

Motors and gearboxes

Servo planetary gearboxes GTE – for standard applications



Servo planetary gearboxes ■ GTE – for standard applications**Economical and compact**

- Ideal for standard applications
- Low backlash
- Open choice of mounting positions
- Noise-free operation
- Lifetime lubrication

Together with our dynamic MSK motors, the compact GTE range of planetary gearboxes guarantees high torques in all standard applications. Typical areas of application include simple handling and automation systems with rack-and-pinion drives or synchronous belt drives.

Virtually all performance requirements can be met in these applications thanks to the subtle staggering of sizes and the high power density of the GTE gearboxes. The single-stage or two-stage gearboxes can be supplied with a plain shaft or keyway.

Technical data

Gearboxes	Translation	i	Nominal input speed		Max. input speed	Max. output speed	Nominal input torque		Max. input torque	Max. output torque	Backlash	Torsional stiffness	Efficiency	Moment of inertia	
			at 50% $M_{OUT\ norm}$	at 100% $M_{OUT\ norm}$											
			$\eta_{IN\ N}$	$\eta_{IN\ N}$							Standard	D	η	J	
			[1/min]	[1/min]							[arc-min]	[Nm/arc-min]	[%]		
GTE040-NN1-003	Single-stage	3	5000	5000	18000	6000	3.67	11	5.9	17.6	< 24	1	96	0.031	
GTE040-NN1-004		4				4500	3.75	15	6	24				0.022	
GTE040-NN1-005		5				3600	2.8	14	4.4	22				0.019	
GTE040-NN1-008		8				2250	0.75	6	1.25	10				0.029	
GTE040-NN2-012	Two-stage	12	5000	5000	18000	1500	1.67	20	2.7	32	< 28	1.1	94	0.019	
GTE040-NN2-020		20				900	1		1.6						0.016
GTE040-NN2-040		40				450	0.45		18						0.73
GTE060-NN1-003	Single-stage	3	4500	4450	13000	4333	9.3	28	15	45	< 16	2.3	96	0.135	
GTE060-NN1-004		4		4400		3250	9.5	38	15.25	61				0.093	
GTE060-NN1-005		5		2600		8	40	12.8	64	0.078					
GTE060-NN1-008		8		1625		2.25	18	3.63	29	0.065					
GTE060-NN2-012	Two-stage	12	4500	4500	13000	1083	3.7	44	5.83	70	< 25	2.5	94	0.127	
GTE060-NN2-020		20				650	2.2		3.5					0.075	
GTE060-NN2-040		40				325	1		40					1.6	64

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			at 50% $M_{OUT\ norm}$	at 100% $M_{OUT\ norm}$												
			$\eta_{IN\ N}$	$\eta_{IN\ N}$												
			[1/min]	[1/min]							[1/min]	[1/min]	[Nm]	[Nm]	[Nm]	Standard
										[arc-min]	[Nm/ar-cmin]	[%]				
GTE080-NN1-003	Single-stage	3	3900	2400	7000	2333	28.3	85	45.3	136	< 9	6	96	0.77		
GTE080-NN1-004		4	3650	2150		1750	28.7		46	184				0.52		
GTE080-NN1-005		5	4000	2650		1400	22		35.2	176				0.45		
GTE080-NN1-008		8		4000		875	6.2	50	10	80				0.39		
GTE080-NN2-012	Two-stage	12	4000	3450	6500	583	10	12	16	192	< 14	6.5	94	0.72		
GTE080-NN2-020		20		4000		350	6		9.6					0.44		
GTE080-NN2-040		40				175	2.75		4.4	176				0.39		
GTE120-NN1-003	Single-stage	3	3500	2500	6500	2167	38.2		61.3	184	< 8	12	96	2.63		
GTE120-NN1-004		4		2250		1625	38.75		62	248				1.79		
GTE120-NN1-005		5				1300	39		62.4	312				1.53		
GTE120-NN1-008		8		3500		813	15		24	192				1.32		
GTE120-NN2-012	Two-stage	12	3500	2500	6500	542	21.7		34.7	416	< 12	13	94	2.56		
GTE120-NN2-020		20		3500		325	13		20.8					1.5		
GTE120-NN2-040		40				163	5.75		9.2	368				1.3		
GTE160-NN1-003	Single-stage	3	1700	1000	6500	2167	133.3		213.3	640	< 6	38	96	12.14		
GTE160-NN1-004		4					1625	112.5		180					7.78	
GTE160-NN1-005		5				2000	1150	1300	90					144	720	6.07
GTE160-NN1-008		8				2950	1750	813	56.25					90		4.63
GTE160-NN2-012	Two-stage	12	3000	1050	6500	542	66.7		106.7	1280	< 10	41	94	12.37		
GTE160-NN2-020		20		1500		325	40		64					6.65		
GTE160-NN2-040		40		2950		163	17.5		28	1120				5.28		

Output torque: These values refer to an output shaft speed of 100 rpm on duty cycle KA = 1 as well as S1 mode for electrical machines and T = 30°C

Maximum input speed – permissible operating temperatures must be observed

Output torque: With key, at tumescent load

Maximum output torque – permitted for up to 30,000 drive shaft revolutions

Maximum input speed – permissible operating temperatures must be observed

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It must be remembered that our products are subject to a natural process of wear and aging.