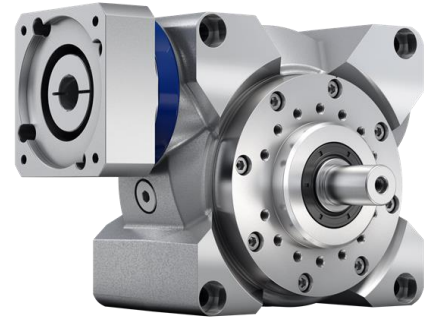


Product data sheet

VS⁺

Low backlash servo worm gearbox



Gearbox data	
Designation: VS+100S-MF1-4-1M1-1K-AF	
Gearbox type	VS ⁺
Gearbox size	100
Design keyword	Standard
Gearbox variation	Motor attachment gearbox
Gearbox stages	1
Gearbox ratio i	4
Output design	Key
Clamping hub diameter	48 mm
Gearbox backlash	Standard
Gearbox mounting position	AF

Technical specifications		
Max. output torque (At nominal input speed (n _{1N}) up to a maximum of 500 min ⁻¹)	T _{2α}	1184 Nm
Max. acceleration torque (max. 1000 cycles per hour)	T _{2B}	1184 Nm
Emergency stop torque (permitted 1000 times during the service life of the gearbox)	T _{2Not}	1819 Nm
Nominal input speed (with 20°C ambient temperature) ^{a)}	n _{1N}	3000 min ⁻¹
Max. input speed	n _{1Max}	3500 min ⁻¹
Mean no load running torque (with n ₁ =3000 min ⁻¹ and 20°C gearbox temp.) ^{b)}	T ₀₁₂	12.2 Nm
Max. torsional backlash	j _t	≤ 3 arcmin
Torsional rigidity ^{b)}	C _{t21}	153 Nm/arcmin
Max. axial force ^{c)}	F _{2AMax}	19500 N
Max. radial force ^{c)}	F _{2RMax}	14000 N
Max. tilting moment	M _{2KMax}	3059 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	62 kg
Operating noise (with n ₁ =3000 min ⁻¹ no load)	L _{PA}	≤ 70 dB(A)
Max. permitted housing temperature		90 °C
Ambient temperature		-15 °C to 40 °C
Lubrication		synthetic gearbox oil
Protection class		IP 65
Inertia (relates to the drive)	J ₁	50.02 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

Note: The maximum transmissible torque depends on the nominal input speed of the gearbox.