

METS2-14 series

SLIDER ELECTRIC CYLINDER (WITHOUT MOTOR)



Use environment	Standard	Servo motor	200W / 400W
Actuation type	Ball screw	Guide type	Linear guide

Feature

- Modular product can save your time of designing and assembly, and greatly increase your development efficiency.
- High stiffness body made with integrated aluminum extrusion.
- It provides several position for motor installment.
- It is available for customized service.

Specification

Model	METS2-14		
Positioning repeatability (mm)	±0.01		
Lead (mm)	5	10	20
Max. speed (mm/s)	250	500	1000
Stroke (mm)	100~1000 / 50 pitch		
Ball screw O.D. (mm)	C7 ø16		
Coupling (mm)	10×14 / 10×11 ^(*)		
Sensor switch	RLT (Please refer to page 5-16)		

AC servo motor		200W		
Max. payload	Horizontal (kg)	95	75	35
	Vertical (kg)	27	18	6
Rated thrust (N)		683	341	174

AC servo motor		400W		
Max. payload	Horizontal (kg)	110	88	40
	Vertical (kg)	33	22	8
Rated thrust (N)		1388	694	347

*1. Motor (200W) shaft diameter : Panasonic ø11, others ø14.

*2. When the stroke is over 750mm, the run-out of the ball screw will occur.
We recommend to low down the working speed under this circumstance.

*3. Acceleration and deceleration value are set to 0.2 second.

Order example

METS2-14 — L05 — 100 — BC — M20 B — A3

Model		Size													
Ball screw lead		Stroke		Motor position		Motor brand		Flange face		Brakes		Sensor switch			
L05	5 mm	100~1000 mm 50 mm pitch	M	Built-in	M	Mitsubishi	20 40	200W 400W	—	No brake	—	No sensor			
L10	10 mm		BC	Direct connection		Yaskawa			B	With brake	A1	1 pc			
L20	20 mm		BM	Lower side		Delta					A2	2 pcs			
			BR	Right side	P	Panasonic							A3	3 pcs	
			BL	Left side	E	Else									

(*1)

(*2)

* With cable 2m.

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*1. Standard type is without motor. Please refer to the list of standard motors for flange size.

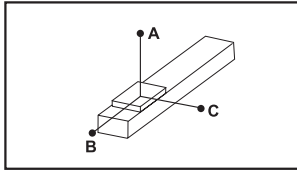
*2. Only for motor position "Built-in".

METS2-14 Performance charts

SLIDER ELECTRIC CYLINDER (WITHOUT MOTOR)

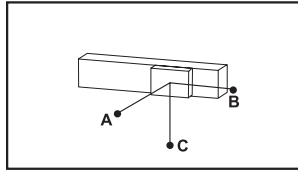


Allowable overhang



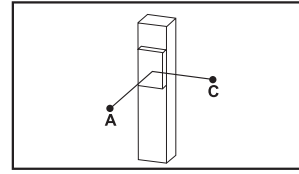
Unit: mm

Horizontal installation		A	B	C
AC servo motor 200W				
Lead 5	60kg	2300	250	240
	80kg	1600	180	170
	95kg	1150	145	140
Lead 10	30kg	2000	500	450
	50kg	1400	280	250
	75kg	1000	170	160
Lead 20	10kg	2300	1200	1000
	20kg	1400	600	500
	35kg	1000	330	290



Unit: mm

Wall installation		A	B	C
AC servo motor 200W				
Lead 5	60kg	200	110	1395
	80kg	130	55	1115
	95kg	85	25	895
Lead 10	30kg	415	330	1275
	50kg	235	155	930
	75kg	130	55	700
Lead 20	10kg	995	1200	1700
	20kg	500	555	985
	35kg	270	230	600



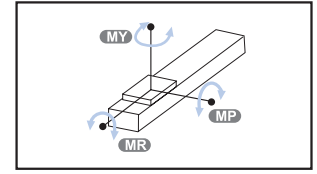
Unit: mm

Vertical installation		A	C
AC servo motor 200W			
Lead 5	20kg	755	610
	25kg	605	485
	27kg	500	480
Lead 10	10kg	1350	1100
	15kg	900	725
	18kg	675	540
Lead 20	6kg	1695	1360
	—	—	—
	—	—	—
AC servo motor 400W			
Lead 20	4kg	2400	2015
	6kg	1700	1365
	8kg	1300	1055

* When the motor power is 400W, the max. payload is 110 kg (lead 5), 88 kg (lead 10), 40 kg (lead 20), and the load torque distance remains unchanged.

* When the motor power is 400W, the max. payload is 33 kg (lead 5), 22kg (lead 10), and the load torque distance remains unchanged.

Static loading moment



Unit: N.m

Horizontal	
AC servo motor 200W	
MY	262
MP	262
MR	261

Standard servo motors

Brand	Mark	Power output	Motor model (Without brake)	Motor model (With brake)	Motor rod dia-shaft length (mm)	Centring collar diameter (mm)	Centring collar depth (mm)	Motor mount P.C.D (mm)	Mounting port (mm)
Mitsubishi	M	200W	HG-KN23J	HG-KN23B J	ø14-30	ø50	3	ø70	4-ø5.8
		400W	HG-KN43J	HG-KN43B J	ø14-30	ø50	3	ø70	4-ø5.8
Yaskawa		200W	SGM7J-02A7A21	SGM7J-02A7A2C	ø14-30	ø50	3	ø70	4-ø5.5
		400W	SGM7J-04A7A21	SGM7J-04A7A2C	ø14-30	ø50	3	ø70	4-ø5.5
Delta		200W	ECMA-C20602PS	ECMA-C20602FS	ø14-30	ø50	3	ø70	4-ø5.5
		400W	ECMA-C20604PS	ECMA-C20604QS	ø14-30	ø50	3	ø70	4-ø5.5
Panasonic	P	200W	MHMF022L1U2M	MHMF022L1V2M	ø11-30	ø50	3	ø70	4-ø4.5
		400W	MHMF042L1U2M	MHMF042L1V2M	ø14-30	ø50	3	ø70	4-ø4.5

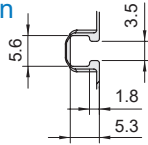
* If your inquiry is not included in above table, please contact us.

METS2-14 Dimensions

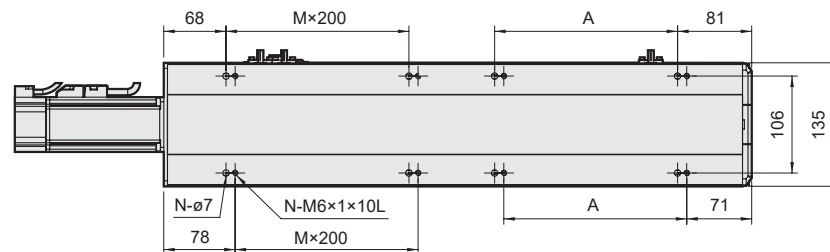
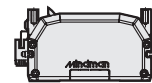
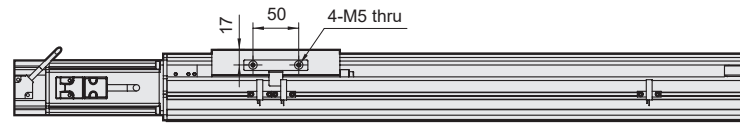
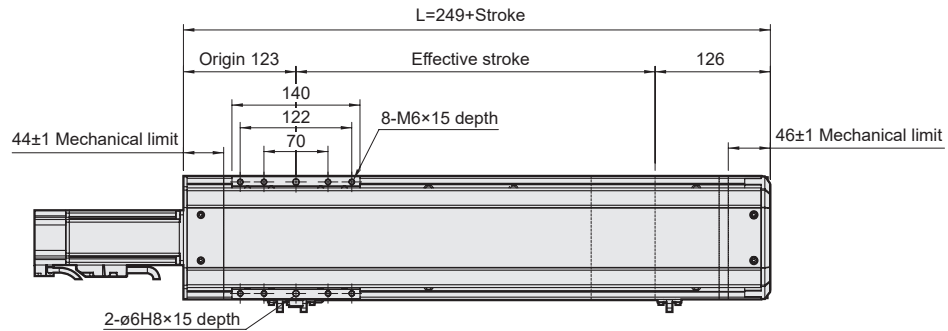
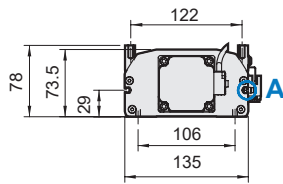
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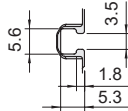
BC
Motor direct
connection



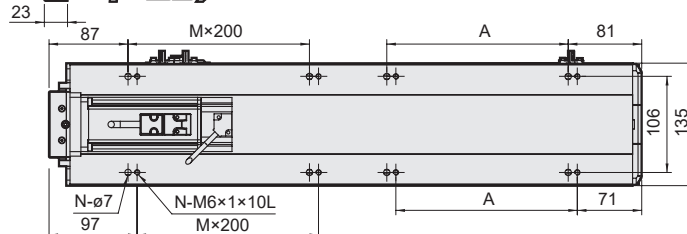
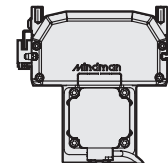
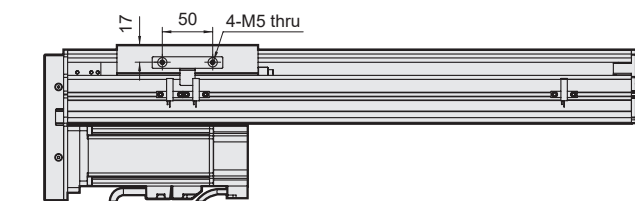
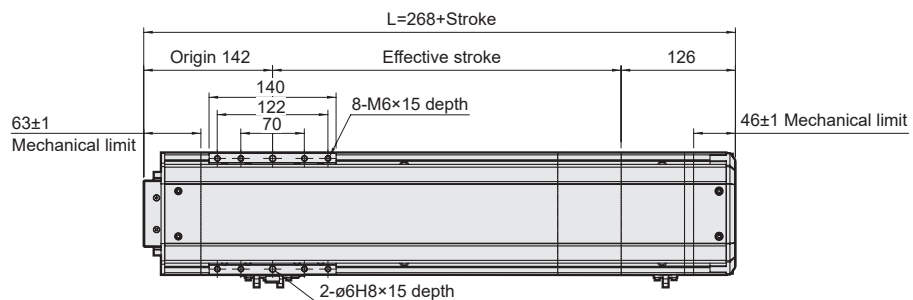
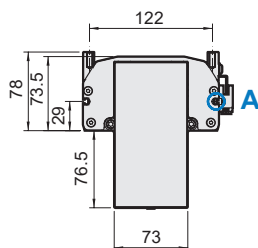
A view



BM
Motor on
lower side



A view



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	
L	BC	349	399	449	499	549	599	649	699	749	799	849	899	949	999	1049	1099	1149	1199	1249
	BM	368	418	468	518	568	618	668	718	768	818	868	918	968	1018	1068	1118	1168	1218	1268
A		200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M		0	1	1	1	1	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N		4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
Weight (kg)	BC	6.24	6.71	7.19	7.66	8.14	8.62	9.09	9.57	10.04	10.52	10.99	11.47	11.94	12.42	12.90	13.37	13.85	14.32	14.80
	BM	6.75	7.22	7.70	8.18	8.65	9.13	9.60	10.08	10.55	11.03	11.50	11.98	12.46	12.93	13.41	13.88	14.36	14.83	15.31

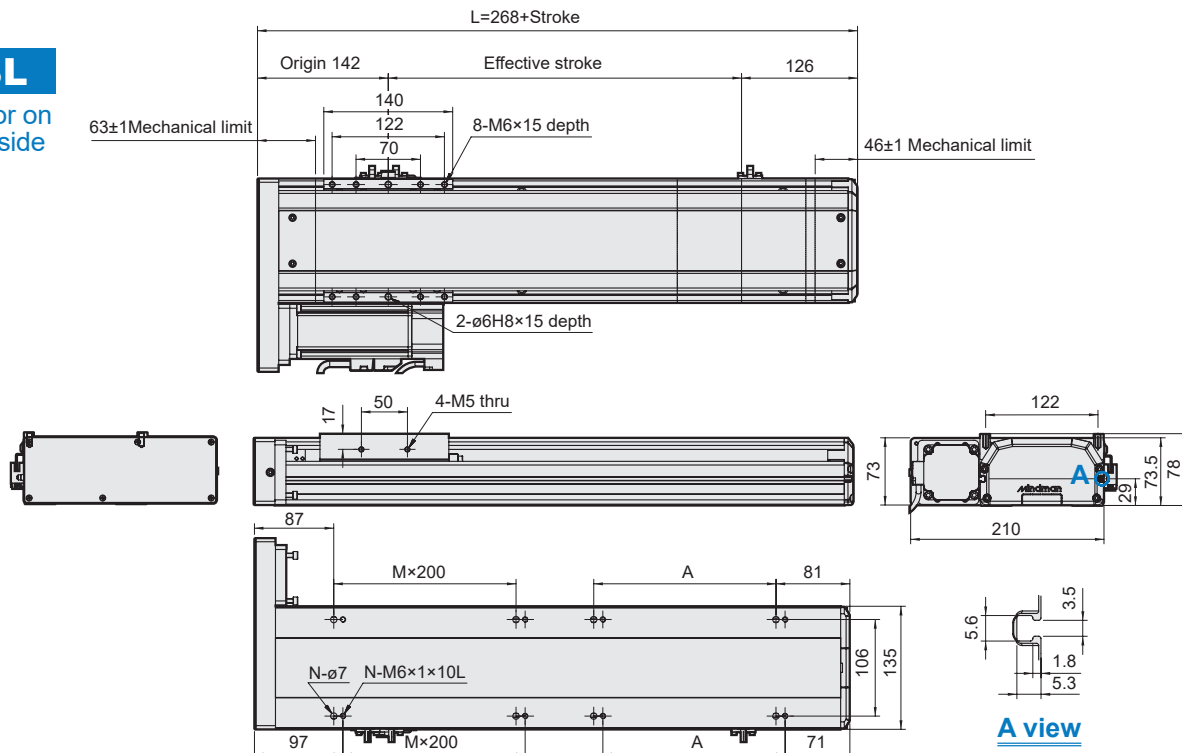
METS2-14 Dimensions

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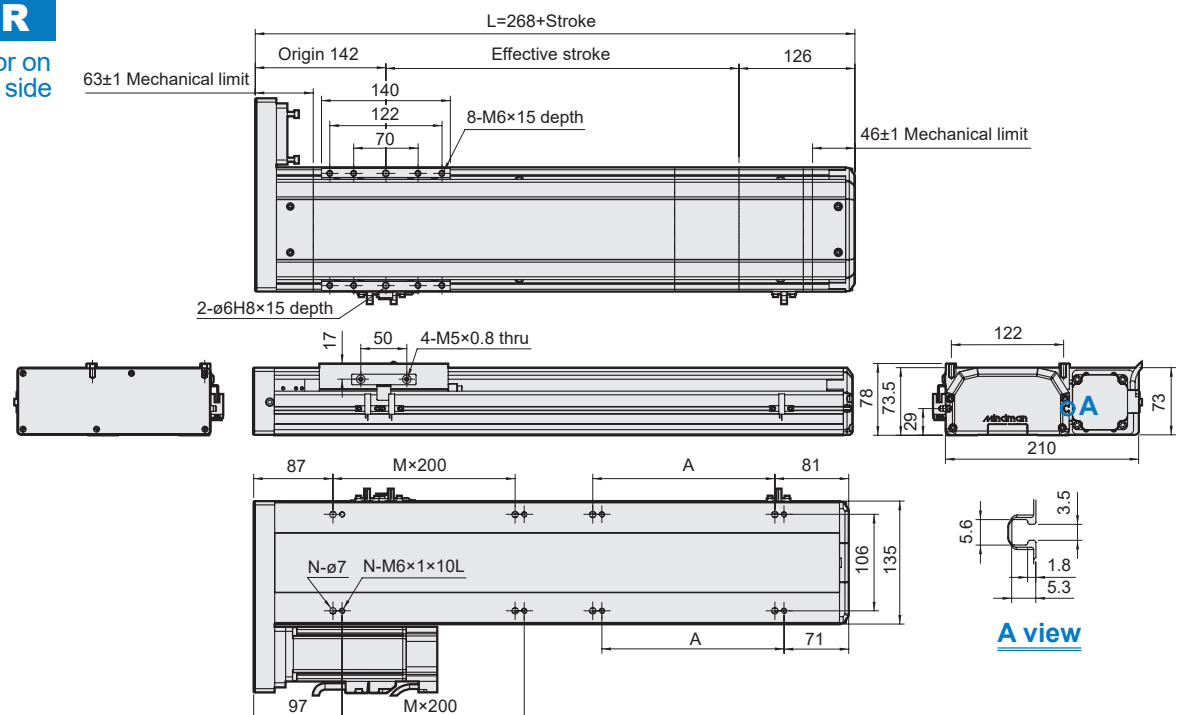
BL

Motor on
left side



BR

Motor on
right side



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	
L	BL	368	418	468	518	568	618	668	718	768	818	868	918	968	1018	1068	1118	1168	1218	1268
	BR	368	418	468	518	568	618	668	718	768	818	868	918	968	1018	1068	1118	1168	1218	1268
A		200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100
M		0	1	1	1	1	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N		4	6	6	6	6	8	8	8	10	10	10	10	12	12	12	12	14	14	14
Weight (kg)		7.03	7.50	7.98	8.45	8.93	9.40	9.88	10.36	10.83	11.31	11.78	12.26	12.73	13.21	13.68	14.16	14.64	15.11	15.59

METS2-14 Dimensions

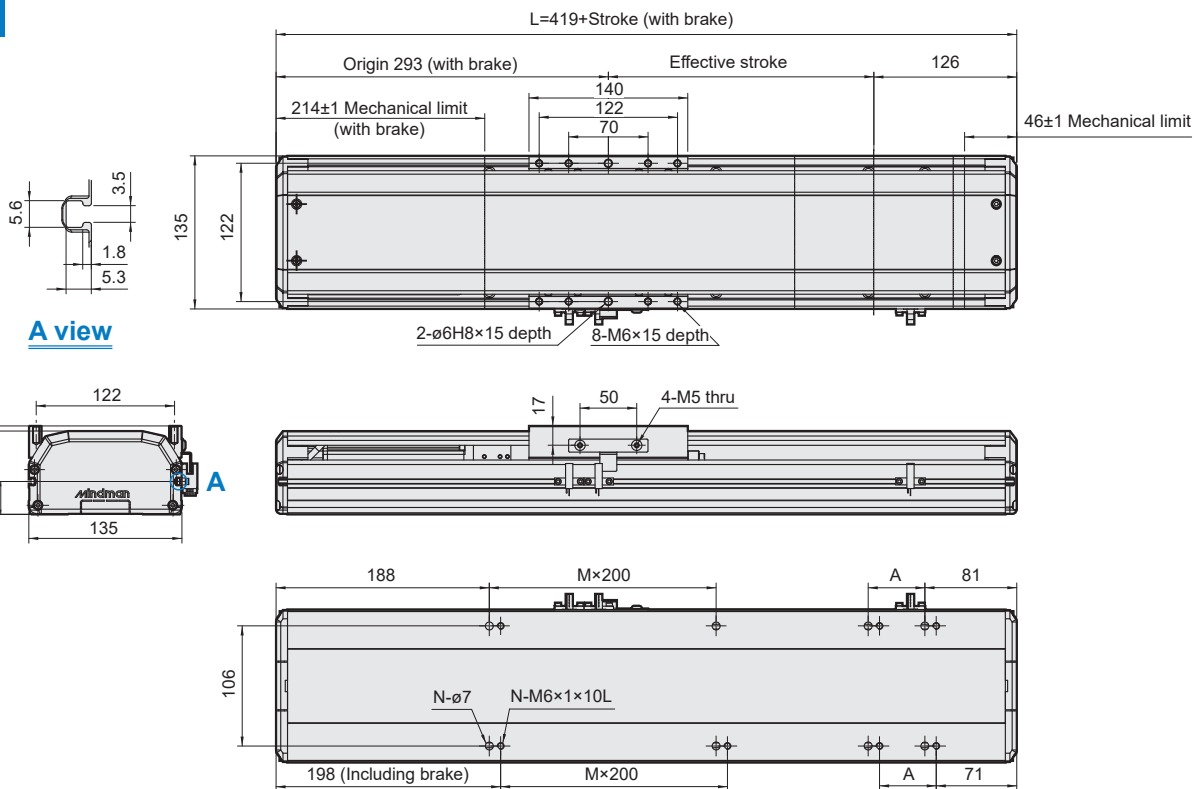
SLIDER ELECTRIC CYLINDER (WITHOUT MOTOR)



Mindman

M

Motor
built-in



Stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
L	519	569	619	669	719	769	819	869	919	969	1019	1069	1119	1169	1219	1269	1319	1369	1419
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14
Weight (kg)	6.92	7.40	7.87	8.35	8.82	9.30	9.78	10.25	10.73	11.20	11.68	12.15	12.63	13.10	13.58	14.05	14.53	15.01	15.48