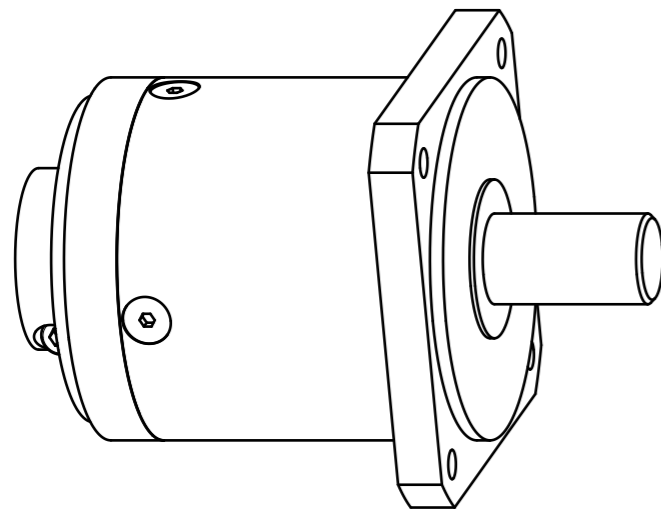



Input flange: Aluminum / untreated
Housing: Steel / heat-treated and post-oxidized (black)
Output flange: Steel / heat-treated and post-oxidized (black)

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: 7:10	DIN A3	ISO
	Revision status: K from: 11/2021		
	Changed revision status: J from: 01/2021		
General tolerance DIN ISO 2768-cL	PLQE080-aii-SSSB3AE-R(D20)		
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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	16
Motor shaft concentricity / Coaxiality and axial runout Motor flange	-	mm	0,04 / 0,08 (Measuring methods according to DIN EN 50347)
Required motor shaft tolerance	-	-	j6; k6
Min. permissible motor shaft length	L _{20 min}	mm	14
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	2050
Axial force for output bearing based on gearbox axis after L10h=20,000h with Fr=0N	F _a 20.000h	N	2500
Radial force for output bearing based on shaft center after L10h=30,000h with Fa=0N	F _r 30.000h	N	1700
Axial force for output bearing based on gearbox axis after L10h=30,000h with Fr=0N	F _a 30.000h	N	2000
Maximum radial force based on shaft center and T2=0Nm	F _r Max	N	2500
Maximum axial force based on gearbox axis and T2=0Nm	F _a Max	N	3800

(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	-	3	4	5	7	8	10
Nominal output torque	T _{2N}	Nm	85	115	110	65	50	38
Max. output torque for 30,000 output shaft rotations	T _{2max}	Nm	136	184	176	104	80	61
Emergency stop torque permitted 1000 times	T _{2Stop}	Nm	180	240	220	178	190	200
Average idle torque for n1=3,000 rpm and 20 °C gearbox temperature	T ₀	Nm	0,55	0,5	0,4	0,3	0,25	0,25
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	n _{1N} 50%	rpm	3400	3450	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	2400	2350	2800	4000	4000	4000
Max. mechanical input speed Operating temperature may not be exceeded!	n ₁ Limit	rpm	7000	7000	7000	7000	7000	7000
Torsional backlash based on output shaft	j _t	arcmin	< 7	< 7	< 7	< 7	< 7	< 7
Torsional stiffness based on output shaft	c _g	Nm/arcmin	8,9	12,3	12,6	10,4	10,1	9,3
Efficiency at T2N, gearbox temperature 70 °C and n1=1,000rpm	η	%	98	98	98	97	97	96
Running noise at n1=3,000 rpm without load at a distance of 1m	Q _g	dB(A)	60	60	60	60	60	60
Gearbox weight	m _G	kg	2,6	2,6	2,6	2,6	2,6	2,4
Mass moment of inertia based on clamping system diameter input	J	kgcm²	0,783	0,548	0,469	0,402	0,388	0,371

Subject to modifications.



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