TSL-GA25-370

25 mm Brushed DC Motor with Spur Gearbox

Product Type	Brushed DC Motor with Spur Gearbox
Nominal Voltage	6 VDC / 12 VDC / 24 VDC
Motor Variants	60 Type / 85 Type
Gear Ratios	4.4:1, 9.7:1, 21:1, 35:1, 47:1, 78:1, 103:1, 164:1, 226:1, 378:1, 500:1
Gearbox Diameter	Ø25 mm
Gearbox Length	17 / 19 / 21 / 23 / 25 / 27 mm (ratio-dependent)
Motor Body Length	30.8 mm
Output Shaft	Ø4 mm, D-shaped
Mounting Holes	2 x M3

Compact Ø25 mm Design

A compact geared drive for automation, instruments, smart locks, valves and electromechanical equipment.

Eleven Gear Ratios

Standard ratios from 4.4:1 to 500:1 provide a broad range of output speed and torque options.

Multiple Motor Options

6 V, 12 V and 24 V windings are available in 60 Type and 85 Type performance versions.

Performance Parameters - 6 VDC - 60 Type

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
4.4	6	1360	0.15	1000	0.6	0.1	0.35	4
9.7	6	620	0.15	450	0.6	0.22	0.75	4
21	6	285	0.15	220	0.6	0.5	1.7	4
35	6	171	0.15	130	0.6	0.82	2.8	4
47	6	127	0.15	100	0.6	1	3.6	4
78	6	77	0.15	60	0.6	2	6.2	4
103	6	58	0.15	46	0.6	2.7	8.2	4
164	6	36	0.15	27	0.6	4	12	4
226	6	26	0.15	20	0.6	5	15	4
378	6	16	0.15	12	0.6	8	24	4
500	6	12	0.15	9	0.6	9	27	4

Note: Motors with reduction ratios above 164:1 must not be operated under stall conditions.

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

Performance Parameters - 6 VDC - 85 Type

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
4.4	6	1931	0.2	1370	1.1	0.16	0.5	6.5
9.7	6	915	0.2	640	1.1	0.35	1	6.5
21	6	399	0.2	280	1.1	0.6	2.4	6.5
35	6	242	0.2	175	1.1	1	3.9	6.5
47	6	188	0.2	130	1.1	1.3	5	6.5
78	6	108	0.2	76	1.1	2	8.6	6.5
103	6	82	0.2	62	1.1	2.7	11.4	6.5
164	6	50	0.2	35	1.1	4	18.8	6.5
226	6	37	0.2	26	1.1	5	20	6.5
378	6	22	0.2	16	1.1	8	32	6.5
500	6	17	0.2	12	1.1	9	36	6.5

Note: Motors with reduction ratios above 164:1 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 - 60 Type

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
4.4	12	1360	0.09	1000	0.35	0.1	0.35	2
9.7	12	620	0.09	450	0.35	0.22	0.75	2
21	12	285	0.09	220	0.35	0.5	1.7	2
35	12	171	0.09	130	0.35	0.82	2.8	2
47	12	127	0.09	100	0.35	1	3.6	2
78	12	77	0.09	60	0.35	2	6.2	2
103	12	58	0.09	46	0.35	2.7	8.2	2
164	12	36	0.09	27	0.35	4	12	2
226	12	26	0.09	20	0.35	5	15	2
378	12	16	0.09	12	0.35	8	24	2
500	12	12	0.09	9	0.35	9	27	2

Note: Motors with reduction ratios above 164:1 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 - 85 Type

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
4.4	12	1931	0.14	1370	0.6	0.16	0.5	4
9.7	12	915	0.14	640	0.6	0.35	1	4
21	12	399	0.14	280	0.6	0.6	2.4	4
35	12	242	0.14	175	0.6	1	3.9	4
47	12	188	0.14	130	0.6	1.3	5	4
78	12	108	0.14	76	0.6	2	8.6	4
103	12	82	0.14	62	0.6	2.7	11.4	4
164	12	50	0.14	35	0.6	4	18.8	4
226	12	37	0.14	26	0.6	5	20	4
378	12	22	0.14	16	0.6	8	32	4
500	12	17	0.14	12	0.6	9	36	4

Note: Motors with reduction ratios above 164:1 must not be operated under stall conditions.

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

Performance Parameters - 24 VDC - 60 Type

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
4.4	24	1360	0.05	1000	0.2	0.1	0.35	1
9.7	24	620	0.05	450	0.2	0.22	0.75	1
21	24	285	0.05	220	0.2	0.5	1.7	1
35	24	171	0.05	130	0.2	0.82	2.8	1
47	24	127	0.05	100	0.2	1	3.6	1
78	24	77	0.05	60	0.2	2	6.2	1
103	24	58	0.05	46	0.2	2.7	8.2	1
164	24	36	0.05	27	0.2	4	12	1
226	24	26	0.05	20	0.2	5	15	1
378	24	16	0.05	12	0.2	8	24	1
500	24	12	0.05	9	0.2	9	27	1

Note: Motors with reduction ratios above 164:1 must not be operated under stall conditions.

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

Performance Parameters - 24 VDC - 85 Type

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
4.4	24	1931	0.07	1370	0.3	0.16	0.5	2.2
9.7	24	915	0.07	640	0.3	0.35	1	2.2
21	24	399	0.07	280	0.3	0.6	2.4	2.2
35	24	242	0.07	175	0.3	1	3.9	2.2
47	24	188	0.07	130	0.3	1.3	5	2.2
78	24	108	0.07	76	0.3	2	8.6	2.2
103	24	82	0.07	62	0.3	2.7	11.4	2.2
164	24	50	0.07	35	0.3	4	18.8	2.2
226	24	37	0.07	26	0.3	5	20	2.2
378	24	22	0.07	16	0.3	8	32	2.2
500	24	17	0.07	12	0.3	9	36	2.2

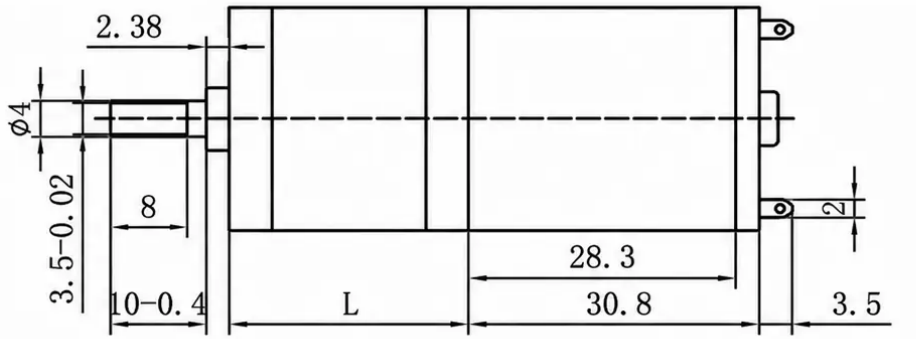
Note: Motors with reduction ratios above 164:1 must not be operated under stall conditions.

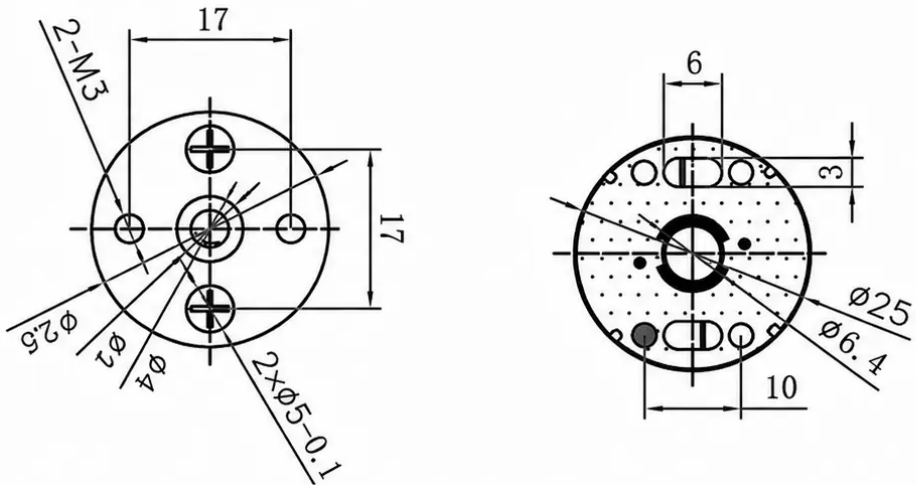
Performance parameters can be customized according to customer requirements. The values above are standard specifications.

Mechanical Dimensions

All dimensions are in millimetres.

L Value for Different Gear Ratios											
Gear Ratio	4.4	9.7	21.0	35	47	78	103	164	227	378	500
L Dimension (mm)	17		19	21		23		25		27	





Item	Dimension
Gearbox diameter	Ø25 mm
Motor body length	30.8 mm
Gearbox length L	17 to 27 mm
Output shaft	Ø4 mm, D-shaped
Shaft protrusion	10 mm (-0.4)
Shaft flat length	8 mm
Mounting holes	2 x M3
Rear locating diameter	Ø6.4 mm

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