

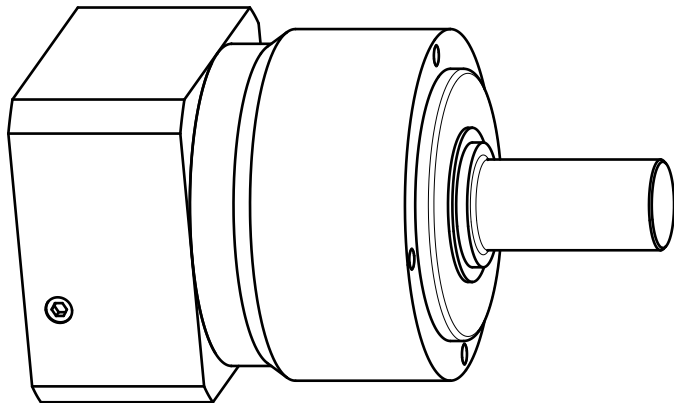
Materials / Surfaces:


Input flange: Aluminum / untreated
Housing: Steel / heat-treated and post-oxidized (black)
Output flange: Steel / heat-treated and post-oxidized (black)

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: 2:5	DIN A3	ISO
	Revision status: G from: 12/2021		
	Changed revision status: F from: 01/2021		
General tolerance DIN ISO 2768-cl	PLPE155-aii-SSSB3AG-E(D20) /(L20)/(D21)/(D22)/B5/(G3)		
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	-	-	Deep groove ball bearing
Service Life (L10h)	t _L	h	30.000
Max. operating temperature	T _{min} / T _{max}	°C	-25 / +90
Protection class	-	-	IP 54
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 _b	Nm	140
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 _{20 min}	mm	57,5
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	5200
Axial force for output bearing based on gearbox axis after L10h=20,000h with Fr=0N	F _{a 20.000h}	N	7000
Radial force for output bearing based on shaft center after L10h=30,000h with Fa=0N	F _{r 30.000h}	N	4600
Axial force for output bearing based on gearbox axis after L10h=30,000h with Fr=0N	F _{a 30.000h}	N	6000
Maximum radial force based on shaft center and T2=0Nm	F _{r Max}	N	8400
Maximum axial force based on gearbox axis and T2=0Nm	F _{a Max}	N	11000

Ratio-dependent gearbox data	Character	Unit			
Ratio	aii	-	4	5	10
Nominal output torque	T _{2N}	Nm	460	445	210
Max. output torque for 30,000 output shaft rotations	T _{2max}	Nm	736	712	336
Emergency stop torque permitted 1000 times	T _{2Stop}	Nm	920	890	420
Average idle torque for n1=3,000 rpm and 20 °C gearbox temperature	T ₀	Nm	1,7	1,25	0,75
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	n _{1N 50%}	rpm	1800	2150	3000
Average thermal input speed at 100% T2N, S1, and T_Amb Operating temperature may not be exceeded!	n _{1N 100%}	rpm	1100	1350	3000
Max. mechanical input speed Operating temperature may not be exceeded!	n _{1 Limit}	rpm	5500	5500	5500
Torsional backlash based on output shaft	j _t	arcmin	< 6	< 6	< 6
Torsional stiffness based on output shaft	c _g	Nm/arcmin	68	71	56,5
Efficiency at T2N, gearbox temperature 70 °C and n1=1,000rpm	η	%	98	98	97
Running noise at n1=3,000 rpm without load at a distance of 1m	Q _g	dB(A)	70	70	70
Gearbox weight	m _G	kg	16,7	16,7	16,7
Mass moment of inertia based on clamping system diameter input	J	kgcm²	7,611	6,482	4,932

(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

Subject to modifications.



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