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Gear Motors

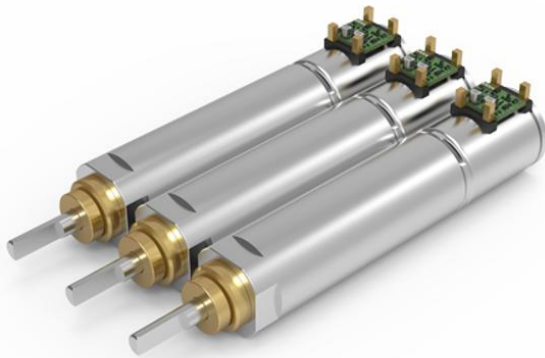
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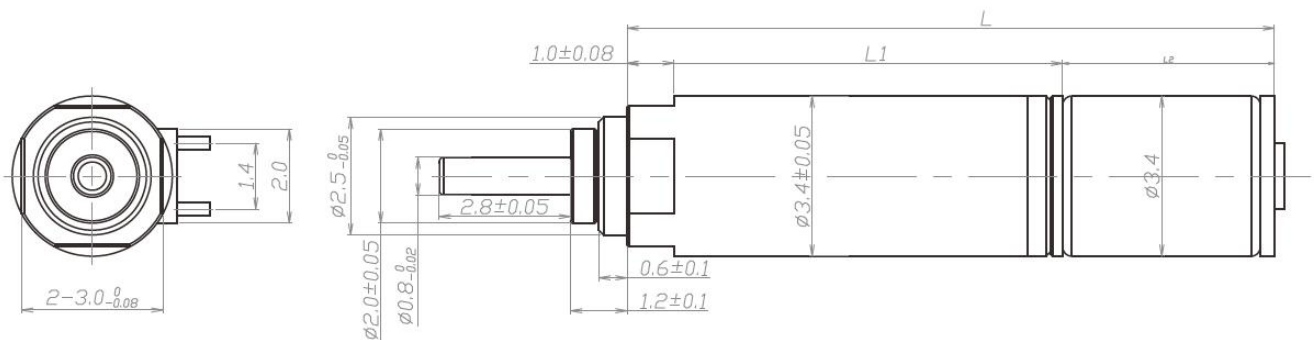
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003003-MD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	Coreless motor, Stepper motor
Voltage(Optional)	1.5 - 5V
Input speed	≤ 10000 rpm
Current	50MA max

Model	Rated Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	gf.cm	gf.cm		mm	mm
M003003-MD5	300	50	150	5	6.0	10.75
M003003-MD25	60	50	150	25	7.5	12.25

003003-MD Planetary Gearbox Motor

M003003-MD125	12	50	150	125	9.0	13.75
M003003-MD625	2.4	50	150	625	10.5	15.25

Gearbox Specifications:

Outer diameter	3mm
Material	Metal
Direction of rotation	CW&CCW
Gear backlash	$\leq 3^\circ$
Bearing	Porous Bearing
Axial endplay	$\leq 0.3\text{mm}$
Radial loading on output shaft	$\leq 0.3\text{N}$
Operating temperature range	-20 ~ +85°C

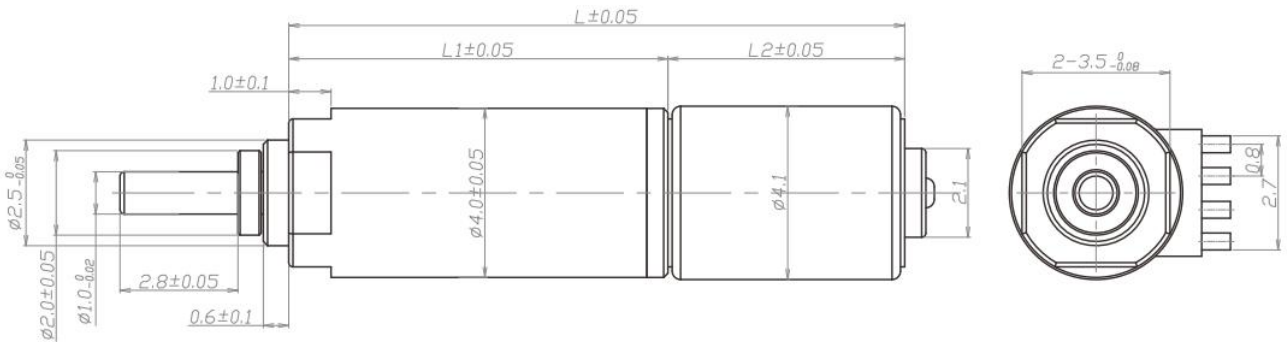
Gearbox stages	1	2	3	4
Transmission ratio	5	25	125	625
Max rated torque of gear box	50	50	50	50
Instant torque of gear box	150	150	150	150
Gearbox efficiency	85	73	65	58
Length	6	7.5	9	10.5

004004-MD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	Coreless motor, Stepper motor
Voltage(Optional)	1.5 - 5V
Input speed	≤ 10000 rpm
Current	50MA max

Model	Rated Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	gf.cm	gf.cm		mm	mm
M004004-MD5	300	70	200	5	6.6	18.6
M004004-MD25	60	70	200	25	8.1	20.1
M004004-MD125	12	70	200	125	9.6	21.6

004004-MD Planetary Gearbox Motor

M004004-MD625	2.4	70	200	625	11.1	23.1
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Gearbox Specifications:

Outer diameter	4mm
Material	Metal
Direction of rotation	CW&CCW
Gear backlash	$\leq 3^\circ$
Bearing	Porous Bearing
Axial endplay	$\leq 0.3\text{mm}$
Radial loading on output shaft	$\leq 0.3\text{N}$
Operating temperature range	-20 ~ +85°C

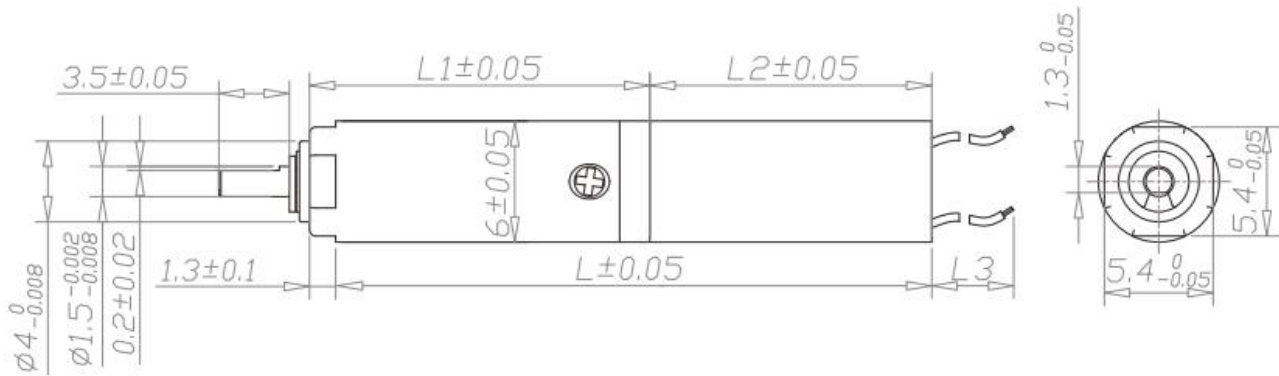
Gearbox stages	1	2	3	4
Transmission ratio	5	25	125	625
Max rated torque of gear box	70	70	70	70
Instant torque of gear box	200	200	200	200
Gearbox efficiency	85	73	65	58
Length	6.6	8.1	9.6	11.1

006006-MD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	Coreless motor, Stepper motor
Voltage(Optional)	3 - 12V
Input speed	≤ 30000 rpm
Current	100MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M006006-MD5	1563	6250	330	800	4.8	9.7	23.7
M006006-MD6	1166	4666	330	800	6.43		

006006-MD Planetary Gearbox Motor

M006006-MD23	326	1302	330	800	23.04	12.1	26.1
M006006-MD31	243	972	330	800	30.86		
M006006-MD41	181	726	330	800	41.33	12.1	26.1
M006006-MD110	68	271	330	800	110.6	14.5	28.5
M006006-MD148	51	203	330	800	148.1		
M006006-MD198	38	151	330	800	198.4		
M006006-MD266	28	113	330	800	265.7		
M006006-MD531	14	57	600	1500	530.8	16.9	30.9
M006006-MD711	11	42	600	1500	711.0		
M006006-MD952	8	32	600	1500	952.2		
M006006-MD1275	6	24	600	1500	1275.2		
M006006-MD1708	4	18	600	1500	1707.9		

Gearbox Specifications:

Outer diameter	6mm	
Material	Metal	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 3^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.3\text{mm}$	$\leq 0.2\text{mm}$
Radial loading on output shaft	$\leq 0.5\text{N}$	$\leq 5\text{N}$
Operating temperature range	$-20 \sim +85^\circ\text{C}$	

Gearbox stages	1	2	3	4
Transmission ratio	5/6	23/31/41	110/148/198/266	531/711/952/1275/1708
Max rated torque of gear box	330	330	330	600
Instant torque of gear box	800	800	800	1500
Gearbox efficiency	87	74	62	55



006006-MD Planetary Gearbox Motor

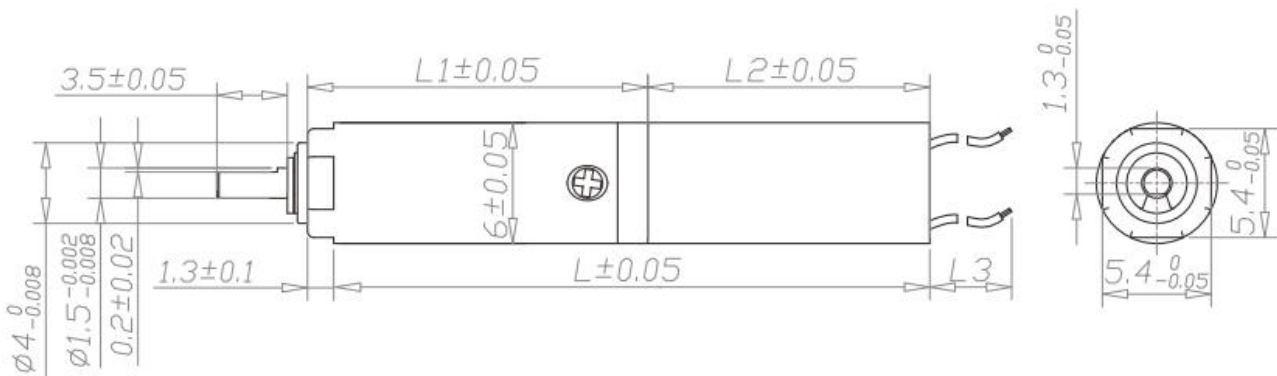
Length	9.7	12.1	14.5	16.9
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006006-PD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	Coreless motor, Stepper motor
Voltage(Optional)	3 - 12V
Input speed	≤ 30000 rpm
Current	100MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M006006-PD5	1563	6250	250	600	4.8	9.7	23.7
M006006-PD6	1166	4666	250	600	6.43		
M006006-PD23	326	1302	250	600	23.04	12.1	26.1

006006-PD Planetary Gearbox Motor

M006006-PD31	243	972	250	600	30.86		
M006006-PD41	181	726	250	600	41.33	12.1	26.1
M006006-PD110	68	271	250	600	110.6	14.5	28.5
M006006-PD148	51	203	250	600	148.1		
M006006-PD198	38	151	250	600	198.4		
M006006-PD266	28	113	250	600	265.7		
M006006-PD531	14	57	250	600	530.8	16.9	30.9
M006006-PD711	11	42	250	600	711.0		
M006006-PD952	8	32	250	600	952.2		
M006006-PD1275	6	24	250	600	1275.2		
M006006-PD1708	4	18	250	600	1707.9		

Gearbox Specifications:

Outer diameter	6mm	
Material	Plastic	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 3^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.3\text{mm}$	$\leq 0.2\text{mm}$
Radial loading on output shaft	$\leq 0.3\text{N}$	$\leq 4\text{N}$
Operating temperature range	-20 ~ +85°C	

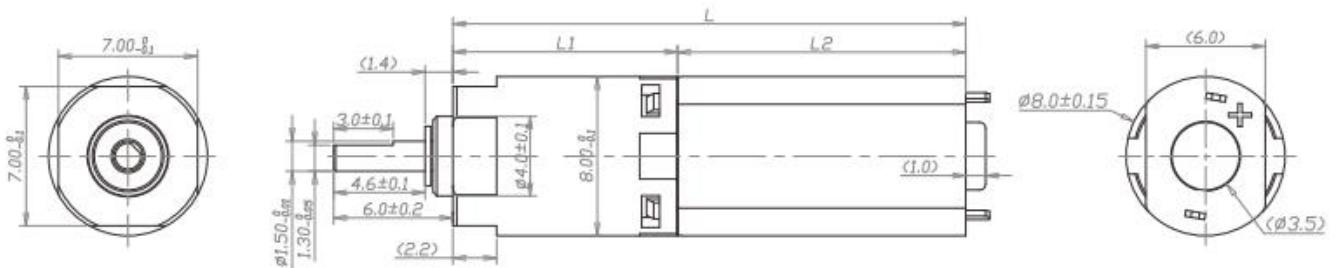
Gearbox stages	1	2	3	4
Transmission ratio	5/6	23/31/41	110/148/198/266	531/711/952/1275/1708
Max rated torque of gear box	250	250	250	250
Instant torque of gear box	600	600	600	600
Gearbox efficiency	85	73	62	55
Length	9.7	12.1	14.5	16.9

008008-MD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	DC brush motor,DC brushless motor,Stepper motor
Voltage(Optional)	3 - 12V
Input speed	≤30000rpm
Current	150MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M008008-MD4	2083	8333	250	500	3.6	11.6	26.1
M008008-MD5	1406	5625	250	500	5.3		
M008008-MD13	579	2315	400	800	13.0	14.3	28.8
M008008-MD19	391	1563	400	800	19.2		

008008-MD Planetary Gearbox Motor

M008008-MD28	264	1055	400	800	28.4	14.3	28.8
M008008-MD47	161	643	600	1200	46.7	17	31.5
M008008-MD69	109	434	600	1200	69.1		
M008008-MD102	73	293	600	1200	102.4		
M008008-MD152	49	198	600	1200	151.7		
M008008-MD168	45	179	750	1500	168.0	19.7	34.2
M008008-MD249	30	121	750	1500	248.8		
M008008-MD369	20	81	750	1500	368.6		
M008008-MD546	14	55	750	1500	546.1		
M008008-MD809	9	37	750	1500	809.1		

Gearbox Specifications:

Outer diameter	8mm	
Material	Metal	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 3^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.3\text{mm}$	$\leq 0.2\text{mm}$
Radial loading on output shaft	$\leq 2\text{N}$	$\leq 5\text{N}$
Operating temperature range	$-20 \sim +85^\circ\text{C}$	

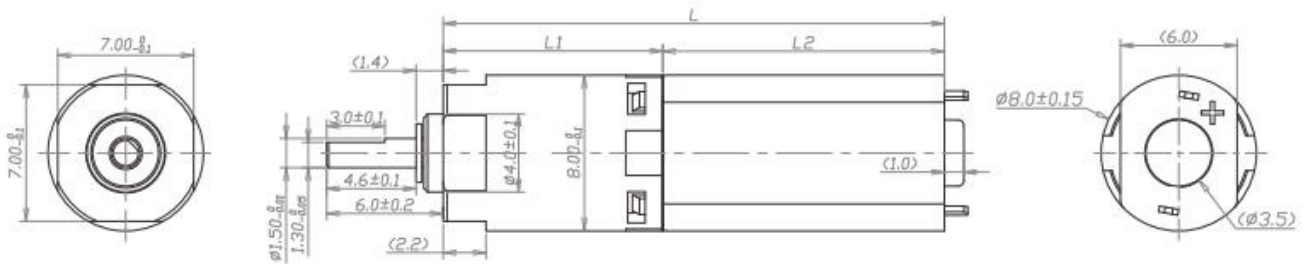
Gearbox stages	1	2	3	4
Transmission ratio	4/5	13/19/28	47/69/102/152	168/249/369/546/809
Max rated torque of gear box	250	400	600	750
Instant torque of gear box	500	800	1200	1500
Gearbox efficiency	85	73	65	58
Length	11.6	14.3	17	19.7

008008-PD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	DC brush motor,DC brushless motor,Stepper motor
Voltage(Optional)	3 - 12V
Input speed	≤30000rpm
Current	150MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M008008-PD4	2083	8333	50	200	3.6	8.6	23.1
M008008-PD5	1406	5625	50	200	5.3		
M008008-PD13	579	2315	100	300	13.0	11.3	25.8
M008008-PD19	391	1563	100	300	19.2		

008008-PD Planetary Gearbox Motor

M008008-PD28	264	1055	100	300	28.4	11.3	25.8
M008008-PD47	161	643	200	600	46.7	14	28.5
M008008-PD69	109	434	200	600	69.1		
M008008-PD102	73	293	200	600	102.4		
M008008-PD152	49	198	200	600	151.7		
M008008-PD168	45	179	400	900	168.0	16.7	31.2
M008008-PD249	30	121	400	900	248.8		
M008008-PD369	20	81	400	900	368.6		
M008008-PD546	14	55	400	900	546.1		
M008008-PD809	9	37	400	900	809.1		

Gearbox Specifications:

Outer diameter	8mm	
Material	Plastic	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 3^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.3\text{mm}$	$\leq 0.2\text{mm}$
Radial loading on output shaft	$\leq 0.8\text{N}$	$\leq 5\text{N}$
Operating temperature range	$-20 \sim +85^\circ\text{C}$	

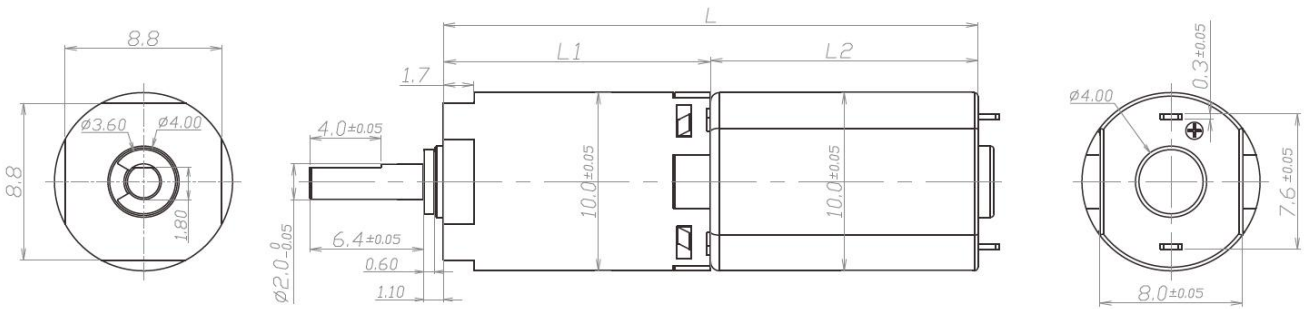
Gearbox stages	1	2	3	4
Transmission ratio	4/5	13/19/28	47/69/102/152	168/249/369/546/809
Max rated torque of gear box	50	100	200	400
Instant torque of gear box	200	300	600	900
Gearbox efficiency	85	73	65	58
Length	8.6	11.3	14	16.7

010010-MD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	DC brush motor, Stepper motor
Voltage(Optional)	3 - 24V
Input speed	≤30000rpm
Current	150MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M010010-MD4	1875	7500	1500	4500	4	9.7	24.7
M010010-MD6	1250	5000	1500	4500	6		
M010010-MD13	577	2308	1500	4500	13	12.8	27.8

010010-MD Planetary Gearbox Motor

M010010-MD19	395	1579	1500	4500	19	15.9	30.9
M010010-MD28	268	1071	1500	4500	28		
M010010-MD46	163	652	1500	4500	46		
M010010-MD69	109	435	1500	4500	69		
M010010-MD102	74	294	1500	4500	102		
M010010-MD151	50	199	1500	4500	151	19	34
M010010-MD168	45	179	1800	4500	168		
M010010-MD249	30	120	1800	4500	249		
M010010-MD368	20	82	1800	4500	368		
M010010-MD546	14	55	1800	4500	546		
M010010-MD809	9	37	1800	4500	809		

Gearbox Specifications:

Outer diameter	10mm	
Material	Metal	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 3^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.3\text{mm}$	$\leq 0.2\text{mm}$
Radial loading on output shaft	$\leq 2\text{N}$	$\leq 7\text{N}$
Operating temperature range	-20 ~ +85°C	

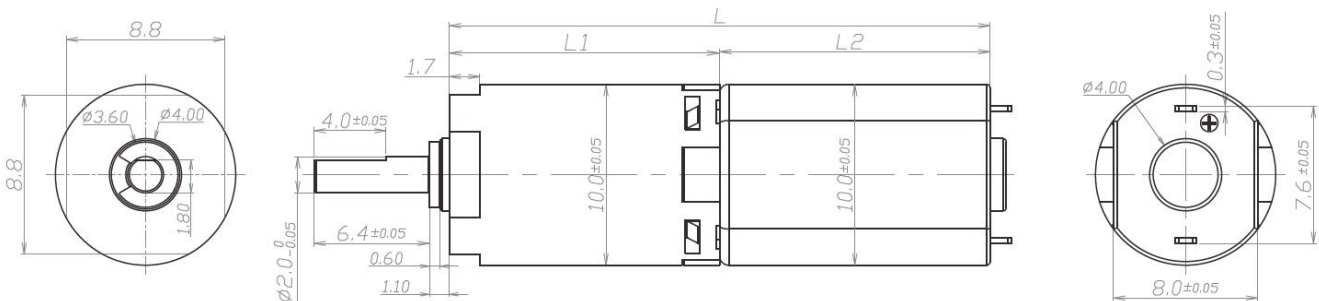
Gearbox stages	1	2	3	4
Transmission ratio	4/6	13/19/28	46/69/102/151	168/249/368/546/809
Max rated torque of gear box	1500	1500	1500	1800
Instant torque of gear box	4500	4500	4500	4500
Gearbox efficiency	87	74	63	56
Length	9.7	12.8	15.9	19

010010-PD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	DC brush motor, Stepper motor
Voltage(Optional)	3 - 24V
Input speed	≤ 30000rpm
Current	150MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M010010-PD4	1875	7500	600	1200	4	9.7	24.7
M010010-PD6	1250	5000	600	1200	6		
M010010-PD13	577	2308	600	1200	13	12.8	27.8
M010010-PD19	395	1579	600	1200	19		

010010-PD Planetary Gearbox Motor

M010010-PD28	268	1071	600	1200	28		
M010010-PD46	163	652	600	1200	46	15.9	30.9
M010010-PD69	109	435	600	1200	69		
M010010-PD102	74	294	600	1200	102		
M010010-PD151	50	199	600	1200	151		
M010010-PD168	45	179	850	1700	168	19	34
M010010-PD249	30	120	850	1700	249		
M010010-PD368	20	82	850	1700	368		
M010010-PD546	14	55	850	1700	546		
M010010-PD809	9	37	850	1700	809		

Gearbox Specifications:

Outer diameter	10mm	
Material	Plastic	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 3^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.3\text{mm}$	$\leq 0.2\text{mm}$
Radial loading on output shaft	$\leq 1\text{N}$	$\leq 7\text{N}$
Operating temperature range	$-20 \sim +85^\circ\text{C}$	

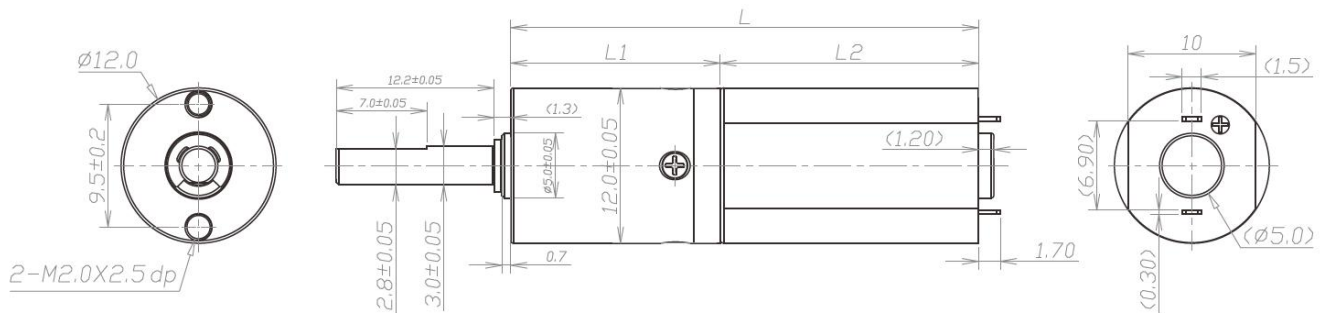
Gearbox stages	1	2	3	4
Transmission ratio	4/6	13/19/28	46/69/102/151	168/249/368/546/809
Max rated torque of gear box	600	600	600	850
Instant torque of gear box	1200	1200	1200	1700
Gearbox efficiency	85	73	65	58
Length	9.7	12.8	15.9	19

012012-MD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	DC brush motor,DC brushless motor,Stepper motor
Voltage(Optional)	3 - 24V
Input speed	≤30000rpm
Current	250MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M012012-MD4	1875	7500	2000	6000	4	12.4	32.4
M012012-MD6	1250	5000	2000	6000	6		
M012012-MD16	469	1875	2000	6000	16	16.2	36.2
M012012-MD24	313	1250	2000	6000	24		

012012-MD Planetary Gearbox Motor

M012012-MD36	208	833	2000	6000	36		
M012012-MD64	117	469	2000	6000	64	20	40
M012012-MD96	78	313	2000	6000	96	20	40
M012012-MD144	52	208	2000	6000	144		
M012012-MD216	35	139	2000	6000	216		
M012012-MD256	29	117	2000	6000	256	23.8	43.8
M012012-MD384	20	78	2000	6000	384		
M012012-MD576	13	52	2000	6000	576		
M012012-MD864	9	35	2000	6000	864		
M012012-MD1296	6	23	2000	6000	1296		

Gearbox Specifications:

Outer diameter	12mm	
Material	Metal	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 3^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.3\text{mm}$	$\leq 0.2\text{mm}$
Radial loading on output shaft	$\leq 10\text{N}$	$\leq 20\text{N}$
Operating temperature range	$-20 \sim +85^\circ\text{C}$	

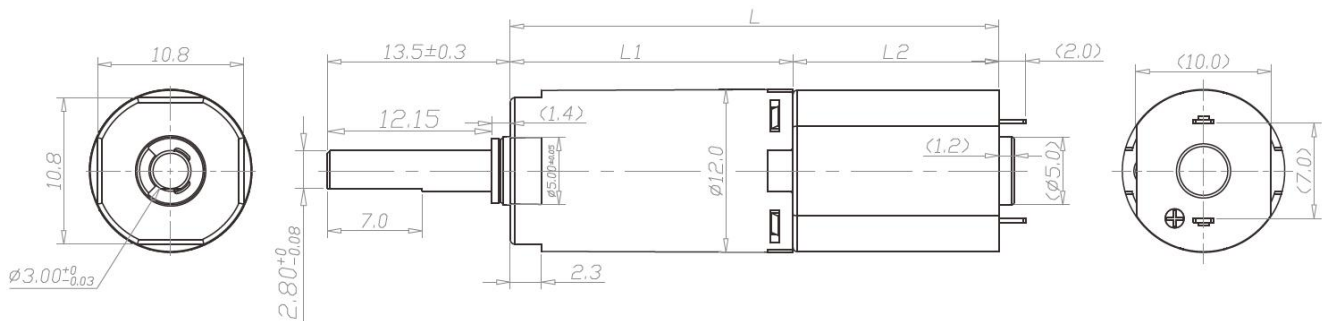
Gearbox stages	1	2	3	4
Transmission ratio	4/6	16/24/36	64/96/144/216	256/384/576/864/1296
Max rated torque of gear box	2000	2000	2000	2000
Instant torque of gear box	6000	6000	6000	6000
Gearbox efficiency	87	74	63	56
Length	12.4	16.2	20	23.8

012012-PD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	DC brush motor, Stepper motor
Voltage(Optional)	3 - 24V
Input speed	≤30000rpm
Current	250MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M012012-PD4	1875	7500	1300	4000	4	9.5	24.5
M012012-PD6	1250	5000	1300	4000	6		
M012012-PD13	469	1875	1300	4000	16	13.3	28.3
M012012-PD19	313	1250	1300	4000	24		

012012-PD Planetary Gearbox Motor

M012012-PD28	208	833	1300	4000	36		
M012012-PD46	117	469	1300	4000	64	17.1	32.1
M012012-PD69	78	313	1300	4000	96		
M012012-PD102	52	208	1300	4000	144		
M012012-PD151	35	139	1300	4000	216		
M012012-PD168	29	117	850	4000	256	20.9	35.9
M012012-PD249	20	78	850	4000	384		
M012012-PD368	13	52	850	4000	576		
M012012-PD546	9	35	850	4000	864		
M012012-PD809	6	23	850	4000	1296		

Gearbox Specifications:

Outer diameter	12mm	
Material	Plastic	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 3^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.3\text{mm}$	$\leq 0.2\text{mm}$
Radial loading on output shaft	$\leq 5\text{N}$	$\leq 10\text{N}$
Operating temperature range	$-20 \sim +85^\circ\text{C}$	

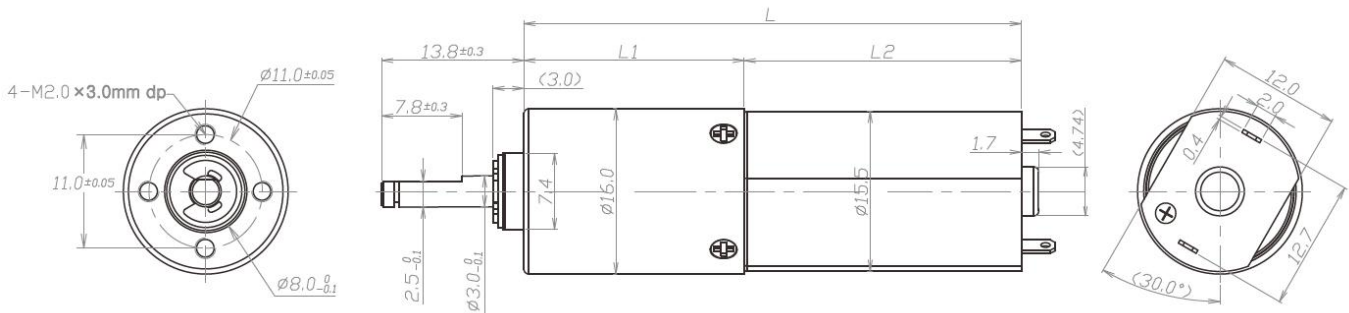
Gearbox stages	1	2	3	4
Transmission ratio	4/6	16/24/36	64/96/144/216	256/384/576/864/1296
Max rated torque of gear box	1300	1300	1300	1300
Instant torque of gear box	4000	4000	4000	4000
Gearbox efficiency	85	73	65	58
Length	9.5	13.3	17.1	20.9

016016-MD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	Coreless motor, DC brushless motor, Stepper motor
Voltage(Optional)	3 - 24V
Input speed	≤ 15000 rpm
Current	300MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M016016-MD4	1875	7500	5000	10000	4	11.5	38.4
M016016-MD6	1250	5000	5000	10000	6		
M016016-MD16	469	1875	5000	10000	16	14.8	41.7
M016016-MD24	313	1250	5000	10000	24		

016016-MD Planetary Gearbox Motor

M016016-MD36	208	833	5000	10000	36	18.1	45.0
M016016-MD64	117	469	5000	10000	64		
M016016-MD96	78	313	5000	10000	96		
M016016-MD144	52	208	5000	10000	144		
M016016-MD216	35	139	5000	10000	216	21.4	48.3
M016016-MD256	29	117	5000	10000	256		
M016016-MD384	20	78	5000	10000	384		
M016016-MD576	13	52	5000	10000	576		
M016016-MD864	9	35	5000	10000	864		
M016016-MD1296	6	23	5000	10000	1296		

Gearbox Specifications:

Outer diameter	16mm	
Material	Metal	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 2^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.1\text{mm}$	$\leq 0.1\text{mm}$
Radial loading on output shaft	$\leq 20\text{N}$	$\leq 30\text{N}$
Operating temperature range	-30 ~ +100°C	

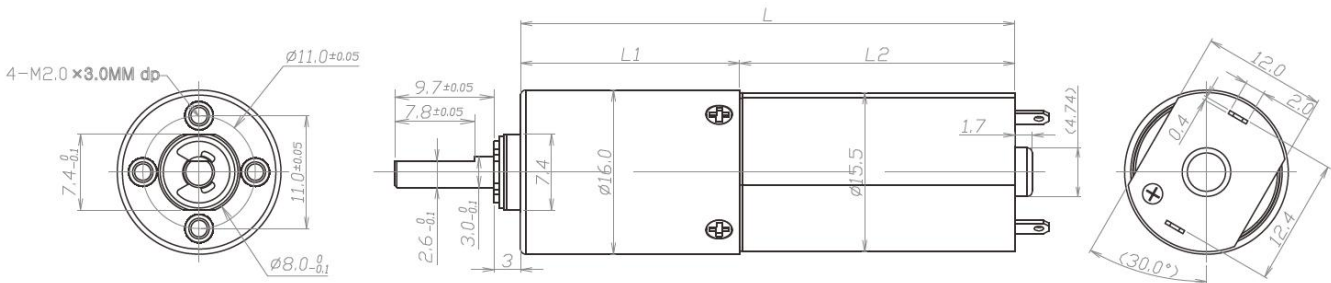
Gearbox stages	1	2	3	4
Transmission ratio	4/6	16/24/36	64/96/144/216	256/384/576/864/1296
Max rated torque of gear box	5000	5000	5000	5000
Instant torque of gear box	10000	10000	10000	10000
Gearbox efficiency	90	85	80	75
Length	11.5	14.8	18.1	21.4

016016-PD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	Coreless motor,DC brushless motor,Stepper motor
Voltage(Optional)	3 - 24V
Input speed	≤ 15000 rpm
Current	300MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M016016-PD4	1875	7500	3000	6000	4	11.5	38.4
M016016-PD6	1250	5000	3000	6000	6		
M016016-PD16	469	1875	3000	6000	16	14.8	41.7
M016016-PD24	313	1250	3000	6000	24		
M016016-PD36	208	833	3000	6000	36		

016016-PD Planetary Gearbox Motor

M016016-PD64	117	469	3000	6000	64	18.1	45.0
M016016-PD96	78	313	3000	6000	96		
M016016-PD144	52	208	3000	6000	144	18.1	45.0
M016016-PD216	35	139	3000	6000	216		
M016016-PD256	29	117	3000	6000	256	21.4	48.3
M016016-PD384	20	78	3000	6000	384		
M016016-PD576	13	52	3000	6000	576		
M016016-PD864	9	35	3000	6000	864		
M016016-PD1296	6	23	3000	6000	1296		

Gearbox Specifications:

Outer diameter	16mm	
Material	Plastic	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 3^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.1\text{mm}$	$\leq 0.1\text{mm}$
Radial loading on output shaft	$\leq 10\text{N}$	$\leq 20\text{N}$
Operating temperature range	$-20 \sim +85^\circ\text{C}$	

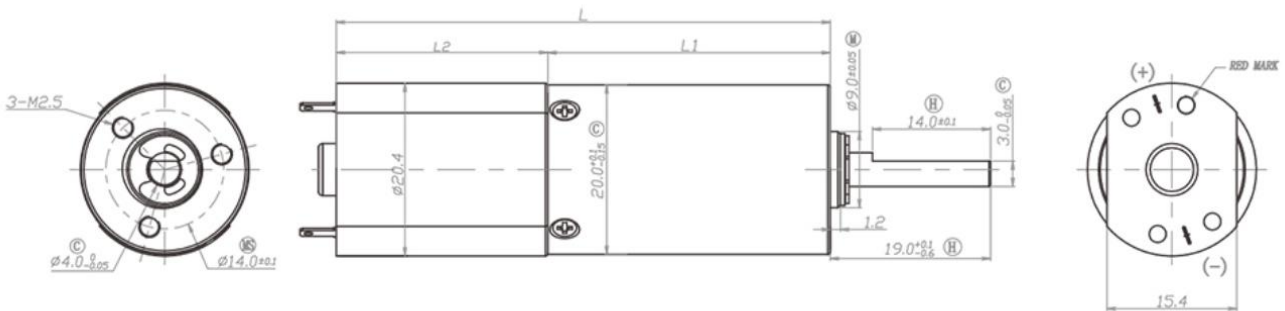
Gearbox stages	1	2	3	4
Transmission ratio	4/6	16/24/36	64/96/144/216	256/384/576/864/1296
Max rated torque of gear box	3000	3000	3000	3000
Instant torque of gear box	6000	6000	6000	6000
Gearbox efficiency	85	73	65	58
Length	11.5	14.8	18.1	21.4

020020-MD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	Coreless motor,DC brushless motor,Stepper motor
Voltage(Optional)	3 - 24V
Input speed	≤25000rpm
Current	300MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M020020-MD4	1875	7500	10000	25000	4	17.6	42.7
M020020-MD6	1250	5000	10000	25000	6		
M020020-MD16	469	1875	10000	25000	16	22.9	48

020020-MD Planetary Gearbox Motor

M020020-MD24	313	1250	10000	25000	24	28.2	53.3
M020020-MD36	208	833	10000	25000	36		
M020020-MD64	117	469	10000	25000	64		
M020020-MD96	78	313	10000	25000	96		
M020020-MD144	52	208	10000	25000	144		
M020020-MD216	35	139	10000	25000	216	33.5	58.6
M020020-MD256	29	117	10000	25000	256		
M020020-MD384	20	78	10000	25000	384		
M020020-MD576	13	52	10000	25000	576		
M020020-MD864	9	35	10000	25000	864		
M020020-MD1296	6	23	10000	25000	1296		

Gearbox Specifications:

Outer diameter	20mm	
Material	Metal	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 2^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.1\text{mm}$	$\leq 0.1\text{mm}$
Radial loading on output shaft	$\leq 50\text{N}$	$\leq 75\text{N}$
Operating temperature range	-30 ~ +100°C	

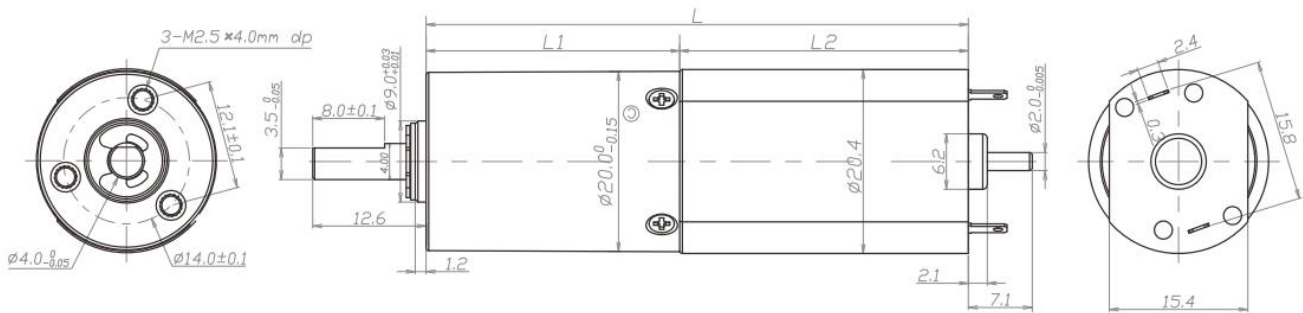
Gearbox stages	1	2	3	4
Transmission ratio	4/6	16/24/36	64/96/144/216	256/384/576/864/1296
Max rated torque of gear box	10000	10000	10000	10000
Instant torque of gear box	25000	25000	25000	25000
Gearbox efficiency	90	85	80	75
Length	17.6	22.9	28.2	33.5

020020-PD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	Coreless motor,DC brushless motor,Stepper motor
Voltage(Optional)	3 - 24V
Input speed	≤ 15000rpm
Current	300MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M020020-PD4	1875	7500	6000	15000	4	17.6	42.7
M020020-PD6	1250	5000	6000	15000	6		
M020020-PD16	469	1875	6000	15000	16	22.9	48
M020020-PD24	313	1250	6000	15000	24		

020020-PD Planetary Gearbox Motor

M020020-PD36	208	833	6000	15000	36	28.2	53.3
M020020-PD64	117	469	6000	15000	64		
M020020-PD96	78	313	6000	15000	96		
M020020-PD144	52	208	6000	15000	144		
M020020-PD216	35	139	6000	15000	216		
M020020-PD256	29	117	6000	15000	256	33.5	58.6
M020020-PD384	20	78	6000	15000	384		
M020020-PD576	13	52	6000	15000	576		
M020020-PD864	9	35	6000	15000	864		
M020020-PD1296	6	23	6000	15000	1296		

Gearbox Specifications:

Outer diameter	20mm	
Material	Plastic	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 3^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.1\text{mm}$	$\leq 0.1\text{mm}$
Radial loading on output shaft	$\leq 30\text{N}$	$\leq 50\text{N}$
Operating temperature range	$-20 \sim +85^\circ\text{C}$	

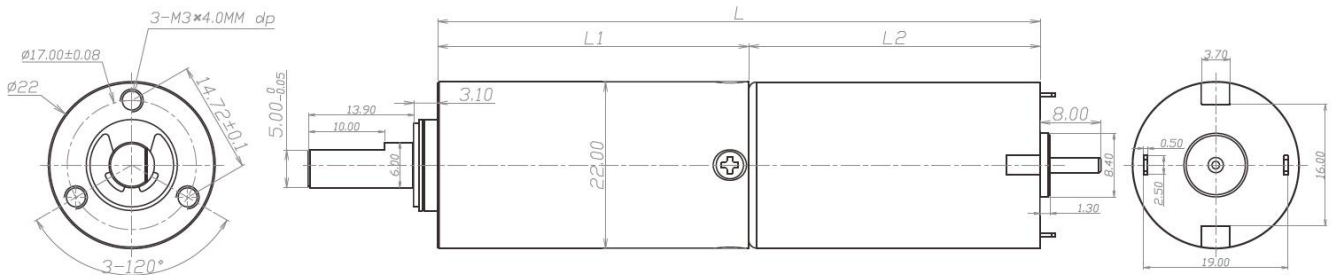
Gearbox stages	1	2	3	4
Transmission ratio	4/6	16/24/36	64/96/144/216	256/384/576/864/1296
Max rated torque of gear box	6000	6000	6000	6000
Instant torque of gear box	15000	15000	15000	15000
Gearbox efficiency	85	73	65	58
Length	17.6	22.9	28.2	33.5

022022-MD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	Coreless motor,DC brushless motor,Stepper motor
Voltage(Optional)	3 - 24V
Input speed	≤ 15000 rpm
Current	300MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M022022-MD4	1875	7500	15000	36000	4	19.1	57.5
M022022-MD6	1250	5000	15000	36000	6		
M022022-MD16	469	1875	15000	36000	16	26.4	64.8
M022022-MD24	313	1250	15000	36000	24		
M022022-MD36	208	833	15000	36000	36		

022022-MD Planetary Gearbox Motor

M022022-MD64	117	469	15000	36000	64	33.7	72.1
M022022-MD96	78	313	15000	36000	96		
M022022-MD144	52	208	15000	36000	144	33.7	72.1
M022022-MD216	35	139	15000	36000	216		
M022022-MD256	29	117	15000	36000	256	41	79.4
M022022-MD384	20	78	15000	36000	384		
M022022-MD576	13	52	15000	36000	576		
M022022-MD864	9	35	15000	36000	864		
M022022-MD1296	6	23	15000	36000	1296		

Gearbox Specifications:

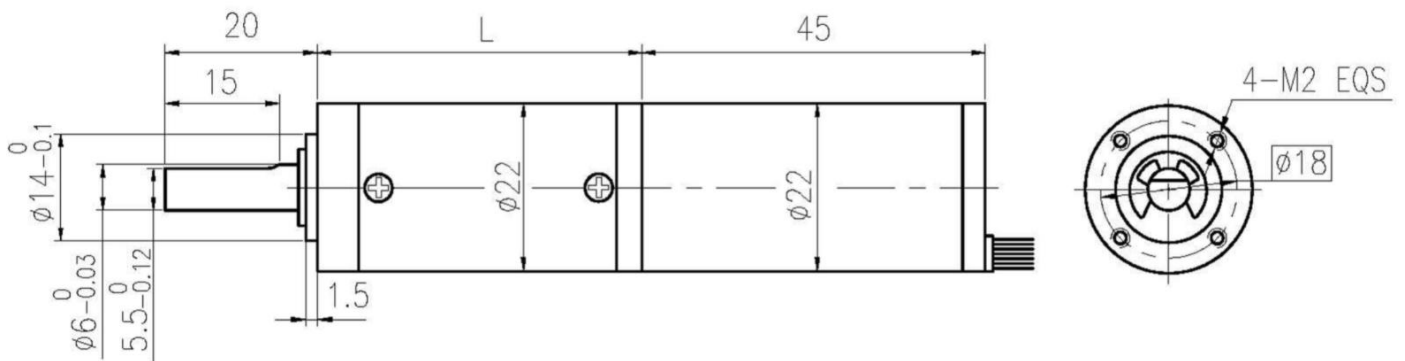
Outer diameter	22mm	
Material	Metal	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 2^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.1\text{mm}$	$\leq 0.1\text{mm}$
Radial loading on output shaft	$\leq 120\text{N}$	$\leq 170\text{N}$
Operating temperature range	-30 ~ +100°C	

Gearbox stages	1	2	3	4
Transmission ratio	4/6	16/24/36	64/96/144/216	256/384/576/864/1296
Max rated torque of gear box	15000	15000	15000	15000
Instant torque of gear box	36000	36000	36000	36000
Gearbox efficiency	90	85	80	75
Length	19.1	26.4	33.7	41

022022-MD-FL Planetary Gearbox Motor



Dimensions:



BLDC Motor Specifications:

Type	Poles	Rated Voltage	No load speed	Rated Speed	Rated Torque	Rated Power	Peak Torque	Peak Current
M024BI0008-22-45	8	24VDC	7000 rpm	4600 rpm	8 mNm	4 W	24 mNm	0.8 A
M024BI0020-22-45			6000 rpm	3800 rpm	20 mNm	8 W	60 mNm	1.7 A

022022-MD-FL Planetary Gearbox Motor

M024BI0008-22-45 with Gearbox Specifications:

Reduction ratio		3.7	5.2	14	19	27	51	71	100	139	189	264	369
Number of gear trains		1	1	2	2	2	3	3	3	3	4	4	4
Length(L)	mm	24.4	24.4	31	31	31	37.4	37.4	37.4	37.4	43.8	43.8	43.8
No-load speed	r/min	1887	1351	500	368	259	137	99	70	50	37	27	19
Rated speed	r/min	1240	888	329	242	170	90	65	46	33	24	17	12
Rated torque	N.m	0.027	0.037	0.091	0.12	0.17	0.3	0.41	0.58	0.8	1	1	1
Max. permissible load in a short time	N.m	0.3	0.3	1.2	1.2	1.2	2.5	2.5	2.5	2.5	3	3	3

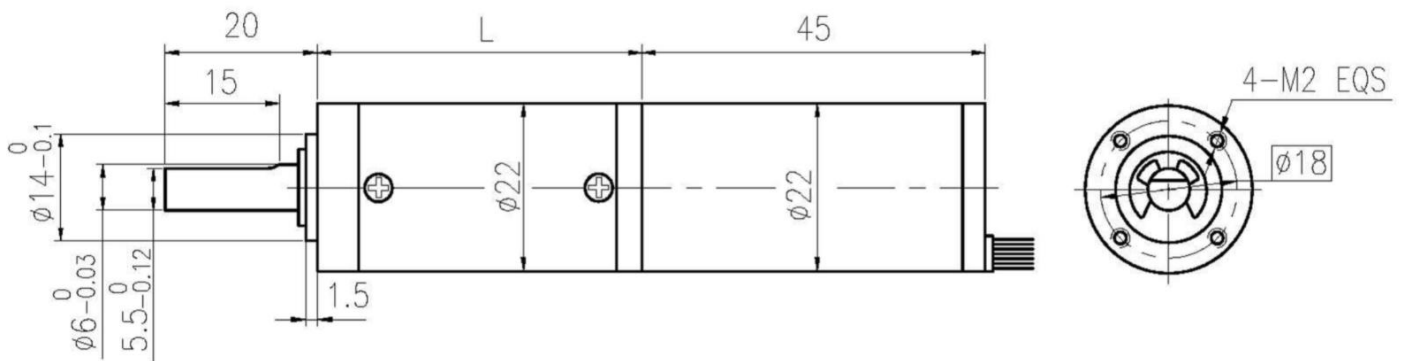
M024BI0020-22-45 with Gearbox Specifications:

Reduction ratio		3.7	5.2	14	19	27	51	71	100	139
Number of gear trains		1	1	2	2	2	3	3	3	3
Length(L)	mm	24.4	24.4	33	33	33	41.5	41.5	41.5	41.5
No-load speed	r/min	1617	1158	429	316	222	118	85	60	43
Rated speed	r/min	1027	730	271	200	140	74	53	38	27
Rated torque	N.m	0.067	0.093	0.23	0.31	0.44	0.74	1	1	1
Max. permissible load in a short time	N.m	0.3	0.3	1.2	1.2	1.2	3	3	3	3

022022-MD-FL Planetary Gearbox Motor



Dimensions:



BLDC Motor Specifications:

Type	Poles	Rated Voltage	No load speed	Rated Speed	Rated Torque	Rated Power	Peak Torque	Peak Current
M024BI0008-22-45	8	24VDC	7000 rpm	4600 rpm	8 mNm	4 W	24 mNm	0.8 A
M024BI0020-22-45			6000 rpm	3800 rpm	20 mNm	8 W	60 mNm	1.7 A

022022-MD-FL Planetary Gearbox Motor

M024BI0008-22-45 with Gearbox Specifications:

Reduction ratio		3.7	5.2	14	19	27	51	71	100	139	189	264	369
Number of gear trains		1	1	2	2	2	3	3	3	3	4	4	4
Length(L)	mm	24.4	24.4	31	31	31	37.4	37.4	37.4	37.4	43.8	43.8	43.8
No-load speed	r/min	1887	1351	500	368	259	137	99	70	50	37	27	19
Rated speed	r/min	1240	888	329	242	170	90	65	46	33	24	17	12
Rated torque	N.m	0.027	0.037	0.091	0.12	0.17	0.3	0.41	0.58	0.8	1	1	1
Max. permissible load in a short time	N.m	0.3	0.3	1.2	1.2	1.2	2.5	2.5	2.5	2.5	3	3	3

M024BI0020-22-45 with Gearbox Specifications:

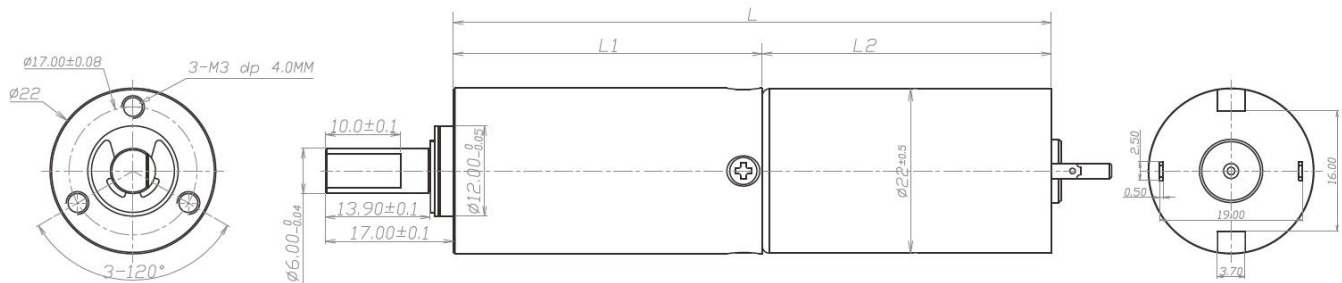
Reduction ratio		3.7	5.2	14	19	27	51	71	100	139
Number of gear trains		1	1	2	2	2	3	3	3	3
Length(L)	mm	24.4	24.4	33	33	33	41.5	41.5	41.5	41.5
No-load speed	r/min	1617	1158	429	316	222	118	85	60	43
Rated speed	r/min	1027	730	271	200	140	74	53	38	27
Rated torque	N.m	0.067	0.093	0.23	0.31	0.44	0.74	1	1	1
Max. permissible load in a short time	N.m	0.3	0.3	1.2	1.2	1.2	3	3	3	3

022022-PD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	Coreless motor,DC brushless motor,Stepper motor
Voltage(Optional)	3 - 24V
Input speed	≤ 15000rpm
Current	300MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M022022-PD4	1875	7500	8000	20000	4	19.1	57.5
M022022-PD6	1250	5000	8000	20000	6		
M022022-PD16	469	1875	8000	20000	16	26.4	64.8
M022022-PD24	313	1250	8000	20000	24		
M022022-PD36	208	833	8000	20000	36		

022022-PD Planetary Gearbox Motor

M022022-PD64	117	469	8000	20000	64	33.7	72.1
M022022-PD96	78	313	8000	20000	96		
M022022-PD144	52	208	8000	20000	144	33.7	72.1
M022022-PD216	35	139	8000	20000	216		
M022022-PD256	29	117	8000	20000	256	41	79.4
M022022-PD384	20	78	8000	20000	384		
M022022-PD576	13	52	8000	20000	576		
M022022-PD864	9	35	8000	20000	864		
M022022-PD1296	6	23	8000	20000	1296		

Gearbox Specifications:

Outer diameter	22mm	
Material	Plastic	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 3^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.1\text{mm}$	$\leq 0.1\text{mm}$
Radial loading on output shaft	$\leq 50\text{N}$	$\leq 100\text{N}$
Operating temperature range	$-20 \sim +85^\circ\text{C}$	

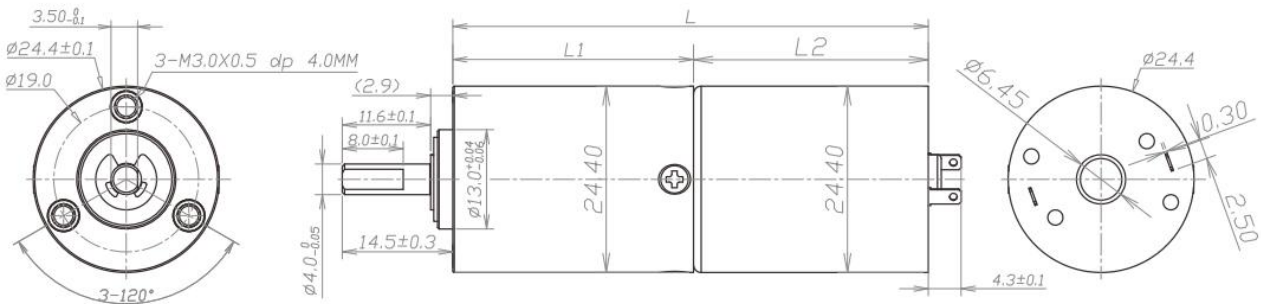
Gearbox stages	1	2	3	4
Transmission ratio	4/6	16/24/36	64/96/144/216	2563/84/576/864/1296
Max rated torque of gear box	8000	8000	8000	8000
Instant torque of gear box	20000	20000	20000	20000
Gearbox efficiency	85	73	65	58
Length	19.1	26.4	33.7	41

024024-MD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	Coreless motor,DC brushless motor,Stepper motor
Voltage(Optional)	3 - 24V
Input speed	≤ 15000rpm
Current	300MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M024024-MD4	1875	7500	20000	60000	4	19.1	49.9
M024024-MD6	1250	5000	20000	60000	6		
M024024-MD16	469	1875	20000	60000	16	25.0	55.8
M024024-MD24	313	1250	20000	60000	24		

024024-MD Planetary Gearbox Motor

M024024-MD36	208	833	20000	60000	36	32.0	62.8
M024024-MD64	117	469	20000	60000	64		
M024024-MD96	78	313	20000	60000	96		
M024024-MD144	52	208	20000	60000	144		
M024024-MD216	35	139	20000	60000	216	39.0	69.8
M024024-MD256	29	117	20000	60000	256		
M024024-MD384	20	78	20000	60000	384		
M024024-MD576	13	52	20000	60000	576		
M024024-MD864	9	35	20000	60000	864		
M024024-MD1296	6	23	20000	60000	1296		

Gearbox Specifications:

Outer diameter	24mm	
Material	Metal	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 2^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.1\text{mm}$	$\leq 0.1\text{mm}$
Radial loading on output shaft	$\leq 120\text{N}$	$\leq 170\text{N}$
Operating temperature range	-30 ~ +100°C	

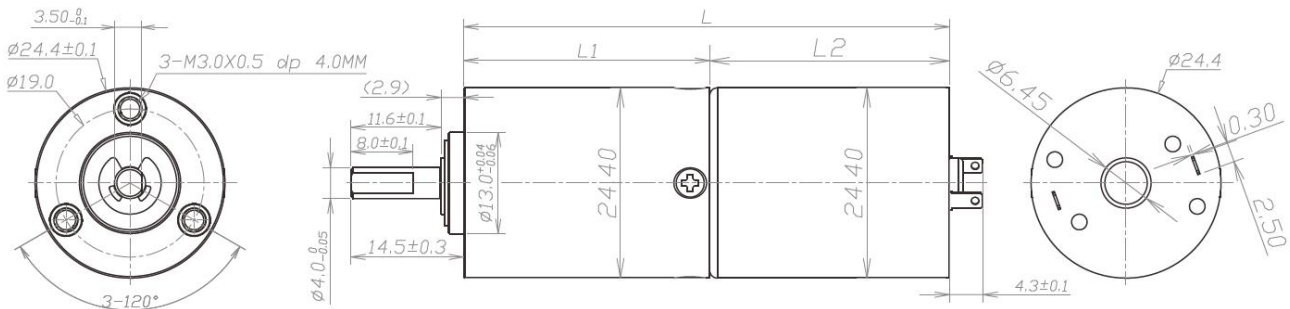
Gearbox stages	1	2	3	4
Transmission ratio	4/6	16/24/36	64/96/144/216	256/384/576/864/1296
Max rated torque of gear box	20000	20000	20000	20000
Instant torque of gear box	60000	60000	60000	60000
Gearbox efficiency	90	85	80	75
Length	19.1	25	32	39

024024-PD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	Coreless motor,DC brushless motor,Stepper motor
Voltage(Optional)	3 - 24V
Input speed	≤ 15000 rpm
Current	300MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M024024-PD4	1875	7500	15000	45000	4	18.8	49.6
M024024-PD6	1250	5000	15000	45000	6		
M024024-PD16	469	1875	15000	45000	16	24.7	55.5
M024024-PD24	313	1250	15000	45000	24		

024024-PD Planetary Gearbox Motor

M024024-PD36	208	833	15000	45000	36	31.7	62.5
M024024-PD64	117	469	15000	45000	64		
M024024-PD96	78	313	15000	45000	96		
M024024-PD144	52	208	15000	45000	144		
M024024-PD216	35	139	15000	45000	216		
M024024-PD256	29	117	15000	45000	256	38.7	69.5
M024024-PD384	20	78	15000	45000	384		
M024024-PD576	13	52	15000	45000	576		
M024024-PD864	9	35	15000	45000	864		
M024024-PD1296	6	23	15000	45000	1296		

Gearbox Specifications:

Outer diameter	24mm	
Material	Plastic	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 3^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.1\text{mm}$	$\leq 0.1\text{mm}$
Radial loading on output shaft	$\leq 50\text{N}$	$\leq 100\text{N}$
Operating temperature range	$-20 \sim +85^\circ\text{C}$	

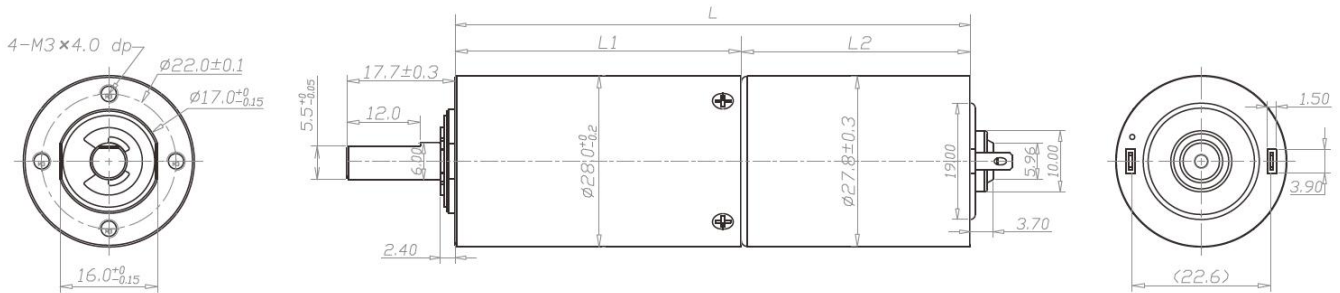
Gearbox stages	1	2	3	4
Transmission ratio	4/6	16/24/36	64/96/144/216	256/384/576/864/1296
Max rated torque of gear box	15000	15000	15000	15000
Instant torque of gear box	45000	45000	45000	45000
Gearbox efficiency	85	73	65	58
Length	18.8	24.7	31.7	38.7

028028-MD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	DC brush motor, Stepper motor, Brushless motor
Voltage(Optional)	3 - 24V
Input speed	≤ 15000rpm
Current	300MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M028028-MD4	1875	7500	40000	120000	4	21.3	58.8
M028028-MD6	1250	5000	40000	120000	6		
M028028-MD16	469	1875	40000	120000	16	29.8	67.3
M028028-MD24	313	1250	40000	120000	24		
M028028-MD36	208	833	40000	120000	36		

028028-MD Planetary Gearbox Motor

M028028-MD64	117	469	40000	120000	64	38.3	75.8
M028028-MD96	78	313	40000	120000	96		
M028028-MD144	52	208	40000	120000	144	38.3	75.8
M028028-MD216	35	139	40000	120000	216		
M028028-MD256	29	117	40000	120000	256	46.8	84.3
M028028-MD384	20	78	40000	120000	384		
M028028-MD576	13	52	40000	120000	576		
M028028-MD864	9	35	40000	120000	864		
M028028-MD1296	6	23	40000	120000	1296		

Gearbox Specifications:

Outer diameter	28mm	
Material	Metal	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 2^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.1\text{mm}$	$\leq 0.1\text{mm}$
Radial loading on output shaft	$\leq 120\text{N}$	$\leq 170\text{N}$
Operating temperature range	$-30 \sim +100^\circ\text{C}$	

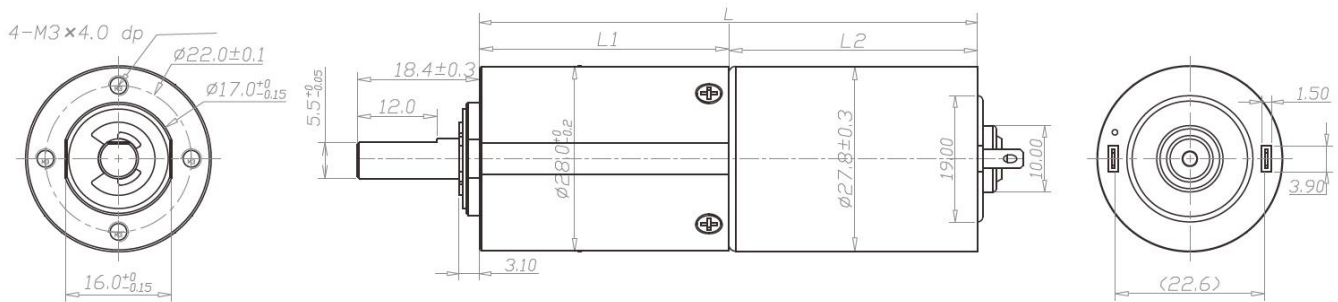
Gearbox stages	1	2	3	4
Transmission ratio	4/6	16/24/36	64/96/144/216	256/384/576/864/1296
Max rated torque of gear box	40000	40000	40000	40000
Instant torque of gear box	120000	120000	120000	120000
Gearbox efficiency	90	85	80	75
Length	21.3	29.8	38.3	46.8

028028-PD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	DC brush motor, Stepper motor, Brushless motor
Voltage(Optional)	3 - 24V
Input speed	≤ 15000 rpm
Current	300MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M028028-PD4	1875	7500	15000	60000	4	20.6	58.1
M028028-PD6	1250	5000	15000	60000	6		
M028028-PD16	469	1875	15000	60000	16	29.1	66.6
M028028-PD24	313	1250	15000	60000	24		

028028-PD Planetary Gearbox Motor

M028028-PD36	208	833	15000	60000	36	37.6	75.1
M028028-PD64	117	469	15000	60000	64		
M028028-PD96	78	313	15000	60000	96		
M028028-PD144	52	208	15000	60000	144		
M028028-PD216	35	139	15000	60000	216		
M028028-PD256	29	117	15000	60000	256	46.1	83.6
M028028-PD384	20	78	15000	60000	384		
M028028-PD576	13	52	15000	60000	576		
M028028-PD864	9	35	15000	60000	864		
M028028-PD1296	6	23	15000	60000	1296		

Gearbox Specifications:

Outer diameter	28mm	
Material	Plastic	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 3^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.1\text{mm}$	$\leq 0.1\text{mm}$
Radial loading on output shaft	$\leq 50\text{N}$	$\leq 100\text{N}$
Operating temperature range	$-20 \sim +85^\circ\text{C}$	

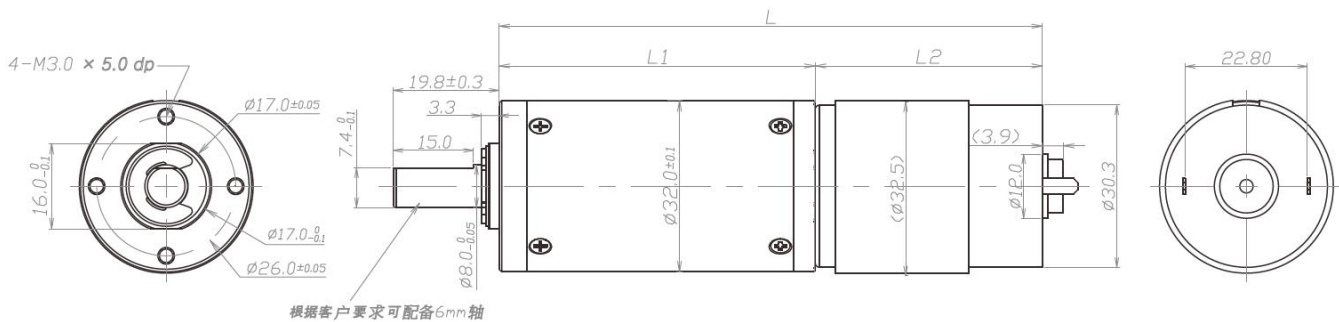
Gearbox stages	1	2	3	4
Transmission ratio	4/6	16/24/36	64/96/144/216	256/384/576/864/1296
Max rated torque of gear box	15000	15000	15000	15000
Instant torque of gear box	60000	60000	60000	60000
Gearbox efficiency	85	73	65	58
Length	20.6	29.1	37.6	46.1

032032-MD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	DC brush motor, Stepper motor, Brushless motor
Voltage(Optional)	3 - 24V
Input speed	≤ 15000rpm
Current	300MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M032032-MD4	1875	7500	50000	150000	4	29.1	71.6
M032032-MD6	1250	5000	50000	150000	6		
M032032-MD16	469	1875	50000	150000	16	39.1	81.6
M032032-MD24	313	1250	50000	150000	24		

032032-MD Planetary Gearbox Motor

M032032-MD33	227	909	50000	150000	33	49.1	91.6
M032032-MD67	112	448	50000	150000	67		
M032032-MD94	80	319	50000	150000	94		
M032032-MD133	56	226	50000	150000	133		
M032032-MD188	40	160	50000	150000	188	59.1	101.6
M032032-MD272	28	110	50000	150000	272		
M032032-MD383	20	78	50000	150000	383		
M032032-MD540	14	56	50000	150000	540		
M032032-MD763	10	39	50000	150000	763		
M032032-MD1076	7	28	50000	150000	1076		

Gearbox Specifications:

Outer diameter	32mm	
Material	Metal	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 2^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.1\text{mm}$	$\leq 0.1\text{mm}$
Radial loading on output shaft	$\leq 120\text{N}$	$\leq 180\text{N}$
Operating temperature range	-30 ~ +100°C	

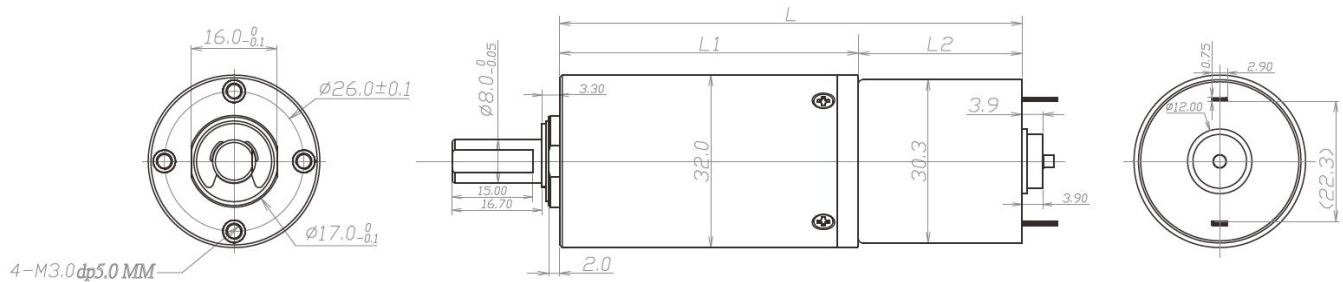
Gearbox stages	1	2	3	4
Transmission ratio	4/6	16/24/33	67/94/133/188	272/383/540/763/1076
Max rated torque of gear box	50000	50000	50000	50000
Instant torque of gear box	150000	150000	150000	150000
Gearbox efficiency	90	85	80	75
Length	29.1	39.1	49.1	59.1

032032-PD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	DC brush motor, Stepper motor, Brushless motor
Voltage(Optional)	3 - 24V
Input speed	≤ 15000rpm
Current	300MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M032032-PD4	1875	7500	30000	80000	4	25.7	68.2
M032032-PD6	1250	5000	30000	80000	6		
M032032-PD16	469	1875	30000	80000	16	35.7	78.2
M032032-PD24	313	1250	30000	80000	24		

032032-PD Planetary Gearbox Motor

M032032-PD33	227	909	30000	80000	33		
M032032-PD67	112	448	30000	80000	67	45.7	88.2
M032032-PD94	80	319	30000	80000	94		
M032032-PD133	56	226	30000	80000	133	45.7	88.2
M032032-PD188	40	160	30000	80000	188		
M032032-PD272	28	110	30000	80000	272	55.7	98.2
M032032-PD383	20	78	30000	80000	383		
M032032-PD540	14	56	30000	80000	540		
M032032-PD763	10	39	30000	80000	763		
M032032-PD1076	7	28	30000	80000	1076		

Gearbox Specifications:

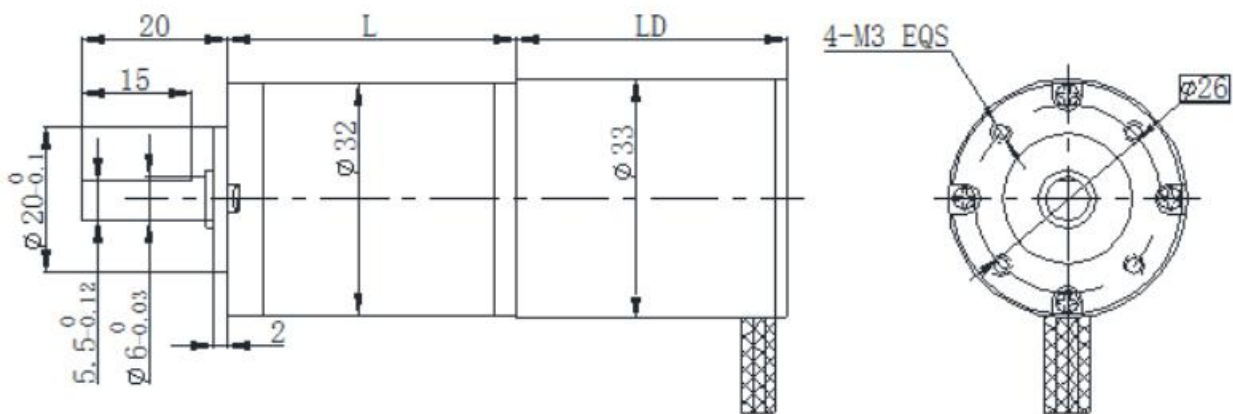
Outer diameter	32mm	
Material	Plastic	
Direction of rotation	CW&CCW	
Gear backlash	$\leq 3^\circ$	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	$\leq 0.1\text{mm}$	$\leq 0.1\text{mm}$
Radial loading on output shaft	$\leq 50\text{N}$	$\leq 100\text{N}$
Operating temperature range	$-20 \sim +85^\circ\text{C}$	

Gearbox stages	1	2	3	4
Transmission ratio	4/6	16/24/33	67/94/133/188	272/383/540/763/1076
Max rated torque of gear box	30000	30000	30000	30000
Instant torque of gear box	80000	80000	80000	80000
Gearbox efficiency	85	73	65	58
Length	25.7	35.7	45.7	55.7

033032-MD Planetary Gearbox Motor



Dimensions:



BLDC Motor Specifications:

Type	Poles	Rated Voltage	No load speed	Rated Speed	Rated Torque	Rated Power	Peak Torque	Peak Current	Length LD
M024BI0022-33-38	4	24VDC	4500 rpm	3000 rpm	22 mNm	7 W	66 mNm	0.64 A	38 mm
M024BI0050-33-80			9000 rpm	7800 rpm	50 mNm	40 W	350 mNm	11 A	80 mm

033032-MD Planetary Gearbox Motor

M024BI0022-33-38 with Gearbox Specifications:

Reduction ratio		3.7	5.2	14	19	27	35	51	71	100	139
Number of gear trains		1	1	2	2	2	2	3	3	3	3
Length(L)	mm	25.7	25.7	32.8	32.8	32.8	32.8	39.7	39.7	39.7	39.7
No-load speed	r/min	2425	1737	643	474	333	257	176	127	90	65
Rated speed	r/min	2102	1506	557	411	289	223	153	110	78	56
Rated torque	N.m	0.17	0.23	0.57	0.77	1.1	1.4	1.9	2.5	3	3
Max. permissible load in a short time	N.m	1	1	3.5	3.5	3.5	3.5	7.5	7.5	7.5	7.5

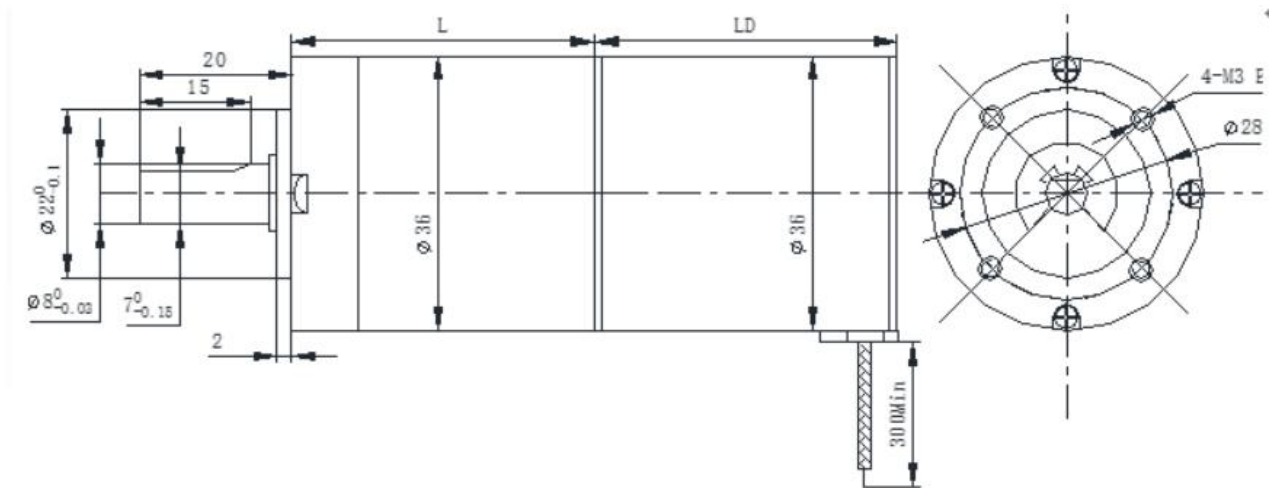
M024BI0050-33-80 with Gearbox Specifications:

Reduction ratio		3.7	5.2	14	19	27	35	51	71	100	139
Number of gear trains		1	1	2	2	2	2	3	3	3	3
Length(L)	mm	25.7	25.7	32.8	32.8	32.8	32.8	39.7	39.7	39.7	39.7
No-load speed	r/min	2425	1737	643	474	333	257	176	127	90	65
Rated speed	r/min	2102	1506	557	411	289	223	153	110	78	56
Rated torque	N.m	0.17	0.23	0.57	0.77	1.1	1.4	1.9	2.5	3	3
Max. permissible load in a short time	N.m	1	1	3.5	3.5	3.5	3.5	7.5	7.5	7.5	7.5

036036-MD Planetary Gearbox Motor



Dimensions:



BLDC Motor Specifications:

Type	Poles	Rated Voltage	No load speed	Rated Speed	Rated Torque	Rated Power	Peak Torque	Peak Current	Length LD
M024BI0036-36-40	4	24VDC	7000 rpm	4800 rpm	36 mNm	18 W	108 mNm	3.7 A	40 mm
M024BI0050-36-57			5800 rpm	4500 rpm	50 mNm	24 W	150 mNm	4.1 A	57 mm

036036-MD Planetary Gearbox Motor



M024BI0036-36-40 with Gearbox Specifications:

Reduction ratio		3.7	5.2	14	19	27	35	51	71	96	115	139	181	219
Number of gear trains		1	1	2	2	2	2	3	3	3	3	3	4	4
Length(L)	mm	31	31	40.1	40.1	40.1	40.1	49	49	49	49	49	57.9	57.9
No-load speed	r/min	1887	1351	500	368	259	200	137	99	73	61	50	39	32
Rated speed	r/min	1294	927	343	253	178	137	94	68	50	42	35	27	22
Rated torque	N.m	0.12	0.17	0.41	0.55	0.79	1	1.3	1.9	2.5	3	3	3	3
Max. permissible load in a short time	N.m	1	1	3.5	3.5	3.5	3.5	7.5	7.5	7.5	7.5	7.5	9	9

M024BI0050-36-57 with Gearbox Specifications:

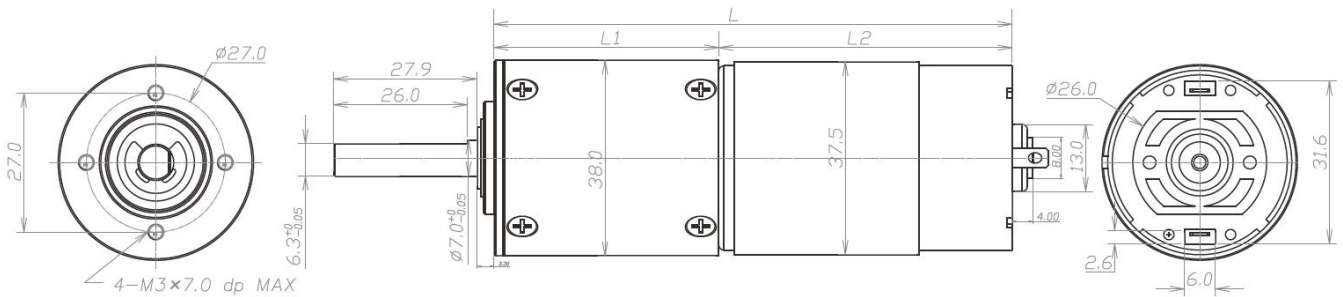
Reduction ratio		3.7	5.2	14	19	27	35	51	71	96	115	139	181	219
Number of gear trains		1	1	2	2	2	2	3	3	3	3	3	4	4
Length(L)	mm	31	31	40.1	40.1	40.1	40.1	49	49	49	49	49	57.9	57.9
No-load speed	r/min	1563	1120	414	305	215	166	114	82	60	50	42	32	27
Rated speed	r/min	1213	869	321	237	167	129	88	63	47	39	32	25	21
Rated torque	N.m	0.17	0.23	0.57	0.77	1.1	1.4	1.9	2.6	3	3	3	3	3
Max. permissible load in a short time	N.m	1	1	3.5	3.5	3.5	3.5	7.5	7.5	7.5	7.5	7.5	9	9

038038-MD Planetary Gearbox Motor



Application example:
 Home Application Industry
 Automotive Industry
 Health&Fitness Industry
 Other institution

Dimensions:



Motor Specifications:

Motors(Optional)	DC brush motor, Stepper motor, Brushless motor
Voltage(Optional)	3 - 24V
Input speed	≤ 15000 rpm
Current	300MA max

Model	Rated Speed	Max Speed	Max Rated Torque	Max Instant Torque	Gear Ratio	Length L1	Overall Length L
	rpm	rpm	gf.cm	gf.cm		mm	mm
M038038-MD4	1875	7500	80000	240000	4	30.7	87.7
M038038-MD6.25	1200	4800	80000	240000	6.25		
M038038-MD16	469	1875	80000	240000	16	43.7	100.7
M038038-MD25	300	1200	80000	240000	25		

038038-MD Planetary Gearbox Motor

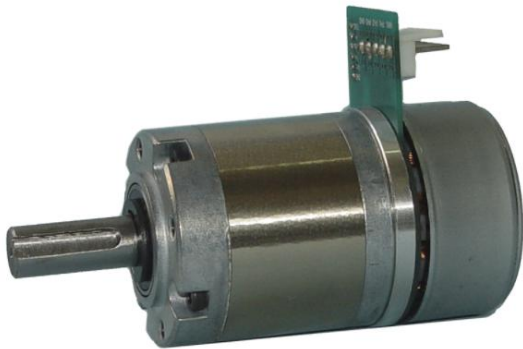
M038038-MD39	192	769	80000	240000	39		
M038038-MD64	117	469	80000	240000	64	56.7	113.7
M038038-MD100	75	300	80000	240000	100		
M038038-MD156	48	192	80000	240000	156	56.7	113.7
M038038-MD244	31	123	80000	240000	244		
M038038-MD256	29	117	80000	240000	256	69.7	126.7
M038038-MD400	19	75	80000	240000	400		
M038038-MD625	12	48	80000	240000	625		
M038038-MD977	8	31	80000	240000	977		
M038038-MD1526	5	20	80000	240000	1526		

Gearbox Specifications:

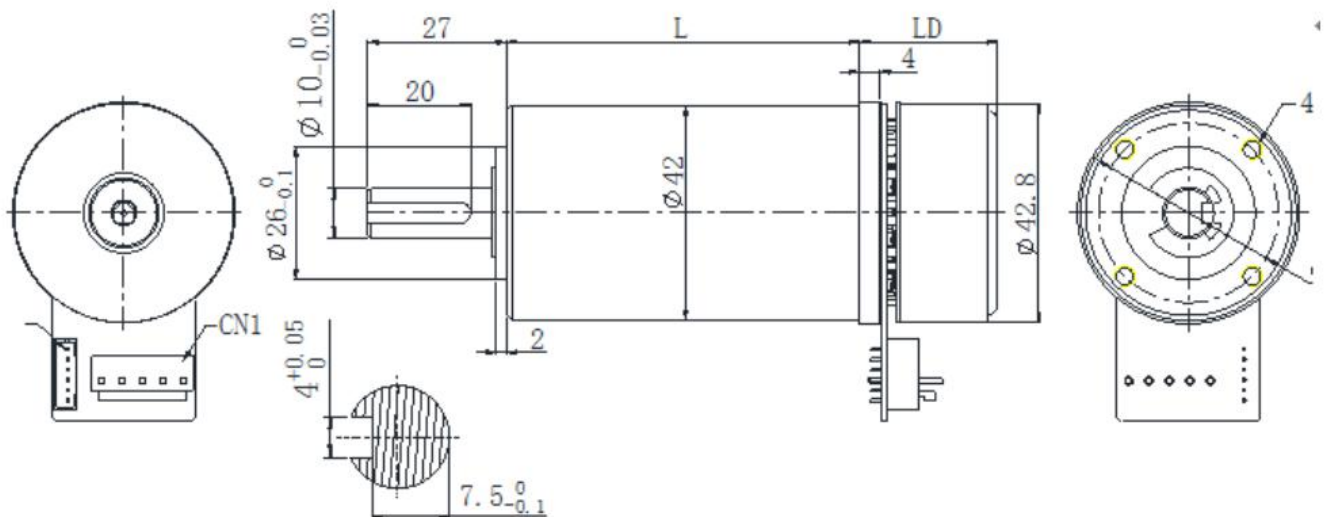
Outer diameter	38mm	
Material	Metal	
Direction of rotation	CW&CCW	
Gear backlash	≤2°	
Bearing	Porous Bearing	Rolling bearing
Axial endplay	≤0.1mm	≤0.1mm
Radial loading on output shaft	≤200N	≤300N
Operating temperature range	-20 ~ +100°C	

Gearbox stages	1	2	3	4
Transmission ratio	4/6	16/25/39	64/100/156/244	256/400/625/977/1526
Max rated torque of gear box	80000	80000	80000	80000
Instant torque of gear box	240000	240000	240000	240000
Gearbox efficiency	90	85	80	75
Length	30.7	43.7	56.7	69.7

042042-MD Planetary Gearbox Motor



Dimensions:



BLDC Motor Specifications:

Type	Poles	Rated Voltage	No load speed	Rated Speed	Rated Torque	Rated Power	Peak Torque	Peak Current
M024BI0050-42-18	16	24VDC	6500 rpm	5000 rpm	0.05 Nm	30 W	0.15 Nm	4.8 A
M024BI0084-42-21			6700 rpm	5260 rpm	0.084 Nm	50 W	0.25 Nm	7.1 A
M024BI0130-42-27			6100 rpm	4840 rpm	0.13 Nm	70 W	0.39 Nm	10 A

042042-MD Planetary Gearbox Motor

M024BI0050-42-18 with Gearbox Specifications:

Reduction ratio		3.71	5.18	14	19	27	49	59	68	82	95	115	181	218	253	305	354	426
Number of gear trains		1	1	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4
Length(L)	mm	31.5	31.5	42.1	42.1	52.5	52.5	52.5	52.5	52.5	52.5	52.5	62.9	62.9	62.9	62.9	62.9	62.9
No-load speed	r/min	1752	1255	464	342	241	133	110	96	79	68	57	36	30	26	21	18	15
Rated speed	r/min	1348	965	357	263	185	102	85	74	61	53	43	28	23	20	16	14	12
Rated torque	N.m	0.17	0.23	0.57	0.77	1.1	1.8	2.2	2.5	3.0	3.5	4.2	5.9	7.1	8.2	9.9	12	14
Max. permissible load in a short time	N.m	4.5	4.5	18	18	30	30	30	30	30	30	30	38	38	38	38	38	38

M024BI0084-42-21 with Gearbox Specifications:

Reduction ratio		3.71	5.18	14	19	27	49	59	68	82	95	115	181	218	253	305	354
Number of gear trains		1	1	2	2	3	3	3	3	3	3	3	4	4	4	4	4
Length(L)	mm	31.5	31.5	42.1	42.1	52.5	52.5	52.5	52.5	52.5	52.5	52.5	62.9	62.9	62.9	62.9	62.9
No-load speed	r/min	1806	1293	479	353	248	137	114	99	82	71	58	37	31	26	22	19
Rated speed	r/min	1418	1015	376	277	195	107	89	77	64	55	46	29	24	21	17	15
Rated torque	N.m	0.28	0.39	0.95	1.3	1.8	3.0	3.6	4.2	5.0	5.8	7.1	9.9	12	14	15	15
Max. permissible load in a short time	N.m	4.5	4.5	18	18	30	30	30	30	30	30	30	38	38	38	38	38

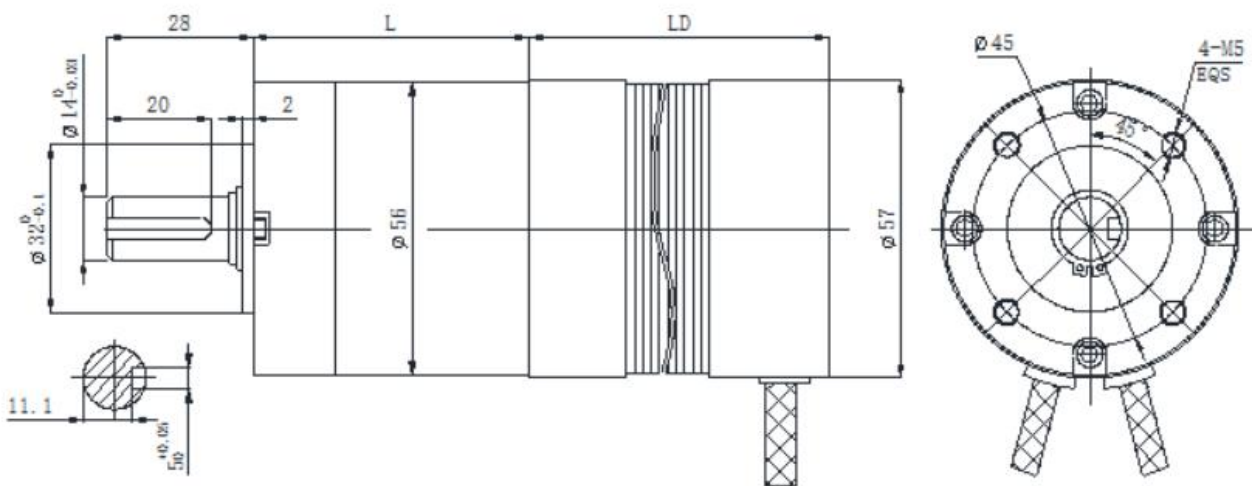
M024BI0130-42-27 with Gearbox Specifications:

Reduction ratio		3.71	5.18	14	19	27	49	59	68	82	95	115	181	218
Number of gear trains		1	1	2	2	3	3	3	3	3	3	3	4	4
Length(L)	mm	31.5	31.5	42.1	42.1	52.5	52.5	52.5	52.5	52.5	52.5	52.5	62.9	62.9
No-load speed	r/min	1644	1178	436	321	226	124	103	90	74	64	53	34	28
Rated speed	r/min	1305	934	346	255	179	99	82	71	59	51	42	27	22
Rated torque	N.m	0.43	0.61	1.5	2.0	2.8	4.7	5.6	6.5	7.8	9.0	11	15	15
Max. permissible load in a short time	N.m	4.5	4.5	18	18	30	30	30	30	30	30	30	38	38

057056-MD Planetary Gearbox Motor



Dimensions:



BLDC Motor Specifications:

Type	Poles	Rated Voltage	No load speed	Rated Speed	Rated Torque	Rated Power	Peak Torque	Peak Current	Length LD
M036BI0400-57-73	6	36VDC	5000 rpm	4000 rpm	0.4 Nm	166 W	1.2 Nm	27 A	73 mm
M036BI0600-57-93			5000 rpm	4000 rpm	0.6 Nm	249 W	1.8 Nm	42 A	93 mm
M036BI0800-57-113			5000 rpm	4000 rpm	0.8 Nm	332 W	2.4 Nm	53 A	113 mm
M036BI0330-57-93			5500 rpm	4000 rpm	0.33 Nm	138 W	1 Nm	16 A	93 mm
M036BI0440-57-113			5500 rpm	4000 rpm	0.44 Nm	184 W	1.32 Nm	21 A	113 mm
M036BI0110-57-53	4	36VDC	5000 rpm	4000 rpm	0.11 Nm	46 W	0.39 Nm	6.8 A	53 mm

057056-MD Planetary Gearbox Motor

M036BI0400-57-73 with Gearbox Specifications:

Reduction ratio	3.6	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154	187	220
Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4	4
Length(L) (mm)	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2	67.2	67.2	80.6	80.6	80.6
No-load speed (r/min)	1389	1176	938	385	333	278	217	179	116	96	82	69	52	41	32	27	23
Rated speed (r/min)	111	941	750	308	267	222	174	143	93	77	66	56	42	33	26	21	18
Rated torque (N.m)	1.3	1.5	1.9	4.2	4.9	5.8	7.5	9.1	13	15	18	21	28	35	40	45	45
Max. permissible load in a short time(N.m)	12	12	12	36	36	36	36	36	72	72	72	72	72	72	90	90	90

M036BI0800-57-93 with Gearbox Specifications:

Reduction ratio	3.6	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121
Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3
Length(L) (mm)	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2	67.2	67.2
No-load speed (r/min)	1389	1176	938	385	333	278	217	179	116	96	82	69	52	41
Rated speed (r/min)	111	941	750	308	267	222	174	143	93	77	66	56	42	33
Rated torque (N.m)	1.9	2.3	2.9	6.3	7.3	8.7	11	14	19	23	27	32	42	45
Max. permissible load in a short time(N.m)	12	12	12	36	36	36	36	36	72	72	72	72	72	72

057056-MD Planetary Gearbox Motor

M036BI0800-57-113 with Gearbox Specifications:

Reduction ratio	3.6	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121
Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3
Length(L) (mm)	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2	67.2	67.2
No-load speed (r/min)	1389	1176	938	385	333	278	217	179	116	96	82	69	52	41
Rated speed (r/min)	111	941	750	308	267	222	174	143	93	77	66	56	42	33
Rated torque (N.m)	2.6	3.1	3.8	8.4	9.7	12	15	18	25	30	36	42	45	45
Max. permissible load in a short time(N.m)	12	12	12	36	36	36	36	36	72	72	72	72	72	7

M036BI0330-57-93 with Gearbox Specifications:

Reduction ratio	3.6	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154	187	220
Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4	4
Length(L) (mm)	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2	67.2	67.2	80.6	80.6	80.6
No-load speed (r/min)	1528	1294	1032	423	367	306	239	196	128	106	90	76	57	45	36	29	25
Rated speed (r/min)	1111	941	750	308	267	222	174	143	93	77	66	56	42	33	26	21	18
Rated torque (N.m)	1.1	1.3	1.6	3.5	4	4.8	6.1	7.5	10	13	15	17	23	29	33	40	45
Max. permissible load in a short time(N.m)	12	12	12	36	36	36	36	36	72	72	72	72	72	72	90	90	90

057056-MD Planetary Gearbox Motor

M036BI0440-57-113 with Gearbox Specifications:

Reduction ratio	3.6	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154	187	220
Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4	4
Length(L) (mm)	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2	67.2	67.2	80.6	80.6	80.6
No-load speed (r/min)	1528	1294	1032	423	367	306	239	196	128	106	90	76	57	45	36	29	25
Rated speed (r/min)	1111	941	750	308	267	222	174	143	93	77	66	56	42	33	26	21	18
Rated torque (N.m)	1.4	1.7	2.1	4.6	5.3	6.4	8.2	10	14	17	20	23	31	39	44	45	45
Max. permissible load in a short time(N.m)	12	12	12	36	36	36	36	36	72	72	72	72	72	72	90	90	90

M036BI0110-57-53 with Gearbox Specifications:

Reduction ratio	3.6	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154	187	220
Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4	4
Length(L) (mm)	37.8	37.8	37.8	49.5	49.5	49.5	49.5	49.5	60.8	60.8	60.8	60.8	60.8	60.8	71.9	71.9	71.9
Rated speed (r/min)	111	941	750	308	267	222	174	143	93	77	66	56	42	33	26	21	18
Rated torque (N.m)	0.36	0.42	0.53	1.2	1.3	1.6	2	2.5	3.5	4.2	4.9	5.8	7.7	9.7	11	13	16

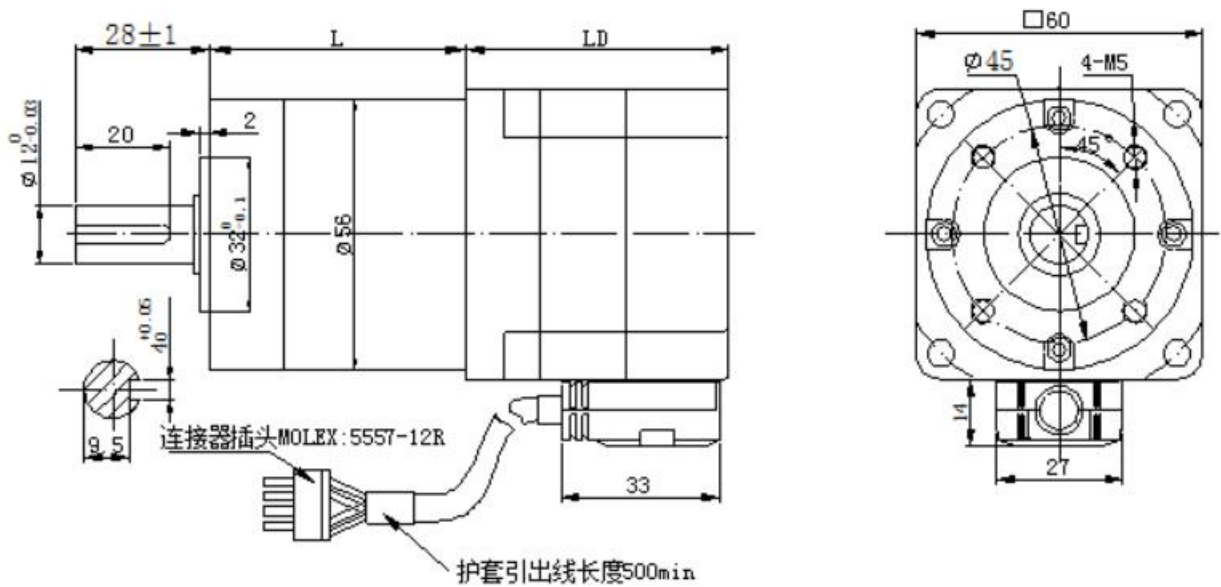
057056-MD Planetary Gearbox Motor

Max. permissible load in a short time(N.m)	9	9	9	36	36	36	36	36	72	72	72	72	72	72	90	90	90
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060056-MD Planetary Gearbox Motor



Dimensions:



BLDC Motor Specifications:

Type	Poles	Rated Voltage	No load speed	Rated Speed	Rated Torque	Rated Power	Peak Torque	Peak Current
M115BI0100-60-92	4	115 VAC	6200 rpm	5000 rpm	0.1 Nm	57 W	0.3 Nm	3 A

060056-MD Planetary Gearbox Motor

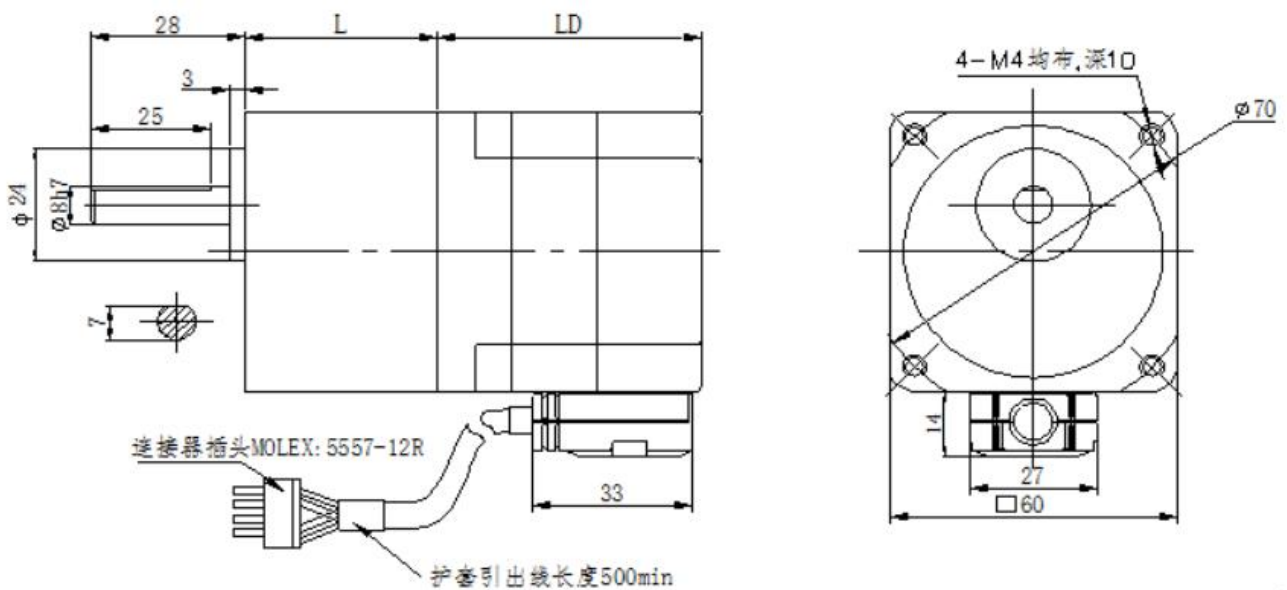
M115BI0100-60-92 with Gearbox Specifications:

Reduction ratio	3.6	4.25	5.33	13	18	28	43	61	96	121	154	187	220	260	307	409	514
Number of gear trains	1	1	1	2	2	2	3	3	3	3	4	4	4	4	4	4	4
Length(L) (mm)	37.8	37.8	37.8	49.5	49.5	49.5	60.8	60.8	60.8	60.8	71.9	71.9	71.9	71.9	71.9	71.9	71.9
No-load speed (r/min)	172 2	145 9	116 3	477	344	221	144	102	65	51	40	33	28	24	20	15	12
Rated speed (r/min)	138 9	117 6	968	385	278	179	116	82	52	41	32	27	23	19	16	12	10
Rated torque (N.m)	0.32	0.38	0.48	1.1	1.5	2.3	3.1	4.5	7	8.8	10	12	14	17	20	27	30
Max. permissible load in a short time (N.m)	9	9	9	36	36	36	72	72	72	72	90	90	90	90	90	90	90

060060-PD Planetary Gearbox Motor



Dimensions:



BLDC Motor Specifications:

Type	Poles	Rated Voltage	No load speed	Rated Speed	Rated Torque	Rated Power	Peak Torque	Peak Current
M115BI0100-60-55	4	115 VAC	7500 rpm	5000 rpm	0.1 Nm	57 W	0.3 Nm	3.0 A

060060-PD Planetary Gearbox Motor

M115BI0100-60-55 with Gearbox Specifications:

Reduction ratio	3	5	7.5	10	12.5	15	25	30	50	75	90
Number of gear trains	2	2	2	2	2	2	3	3	3	4	4
Length(L) (mm)	32	32	32	32	32	32	40	40	40	40	40
No-load speed (r/min)	2500	1500	1000	750	600	500	300	250	150	100	83
Rated speed (r/min)	1667	1000	667	500	400	333	200	167	100	67	56
Rated torque (N.m)	0.24	0.41	0.61	0.81	1.0	1.2	1.8	2.2	3.7	4.9	5
Max. permissible load in a short time(N.m)	2.5	2.5	2.5	2.5	2.5	2.5	5.0	5.0	5.0	10	10

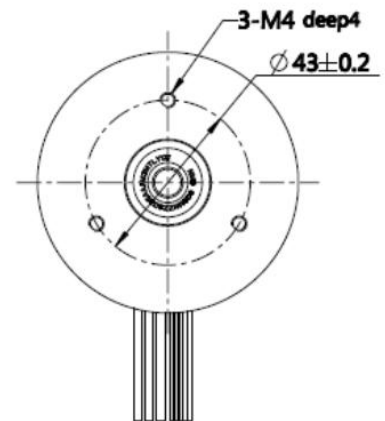
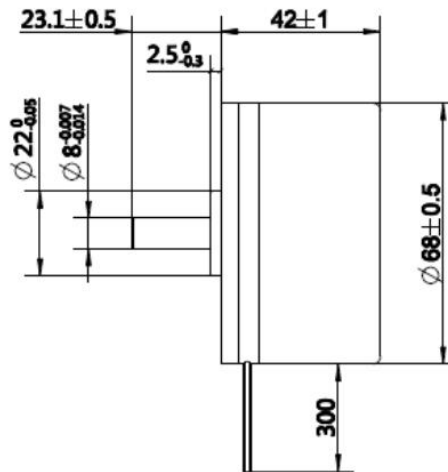
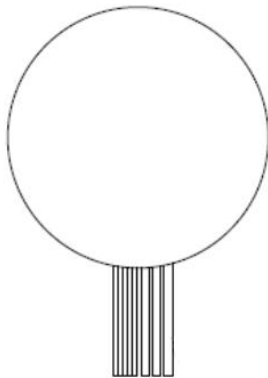
068042 Planetary Gearbox Motor

General Specifications



Item	Specifications
Winding Type	Star
Hall effect angle	120° Electrical angle
Insulation Class	B
Ambient Temperature	-20° C~+50° C
Insulation Resistance	100MΩ.500VC DC
Dielectric Strength	600VAC 1minute
Radial play	0.02mm@450g
Axial play	0.08mm@450g

Dimensions



068042 Planetary Gearbox Motor

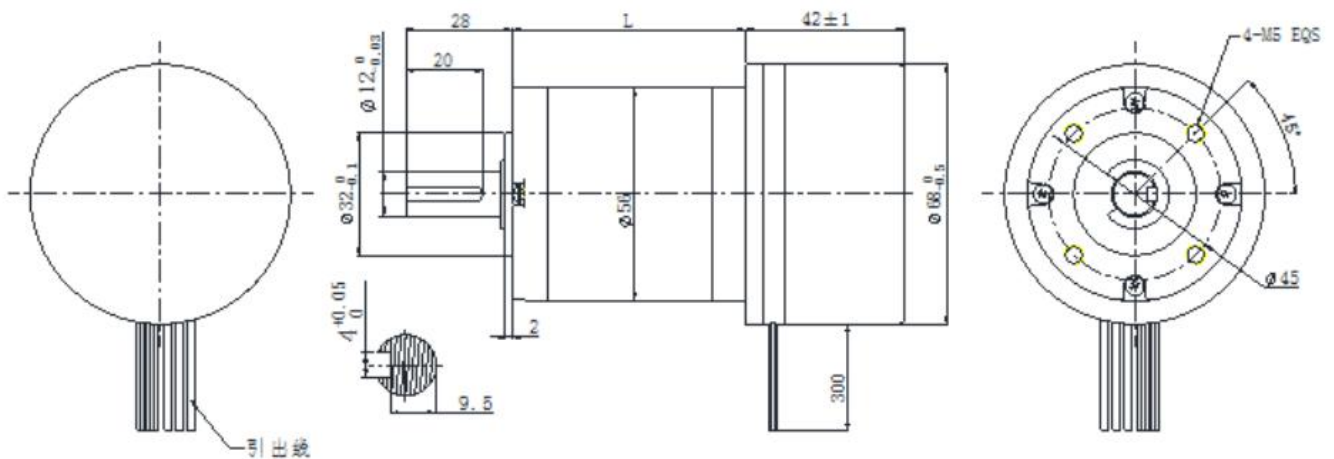
Technical Specifications

Item	M024BI0290-60-42PG
Number of Poles	14
Nominal Voltage (VDC)	24
Rated Torque (N·m)	0.29
Rated Power (W)	110
Peak Current (A)	17
Peak torque (N·m)	0.87
Inductance/Line(mH)	0.3
Resistance/Line(Ω)	0.25
Torque Constant (N·m/A)	0.054
Back EMF (V/KRPM)	4.0
Body Length-L (mm)	42
Weight (kg)	0.5

068056-MD Planetary Gearbox Motor



Dimensions:



BLDC Motor Specifications:

Type	Poles	Rated Voltage	No load speed	Rated Speed	Rated Torque	Rated Power	Peak Torque	Peak Current
M024BI0290-68-42	14	24VDC	4300 rpm	3700 rpm	0.29 Nm	112 W	0.87 Nm	18 A

068056-MD Planetary Gearbox Motor

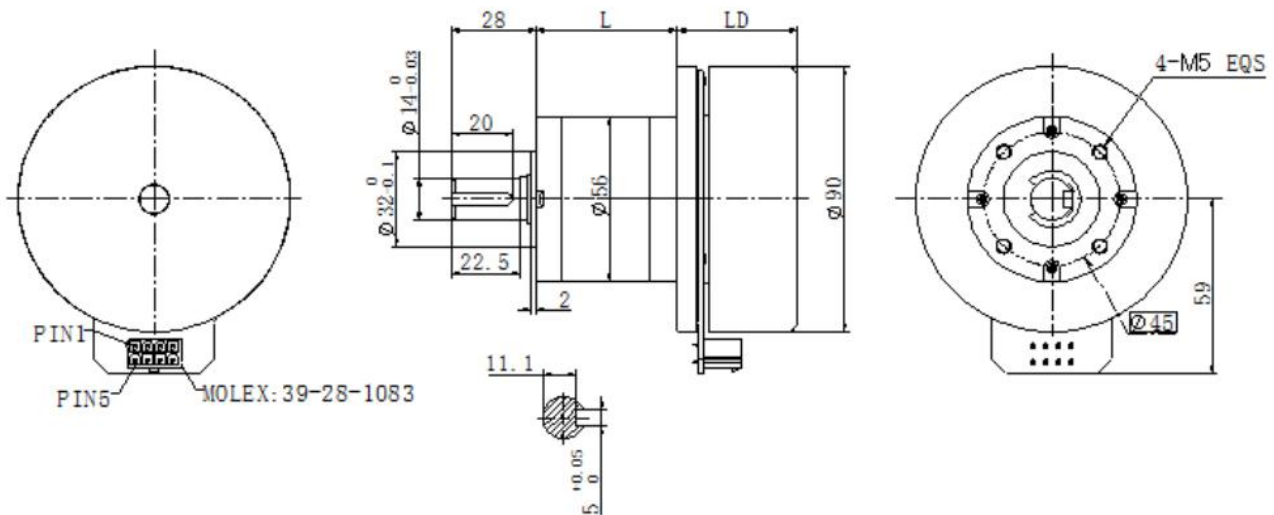
M024BI0290-68-42 with Gearbox Specifications:

Reduction ratio		3.60	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154	187
Number of gear trains		1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4
Length(L)	mm	37.8	37.8	37.8	49.5	49.5	49.5	49.5	49.5	60.8	60.8	60.8	60.8	60.8	60.8	71.9	71.9
No-load speed	r/min	1194	1012	807	331	287	239	187	154	100	83	70	60	45	36	28	23
Rated speed	r/min	1028	871	684	285	247	206	161	132	86	71	61	51	39	31	24	20
Rated torque	N.m	0.94	1.1	1.3	3.1	3.5	4.2	5.4	6.6	9.1	11	13	15	20	23	29	30

090056-MD Planetary Gearbox Motor



Dimensions:



BLDC Motor Specifications:

Type	Poles	Rated Voltage	No load speed	Rated Speed	Rated Torque	Rated Power	Peak Torque	Peak Current
M024BI0457-90-27	22	24VDC	3400 rpm	2700 rpm	0.457 Nm	130 W	1.6 Nm	23 A
M024BI0964-90-40	22	24VDC	1950 rpm	1670 rpm	0.964 Nm	169 W	3 Nm	13 A

090056-MD Planetary Gearbox Motor

M024BI0457-90-27 with Gearbox Specifications:

Reduction ratio		3.60	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154	187
Number of gear trains		1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4
Length(L)	mm	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2	67.2	67.2	80.6	80.6
Rated speed	r/min	750	635	507	208	180	150	117	96	63	52	44	38	28	22	18	14
Rated torque	N.m	1.5	1.8	2.0	4.8	5.6	6.7	8.5	10	14	17	20	24	32	36	45	45
Max. permissible load in a short time	N.m	12	12	12	36	36	36	36	36	72	72	72	72	72	72	90	90

M024BI0964-90-40 with Gearbox Specifications:

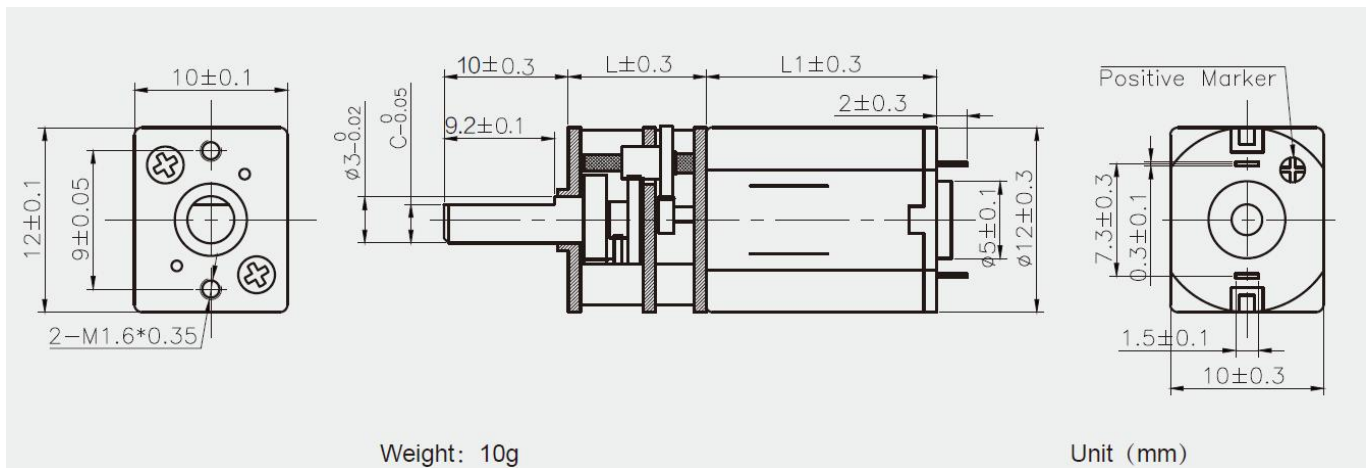
Reduction ratio		3.60	4.25	5.33	13	15	18	23	28	43	52	61	72	96
Number of gear trains		1	1	1	2	2	2	2	2	3	3	3	3	3
Length(L)	mm	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2	67.2
Rated speed	r/min	464	393	313	128	111	93	73	60	39	32	27	23	17
Rated torque	N.m	3.1	3.7	4.2	10	12	14	18	22	30	37	43	45	45
Max. permissible load in a short time	N.m	12	12	12	36	36	36	36	36	72	72	90	90	90

1215 Spur Gearbox Motor



Application example:
 Smart Locks: Door Lock, Fingerprint Lock, Express Cabinet Lock, Bike Lock
 Household Appliances: Hair Curler
 Financial Medical Equipment: 3Doodler, Projector
 Industrial Equipment: Air Switch
 Intelligent Robot: Mechanical Arm, UAV(Unmanned Aerial Vehicle), Service Robot

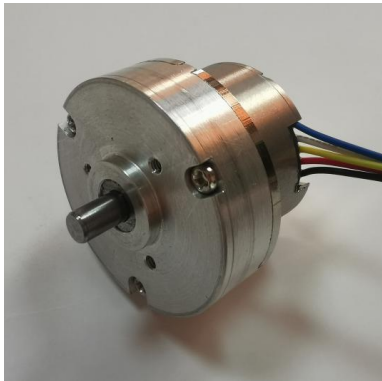
Dimensions:



Specification

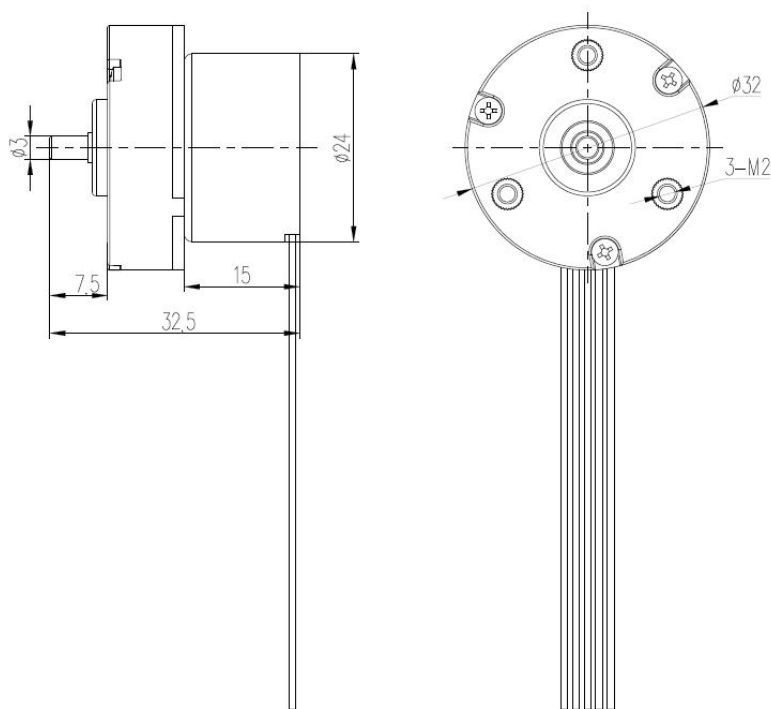
Model	Voltage [V]	No load		At maximum efficiency			Stall		Gear ratio	Length of gearbox (L)	Length of motor (L1)
		Speed [rpm]	Current [A]	Speed [rpm]	Current [A]	Torque [mNm]	Torque [mNm]	Current [A]			
M005DI0040-12-15-11	5	1846	0.054	1468	0.20	3.0	6.0	0.74	11	9	15
M005DI0040-12-15-37	5	554	0.060	436	0.22	10.0	24.2	0.74	37	9	15
M005DI0040-12-15-50	5	410	0.060	323	0.22	13.6	27.2	0.74	50	9	15
M005DI0040-12-15-97	5	211	0.060	166	0.22	26.3	52.8	0.74	97	9	15
M005DI0040-12-15-117	5	175	0.068	138	0.25	31.8	63.6	0.74	117	9	15
M005DI0040-12-15-150	5	137	0.068	108	0.25	40.7	81.6	0.74	150	9	15

2415 Spur Gearbox Motor



Application example:
peristaltic pump

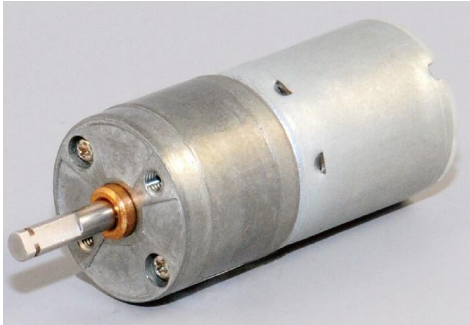
Dimensions:



Specification

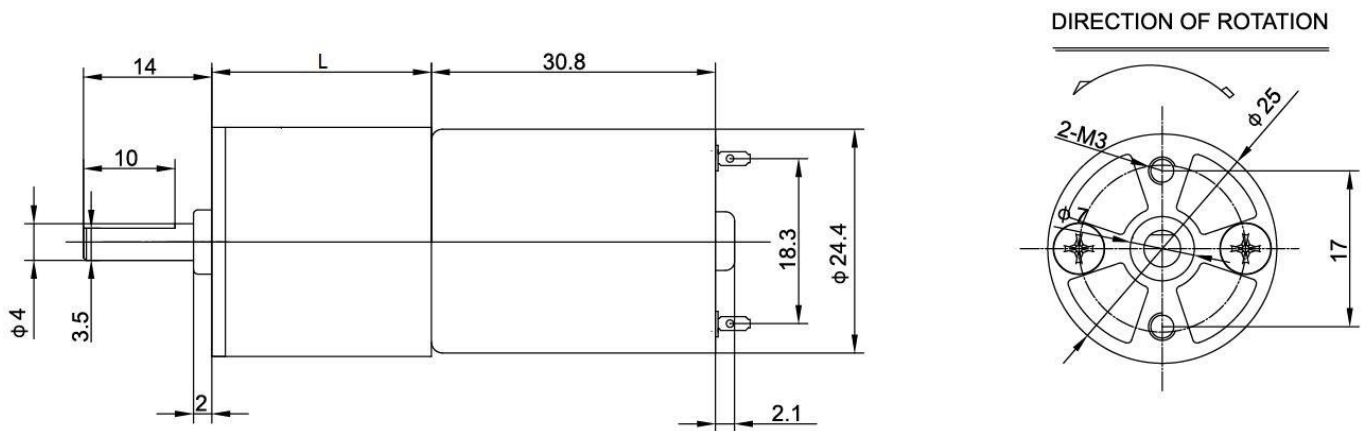
Model	Voltage [V]	No load		At load			Stall		Gear ratio	Length of gear box	Length of motor
		Speed [rpm]	Current [A]	Speed [rpm]	Current [A]	Torque [mNm]	Torque [mNm]	Current [A]			
M005BO0040-24-15	5	207	0.45	177	0.8	40	110	1.2	34	10	15
M005BO0060-24-15	5	200	0.5	170	1.0	60	150	1.4	34	10	15

2431 Spur Gearbox Motor



Application example:
Industrial valve
Other institution

Dimensions:



Specification

Model	Voltage [V]		No load		At maximum efficiency				Stall	
	Operating range	Nominal	Speed [rpm]	Current [A]	Speed [rpm]	Current [A]	Torque [mNm]	Output [W]	Torque [mNm]	Current [A]
M012GI0003-24-31	9.0~15.0	12.0	5600	0.035	4651	0.171	2.91	1.30	17.15	0.840
M024GI0002-24-31	18.0~30.0	24.0	4500	0.015	3770	0.078	1.74	1.21	10.71	0.401

Geared motor torque/ speed:

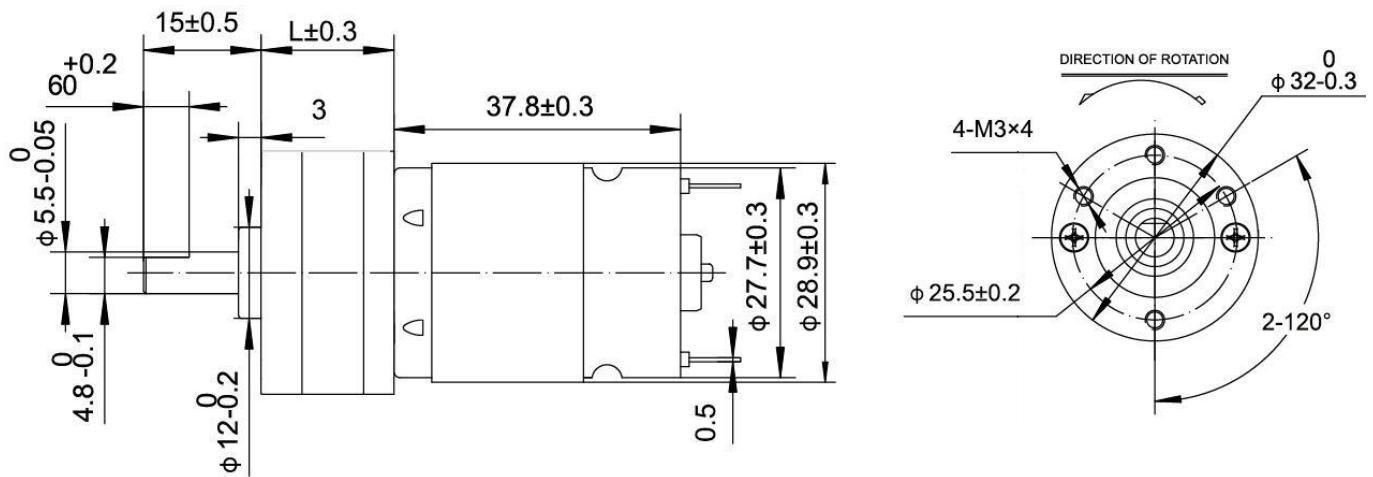
Rated Voltage	Reduction rate	1/ 5.68	1/ 12.5	1/ 32	1/ 83.44	1/ 215
12V	Rated torque (kg · cm)	0.1	0.2	0.5	1.2	2.0
	Rated speed (rpm)	838.9	381.2	148.9	57.1	22.2
24V	Rated torque (kg · cm)	0.1	0.2	0.4	0.8	1.9
	Rated speed (rpm)	662.0	300.8	117.5	45.1	17.5
L (mm)		17.5	21.5	24	24	24

3828 Spur Gearbox Motor



Typical applications:
 Currency counting machines
 Massager

Dimensions



Specification

Model	Voltage [V]		No load		At maximum efficiency				Stall	
	Operating range	Nominal	Speed [rpm]	Current [A]	Speed [rpm]	Current [A]	Torque [mNm]	Output [W]	Torque [mNm]	Current [A]
M004GI0039-38-28	2.5~5.0	3.6	2713	1.4	2176	5.67	39.23	8.94	198.09	22.94
M002GI0147-38-28	2.0~4.0	2.4	120	0.87	105	3	147	/	/	/

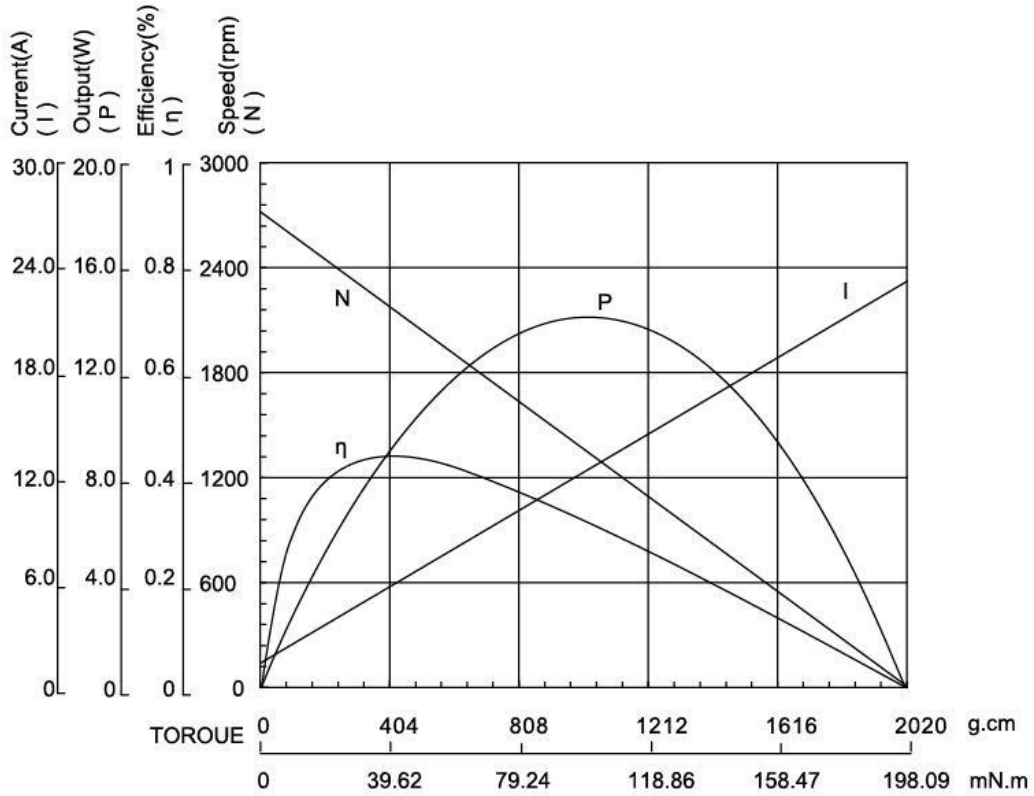
Geared motor torque/ speed

Reduction rate	1/ 5.8	1/ 53
L (mm)	17.5	22.5

3828 Spur Gearbox Motor

Performance Curve

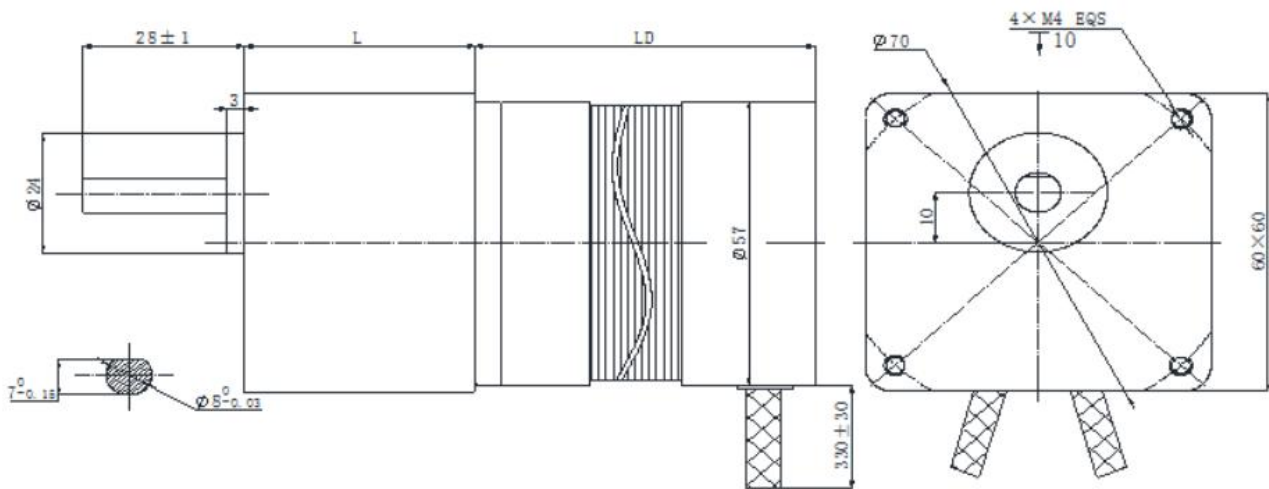
M004GI0039-38-28, 3.6V



057060-MD Spur Gearbox Motor



Dimensions:



Length Specifications

Ratio	LD(mm)				L(mm)
	M036BI0260-57-59	M036BI0260-57-79	M036BI0260-57-99	M036BI0260-57-119	
3~15	59	79	99	119	32
25~150					40

057060-MD Spur Gearbox Motor

Spur Gearbox Specifications

Ratio	3	5	7.5	10	12.5	15	25	30	50	75	90	100	120	150	
Number Of gear trains	2						3			4					
Nominal torque	5N.m														
Ultimate torque	10N.m														
Efficiency	81%						73%			66%					

BLDC Motor Specifications

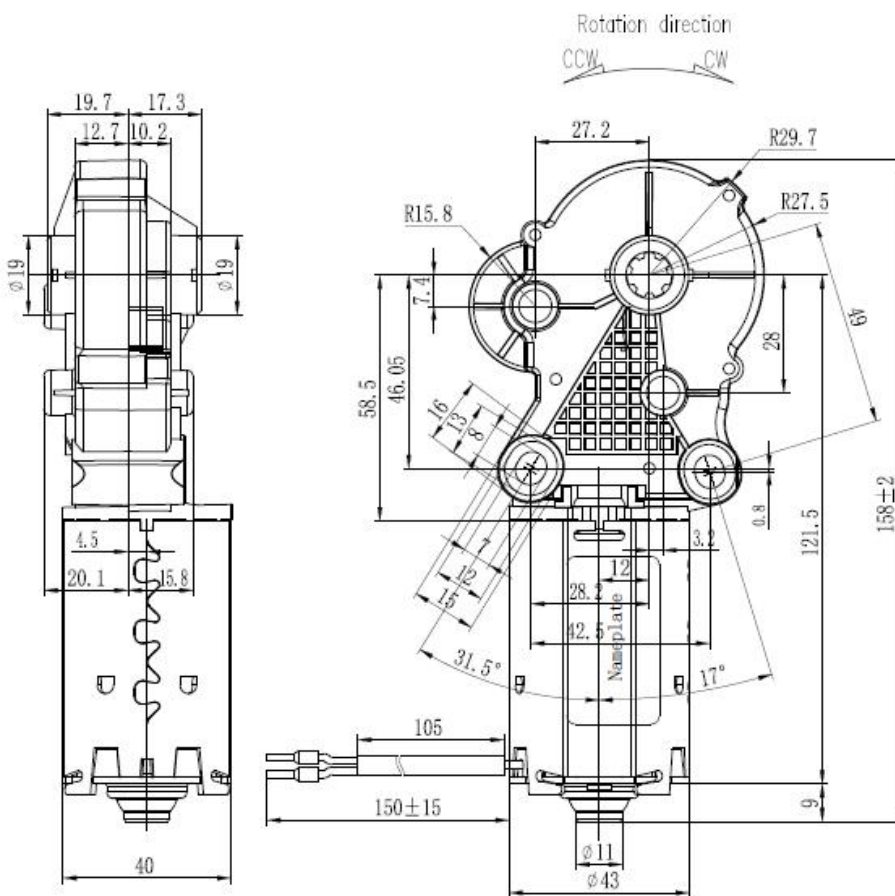
Rated Voltage		36VDC													
Ratio		3	5	7.5	10	12.5	15	25	30	50	75	90	100	120	
M036BI026 0-57-59	Rated torque (N.m)	0.26	0.44	0.66	0.89	1.11	1.3 ₃	2	2.4	4	5.4	6.5	7.26	8.7	
	Rated speed (RPM)	1333	800	533	400	320	266	160	133	80	53	44	40	33	
	Ultimate torque (N.m)	0.78	1.32	1.98	2.67	3.33	3.9 ₉	6	7.2	10					
M036BI026 0-57-79	Rated torque (N.m)	0.54	0.89	1.33	1.78	2.22	2.6 ₇	4	4.8	8	---	---	---	---	
	Rated speed (RPM)	1333	800	533	400	320	266	160	133	80	---	---	---	---	
	Ultimate torque (N.m)	1.62	2.67	3.99	5.34	6.66	8	10			---	---	---	---	
M036BI026 0-57-99	Rated torque (N.m)	0.8	1.33	2	2.67	3.34	4	6	7.22	---	---	---	---	---	
	Rated speed (RPM)	1333	800	533	400	320	266	160	133	---	---	---	---	---	
	Ultimate torque (N.m)	2.4	3.99	6	8	10					---	---	---	---	
M036BI026 0-57-119	Rated torque (N.m)	1.06	1.85	2.67	3.56	4.45	5.3 ₄	8	9.6	---	---	---	---	---	
	Rated speed (RPM)	1333	800	533	400	320	266	160	133	---	---	---	---	---	
	Ultimate torque (N.m)	3.18	5.55	8	10						---	---	---	---	

4363-PG210 Worm Gearbox Motor



Application example: swing gate operator

Dimensions:



4363-PG210 Worm Gearbox Motor

Specification

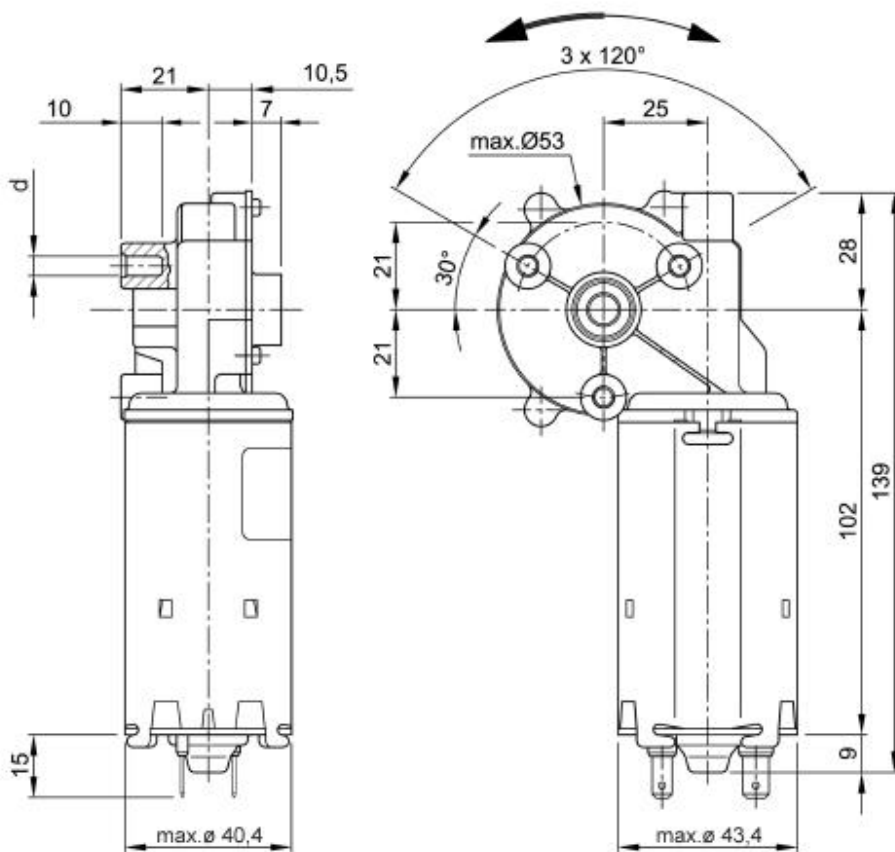
Model	Voltage [V]		No load		At maximum efficiency			Stall	
	Operating range	Nominal	Speed [rpm]	Current [A]	Speed [rpm]	Current [A]	Torque [mNm]	Torque [mNm]	Current [A]
M024DI4000-43-63-PG210	18.0~27.0	24.0	35~42	2.3	35	4.5	4	26	20

4381 Worm Gearbox Motor



Application example: coffee machine

Dimensions:



4381 Worm Gearbox Motor

Specification

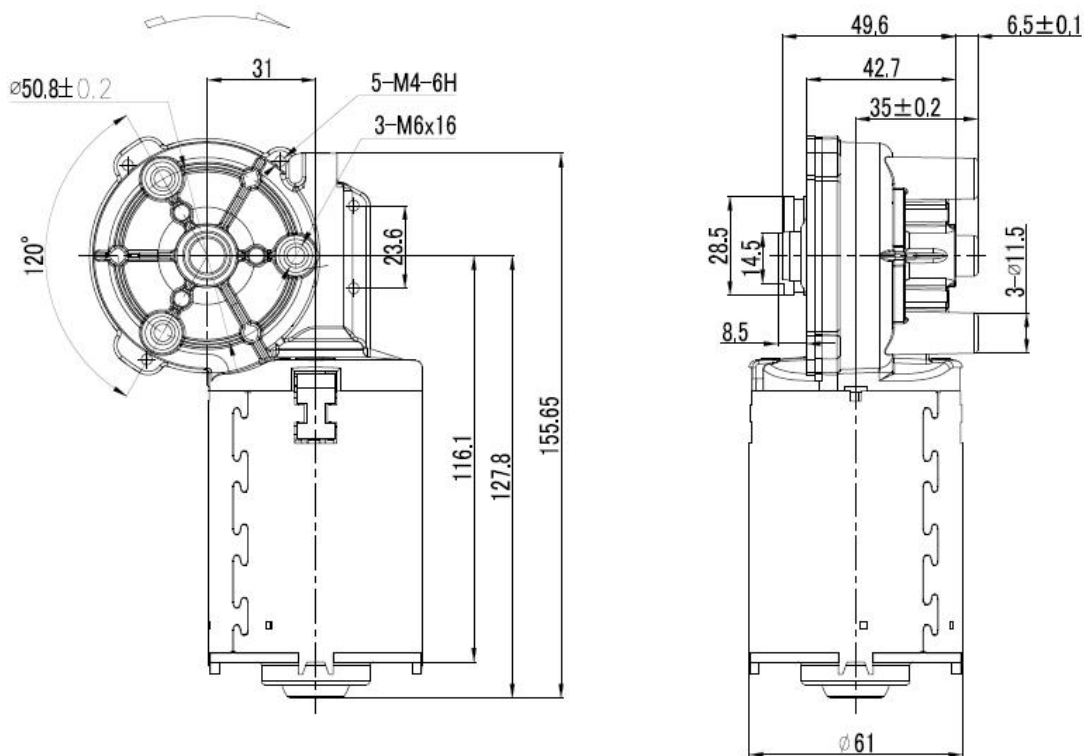
Model	Voltage [V]		No load		At maximum efficiency			Stall	
	Operating range	Nominal	Speed [rpm]	Current [A]	Speed [rpm]	Current [A]	Torque [mNm]	Torque [mNm]	Current [A]
M024DI5000-43-81	18.0~27.0	24.0	540	-	430	4.0	0.7	4.0	18

6198-PG67 Worm Gearbox Motor



Application example: massaging machine

Dimensions:



6198-PG67 Worm Gearbox Motor

Specification

Model	Voltage [V]		No load		Load			Stall	
	Operating range	Nominal	Speed [rpm]	Current [A]	Speed [rpm]	Current [A]	Torque [mNm]	Torque [mNm]	Current [A]
M024DI4000-61-98-PG67	18.0~27.0	24.0	19~23	0.3	15~19	1.0	4.0	18	5.0