DINGS'

Precision Motion Specialist

DWM SERIES

PRODUCT CATALOG

Jiangsu DINGS' Intelligent Control Technology Co., Ltd.

dingsmotion.com

Founded in 2008, Jiangsu DINGS' Intelligent Control Technology Co., Ltd. is guided by the philosophy, **"Quality stems from responsibility, and details determine success."**

As a global leader in precision linear motion, DINGS' delivers a comprehensive portfolio of precision stepper, DC and BLDC motors, voice coil motors, lead and ball screw linear actuators, PMSM motors for eco-mobility, and advanced motion controllers — setting new benchmarks in the global motion control market.

SCALE

300+	Advanced Machining Equipment	
40+	Automated Assembly Lines	
100+	Precision Testing & Analysis Systems	
140+	Patents & Intellectual Properties	

GROWTH

2008	Company Founded & DINGS' Brand Established
2010	DINGS' Motion USA Established
2016	DINGS' Korea Established
2019	Joined LEILI Group
2021	Changzhou Intelligent Manufacturing Plant Established Listed on China NEEQ Market
2022	Korea R&D Center Established
2023	Listed on Beijing Stock Exchange [Stock Code: 920593] DINGS' Korea Converted to Corporate Entity DINGS' Japan Established
2024	New Headquarters & Plant Established DINGS' Motion Europe Established
2025	Thailand Manufacturing Facility Established
2026	DINGS' Motion Europe Austria Branch Established

CERTIFICATIONS

ISO 9001 — Quality

ISO 14001 — Environmental

ISO 45001 — Health & Safety

ISO 13485 — Medical Device Quality

ISO/IEC 17025 — Laboratory Accreditation

IATF16949 — Automotive Quality

IPMS — Intellectual Property

CE — Safety Standards

RoHS COMPLIANT — Environmental Standards - RoHS

REACH NPS — Environmental Standards - REACH

PRODUCT WARRANTY

Warranty period: 1 year from shipment.

Free repair is provided for defects in materials or workmanship under normal use.

Warranty does not apply to:

- Warranty expiration or damaged/lost nameplates
- Improper installation or operating conditions
- Unauthorized disassembly or modification
- Repairs conducted outside of official service channels
- Force majeure, including natural disasters

DINGS' is committed to quality, reliability, and responsibility

— delivering high-performance motion solutions built on precision engineering.

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DWM SERIES

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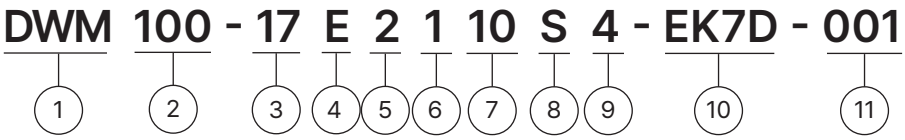
Part number construction



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, 1.8° step angle
4 = 2-phase, 0.9° step angle

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 the lead screw code selection table

⑨ Number of Lead Wires
4 = 4-wire leads
6 = 6-wire leads

⑩ Option
EKX = Encoder
P = Manual Knob
B = Brake
X = Rear Shaft
R = Encoder Ready
C = Customization
N = No rear-end machining

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-wire leads EK7D Encoder with differential output 1,000 lines Serial Number 001

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
0.128	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	0.096	2.4384	J	0.012192
0.138	3.5	0.1575	4	M	0.02
0.138	3.5	0.315	8	T	0.04

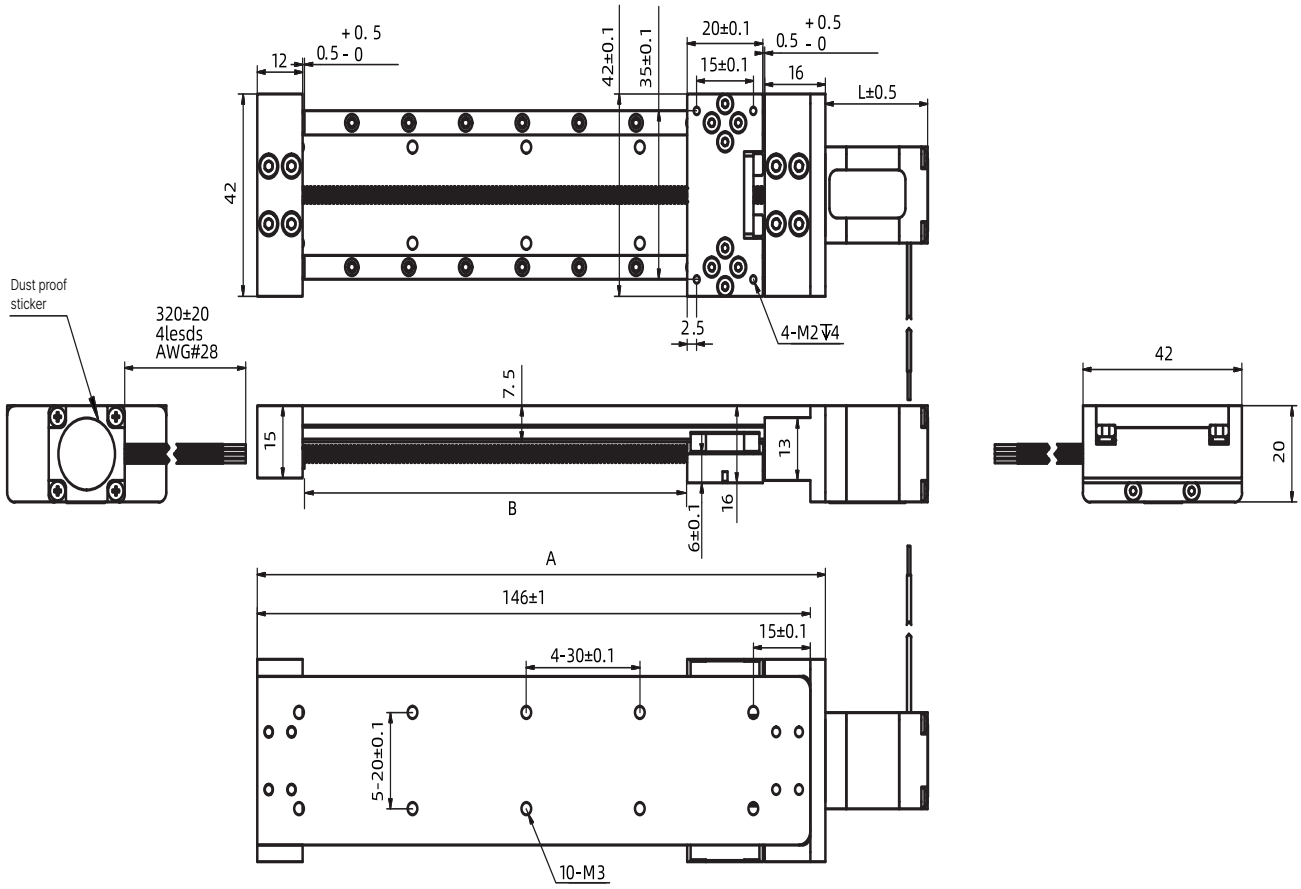
Mechanical Specifications

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

For customized options, please contact DINGS' or your local distributor

20mm DWM

Dimensional Drawings



Available Stroke Selection

Size A (mm)	Stroke B (mm)	Weight (kg)	
		Single stack	Double stack
70	20	0.145	0.168
90	40	0.159	0.182
110	60	0.173	0.196
130	80	0.186	0.209
150	100	0.200	0.223
170	150	0.235	0.258
190	200	0.270	0.293

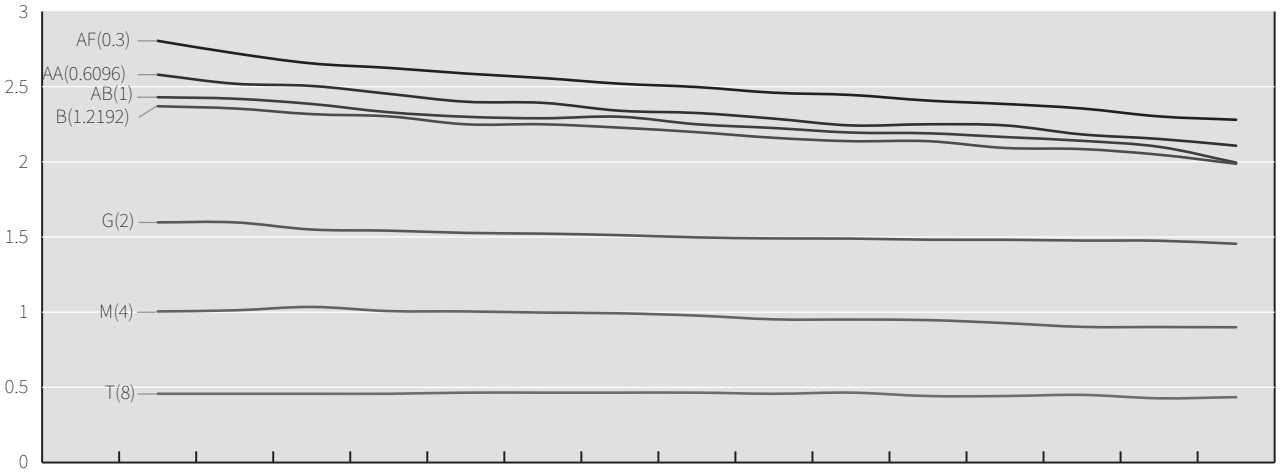
* Weight values are for reference only and may vary with actual configuration.

Note : All drawings are 1st-angle projection - ISO Compliant (3D models available)

Speed Thrust Curves

Size 8 Single Stack Speed Thrust Curves

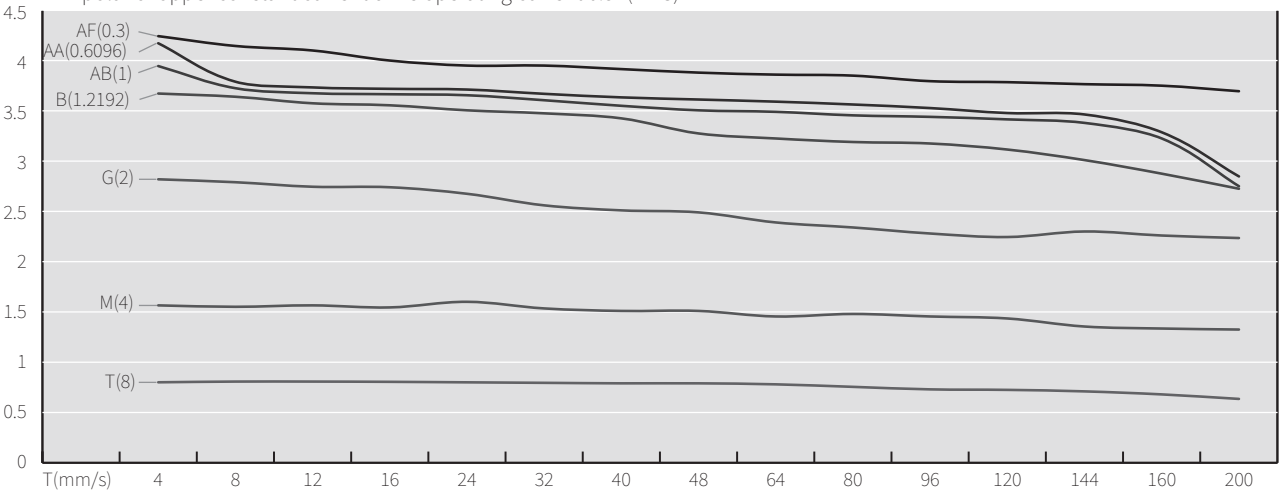
kg ※Bipolar chopper constant current drive operating current 0.5A(RMS)



T(mm/s)	4	8	12	16	24	32	40	48	64	80	96	120	144	160	200
M(mm/s)	2	4	6	8	12	16	20	24	32	40	48	60	72	80	100
G(mm/s)	1	2	3	4	6	8	10	12	16	20	24	30	36	40	50
B(mm/s)	0.6	1.2	1.8	2.4	3.7	4.9	6.1	7.3	9.8	12.2	14.6	18.3	22	24.4	30.5
AB(mm/s)	0.5	1	1.5	2	3	4	5	6	8	10	12	15	18	20	25
AA(mm/s)	0.3	0.6	0.9	1.2	1.8	2.4	3.1	3.7	4.9	6.1	7.3	9.1	11	12.2	15.2
AF(mm/s)	0.15	0.3	0.45	0.6	0.9	1.2	1.5	1.8	2.4	3	3.6	4.5	5.4	6	7.5
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 8 Double Stack Speed Thrust Curves

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

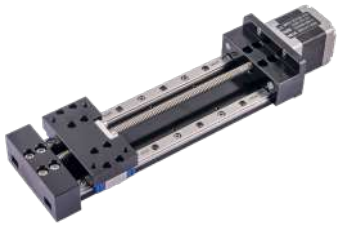


T(mm/s)	4	8	12	16	24	32	40	48	64	80	96	120	144	160	200
M(mm/s)	2	4	6	8	12	16	20	24	32	40	48	60	72	80	100
G(mm/s)	1	2	3	4	6	8	10	12	16	20	24	30	36	40	50
B(mm/s)	0.6	1.2	1.8	2.4	3.7	4.9	6.1	7.3	9.8	12.2	14.6	18.3	21.9	24.4	30.5
AB(mm/s)	0.5	1	1.5	2	3	4	5	6	8	10	12	15	18	20	25
AA(mm/s)	0.3	0.6	0.9	1.2	1.8	2.4	3.0	3.7	4.9	6.1	7.3	9.1	11.0	12.2	15.2
AF(mm/s)	0.2	0.3	0.5	0.6	0.9	1.2	1.5	1.8	2.4	3.0	3.6	4.5	5.4	6.0	7.5
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 thrust may vary depending on voltage and driver conditions. 50% thrust margin is recommended.

28mm DWM



Motor Characteristics

Motor	Voltage (V)	Current (A [RMS])	Resistance (Ω)	Inductance (mH)	Lead wires	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

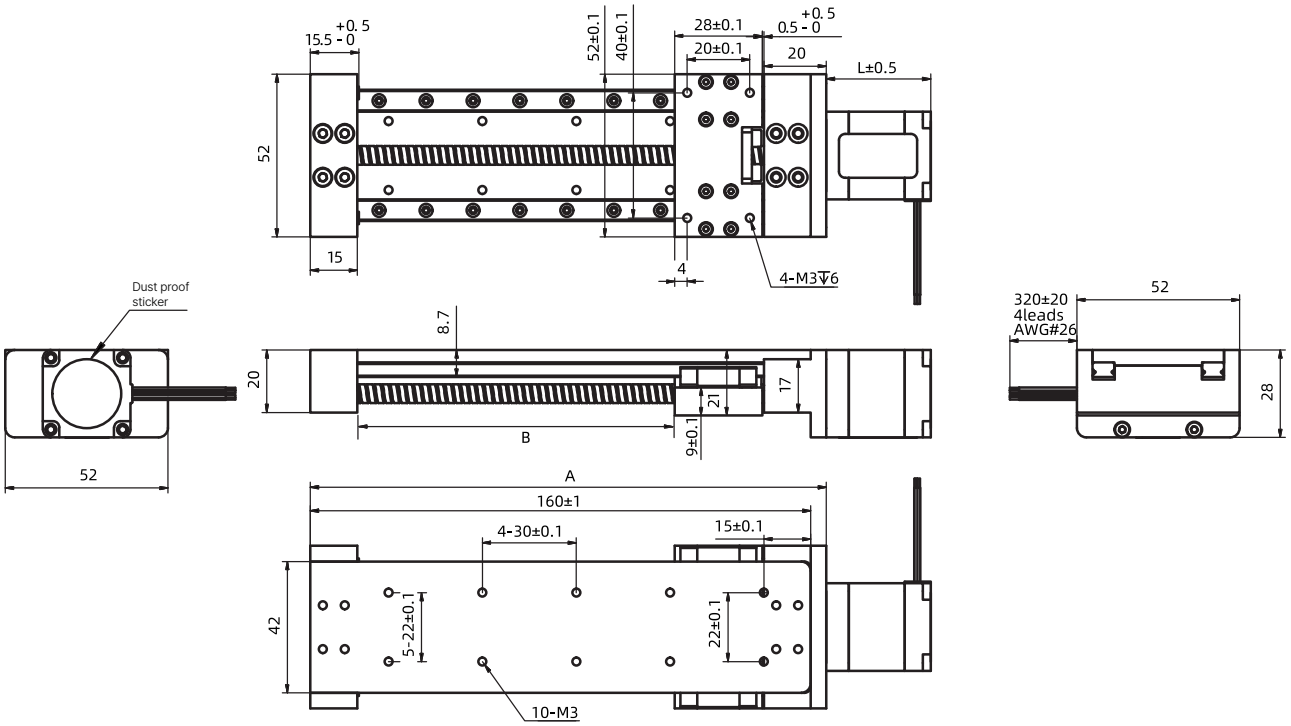
Screw Dia. (inch)	Screw Dia. (mm)	Lead (inch)	Lead (mm)	Lead Code	Travel Per Step @1.8° (mm)*
0.188	4.77	0.0125	0.3175	AL	0.0016
0.188	4.77	0.025	0.635	A	0.003175
0.188	4.77	0.05	1.27	D	0.00635
0.188	4.77	0.0625	1.5875	F	0.0079
0.188	4.77	0.1	2.54	K	0.0127
0.188	4.77	0.192	4.8768	Q	0.0244
0.188	4.77	0.2	5.08	R	0.0254
0.188	4.77	0.4	10.16	X	0.0508

Mechanical Specifications

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

For customized options, please contact DINGS' or your local distributor

Dimensional Drawings



Available Stroke Selection

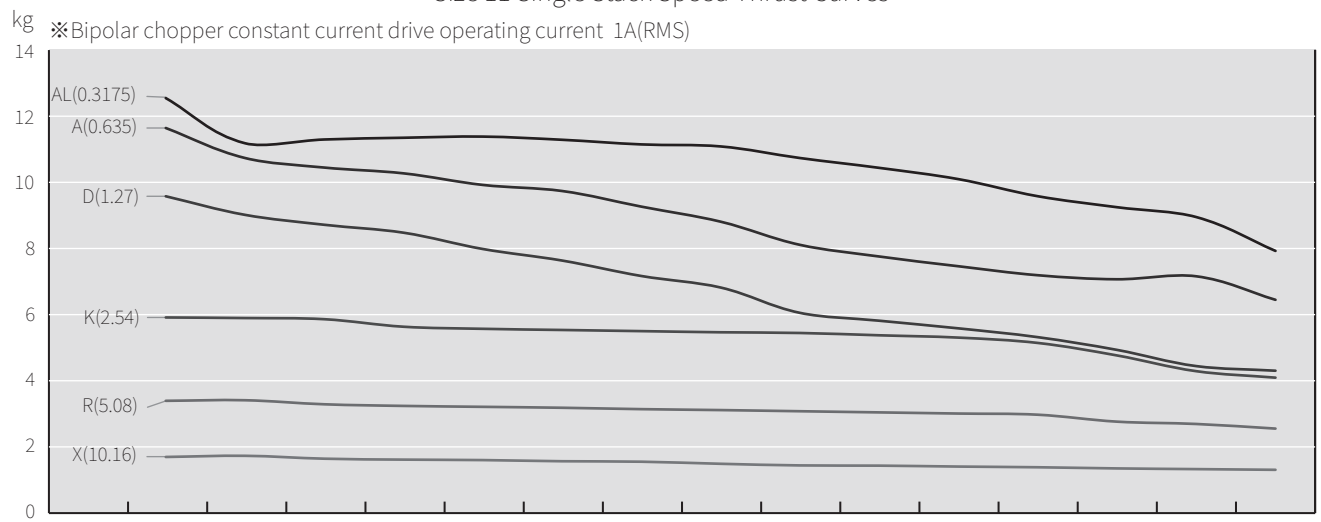
Size A (mm)	Stroke B (mm)	Weight (kg)	
		Single stack	Double stack
85	20	0.315	0.371
105	40	0.337	0.393
125	60	0.359	0.415
145	80	0.381	0.437
165	100	0.403	0.459
215	150	0.458	0.514
265	200	0.513	0.569
315	250	0.568	0.624
365	300	0.623	0.679

* Weight values are for reference only and may vary with actual configuration.

28mm DWM

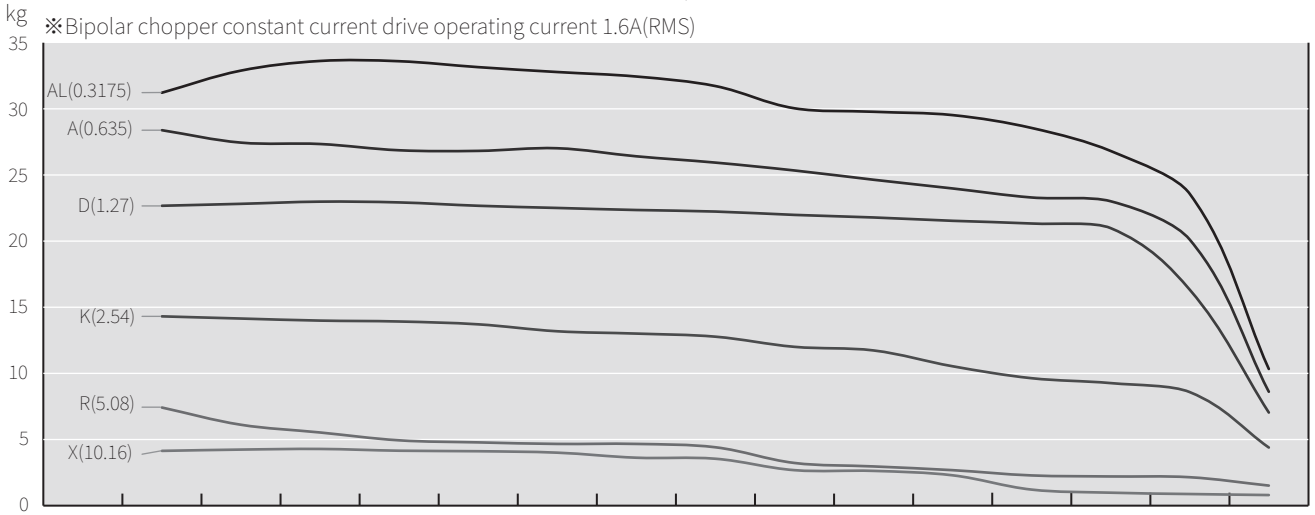
Speed Thrust Curves

Size 11 Single Stack Speed Thrust Curves



X(mm/s)	5.08	10.16	15.24	20.32	30.48	40.64	50.8	60.96	81.28	101.6	121.92	152.4	182.88	203.2	254
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
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
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
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	12.7	15.88
AL(mm/s)	0.15	0.3	0.45	0.6	0.9	1.2	1.5	1.8	2.4	3	3.6	4.5	5.4	6	7.5
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 11 Double Stack Speed Thrust Curves



X(mm/s)	5.08	10.16	15.24	20.32	30.48	40.64	50.8	60.96	81.28	101.6	121.92	152.4	182.88	203.2	254
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
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
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
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	12.7	15.88
AL(mm/s)	0.15	0.3	0.45	0.6	0.9	1.2	1.5	1.8	2.4	3	3.6	4.5	5.4	6	7.5
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 thrust may vary depending on voltage and driver conditions. 50% thrust margin is recommended.

35mm DWM

Motor Characteristics

Motor	Voltage (V)	Current (A [RMS])	Resistance (Ω)	Inductance (mH)	Lead wires	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	0.05	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

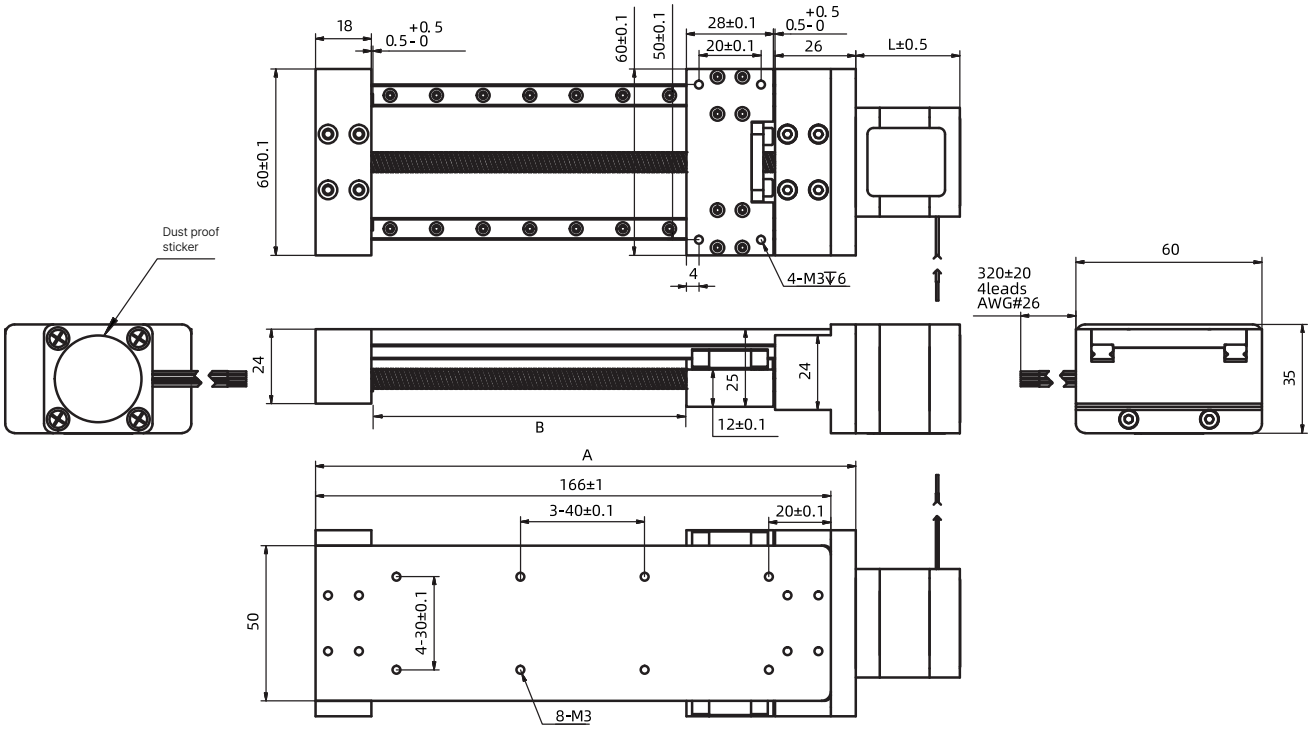
For customized options, please contact DINGS' or your local distributor

35mm DWM

Mechanical Specifications

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

Dimensional Drawings



Available Stroke Selection

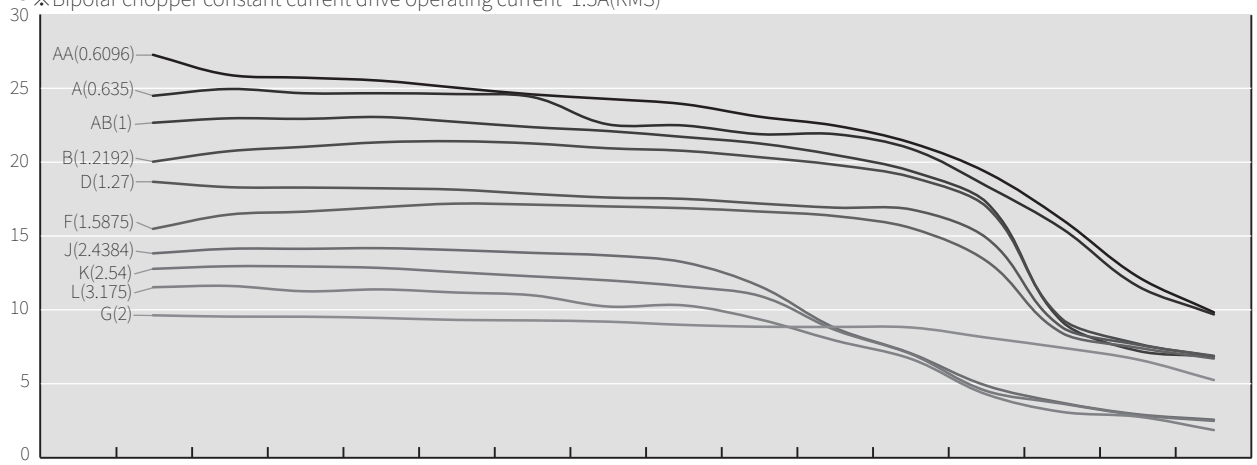
Size A (mm)	Stroke B (mm)	Weight (kg)	
		Single stack	Double stack
124	50	0.522	0.543
174	100	0.593	0.614
224	150	0.665	0.686
274	200	0.736	0.757
324	250	0.807	0.828
374	300	0.879	0.900
424	350	0.950	0.971
474	400	1.021	1.042
524	450	1.092	1.113
574	500	1.163	1.184

* Weight values are for reference only and may vary with actual configuration.

Speed Thrust Curves

Size 14 Single Stack Speed Thrust Curves

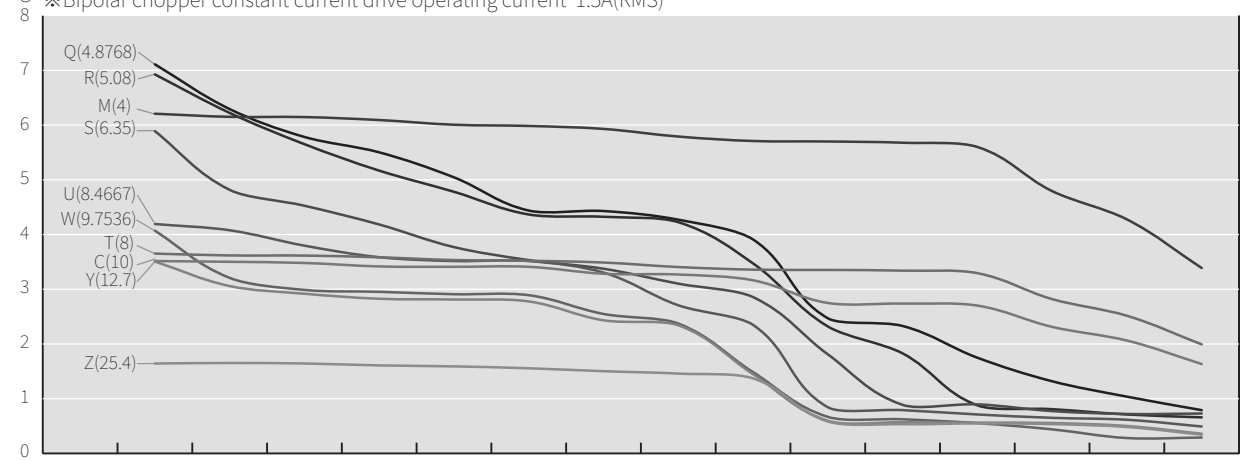
kg ※Bipolar chopper constant current drive operating current 1.5A(RMS)



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 14 Single Stack Speed Thrust Curves

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



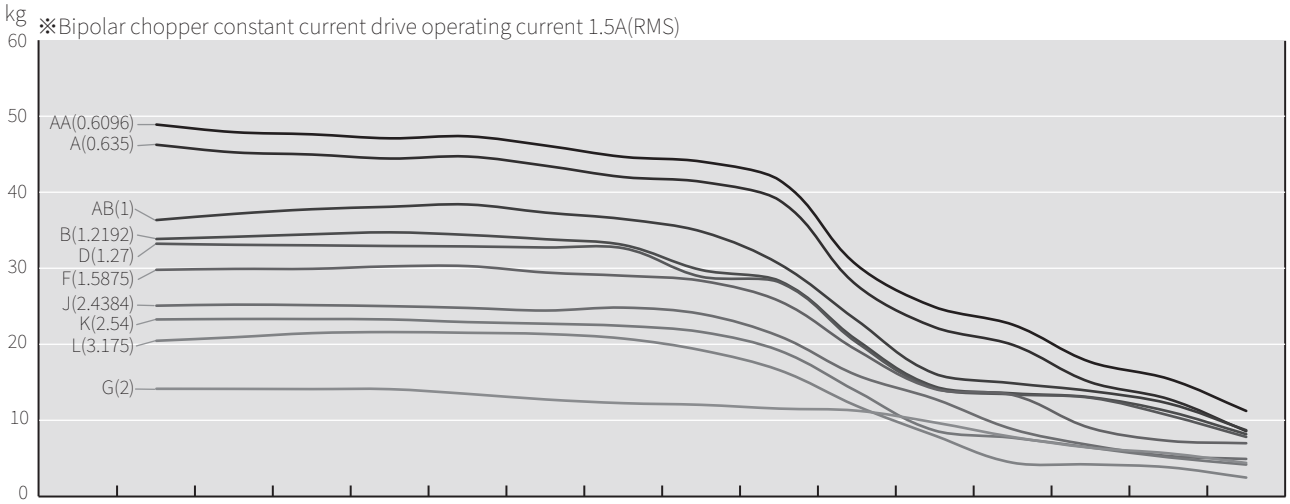
Z(mm/s)	12.7	25.4	38.1	50.8	76.2	101.6	127	152.4	203.2	254	304.8	381	457.2	508	635
Y(mm/s)	6.35	12.7	19.05	25.4	38.1	50.8	63.5	76.2	101.6	127	152.4	190.5	228.6	254	317.5
C(mm/s)	5	10	15	20	30	40	50	60	80	100	120	150	180	200	250
T(mm/s)	4	8	12	16	24	32	40	48	64	80	96	120	144	160	200
W(mm/s)	4.88	9.75	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 thrust may vary depending on voltage and driver conditions. 50% thrust margin is recommended.

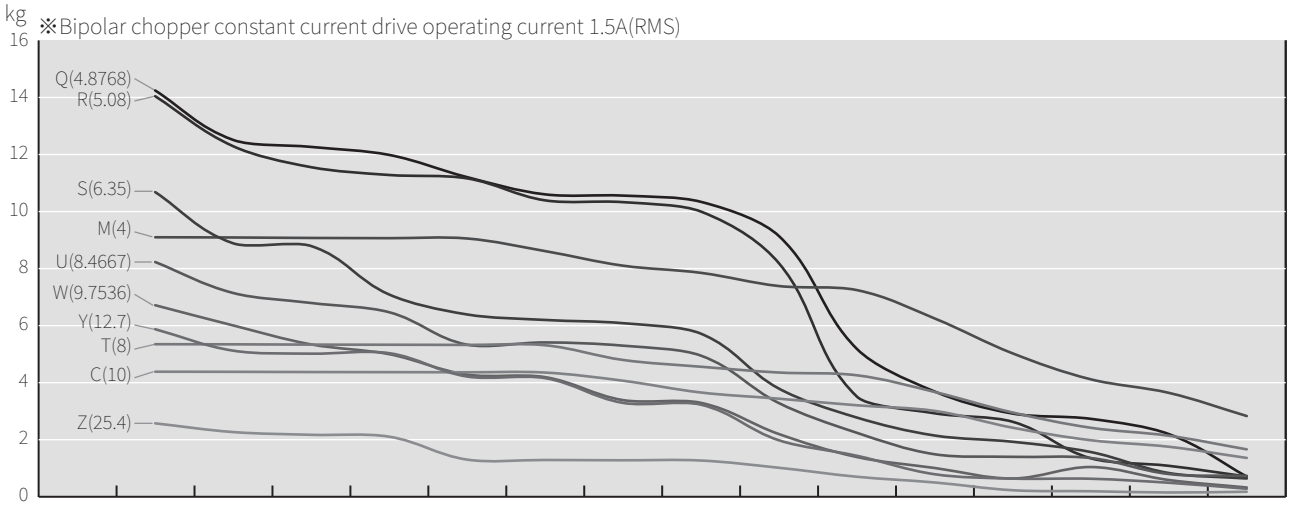
35mm DWM

Size 14 Double Stack Speed Thrust Curves



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 14 Double Stack Speed Thrust Curves



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 thrust may vary depending on voltage and driver conditions. 50% thrust margin is recommended.

42mm DWM

Motor Characteristics

Motor	Voltage (V)	Current (A [RMS])	Resistance (Ω)	Inductance (mH)	Lead wires	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	0.05	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

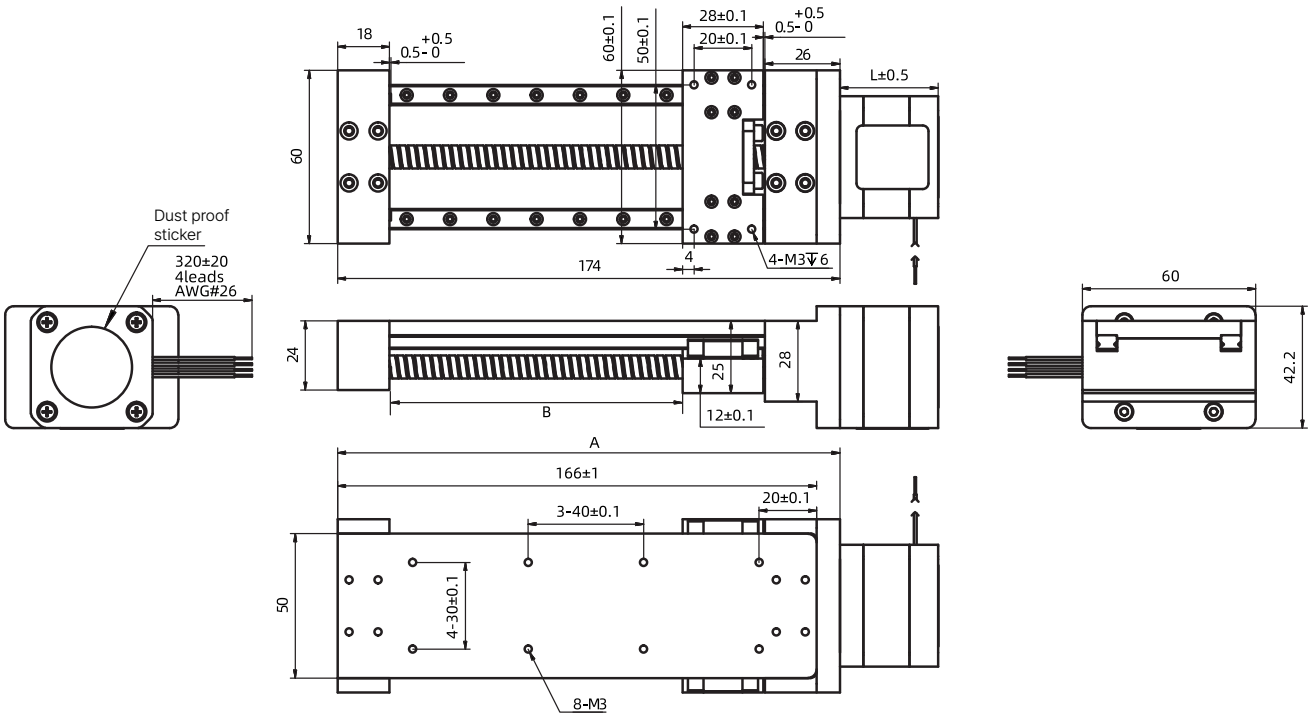
For customized options, please contact DINGS' or your local distributor

42mm DWM

Mechanical Specifications

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

Dimensional Drawings



Available Stroke Selection

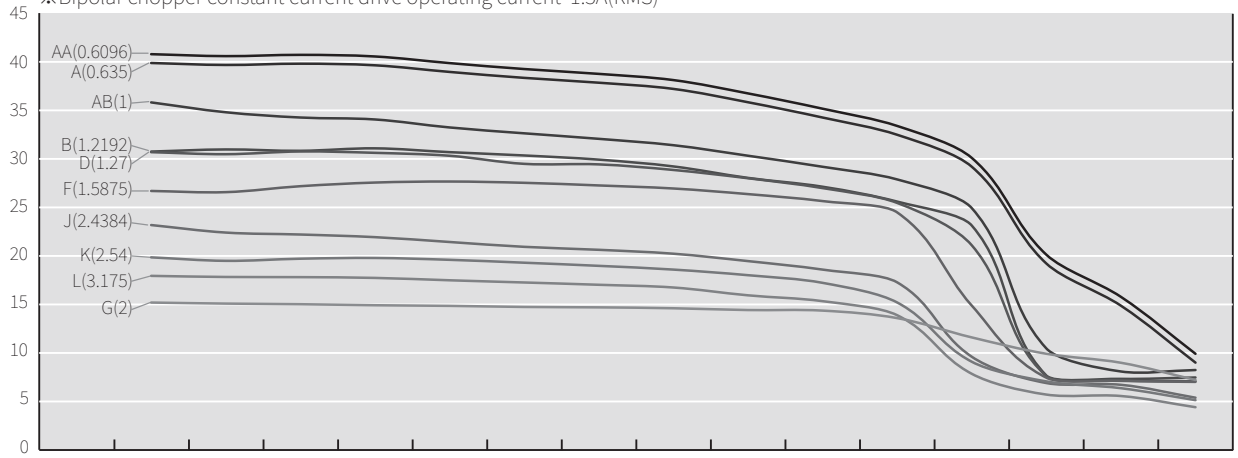
Size A (mm)	Stroke B (mm)	Weight (kg)	
		Single stack	Double stack
124	50	0.651	0.783
174	100	0.730	0.862
224	150	0.809	0.941
274	200	0.888	1.020
324	250	0.968	1.100
374	300	1.047	1.179
424	350	1.126	1.258
474	400	1.205	1.337
524	450	1.274	1.406
574	500	1.343	1.475

* Weight values are for reference only and may vary with actual configuration.

Speed Thrust Curves

Size 17 Single Stack Speed Thrust Curves

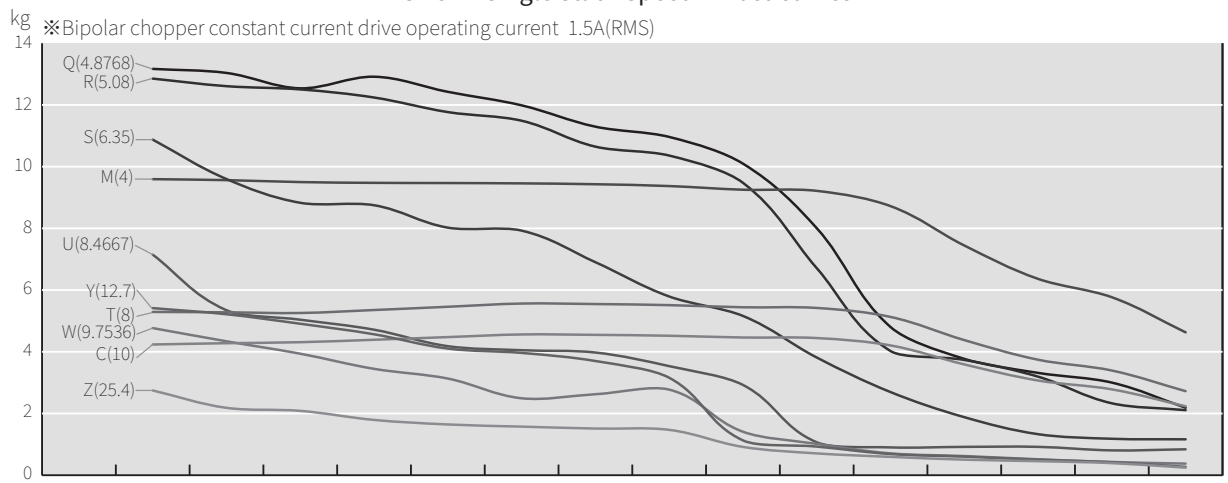
※Bipolar chopper constant current drive operating current 1.5A(RMS)



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

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



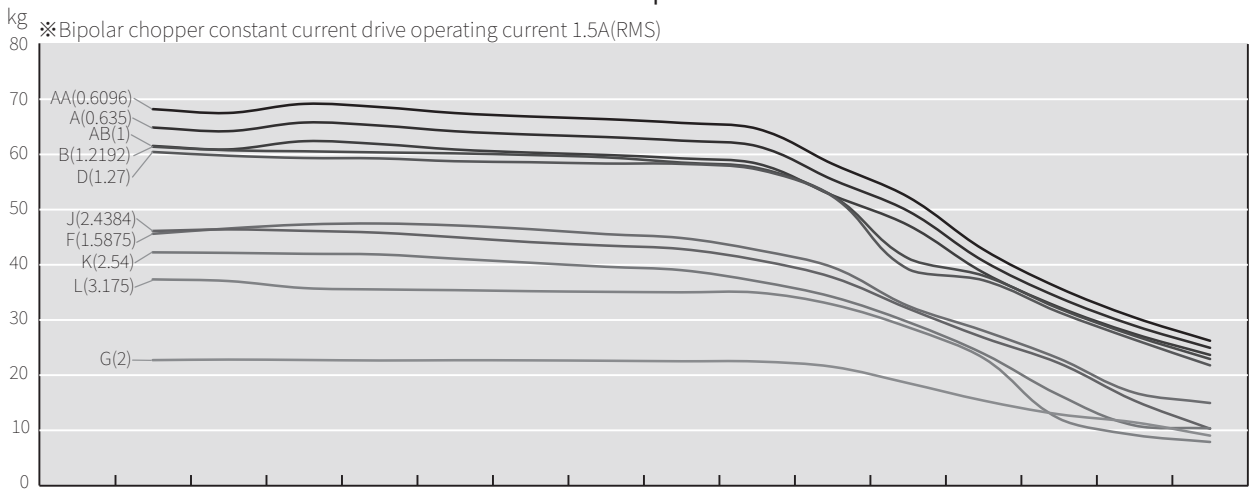
Z(mm/s)	12.7	25.4	38.1	50.8	76.2	101.6	127	152.4	203.2	254	304.8	381	457.2	508	635
Y(mm/s)	6.35	12.7	19.05	25.4	38.1	50.8	63.5	76.2	101.6	127	152.4	190.5	228.6	254	317.5
C(mm/s)	5	10	15	20	30	40	50	60	80	100	120	150	180	200	250
T(mm/s)	4	8	12	16	24	32	40	48	64	80	96	120	144	160	200
W(mm/s)	4.88	9.75	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 thrust may vary depending on voltage and driver conditions. 50% thrust margin is recommended.

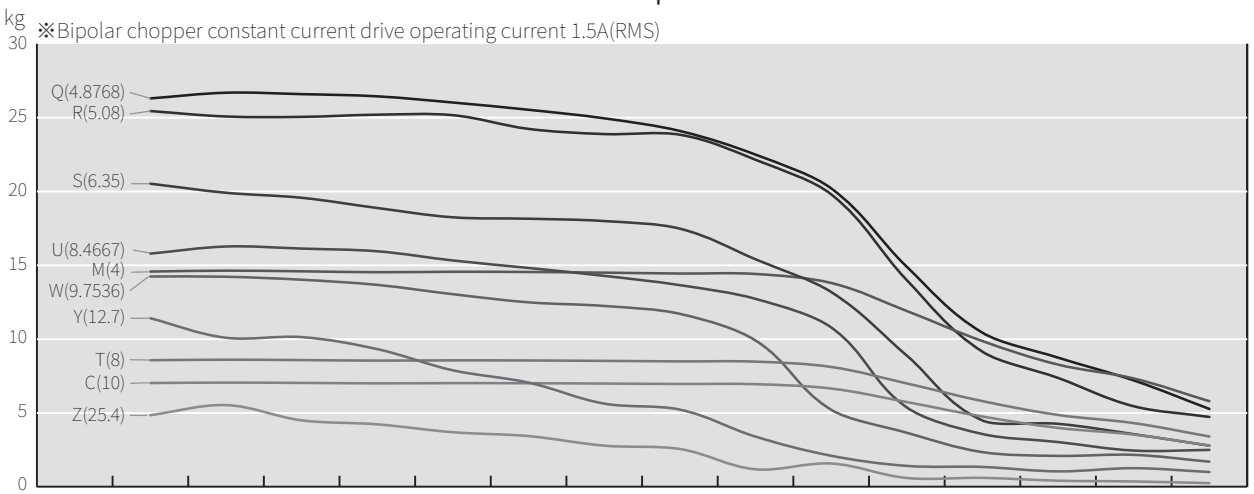
42mm DWM

Size 17 Double Stack Speed Thrust Curves



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 Double Stack Speed Thrust Curves

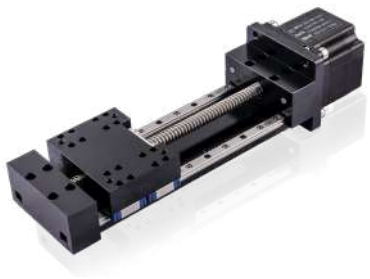


Z(mm/s)	12.7	25.4	38.1	50.8	76.2	101.6	127	152.4	203.2	254	304.8	381	457.2	508	635
Y(mm/s)	6.35	12.7	19.05	25.4	38.1	50.8	63.5	76.2	101.6	127	152.4	190.5	228.6	254	317.5
C(mm/s)	5	10	15	20	30	40	50	60	80	100	120	150	180	200	250
T(mm/s)	4	8	12	16	24	32	40	48	64	80	96	120	144	160	200
W(mm/s)	4.88	9.75	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
J(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 thrust may vary depending on voltage and driver conditions. 50% thrust margin is recommended.

57mm DWM



Motor Characteristics

Motor	Voltage (V)	Current (A [RMS])	Resistance (Ω)	Inductance (mH)	Lead wires	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	0.0787	2	G	0.01
0.394	10	0.3937	10	C	0.05
0.394	10	0.7874	20	I	0.1

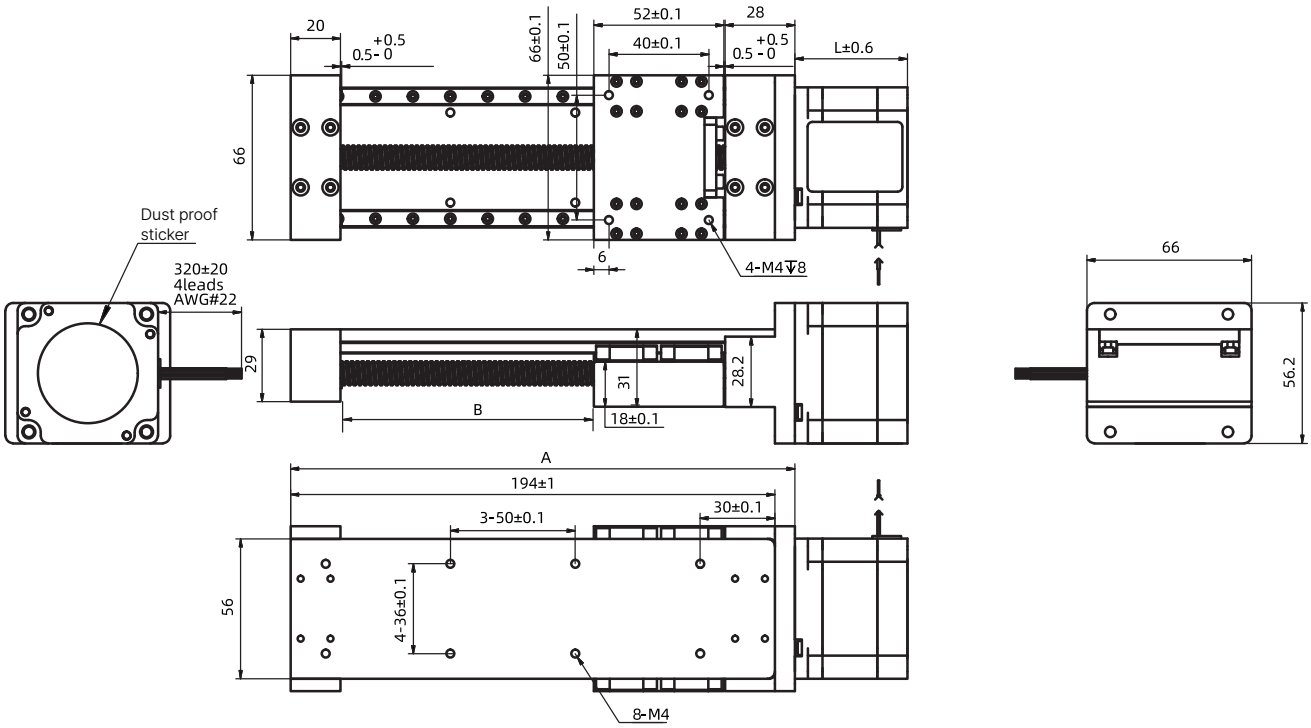
For customized options, please contact DINGS' or your local distributor

57mm DWM

Mechanical Specifications

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

Dimensional Drawings



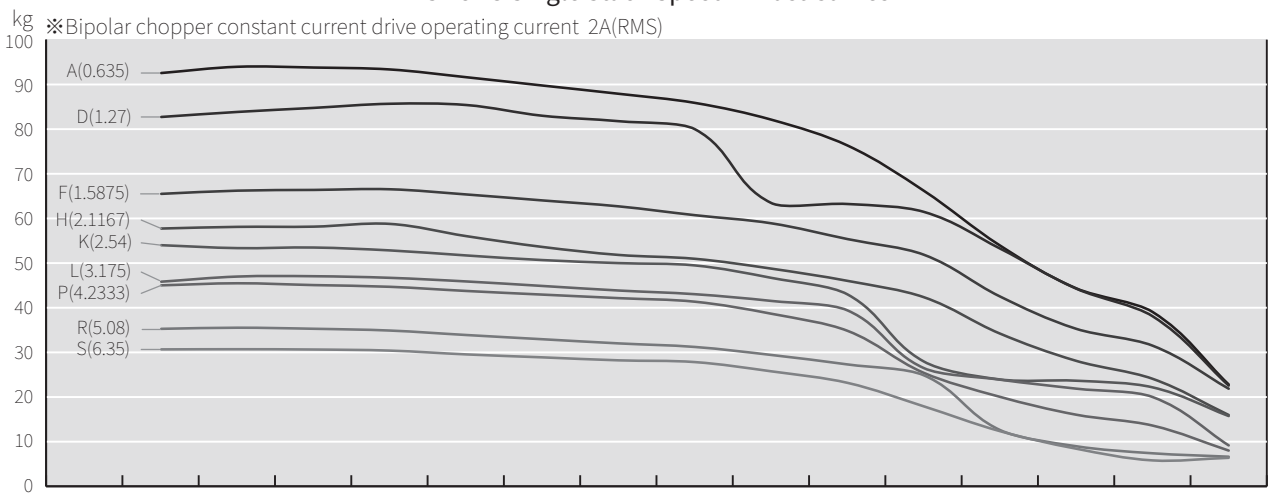
Available Stroke Selection

Size A (mm)	Stroke B (mm)	Weight (kg)	
		Single stack	Double stack
152	50	1.170	1.465
202	100	1.260	1.555
252	150	1.350	1.645
302	200	1.441	1.736
352	250	1.531	1.826
402	300	1.622	1.917
452	350	1.712	2.007
502	400	1.804	2.099
552	450	1.894	2.189
602	500	1.984	2.279
652	550	2.075	2.370
702	600	2.165	2.460

* Weight values are for reference only and may vary with actual configuration.

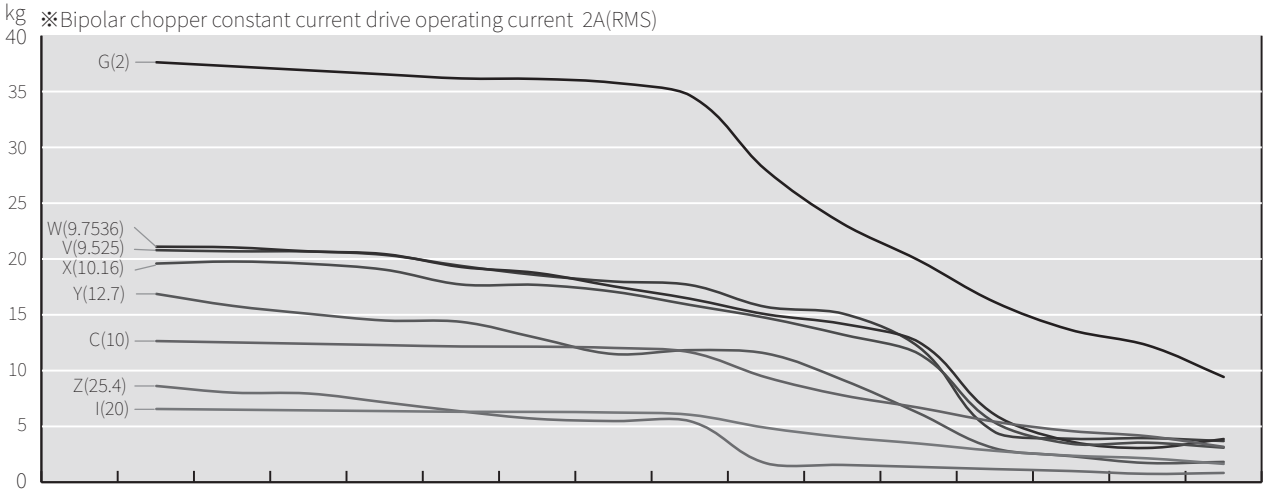
Speed Thrust Curves

Size 23 Single Stack Speed Thrust Curves



S(mm/s)	3.175	6.35	9.525	12.7	19.05	25.4	31.75	38.1	50.8	63.5	76.2	95.25	114.3	127	158.75
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
P(mm/s)	2.12	4.23	6.35	8.47	12.7	16.93	21.17	25.4	33.87	42.33	50.8	63.5	76.20	84.66	105.83
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
H(mm/s)	1.06	2.12	3.18	4.23	6.35	8.47	10.58	12.7	16.93	21.17	25.4	31.75	38.1	42.33	52.92
F(mm/s)	0.79	1.59	2.38	3.18	4.76	6.35	7.94	9.53	12.70	15.88	19.05	23.81	28.58	31.75	39.69
D(mm/s)	0.635	1.27	1.905	2.54	3.81	5.08	6.35	7.62	10.16	12.7	15.24	19.05	22.86	25.4	31.75
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
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 23 Single Stack Speed Thrust Curves



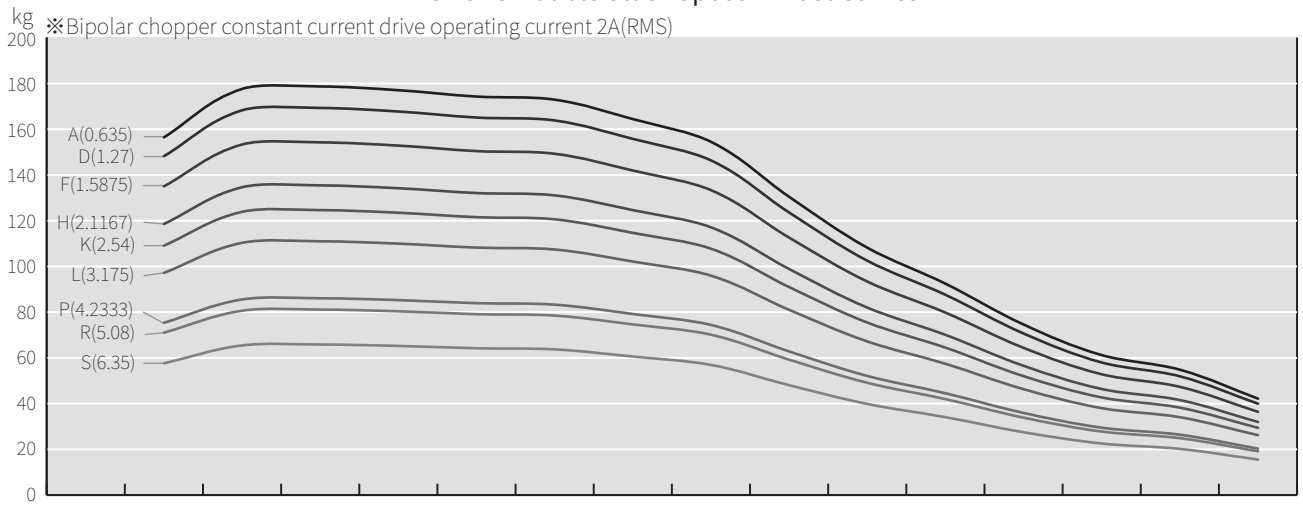
I(mm/s)	10	20	30	40	60	80	100	120	160	200	240	300	360	400	500
C(mm/s)	5	10	15	20	30	40	50	60	80	100	120	150	180	200	250
G(mm/s)	1	2	3	4	6	8	10	12	16	20	24	30	36	40	50
Z(mm/s)	12.7	25.4	38.1	50.8	76.2	101.6	127	152.4	203.2	254	304.8	381	457.2	508	635
Y(mm/s)	6.35	12.7	19.05	25.4	38.1	50.8	63.5	76.2	101.6	127	152.4	190.5	228.6	254	317.5
X(mm/s)	5.08	10.16	15.24	20.32	30.48	40.64	50.8	60.96	81.28	101.6	121.92	152.4	182.88	203.2	254
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
V(mm/s)	4.76	9.53	14.29	19.05	28.58	38.1	47.63	57.15	76.2	95.25	114.3	142.88	171.45	190.50	238.13
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: 48Vdc, Driver Model: DS-OLS4-FPD bipolar, chopper driver at rated current (rms).
Motor thrust may vary depending on voltage and driver conditions. 50% thrust margin is recommended.

57mm DWM

Size 23 Double Stack Speed Thrust Curves



S(mm/s)	3.175	6.35	9.525	12.7	19.05	25.4	31.75	38.1	50.8	63.5	76.2	95.25	114.3	127	158.75
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
P(mm/s)	2.12	4.23	6.35	8.47	12.7	16.93	21.17	25.4	33.87	42.33	50.8	63.5	76.20	84.66	105.83
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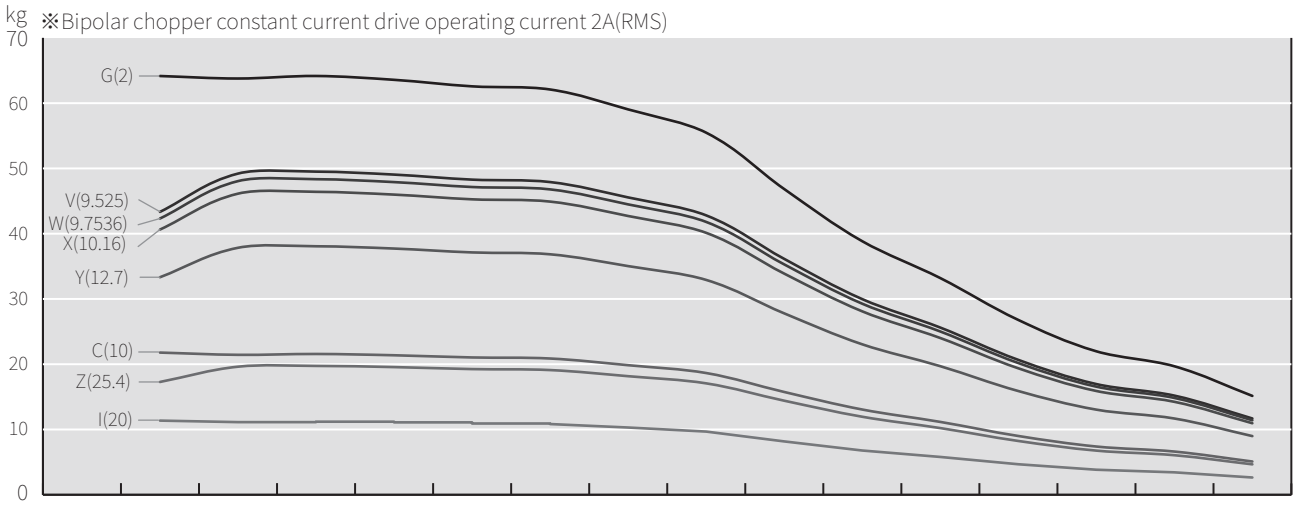
Size 23 Double Stack Speed Thrust Curves



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G(mm/s)	1	2	3	4	6	8	10	12	16	20	24	30	36	40	50
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
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TEST CONDITION

Testing Voltage: 48Vdc, Driver Model: DS-OLS4-FPD bipolar, chopper driver at rated current (rms).
Motor thrust may vary depending on voltage and driver conditions. 50% thrust margin is recommended.

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