Product data sheet

WITTENSTEIN | alpha

NPS

Low backlash planetary gearbox



Gearbox data	
Designation: NPS015S-MF1-5-0C1-1S	
Gearbox type	NPS
Gearbox size	015
Design keyword	Standard
Gearbox variation	Motor attachment gearbox
Gearbox stages	1
Gearbox ratio i	5
Output design	Smooth shaft
Clamping hub diameter	14 mm
Gearbox backlash	Standard

Technical specifications		
Max. output torque (Depending on the specific boundary conditions of the application)	$T_{2\alpha}$	64 Nm
Max. acceleration torque (max. 1000 cycles per hour)	T_{2B}	40 Nm
Nominal output torque (with n_{1N})	T_{2N}	21 Nm
Emergency stop torque (permitted 1000 times during the service life of the gearbox)	T_{2Not}	80 Nm
Nominal input speed (with T_{2N} and 20°C ambient temperature) a)	n_{1N}	3300 min^{-1}
Max. input speed	n_{1Max}	8000 min^{-1}
Mean no load running torque (with n_1=3000 min^{-1} and 20°C gearbox temp.) b)	T_{012}	0.56 Nm
Max. torsional backlash	j_t	≤ 8 arcmin
Torsional rigidity b)	C_{t21}	3.3 Nm/arcmin
Tilting rigidity	C_{2K}	38 Nm/arcmin
Max. axial force c)	F_{2AMax}	2400 N
Max. radial force c)	F_{2RMax}	2800 N
Max. tilting moment	M_{2KMax}	152 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	1.8 kg
Operating noise (with n_1=3000 min^{-1} no load)	L_{PA}	≤ 62 dB(A)
Max. permitted housing temperature		90 °C
Ambient temperature		-15 °C to 40 °C
Lubrication		lubricated for life
Paint		Dark pearl gray / inno-vation blue
Protection class		IP 65
Inertia (relates to the drive)	J_1	0.26 $kgcm^2$

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