

# Inertia Moment of Gearmotor

## Inertia Moment I {GD<sup>2</sup>} of GTR Gearmotor

Value according to Capacity and Frame Number

Inertia Moment I {GD<sup>2</sup>} of Gearmotor (Motor + Reducer) (value converted at the motor shaft)

GTR Mini Series G/F/F2 Type { Gearmotor<with motor>/Brake Gearmotor  
Water-resistant Gearmotor<with motor>/Water-resistant Brake Gearmotor }

Unit: Inertia Moment I ( kg·m<sup>2</sup> } GD<sup>2</sup>( kgf·m<sup>2</sup> ) } Table-8

No. of Phase	Type/Frame Number				Capacity (W)	Gearmotor/Water-resistant Gearmotor		Gearmotor with Brake/Water-resistant Gearmotor with Brake	
	G-Type	H-Type	F2-Type			200V	400V	200V	400V
3-Phase	Frame G-12 Frame G-22	Frame H-15	Frame F2S-12	Frame F2F-15	15	0.00005 0.00020 }	0.00006 0.00023 }	0.00007 0.00028 }	0.00008 0.00031 }
					25	0.00006 0.00023 }	0.00006 0.00023 }	0.00008 0.00031 }	0.00008 0.00031 }
		Frame H-22	Frame F2S-15	Frame F2F-18	40	0.00007 0.00029 }	0.00008 0.00033 }	0.00009 0.00037 }	0.00009 0.00037 }
					60	0.00008 0.00033 }	0.00008 0.00033 }	0.00009 0.00037 }	0.00009 0.00037 }
	Frame G-15 Frame G-28 Frame G-32	Frame H-18	Frame F2S-15	Frame F2F-18	25	0.00008 0.00030 }	0.00008 0.00030 }	0.00010 0.00038 }	0.00010 0.00038 }
					40	0.00008 0.00030 }	0.00008 0.00030 }	0.00010 0.00038 }	0.00010 0.00038 }
		Frame H-28	Frame F2S-15	Frame F2F-18	60	0.00010 0.00040 }	0.00012 0.00049 }	0.00012 0.00048 }	0.00014 0.00057 }
					90	0.00012 0.00049 }	0.00013 0.00053 }	0.00014 0.00057 }	0.00014 0.00057 }
	Frame G-18 Frame G-40	Frame H-40			40	0.00034 0.00136 }	0.00034 0.00136 }	0.00036 0.00144 }	0.00036 0.00144 }
					60	0.00034 0.00136 }	0.00034 0.00136 }	0.00036 0.00144 }	0.00036 0.00144 }
					90	0.00034 0.00136 }	0.00034 0.00136 }	0.00036 0.00144 }	0.00036 0.00144 }

Note) 400V is not available in Water-resistant Gearmotor/Brake Gearmotor.

Unit: Inertia Moment I ( kg·m<sup>2</sup> } GD<sup>2</sup>( kgf·m<sup>2</sup> ) } Table-9

No. of Phase	Type/Frame Number				Capacity (W)	Gearmotor/Water-resistant Gearmotor		Gearmotor with Brake/Water-resistant Gearmotor with Brake	
	G-Type	H-Type	F2-Type			100V	200V	100V	200V
1-Phase	Frame G-12 Frame G-22	Frame H-15	Frame F2S-12	Frame F2F-15	15	0.00005 0.00020 }	0.00005 0.00020 }	0.00007 0.00028 }	0.00007 0.00028 }
					25	0.00006 0.00023 }	0.00006 0.00023 }	0.00008 0.00031 }	0.00008 0.00031 }
		Frame H-22	Frame F2S-15	Frame F2F-18	40	0.00008 0.00033 }	0.00008 0.00033 }	0.00009 0.00037 }	0.00009 0.00037 }
					60	0.00008 0.00033 }	0.00008 0.00033 }	0.00009 0.00037 }	0.00009 0.00037 }
	Frame G-15 Frame G-28 Frame G-32	Frame H-18	Frame F2S-15	Frame F2F-18	25	0.00008 0.00030 }	0.00008 0.00030 }	0.00010 0.00038 }	0.00010 0.00038 }
					40	0.00010 0.00040 }	0.00010 0.00040 }	0.00012 0.00048 }	0.00012 0.00048 }
		Frame H-28	Frame F2S-15	Frame F2F-18	60	0.00013 0.00053 }	0.00013 0.00053 }	0.00014 0.00057 }	0.00014 0.00057 }
					90	0.00013 0.00053 }	0.00013 0.00053 }	0.00014 0.00057 }	0.00014 0.00057 }
	Frame G-18 Frame G-40	Frame H-40			40	0.00034 0.00136 }	0.00034 0.00136 }	0.00036 0.00144 }	0.00036 0.00144 }
					60	0.00034 0.00136 }	0.00034 0.00136 }	0.00036 0.00144 }	0.00036 0.00144 }
					90	0.00035 0.00140 }	0.00035 0.00140 }	0.00036 0.00144 }	0.00036 0.00144 }

Note) 200V is not available in Water-resistant Gearmotor/Brake Gearmotor.

Parallel Shaft Performance Table/ Dimension

Gearmotor with Brake

Water-resistant Gearmotor with Brake

Speed Control Gearmotor

Gearmotor with Clutch/Brake

GT-Type Gearmotor with Brake

Right Angle Shaft Performance Table/ Dimension

Gearmotor with Brake

With Water-resistant Brake Motor

Speed Control Gearmotor

Concentric Hollow Shaft Concentric Solid Shaft Performance Table/ Dimension

Gearmotor with Brake

With Water-resistant Brake Motor

Speed Control Gearmotor

Parallel Shaft GTR-L Series Performance Table/ Dimension

Reversible Gearmotor with Brake

Speed Control Gearmotor with Brake

Technical Information

Standard Motors

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Option

GTR Mini Series GT Type [ Gearmotor<with motor>/Brake Gearmotor ]

Unit: Inertia Moment I ( kg·m<sup>2</sup> } GD<sup>2</sup>( kgf·m<sup>2</sup> ) } Table-10

No. of Phase	Type/Size	Capacity (W)	Gearmotor	
			200V	Gearmotor with Brake
3-Phase	GT-8	15	0.0000 $\{$ 0.00023 }	0.0000 $\{$ 0.00031 }
		25	0.0000 $\{$ 0.00029 }	0.0000 $\{$ 0.00037 }
	GT-9	40	0.0001 $\{$ 0.00040 }	0.0001 $\{$ 0.00048 }
		60	0.0001 $\{$ 0.00049 }	0.0001 $\{$ 0.00057 }

Unit: Inertia Moment I ( kg·m<sup>2</sup> } GD<sup>2</sup>( kgf·m<sup>2</sup> ) } Table-11

No. of Phase	Type/Size	Capacity (W)	Gearmotor		Gearmotor with Brake	
			100V	200V	100V	200V
1-Phase	GT-8	15	0.0000 $\{$ 0.00023 }	0.0000 $\{$ 0.00023 }	0.0000 $\{$ 0.00031 }	0.0000 $\{$ 0.00031 }
		25	0.0000 $\{$ 0.00029 }	0.0000 $\{$ 0.00029 }	0.0000 $\{$ 0.00037 }	0.0000 $\{$ 0.00037 }
	GT-9	40	0.0001 $\{$ 0.00049 }	0.0001 $\{$ 0.00049 }	0.0001 $\{$ 0.00057 }	0.0001 $\{$ 0.00057 }
		60	0.0001 $\{$ 0.00053 }	0.0001 $\{$ 0.00053 }	0.0001 $\{$ 0.00057 }	0.0001 $\{$ 0.00057 }

GTR-L Series G Type [ Gearmotor<with motor>/Brake Gearmotor ]

Unit: Inertia Moment I ( kg·m<sup>2</sup> } GD<sup>2</sup>( kgf·m<sup>2</sup> ) } Table-12

No. of Phase	Type/Frame Number	Capacity (W)	Gearmotor		Gearmotor with Brake	
			200V	400V	200V	400V
3-Phase	Frame G-12	15	0.0000 $\{$ 0.00020 }	0.0000 $\{$ 0.00023 }	0.0000 $\{$ 0.00028 }	0.0000 $\{$ 0.00031 }
		25	0.0000 $\{$ 0.00023 }	0.0000 $\{$ 0.00023 }	0.0000 $\{$ 0.00031 }	0.0000 $\{$ 0.00031 }
	Frame G-15	25	0.0000 $\{$ 0.00030 }	0.0000 $\{$ 0.00030 }	0.0001 $\{$ 0.00038 }	0.0001 $\{$ 0.00038 }
		40	0.0000 $\{$ 0.00030 }	0.0000 $\{$ 0.00030 }	0.0001 $\{$ 0.00038 }	0.0001 $\{$ 0.00038 }

Unit: Inertia Moment I ( kg·m<sup>2</sup> } GD<sup>2</sup>( kgf·m<sup>2</sup> ) } Table-13

No. of Phase	Type/Frame Number	Capacity (W)	Gearmotor		Gearmotor with Brake	
			100V	200V	100V	200V
1-Phase	Frame G-10	6	0.0000 $\{$ 0.00060 }	—	0.0000 $\{$ 0.00074 }	—
		10	0.0000 $\{$ 0.00060 }	0.0000 $\{$ 0.00060 }	0.0000 $\{$ 0.00074 }	0.0000 $\{$ 0.00074 }
	Frame G-12	15	0.0000 $\{$ 0.00020 }	0.0000 $\{$ 0.00020 }	0.0000 $\{$ 0.00028 }	0.0000 $\{$ 0.00028 }
		25	0.0000 $\{$ 0.00023 }	0.0000 $\{$ 0.00023 }	0.0000 $\{$ 0.00031 }	0.0000 $\{$ 0.00031 }
	Frame G-15	25	0.0000 $\{$ 0.00030 }	0.0000 $\{$ 0.00030 }	0.0001 $\{$ 0.00038 }	0.0001 $\{$ 0.00038 }
		40	0.0001 $\{$ 0.00040 }	0.0001 $\{$ 0.00040 }	0.0001 $\{$ 0.00048 }	0.0001 $\{$ 0.00048 }

Parallel Shaft Performance Table/ Dimension

Gearmotor with Brake

Water-resistant Gearmotor with Brake

Speed Control Gearmotor

Gearmotor with Clutch /Brake

GT-Type Gearmotor with Brake

Right Angle Shaft Performance Table/ Dimension

Gearmotor with Brake

With Water-resistant Brake Motor

Speed Control Gearmotor

Concentric Hollow Shaft Performance Table/ Dimension

Gearmotor with Brake

With Water-resistant Brake Motor

Speed Control Gearmotor

Parallel Shaft GTR-L Series Performance Table/ Dimension

Reversible Gearmotor with Brake

Speed Control Gearmotor with Brake

Technical Information

Standard Motors

Cautions for Safety

Option

# Inertia Moment of Gearmotor

## Value according to Capacity and Frame Number

Inertia Moment I {GD<sup>2</sup>} of Gearmotor with Clutch/Brake(clutch/brake part)

### GTR Mini Series G-Type [ Gearmotor with Clutch/Brake ]

Unit: Inertia Moment I ( kg·m<sup>2</sup> } GD<sup>2</sup>( kgf·m<sup>2</sup> ) } Table-14

No. of Phase	Type/ Frame Number	Capacity (W)	200V	
3-Phase 1-Phase	Frame G-12	15	0.00041{ 0.0016 }	
		25	0.00041{ 0.0016 }	
	Frame G-15	15	0.00092{ 0.0037 }	
		25	0.00092{ 0.0037 }	
		50	0.00092{ 0.0037 }	
	Frame G-18	15	0.00100{ 0.0040 }	
		25	0.00100{ 0.0040 }	
		50	0.00100{ 0.0040 }	
		90	0.00100{ 0.0040 }	

- Parallel Shaft Performance Table/ Dimension
- Gearmotor with Brake
- Water-resistant Gearmotor with Brake
- Speed Control Gearmotor
- Gearmotor with Clutch /Brake
- GT-Type Gearmotor with Brake
- Right Angle Shaft Performance Table/ Dimension
- Gearmotor with Brake
- With Water-resistant Brake Motor
- Speed Control Gearmotor
- Concentric Hollow Shaft Concentric Solid Shaft Performance Table/ Dimension
- Gearmotor with Brake
- With Water-resistant Brake Motor
- Speed Control Gearmotor
- Parallel Shaft GTR-L Series Performance Table/ Dimension
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