

TSL-GIM3505-36

Integrated Joint Motor | 36:1 Planetary Gearbox



Rated Voltage	Rated Torque	Peak Torque	Gear Ratio
24 V	3.12 N.m	8.01 N.m	36:1

1. Electrical, Mechanical and Control Parameters

Parameter	Unit	Value	Parameter	Unit	Value
Rated Voltage	V	24	Gear Material	-	Aluminum alloy
Model of Driver Board	-	GDZ3	Gear Backlash	arcmin	15
Operating Voltage Range	V	12-40	Motor Weight (without driver)	g	165.3
Rated Power	W	41	Motor Weight (with integrated driver)	g	177.0
Rated Torque	N.m	3.12	Motor Dimensions (without driver)	mm	Ø45 × 40.3
Peak Torque	N.m	8.01	Motor Dimensions (with integrated driver)	mm	Ø45 × 44.1
Rated Speed after Reduction	RPM	55	Maximum Axial Load	N	75
Maximum Speed after Reduction	RPM	97	Maximum Radial Load	N	300
Rated Current	A	1.70	Noise	dB	< 60
Peak Current	A	4.54	Communication Protocol	-	CAN & RS485
Phase Resistance	Ω	4.47	Secondary Encoder Support	-	Yes
Phase Inductance	mH	0.45	Ingress Protection Rating	-	IP54
Speed Constant	rpm/V	4.04	Operating Temperature Range	°C	-20 to +80
Torque Constant	N.m/A	2.00	Onboard Encoder Resolution	bit	14
Number of Pole Pairs	Pairs	11	Stand-alone Encoder Support	-	Yes
Gear Ratio	-	36:1	Customizable Brake Support	-	Yes
Gearbox Type	-	Planetary			

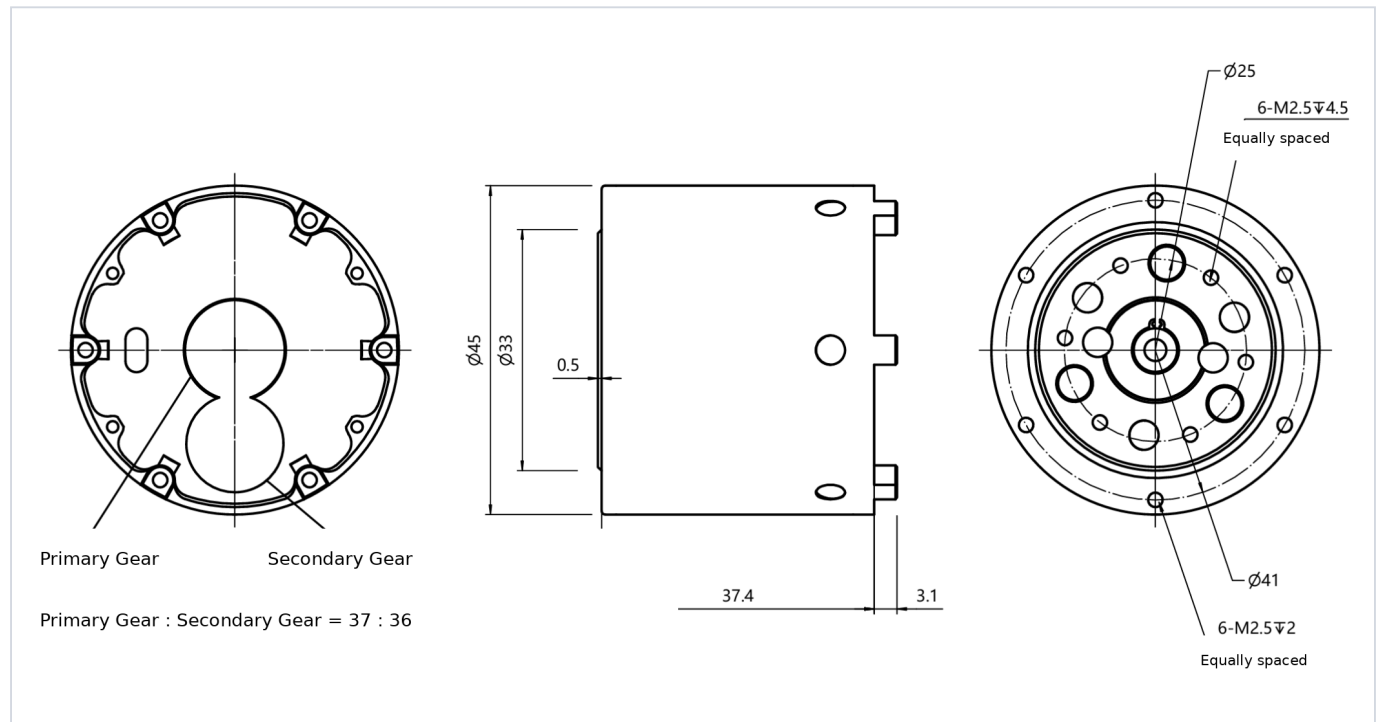
The above parameters are for reference only and can be customized according to customer requirements.

TSL-GIM3505-36

Integrated Joint Motor | 36:1 Planetary Gearbox

2. Dimension Drawing - Without Integrated Driver

All dimensions are in millimeters unless otherwise specified.



Configuration	Motor assembly without integrated driver
Overall Size	$\varnothing 45 \times 40.3$ mm
Motor Weight	165.3 g
Output / Pilot Interfaces	$\varnothing 25$, $\varnothing 33$, $\varnothing 41$ and $\varnothing 45$ as shown
Mounting Features	6-M2.5 depth 4.5 and 6-M2.5 depth 2; equally spaced
Gear Arrangement	Primary gear : secondary gear = 37 : 36

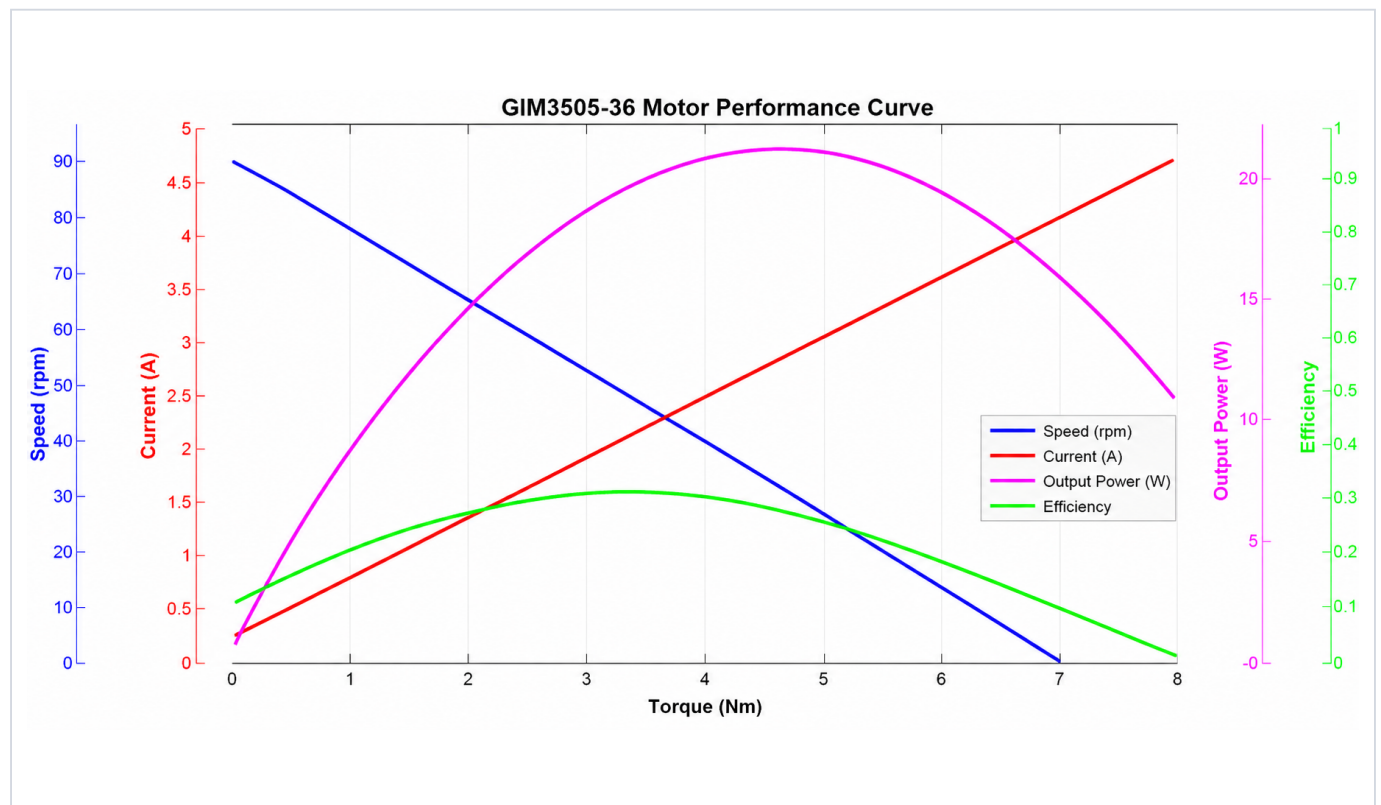
TSL-GIM3505-36

Integrated Joint Motor | 36:1 Planetary Gearbox

4. Motor Performance Curve

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

TSL-GIM3505-36 Motor Performance Curve



Reference Operating Points

Rated Torque	Rated Speed	Rated Current	Peak Torque	Peak Current
3.12 N.m	55 RPM	1.70 A	8.01 N.m	4.54 A

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