

TSL-GF13-030

Ø15.5 mm Brushed DC Motor with Spur Gearbox



Product Type	Brushed DC Motor with Spur Gearbox
Nominal Voltage	3 VDC / 6 VDC / 12 VDC
Gear Ratios	20:1, 50:1, 100:1, 158:1, 300:1, 360:1
Motor Cross-Section	Ø15.5 mm
Gearbox Length	11 mm
Output Shaft	Ø3.0 mm, D-shaped
Motor Body Length	18.6 mm
Weight	15.6 g

Compact Metal Gearbox

Compact spur gearbox design for space-limited assemblies and miniature drive systems.

Six Gear Ratios

Reduction ratios from 20:1 to 360:1 cover a practical range of speed and torque requirements.

Three Motor Options

3 V 10000 RPM, 6 V 12000 RPM and 12 V 15000 RPM versions are available.

Performance Parameters - 3 VDC, 10000 Type

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
20	500	0.07	400	0.26	50	250	1.1
50	200	0.07	160	0.26	125	625	1.1
100	100	0.07	80	0.26	250	1250	1.1
158	63	0.07	50.6	0.26	395	1975	1.1
300	33	0.07	26.7	0.26	750	3750	1.1
360	28	0.07	22.2	0.26	900	4500	1.1

Performance parameters can be customized according to customer requirements.

Performance Parameters - 6 VDC, 12000 Type

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
20	600	0.055	495	0.16	50	286	0.75
50	240	0.055	198	0.16	125	714	0.75
100	120	0.055	99	0.16	250	1429	0.75
158	76	0.055	62.7	0.16	395	2257	0.75
300	40	0.055	33	0.16	750	4286	0.75
360	33	0.055	27.5	0.16	900	5143	0.75

Performance parameters can be customized according to customer requirements.

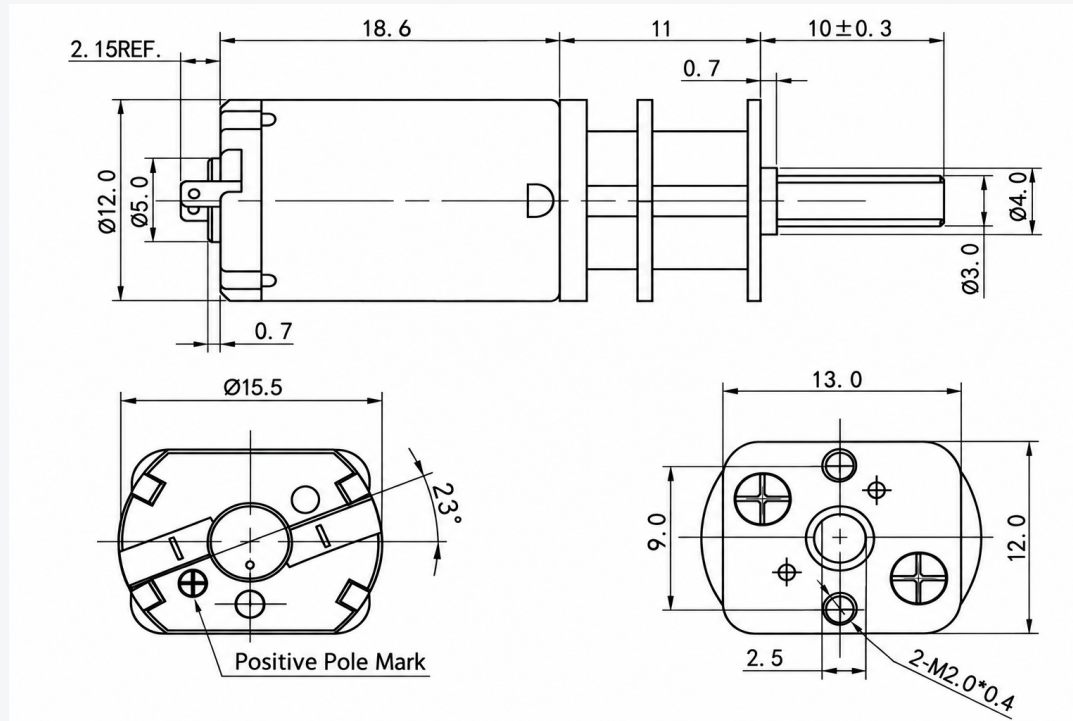
Performance Parameters - 6 VDC, 15000 Type

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
20	750	0.06	640	0.09	50	341	0.61
50	300	0.06	256	0.09	125	852	0.61
100	150	0.06	128	0.09	250	1705	0.61
158	95	0.06	81	0.09	395	2693	0.61
300	50	0.06	42.7	0.09	750	5114	0.61
360	42	0.06	35.6	0.09	900	6136	0.61

Performance parameters can be customized according to customer requirements.

Mechanical Dimensions

All dimensions are in millimetres.



Item	Dimension
Motor cross-section	Ø15.5 mm
Motor body length	18.6 mm
Gearbox length	11.0 mm
Front face size	13.0 × 12.0 mm
Output shaft	Ø3.0 mm, D-shaped
Shaft protrusion	10.0 ± 0.3 mm
Mounting holes	2-M2.0 × 0.4

The dimension drawing is for reference only. Output shaft, mounting holes, gear ratio and performance can be customized according to customer requirements.