



KOCO
MOTION

A VARIETY OF APPLICATIONS



PRECISION DC CORELESS MOTOR

1



BRUSHLESS DC MOTOR

2



ELECTRONIC SPEED CONTROLLER

3



PRECISION GEARMOTOR

4



PRECISION SERVO MOTOR

5



DC CORELESS MOTOR

6



FLAT DC MOTOR

7



DC CORE MOTOR

8



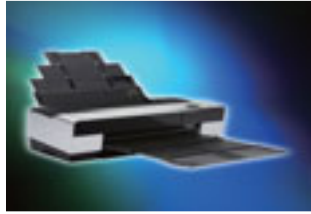
MINI STEP MOTOR

9



SONIC MOTOR

10



Overview of the DC CORELESS MOTORS

	Motor No.	Dia x Length (max)	Max. Power	Page
1	L0408N3M	4.08 x 8.10 mm	0.20 W	4
2	L0410N3M	4.08 x 10.10 mm	0.22 W	5
3	L0412N3M	4.08 x 12.10 mm	0.36 W	6
4	L0510N3M	5.00 x 9.80 mm	0.25 W	7
5	L0609N3M	6.00 x 9.00 mm	0.25 W	8
6	L0610N5M	6.00 x 10.40 mm	1.00 W	9
7	L0612N3M	6.00 x 12.20 mm	0.70 W	10
8	L0612N5M	6.00 x 12.20 mm	1.90 W	11
9	L0614N5M	6.00 x 13.90 mm	1.80 W	12
10	L0615N5M	6.00 x 15.00 mm	2.00 W	13
11	L0710N5M	7.00 x 10.20 mm	2.00 W	14
12	L0714N5M	7.00 x 14.10 mm	1.40 W	15
13	L0716N5M	7.00 x 16.70 mm	4.30 W	16
14	L0720N5M	7.00 x 20.00 mm	4.30 W	17
15	L0816N5M	8.00 x 16.00 mm	1.70 W	18
16	L8.520N5M	8.50 x 20.40 mm	8.10 W	19
17	L0820N5M	8.00 x 20.00 mm	5.60 W	20
18	L8.523N5M	8.50 x 23.00 mm	4.90 W	21
19	L1013N3M	10.00 x 13.00 mm	0.40 W	22
20	L1015N5M	10.00 x 15.00 mm	1.90 W	23
21	L1020N5M	10.00 x 20.70 mm	13.40 W	24
22	L1212N5M	12.00 x 12.30 mm	2.70 W	25
23	L1213N5M	12.00 x 13.00 mm	0.90 W	26
24	L1215N5M	12.00 x 14.60 mm	5.00 W	27
25	L1416N5M	14.00 x 16.30 mm	2.20 W	28
26	L1515N5M	15.00 x 15.20 mm	8.50 W	29
27	L1620N5M	16.00 x 19.60 mm	1.60 W	30
28	L1625N5M	16.00 x 25.00 mm	2.80 W	31
29	L1630N5M	16.00 x 30.00 mm	2.00 W	32
30	L1718N5M	17.40 x 18.10 mm	9.40 W	33
31	L1722N5M	17.40 x 22.10 mm	11.10 W	34
32	L2233N5M	22.00 x 33.00 mm	7.00 W	35
33	VL0408N3M	4.08 x 8.10 mm	Vibration	36
34	VL0510N3M	5.00 x 9.80 mm	Vibration	37
35	VL0610N5M	6.00 x 10.40 mm	Vibration	38
36	VL0612N3M	6.00 x 12.20 mm	Vibration	39
37	VL0614N5M	6.00 x 13.90 mm	Vibration	40
38	VL0615N5M	7.00 x 15.30 mm	Vibration	41
39	VL0716N5M	7.00 x 16.70 mm	Vibration	42
40	VL1015N3M	10.00 x 15.00 mm	Vibration	43

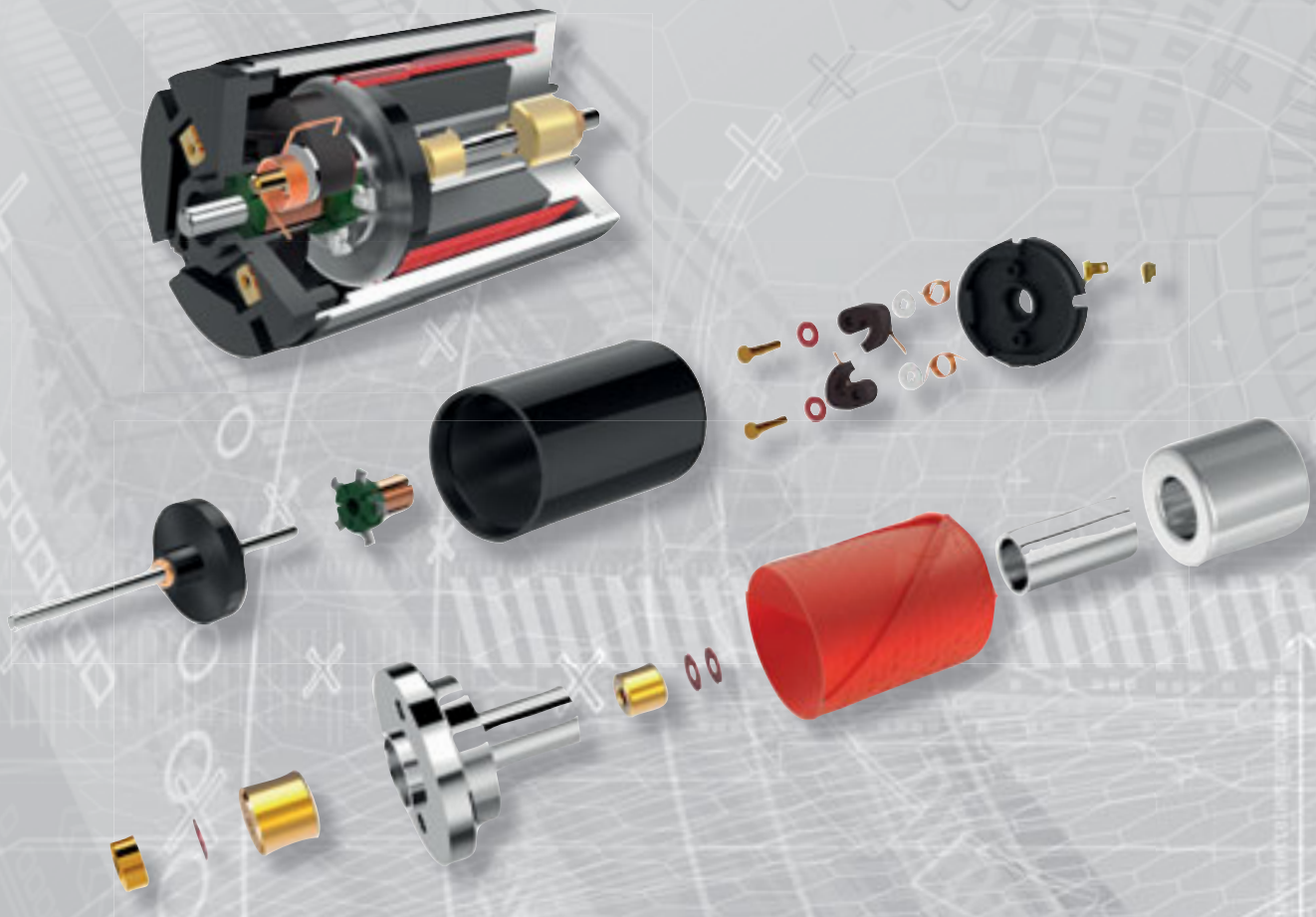
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Product Introduction



DC CORELESS MOTOR

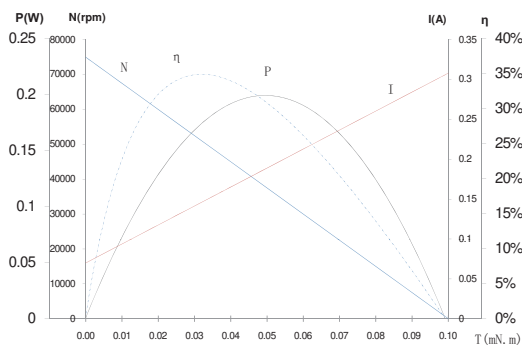
Adopting precious metal brush, high performance Nd-Fe-B magnet and high-strength tiny enameled wire, the product features compact size, light in weight, precise structure, flexible operation, low starting voltage, low consumption and high efficiency. In terms of driving function, it is widely applied to Mini UAV, remote control toys, mini household appliances and so on. In terms of vibration function, it is widely applied to wearable device, mobile phones, tablet PC and health care equipment.



Precious Metal Commutation · L0408N3M

Motor Characteristics			08-750-3.4	32-580-3.4	36-600-3.4	70-650-3.4	12-785-3.4
1	Voltage	V	3.4	3.4	3.4	3.4	5.0
2	Terminal resistance	Ω	11.0	22.0	15.5	13.2	25.0
3	No-load speed	rpm	75000	58000	60000	65000	78500
4	No-load current	mA	70	40	50	60	50
5	Stall torque	mNm	0.10	0.06	0.09	0.10	0.09
6	Stall current	mA	309	155	219	258	200
7	Load torque	mNm	0.03	0.03	0.03	0.03	0.03
8	Load speed	rpm	53260	30860	40360	45240	52690
9	Load current	mA	140	90	110	120	100
10	Max. output power	W	0.20	0.10	0.14	0.17	0.19
11	Max. efficiency	%	35.5	32.6	35.4	34.9	33.4
12	Back-EMF constant	mV/rpm	0.04	0.04	0.04	0.04	0.05
13	Torque constant	mNm/A	0.33	0.41	0.42	0.38	0.46
14	Speed/torque gradient	rpm/mNm	724618	904540	654718	658632	860412
15	Rotor inertia	gcm ²	0.003	0.003	0.003	0.003	0.003
16	Weight	g	0.5	0.5	0.5	0.5	0.5
17	Operating temperature range	°C	-20 ~ +65	-20 ~ +65	-20 ~ +65	-20 ~ +65	-20 ~ +85

Characteristics Curve Model L0408N3M08-750-3.4



Applications

Mini UAV, remote control toys, aircrafts, mini household appliances, etc.

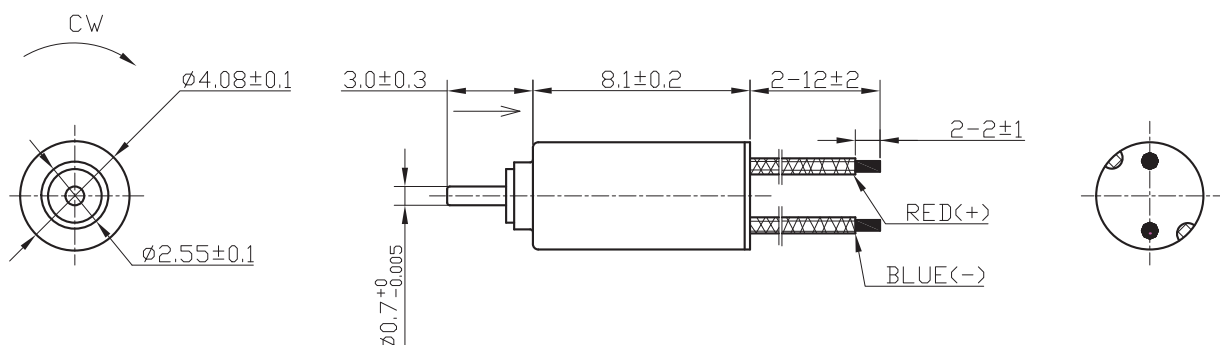
Options

- Lead wires length
- Shaft length
- Special coils
- Gearheads

Approx. actual size



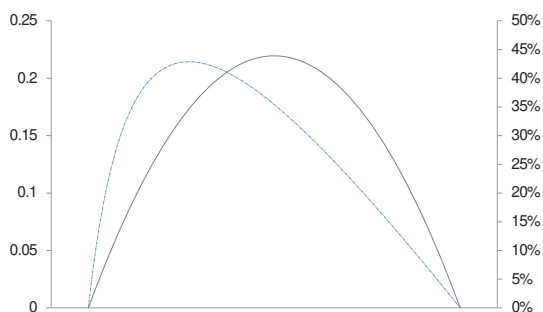
Dimension (mm) · L0408N3M



Precious Metal Commutation · L0410N3M

Motor Characteristics			30-320-3.0	02-820-3.0
1	Voltage	V	3	3
2	Terminal resistance	Ω	45	8.6
3	No-load speed	rpm	32000	82000
4	No-load current	mA	15	50
5	Stall torque	mNm	0.05	0.10
6	Stall current	mA	67	349
7	Load torque	mNm	0.03	0.03
8	Load speed	rpm	11250	58440
9	Load current	mA	50	140
10	Max. output power	W	0.04	0.22
11	Max. efficiency	%	35.7	45.1
12	Back-EMF constant	mV/rpm	0.07	0.03
13	Torque constant	mNm/A	0.69	0.30
14	Speed/torque gradient	rpm/mNm	691826	785417
15	Rotor inertia	gcm ²	0.004	0.004
16	Weight	g	0.6	0.6
17	Operating temperature range	°C	-20 ~ +65	-20 ~ +65

Characteristics Curve Model L0410N3M02-820-3.0



Approx. actual size

Dimension (mm) · L0410N3M

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

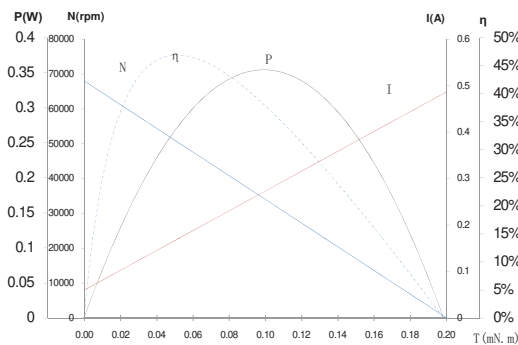
Special coils

Gearheads

Precious Metal Commutation · L0412N3M

Motor Characteristics			71-680-3.4	65-650-3.4	60-600-3.4	75-430-3.4
1	Voltage	V	3.4	3.4	3.4	3.4
2	Terminal resistance	Ω	7.00	8.30	8.70	20.00
3	No-load speed	rpm	68000	65000	60000	43000
4	No-load current	mA	60	55	50	30
5	Stall torque	mNm	0.20	0.18	0.18	0.11
6	Stall current	mA	486	410	391	170
7	Load torque	mNm	0.03	0.03	0.03	0.03
8	Load speed	rpm	57960	53990	50240	30800
9	Load current	mA	120	120	110	70
10	Max. output power	W	0.36	0.30	0.29	0.12
11	Max. efficiency	%	48.0	46.4	47.4	40.9
12	Back-EMF constant	mV/rpm	0.04	0.05	0.05	0.07
13	Torque constant	mNm/A	0.42	0.43	0.47	0.62
14	Speed/torque gradient	rpm/mNm	334541	366936	325347	406779
15	Rotor inertia	gcm ²	0.005	0.005	0.005	0.005
16	Weight	g	0.8	0.8	0.7	0.7
17	Operating temperature range	°C	-20 ~ +65	-20 ~ +65	-20 ~ +65	-20 ~ +65

Characteristics Curve Model L0412N3M71-680-3.4



Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

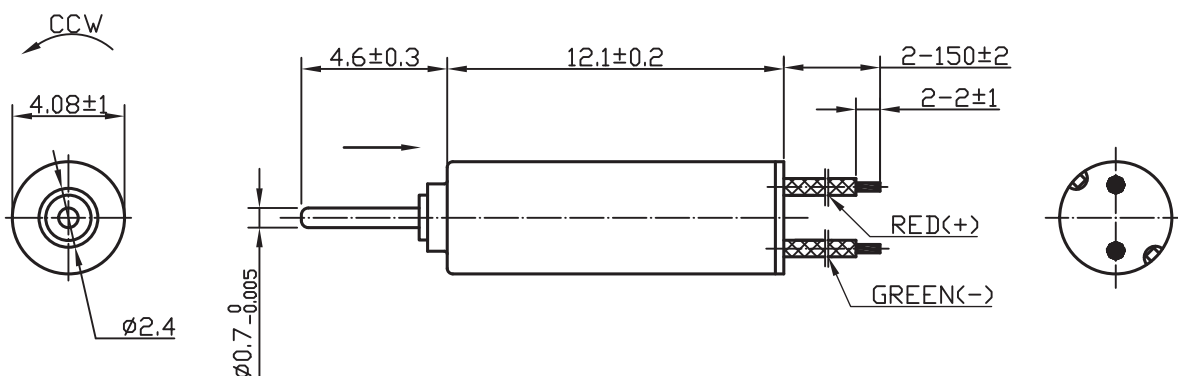
Options

- Lead wires length
- Shaft length
- Special coils
- Gearheads

Approx. actual size



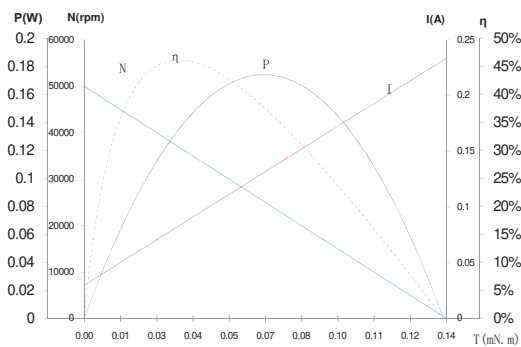
Dimension (mm) · L0412N3M



Precious Metal Commutation · L0510N3M

Motor Characteristics			01-500-3.5	01-550-4.2
1	Voltage	V	3.5	4.2
2	Terminal resistance	Ω	15.0	15.0
3	No-load speed	rpm	50000	55000
4	No-load current	mA	30	40
5	Stall torque	mNm	0.14	0.18
6	Stall current	mA	233	280
7	Load torque	mNm	0.03	0.03
8	Load speed	rpm	38960	45570
9	Load current	mA	70	80
10	Max. output power	W	0.18	0.25
11	Max. efficiency	%	47.3	45.2
12	Back-EMF constant	mV/rpm	0.06	0.07
13	Torque constant	mNm/A	0.58	0.63
14	Speed/torque gradient	rpm/mNm	367868	314263
15	Rotor inertia	gcm ²	0.006	0.006
16	Weight	g	0.8	0.8
17	Operating temperature range	°C	-20 ~ +65	-20 ~ +65

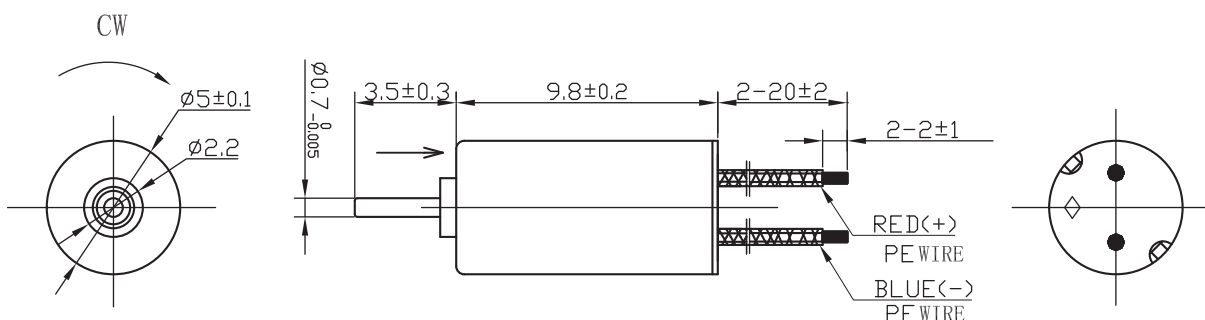
Characteristics Curve Model L0510N3M01-500-3.5



Approx. actual size



Dimension (mm) · L0510N3M



Applications

Mini UAV, remote control toys, aircrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

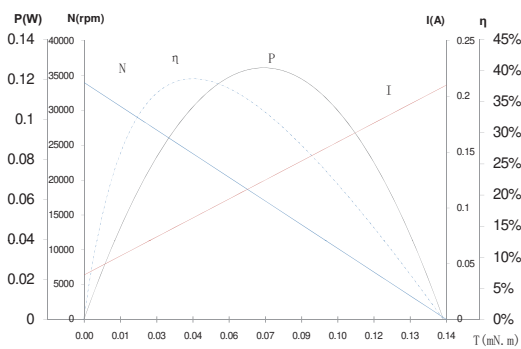
Special coils

Gearheads

Precious Metal Commutation · L0609N3M

Motor Characteristics			58-340-3.0	09-490-3.0
1	Voltage	V	3.0	3.0
2	Terminal resistance	Ω	14.2	7.8
3	No-load speed	rpm	34000	49000
4	No-load current	mA	40	50
5	Stall torque	mNm	0.14	0.20
6	Stall current	mA	211	385
7	Load torque	mNm	0.05	0.05
8	Load speed	rpm	22220	36480
9	Load current	mA	100	140
10	Max. output power	W	0.13	0.25
11	Max. efficiency	%	39.4	47.0
12	Back-EMF constant	mV/rpm	0.07	0.05
13	Torque constant	mNm/A	0.68	0.51
14	Speed/torque gradient	rpm/mNm	235608	250469
15	Rotor inertia	gcm ²	0.008	0.008
16	Weight	g	1	1
17	Operating temperature range	°C	-20 ~ +65	-20 ~ +65

Characteristics Curve Model L0609N3M58-340-3.4



Approx. actual size



Applications

Mini UAV, remote control toys, aircrafts, mini household appliances, etc.

Options

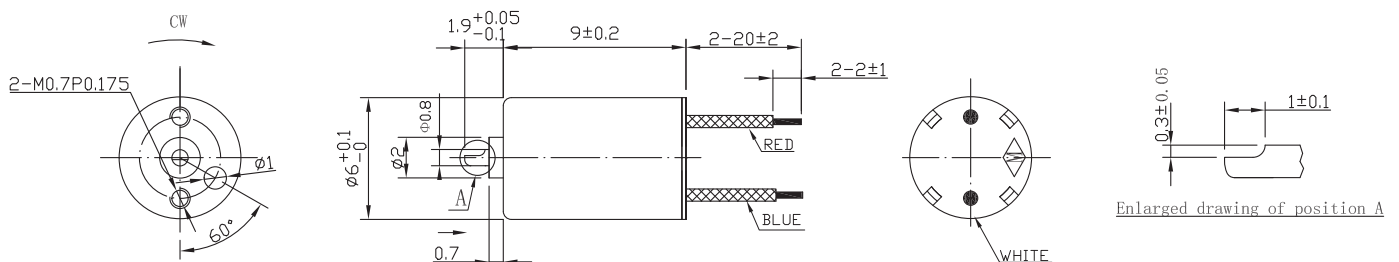
Lead wires length

Shaft length

Special coils

Gearheads

Dimension (mm) · L0609N3M

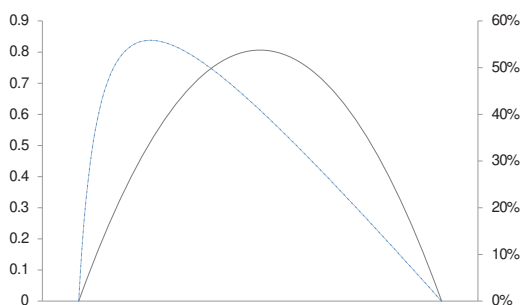


Enlarged drawing of position A

Precious Metal Commutation · L0610N5M

Motor Characteristics			11-585-5.0	22-665-3.4	05-550-3.2	49-210-3.5
1	Voltage	V	5.0	3.4	3.2	3.5
2	Terminal resistance	Ω	7.1	2.7	3.8	35.7
3	No-load speed	rpm	58500	66500	55000	21000
4	No-load current	mA	45	100	85	20
5	Stall torque	mNm	0.54	0.57	0.42	0.12
6	Stall current	mA	704	1259	842	98
7	Load torque	mNm	0.05	0.05	0.05	0.05
8	Load speed	rpm	53060	60630	48460	12550
9	Load current	mA	110	200	170	50
10	Max. output power	W	0.8	1.0	0.6	0.07
11	Max. efficiency	%	59.7	56.1	51.8	37.8
12	Back-EMF constant	mV/rpm	0.08	0.05	0.05	0.13
13	Torque constant	mNm/A	0.76	0.45	0.50	1.27
14	Speed/torque gradient	rpm/mNm	108727	117493	130752	169078
15	Rotor inertia	gcm ²	0.01	0.01	0.01	0.01
16	Weight	g	1.2	1.2	1.3	1.2
17	Operating temperature range	°C	-20 ~ +80	-20 ~ +80	-20 ~ +80	-20 ~ +65

Characteristics Curve Model L0610N5M11-585-5.0



Approx. actual size

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

Special coils

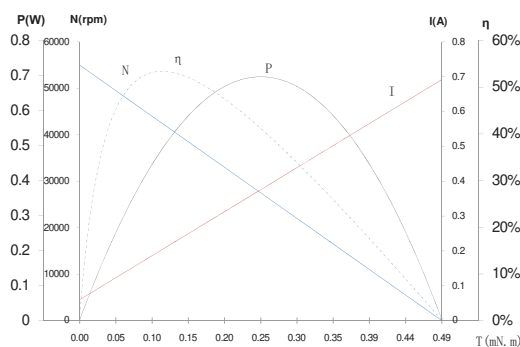
Gearheads

Dimension (mm) · L0610N5M

Precious Metal Commutation · L0612N3M

Motor Characteristics			08-550-4.5	90-160-3.0
1	Voltage	V	4.5	3.0
2	Terminal resistance	Ω	6.50	39.00
3	No-load speed	rpm	55000	16030
4	No-load current	mA	60	8
5	Stall torque	mNm	0.49	0.12
6	Stall current	mA	692	77
7	Load torque	mNm	0.05	0.05
8	Load speed	rpm	49430	9520
9	Load current	mA	120	40
10	Max. output power	W	0.7	0.05
11	Max. efficiency	%	54.6	51.3
12	Back-EMF constant	mV/rpm	0.07	0.17
13	Torque constant	mNm/A	0.71	1.60
14	Speed/torque gradient	rpm/mNm	111330	130140
15	Rotor inertia	gcm ²	0.014	0.014
16	Weight	g	1.3	1.3
17	Operating temperature range	°C	-20 ~ +80	-20 ~ +65

Characteristics Curve Model L0612N3M08-550-4.5



Applications

Mini UAV, remote control toys, aircrafts, mini household appliances, etc.

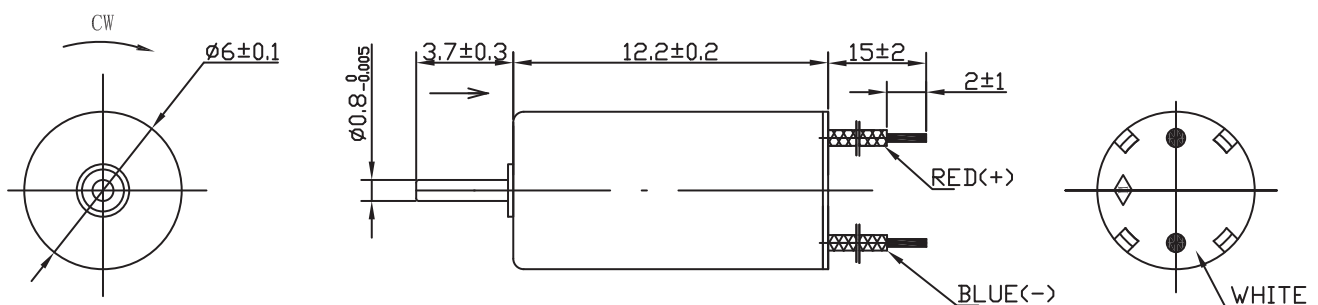
Options

- Lead wires length
- Shaft length
- Special coils
- Gearheads

Approx. actual size



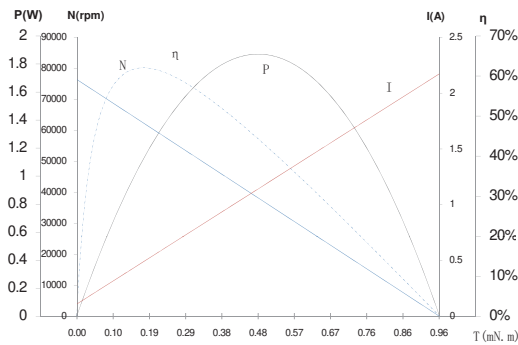
Dimension (mm) · L0612N3M



Precious Metal Commutation · L0612N5M

Motor Characteristics			55-764-3.7	20-500-3.2	78-730-3.7	64-440-4.5
1	Voltage	V	3.7	3.2	3.7	4.5
2	Terminal resistance	Ω	1.7	2.2	2.0	6.7
3	No-load speed	rpm	76400	50000	73000	44000
4	No-load current	mA	110	80	90	43
5	Stall torque	mNm	0.96	0.84	0.85	0.61
6	Stall current	mA	2176	1455	1850	672
7	Load torque	mNm	0.05	0.05	0.05	0.05
8	Load speed	rpm	72400	47020	68720	40420
9	Load current	mA	220	160	190	90
10	Max. output power	W	1.9	1.1	1.6	0.7
11	Max. efficiency	%	63.4	62.1	63.9	59.7
12	Back-EMF constant	mV/rpm	0.05	0.06	0.05	0.10
13	Torque constant	mNm/A	0.44	0.58	0.46	0.91
14	Speed/torque gradient	rpm/mNm	79944	59520	85696	71667
15	Rotor inertia	gcm ²	0.014	0.014	0.014	0.014
16	Weight	g	1.3	1.3	1.3	1.3
17	Operating temperature range	°C	-20 ~ +100	-20 ~ +100	-20 ~ +100	-20 ~ +80

Characteristics Curve Model L0612N5M55-764-3.7



Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

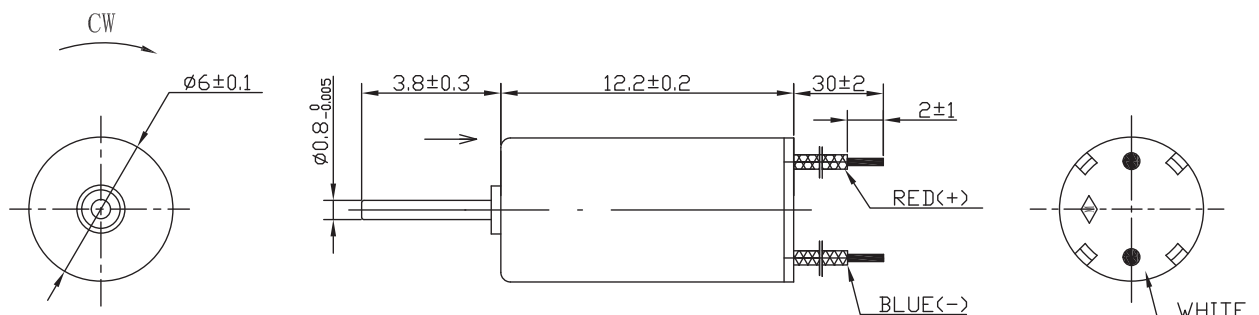
Options

- Lead wires length
- Shaft length
- Special coils
- Gearheads

Approx. actual size



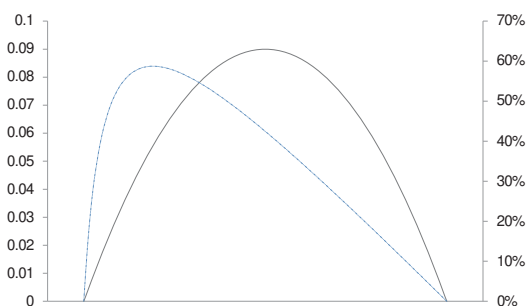
Dimension (mm) · L0612N5M



Precious Metal Commutation · L0614N5M

Motor Characteristics			44-125-3.0	28-420-3.4	67-500-3.2	77-435-3.7
1	Voltage	V	3.0	3.4	3.2	3.7
2	Terminal resistance	Ω	23.1	2.60	1.70	1.85
3	No-load speed	rpm	12540	42000	50000	43500
4	No-load current	mA	7.4	60	80	80
5	Stall torque	mNm	0.28	1.0	1.1	1.6
6	Stall current	mA	130	1308	1882	2000
7	Load torque	mNm	0.05	0.1	0.1	0.1
8	Load speed	rpm	10300	37650	45460	40710
9	Load current	mA	30	190	240	200
10	Max. output power	W	0.1	1.1	1.4	1.8
11	Max. efficiency	%	61.5	64.8	65.9	66.7
12	Back-EMF constant	mV/rpm	0.23	0.08	0.06	0.08
13	Torque constant	mNm/A	2.15	0.74	0.59	0.78
14	Speed/torque gradient	rpm/mNm	44820	43545	45392	27894
15	Rotor inertia	gcm ²	0.016	0.016	0.016	0.016
16	Weight	g	1.7	1.7	1.7	1.7
17	Operating temperature range	°C	-20 ~ +65	-20 ~ +80	67	-20 ~ +120

Characteristics Curve Model L0614N5M44-125-3.0



Approx. actual size

Dimension (mm) · L0614N5M

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

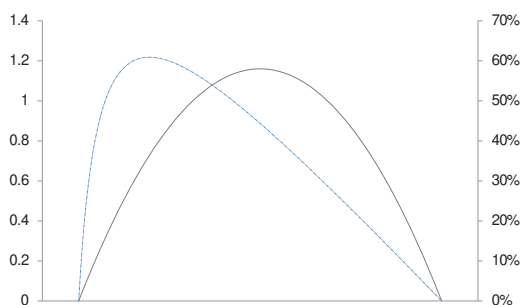
Special coils

Gearheads

Precious Metal Commutation · L0615N5M

Motor Characteristics			29-430-3.4	35-387-2.5	49-360-2.5	13-534-3.1
1	Voltage	V	3.4	2.5	2.5	3.1
2	Terminal resistance	Ω	2.30	1.45	1.40	1.15
3	No-load speed	rpm	43000	38700	36000	53400
4	No-load current	mA	85	80	75	100
5	Stall torque	mNm	1.1	1.0	1.1	1.4
6	Stall current	mA	1478	1724	1786	2696
7	Load torque	mNm	0.15	0.15	0.15	0.15
8	Load speed	rpm	36870	32980	31240	47830
9	Load current	mA	280	320	300	370
10	Max. output power	W	1.2	1.0	1.1	2.0
11	Max. efficiency	%	61.4	64.6	66.1	67.8
12	Back-EMF constant	mV/rpm	0.07	0.06	0.07	0.06
13	Torque constant	mNm/A	0.71	0.59	0.64	0.53
14	Speed/torque gradient	rpm/mNm	40875	38157	31733	37111
15	Rotor inertia	gcm ²	0.016	0.016	0.016	0.016
16	Weight	g	1.8	1.8	1.8	1.8
17	Operating temperature range	°C	-20 ~ +120	-20 ~ +120	-20 ~ +120	-20 ~ +120

Characteristics Curve Model L0615N5M29-430-3.4



Approx. actual size

Dimension (mm) · L0615N5M

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

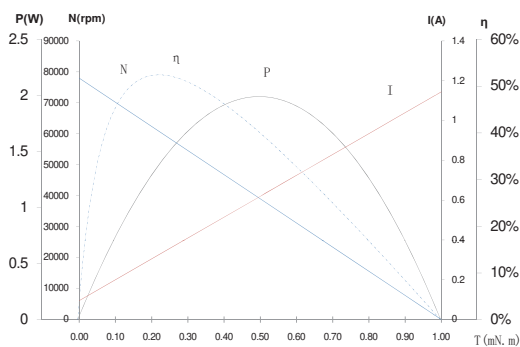
Special coils

Gearheads

Precious Metal Commutation · L0710N5M

Motor Characteristics			61-780-8.0	51-325-3.0
1	Voltage	V	8	3
2	Terminal resistance	Ω	7.2	6.3
3	No-load speed	rpm	78000	32500
4	No-load current	mA	95	50
5	Stall torque	mNm	1.0	0.4
6	Stall current	mA	1110	480
7	Load torque	mNm	0.55	0.12
8	Load speed	rpm	34850	22200
9	Load current	mA	660	190
10	Max. output power	W	2.0	0.32
11	Max. efficiency	%	54.8	51.2
12	Back-EMF constant	mV/rpm	0.09	0.08
13	Torque constant	mNm/A	0.90	0.79
14	Speed/torque gradient	rpm/mNm	78455	85824
15	Rotor inertia	gcm ²	0.02	0.02
16	Weight	g	1.6	1.6
17	Operating temperature range	°C	-20 ~ +100	-20 ~ +100

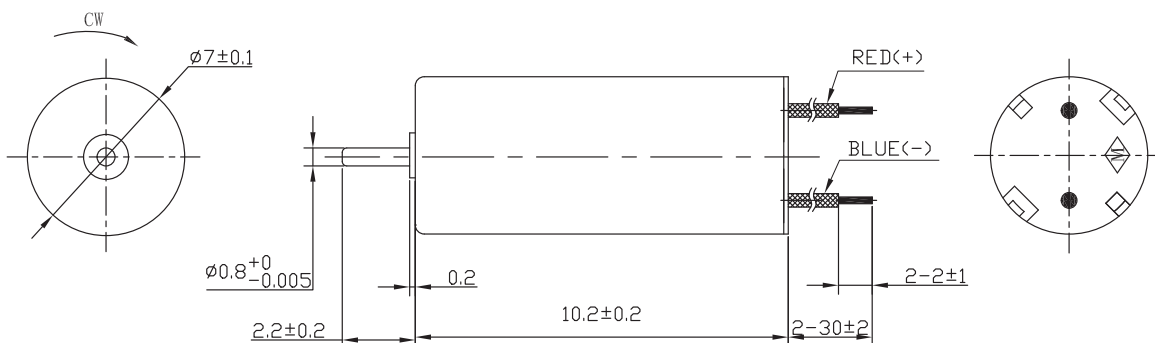
Characteristics Curve Model L0710N5M61-780-8.0



Approx. actual size



Dimension (mm) · L0710N5M



Applications

Mini UAV, remote control toys, aircrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

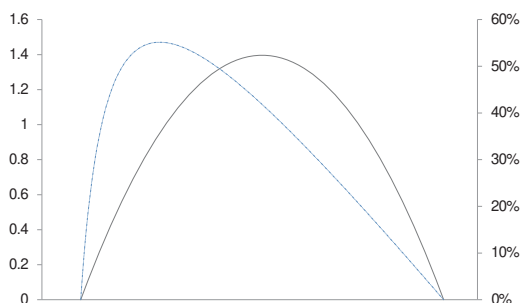
Special coils

Gearheads

Precious Metal Commutation · L0714N5M

Motor Characteristics			15-400-6.0	18-304-7.4
1	Voltage	V	6	7.4
2	Terminal resistance	Ω	5.8	12.1
3	No-load speed	rpm	40000	30450
4	No-load current	mA	80	30
5	Stall torque	mNm	1.4	1.3
6	Stall current	mA	1030	610
7	Load torque	mNm	0.50	0.50
8	Load speed	rpm	25310	19140
9	Load current	mA	430	250
10	Max. output power	W	1.4	1.1
11	Max. efficiency	%	56.5	63.8
12	Back-EMF constant	mV/rpm	0.14	0.23
13	Torque constant	mNm/A	1.32	2.21
14	Speed/torque gradient	rpm/mNm	29384	22620
15	Rotor inertia	gcm ²	0.04	0.04
16	Weight	g	2.2	2.2
17	Operating temperature range	°C	-20 ~ +100	-20 ~ +100

Characteristics Curve Model L0714N5M15-400-6.0



Approx. actual size



Dimension (mm) · L0714N5M

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

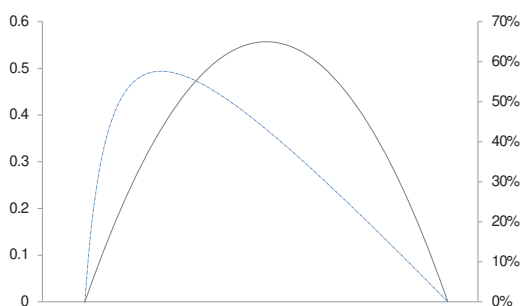
Special coils

Gearheads

Precious Metal Commutation · L0716N5M

Motor Characteristics			64-250-3.4	31-430-3.4	94-430-3.2	81-475-3.4
1	Voltage	V	3.4	3.4	3.2	3.4
2	Terminal resistance	Ω	4.7	0.66	1.1	0.85
3	No-load speed	rpm	25000	43000	43000	47500
4	No-load current	mA	50	90	90	100
5	Stall torque	mNm	0.87	3.8	2.0	2.7
6	Stall current	mA	720	5150	2910	4000
7	Load torque	mNm	0.50	0.50	0.50	0.50
8	Load speed	rpm	10640	37370	32270	38590
9	Load current	mA	430	750	790	830
10	Max. output power	W	0.6	4.3	2.3	3.3
11	Max. efficiency	%	58.4	76.7	70.2	72.8
12	Back-EMF constant	mV/rpm	0.13	0.08	0.07	0.07
13	Torque constant	mNm/A	1.21	0.74	0.69	0.67
14	Speed/torque gradient	rpm/mNm	28721	11255	21457	17819
15	Rotor inertia	gcm ²	0.05	0.05	0.05	0.05
16	Weight	g	2.5	2.5	2.5	2.8
17	Operating temperature range	°C	-20 ~ +100	-20 ~ +120	-20 ~ +100	-20 ~ +120

Characteristics Curve Model L0716N5M64-250-3.4



Approx. actual size



Dimension (mm) · L0716N5M

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

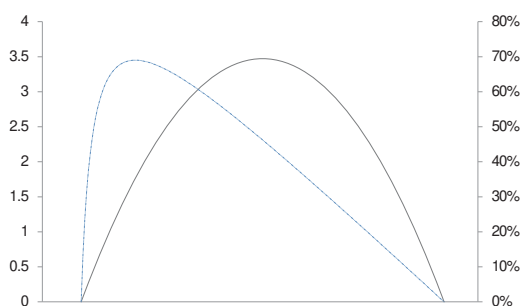
Special coils

Gearheads

Precious Metal Commutation · L0720N5M

Motor Characteristics			55-448-3.2	33-423-3.0	39-423-3.0	42-448-3.0
1	Voltage	V	3.2	3	3	3
2	Terminal resistance	Ω	0.7	0.67	0.59	0.51
3	No-load speed	rpm	44800	42370	42300	44860
4	No-load current	mA	140	100	120	190
5	Stall torque	mNm	3.0	3.0	3.4	3.6
6	Stall current	mA	4570	4480	5080	5880
7	Load torque	mNm	0.50	0.50	0.50	0.50
8	Load speed	rpm	37390	35220	36000	38690
9	Load current	mA	870	840	860	970
10	Max. output power	W	3.5	3.3	3.7	4.3
11	Max. efficiency	%	70.3	74.1	73.4	69.6
12	Back-EMF constant	mV/rpm	0.07	0.07	0.07	0.06
13	Torque constant	mNm/A	0.66	0.66	0.66	0.62
14	Speed/torque gradient	rpm/mNm	14826	14307	12592	12345
15	Rotor inertia	gcm ²	0.06	0.06	0.06	0.06
16	Weight	g	3.3	3.9	3.9	3.9
17	Operating temperature range	°C	-20 ~ +120	-20 ~ +120	-20 ~ +120	-20 ~ +120

Characteristics Curve Model L0720N5M55-448-3.2



Approx. actual size



Dimension (mm) · L0720N5M

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

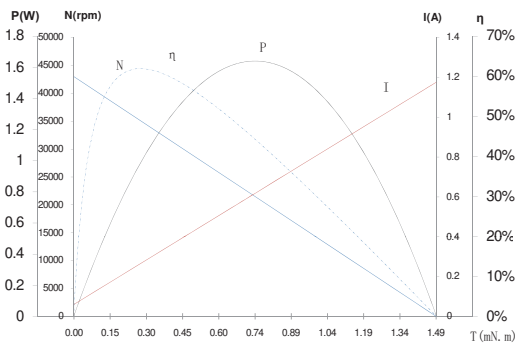
Special coils

Gearheads

Precious Metal Commutation · L0816N5M

Motor Characteristics			13-430-6.0	06-243-3.4
1	Voltage	V	6	3.4
2	Terminal resistance	Ω	5.1	2.7
3	No-load speed	rpm	43000	24300
4	No-load current	mA	60	40
5	Stall torque	mNm	1.5	1.6
6	Stall current	mA	1180	1260
7	Load torque	mNm	0.5	0.5
8	Load speed	rpm	28590	16850
9	Load current	mA	440	410
10	Max. output power	W	1.7	1.0
11	Max. efficiency	%	63.3	69.8
12	Back-EMF constant	mV/rpm	0.13	0.14
13	Torque constant	mNm/A	1.26	1.29
14	Speed/torque gradient	rpm/mNm	28818	14908
15	Rotor inertia	gcm ²	0.07	0.07
16	Weight	g	3.1	3.1
17	Operating temperature range	°C	-20 ~ +100	-20 ~ +100

Characteristics Curve Model L0816N5M13-430-6.0



Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

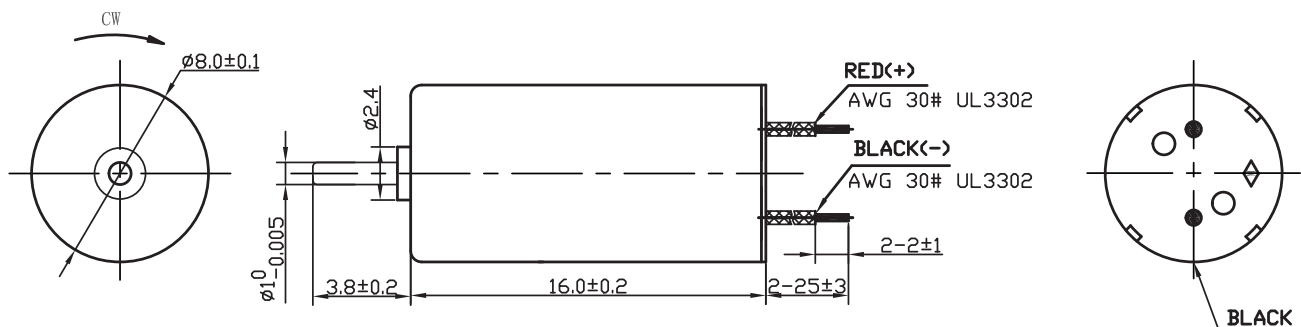
Special coils

Gearheads

Approx. actual size



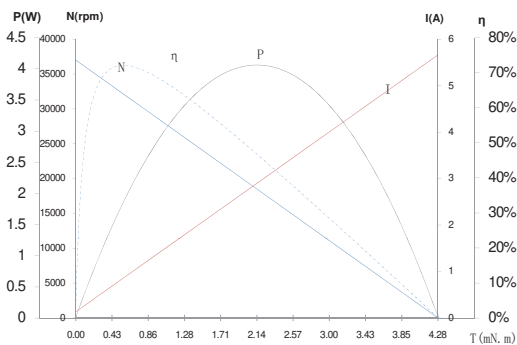
Dimension (mm) · L0816N5M



Precious Metal Commutation · L8.520N5M

Motor Characteristics			10-370-3.0	14-325-3.0	01-510-3.4	59-367-3.0	45-457-3.0
1	Voltage	V	3	3	3.4	3	3
2	Terminal resistance	Ω	0.53	0.67	0.35	0.45	0.38
3	No-load speed	rpm	37000	32500	51000	36700	45700
4	No-load current	mA	130	90	200	130	170
5	Stall torque	mNm	4.3	3.9	6.1	5.1	4.8
6	Stall current	mA	5660	4480	9710	6670	7890
7	Load torque	mNm	1.0	1.0	1.0	1.0	1.0
8	Load speed	rpm	28360	24100	42580	29510	36260
9	Load current	mA	1420	1220	1770	1410	1770
10	Max. output power	W	4.2	3.3	8.1	4.9	5.8
11	Max. efficiency	%	73.8	75.2	75.0	75.6	74.5
12	Back-EMF constant	mV/rpm	0.08	0.09	0.07	0.08	0.06
13	Torque constant	mNm/A	0.76	0.86	0.62	0.77	0.61
14	Speed/torque gradient	rpm/mNm	8641	8399	8424	7189	9443
15	Rotor inertia	gcm ²	0.08	0.08	0.08	0.08	0.08
16	Weight	g	4.85	4.85	5.2	5.2	4.85
17	Operating temperature range	°C	-20 ~ +100	-20 ~ +120	-20 ~ +120	-20 ~ +120	-20 ~ +120

Characteristics Curve Model L8.520N5M10-370-3.0



Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

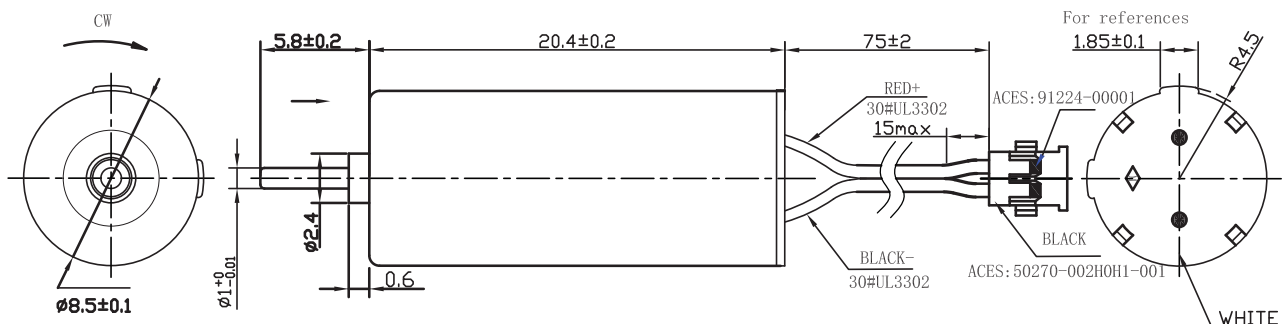
Special coils

Gearheads

Approx. actual size



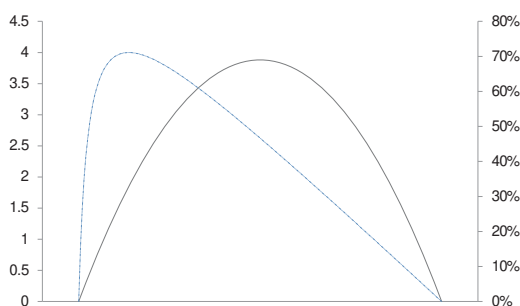
Dimension (mm) · L8.520N5M



Precious Metal Commutation · L0820N5M

Motor Characteristics			10-380-3.2	14-490-3.0	15-465-3.0	23-151-3.7
1	Voltage	V	3.2	3.4	3.0	3.7
2	Terminal resistance	Ω	0.63	0.5	0.45	3.95
3	No-load speed	rpm	38000	49000	46500	15100
4	No-load current	mA	130	180	200	30
5	Stall torque	mNm	4.0	4.4	4.0	2.1
6	Stall current	mA	5080	6800	6670	940
7	Load torque	mNm	0.5	0.5	0.5	0.5
8	Load speed	rpm	33230	43410	40670	11550
9	Load current	mA	750	930	1010	240
10	Max. output power	W	4.0	5.6	4.9	0.8
11	Max. efficiency	%	72.5	72.1	70.6	69.7
12	Back-EMF constant	mV/rpm	0.08	0.07	0.06	0.24
13	Torque constant	mNm/A	0.78	0.65	0.60	2.26
14	Speed/torque gradient	rpm/mNm	9546	11171	11666	7092
15	Rotor inertia	gcm ²	0.07	0.07	0.07	0.07
16	Weight	g	4.2	4.2	4.2	4.2
17	Operating temperature range	°C	-20 ~ +120	-20 ~ +120	-20 ~ +120	-20 ~ +120

Characteristics Curve Model L0820N5M10-380-3.2



Approx. actual size



Dimension (mm) · L0820N5M

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

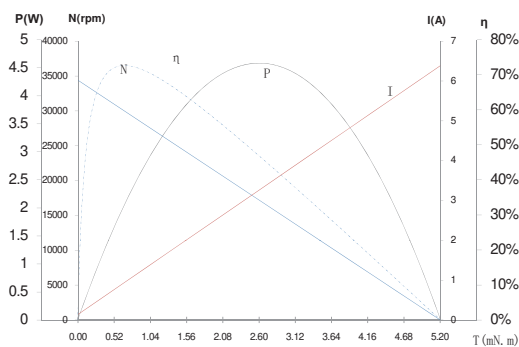
Special coils

Gearheads

Precious Metal Commutation · L8.523N5M

Motor Characteristics			12-344-3.7	14-367-3.0
1	Voltage	V	3	3
2	Terminal resistance	Ω	0.47	0.45
3	No-load speed	rpm	34400	36700
4	No-load current	mA	140	160
5	Stall torque	mNm	5.2	5.1
6	Stall current	mA	6380	6670
7	Load torque	mNm	1.0	1.0
8	Load speed	rpm	27780	29480
9	Load current	mA	1340	1440
10	Max. output power	W	4.7	4.9
11	Max. efficiency	%	74.3	73.3
12	Back-EMF constant	mV/rpm	0.09	0.08
13	Torque constant	mNm/A	0.81	0.76
14	Speed/torque gradient	rpm/mNm	6620	7222
15	Rotor inertia	gcm ²	0.09	0.09
16	Weight	g	5.6	5.6
17	Operating temperature range	°C	-20 ~ +120	-20 ~ +120

Characteristics Curve Model L8.523N5M12-344-3.7



Applications

Mini UAV, remote control toys, aircrafts, mini household appliances, etc.

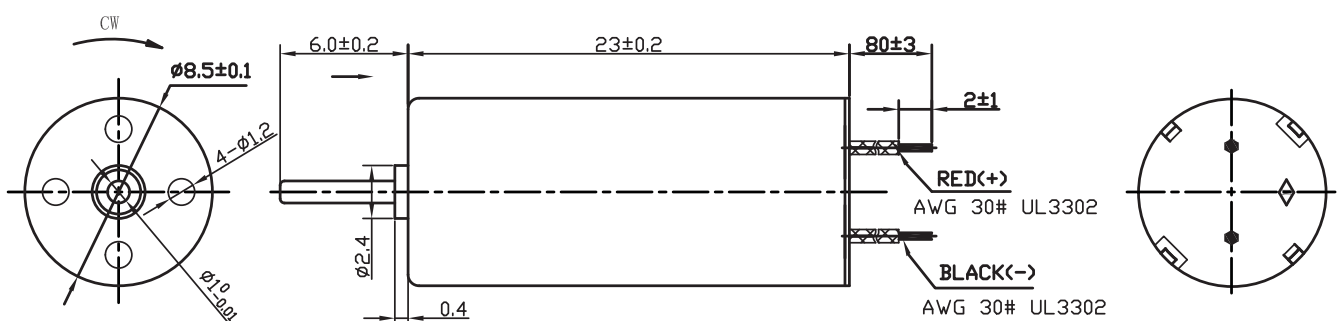
Options

- Lead wires length
- Shaft length
- Special coils
- Gearheads

Approx. actual size



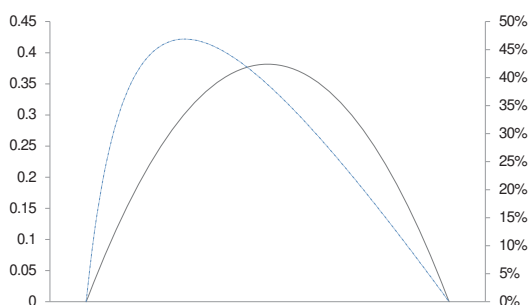
Dimension (mm) · L8.523N5M



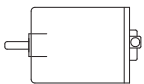
Precious Metal Commutation · L1013N3M

Motor Characteristics			24-240-6.0
1	Voltage	V	6.0
2	Terminal resistance	Ω	20.0
3	No-load speed	rpm	24000
4	No-load current	mA	40
5	Stall torque	mNm	0.62
6	Stall current	mA	300
7	Load torque	mNm	0.1
8	Load speed	rpm	20130
9	Load current	mA	80
10	Max. output power	W	0.4
11	Max. efficiency	%	47
12	Back-EMF constant	mV/rpm	0.2
13	Torque constant	mNm/A	2.1
14	Speed/torque gradient	rpm/mNm	38670
15	Rotor inertia	gcm ²	0.05
16	Weight	g	4.2
17	Operating temperature range	°C	-20 ~ +65

Characteristics Curve Model L1013N3M24-240-6.0



Approx. actual size



Dimension (mm) · L1013N3M

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

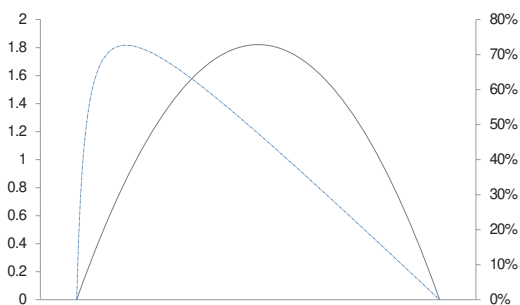
Special coils

Gearheads

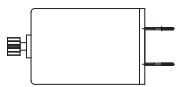
Precious Metal Commutation · L1015N5M

Motor Characteristics			22-252-7.4
1	Voltage	V	7.4
2	Terminal resistance	Ω	7.2
3	No-load speed	rpm	25200
4	No-load current	mA	25
5	Stall torque	mNm	2.82
6	Stall current	mA	1030
7	Load torque	mNm	0.5
8	Load speed	rpm	20730
9	Load current	mA	200
10	Max. output power	W	1.9
11	Max. efficiency	%	73
12	Back-EMF constant	mV/rpm	0.3
13	Torque constant	mNm/A	2.7
14	Speed/torque gradient	rpm/mNm	8940
15	Rotor inertia	gcm ²	0.07
16	Weight	g	5.1
17	Operating temperature range	°C	-20 ~ +65

Characteristics Curve Model L1015N5M22-252-7.4



Approx. actual size



Dimension (mm) · L1015N5M

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

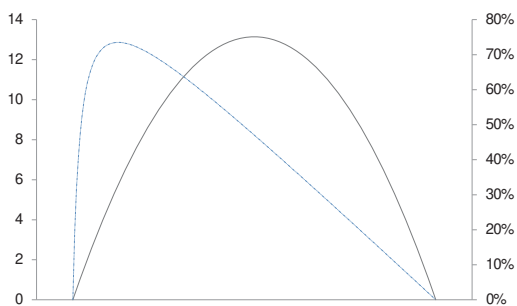
Special coils

Gearheads

Precious Metal Commutation · L1020N5M

Motor Characteristics			47-405-3.7
1	Voltage	V	3.7
2	Terminal resistance	Ω	0.3
3	No-load speed	rpm	40500
4	No-load current	mA	300
5	Stall torque	mNm	12.6
6	Stall current	mA	14800
7	Load torque	mNm	1.5
8	Load speed	rpm	35700
9	Load current	mA	2020
10	Max. output power	W	13.4
11	Max. efficiency	%	75
12	Back-EMF constant	mV/rpm	0.1
13	Torque constant	mNm/A	0.9
14	Speed/torque gradient	rpm/mNm	3200
15	Rotor inertia	gcm ²	0.15
16	Weight	g	8
17	Operating temperature range	°C	-20 ~ +120

Characteristics Curve Model L1020N5M47-405-3.7



Approx. actual size



Dimension (mm) · L1020N5M

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

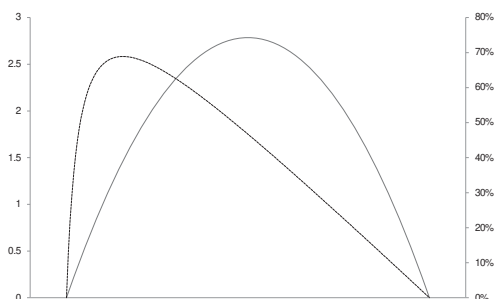
Special coils

Gearheads

Precious Metal Commutation · L1212N5M

Motor Characteristics			05-320-6.0
1	Voltage	V	6.0
2	Terminal resistance	Ω	2.2
3	No-load speed	rpm	32000
4	No-load current	mA	65
5	Stall torque	mNm	3.27
6	Stall current	mA	1900
7	Load torque	mNm	1.0
8	Load speed	rpm	22800
9	Load current	mA	630
10	Max. output power	W	2.7
11	Max. efficiency	%	69
12	Back-EMF constant	mV/rpm	0.2
13	Torque constant	mNm/A	1.7
14	Speed/torque gradient	rpm/mNm	9740
15	Rotor inertia	gcm ²	0.14
16	Weight	g	5.5
17	Operating temperature range	°C	-20 ~ +85

Characteristics Curve Model L1212N5M05-320-6.0



Approx. actual size

Dimension (mm) · L1212N5M

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

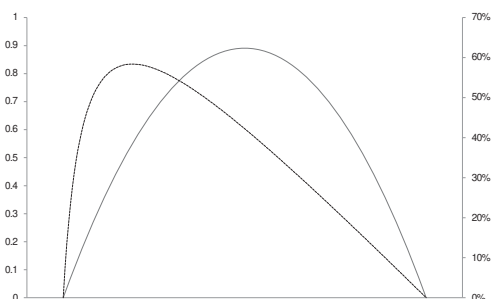
Special coils

Gearheads

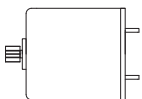
Precious Metal Commutation · L1213N5M

Motor Characteristics			01-185-7.4
1	Voltage	V	7.4
2	Terminal resistance	Ω	14.4
3	No-load speed	rpm	18500
4	No-load current	mA	30
5	Stall torque	mNm	1.8
6	Stall current	mA	510
7	Load torque	mNm	0.5
8	Load speed	rpm	13460
9	Load current	mA	160
10	Max. output power	W	0.9
11	Max. efficiency	%	61
12	Back-EMF constant	mV/rpm	0.4
13	Torque constant	mNm/A	3.6
14	Speed/torque gradient	rpm/mNm	10090
15	Rotor inertia	gcm ²	0.1
16	Weight	g	6.5
17	Operating temperature range	°C	-20 ~ +85

Characteristics Curve Model L1213N5M01-185-7.4



Approx. actual size



Dimension (mm) · L1213N5M

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

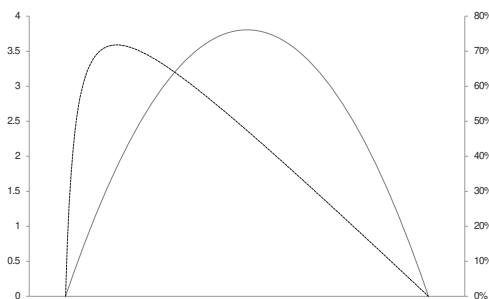
Special coils

Gearheads

Precious Metal Commutation · L1215N5M

Motor Characteristics			43-230-6.0	48-330-8.0	34-280-6.0
1	Voltage	V	6.0	8.0	6.0
2	Terminal resistance	Ω	3.4	3.3	2.3
3	No-load speed	rpm	23000	33000	28000
4	No-load current	mA	50	80	70
5	Stall torque	mNm	4	5	5.2
6	Stall current	mA	1760.0	2420.0	2610
7	Load torque	mNm	1	1	0.5
8	Load speed	rpm	20300	29950	25310
9	Load current	mA	250.0	300.0	310
10	Max. output power	W	3	5	3.8
11	Max. efficiency	%	71.2	69.3	72
12	Back-EMF constant	mV/rpm	0.3	0.2	0.2
13	Torque constant	mNm/A	2.0	2.0	2.0
14	Speed/torque gradient	rpm/mNm	5400	6090	5390
15	Rotor inertia	gcm ²	0.1	0.1	0.1
16	Weight	g	7	7	6.5
17	Operating temperature range	°C	-20 ~ +85	-20 ~ +85	-20 ~ +85

Characteristics Curve Model L1215N5M34-280-6.0



Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

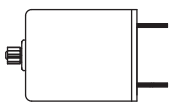
Lead wires length

Shaft length

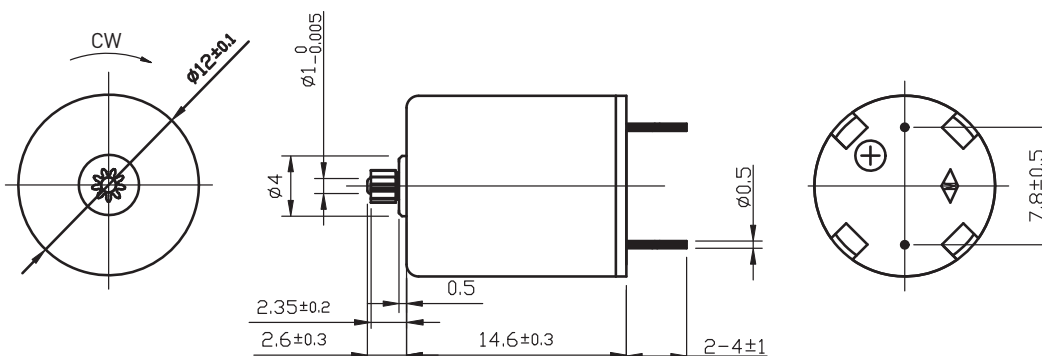
Special coils

Gearheads

Approx. actual size



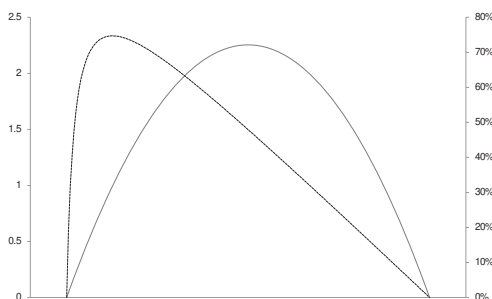
Dimension (mm) · L1215N5M



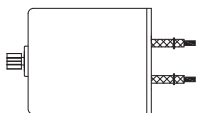
Precious Metal Commutation · L1416N5M

Motor Characteristics			01-182-4.8
1	Voltage	V	4.8
2	Terminal resistance	Ω	2.5
3	No-load speed	rpm	18200
4	No-load current	mA	55
5	Stall torque	mNm	4.7
6	Stall current	mA	1920
7	Load torque	mNm	1.0
8	Load speed	rpm	14400
9	Load current	mA	450
10	Max. output power	W	2.2
11	Max. efficiency	%	71
12	Back-EMF constant	mV/rpm	0.3
13	Torque constant	mNm/A	2.4
14	Speed/torque gradient	rpm/mNm	3870
15	Rotor inertia	gcm ²	0.23
16	Weight	g	5.5
17	Operating temperature range	°C	-20 ~ +85

Characteristics Curve Model L1416N5M01-182-4.8



Approx. actual size



Dimension (mm) · L1416N5M

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

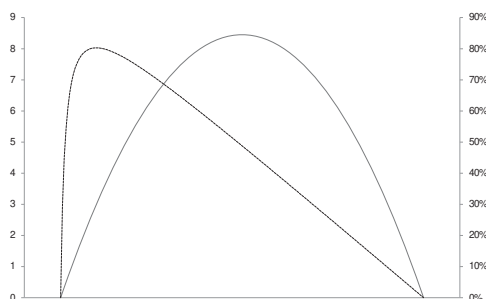
Special coils

Gearheads

Precious Metal Commutation · L1515N5M

Motor Characteristics			11-280-7.4
1	Voltage	V	7.4
2	Terminal resistance	Ω	1.6
3	No-load speed	rpm	28000
4	No-load current	mA	55
5	Stall torque	mNm	11.5
6	Stall current	mA	4630
7	Load torque	mNm	0.9
8	Load speed	rpm	25900
9	Load current	mA	400
10	Max. output power	W	8.5
11	Max. efficiency	%	80
12	Back-EMF constant	mV/rpm	0.3
13	Torque constant	mNm/A	2.5
14	Speed/torque gradient	rpm/mNm	2430
15	Rotor inertia	gcm ²	0.35
16	Weight	g	12.0
17	Operating temperature range	°C	-20 ~ +85

Characteristics Curve Model L1515N5M11-280-7.4



Approx. actual size

Dimension (mm) · L1515N5M

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

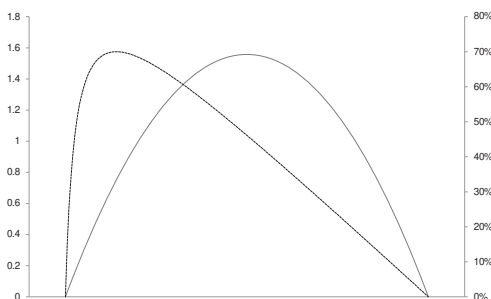
Special coils

Gearheads

Precious Metal Commutation · L1620N5M

Motor Characteristics			33-85-5.0
1	Voltage	V	5.0
2	Terminal resistance	Ω	3.9
3	No-load speed	rpm	8550
4	No-load current	mA	35
5	Stall torque	mNm	7.0
6	Stall current	mA	1280
7	Load torque	mNm	1.0
8	Load speed	rpm	7320
9	Load current	mA	210
10	Max. output power	W	1.6
11	Max. efficiency	%	72
12	Back-EMF constant	mV/rpm	0.6
13	Torque constant	mNm/A	5.4
14	Speed/torque gradient	rpm/mNm	1230
15	Rotor inertia	gcm ²	0.45
16	Weight	g	15.8
17	Operating temperature range	°C	-20 ~ +85

Characteristics Curve Model L1620N5M33-85-5.0



Approx. actual size

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

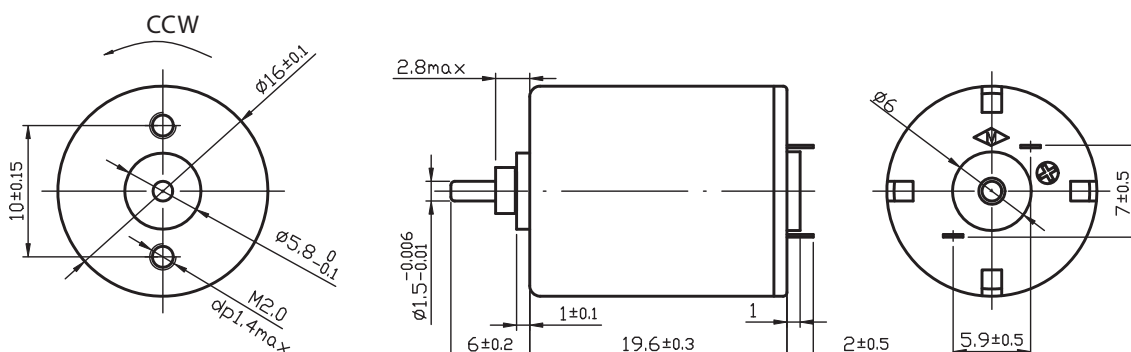
Lead wires length

Shaft length

Special coils

Gearheads

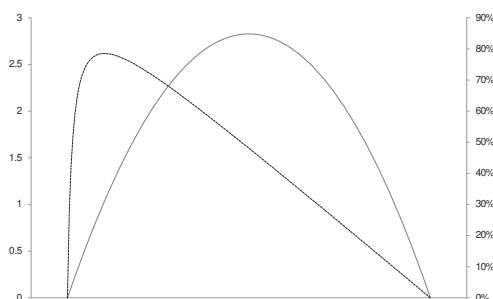
Dimension (mm) · L1620N5M



Precious Metal Commutation · L1625N5M

Motor Characteristics			25-88-6.0
1	Voltage	V	6.0
2	Terminal resistance	Ω	3.2
3	No-load speed	rpm	8800
4	No-load current	mA	25
5	Stall torque	mNm	12.2
6	Stall current	mA	1905
7	Load torque	mNm	2.0
8	Load speed	rpm	7360
9	Load current	mA	332
10	Max. output power	W	2.8
11	Max. efficiency	%	80
12	Back-EMF constant	mV/rpm	0.67
13	Torque constant	mNm/A	6.43
14	Speed/torque gradient	rpm/mNm	720
15	Rotor inertia	gcm ²	0.7
16	Weight	g	20.5
17	Operating temperature range	°C	-20 ~ +85

Characteristics Curve Model L1625N5M25-88-6.0



Approx. actual size

Dimension (mm) · L1625N5M

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

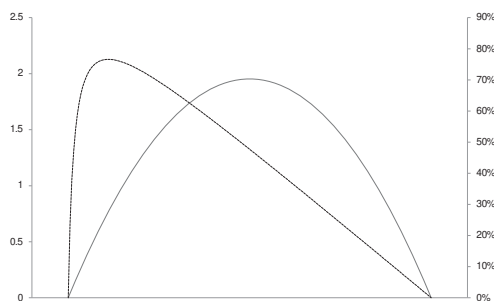
Special coils

Gearheads

Precious Metal Commutation · L1630N5M

Motor Characteristics			11-76-5.0
1	Voltage	V	5.0
2	Terminal resistance	Ω	3.2
3	No-load speed	rpm	7600
4	No-load current	mA	25
5	Stall torque	mNm	9.8
6	Stall current	mA	1590
7	Load torque	mNm	1.5
8	Load speed	rpm	6440
9	Load current	mA	260
10	Max. output power	W	2.0
11	Max. efficiency	%	78
12	Back-EMF constant	mV/rpm	0.6
13	Torque constant	mNm/A	6.2
14	Speed/torque gradient	rpm/mNm	770
15	Rotor inertia	gcm ²	0.7
16	Weight	g	25.2
17	Operating temperature range	°C	-20 ~ +85

Characteristics Curve Model L1630N5M11-76-5.0



Approx. actual size

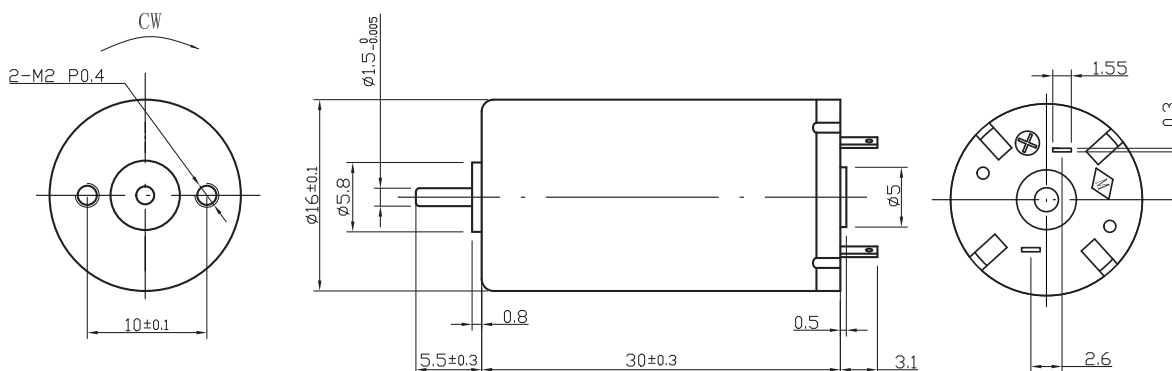
Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

- Lead wires length
- Shaft length
- Special coils
- Gearheads

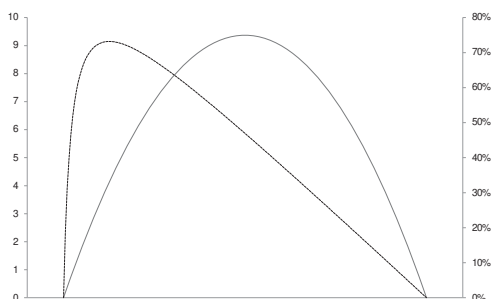
Dimension (mm) · L1630N5M



Precious Metal Commutation · L1718N5M

Motor Characteristics			57-260-7.4
1	Voltage	V	7.4
2	Terminal resistance	Ω	1.4
3	No-load speed	rpm	26000
4	No-load current	mA	110
5	Stall torque	mNm	13.8
6	Stall current	mA	5175
7	Load torque	mNm	2.5
8	Load speed	rpm	21280
9	Load current	mA	1030
10	Max. output power	W	9.4
11	Max. efficiency	%	75
12	Back-EMF constant	mV/rpm	0.3
13	Torque constant	mNm/A	2.7
14	Speed/torque gradient	rpm/mNm	1890
15	Rotor inertia	gcm ²	0.8
16	Weight	g	19.3
17	Operating temperature range	°C	-20 ~ +85

Characteristics Curve Model L1718N5M57-260-7.4



Approx. actual size

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

Special coils

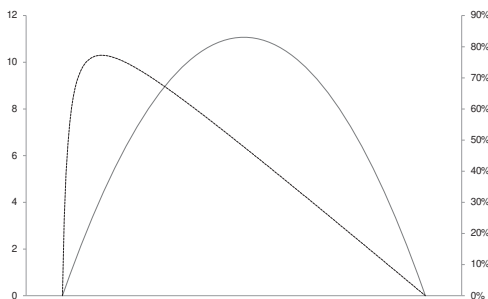
Gearheads

Dimension (mm) · L1718N5M

Precious Metal Commutation · L1722N5M

Motor Characteristics			08-218-7.4
1	Voltage	V	7.4
2	Terminal resistance	Ω	1.2
3	No-load speed	rpm	21800
4	No-load current	mA	90
5	Stall torque	mNm	19.4
6	Stall current	mA	6170
7	Load torque	mNm	2.0
8	Load speed	rpm	19500
9	Load current	mA	750
10	Max. output power	W	11.1
11	Max. efficiency	%	77
12	Back-EMF constant	mV/rpm	0.3
13	Torque constant	mNm/A	3.2
14	Speed/torque gradient	rpm/mNm	1120
15	Rotor inertia	gcm ²	1.0
16	Weight	g	24.5
17	Operating temperature range	°C	-20 ~ +85

Characteristics Curve Model L1722N5M08-218-7.4



Approx. actual size

Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

Special coils

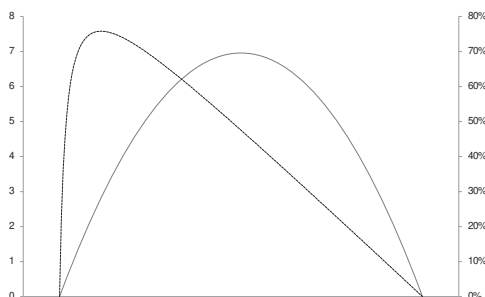
Gearheads

Dimension (mm) · L1722N5M

Precious Metal Commutation · L2233N5M

Motor Characteristics			10-105-12.0	04-52-12.0
1	Voltage	V	12.0	12.0
2	Terminal resistance	Ω	5.1	34.0
3	No-load speed	rpm	10500	5200
4	No-load current	mA	40	20
5	Stall torque	mNm	25.3	7.3
6	Stall current	mA	2362	353
7	Load torque	mNm	3.0	3.5
8	Load speed	rpm	9260	2720
9	Load current	mA	310	180
10	Max. output power	W	7.0	1.0
11	Max. efficiency	%	77	62
12	Back-EMF constant	mV/rpm	1.1	2.2
13	Torque constant	mNm/A	10.7	20.8
14	Speed/torque gradient	rpm/mNm	410	710
15	Rotor inertia	gcm ²	2.6	2.4
16	Weight	g	52	52
17	Operating temperature range	°C	-20 ~ +85	-20 ~ +85

Characteristics Curve Model L2233N5M10-105-12.0



Applications

Mini UAV, remote control toys, aerocrafts, mini household appliances, etc.

Options

Lead wires length

Shaft length

Special coils

Gearheads

Approx. actual size

Dimension (mm) · L2233N5M

Precious Metal Commutation · VL0408N3M

Motor Characteristics			10-120-3.0	10-85-2.7
1	Voltage	V	3	2.7
2	Terminal resistance	Ω	32	32
3	Speed	rpm	12000	8500
4	Current	mA	75	70
5	Starting voltage	V	1.4	1.5
6	Stall current	mA	95	100
7	Weight	g	0.8	1.15
8	Operating temperature range	°C	-10 ~ +65	-10 ~ +65

Applications

Wearable devices, mobile phones, tablet PCs, health care equipment, etc.

Options

Lead wires length

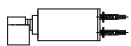
Shaft length

Eccentric weight

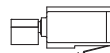
Silicone sets

Approx. actual size

Model VL0408N3M10-120-3.0-651

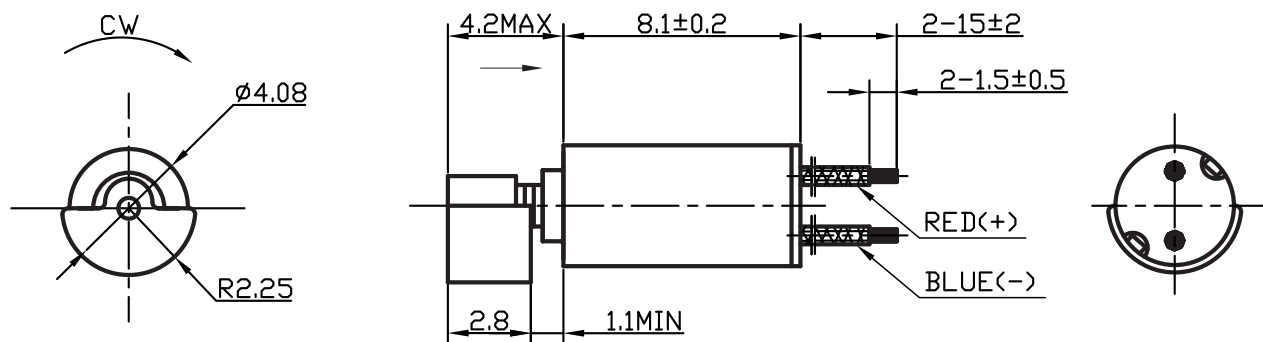


Model VL0408N3M10-85-2.7-0110

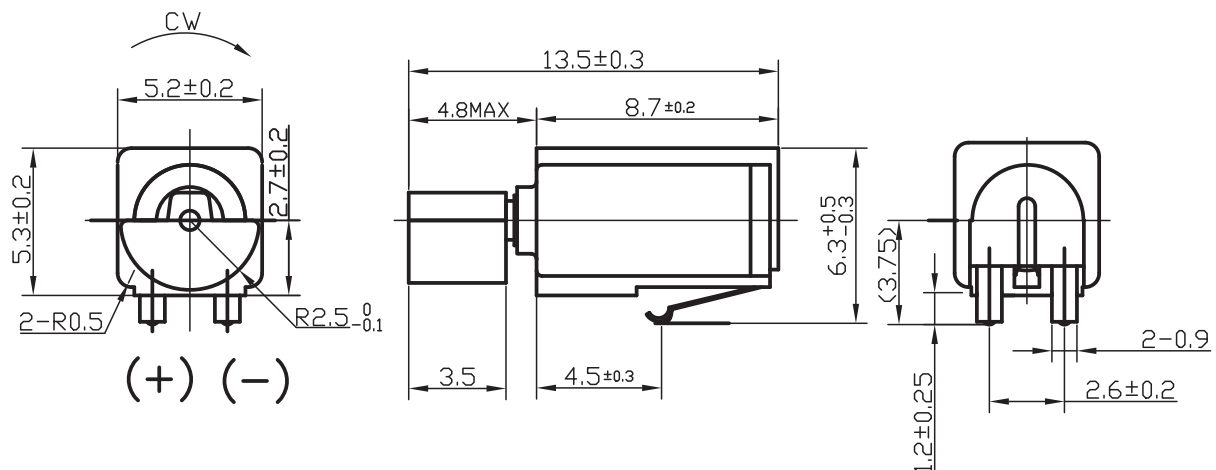


Dimension (mm)

Model VL0408N3M10-120-3.0-651



Model VL0408N3M10-85-2.7-0110



Precious Metal Commutation · VL0510N3M

Motor Characteristics			05-120-3.0
1	Voltage	V	3
2	Terminal resistance	Ω	17
3	Speed	rpm	12000
4	Current	mA	130
5	Starting voltage	V	0.8
6	Stall current	mA	190
7	Weight	g	0.8
8	Operating temperature range	°C	-10 ~ +65

Applications

Wearable devices,
mobile phones, tablet PCs,
health care equipment, etc.

Options

Lead wires length

Shaft length

Eccentric weight

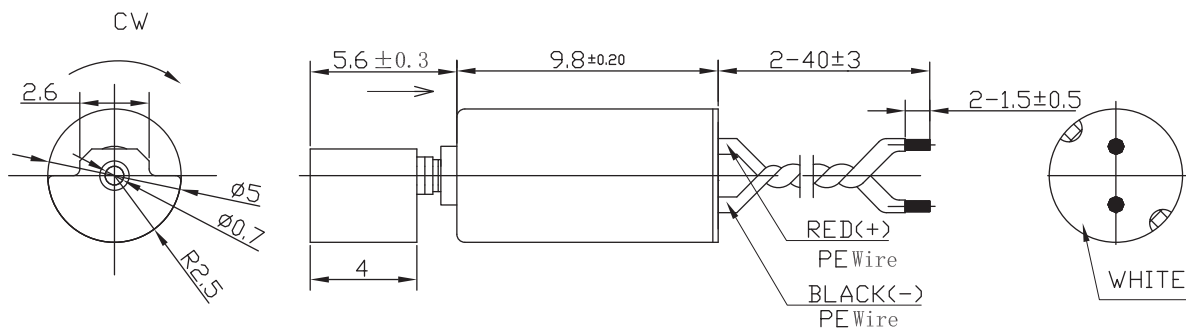
Silicone sets

Approx. actual size



Dimension (mm)

Model VL0510N3M05-120-3.0-0003



Precious Metal Commutation · VL0610N5M

Motor Characteristics			36-90-1.5	80-87-1.3
1	Voltage	V	1.5	1.3
2	Terminal resistance	Ω	22	13.1
3	Speed	rpm	9000	8700
4	Current	mA	16	65
5	Starting voltage	V	0.8	0.8
6	Stall current	mA	80	120
7	Weight	g	1.6	1.8
8	Operating temperature range	°C	-10 ~ +65	-10 ~ +65

Applications

Wearable devices,
mobile phones, tablet PCs,
health care equipment, etc.

Options

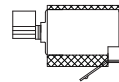
Lead wires length
Shaft length
Eccentric weight
Silicone sets

Approx. actual size

Model VL0610N5M36-90-1.5-0492

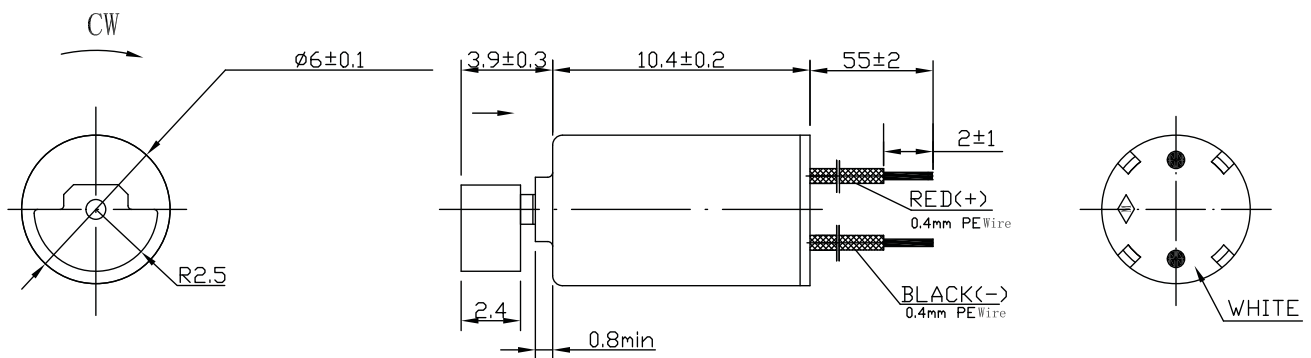


Model VL0610N5M80-87-1.3-0029

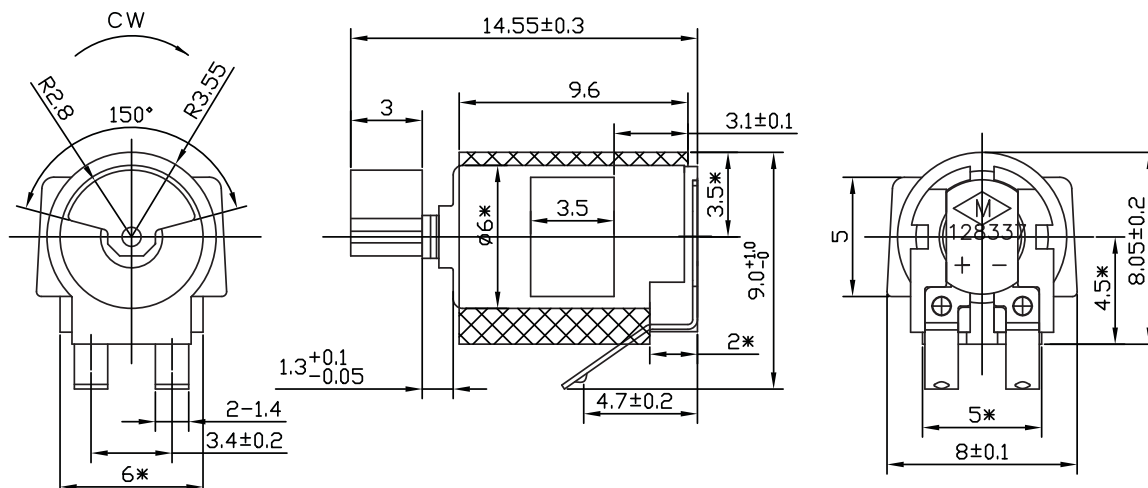


Dimension (mm)

Model VL0610N5M36-90-1.5-0492



Model VL0610N5M80-87-1.3-0029



Precious Metal Commutation · VL0612N3M

Motor Characteristics			42-95-1.3
1	Voltage	V	1.3
2	Terminal resistance	Ω	7.8
3	Speed	rpm	9500
4	Current	mA	70
5	Starting voltage	V	0.8
6	Stall current	mA	200
7	Weight	g	2.3
8	Operating temperature range	$^{\circ}\text{C}$	-10 ~ +65

Applications

Wearable devices, mobile phones, tablet PCs, health care equipment, etc.

Options

Lead wires length

Shaft length

Eccentric weight

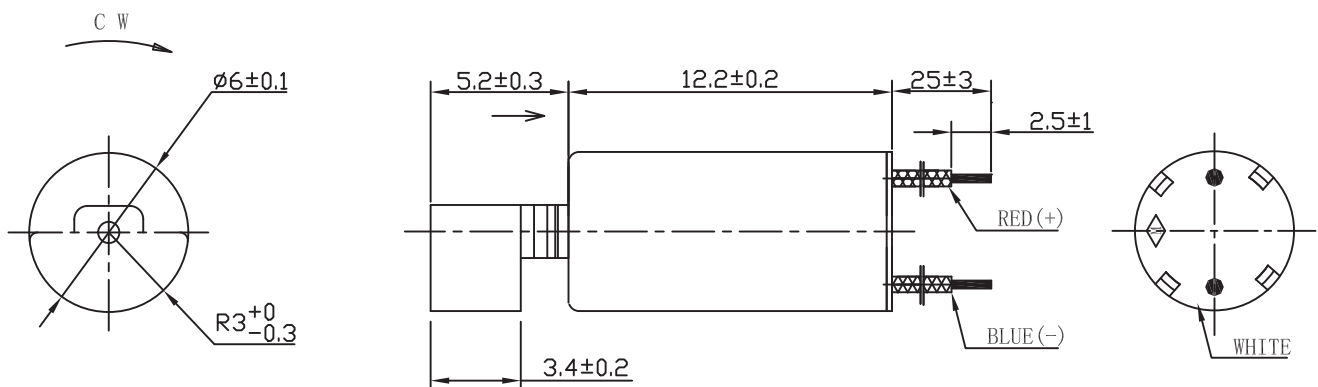
Silicone sets

Approx. actual size



Dimension (mm)

Model VL0612N3M42-95-1.3-0255



Precious Metal Commutation · VL0614N5M

Motor Characteristics			51-102-3.0	51-124-3.0
1	Voltage	V	3	3
2	Terminal resistance	Ω	18	17
3	Speed	rpm	10200	12400
4	Current	mA	50	32
5	Starting voltage	V	0.6	0.6
6	Stall current	mA	180	170
7	Weight	g	2.9	2.6
8	Operating temperature range	°C	-10 ~ +65	-10 ~ +65

Applications

Wearable devices, mobile phones, tablet PCs, health care equipment, etc.

Options

Lead wires length

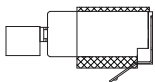
Shaft length

Eccentric weight

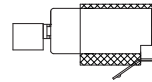
Silicone sets

Approx. actual size

Model VL0610N5M36-90-1.5-0492

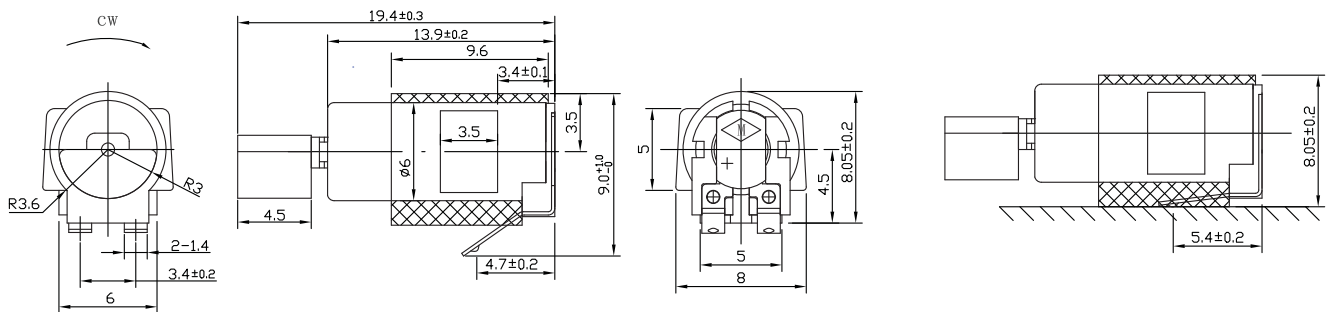


Model VL0610N5M80-87-1.3-0029

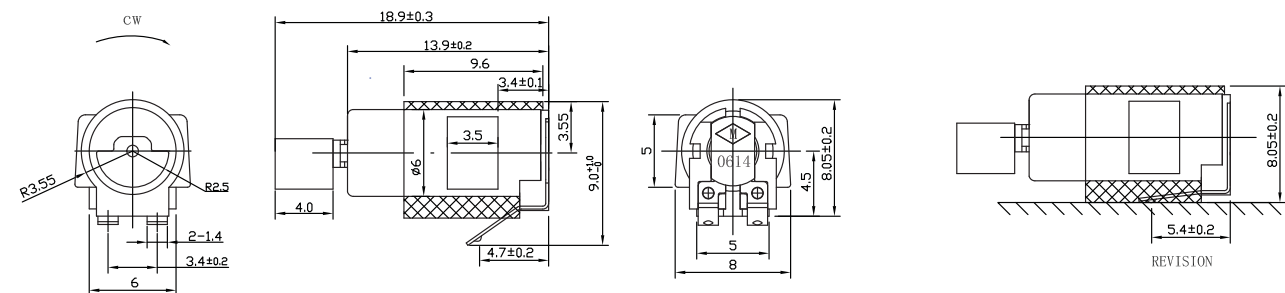


Dimension (mm)

Model VL0614N5M51-102-3.0-0172



Model VL0614N5M51-124-3.0-0605



Precious Metal Commutation · VL0615N5M

Motor Characteristics			47-100-3.0
1	Voltage	V	3
2	Terminal resistance	Ω	20
3	Speed	rpm	10000
4	Current	mA	45
5	Starting voltage	V	0.6
6	Stall current	mA	150
7	Weight	g	3.4
8	Operating temperature range	$^{\circ}\text{C}$	-10 ~ +65

Applications

Wearable devices,
mobile phones, tablet PCs,
health care equipment, etc.

Options

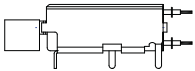
Lead wires length

Shaft length

Eccentric weight

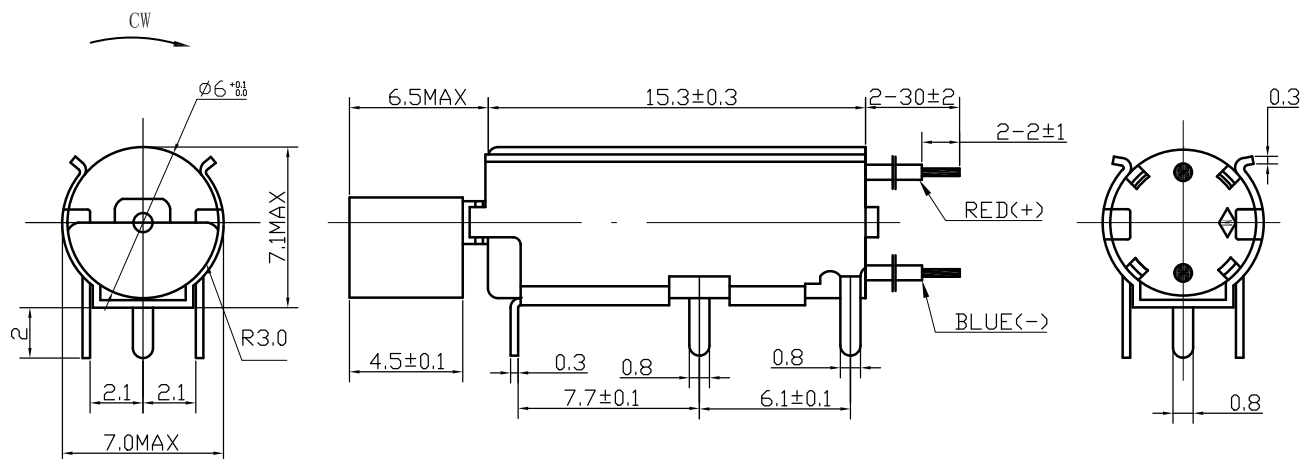
Silicone sets

Approx. actual size



Dimension (mm)

Model VL0615N5M47-100-3.0-0146



Precious Metal Commutation · VL0716N5M

Motor Characteristics			12-105-3.0	61-130-3.0	91-140-3.7
1	Voltage	V	3	3	3.7
2	Terminal resistance	Ω	9.7	5.6	5.4
3	Speed	rpm	10500	13000	14000
4	Current	mA	110	180	260
5	Starting voltage	V	0.8	0.8	0.8
6	Stall current	mA	300	500	600
7	Weight	g	4	4	4
8	Operating temperature range	°C	-20 ~ +80	-20 ~ +80	-20 ~ +80

Applications

Wearable devices, mobile phones, tablet PCs, health care equipment, etc.

Options

Lead wires length

Shaft length

Eccentric weight

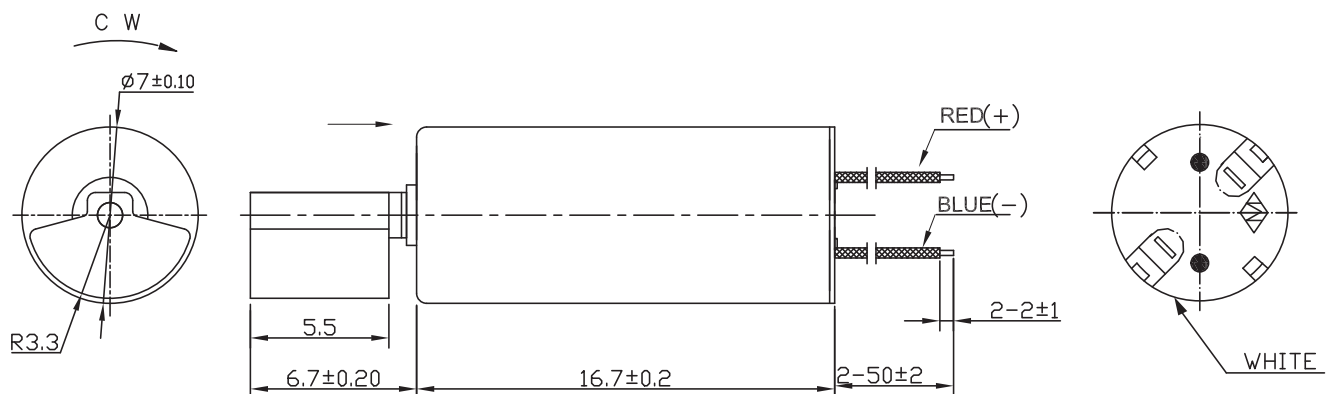
Silicone sets

Approx. actual size



Dimension (mm)

Model VL0716N5M12-105-3.0-0307



Precious Metal Commutation · VL1015N3M

Motor Characteristics			87-120-1.3
1	Voltage	V	1.3
2	Terminal resistance	Ω	1.1
3	Speed	rpm	12000
4	Current	mA	530
5	Starting voltage	V	0.8
6	Stall current	mA	1250
7	Weight	g	6.5
8	Operating temperature range	$^{\circ}\text{C}$	-20 ~ +65

Applications

Wearable devices,
mobile phones, tablet PCs,
health care equipment, etc.

Options

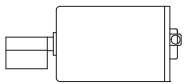
Lead wires length

Shaft length

Eccentric weight

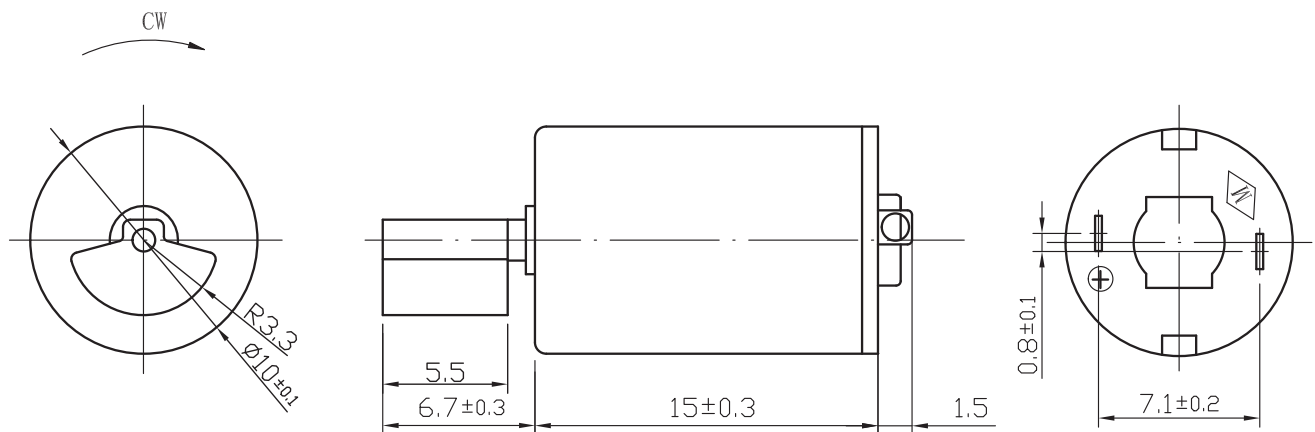
Silicone sets

Approx. actual size



Dimension (mm)

Model VL1015N3M87-120-1.3-0118





KOCO
MOTION

KOCO MOTION GmbH

Niedereschacher Str. 54
78083 Dauchingen
Germany

Telefon+49 7720 995858-0

Fax +49 7720 995858-99

info@kocomotion.de

www.kocomotion.de