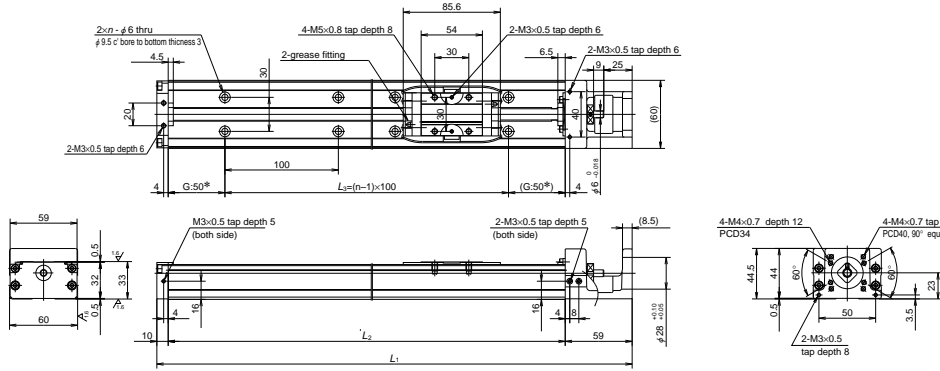


MCH06

Accuracy grade: High grade (H)



Dimension of MCH06 (Single slider)

Reference number	Nominal stroke (mm)	Stroke limit(mm) (K1 is not equipped)	Ball screw lead (mm)	Body length (mm)				Inertia x 10 ⁶ (kg · m ²)	Mass (kg)
				L ₁	L ₂	L ₃	n		
※ MCH06005H05K	50	53 (65)	5	219	150	100	2	2.38	1.8
※ MCH06005H10K			10					3.45	
☆ MCH06005H20K			20					7.25	
MCH06010H05K	100	103 (115)	5	269	200	100	2	3.17	2.2
MCH06010H10K			10					4.12	
MCH06010H20K			20					7.92	
MCH06020H05K	200	203 (215)	5	369	300	200	3	4.51	3.0
MCH06020H10K			10					5.46	
MCH06020H20K			20					9.26	
MCH06030H05K	300	303 (315)	5	469	400	300	4	5.85	3.7
MCH06030H10K			10					6.80	
MCH06030H20K			20					10.6	
MCH06040H05K	400	403 (415)	5	569	500	400	5	7.18	4.5
MCH06040H10K			10					8.13	
MCH06040H20K			20					11.9	
MCH06050H05K	500	503 (515)	5	669	600	500	6	8.52	5.2
MCH06050H10K			10					9.47	
MCH06050H20K			20					13.3	

Notes: 1. Items not marked are available from standard stock.
 2. Items marked with ☆ are designated as "quick delivery item" upon request.
 3. Dimension of G is 25 instead of 50 for those marked with ※.

Monocarrier dynamic torque specification (N · cm)

Ball screw lead (mm)	5	
	1.0 - 4.8	
	1.1 - 5.8	
10	1.6 - 7.9	

Notes:
 1. Frictional resistance of NSK K1 is included in the dynamic torque in the table.
 2. Grease is packed into ball screw, linear guide parts and support unit.
 3. Consult NSK for life estimates under large moment loads.

Basic load rating

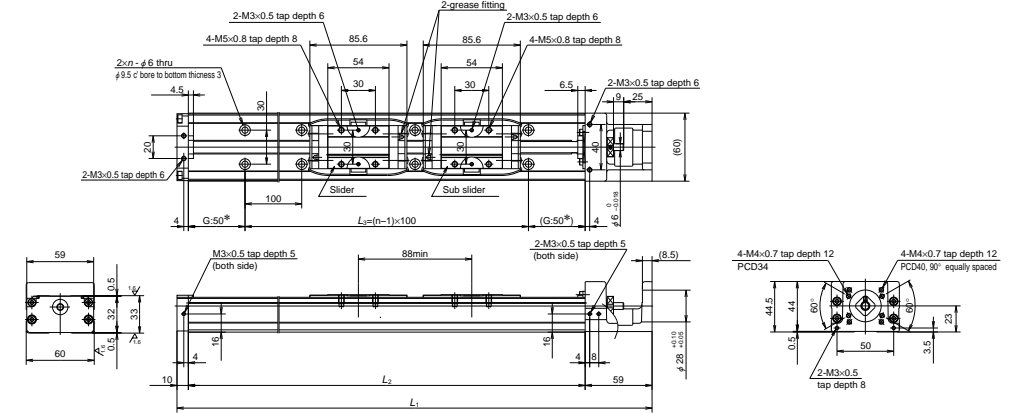
Lead ℓ (mm)	Shaft dia d (mm)	Basic dynamic load rating (N)				Basic static load rating (N)		Support unit load limit (N)
		Ball screw C _a	Linear guides C	Support unit C _a	Rated running distance L _a (km)	Ball screw C _{0a}	Linear guides C ₀	
5	φ 12	3000 (High grade)	22800	4400	5	5410 (High grade)	16300	1450
		3760 (Precision)				6310 (Precision)		
10	φ 12	1930 (High grade)	18100	4400	10	3160 (High grade)	16300	1450
		2260 (Precision)				3780 (Precision)		
20	φ 12	1930 (High grade)	14400	4400	20	3160 (High grade)	16300	1450
		2260 (Precision)				3780 (Precision)		

Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M _{RO}	Pitching M _{PO}	Yawing M _{VO}
Single	335	133	133

MCH06 (Double slider)

Accuracy grade: High grade (H)



Dimension of MCH06 (Double slider)

Reference number	Nominal stroke (mm)	Stroke limit(mm) (K1 is not equipped)	Ball screw lead (mm)	Body length (mm)				Inertia x 10 ⁶ (kg · m ²)	Mass (kg)
				L ₁	L ₂	L ₃	n		
☆ MCH06010H05D	100	115 (139)	5	369	300	200	3	4.82	3.5
☆ MCH06010H10D			10					6.72	
☆ MCH06020H05D	200	215 (239)	5	469	400	300	4	8.06	4.2
☆ MCH06020H10D			10					15.7	
☆ MCH06030H05D	300	315 (339)	5	569	500	400	5	9.40	5.0
☆ MCH06030H10D			10					17.0	
☆ MCH06040H10D	400	415 (439)	10	669	600	500	6	10.7	5.7
☆ MCH06040H20D			20					18.3	

Notes: 1. Items not marked are available from standard stock.
 2. Items marked with ☆ are designated as "quick delivery item" upon request.

Monocarrier dynamic torque specification (N · cm)

Ball screw lead (mm)	5	
	1.2 - 5.2	
	1.5 - 9.6	
10	2.3 - 11.8	

Notes:
 1. Frictional resistance of NSK K1 is included in the dynamic torque in the table.
 2. Grease is packed into ball screw, linear guide parts and support unit.
 3. Consult NSK for life estimates under large moment loads.

Basic load rating

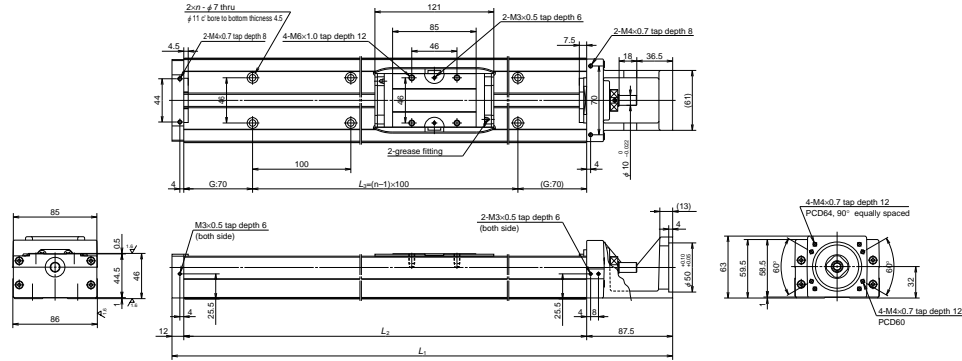
Lead ℓ (mm)	Shaft dia d (mm)	Basic dynamic load rating (N)				Basic static load rating (N)		Support unit load limit (N)
		Ball screw C _a	Linear guides C	Support unit C _a	Rated running distance L _a (km)	Ball screw C _{0a}	Linear guides C ₀	
5	φ 12	3000 (High grade)	22800	4400	5	5410 (High grade)	16300	1450
		3760 (Precision)				6310 (Precision)		
10	φ 12	1930 (High grade)	18100	4400	10	3160 (High grade)	16300	1450
		2260 (Precision)				3780 (Precision)		
20	φ 12	1930 (High grade)	14400	4400	20	3160 (High grade)	16300	1450
		2260 (Precision)				3780 (Precision)		

Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M _{RO}	Pitching M _{PO}	Yawing M _{VO}
Double	770	730	730

MCH09

Accuracy grade: High grade (H)



Dimension of MCH09 (Single slider)

Reference number	Nominal stroke (mm)	Stroke limit (mm) (K1 is not equipped)	Ball screw lead (mm)	Body length (mm)				Inertia $\times 10^{-6}(\text{kg} \cdot \text{m}^2)$	Mass (kg)
				L ₁	L ₂	L ₃	n		
☆MCH09010H05K	100	107 (121)	5	339.5	240	100	2	9.2	5.0
☆MCH09010H10K			10					10.7	
☆MCH09010H20K			20					16.8	
MCH09020H05K	200	207 (221)	5	439.5	340	200	3	12.4	6.5
MCH09020H10K			10					13.9	
☆MCH09020H20K			20					20.0	
MCH09030H05K	300	307 (321)	5	539.5	440	300	4	15.6	8.1
MCH09030H10K			10					17.1	
☆MCH09030H20K			20					23.2	
MCH09040H05K	400	407 (421)	5	639.5	540	400	5	18.8	9.7
MCH09040H10K			10					20.3	
☆MCH09040H20K			20					26.4	
☆MCH09050H05K	500	507 (521)	5	739.5	640	500	6	22.0	11
MCH09050H10K			10					23.5	
MCH09050H20K			20					29.6	
☆MCH09060H05K	600	607 (621)	5	839.5	740	600	7	25.2	13
MCH09060H10K			10					26.7	
MCH09060H20K			20					32.8	
☆MCH09070H05K	700	707 (721)	5	939.5	840	700	8	28.4	14.5
☆MCH09070H10K			10					30.0	
☆MCH09070H20K			20					36.0	
☆MCH09080H05K	800	807 (821)	5	1 039.5	940	800	9	31.6	16
MCH09080H10K			10					33.2	
MCH09080H20K			20					39.2	

Notes: 1. Items not marked are available from standard stock.
2. Items marked with ☆ are designated as "quick delivery item" upon request.

Monocarrier dynamic torque specification (N · cm)

Ball screw lead (mm)	5	
	1.0 – 5.9	2.0 – 7.8
	2.0 – 10.8	

Notes:
1. Frictional resistance of NSK K1 is included in the dynamic torque in the table.
2. Grease is packed into ball screw, linear guide parts and support unit.
3. Consult NSK for life estimates under large moment loads.

Basic load rating

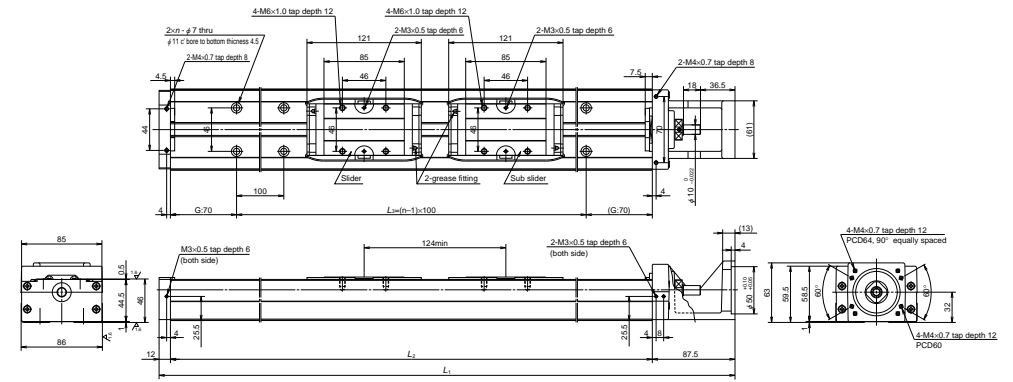
Lead ℓ (mm)	Shaft dia d (mm)	Basic dynamic load rating (N)				Basic static load rating (N)		Support unit load limit (N)
		Ball screw C_a	Linear guides C	Support unit C_a	Rated running distance L_a (km)	Ball screw C_{0a}	Linear guides C_0	
5	$\phi 15$	6820 (High grade)	40600	7100	5	13200 (High grade)	30500	3040
		7100 (Precision)				13000 (Precision)		
10	$\phi 15$	5110 (High grade)	32200	7100	10	9290 (High grade)	30500	3040
		7060 (Precision)				12700 (Precision)		
20	$\phi 15$	3290 (High grade)	25500	7100	20	5620 (High grade)	30500	3040
		4560 (Precision)				7750 (Precision)		

Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M_{RO}	Pitching M_{PO}	Yawing M_{VO}
Single	890	385	385

MCH09 (Double slider)

Accuracy grade: High grade (H)



Dimension of MCH09 (Double slider)

Reference number	Nominal stroke (mm)	Stroke limit (mm) (K1 is not equipped)	Ball screw lead (mm)	Body length (mm)				Inertia $\times 10^{-6}(\text{kg} \cdot \text{m}^2)$	Mass (kg)
				L ₁	L ₂	L ₃	n		
☆MCH09015H05D	150	183 (211)	5	539.5	440	300	4	16.1	8.9
☆MCH09015H10D			10					19.2	
☆MCH09025H05D	250	283 (311)	5	639.5	540	400	5	19.3	11
☆MCH09025H10D			10					22.4	
☆MCH09035H05D	350	383 (411)	5	739.5	640	500	6	22.5	12
☆MCH09035H10D			10					25.6	
☆MCH09045H10D	450	483 (511)	10	839.5	740	600	7	28.8	14
☆MCH09045H20D			20					40.9	
☆MCH09065H10D	650	683 (711)	10	1 039.5	940	800	9	35.2	17
☆MCH09065H20D			20					47.3	

Notes: 1. Items not marked are available from standard stock.
2. Items marked with ☆ are designated as "quick delivery item" upon request.

Monocarrier dynamic torque specification (N · cm)

Ball screw lead (mm)	5	
	1.5 – 7.0	2.5 – 10.8
	4.0 – 17.2	

Notes:
1. Frictional resistance of NSK K1 is included in the dynamic torque in the table.
2. Grease is packed into ball screw, linear guide parts and support unit.
3. Consult NSK for life estimates under large moment loads.

Basic load rating

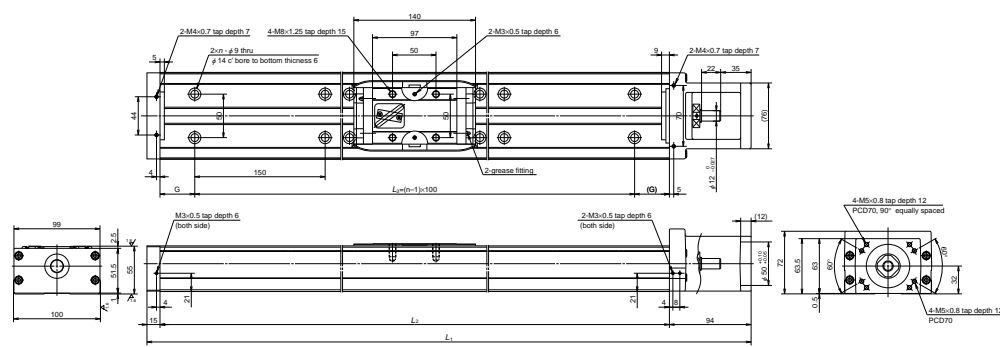
Lead ℓ (mm)	Shaft dia d (mm)	Basic dynamic load rating (N)				Basic static load rating (N)		Support unit load limit (N)
		Ball screw C_a	Linear guides C	Support unit C_a	Rated running distance L_a (km)	Ball screw C_{0a}	Linear guides C_0	
5	$\phi 15$	6820 (High grade)	40600	7100	5	13200 (High grade)	30500	3040
		7100 (Precision)				13000 (Precision)		
10	$\phi 15$	5110 (High grade)	32200	7100	10	9290 (High grade)	30500	3040
		7060 (Precision)				12700 (Precision)		
20	$\phi 15$	3290 (High grade)	25500	7100	20	5620 (High grade)	30500	3040
		4560 (Precision)				7750 (Precision)		

Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M_{RO}	Pitching M_{PO}	Yawing M_{VO}
Double	1780	2070	2070

MCH10

Accuracy grade: High grade (H)



Dimension of MCH10 (Single slider)

Reference number	Nominal stroke (mm)	Stroke limit (mm) (K1 is not equipped)	Ball screw lead (mm)	Body length (mm)					Inertia x 10 ⁴ (kg · m ²)	Mass (kg)
				L ₁	L ₂	G	L ₃	n		
☆MCH10010H10K	100	126	10	389	280	65	150	2	33.2	7.3
☆MCH10010H20K		(142)	20						41.1	
☆MCH10020H10K	200	226	10	489	380	40	300	3	43.4	9.5
☆MCH10020H20K		(242)	20						51.3	
☆MCH10030H10K	300	326	10	589	480	15	450	4	53.7	12
☆MCH10030H20K		(342)	20						61.6	
MCH10040H10K	400	426	10	689	580	65	450	4	62.4	14
MCH10040H20K		(442)	20						71.8	
MCH10050H10K	500	526	10	789	680	40	600	5	74.7	16
MCH10050H20K		(542)	20						82.3	
MCH10060H10K	600	626	10	889	780	15	750	6	84.9	19
MCH10060H20K		(642)	20						92.5	
MCH10070H10K	700	726	10	989	880	65	750	6	95.1	21
MCH10070H20K		(742)	20						103	
MCH10080H10K	800	826	10	1 089	980	40	900	7	105	23
MCH10080H20K		(842)	20						113	
☆MCH10090H10K	900	926	10	1 189	1 080	15	1 050	8	116	25
☆MCH10090H20K		(942)	20						123	
☆MCH10100H10K	1 000	1 026	10	1 289	1 180	65	1 050	8	126	27
☆MCH10100H20K		(1 042)	20						133	
☆MCH10110H10K	1 100	1 126	10	1 389	1 280	40	1 200	9	136	29
☆MCH10110H20K		(1 142)	20						143	
☆MCH10120H10K	1 200	1 226	10	1 489	1 380	15	1 350	10	146	32
☆MCH10120H20K		(1 242)	20						154	

Notes: 1. Items not marked are available from standard stock.
2. Items marked with ☆ are designated as "quick delivery item" upon request.

Monocarrier dynamic torque specification (N · cm)

Ball screw lead (mm)	10	2.7 - 10.8
	20	3.1 - 12.7

Notes:

- Frictional resistance of NSK K1 is included in the dynamic torque in the table.
- Grease is packed into ball screw, linear guide parts and support unit.
- Consult NSK for life estimates under large moment loads.

Basic load rating

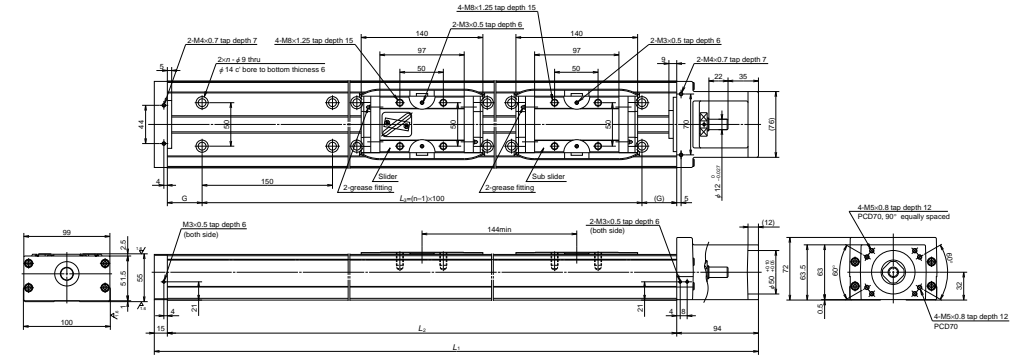
Lead (mm)	Shaft dia (mm)	Basic dynamic load rating (N)				Basic static load rating (N)		Support unit load limit (N)
		Ball screw C _a	Linear guides C	Support unit C _a	Rated running distance L _a (km)	Ball screw C _{0a}	Linear guides C ₀	
10	φ 20	8230 (High grade)	44600	7600	10	17100 (High grade)	42000	3380
		10900 (Precision)				21700 (Precision)		
20	φ 20	5300 (High grade)	35400	7600	20	10300 (High grade)	42000	3380
		7060 (Precision)				12700 (Precision)		

Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M _{RO}	Pitching M _{PO}	Yawing M _{VO}
Single	1460	610	610

MCH10 (Double slider)

Accuracy grade: High grade (H)



Dimension of MCH10 (Double slider)

Reference number	Nominal stroke (mm)	Stroke limit (mm) (K1 is not equipped)	Ball screw lead (mm)	Body length (mm)					Inertia x 10 ⁴ (kg · m ²)	Mass (kg)
				L ₁	L ₂	G	L ₃	n		
☆MCH10025H10D	250	282	10	689	580	65	450	4	67.1	15
☆MCH10025H20D		(314)	20						82.4	
☆MCH10035H10D	350	382	10	789	680	40	600	5	77.3	17
☆MCH10035H20D		(414)	20						92.5	
☆MCH10045H10D	450	482	10	889	780	15	750	6	87.5	20
☆MCH10045H20D		(514)	20						103	
☆MCH10055H10D	550	582	10	989	880	65	750	6	97.7	22
☆MCH10055H20D		(614)	20						113	
☆MCH10065H10D	650	682	10	1 089	980	40	900	7	108	24
☆MCH10065H20D		(714)	20						123	
☆MCH10075H20D	750	782(814)	20	1 189	1 080	15	1 050	8	133	26
☆MCH10085H20D	850	882(914)	20	1 289	1 180	65	1 050	8	143	28
☆MCH10095H20D	950	982(1 014)	20	1 389	1 280	40	1 200	9	154	30
☆MCH10105H20D	1 050	1 082(1 114)	20	1 489	1 380	15	1 350	10	164	33

Notes: 1. Items not marked are available from standard stock.
2. Items marked with ☆ are designated as "quick delivery item" upon request.

Monocarrier dynamic torque specification (N · cm)

Ball screw lead (mm)	10	4.2 - 15.6
	20	5.0 - 19.6

Notes:

- Frictional resistance of NSK K1 is included in the dynamic torque in the table.
- Grease is packed into ball screw, linear guide parts and support unit.
- Consult NSK for life estimates under large moment loads.

Basic load rating

Lead (mm)	Shaft dia (mm)	Basic dynamic load rating (N)				Basic static load rating (N)		Support unit load limit (N)
		Ball screw C _a	Linear guides C	Support unit C _a	Rated running distance L _a (km)	Ball screw C _{0a}	Linear guides C ₀	
10	φ 20	8230 (High grade)	44600	7600	10	17100 (High grade)	42000	3380
		10900 (Precision)				21700 (Precision)		
20	φ 20	5300 (High grade)	35400	7600	20	10300 (High grade)	42000	3380
		7060 (Precision)				12700 (Precision)		

Basic static moment load of linear guide

Slider	Basic static moment load (N · m)		
	Rolling M _{RO}	Pitching M _{PO}	Yawing M _{VO}
Double	2920	3430	3430