WITTENSTEIN | galaxie

DATA SHEET

Miniaturized Galaxie® Gearbox

SAG110A-061N-GNS			
Dimensions	**Symbol**	**Unit**	**Value**
Outer diameter	Ø	mm	110
Length	L	mm	59.7
Hollow shaft diameter	ØH	mm	41
Weight	m	kg	2.5
General technical data			
Ratio	i	-	61
Nominal torque	T_{2N}	Nm	120
Maximum torque	T_{2B}	Nm	250
Emergency stop torque	T_{2Not}	Nm	625
Nominal input speed (grease lubrication)	n_{1N}	rpm	1200
Maximum input speed (grease lubrication)	n_{1max}	rpm	3600
Moment of inertia	J_1	kgcm²	2.34
Backlash	j_t	arcmin	zero
Torsional rigidity			
Torsional rigidity *	C_{t21}	Nm/arcmin | 10^4 Nm/rad	70 | 24.0
Torsional rigidity **	K_3	Nm/arcmin | 10^4 Nm/rad	42 | 14.4
Torsional rigidity **	K_2	Nm/arcmin | 10^4 Nm/rad	40 | 13.8
Torsional rigidity **	K_1	Nm/arcmin | 10^4 Nm/rad	30 | 10.3
Output bearing			
Maximum tilting moment	M_{2kmax}	Nm	250
Axial load	C_a | C_{0a}	kN	26.5 | 84.5
Radial load	C_r | C_{0r}	kN	20.0 | 33.5
Accuracy			
Hysteresis loss ***		arcmin	0.5
Lost motion ***		arcmin	0.3
Transmission accuracy		arcmin	< 1.5
Repeatability		arcmin	± 0.1
Others			
Max. permitted housing temperature	ϑU	°C	0 to 80
Protection class		IP64	
Date: Feb 2024	Author: Karoline Scheuermann		

Remark: All specified values are liable to specific variabilities due to the tolerances of material properties and dimensions. The specified values are mean values at which a tolerance of ± 10 % of torque, rigidity, current inductance, resistance and speed is allowed.

* Average gradient of the hysteresis in the range of 50 to 100% of T_{2B}

** K_1: average gradient of hysteresis in the range below 15 Nm
K_2: average gradient of hysteresis in the range between 15 and 50 Nm
K_3: average gradient of hysteresis in the range over 50 Nm

*** in validation