

Technical data	Character	Unit	
Planetary gearbox - gearing type	-	-	Straight teeth
Number of stages	z	-	1-stage
Output shaft bearing	-	-	Tapered roller bearing
Seal	-	-	Radial shaft seal
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 (oil)
Installation position	-	-	Any
Max. bending moment based on the gearbox input flange (for motor weight) (1)	M_b	Nm	18
Motor flange precision	-	-	DIN 42955-R
Required motor shaft tolerance	-	-	j6; k6
Min. permissible motor shaft length	$L_{20 min}$	mm	24
Clamp screw tightening torque	$T_{A,K}$	Nm	4,5
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	4200
Axial force for output bearing based on gearbox axis after L10h=20,000h with Fr=0N	$F_a 20.000h$	N	4400
Radial force for output bearing based on shaft center after L10h=30,000h with Fa=0N	$F_r 30.000h$	N	3700
Axial force for output bearing based on gearbox axis after L10h=30,000h with Fr=0N	$F_a 30.000h$	N	3900
Static radial force based on shaft center and T2=0Nm	$F_r Stat$	N	4200
Static axial force based on gearbox axis and T2=0Nm	$F_a Stat$	N	4400

Ratio-dependent data	Character	Unit	
Ratio	aii	-	4
Nominal output torque	T_{2N}	Nm	60
Max. output torque for 30,000 output shaft rotations	T_{2max}	Nm	96
Emergency stop torque permitted 1000 times	T_{2stop}	Nm	120
Idle torque for n1=3,000 rpm and 20 °C gearbox temperature	T_0	Nm	0,5
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N 50\%}$	rpm	2150
Average thermal input speed at 100% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N 100\%}$	rpm	1700
Max. mechanical input speed Operating temperature may not be exceeded!	$n_{1 Limit}$	rpm	14000
Torsional backlash based on output shaft	j_t	arcmin	< 3
Torsional stiffness based on output shaft	c_g	Nm/arcmin	6
Efficiency at T2N, gearbox temperature 70 °C and n1=1,000rpm	η	%	97
Running noise at n1=3,000 rpm without load at a distance of 1m	Q_g	dB(A)	62
Gearbox weight	m_G	kg	2
Mass moment of inertia based on clamping system diameter input	J	kgcm ²	0,282

$$(1) \text{ Max. motor weight* in kg} = \frac{0,2 * M_b}{\text{motor length in m}}$$

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

Subject to modifications!



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Sheet 2/2

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