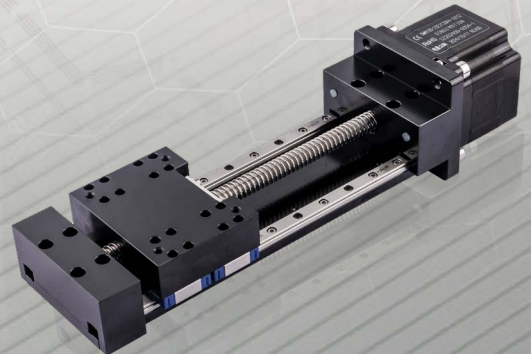
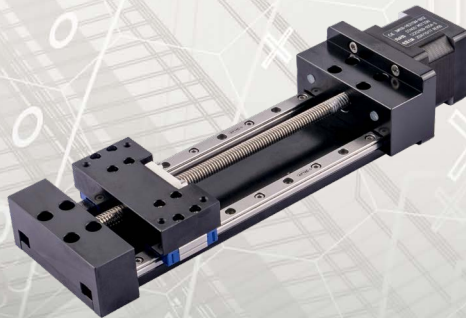
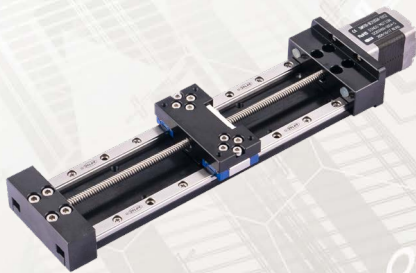


DINGS'

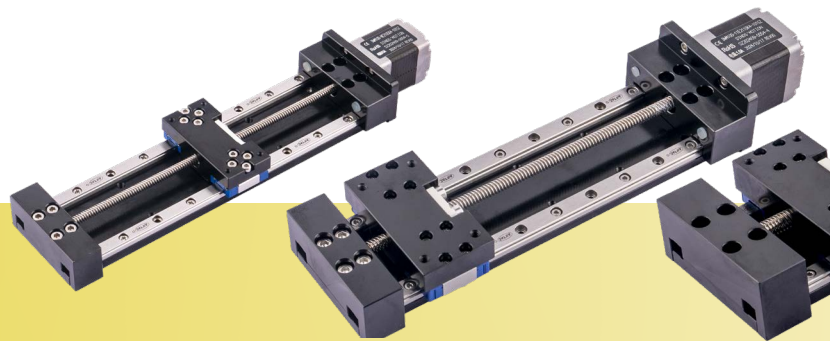
Precision Motion Specialist

DWM SIMPLE MODULES SERIES PRODUCT CATALOG



The DWM series is designed and updated based on the DLM series of DINGS' simple modules.

It features newly added guide rails and rigid designs, making the structure more stable and suitable for high-precision and high-load scenarios. It offers customers diversified and integrated solutions.



DWM MODULE SERIES

CONTENTS

DWM SERIES

Part number construction

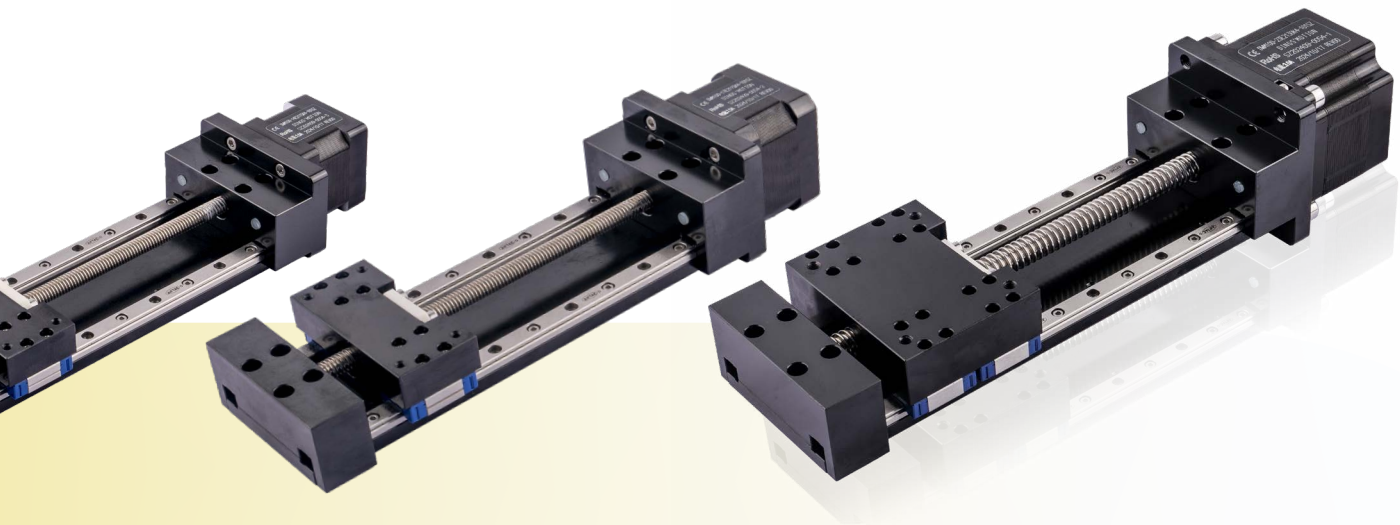
20 mm

28 mm

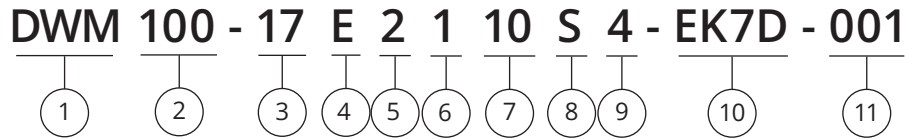
35 mm

42 mm

57 mm



Part Number Construction



- ① Product Name
DWM Series Module
- ② Stroke (mm)
100 = 100mm
- ③ Motor Size

Motor Size (mm)	20	28	35	42	57
Motor Size (NEMA)	8	11	14	17	23
- ④ Motor Type
E = External type
- ⑤ Motor Step Angle
2 = 2 Phase with 1.8°
4 = 2 Phase with 0.9°
- ⑥ Motor Length
1 = Single stack
2 = Double stack
- ⑦ Rated Current / Phase
XX = X.X (A) / Phase
- ⑧ Lead Screw Code
Please refer to lead screw code selection table
- ⑨ Number of Lead Wires
4 = 4 Flying leads
6 = 6 Flying leads
- ⑩ Option
EKX = Encoder
P = Manual Knob
B = Brake
X = Rear Shaft
R = Encoder Ready
C = Customize
N = No processing at the rear end
- ⑪ Customer Sequence Number

Example

Part Number	DWM100-17E2110S4-EK7D-001
Description	DWM Linear Module 100mm Stroke NEMA 17 External Linear Actuator 2 Phase / 1.8° Stepper Single Stack 1.0A / Phase S Lead (0.25" or 6.35mm) 4 Flying Wires EK7D Encoder with differential output 1,000 lines Serial Number 001

Size 20mm DWM



Motor Characteristics

Motor	Voltage (V)	Current (A _{RMS})	Resistance (Ω)	Inductance (mH)	Lead Wire No.	Motor Length (mm)
8E2105	2.5	0.5	5.1	1.5	4	27.2
8E2205	4.4	0.5	8.8	2.7	4	38.1

Available Lead Screw and Travel per Step

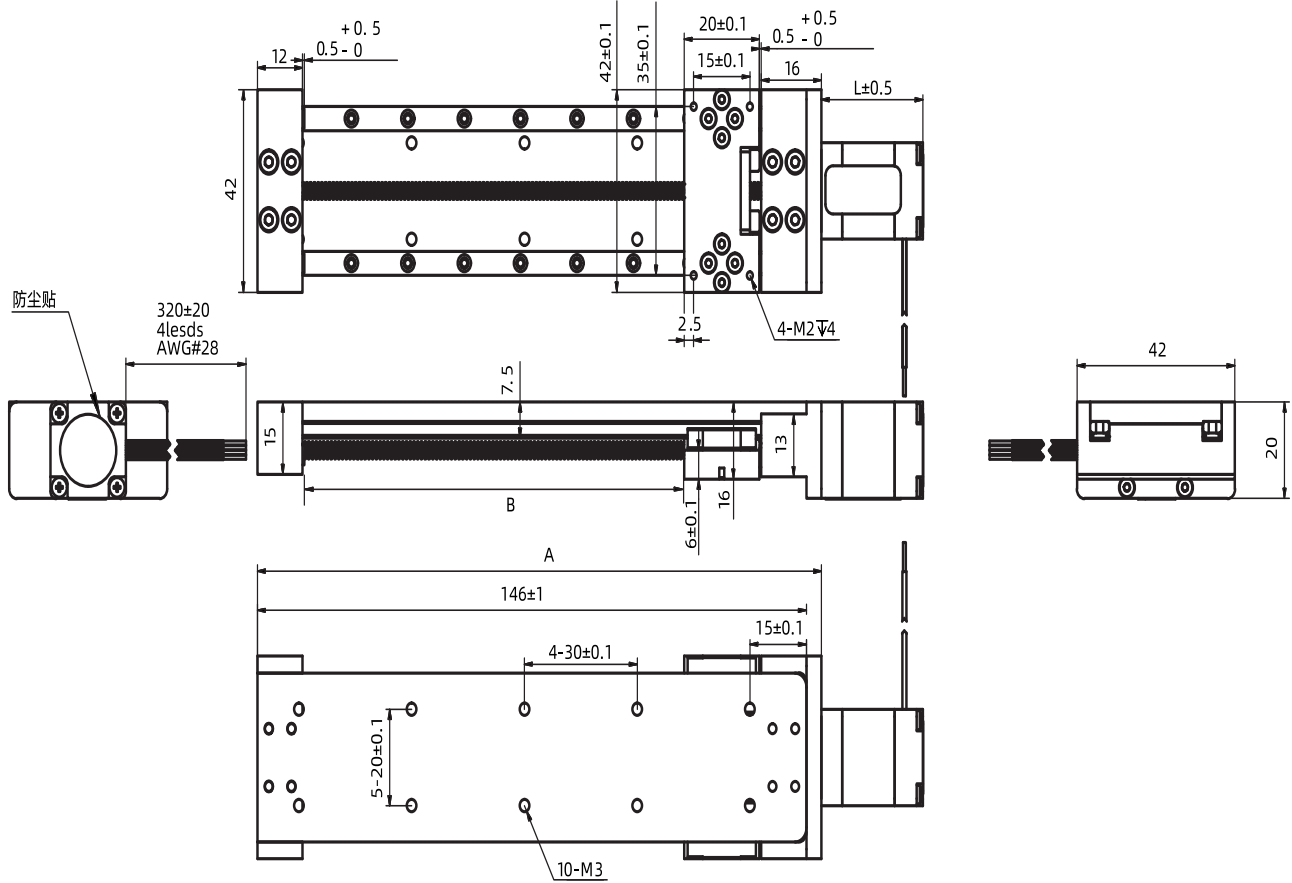
Screw Dia. (inch)	Screw Dia. (mm)	Lead (inch)	Lead (mm)	Lead Code	Travel Per Step @1.8° (mm)*
0.138	3.5	0.0118	0.3	AF	0.0015
0.138	3.5	0.024	0.6096	AA	0.003048
0.138	3.24	0.0394	1	AB	0.005
0.138	3.5	0.048	1.2192	B	0.006096
0.138	3.5	0.0787	2	G	0.01
0.138	3.5	0.1575	4	M	0.02
0.138	3.5	0.315	8	T	0.04

Mechanical Specifications

Model	C100B(dyn)(N)	Co(stat)(N)	Mro(Nm)	Mpo(Nm)	Myo(Nm)
DWM 20	0.51	0.87	1.18	2.4	2.4

Size 20mm DWM

Dimensional Drawings



Available Stroke Selection

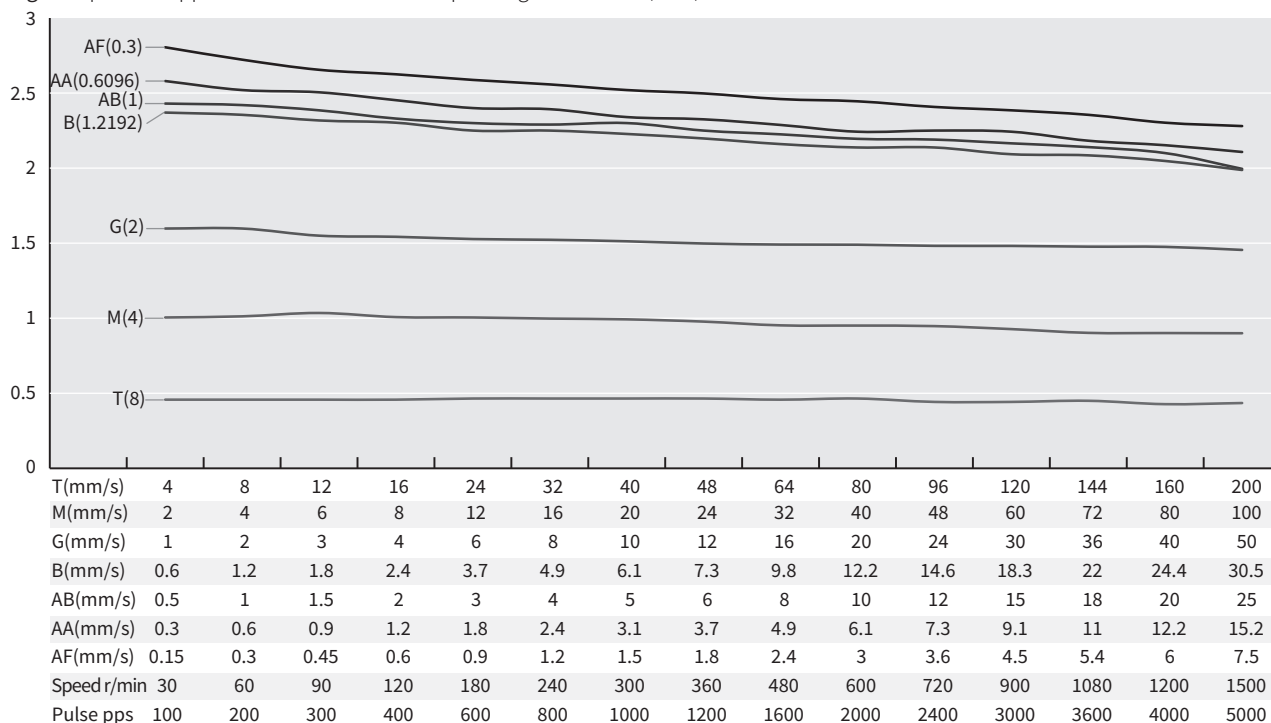
Size A (mm)	Stroke B (mm)
70	20
90	40
110	60
130	80
150	100

Size 20mm DWM

Speed Thrust Curves

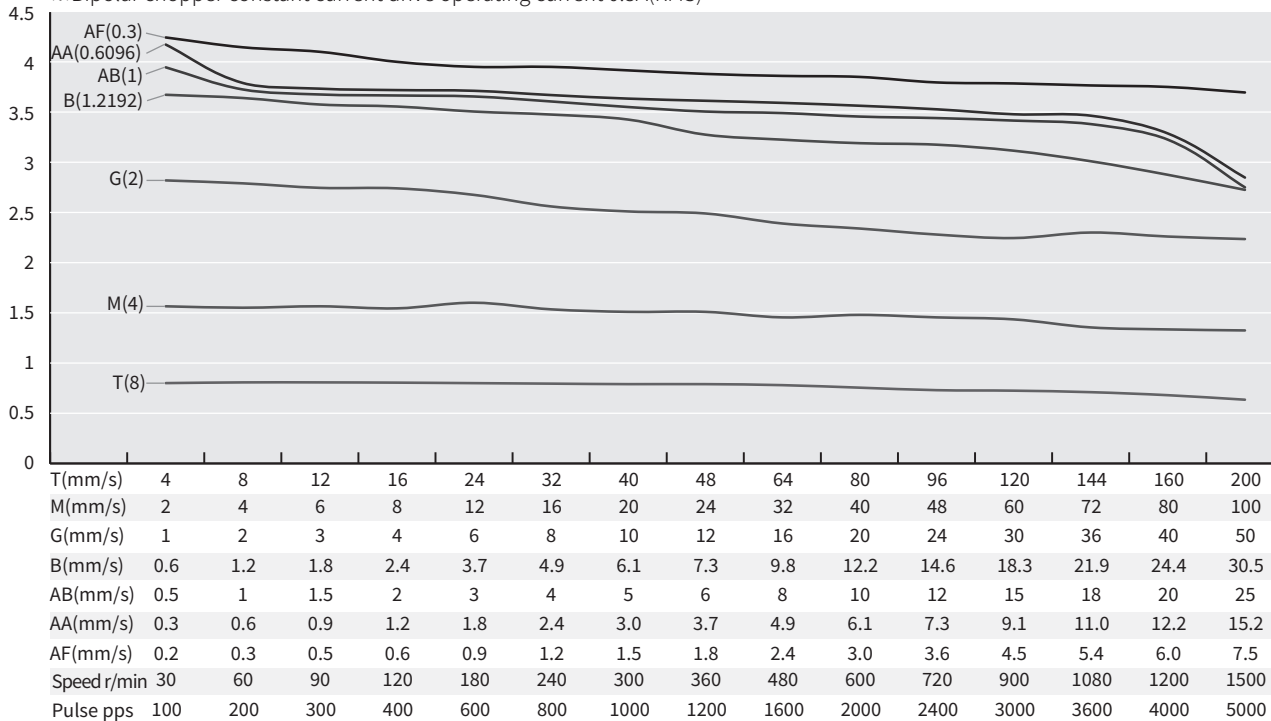
Size 8 Single Stack Speed Thrust Curves

kg ※Bipolar chopper constant current drive operating current 0.5A(RMS)



Size 8 Double Stack Speed Thrust Curves

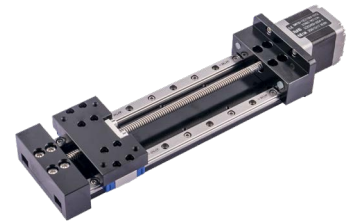
kg ※Bipolar chopper constant current drive operating current 0.5A(RMS)



TEST CONDITION

Testing Voltage: 24Vdc, Driver Model: DS-OLS2-FPD bipolar, chopper driver at rated current (rms).
Motor's thrust will be changed with different voltage and driver. 50% thrust margin is recommended.

Size 28mm DWM



Motor Characteristics

Motor	Voltage (V)	Current (A [RMS])	Resistance (Ω)	Inductance (mH)	Lead wire No.	Motor length (mm)
11E2105	4.55	0.5	9.1	6	4	33.35
11E2110	2.1	1	2.1	1.5	4	33.35
11E2209	3.9	0.95	4.1	4	4	45
11E2216	2.4	1.6	1.5	1.3	4	45

Available Lead Screw and Travel per Step

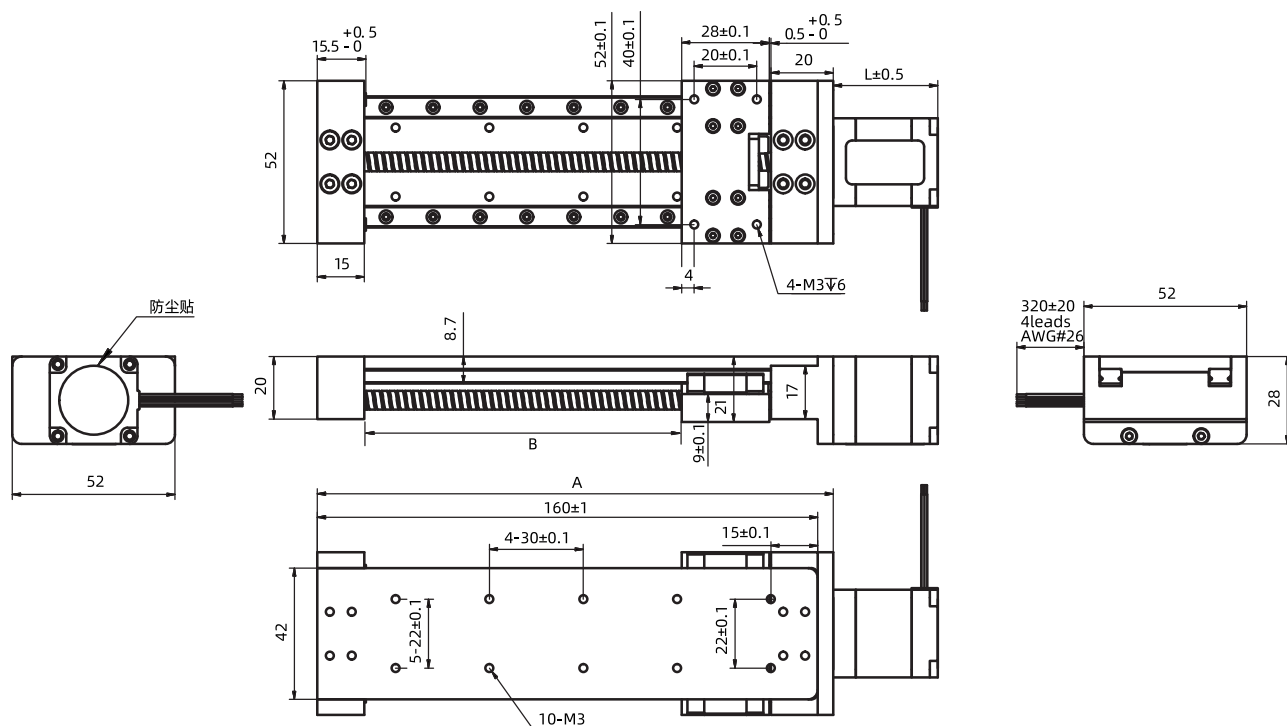
Screw Dia. (inch)	Screw Dia. (mm)	Lead (inch)	Lead (mm)	Lead Code	Travel Per Step @1.8° (mm)*
0.188	4.77	0.0128	0.3175	AL	0.0016
0.188	4.77	0.025	0.635	A	0.003175
0.188	4.77	0.05	1.27	D	0.00635
0.188	4.77	0.1	2.54	K	0.0127
0.188	4.77	0.2	5.08	R	0.0254
0.188	4.77	0.4	10.16	X	0.0508

Mechanical Specifications

Model	C100B(dyn)(N)	Co(stat)(N)	Mro(Nm)	Mpo(Nm)	Myo(Nm)
DWM 28	1.38	2.08	3.8	7.9	7.9

Size 28mm DWM

Dimensional Drawings



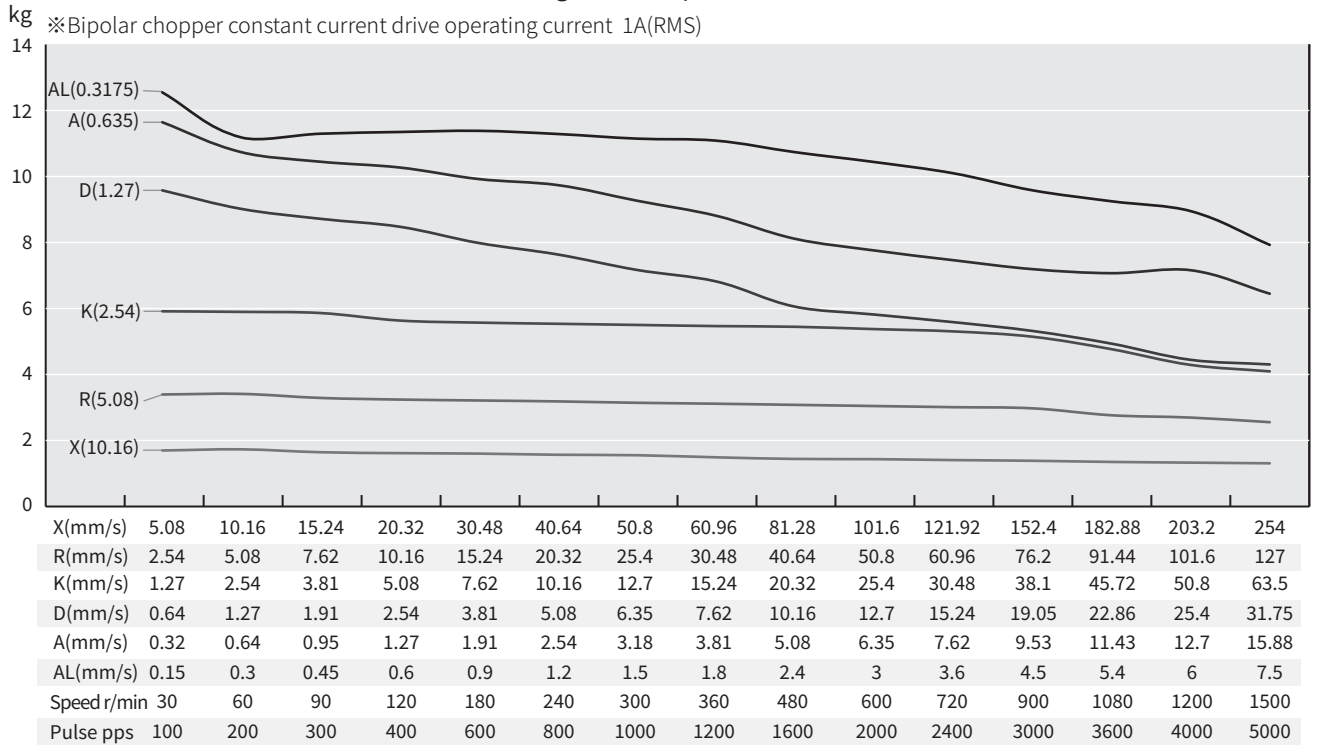
Available Stroke Selection

Size A (mm)	Stroke B (mm)
85	20
105	40
125	60
145	80
165	100
215	150
265	200
315	250
365	300

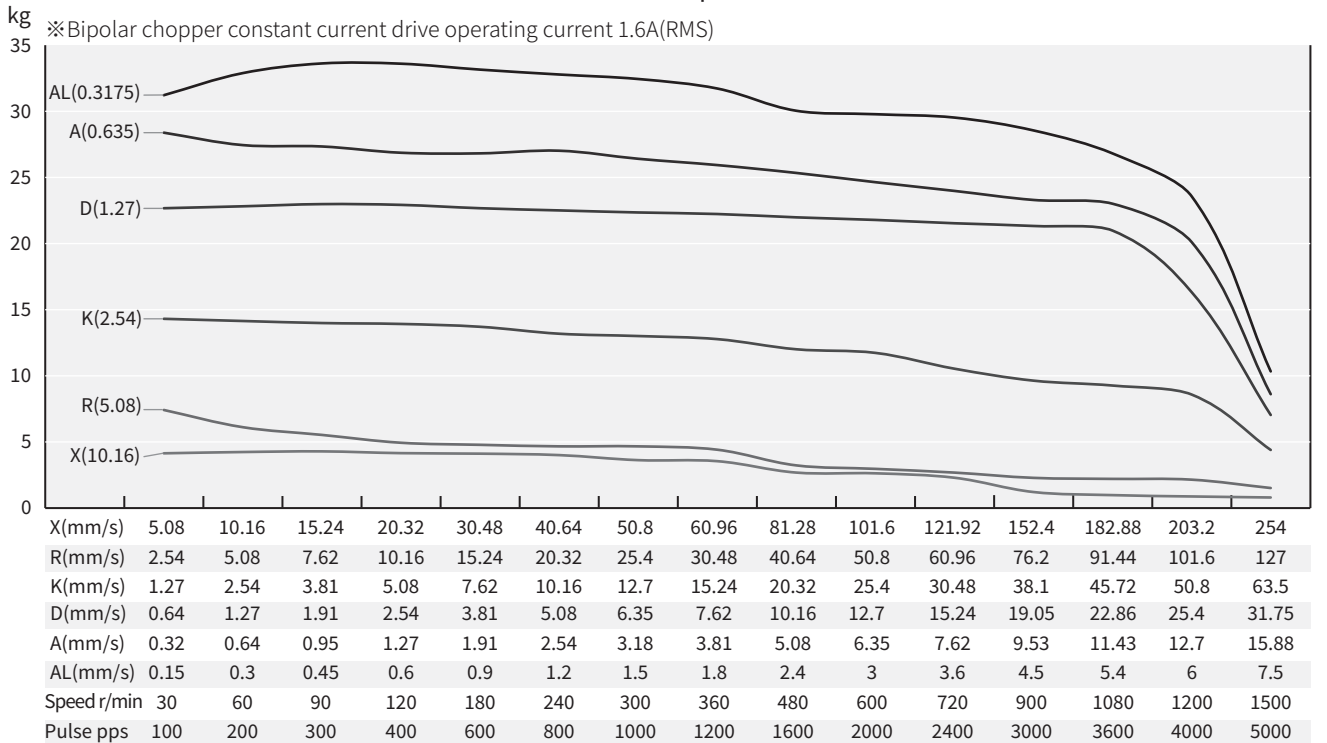
Size 28mm DWM

Speed Thrust Curves

Size 11 Single Stack Speed Thrust Curves



Size 11 Double Stack Speed Thrust Curves



TEST CONDITION

Testing Voltage: 24Vdc, Driver Model: DS-OLS2-FPD bipolar, chopper driver at rated current (rms).
Motor's thrust will be changed with different voltage and driver. 50% thrust margin is recommended.

Size 35mm DWM



Motor Characteristics

Motor	Voltage (V)	Current (A [RMS])	Resistance (Ω)	Inductance (mH)	Lead wire No.	Motor length (mm)
14E2105	6.6	0.5	13.2	14	4	33.6
14E2110	3.5	1	3.5	3.6	4	33.6
14E2115	2.7	1.5	1.8	1.9	4	33.6
14E2205	12	0.5	24	29	4	45.6
14E2210	6	1	6	7.2	4	45.6
14E2215	4	1.5	2.7	3.2	4	45.6

Available Lead Screw and Travel per Step

Screw Dia. (inch)	Screw Dia. (mm)	Lead (inch)	Lead (mm)	Lead Code	Travel Per Step @1.8° (mm)*
0.25	6.35	0.024	0.6096	AA	0.003048
0.25	6.35	0.0394	1	AB	0.005
0.25	6.35	0.025	0.635	A	0.003175
0.25	6.35	0.048	1.2192	B	0.006096
0.25	6.35	0.5	1.27	D	0.00635
0.25	6.35	0.0625	1.5875	F	0.0079
0.25	6.35	0.096	2.4384	J	0.0122
0.25	6.35	0.1	2.54	K	0.0127
0.25	6.35	0.125	3.175	L	0.0159
0.25	6.35	0.192	4.8768	Q	0.024
0.25	6.35	0.2	5.08	R	0.0254
0.25	6.35	0.25	6.35	S	0.0318
0.25	6.35	0.333	8.4667	U	0.0423
0.25	6.35	0.384	9.7536	W	0.0488
0.25	6.35	0.5	12.7	Y	0.0635
0.25	6.35	1	25.4	Z	0.127
0.315	8	0.1575	4	M	0.02
0.315	8	0.315	8	T	0.04
0.315	8	0.0787	2	G	0.01
0.315	8	0.3937	10	C	0.05

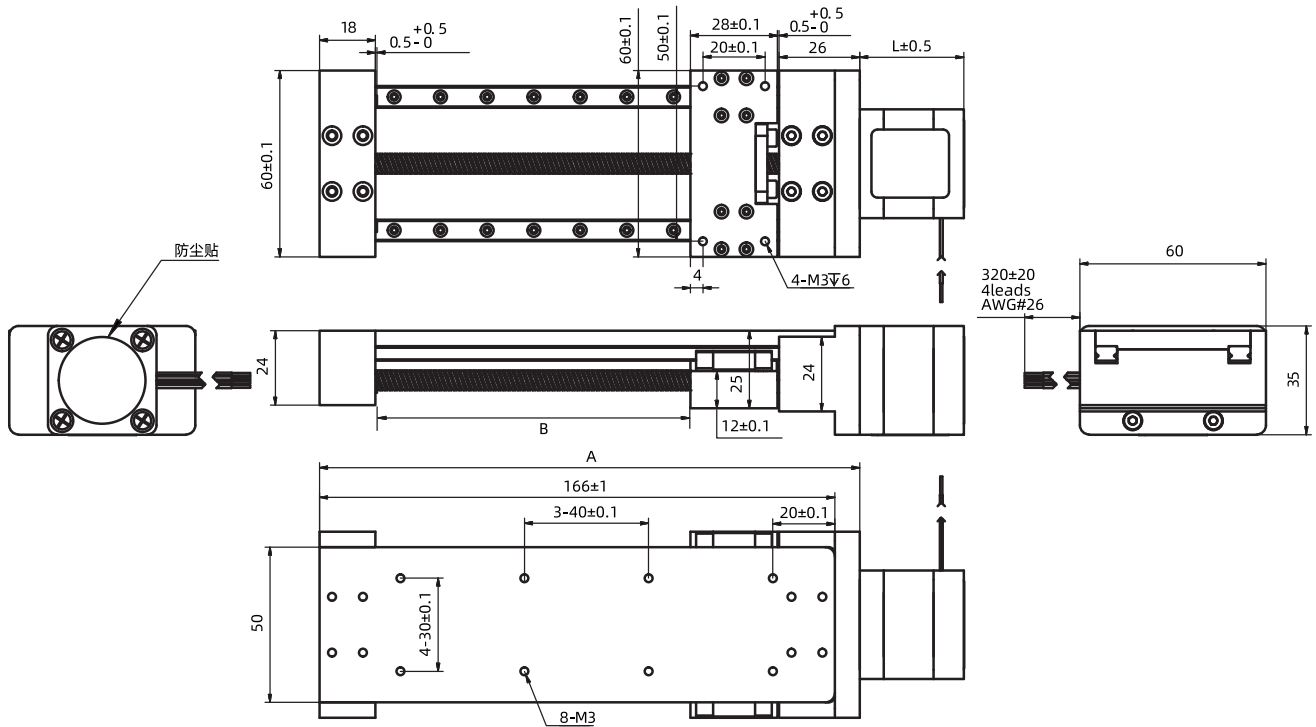
For stroke customization, please contact DINGS' or local representative.

Size 35mm DWM

Mechanical Specifications

Model	C100B(dyn)(N)	Co(stat)(N)	Mro(Nm)	Mpo(Nm)	Myo(Nm)
DWM 35	1.38	2.08	3.8	7.9	7.9

Dimensional Drawings



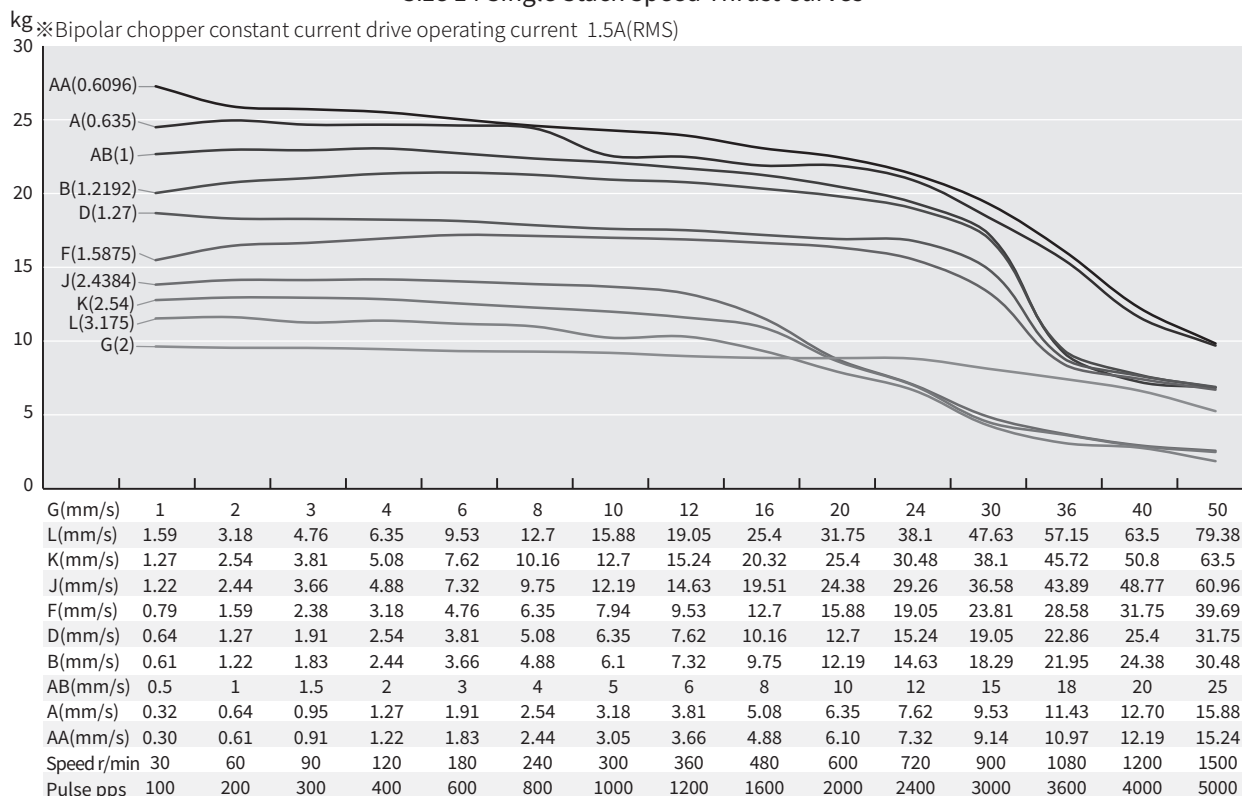
Available Stroke Selection

Size A (mm)	Stroke B (mm)
124	50
174	100
224	150
274	200
324	250
374	300
424	350
474	400
524	450
574	500

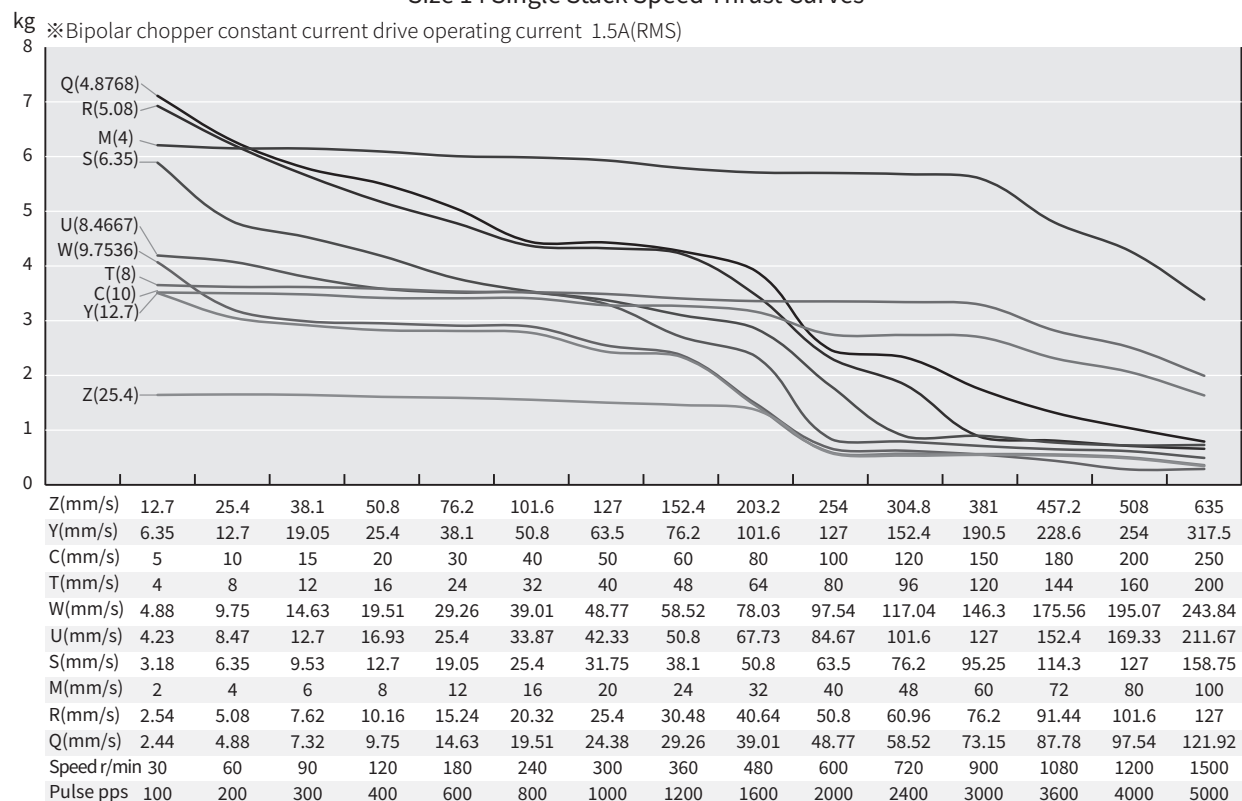
Size 35mm DWM

Speed Thrust Curves

Size 14 Single Stack Speed Thrust Curves



Size 14 Single Stack Speed Thrust Curves

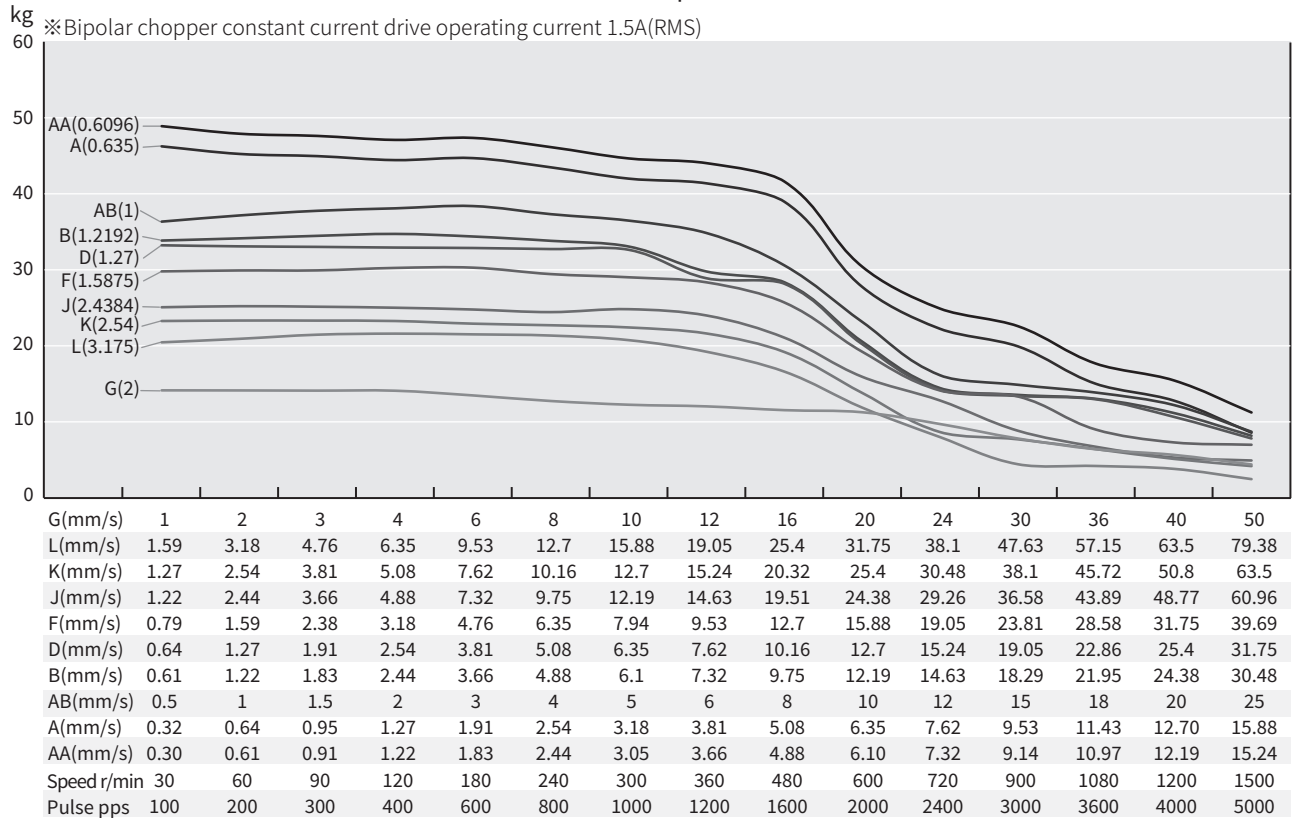


TEST CONDITION

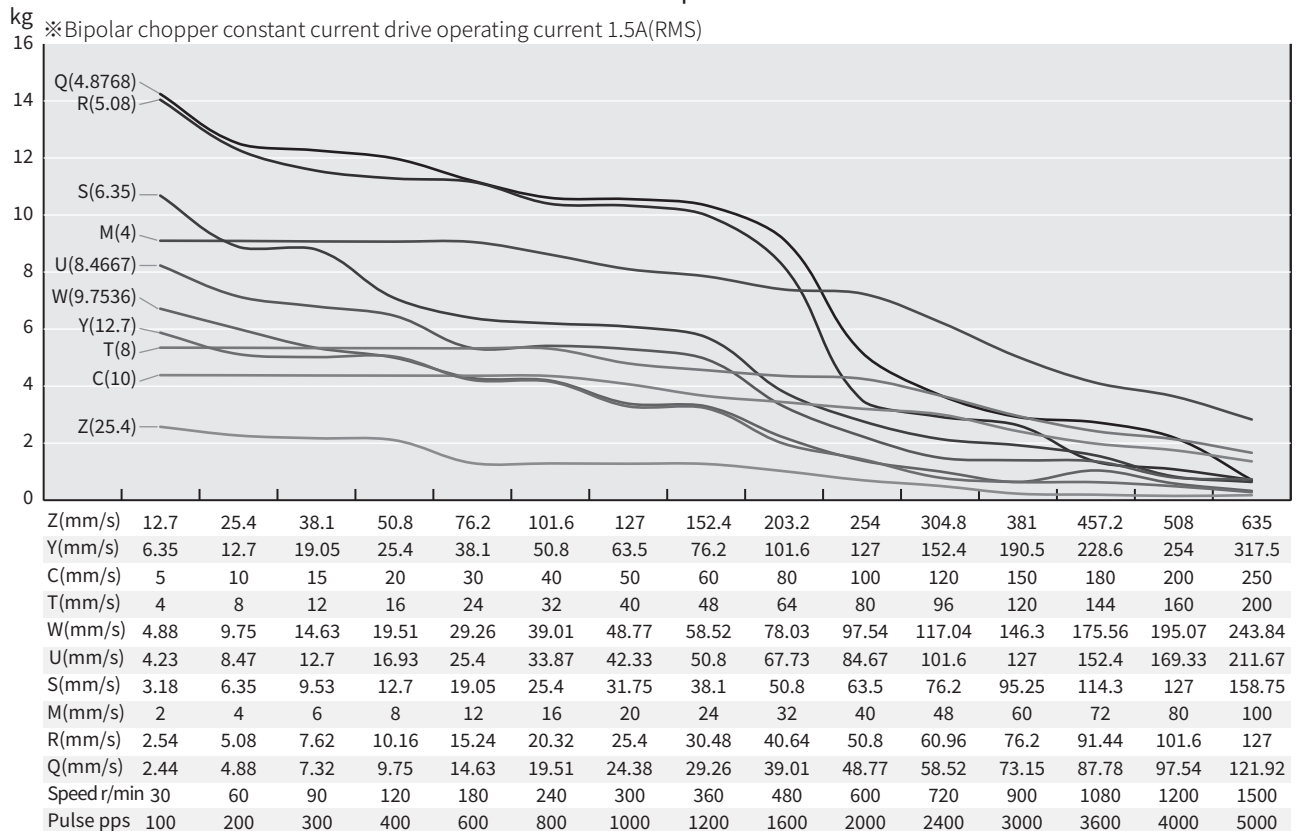
Testing Voltage: 24Vdc, Driver Model: DS-OLS2-FPD bipolar, chopper driver at rated current (rms).
Motor's thrust will be changed with different voltage and driver. 50% thrust margin is recommended.

Size 35mm DWM

Size 14 Double Stack Speed Thrust Curves



Size 14 Double Stack Speed Thrust Curves

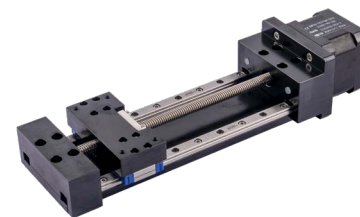


TEST CONDITION

Testing Voltage: 24Vdc, Driver Model: DS-OLS2-FPD bipolar, chopper driver at rated current (rms).

Motor's thrust will be changed with different voltage and driver. 50% thrust margin is recommended.

Size 42mm DWM



Motor Characteristics

Motor	Voltage (V)	Current (A [RMS])	Resistance (Ω)	Inductance (mH)	Lead wire No.	Motor length (mm)
17E2105	7.2	0.5	14.4	19.8	4	34.1
17E2110	3.8	1	3.8	5	4	34.1
17E2115	2.85	1.5	1.9	2.2	4	34.1
17E2205	11	0.5	22	46	4	48.1
17E2212	4.5	1.2	3.8	8	4	48.1
17E2225	2.5	2.5	1	1.8	4	48.1

Available Lead Screw and Travel per Step

Screw Dia. (inch)	Screw Dia. (mm)	Lead (inch)	Lead (mm)	Lead Code	Travel Per Step @1.8° (mm)*
0.25	6.35	0.024	0.6096	AA	0.003048
0.25	6.35	0.0394	1	AB	0.005
0.25	6.35	0.025	0.635	A	0.003175
0.25	6.35	0.048	1.2192	B	0.006096
0.25	6.35	0.5	1.27	D	0.00635
0.25	6.35	0.0625	1.5875	F	0.0079
0.25	6.35	0.096	2.4384	J	0.0122
0.25	6.35	0.1	2.54	K	0.0127
0.25	6.35	0.125	3.175	L	0.0159
0.25	6.35	0.192	4.8768	Q	0.024
0.25	6.35	0.2	5.08	R	0.0254
0.25	6.35	0.25	6.35	S	0.0318
0.25	6.35	0.333	8.4667	U	0.0423
0.25	6.35	0.384	9.7536	W	0.0488
0.25	6.35	0.5	12.7	Y	0.0635
0.25	6.35	1	25.4	Z	0.127
0.315	8	0.1575	4	M	0.02
0.315	8	0.315	8	T	0.04
0.315	8	0.0787	2	G	0.01
0.315	8	0.3937	10	C	0.05

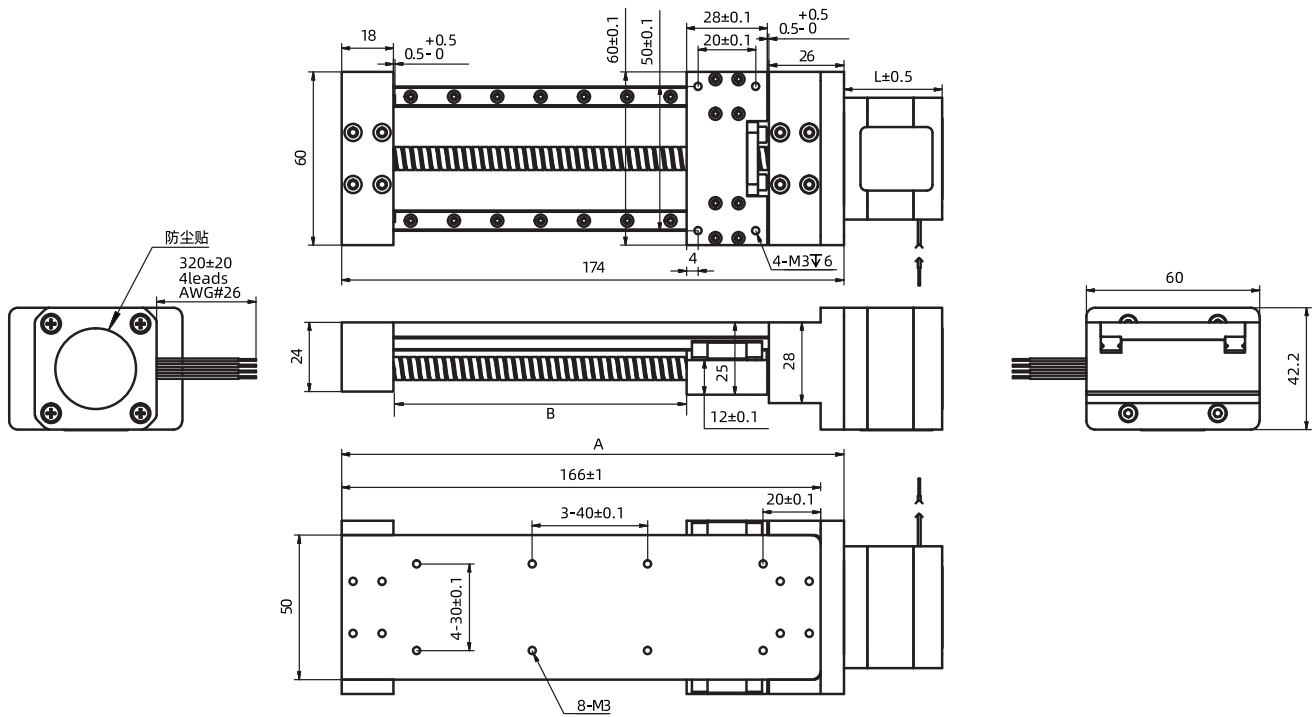
For stroke customization, please contact DINGS' or local representative.

Size 42mm DWM

Mechanical Specifications

Model	C100B(dyn)(N)	Co(stat)(N)	Mro(Nm)	Mpo(Nm)	Myo(Nm)
DWM 42	1.38	2.08	3.8	7.9	7.9

Dimensional Drawings



Available Stroke Selection

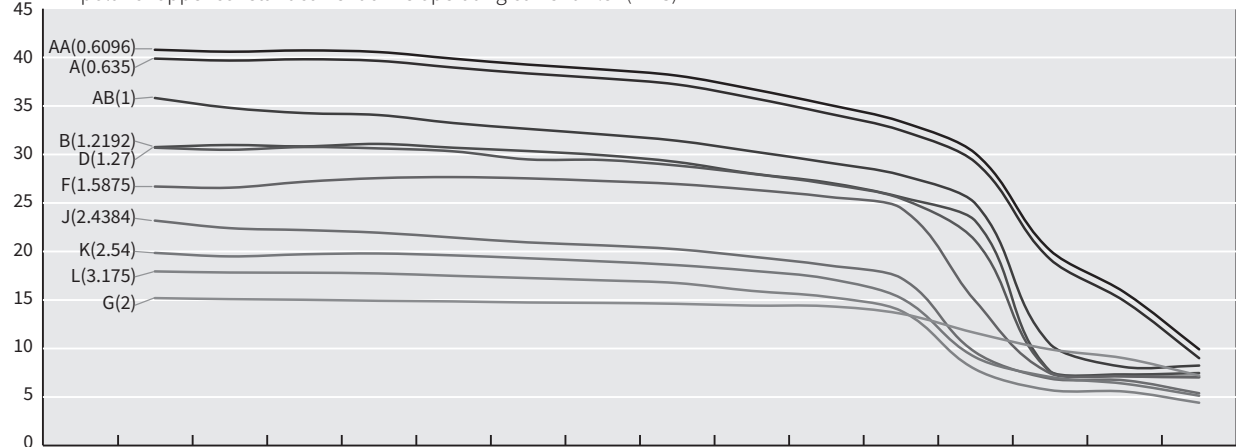
Size A (mm)	Stroke B (mm)
124	50
174	100
224	150
274	200
324	250
374	300
424	350
474	400
524	450
574	500

Size 42mm DWM

Speed Thrust Curves

Size 17 Single Stack Speed Thrust Curves

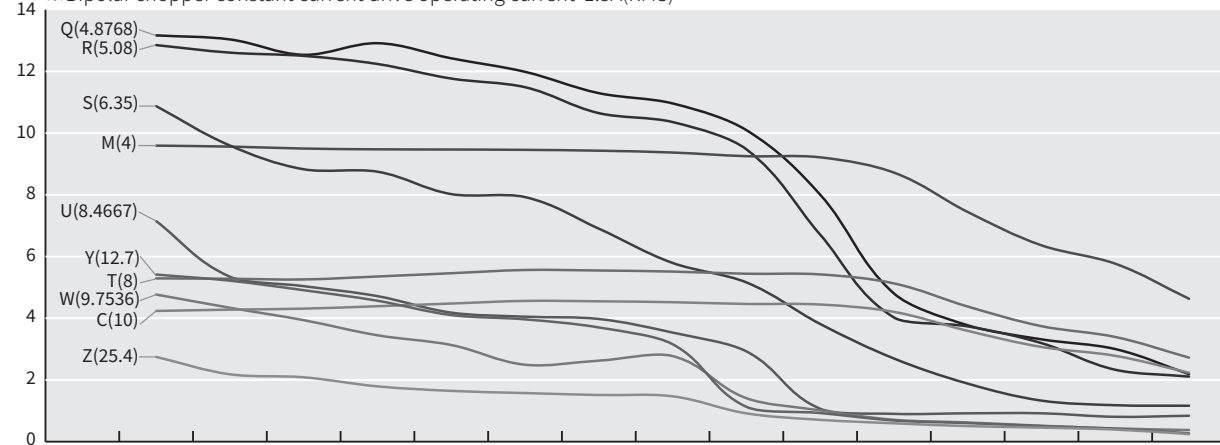
kg ※Bipolar chopper constant current drive operating current 1.5A(RMS)



G(mm/s)	1	2	3	4	6	8	10	12	16	20	24	30	36	40	50
L(mm/s)	1.59	3.18	4.76	6.35	9.53	12.7	15.88	19.05	25.4	31.75	38.1	47.63	57.15	63.5	79.38
K(mm/s)	1.27	2.54	3.81	5.08	7.62	10.16	12.7	15.24	20.32	25.4	30.48	38.1	45.72	50.8	63.5
J(mm/s)	1.22	2.44	3.66	4.88	7.32	9.75	12.19	14.63	19.51	24.38	29.26	36.58	43.89	48.77	60.96
F(mm/s)	0.79	1.59	2.38	3.18	4.76	6.35	7.94	9.53	12.7	15.88	19.05	23.81	28.58	31.75	39.69
D(mm/s)	0.64	1.27	1.91	2.54	3.81	5.08	6.35	7.62	10.16	12.7	15.24	19.05	22.86	25.4	31.75
B(mm/s)	0.61	1.22	1.83	2.44	3.66	4.88	6.1	7.32	9.75	12.19	14.63	18.29	21.95	24.38	30.48
AB(mm/s)	0.5	1	1.5	2	3	4	5	6	8	10	12	15	18	20	25
A(mm/s)	0.32	0.64	0.95	1.27	1.91	2.54	3.18	3.81	5.08	6.35	7.62	9.53	11.43	12.70	15.88
AA(mm/s)	0.30	0.61	0.91	1.22	1.83	2.44	3.05	3.66	4.88	6.10	7.32	9.14	10.97	12.19	15.24
Speed r/min	30	60	90	120	180	240	300	360	480	600	720	900	1080	1200	1500
Pulse pps	100	200	300	400	600	800	1000	1200	1600	2000	2400	3000	3600	4000	5000

Size 17 Single Stack Speed Thrust Curves

kg ※Bipolar chopper constant current drive operating current 1.5A(RMS)



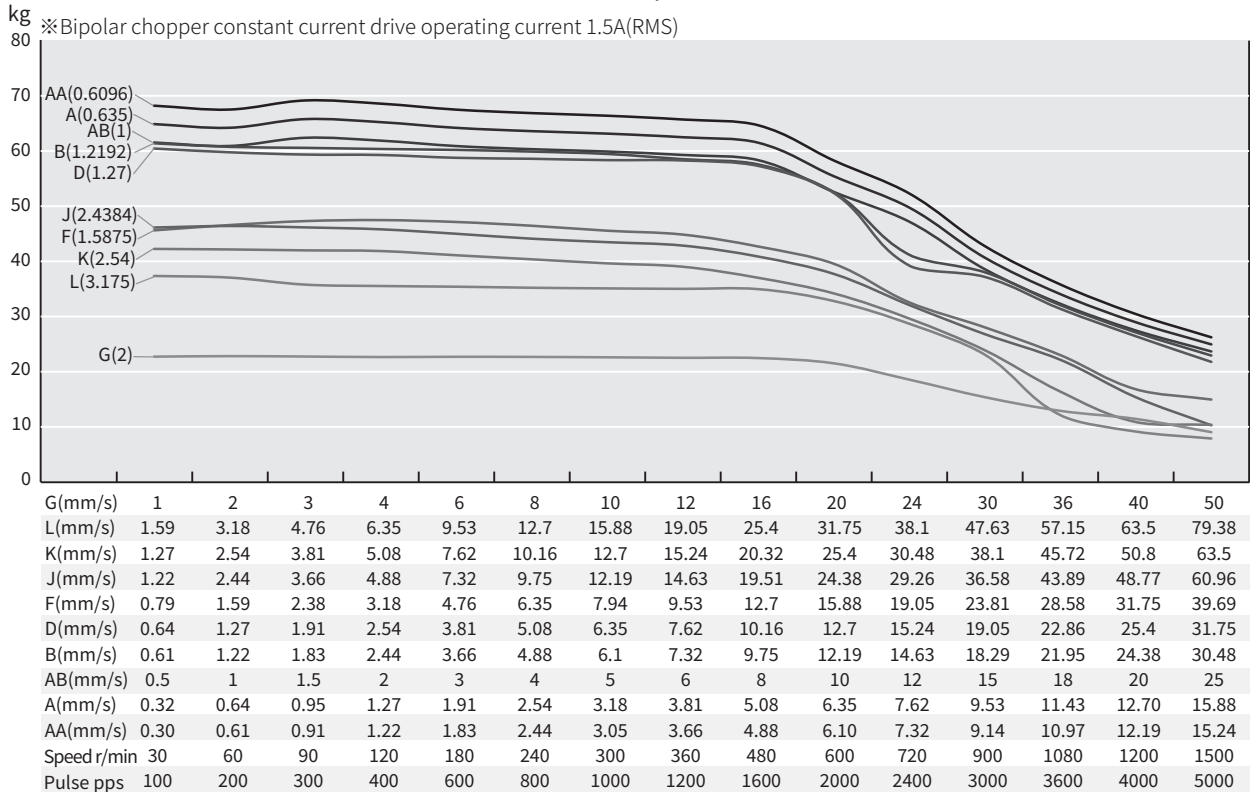
Z(mm/s)	12.7	25.4	38.1	50.8	76.2	101.6	127	152.4	203.2	254	304.8	381	457.2	508	635
Y(mm/s)	6.35	12.7	19.05	25.4	38.1	50.8	63.5	76.2	101.6	127	152.4	190.5	228.6	254	317.5
C(mm/s)	5	10	15	20	30	40	50	60	80	100	120	150	180	200	250
T(mm/s)	4	8	12	16	24	32	40	48	64	80	96	120	144	160	200
W(mm/s)	4.88	9.75	14.63	19.51	29.26	39.01	48.77	58.52	78.03	97.54	117.04	146.3	175.56	195.07	243.84
U(mm/s)	4.23	8.47	12.7	16.93	25.4	33.87	42.33	50.8	67.73	84.67	101.6	127	152.4	169.33	211.67
S(mm/s)	3.18	6.35	9.53	12.7	19.05	25.4	31.75	38.1	50.8	63.5	76.2	95.25	114.3	127	158.75
M(mm/s)	2	4	6	8	12	16	20	24	32	40	48	60	72	80	100
R(mm/s)	2.54	5.08	7.62	10.16	15.24	20.32	25.4	30.48	40.64	50.8	60.96	76.2	91.44	101.6	127
Q(mm/s)	2.44	4.88	7.32	9.75	14.63	19.51	24.38	29.26	39.01	48.77	58.52	73.15	87.78	97.54	121.92
Speed r/min	30	60	90	120	180	240	300	360	480	600	720	900	1080	1200	1500
Pulse pps	100	200	300	400	600	800	1000	1200	1600	2000	2400	3000	3600	4000	5000

TEST CONDITION

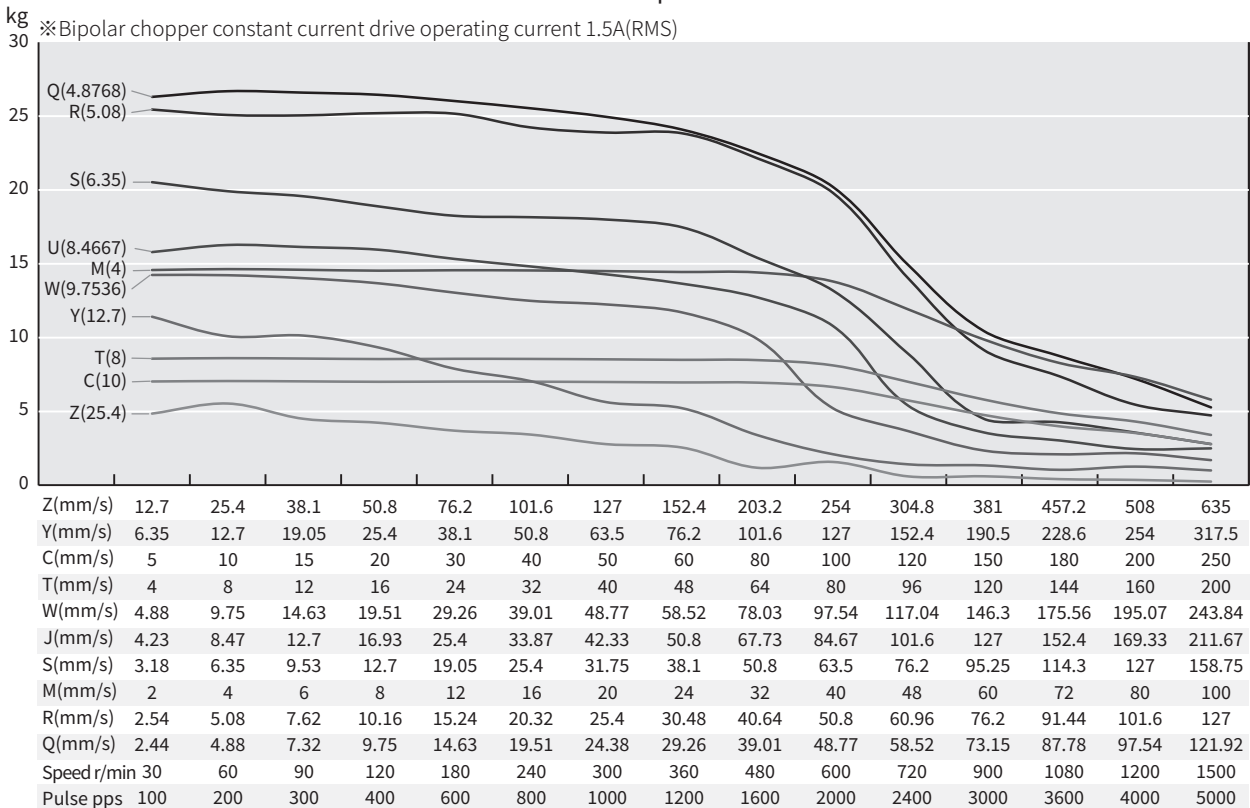
Testing Voltage: 24Vdc, Driver Model: DS-OLS2-FPD bipolar, chopper driver at rated current (rms).
Motor's thrust will be changed with different voltage and driver. 50% thrust margin is recommended.

Size 42mm DWM

Size 17 Double Stack Speed Thrust Curves



Size 17 Double Stack Speed Thrust Curves

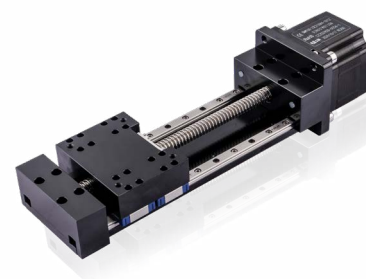


TEST CONDITION

Testing Voltage: 24Vdc, Driver Model: DS-OLS2-FPD bipolar, chopper driver at rated current (rms).

Motor's thrust will be changed with different voltage and driver. 50% thrust margin is recommended.

Size 57mm DWM



Motor Characteristics

Motor	Voltage (V)	Current (A [RMS])	Resistance (Ω)	Inductance (mH)	Lead wire No.	Motor length (mm)
23E2110	6.4	1.0	6.4	16.4	4	45
23E2120	3.2	2.0	1.75	4.1	4	45
23E2130	2.4	3.0	0.8	1.7	4	45
23E2210	10.8	1.0	11.5	32	4	65
23E2225	4.2	2.5	2.0	5.2	4	65
23E2240	2.8	4.0	0.7	2.0	4	65

Available Lead Screw and Travel per Step

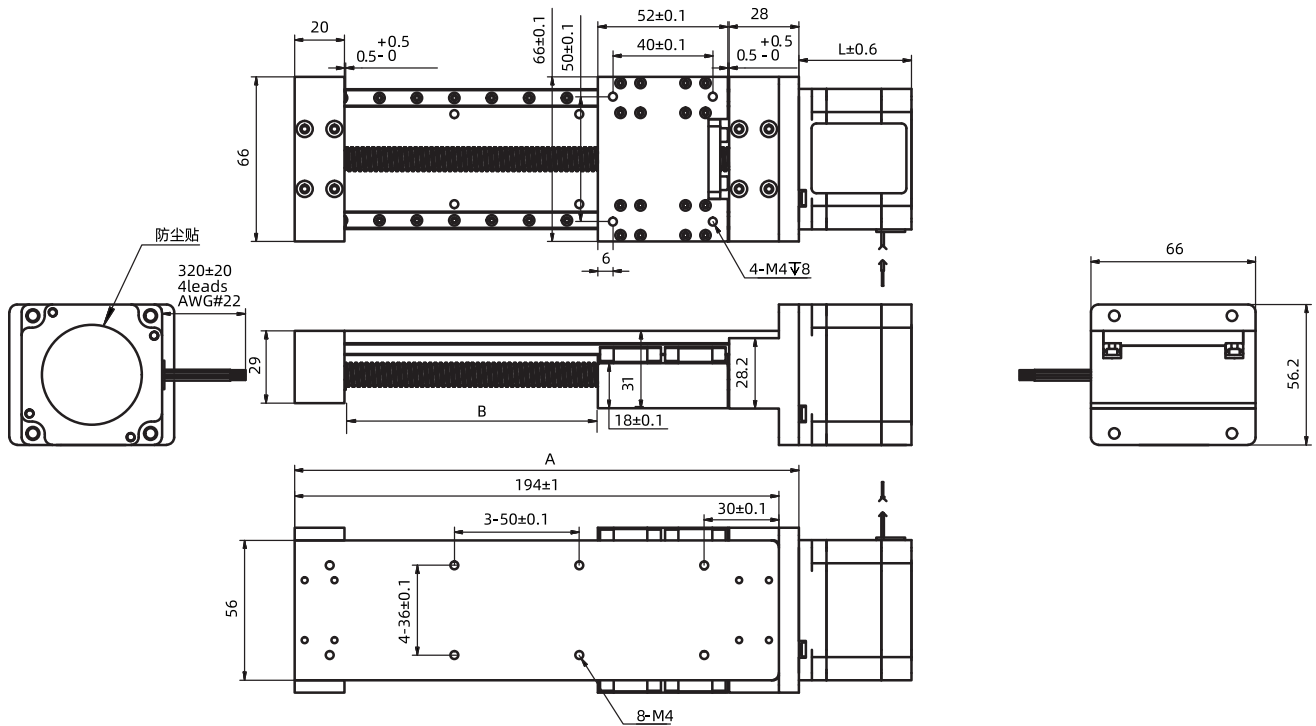
Screw Dia. (inch)	Screw Dia. (mm)	Lead (inch)	Lead (mm)	Lead Code	Travel Per Step @1.8° (mm)*
0.375	9.525	0.025	0.635	A	0.0032
0.375	9.525	0.05	1.27	D	0.0064
0.375	9.525	0.0625	1.5875	F	0.0079
0.375	9.525	0.083	2.1167	H	0.0106
0.375	9.525	0.1	2.54	K	0.0127
0.375	9.525	0.125	3.175	L	0.0159
0.375	9.525	0.167	4.233	P	0.0212
0.375	9.525	0.2	5.08	R	0.0254
0.375	9.525	0.25	6.35	S	0.0318
0.375	9.525	0.375	9.525	V	0.0476
0.375	9.525	0.384	9.7536	W	0.0488
0.375	9.525	0.4	10.16	X	0.0508
0.375	9.525	0.5	12.7	Y	0.0635
0.375	9.525	1	25.4	Z	0.127
0.394	10	0.079	2	G	0.01
0.394	10	0.3937	10	C	0.05
0.394	10	0.7874	20	I	0.1

Size 57mm DWM

Mechanical Specifications

Model	C100B(dyn)(N)	Co(stat)(N)	Mro(Nm)	Mpo(Nm)	Myo(Nm)
DWM 57	1.83	1.83	3.8	12.68	12.68

Dimensional Drawings



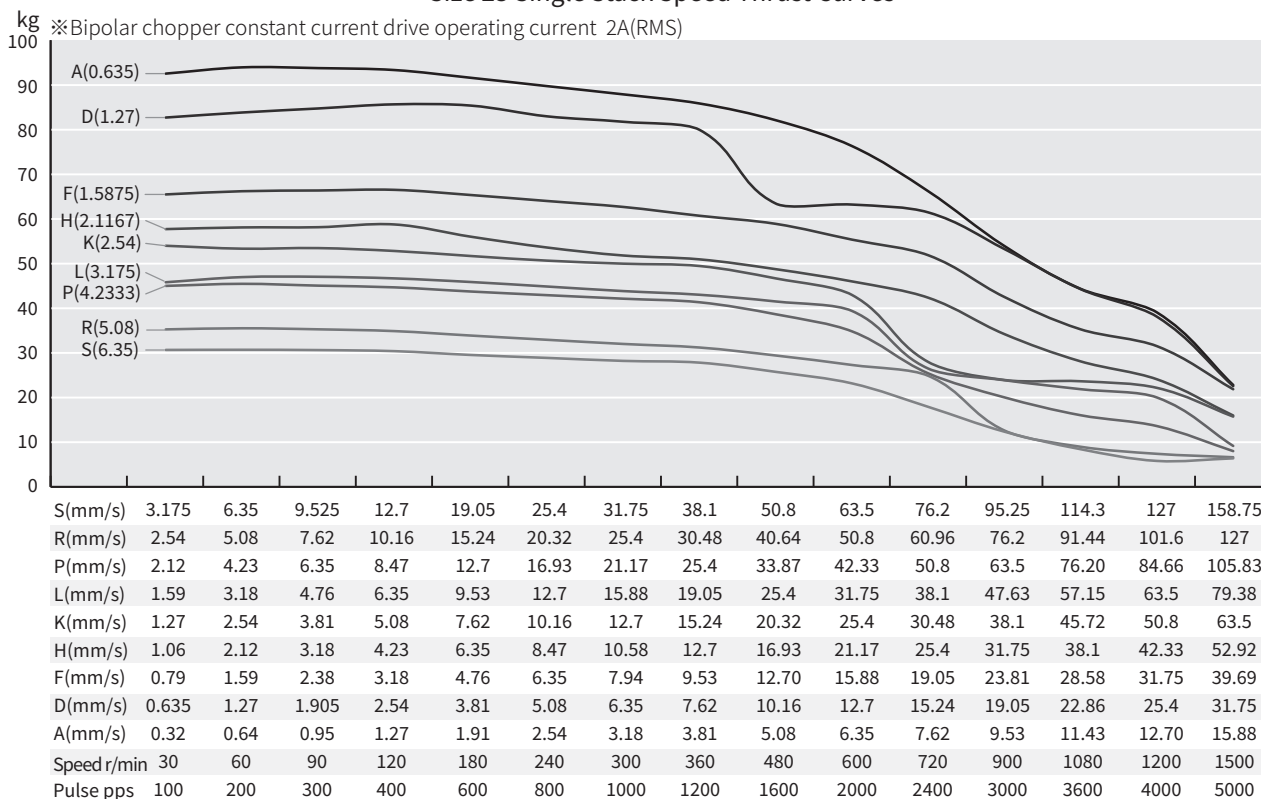
Available Stroke Selection

Size A (mm)	Stroke B (mm)
152	50
202	100
252	150
302	200
352	250
402	300
452	350
502	400
552	450
602	500
652	550
702	600

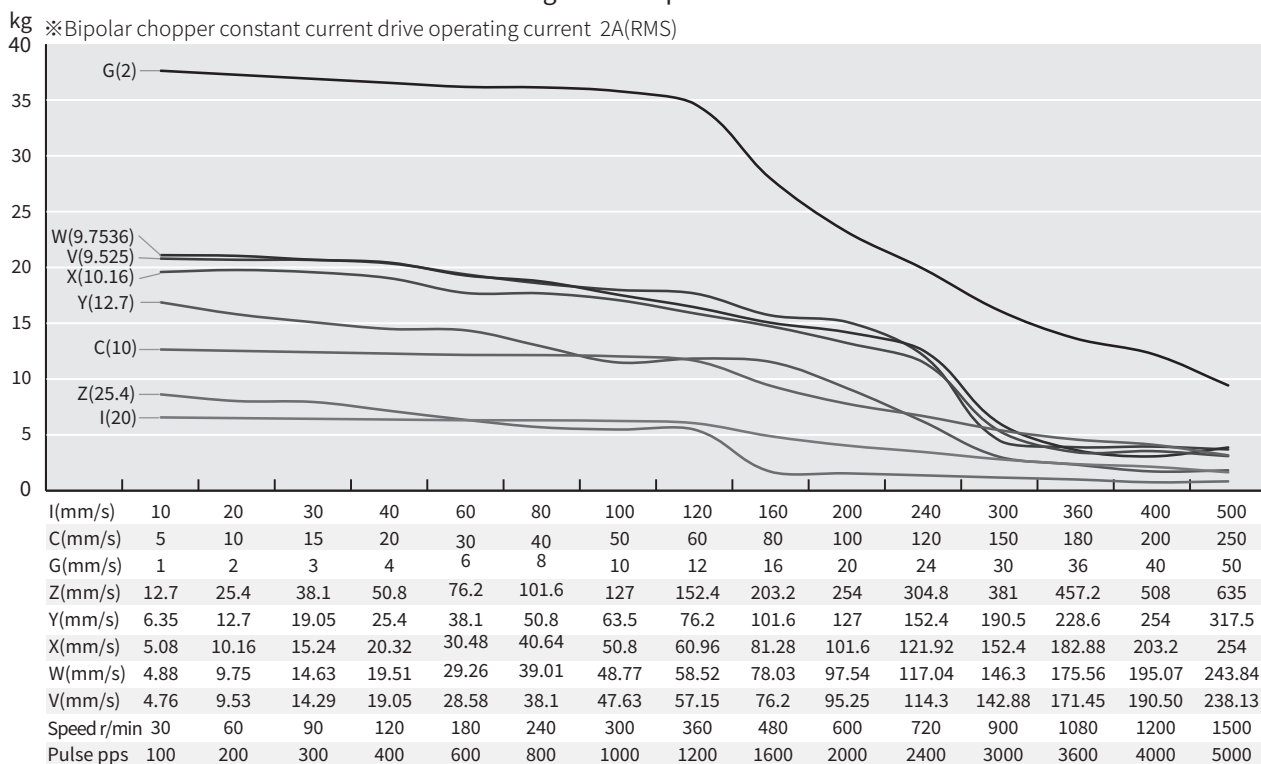
Size 57mm DWM

Speed Thrust Curves

Size 23 Single Stack Speed Thrust Curves



Size 23 Single Stack Speed Thrust Curves

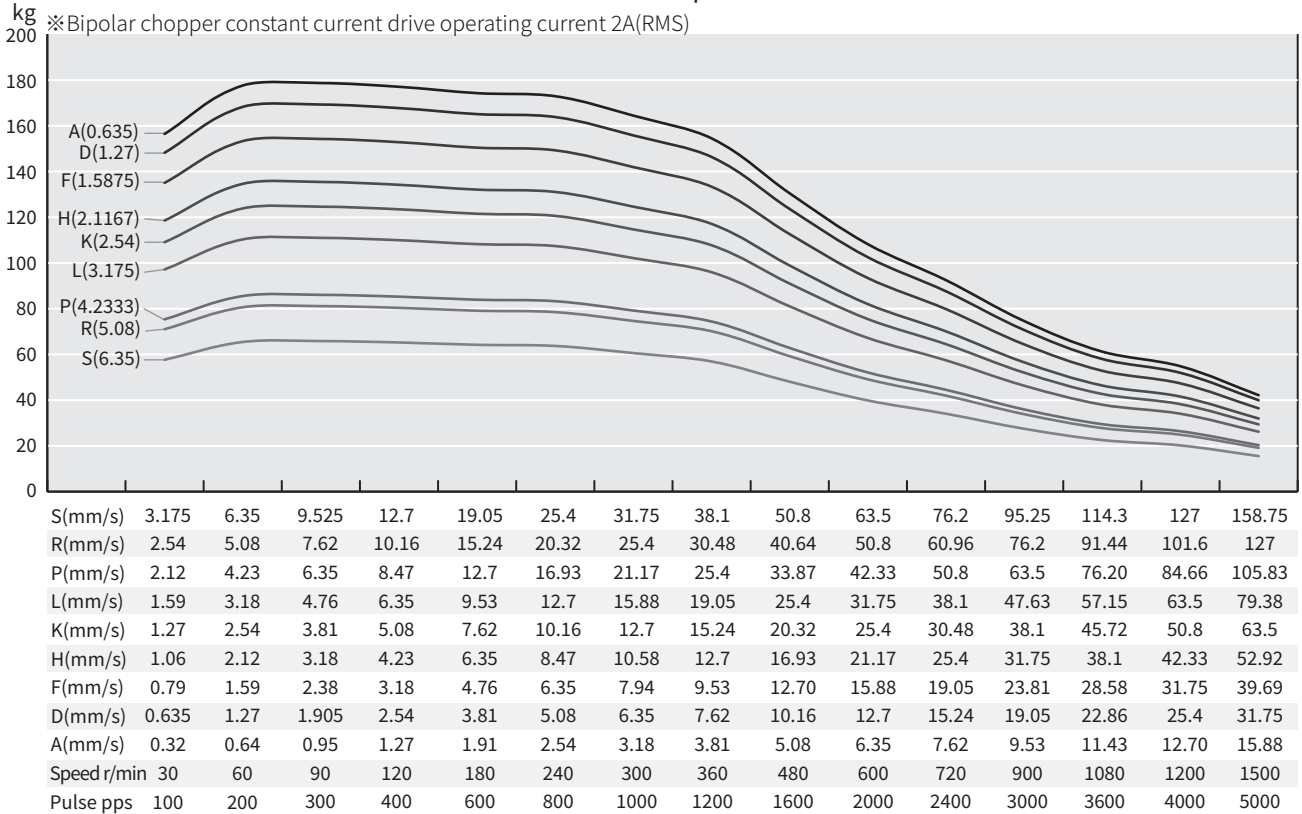


TEST CONDITION

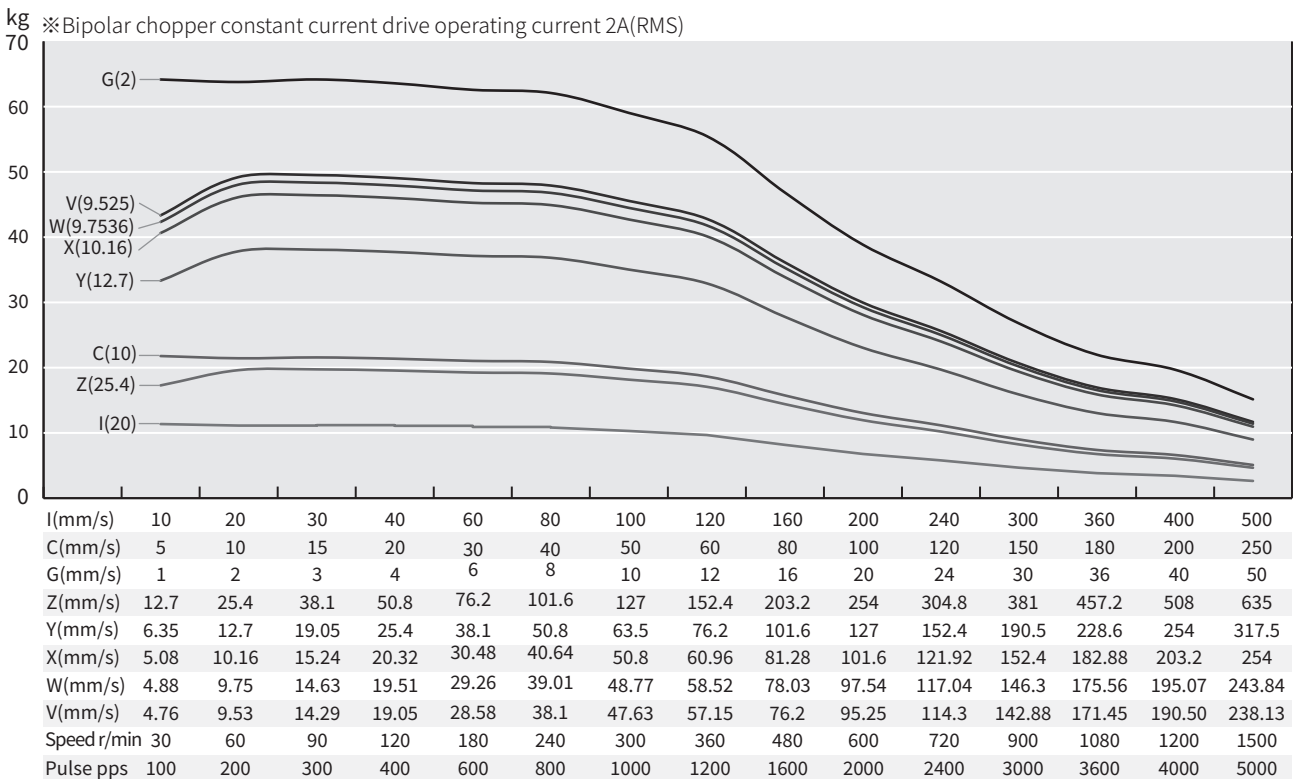
Testing Voltage: 48Vdc, Driver Model: DS-OLS4-FPD bipolar, chopper driver at rated current (rms).
Motor's thrust will be changed with different voltage and driver. 50% thrust margin is recommended.

Size 57mm DWM

Size 23 Double Stack Speed Thrust Curves



Size 23 Double Stack Speed Thrust Curves



TEST CONDITION

Testing Voltage: 48Vdc, Driver Model: DS-OLS4-FPD bipolar, chopper driver at rated current (rms).

Motor's thrust will be changed with different voltage and driver. 50% thrust margin is recommended.

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