

Product data sheet

SP⁺

Low backlash planetary gearbox



Gearbox data	
Designation: SP180S-MF2-16-1G1-2S	
Gearbox type	SP ⁺
Gearbox size	180
Design keyword	Standard
Gearbox variation	Motor attachment gearbox
Gearbox stages	2
Gearbox ratio i	16
Output design	Key
Clamping hub diameter	24 mm
Gearbox backlash	Standard
Gearbox material number	20029269

Motor mounting parts (included in delivery)	
Incl. mounting parts for servo motor	Jetter AG JK6-0700-77-3RVF
Adapter plate	20029772
Gearbox bushing	20000296

Order designation
SP180S-MF2-16-1G1-2S / Jetter AG JK6-0700-77-3RVF

Technical specifications		
Max. output torque (Depending on the specific boundary conditions of the application)	T _{2α}	1485 Nm
Max. acceleration torque (max. 1000 cycles per hour)	T _{2B}	1452 Nm
Nominal output torque (with n _{IN})	T _{2N}	1162 Nm
Emergency stop torque (permitted 1000 times during the service life of the gearbox)	T _{2Not}	2420 Nm
Nominal input speed (with T _{2N} and 20 °C ambient temperature) ^{a)}	n _{1N}	2700 min ⁻¹
Max. input speed	n _{1Max}	5000 min ⁻¹
Mean no load running torque (with n ₁ =3000 min ⁻¹ and 20 °C gearbox temp.) ^{b)}	T ₀₁₂	4.7 Nm
Max. torsional backlash	j _t	≤ 5 arcmin
Torsional rigidity ^{b)}	C _{t21}	175 Nm/arcmin
Tilting rigidity	C _{2K}	875 Nm/arcmin
Max. axial force ^{c)}	F _{2AMax}	15570 N
Max. radial force ^{c)}	F _{2RMax}	15000 N
Max. tilting moment	M _{2KMax}	1800 Nm
Efficiency at full load	η	94 %
Service life (for calculation, see the Chapter "Information" in our product catalogue)	L _h	> 20000 h
Weight incl. standard adapter plate	m	36.4 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		Innovation blue
Protection class		IP 65
Inertia (relates to the drive)	J ₁	9.27 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