

# TSL-GM1024-N30VA

Ø12mm Brushed DC Motor with Spur Gearbox



<b>Product Type</b>	Brushed DC Motor with Spur Gearbox
<b>Nominal Voltage</b>	3.7 VDC / 5 VDC / 12 VDC
<b>Gear Ratios</b>	50:1, 110:1, 250:1, 380:1, 500:1, 1000:1
<b>Motor Diameter</b>	Ø12.1 mm max
<b>Gearbox Footprint</b>	24.0 ±0.3 mm × 10 ±0.1 mm
<b>Output Shaft</b>	Ø3.0 mm, D-shaped
<b>Mounting Thread</b>	2 × M1.6 × 0.35

**Ultra-Compact Design**  
12 mm-class motor with a low-profile spur gearbox for space-limited assemblies.

**Six Gear Ratios**  
Reduction ratios from 50:1 to 1000:1 for different speed and torque requirements.

**OEM Customization**  
Voltage, shaft, terminal, wiring, and performance can be customized.

# Performance Parameters - 3.7 VDC

Ratio	No Load		Rated Load			Stall	
	Speed	Current	Speed	Current	Torque	Torque	Current
i:1	RPM $\pm$ 10%	A	RPM $\pm$ 10%	A	g.cm	g.cm	A
1000	10	0.04	6.7	0.23	2500	7622	0.71
500	20	0.04	13.4	0.23	1250	3811	0.71
380	26	0.04	17.7	0.23	950	2896	0.71
250	40	0.04	26.9	0.23	625	1905	0.71
110	91	0.04	61.1	0.23	275	838	0.71
50	200	0.04	134.4	0.23	125	381	0.71

*Note: Performance parameters are for reference only and can be customized according to customer requirements.*

# Performance Parameters - 5 VDC

Ratio	No Load		Rated Load			Stall	
	Speed	Current	Speed	Current	Torque	Torque	Current
i:1	RPM $\pm$ 10%	A	RPM $\pm$ 10%	A	g.cm	g.cm	A
1000	25	0.06	21.6	0.34	2000	14706	2.6
500	50	0.06	43.2	0.34	1000	7353	2.6
380	66	0.06	56.842	0.34	760	5588	2.6
250	100	0.06	86.4	0.34	500	3676	2.6
110	227	0.06	196.36	0.34	220	1618	2.6
50	500	0.06	432	0.34	100	735	2.6

*Note: Performance parameters are for reference only and can be customized according to customer requirements.*

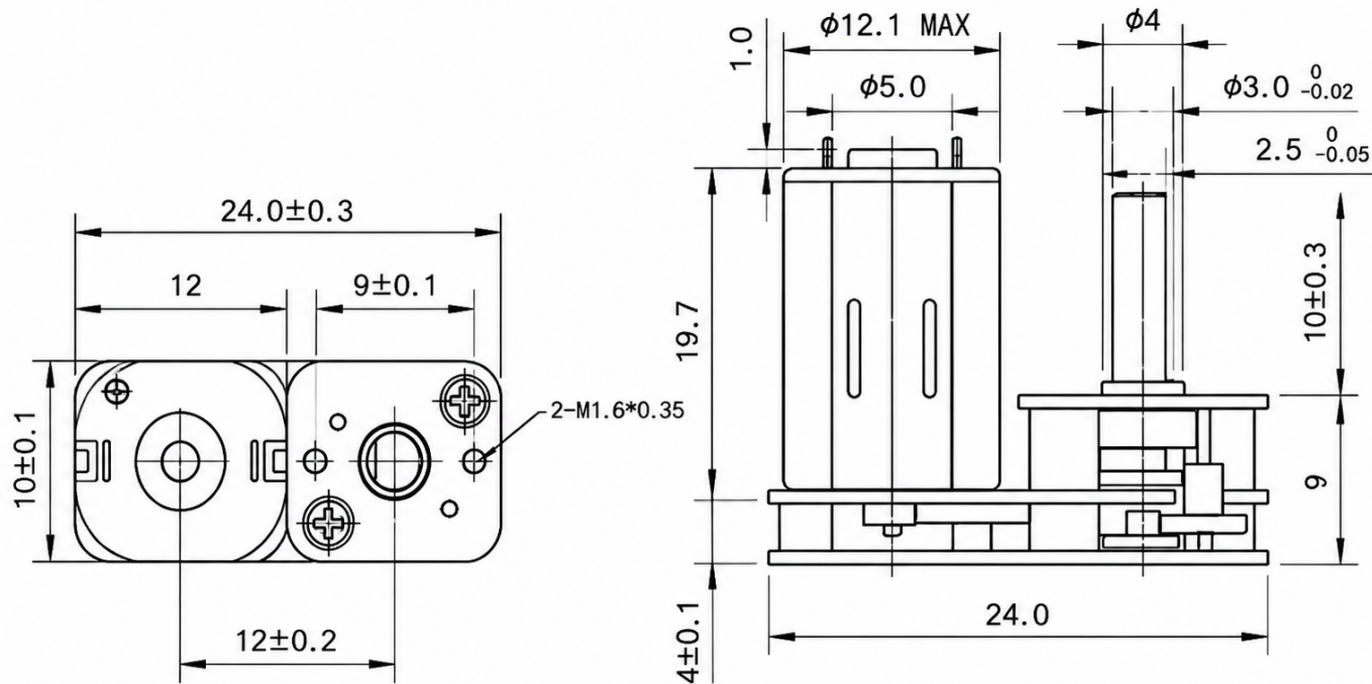
# Performance Parameters - 12 VDC

Ratio	No Load		Rated Load			Stall	
	Speed	Current	Speed	Current	Torque	Torque	Current
i:1	RPM $\pm$ 10%	A	RPM $\pm$ 10%	A	g.cm	g.cm	A
1000	30	0.03	26.8	0.25	2500	23438	1.56
500	60	0.03	53.6	0.25	1250	11719	1.56
380	79	0.03	70.5	0.25	950	8906	1.56
250	120	0.03	107.2	0.25	625	5859	1.56
110	273	0.03	243.6	0.25	275	2578	1.56
50	600	0.03	536	0.25	125	1172	1.56

*Note: Performance parameters are for reference only and can be customized according to customer requirements.*

# Mechanical Dimensions

All dimensions are in millimetres.



Item	Dimension
Motor diameter	Ø12.1 mm max
Gearbox footprint	24.0 ± 0.3 × 10 ± 0.1 mm
Motor body height	19.7 mm
Base thickness	4 ± 0.1 mm
Output shaft	Ø3.0 mm (0 / -0.02)
Shaft protrusion	10 ± 0.3 mm
Shaft flat width	2.5 mm (0 / -0.05)
Mounting thread	2 × M1.6 × 0.35

*The dimension drawing is for reference only. Output shaft, mounting details, terminal configuration, and performance can be customized according to customer requirements.*