

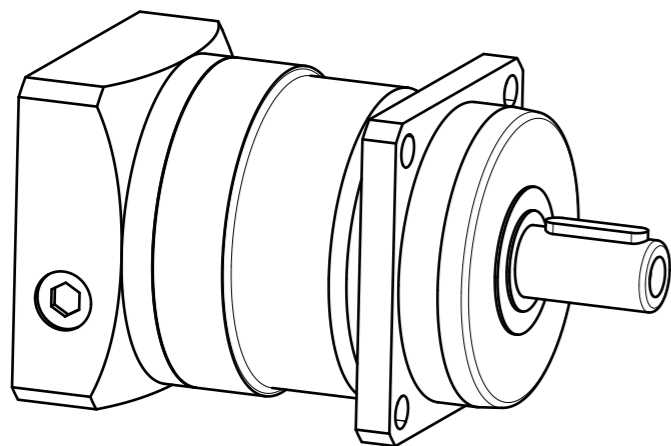
Materials / Surfaces:


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.

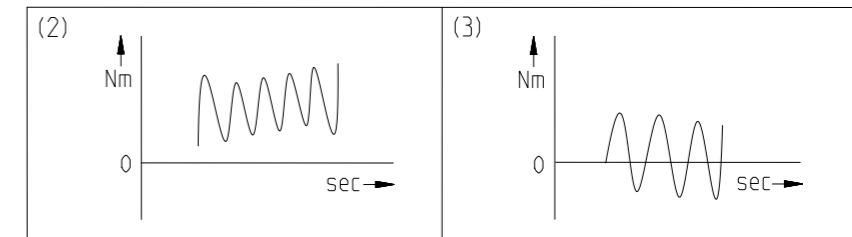


	Scale: 1:1	DIN A3	ISO
	Revision status: F from: 10/2024		
General tolerance DIN ISO 2768-cL	PSN055-aii-SSSA3AC-Z(D20) /(L20)/(D21)/(D22)/B5/(G3)		
Neugart GmbH Keltenstr. 16 D-77971 Kippenheim			Sheet 1/2

General gearbox data	Character	Unit	
Planetary gearbox - gearing type	-	-	Helical teeth
Rotation direction	-	-	Input and output in the same direction
Number of stages	p	-	1-stage
Output shaft bearing	-	-	Angular contact ball bearings
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 800/220)
Installation position	-	-	Any
Max. bending moment based on the gearbox input flange (for motor weight) (1)	M_b	Nm	10
Motor shaft concentricity / Coaxiality and axial runout Motor flange	-	mm	0,015 / 0,03 (Measuring methods according to operating manual)
Concentricity output shaft	-	mm	0,03 (Measuring methods according to operating manual)
Required motor shaft tolerance	-	-	j6; k6
Min. permissible motor shaft length	$L_{20 min}$	mm	15
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	950
Axial force for output bearing based on gearbox axis after L10h=20,000h with Fr=0N	$F_{a 20.000h}$	N	2200
Radial force for output bearing based on shaft center after L10h=30,000h with Fa=0N	$F_{r 30.000h}$	N	830
Axial force for output bearing based on gearbox axis after L10h=30,000h with Fr=0N	$F_{a 30.000h}$	N	2200
Maximum radial force based on shaft center and T2=0Nm	$F_{r Max}$	N	950
Maximum axial force based on gearbox axis and T2=0Nm	$F_{a Max}$	N	2200

$$(1) \text{ Max. motor weight* in kg} = \frac{0.2 \times M_b}{\text{motor length in m}}$$

* with symmetrically distributed motor weight
* with horizontal and stationary mounting



Ratio-dependent gearbox data	Character	Unit						
Ratio	aii	-	3	4	5	7	8	10
Nominal output torque No alternating torque (2)	T_{2N}	Nm	11	18	18	18	18	13.5
Nominal output torque Alternating torque permitted for 10,000,000 load changes (3)	$T_{2N 10Mio}$	Nm	11	17	17	17	17	13.5
Nominal output torque Alternating torque permitted for 100,000,000 load changes (3)	$T_{2N 100Mio}$	Nm	11	14	14	14	14	13.5
Max. output torque for 30,000 output shaft rotations (2)	T_{2max}	Nm	18	29	29	29	29	22
Emergency stop torque permitted 1000 times	T_{2stop}	Nm	48	48	48	48	48	24
Average idle torque for $n_1=3,000$ rpm and 20 °C gearbox temperature	T_0	Nm	0,3	0,25	0,2	0,2	0,2	0,15
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N 50\%}$	rpm	4700	5000	5000	5000	5000	5000
Average thermal input speed at 100% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N 100\%}$	rpm	4100	4150	4800	5000	5000	5000
Max. mechanical input speed Operating temperature may not be exceeded!	$n_1 \text{ Limit}$	rpm	10000	10000	10000	10000	10000	10000
Torsional backlash based on output shaft	j_t	arcmin	< 6	< 6	< 6	< 6	< 6	< 6
Torsional stiffness based on output shaft	c_g	Nm/arcmin	1,45	1,7	1,7	1,5	1,45	1,25
Efficiency at T2N, gearbox temperature 70 °C and $n_1=1,000$ rpm	η	%	96	96	96	95	95	93
Running noise at $n_1=3,000$ rpm without load at a distance of 1m	Q_g	dB(A)	62	56	56	56	56	56
Gearbox weight	m_G	kg	0,85	0,8	0,8	0,8	0,8	0,8
Mass moment of inertia based on clamping system diameter input	J	kgcm ²	0,126	0,109	0,103	0,098	0,097	0,096

Subject to modifications.



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/(L20)/(D21)/(D22)/B5/(G3)

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