

TSL-GA16-050

16 mm Brushed DC Motor with Spur Gearbox



Product Type	Brushed DC Motor with Spur Gearbox
Nominal Voltage	6 VDC / 12 VDC
Gear Ratios	36:1, 45:1, 71:1, 89:1, 100:1, 126:1, 143:1, 179:1, 252:1, 284:1, 355:1, 402:1, 503:1, 709:1, 800:1, 1000:1
Gearbox Diameter	Ø16 mm
Gearbox Length	12.7 / 14 / 15.5 / 17 mm (ratio-dependent)
Motor Body Length	27 mm
Output Shaft	Ø3 mm, D-shaped
Mounting Holes	2 x M2, depth 4 mm

Compact Ø16 mm Design

A compact geared drive for miniature automation, instruments, locks, valves and electromechanical assemblies.

Sixteen Gear Ratios

Standard ratios from 36:1 to 1000:1 provide a broad range of output speed and torque options.

OEM Customization

Voltage, shaft, terminals, wiring, ratio and performance can be customized for project requirements.

Performance Parameters - 6 VDC

Ratio	No Load			Rated Load			Stall	
	Rated Voltage	Speed	Current	Speed	Current	Torque	Torque	Current
	V	RPM ±10%	A	RPM ±10%	A	kg.cm	kg.cm	A
36	6	336	0.09	240	0.4	0.38	0.92	2
45	6	266	0.09	200	0.4	0.43	1	2
71	6	166	0.09	142	0.4	0.61	1.4	2
89	6	134	0.09	125	0.4	0.7	1.6	2
100	6	120	0.09	101	0.4	0.86	2.1	2
126	6	95	0.09	90	0.4	0.97	2.3	2
143	6	83	0.09	71	0.4	1.1	2.6	2
179	6	67	0.09	62	0.4	1.25	3	2
252	6	47	0.09	50	0.4	1.56	3.7	2
284	6	42	0.09	33	0.4	2.2	5.3	2
355	6	34	0.09	30	0.4	2.48	6	2
402	6	29	0.09	23	0.4	2.81	6.8	2
503	6	24	0.09	19	0.4	3.2	7.7	2
709	6	16	0.09	16	0.4	4	9.6	2
800	6	15	0.09	11	0.4	5	13.6	2
1000	6	12	0.09	10	0.4	5	15.3	2

Note: Motors with reduction ratios above 355:1 must not be operated under stall conditions.

Performance parameters can be customized according to customer requirements. The values above are standard specifications.

Performance Parameters - 12 VDC

Ratio	No Load			Rated Load			Stall	
	Rated Voltage	Speed	Current	Speed	Current	Torque	Torque	Current
	V	RPM ±10%	A	RPM ±10%	A	kg.cm	kg.cm	A
36	12	336	0.05	240	0.2	0.38	0.92	1
45	12	266	0.05	200	0.2	0.43	1	1
71	12	166	0.05	125	0.2	0.61	1.6	1
89	12	134	0.05	101	0.2	0.7	2.1	1
100	12	120	0.05	90	0.2	0.86	2.3	1
126	12	95	0.05	71	0.2	0.97	2.6	1
143	12	83	0.05	62	0.2	1.1	3	1
179	12	67	0.05	50	0.2	1.25	3.7	1
252	12	47	0.05	33	0.2	1.56	5.3	1
284	12	42	0.05	30	0.2	2.2	6	1
355	12	34	0.05	23	0.2	2.48	6.8	1
402	12	29	0.05	19	0.2	2.81	7.7	1
503	12	24	0.05	16	0.2	3.2	9.6	1
709	12	16	0.05	11	0.2	4	13.6	1
800	12	15	0.05	10	0.2	5	15.3	1
1000	12	12	0.05	8	0.2	5	19.2	1

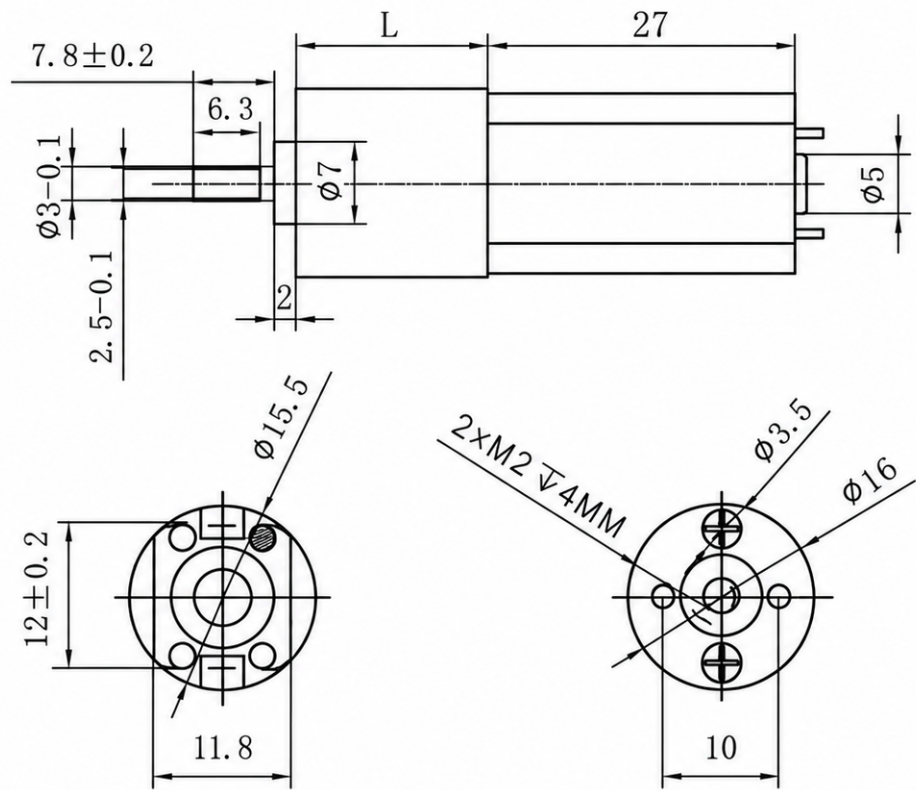
Note: Motors with reduction ratios above 355:1 must not be operated under stall conditions.

Performance parameters can be customized according to customer requirements. The values above are standard specifications.

Mechanical Dimensions

All dimensions are in millimetres.

L Value Indicates Housing Length for Different Gear Ratios																
Gear Ratio	36	45	71	89	100	126	143	179	252	284	355	402	503	709	800	1000
L Dimension (mm)	12.7		14				15.5					17				



Item	Dimension
Gearbox diameter	Ø16 mm
Motor body length	27 mm
Gearbox length L	12.7 to 17 mm
Output shaft	Ø3 mm, D-shaped
Shaft protrusion	7.8 ±0.2 mm
Shaft flat length	6.3 mm
Mounting holes	2 x M2, depth 4 mm

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