

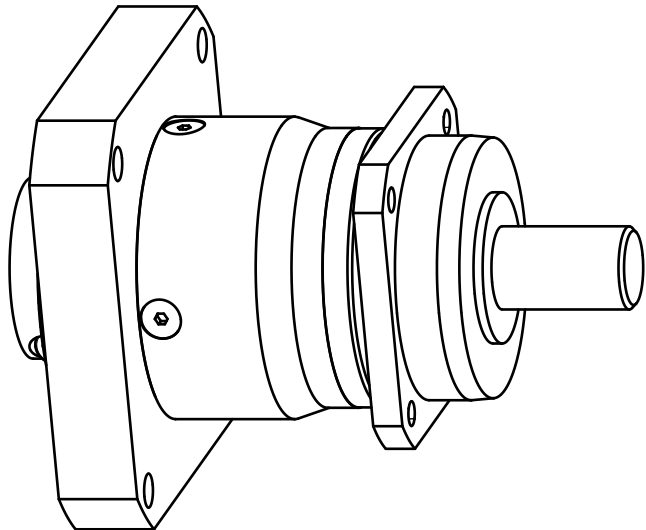
**Materials / Surfaces:**


Input flange: Aluminum / untreated  
Housing: Steel / heat-treated and post-oxidized (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: 01/2022		
	Changed revision status: E from: 01/2021		
General tolerance DIN ISO 2768-cl	PLHE080-aii-SSSB3AF-T(D20)		
Neugart GmbH Keltenstr. 16 D-77971 Kippenheim			Sheet 1/2

General gearbox data	Character	Unit	
Planetary gearbox - gearing type	-	-	Straight teeth
Rotation direction	-	-	Input and output in the same direction
Number of stages	p	-	1-stage
Output shaft bearing	-	-	Tapered roller bearing
Service life (L10h)	t <sub>L</sub>	h	30.000
Max. operating temperature	T <sub>min</sub> / T <sub>max</sub>	°C	-25 / +90
Protection class	-	-	IP 65
Lubrication (Lifetime Lubrication)	-	-	Standard lubrication (Klübersynth GE 14-112)
Installation position	-	-	Any
Max. bending moment based on the gearbox input flange (for motor weight) (1)	M <sub>b</sub>	Nm	16
Motor shaft concentricity / Coaxiality and axial runout Motor flange	-	mm	0,04 / 0,1 (Measuring methods according to DIN EN 50347)
Required motor shaft tolerance	-	-	j6; k6
Min. permissible motor shaft length	L <sub>20 min</sub>	mm	14
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 20.000h</sub>	N	5500
Axial force for output bearing based on gearbox axis after L10h=20,000h with Fr=0N	F <sub>a 20.000h</sub>	N	6400
Radial force for output bearing based on shaft center after L10h=30,000h with Fa=0N	F <sub>r 30.000h</sub>	N	4800
Axial force for output bearing based on gearbox axis after L10h=30,000h with Fr=0N	F <sub>a 30.000h</sub>	N	5700
Maximum radial force based on shaft center and T2=0Nm	F <sub>r Max</sub>	N	5500
Maximum axial force based on gearbox axis and T2=0Nm	F <sub>a Max</sub>	N	6400

(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	a <sub>ii</sub>	-	3	4	5	7	8	10
Nominal output torque	T <sub>2N</sub>	Nm	85	115	110	65	50	38
Max. output torque for 30,000 output shaft rotations	T <sub>2max</sub>	Nm	136	184	176	104	80	61
Emergency stop torque permitted 1000 times	T <sub>2Stop</sub>	Nm	180	240	220	178	190	200
Average idle torque for n1=3,000 rpm and 20 °C gearbox temperature	T <sub>0</sub>	Nm	1,15	0,95	0,8	0,65	0,6	0,55
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	n <sub>1N 50%</sub>	rpm	2150	2350	2700	3500	3500	3500
Average thermal input speed at 100% T2N, S1, and T_Amb Operating temperature may not be exceeded!	n <sub>1N 100%</sub>	rpm	1750	1800	2100	3150	3500	3500
Max. mechanical input speed Operating temperature may not be exceeded!	n <sub>1 Limit</sub>	rpm	7000	7000	7000	7000	7000	7000
Torsional backlash based on output shaft	j <sub>t</sub>	arcmin	< 7	< 7	< 7	< 7	< 7	< 7
Torsional stiffness based on output shaft	c <sub>g</sub>	Nm/arcmin	8,9	11,8	11,9	9,9	9,6	8,9
Efficiency at T2N, gearbox temperature 70 °C and n1=1,000rpm	η	%	97	97	97	95	94	92
Running noise at n1=3,000 rpm without load at a distance of 1m	Q <sub>g</sub>	dB(A)	60	60	60	60	60	60
Gearbox weight	m <sub>G</sub>	kg	3,4	3,4	3,5	3,4	3,4	3,5
Mass moment of inertia based on clamping system diameter input	J	kgcm <sup>2</sup>	1,642	1,41	1,333	1,287	1,273	1,256



PLHE080-aii-SSSB3AF-T(D20)