


#### 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: N from: 05/2020		
	Changed revision status: M from: 09/2018		
General tolerance DIN ISO 2768-cl	W PLN070-aii-SSSB3AD-R(D20)		
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 <sub>L</sub>	h	20.000
Max. operating temperature	T <sub>min</sub> / T <sub>max</sub>	°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 <sub>b</sub>	Nm	12
Motor shaft concentricity / Coaxiality and axial runout Motor flange	-	-	0,015 / 0,03 (Measuring methods according to DIN EN 50347)
Required motor shaft tolerance	-	-	j6; k6
Min. permissible motor shaft length	L <sub>20min</sub>	mm	11
Reference operating mode	-	-	S1
Reference operating factor	K <sub>A</sub>	-	1
Reference speed	n <sub>2</sub>	rpm	100
Reference ambient temperature	T <sub>Amb</sub>	°C	20
Radial force for output bearing based on shaft center after L10h=20.000h with Fa=0N	F <sub>r</sub> 20.000h	N	3200
Axial force for output bearing based on gearbox axis after L10h=20.000h with Fr=0N	F <sub>a</sub> 20.000h	N	4300
Radial force for output bearing based on shaft center after L10h=30.000h with Fa=0N	F <sub>r</sub> 30.000h	N	3200
Axial force for output bearing based on gearbox axis after L10h=30.000h with Fr=0N	F <sub>a</sub> 30.000h	N	3700
Maximum radial force based on shaft center and T2=0Nm	F <sub>r</sub> Max	N	3200
Maximum axial force based on gearbox axis and T2=0Nm	F <sub>a</sub> Max	N	4300

(1) 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 <sub>2N</sub>	Nm	45	42	28	27	22
Max. output torque for 30.000 output shaft rotations	T <sub>2max</sub>	Nm	72	67	45	43	35
Emergency stop torque permitted 1000 times	T <sub>2Stop</sub>	Nm	100	100	75	75	75
Average idle torque for n1=3.000 rpm and 20 °C gearbox temperature	T <sub>0</sub>	Nm	1,5	1,35	1,3	1,25	1,2
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	n <sub>1N</sub> 50%	rpm	1800	2000	2350	2350	2500
Average thermal input speed at 100% T2N, S1, and T_Amb Operating temperature may not be exceeded!	n <sub>1N</sub> 100%	rpm	1450	1650	2100	2100	2300
Max. mechanical input speed Operating temperature may not be exceeded!	n <sub>1</sub> Limit	rpm	16000	16000	16000	16000	16000
Torsional backlash based on output shaft	j <sub>t</sub>	arcmin	< 5	< 5	< 5	< 5	< 5
Torsional stiffness based on output shaft	c <sub>g</sub>	Nm/arcmin	2,4	2,3	2,1	2	1,8
Efficiency at T2N, gearbox temperature 70 °C and n1=1.000rpm	η	%	94	94	89	89	86
Running noise at n1=3.000 rpm without load at a distance of 1m	Q <sub>g</sub>	dB(A)	66	66	66	66	66
Gearbox weight	m <sub>G</sub>	kg	2,8	2,8	2,8	2,8	2,8
Mass moment of inertia based on clamping system diameter input	J	kgcm <sup>2</sup>	0.658	0.595	0.532	0.518	0.500



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