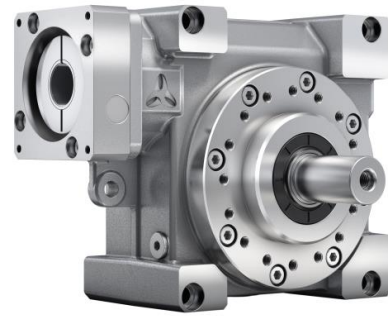


Product data sheet

VDS

Low backlash servo worm gearhead



Order data	
Ordering code: VDS050-MF1-10-031-BE	
Gear type	VDS
Gear size	050
Gear variation	Motor attachment gearhead
Gear stages	1
Gear ratio i	10
Output design	Smooth shaft
Clamping hub diameter	19 mm
Gear backlash	Standard
Gear mounting position	BE
Gear article code	20018094

Gear components (included in delivery)	
Incl. mounting parts for servo motor	SSD Drives AC MHM 0650 - 4/2 - 3 - BG
Adapter plate	20002944

Technical specifications		
Max. acceleration torque (max. 1000 cycles per hour)	T _{2B}	148 Nm
Nominal output torque (with n _{2N})	T _{2N}	74 Nm
Emergency stop torque (permitted 1000 times during the service life of the gearhead)	T _{2Not}	242 Nm
Nominal input speed (with T _{2N} and 20°C ambient temperature) ^{a)}	n _{1N}	4000 min ⁻¹
Max. input speed	n _{1Max}	6000 min ⁻¹
Mean no load running torque (with n ₁ =3000 min ⁻¹ and 20°C gearhead temp.) ^{b)}	T ₀₁₂	1.18 Nm
Max. torsional backlash	j _t	≤ 3 arcmin
Torsional rigidity ^{b)}	C _{t21}	8 Nm/arcmin
Max. axial force ^{c)}	F _{2AMax}	5000 N
Max. radial force ^{c)}	F _{2RMax}	3800 N
Max. tilting moment	M _{2KMax}	409 Nm
Efficiency at full load	η	93 %
Service life (for calculation, see the Chapter "Information" in our product catalogue)	L _h	> 20000 h
Weight incl. standard adapter plate	m	8.5 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 bis 40 °C
Lubrication		synthetic gear oil
Protection class		IP 65
Inertia J ₁ (relates to the drive)		1.94 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