

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	12
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	11
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	400
Axial force for output bearing based on gearbox axis after L10h=20,000h with Fr=0N	F _a 20.000h	N	500
Radial force for output bearing based on shaft center after L10h=30,000h with Fa=0N	F _r 30.000h	N	340
Axial force for output bearing based on gearbox axis after L10h=30,000h with Fr=0N	F _a 30.000h	N	450
Maximum radial force based on shaft center and T2=0Nm	F _r Max	N	700
Maximum axial force based on gearbox axis and T2=0Nm	F _a Max	N	800

Ratio-dependent gearbox data	Character	Unit						
Ratio	aii	-	3	4	5	7	8	10
Nominal output torque	T _{2N}	Nm	28	38	40	25	18	15
Max. output torque for 30,000 output shaft rotations	T _{2max}	Nm	45	61	64	40	29	24
Emergency stop torque permitted 1000 times	T _{2Stop}	Nm	66	88	80	80	80	80
Average idle torque for n1=3,000 rpm and 20 °C gearbox temperature	T ₀	Nm	0,15	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	4500	4500	4500	4500	4500	4500
Average thermal input speed at 100% T2N, S1, and T_Amb Operating temperature may not be exceeded!	n _{1N} 100%	rpm	4500	4500	4500	4500	4500	4500
Max. mechanical input speed Operating temperature may not be exceeded!	n ₁ Limit	rpm	13000	13000	13000	13000	13000	13000
Torsional backlash based on output shaft	j _t	arcmin	< 10	< 10	< 10	< 10	< 10	< 10
Torsional stiffness based on output shaft	c _g	Nm/arcmin	2,5	2,7	2,8	2,5	2,4	2,2
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)	58	58	58	58	58	58
Gearbox weight	m _G	kg	0,75	0,8	0,8	0,8	0,8	0,8
Mass moment of inertia based on clamping system diameter input	J	kgcm²	0,128	0,092	0,08	0,069	0,067	0,065

(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.



PLE060-aii-SSSB3AC-T(D20)