

TSL-GIM10015-9

Integrated Joint Motor | 9:1 Planetary Gearbox



Rated Voltage	Rated Torque	Peak Torque	Gear Ratio
48 V	20.50 N.m	112.00 N.m	9:1

1. Electrical, Mechanical and Control Parameters

Parameter	Unit	Value	Parameter	Unit	Value
Rated Voltage	V	48	Gear Material	-	Steel
Model of Driver Board	-	GDZ810	Gear Backlash	arcmin	15
Operating Voltage Range	V	12-48	Motor Weight (without driver)	g	1325.0
Rated Power	W	264	Motor Weight (with integrated driver)	g	1372.0
Rated Torque	N.m	20.50	Motor Dimensions (without driver)	mm	Ø120 x 45
Peak Torque	N.m	112.00	Motor Dimensions (with integrated driver)	mm	Ø122 x 57.5
Rated Speed after Reduction	RPM	101	Maximum Axial Load	N	1250
Maximum Speed after Reduction	RPM	114	Maximum Radial Load	N	5000
Rated Current	A	5.50	Noise	dB	< 60
Peak Current	A	39.28	Communication Protocol	-	CAN & 485
Phase Resistance	Ω	0.76	Secondary Encoder Support (output shaft)	-	No
Phase Inductance	mH	0.42	Ingress Protection Rating	-	IP54
Speed Constant	rpm/V	2.38	Operating Temperature Range	°C	-20 to +80
Torque Constant	N.m/A	1.50	Onboard Encoder Resolution	bit	14
Number of Pole Pairs	Pairs	21	Stand-alone Encoder Support	-	No
Gear Ratio	-	9:1	Customizable Brake Support	-	Yes
Gearbox Type	-	Planetary			

The above parameters are for reference only and can be customized according to customer requirements.

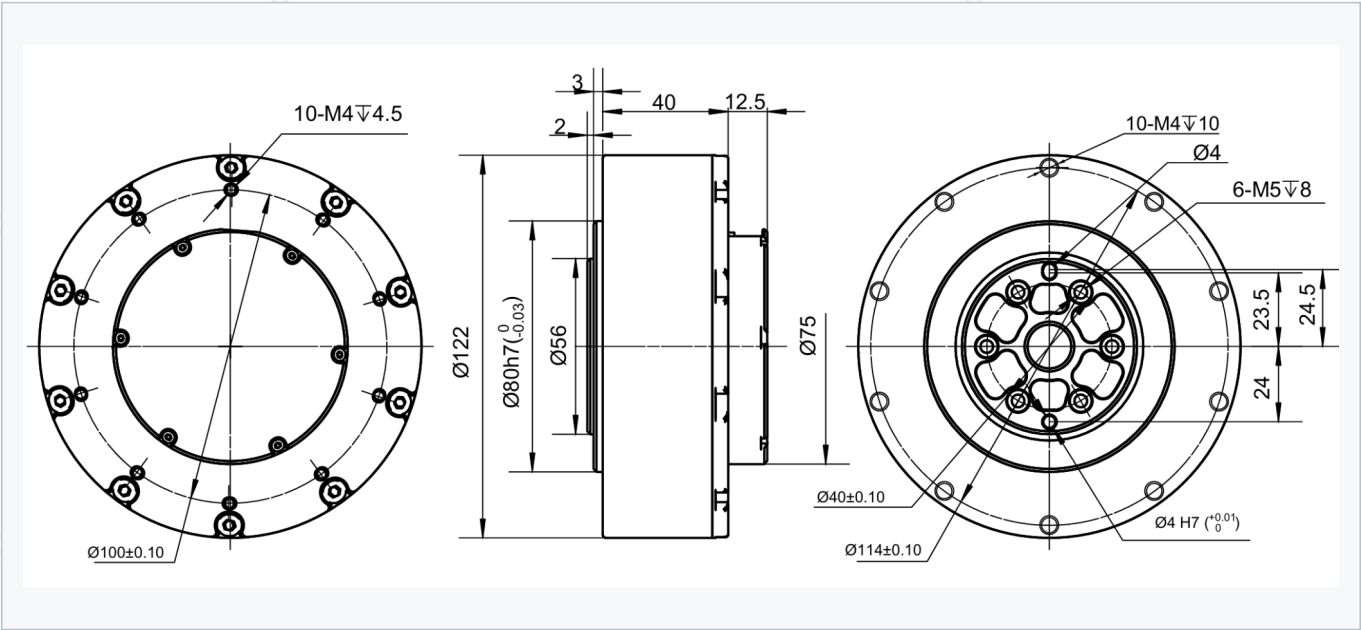
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2. Dimension Drawing

All dimensions are in millimeters unless otherwise specified.



Mechanical Item	Specification
Configuration	TSL-GIM10015-9 motor assembly
Housing Diameter	Ø122 mm
Reference Diameters	Ø56, Ø75, Ø80 h7, Ø100 ±0.10 and Ø114 ±0.10 as shown
Threaded Interfaces	10-M4 depth 4.5; 10-M4 depth 10; 6-M5 depth 8
Mounting Features	Ø4 holes and Ø4 H7 (+0.01 / 0) locating feature as shown

Drawing: TSL-GIM10015-9 - Mechanical Interface

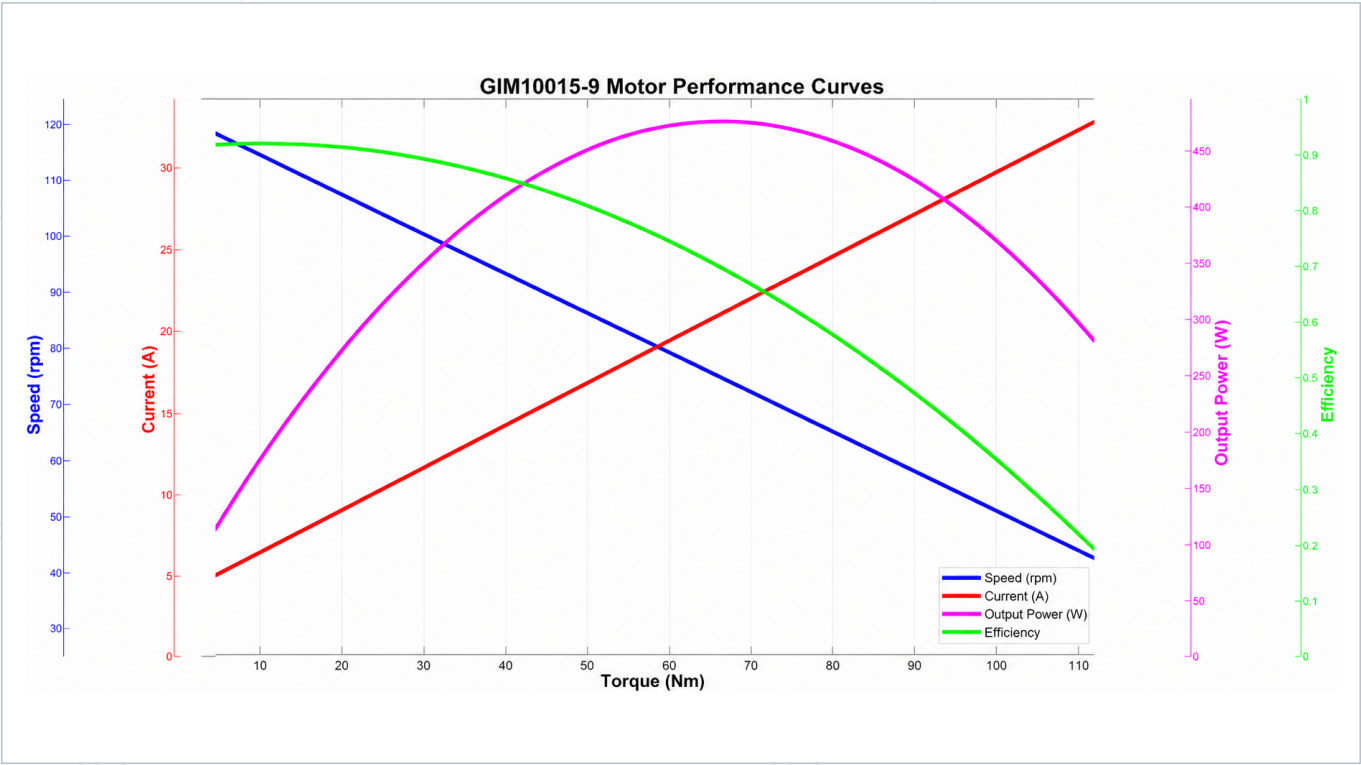
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3. Motor Performance Curve

Speed, current, output power and efficiency versus output torque.



Reference Operating Points

Rated Torque	Rated Speed	Rated Current	Peak Torque	Peak Current
20.50 N.m	101 RPM	5.50 A	112.00 N.m	39.28 A

Performance curves are for reference only and may vary with operating conditions and customer-specific configurations.