4000
Axial force for output bearing based on gearbox axis after L10h=20.000h with Fr=0N	$F_a 20.000h$	N	5900
Radial force for output bearing based on shaft center after L10h=30.000h with Fa=0N	$F_r 30.000h$	N	4000
Axial force for output bearing based on gearbox axis after L10h=30.000h with Fr=0N	$F_a 30.000h$	N	5200
Maximum radial force based on shaft center and T2=0Nm	$F_r Max$	N	4000
Maximum axial force based on gearbox axis and T2=0Nm	$F_a Max$	N	5900

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

- * 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	70	70	51	50	40
Max. output torque for 30,000 output shaft rotations (2)	T_{2max}	Nm	112	112	82	80	64
Emergency stop torque permitted 1000 times	T_{2stop}	Nm	200	200	150	150	150
Average idle torque for $n_1=3.000$ rpm and 20 °C gearbox temperature	T_0	Nm	2,35	2,15	2	1,9	1,85
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N 50\%}$	rpm	1700	1850	2200	2200	2350
Average thermal input speed at 100% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N 100\%}$	rpm	1400	1550	1950	1950	2150
Max. mechanical input speed Operating temperature may not be exceeded!	$n_1 Limit$	rpm	14000	14000	14000	14000	14000
Torsional backlash based on output shaft	j_f	arcmin	< 5	< 5	< 5	< 5	< 5
Torsional stiffness based on output shaft	c_g	Nm/arcmin	5,7	5,4	5	4,7	4,2
Efficiency at T2N, gearbox temperature 70 °C and $n_1=1.000$ rpm	η	%	95	94	91	91	88
Running noise at $n_1=3.000$ rpm without load at a distance of 1m	Q_g	dB(A)	67	67	67	67	67
Gearbox weight	m_G	kg	5,1	5,4	5,6	5,5	5,6
Mass moment of inertia based on clamping system diameter input	J	kgcm ²	1,417	1,24	1,096	1,059	1,018

Subject to modifications.



W GN090-aii-SSSG3AE-Z(D20)
/(L20)/(D21)/(D22)/B5/(G3)

Sheet 2/2

Revision status: F from: 12/2022