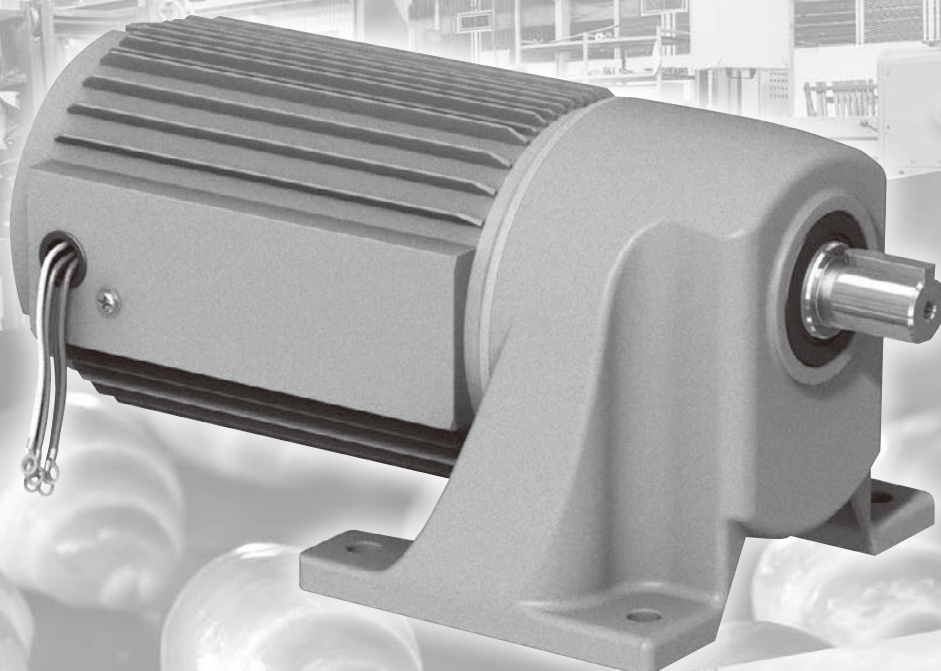


Small Gear Motors Single-Phase Gear Motors

TS Series



Benefits

- Fully closed type with fanless motor provides vastly greater reliability.
- Condenser startup and condenser operation contribute to dramatically improved startup torque characteristics.
- Newly designed motor is more compact than previous model.
- The use of an electrostatic powder coating prevents scratches and peeling of protective film.

■ Nomenclature

G M T S 1 0 0 - 2 8 L 4 5 0

① ② ③ ④ ⑤ ⑥ ⑦

① Series name	GMTS	Single-phase gear motor
② Motor capacity	100 200	Single-phase 100 W Single-phase 200 W
③ Frame number (example)	28	Frame number 28
④ Mounting type	L U	Foot mount Face mount
⑤ Reduction ratio (example)	450	1/450
⑥ Specification code	No code B	Non-brake type Brake type
⑦ Option code	H Q	Hard terminal box Brake manual release type

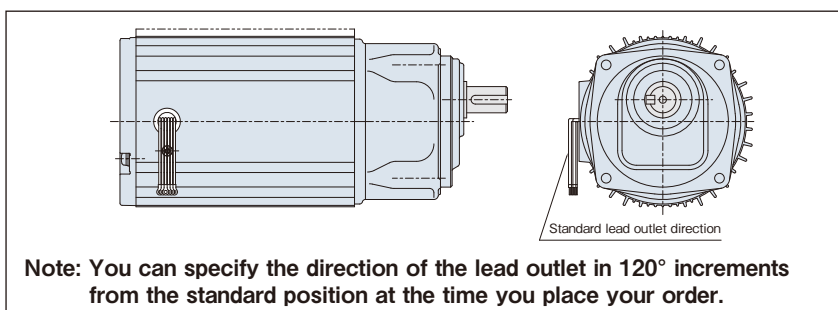
■ Model Lineup

Single-phase gear motor GMTS: Non-brake type, brake type

Foot mount, face mount, flange mount

Reduction ratio	5,10,15 20,25	30,40,50	60,75	100,120, 165,200	300,360, 1450	600,720, 1000,1200
100W	18L/U		24L/U		28L/U	38L/U
200W	18L/U	24L/U		28L/U	38L/U	42L/F

■ Lead Outlet Direction



Specifications

Motor	Output	Single-phase: 100 W, 200 W	Reducer	Reduction ratio	1/5 to 1/2000
		Non-brake type, brake type		Lubrication	Grease
	Power supply	100 V, 50/60 Hz		Shaft end keyway	New JIS key (JISB1301-1976) Output shaft key attached (Ordinary-class keyway)
	Number of poles	4		Output shaft end	Tapped
	Protection	Totally enclosed type (IP20)	Ambient conditions	Installation place	Indoor not exposed to dust or water
	Cooling	Self-cooled type (IC410)		Temperature	−20° C to 40° C
	Startup	Condenser startup/operation		Humidity	Less than 85% (non condensing)
	Rating	S1 (Continuous)		Altitude	Elevations below 1000 m
	Insulation	100 W: 120 (E), 200 W: 155 (F)		Atmosphere	Free from corrosive gases, explosive gases, and steam
	Brake	Non-excitation type, DC electromagnetic brake		Mounting direction	No limitations on mounting angles: horizontal, vertical, or inclined

Specification Chart

Nominal reduction ratio	Output shaft revolution r/min		Single-phase 100 W: GMTS100								Nominal reduction ratio	Output shaft revolution r/min		Single-phase 200 W: GMTS200							
			Frame number	Number of reduction steps	Allowable output shaft torque				Allowable output shaft O.H.L.					Frame number	Number of reduction steps	Allowable output shaft torque				Allowable output shaft O.H.L.	
	N·m				{kgf·m}		N·m		{kgf·m}			N·m				{kgf·m}		N·m		{kgf·m}	
	50Hz	60Hz			50Hz	60Hz	50Hz	60Hz	N	{kgf}		50Hz	60Hz			50Hz	60Hz	50Hz	60Hz	N	{kgf}
5	300	360	18	2	2.8	{ 0.29}	2.4	{ 0.24}	274	{ 28}	5	300	360	18	2	5.7	{ 0.58}	4.7	{ 0.48}	431	{ 44}
10	150	180			5.7	{ 0.58}	4.8	{ 0.49}	431	{ 44}	10	150	180			11.8	{ 1.2}	9.5	{ 0.97}	686	{ 70}
15	100	120			8.6	{ 0.88}	7.2	{ 0.73}	568	{ 58}	15	100	120			17.6	{ 1.8}	14.7	{ 1.5}	902	{ 92}
20	75	90			11.8	{ 1.2}	9.5	{ 0.97}	686	{ 70}	20	75	90			22.5	{ 2.3}	19.6	{ 2.0}	1098	{ 112}
25	60	72			14.7	{ 1.5}	11.8	{ 1.2}	804	{ 82}	25	60	72			28.4	{ 2.9}	23.5	{ 2.4}	1264	{ 129}
30	50	60			17.6	{ 1.8}	14.7	{ 1.5}	902	{ 92}	30	50	60			34.3	{ 3.5}	28.4	{ 2.9}	1431	{ 146}
40	37.5	45			22.5	{ 2.3}	19.6	{ 2.0}	1098	{ 112}	40	37.5	45			46.1	{ 4.7}	38.2	{ 3.9}	1735	{ 177}
50	30	36			28.4	{ 2.9}	23.5	{ 2.4}	1264	{ 129}	50	30	36			24	3	56.8	{ 5.8}	48.0	{ 4.9}
60	25	30	34.3	{ 3.5}	28.4	{ 2.9}	1431	{ 146}	60	25	30	68.6	{ 7.0}	56.8	{ 5.8}			2274	{ 232}		
75	20	24	43.1	{ 4.4}	36.3	{ 3.7}	1666	{ 170}	75	20	24	86.2	{ 8.8}	71.5	{ 7.3}			2636	{ 269}		
100	15	18	56.8	{ 5.8}	48.0	{ 4.9}	2009	{ 205}	100	15	18	115.0	{ 11.7}	95.1	{ 9.7}			3195	{ 326}		
120	12.5	15	68.6	{ 7.0}	56.8	{ 5.8}	2274	{ 232}	120	12.5	15	137.0	{ 14.0}	115	{ 11.7}			3606	{ 368}		
165	9.1	10.9	94.1	{ 9.6}	78.4	{ 8.0}	2813	{ 287}	165	9.1	10.9	189.0	{ 19.3}	158	{ 16.1}			4459	{ 455}		
200	7.5	9	115	{ 11.7}	95.1	{ 9.7}	3195	{ 326}	200	7.5	9	218.0	{ 22.2}	181	{ 18.5}			4822	{ 492}		
300	5	6	28	4	143	{ 14.6}	120	{ 12.2}	3195	{ 326}	300	5	6	38	4			286.0	{ 29.2}	239	{ 24.4}
360	4.2	5			172	{ 17.5}	143	{ 14.6}	3606	{ 368}	360	4.2	5			343.0	{ 35.0}	286	{ 29.2}	5488	{ 560}
450	3.3	4			215	{ 21.9}	179	{ 18.3}	4185	{ 427}	450	3.3	4			430.0	{ 43.9}	358	{ 36.5}	5792	{ 591}
600	2.5	3			286	{ 29.2}	239	{ 24.4}	5076	{ 518}	600	2.5	3			611.0	{ 62.3}	509	{ 51.9}	7301	{ 745}
720	2.1	2.5			344	{ 35.1}	286	{ 29.2}	5733	{ 585}	720	2.1	2.5			733.0	{ 74.8}	611	{ 62.3}	8242	{ 841}
1000	1.5	1.8			446	{ 45.5}	319	{ 32.5}	6664	{ 680}	1000	1.5	1.8			827.0	{ 84.4}	689	{ 70.3}	9800	{ 1000}
1200	1.3	1.5			*459	{ 46.8}	382	{ 39.0}	6684	{ 682}	1200	1.3	1.5			*840.0	{ 85.7}	*700	{ 71.4}	9800	{ 1000}

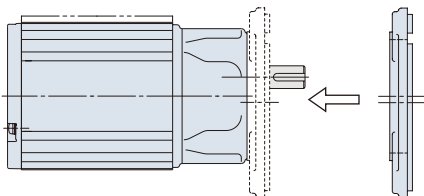
Note 1: The nominal reduction ratio is shown as the reduction ratio.

Note 2: The output shaft revolution rate is calculated by dividing the motor synchronous revolution rate by the nominal reduction ratio.

Note 3: The models marked with * are ones for which torque is limited.

Face Mount Options

Eccentric: UFS flange



Concentric: UFM flange

