

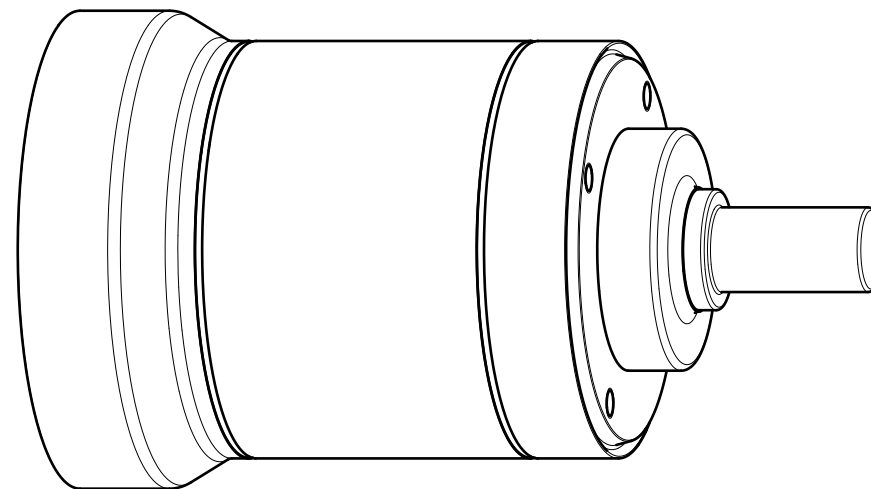
Materials / Surfaces:

Input flange: Stainless steel 1.4404 / electropolished
Housing: Stainless steel 1.4404 / electropolished
Output flange: Stainless steel 1.4404 / electropolished
Output shaft: Stainless steel 1.4404 / bare


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.



----- Electropolished

	Scale: 9:10	DIN A3	ISO
	Revision status: A from: 11/2021		
General tolerance DIN ISO 2768-cl	HLAE070-bii-SFSB3SC-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	-	2-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 69K
Lubrication (lifetime lubrication)	-	-	Food grade lubrication (Klübersynth UH1 14-222)
Installation position	-	-	Any
Max. bending moment based on the gearbox input flange (for motor weight) (1)	M _b	Nm	8
Motor shaft concentricity / Coaxiality and axial runout Motor flange	-	mm	0,03 / 0,06 (Measuring methods according to DIN EN 50347)
Required motor shaft tolerance	-	-	j6; k6
Min. permissible motor shaft length	L _{20 min}	mm	21,5
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	450
Axial force for output bearing based on gearbox axis after L10h=20,000h with Fr=0N	F _a 20.000h	N	550
Radial force for output bearing based on shaft center after L10h=30,000h with Fa=0N	F _r 30.000h	N	400
Axial force for output bearing based on gearbox axis after L10h=30,000h with Fr=0N	F _a 30.000h	N	500
Maximum radial force based on shaft center and T2=0Nm	F _r Max	N	1000
Maximum axial force based on gearbox axis and T2=0Nm	F _a Max	N	1200

(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	bii	-	9	12	15	16	20	25	32	40	64	100
Nominal output torque	T _{2N}	Nm	33	33	33	33	33	30	33	30	18	15
Max. output torque for 30,000 output shaft rotations	T _{2max}	Nm	53	53	53	53	53	48	53	48	29	24
Emergency stop torque permitted 1000 times	T _{2Stop}	Nm	66	66	66	66	66	60	66	60	36	30
Average idle torque for n1=3,000 rpm and 20 °C gearbox temperature	T ₀	Nm	0,15	0,15	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	n _{1N} 50%	rpm	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Average thermal input speed at 100% T2N, S1, and T_Amb Operating temperature may not be exceeded!	n _{1N} 100%	rpm	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Max. mechanical input speed Operating temperature may not be exceeded!	n ₁ Limit	rpm	13000	13000	13000	13000	13000	13000	13000	13000	13000	13000
Torsional backlash based on output shaft	j _t	arcmin	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12
Torsional stiffness based on output shaft	c _g	Nm/arcmin	3	3,2	3	3,2	3,2	3,2	3,2	3,2	2,8	2,4
Efficiency at T2N, gearbox temperature 70 °C and n1=1,000rpm	η	%	96	96	95	95	95	94	94	93	86	80
Running noise at n1=3,000 rpm without load at a distance of 1m	Q _g	dB(A)	58	58	58	58	58	58	58	58	58	58
Gearbox weight	m _G	kg	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,5
Mass moment of inertia based on clamping system diameter input	J	kgcm²	0,131	0,118	0,077	0,085	0,075	0,075	0,066	0,066	0,066	0,064

Subject to modifications.



HLAE070-bii-SFSB3SC-E(D20)
/(L20)/(D21)/(D22)/B5/(G3)