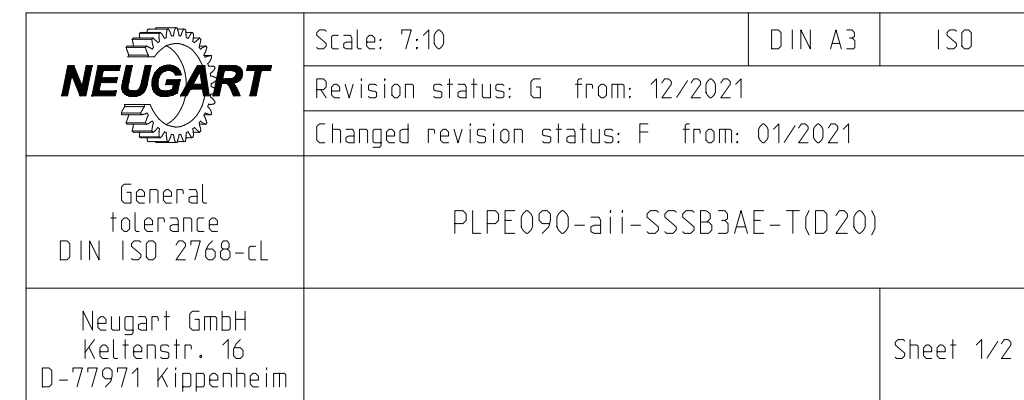


Input flange: Aluminum / untreated
Housing: Steel / heat-treated and post-oxidized (black)
Output flange: Steel / heat-treated and post-oxidized (black)

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.



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	1900
Axial force for output bearing based on gearbox axis after L10h=20,000h with Fr=0N	F _a 20.000h	N	2000
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	1500
Maximum radial force based on shaft center and T2=0Nm	F _r Max	N	3100
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	a _{ii}	-	3	4	5	7	8	10
Nominal output torque	T _{2N}	Nm	85	90	82	65	50	38
Max. output torque for 30,000 output shaft rotations	T _{2max}	Nm	136	144	131	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	0,75	0,55	0,45	0,3	0,3	0,25
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	n _{1N} 50%	rpm	3250	3750	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	2300	2650	3200	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	10,1	14,5	15	12	11,6	10,6
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	3	3	3	3	3	3
Mass moment of inertia based on clamping system diameter input	J	kgcm²	0,789	0,557	0,476	0,409	0,394	0,374

Subject to modifications.



PLPE090-aii-SSSB3AE-T(D20)