

DATA SHEET

Miniaturized Galaxie® Gearbox



SAG090A-060N-GNS			
Dimensions	Symbol	Unit	Value
Outer diameter	∅	mm	90
Length	L	mm	55.5
Hollow shaft diameter	∅H	mm	31
Weight	m	kg	1.5
General technical data			
Ratio	i	-	60
Nominal torque	T _{2N}	Nm	70
Maximum torque	T _{2B}	Nm	150
Emergency stop torque	T _{2Not}	Nm	375
Nominal input speed (grease lubrication)	n _{1N}	rpm	1200
Maximum input speed (grease lubrication)	n _{1max}	rpm	4200
Moment of inertia	J ₁	kgcm ²	1.23
Backlash	j _t	arcmin	zero
Torsional rigidity			
Torsional rigidity *	C _{t21}	Nm/arcmin 10 ⁴ Nm/rad	35 12.0
Torsional rigidity **	K ₃	Nm/arcmin 10 ⁴ Nm/rad	24 8.3
Torsional rigidity **	K ₂	Nm/arcmin 10 ⁴ Nm/rad	23 7.9
Torsional rigidity **	K ₁	Nm/arcmin 10 ⁴ Nm/rad	17 5.8
Output bearing			
Maximum tilting moment	M _{2kmax}	Nm	150
Axial load	C _a C _{0a}	kN	17.7 56.0
Radial load	C _r C _{0r}	kN	13.5 22.4
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	ϑ _U	°C	0 to 80
Protection class		IP64	
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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}

** K₁: average gradient of hysteresis in the range below 10 Nm

K₂: average gradient of hysteresis in the range between 10 and 25 Nm

K₃: average gradient of hysteresis in the range over 25 Nm

*** in validation