

Product data sheet

NP

Low backlash planetary gearbox



Gearbox data	
Designation: NP025S-MF1-5-1E1-1S	
Gearbox type	NP
Gearbox size	025
Design keyword	Standard
Gearbox variation	Motor attachment gearbox
Gearbox stages	1
Gearbox ratio i	5
Output design	Key
Clamping hub diameter	19 mm
Gearbox backlash	Standard
Gearbox material number	10031788

Technical specifications		
Max. output torque (Depending on the specific boundary conditions of the application)	$T_{2\alpha}$	160 Nm
Max. acceleration torque (max. 1000 cycles per hour)	T_{2B}	100 Nm
Nominal output torque (with n_{1N})	T_{2N}	50 Nm
Emergency stop torque (permitted 1000 times during the service life of the gearbox)	T_{2Not}	190 Nm
Nominal input speed (with T_{2N} and 20°C ambient temperature ^{a)})	n_{1N}	3400 min ⁻¹
Max. input speed	n_{1Max}	7000 min ⁻¹
Mean no load running torque (with $n_1=3000$ min ⁻¹ and 20°C gearbox temp.) ^{b)}	T_{012}	0.26 Nm
Max. torsional backlash	j_t	≤ 8 arcmin
Torsional rigidity ^{b)}	C_{t21}	9.5 Nm/arcmin
Tilting rigidity	C_{2K}	24 Nm/arcmin
Max. axial force ^{c)}	F_{2AMax}	1900 N
Max. radial force ^{c)}	F_{2RMax}	2800 N
Max. tilting moment	M_{2KMax}	137 Nm
Efficiency at full load	η	97 %
Service life (for calculation, see the Chapter "Information" in our product catalogue)	L_h	> 20000 h
Weight incl. standard adapter plate	m	3.8 kg
Operating noise (with $n_1=3000$ min ⁻¹ , no load)	L_{PA}	≤ 64 dB(A)
Max. permitted housing temperature		90 °C
Ambient temperature		-15 °C to 40 °C
Lubrication		lubricated for life
Paint		Dark pearl gray / innovation blue
Protection class		IP 64
Inertia (relates to the drive)	J_1	0.61 kgcm ²

- a) For higher ambient temperatures, please reduce input speed
 b) Depends on clamping hub diameter
 c) Refers to center of the output shaft or flange