

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% $M_{OUT\ norm}$											
			$\eta_{IN\ N}$	$\eta_{IN\ N}$											
			[1/min]	[1/min]							[1/min]	[1/min]	[Nm]	[Nm]	[Nm]
GTE040-NN1-003	Single-stage	3	5,000	5,000	18,000	6,000	3.7	11	5.9	17.6	< 15	1	98	0.031	
GTE040-NN1-004		4				4,500	3.8	15	6	24	< 15			0.022	
GTE040-NN1-005		5				3,600	2.8	14	4.4	22	< 15			96	0.019
GTE040-NN1-008		8				2,250	0.8	6	1.25	10	< 15			95	0.017
GTE040-NN1-010		10				1,800	0.5	5	0.8	8	< 15			95	0.016
GTE040-NN2-012	Two-stage	12	4,500	4,500	13,000	1,500	1.7	20	2.7	32	< 19	1.1	96	0.029	
GTE040-NN2-020		20				900	1		1.6	32	< 19			96	0.019
GTE040-NN2-040		40				450	0.5	18	0.73	29	< 19			94	0.016
GTE060-NN1-003	Single-stage	3	4,500	4,500	13,000	4,333	9.3	28	15	45	< 10	2.3	98	0.135	
GTE060-NN1-004		4				3,250	9.5	38	15.25	61	< 10			98	0.093
GTE060-NN1-005		5				2,600	8	40	12.8	64	< 10			97	0.078
GTE060-NN1-008		8				1,625	2.3	18	3.63	29	< 10			96	0.065
GTE060-NN1-010		10				1,300	1.5	15	2.4	24	< 10			96	0.064
GTE060-NN2-012	Two-stage	12	4,500	4,500	13,000	1,083	3.7	44	5.83	70	< 12	2.5	96	0.127	
GTE060-NN2-020		20				650	2.2		3.5	70	< 12			96	0.075
GTE060-NN2-040		40				325	1	40	1.6	64	< 12			94	0.064

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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]
										[arc-min]	[Nm/ar-cmin]	[%]		
GTE080-NN1-003	Single-stage	3	4,000	2,700	7,000	2,333	28.3	85	45.3	136	< 7	6	98	0.77
GTE080-NN1-004		4	3,850	2,500		1,750	28.8		46	184	< 7			0.52
GTE080-NN1-005		5	4,000	3,000		1,400	22		35.2	176	< 7			0.45
GTE080-NN1-008		8		875		6.3	50	10	80	< 7	97			0.39
GTE080-NN1-010		10		700		3.8	38	6.1	61	< 7	96			
GTE080-NN2-012	Two-stage	12	4,000	3,750	583	10		16	192	< 9	6.5	97	0.72	
GTE080-NN2-020		20		4,000	350	6		9.6	< 9	96			0.44	
GTE080-NN2-040		40		175	2.8		4.4	176	< 9	94			0.39	
GTE120-NN1-003	Single-stage	3	3,350	2,550	6,500	2,167	38.3		61.3	184	< 7	12	96	2.63
GTE120-NN1-004		4	3,400	2,500		1,625			62	248	< 7			1.79
GTE120-NN1-005		5	3,500	2,500		1,300	39		62.4	312	< 7			1.53
GTE120-NN1-008		8		813		15		24	192	< 7	1.32			
GTE120-NN1-010		10		650		9.5	95	15.2	152	< 7	97			1.3
GTE120-NN2-012	Two-stage	12	3,500	2,650	542	21.7		34.7	416	< 9	13	96	2.56	
GTE120-NN2-020		20		3,500	325	13		20.8	< 9	1.5				
GTE120-NN2-040		40		163	5.8		9.2	368	< 9	94			1.3	
GTE160-NN1-003	Single-stage	3	1,350	900	6,500	2,167	133.3		213.3	640	< 6	38	98	12.14
GTE160-NN1-004		4	1,450	1,000		1,625	112.5		180	< 6	7.78			
GTE160-NN1-005		5	1,650	1,150		1,300	90		144	720	< 6			6.07
GTE160-NN1-008		8	2,150	1,550		813	56.3		90	< 6	97			4.63
GTE160-NN2-012	Two-stage	12	1,550	1,000	542	66.7		106.7	1,280	< 10	41	96	12.37	
GTE160-NN2-020		20	2,050	1,400	325	40		64	< 10	6.65				
GTE160-NN2-040		40	2,950	2,300	163	17.5		28	1,120	< 10			94	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.