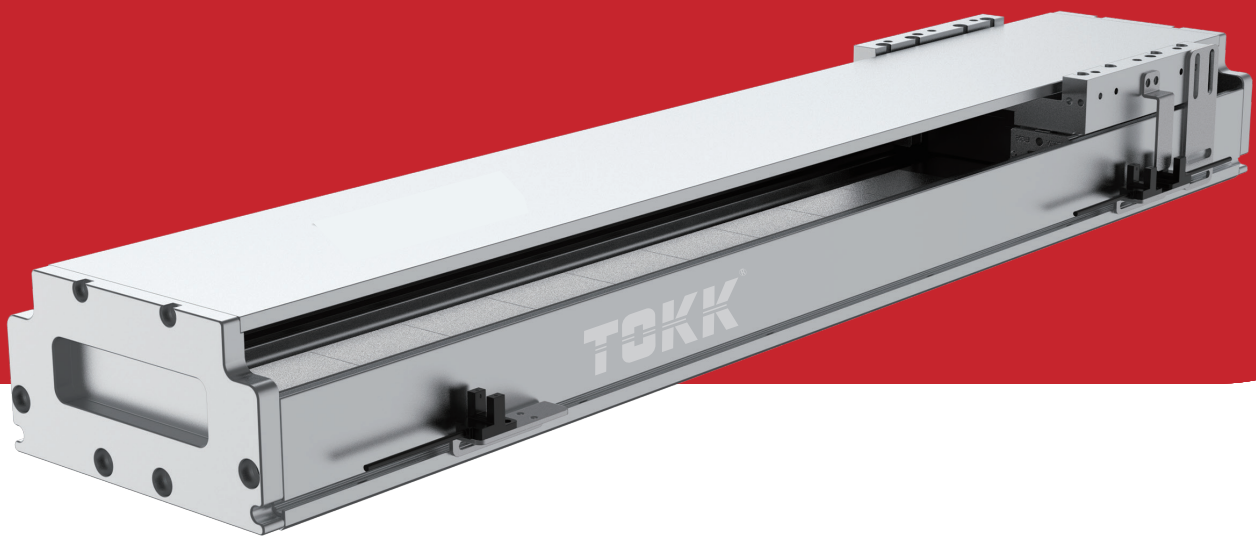
TLM | TSLM | TIC | TU



LINEAR MOTOR MODULE SERIES

线性马达模组系列

www.involinkct.com

InvoLink
Precision in Motion

TOKK®

About InvoLink and TOKK

InvoLink, based in Connecticut, USA, is the official distributor of TOKK products, offering a broad range of high-precision linear actuators, electric cylinders, linear motors, and guides to meet diverse industry needs in the U.S.

TOKK, a sub-brand of TOYO, is headquartered in Suzhou, China, and operates three R&D centers in Kunshan, Suzhou, and Shenzhen, along with manufacturing facilities covering over 30,000 square meters. With a team of experienced researchers, TOKK delivers automation components with meticulous design and rigorous quality control, meeting TOYO' s high standards and serving industries worldwide. In addition to essential core products, TOKK provides a comprehensive customer experience, including engineering design, customization, and world-class support.

InvoLink bridges TOKK' s advanced R&D and manufacturing strengths with North American demand, supplying high-precision, high-speed linear actuators and motors with strokes ranging from 10 mm to 3500 mm and payloads up to 1700 kg. Our broad product selection and deep expertise in linear motion and fabrication allow us to offer both standard and custom solutions at competitive prices without compromising quality.

At InvoLink, customer satisfaction is our priority. We are dedicated to meeting customer requirements with high standards, fast lead times, competitive pricing, and expert support to ensure the ideal solution for any specialized application.

Catalog Index

1 Linear motor module TLM series

2 Linear motor fully sealed module TSLM series

Catalog Index

3 With iron core linear motor TIC series

Catalog Index

4 Coreless linear motor TU series

Product introduction

A Introduction to linear motor

With the rapid development of industrial technology, the manufacturing industry faces increasing demands for precision and speed in processing. Traditional methods such as lead screws, synchronous belts, and other transmission techniques are limited in their capabilities. In contrast, linear motor technology offers a highly efficient upgrade in technical performance, resolving the limitations of traditional methods. It not only meets but also advances the processing requirements of various industries, enabling higher-level applications.

B Advantages of linear motors

1.Contact-free, Wear-free Operation: The linear motor's stator and rotor move within a suspended gap, ensuring no friction loss, minimal failure, maintenance-free operation, high reliability, and extended service life.

2.Simplified Structure, High Acceleration: Direct connection to the load eliminates the need for traditional transmission components, greatly simplifying the system' s structure, reducing weight and size, and enabling extremely high acceleration.

3.Wide Speed Range: With the appropriate drive power, the linear motor can achieve motion control across a wide range of speeds, from low to high.

4.High Positioning Accuracy: Linear motors offer direct drive, eliminating the positioning errors associated with intermediary components. Combined with high-resolution position feedback units, positioning accuracy is significantly enhanced.

5.Low Noise: The contactless drive mechanism ensures quiet operation with minimal noise.

6.Unlimited Stroke Length: The linear motor's motion track uses a modular design, allowing for unlimited extension of the stroke length.

7.Diverse Motion Control: Multiple rotors can be configured on the same stator, enabling independent motion control along the same axis.

Product introduction

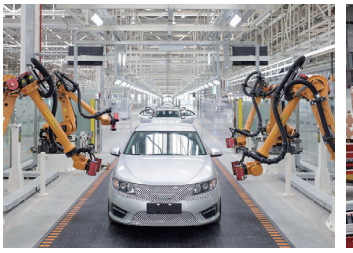
C Product classification

1) Iron-Core Linear Motor； 2) Ironless Linear Motor (also known as "U-shaped" motor)

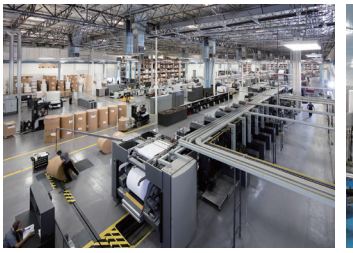
D Application industry

The applications of linear motors are quite extensive, primarily found in industries such as semiconductor, new energy, photovoltaic, automotive, machine tool, logistics and warehousing, textile, medical, printing, food processing, and more.










01 LINEAR MOTOR MODULE

Intro

TOKK linear motor modules, known for their high precision, fast speed, smooth operation, simple structure, high integration, standardized series, and cost efficiency, have been widely applied across various industries. They have also gained high recognition and favor in the industry. From simple handling and conveying to precise measurement and machining, TOKK's linear motor technology is applicable in a wide range of processing techniques and working conditions. Additionally, its customizable flexible configurations, high stability, and excellent cost performance meet diverse customer application needs.

Advantages

1. Molded parts and standardization for lower costs
2. Compact structure
3. Supports multi-axis configurations (Z-axis, cross, cantilever, gantry, etc.), offering versatility and flexibility
4. Supports multiple mover-slider applications
5. Unlimited stroke extension available
6. High precision with optional feedback units, achieving sub-micron accuracy
7. Easy to customize with flexible design options
8. Wide range of applications

Disadvantages

1. Higher costs for traditional drive systems
2. Relative complexity in motion control

Application Industry

3C industry (Computers, Communication, Consumer electronics)
Semiconductor industry
Automotive industry
LCD panel industry
.....
New energy industry
Photovoltaic industry
Laser processing industry

TLM series linear motor module naming rules

TLM 140-1-L 00-M0.5 S0 -CA55-1 H -5 -D00

Motor Type	
code	description
TLM	linear motor module
TSLM	fully-sealed linear motor module

Module Width	
code	description
65	65 mm
85	85 mm
140	140mm
170	170mm
210	210mm
235	235mm
...	...

Number of Slides	
code	description
1	single slider (standard)
2	double slider (custom)
...	...

Stroke	
code	description
L200	200mm
L300	300mm
...	...

Feedback Method	
code	description
M	magnetic scale
G	optical scale

Customization	
code	description
null	standard
D00	standard
D01	module

Cable length	
code	description
1	1m
2	2m
null	5m (standard)
...	...

Sensor Option	
code	description
null	no sensor
H	with Hall sensor

Motor Type	
code	description
CA55-1	TICA55-105
CA55-2	TICA55-193
CA55-3	TICA55-280
UA38-1	TUA 38-61
UA38-2	TUA 38-121
...	...

Limit Switch	
code	description
null	photoelectric switch
S0	built-in encoder

Resolution	
code	description
1	1μm
0.5	0.5μm
...	...

Linear module TLM65 series

Continuous thrust	48N~144N	Peak thrust	138N~414N	Temperature rise	< 0.05℃/W	Thrust fluctuation	< 2%

Product parameter

Motor Model	TICA35-1	TICA35-2	TICA35-3
Cont. Thrust (N)	48	96	144
Peak Thrust (N)	138	276	414
Cont. Current (A)	3.39	3.39	3.39
Max. Current (A)	10.34	10.34	10.34
Max. Speed*1 (m/s)	4		
Max. Accel.*1 (m/s²)	50		
Repeatability (μm)	Magnetic Scale：±3；Optical Scale：±2		
Max. Load*1 (kg)	30		
Height (mm)	89.5		
Stroke*2 (mm)	35~1985(50 pitch)	47~1997(50 pitch)	10~1960(50 pitch)

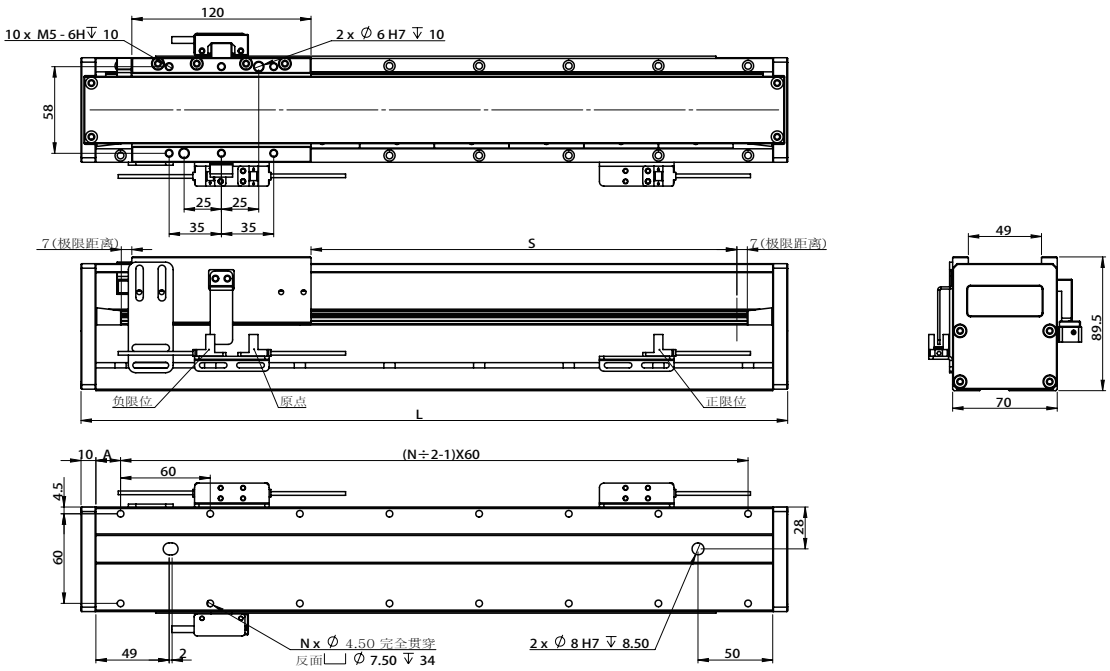
*1 Maximum acceleration, maximum speed, and maximum load are reference values. Actual values should be comprehensively evaluated based on the motion plan. If the actual parameters exceed the reference values, please contact the manufacturer for assessment.

*2 For longer strokes, please contact the manufacturer.

TLM65-TICA35-1

TLM65-TICA35-1

Unit:mm



Eff. Stroke: S	35	85	135	185	235	285	335	385	435	485	535	585	635	685	735	785	835	885	935	985
Mech. Stroke: S + All.	49	99	149	199	249	299	349	399	449	499	549	599	649	699	749	799	849	899	949	999
Total Length: L	223	273	323	373	423	473	523	573	623	673	723	773	823	873	923	973	1023	1073	1123	1173
No. of Holes: N	4	4	5	6	7	8	9	9	10	11	12	13	14	14	15	16	17	18	19	19
Hole to End: A	11.5	36.5	31.5	26.5	21.5	16.5	11.5	36.5	31.5	26.5	21.5	16.5	11.5	36.5	31.5	26.5	21.5	16.5	11.5	36.5
Mod. Wt. (kg)	3.4	3.8	4.2	4.6	5	5.4	5.8	6.2	6.6	7	7.4	7.8	8.2	8.6	9	9.4	9.8	10.2	10.6	11
Comp. Wt. (kg)	1.5																			

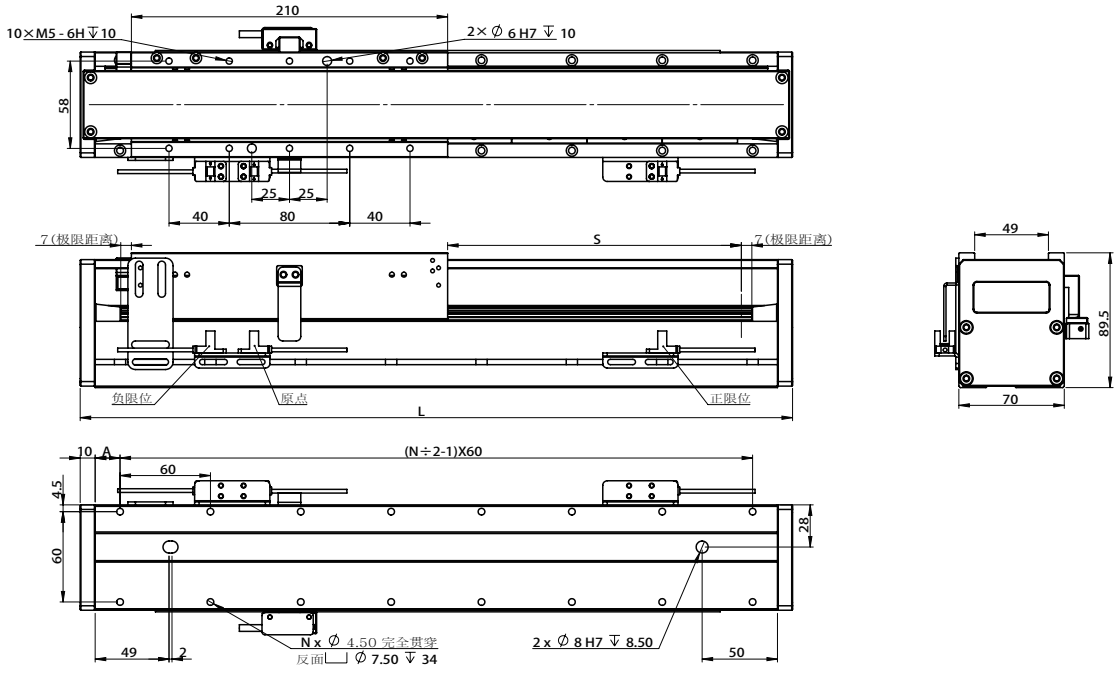
Eff. Stroke: S	1035	1085	1135	1185	1235	1285	1335	1385	1435	1485	1535	1585	1635	1685	1735	1785	1835	1885	1935	1985
Mech. Stroke: S + All.	1049	1099	1149	1199	1249	1299	1349	1399	1449	1499	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999
Total Length: L	1223	1273	1323	1373	1423	1473	1523	1573	1623	1673	1723	1773	1823	1873	1923	1973	2023	2073	2123	2173
No. of Holes: N	20	21	22	23	24	24	25	26	27	28	29	29	30	31	32	33	34	34	35	36
Hole to End: A	31.5	26.5	21.5	16.5	11.5	36.5	31.5	26.5	21.5	16.5	11.5	36.5	31.5	26.5	21.5	16.5	11.5	36.5	31.5	26.5
Mod. Wt. (kg)	11.4	11.8	12.2	12.6	13	13.4	13.8	14.1	14.4	14.7	15	15.3	15.6	15.9	16.2	16.5	16.8	17.1	17.4	17.7
Comp. Wt. (kg)	1.5																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TLM65-TICA35-2

TLM65-TICA35-2

Unit:mm



Eff. Stroke: S	47	97	147	197	247	297	347	397	447	497	547	597	647	697	747	797	847	897	947	997
Mech. Stroke: S + All.	61	111	161	211	261	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011
Total Length: L	325	375	425	475	525	575	625	675	725	775	825	875	925	975	1025	1075	1125	1175	1225	1275
No. of Holes: N	5	6	7	8	9	9	10	11	12	13	14	14	15	16	17	18	19	19	20	21
Hole to End: A	32.5	27.5	22.5	17.5	12.5	37.5	32.5	27.5	22.5	17.5	12.5	37.5	32.5	27.5	22.5	17.5	12.5	37.5	32.5	27.5
Mod. Wt. (kg)	5.2	5.6	6	6.4	6.8	7.2	7.6	8	8.4	8.8	9.2	9.6	10	10.4	10.8	11.2	11.6	12	12.4	12.8
Comp. Wt. (kg)	2.4																			

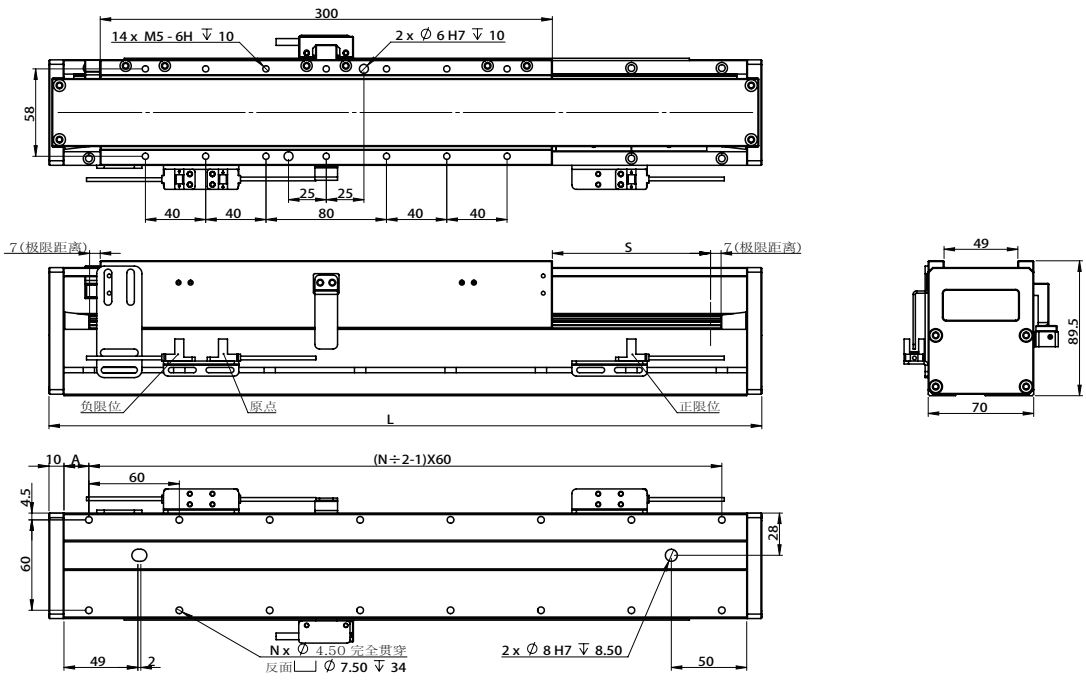
Eff. Stroke: S	1047	1097	1147	1197	1247	1297	1347	1397	1447	1497	1547	1597	1647	1697	1747	1797	1847	1897	1947	1997
Mech. Stroke: S + All.	1061	1111	1161	1211	1261	1311	1361	1411	1461	1511	1561	1611	1661	1711	1761	1811	1861	1911	1961	2011
Total Length: L	1325	1375	1425	1475	1525	1575	1625	1675	1725	1775	1825	1875	1925	1975	2025	2075	2125	2175	2225	2275
No. of Holes: N	22	23	24	24	25	26	27	28	29	29	30	31	32	33	34	34	35	36	37	38
Hole to End: A	22.5	17.5	12.5	37.5	32.5	27.5	22.5	17.5	12.5	37.5	32.5	27.5	22.5	17.5	12.5	37.5	32.5	27.5	22.5	17.5
Mod. Wt. (kg)	13.2	13.6	14	14.4	14.8	15.1	15.4	15.7	16	16.3	16.6	16.9	17.2	17.5	17.8	18.1	18.4	18.7	19	19.3
Comp. Wt. (kg)	2.4																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TLM65-TICA35-3

TLM65-TICA35-3

Unit:mm



Eff. Stroke: S	47	97	147	197	247	297	347	397	447	497	547	597	647	697	747	797	847	897	947	997
Mech. Stroke: S + All.	61	111	161	211	261	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011
Total Length: L	325	375	425	475	525	575	625	675	725	775	825	875	925	975	1025	1075	1125	1175	1225	1275
No. of Holes: N	5	6	7	8	9	9	10	11	12	13	14	14	15	16	17	18	19	19	20	21
Hole to End: A	32.5	27.5	22.5	17.5	12.5	37.5	32.5	27.5	22.5	17.5	12.5	37.5	32.5	27.5	22.5	17.5	12.5	37.5	32.5	27.5
Mod. Wt. (kg)	5.2	5.6	6	6.4	6.8	7.2	7.6	8	8.4	8.8	9.2	9.6	10	10.4	10.8	11.2	11.6	12	12.4	12.8
Comp. Wt. (kg)	3.6																			

Eff. Stroke: S	1047	1097	1147	1197	1247	1297	1347	1397	1447	1497	1547	1597	1647	1697	1747	1797	1847	1897	1947	1997
Mech. Stroke: S + All.	1061	1111	1161	1211	1261	1311	1361	1411	1461	1511	1561	1611	1661	1711	1761	1811	1861	1911	1961	2011
Total Length: L	1325	1375	1425	1475	1525	1575	1625	1675	1725	1775	1825	1875	1925	1975	2025	2075	2125	2175	2225	2275
No. of Holes: N	22	23	24	24	25	26	27	28	29	29	30	31	32	33	34	34	35	36	37	38
Hole to End: A	22.5	17.5	12.5	37.5	32.5	27.5	22.5	17.5	12.5	37.5	32.5	27.5	22.5	17.5	12.5	37.5	32.5	27.5	22.5	17.5
Mod. Wt. (kg)	13.2	13.6	14	14.4	14.8	15.1	15.4	15.7	16	16.3	16.6	16.9	17.2	17.5	17.8	18.1	18.4	18.7	19	19.3
Comp. Wt. (kg)	3.6																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

Linear module TLM85 series

Continuous thrust	60N~180N	Peak thrust	173N~519N	Temperature rise	< 0.05℃/W	Thrust fluctuation	< 2%

Product parameter

Motor Model	TICA40-1	TICA40-2	TICA40-3
Cont. Thrust (N)	60	120	180
Peak Thrust (N)	173	346	519
Cont. Current (A)	3.4	3.4	3.4
Max. Current (A)	10.37	10.37	10.37
Max. Speed*1 (m/s)	4		
Max. Accel.*1 (m/s²)	50		
Repeatability (μm)	Magnetic Scale：±3；Optical Scale：±2		
Max. Load*1 (kg)	50		
Height (mm)	88.5		
Stroke*2 (mm)	35~1985(50 pitch)	47~1997(50 pitch)	10~1960(50 pitch)

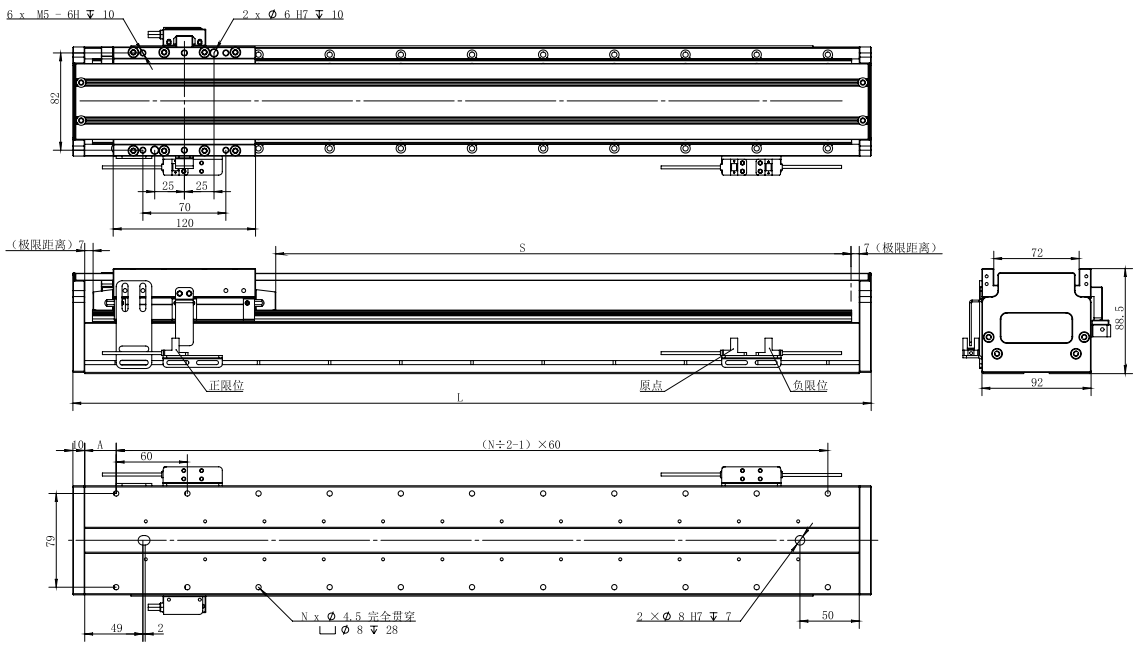
*1 Maximum acceleration, maximum speed, and maximum load are reference values. Actual values should be comprehensively evaluated based on the motion plan. If the actual parameters exceed the reference values, please contact the manufacturer for assessment.

*2 For longer strokes, please contact the manufacturer.

TLM85-TICA40-1

TLM85-TICA40-1

Unit:mm



Eff. Stroke: S	35	85	135	185	235	285	335	385	435	485	535	585	635	685	735	785	835	885	935	985
Mech. Stroke: S + All.	49	99	149	199	249	299	349	399	449	499	549	599	649	699	749	799	849	899	949	999
Total Length: L	223	273	323	373	423	473	523	573	623	673	723	773	823	873	923	973	1023	1073	1123	1173
No. of Holes: N	4	4	5	6	7	8	9	9	10	11	12	13	14	14	15	16	17	18	19	19
Hole to End: A	11.5	36.5	31.5	26.5	21.5	16.5	11.5	36.5	31.5	26.5	21.5	16.5	11.5	36.5	31.5	26.5	21.5	16.5	11.5	36.5
Mod. Wt. (kg)	4.7	5.3	5.8	6.4	6.9	7.5	8.0	8.6	9.1	9.7	10.2	10.8	11.3	11.9	12.4	13.0	13.5	14.1	14.6	15.2
Comp. Wt. (kg)	2.2																			

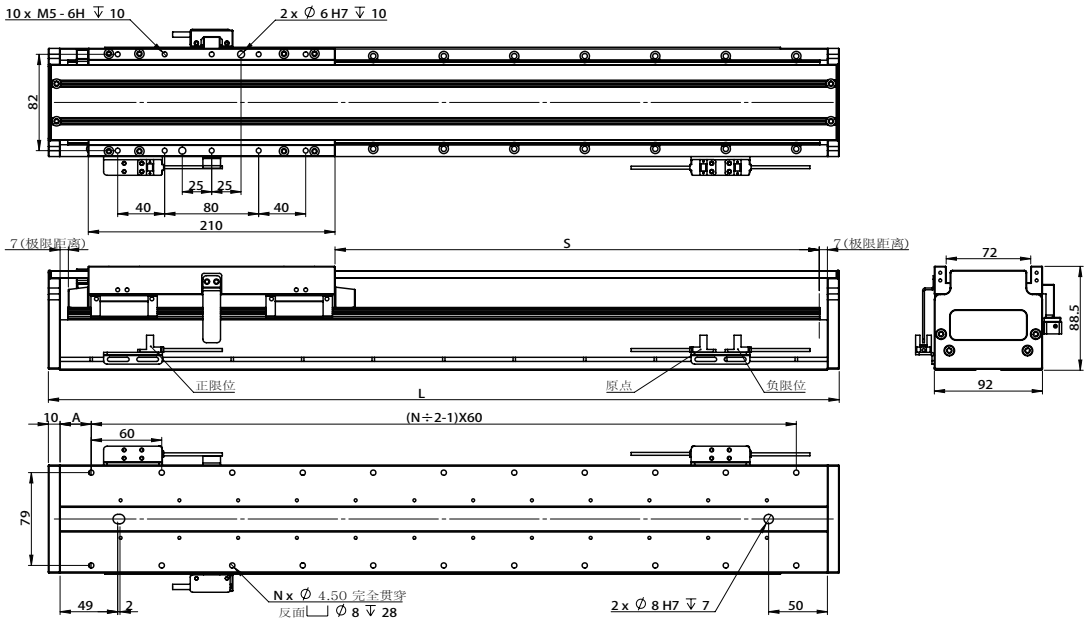
Eff. Stroke: S	1035	1085	1135	1185	1235	1285	1335	1385	1435	1485	1535	1585	1635	1685	1735	1785	1835	1885	1935	1985
Mech. Stroke: S + All.	1049	1099	1149	1199	1249	1299	1349	1399	1449	1499	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999
Total Length: L	1223	1273	1323	1373	1423	1473	1523	1573	1623	1673	1723	1773	1823	1873	1923	1973	2023	2073	2123	2173
No. of Holes: N	20	21	22	23	24	24	25	26	27	28	29	29	30	31	32	33	34	34	35	36
Hole to End: A	31.5	26.5	21.5	16.5	11.5	36.5	31.5	26.5	21.5	16.5	11.5	36.5	31.5	26.5	21.5	16.5	11.5	36.5	31.5	26.5
Mod. Wt. (kg)	15.7	16.3	16.8	17.4	17.9	18.5	18.4	18.9	19.4	19.9	20.4	20.9	21.4	21.9	22.4	22.9	23.4	23.9	24.4	24.9
Comp. Wt. (kg)	2.2																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TLM85-TICA40-2

TLM85-TICA40-2

Unit:mm



Eff. Stroke: S	47	97	147	197	247	297	347	397	447	497	547	597	647	697	747	797	847	897	947	997
Mech. Stroke: S + All.	61	111	161	211	261	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011
Total Length: L	325	375	425	475	525	575	625	675	725	775	825	875	925	975	1025	1075	1125	1175	1225	1275
No. of Holes: N	5	6	7	8	9	9	10	11	12	13	14	14	15	16	17	18	19	19	20	21
Hole to End: A	32.5	27.5	22.5	17.5	12.5	37.5	32.5	27.5	22.5	17.5	12.5	37.5	32.5	27.5	22.5	17.5	12.5	37.5	32.5	27.5
Mod. Wt. (kg)	6.9	7.5	8.0	8.6	9.1	9.7	10.2	10.8	11.3	11.9	12.4	13.0	13.5	14.1	14.6	15.2	15.7	16.3	16.8	17.4
Comp. Wt. (kg)	3.2																			

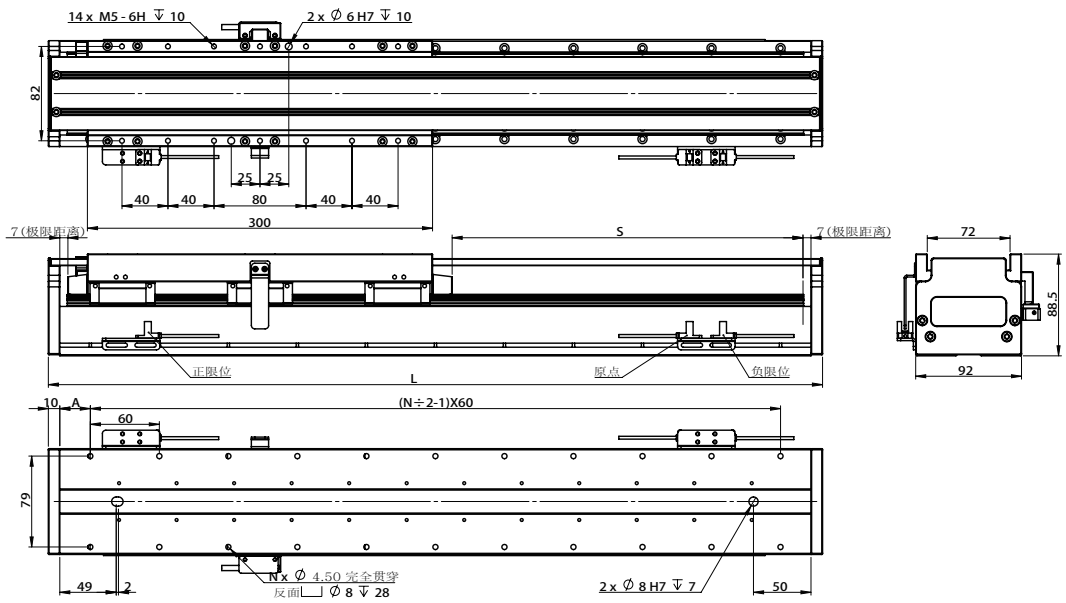
Eff. Stroke: S	1047	1097	1147	1197	1247	1297	1347	1397	1447	1497	1547	1597	1647	1697	1747	1797	1847	1897	1947	1997
Mech. Stroke: S + All.	1061	1111	1161	1211	1261	1311	1361	1411	1461	1511	1561	1611	1661	1711	1761	1811	1861	1911	1961	2011
Total Length: L	1325	1375	1425	1475	1525	1575	1625	1675	1725	1775	1825	1875	1925	1975	2025	2075	2125	2175	2225	2275
No. of Holes: N	22	23	24	24	25	26	27	28	29	29	30	31	32	33	34	34	35	36	37	38
Hole to End: A	22.5	17.5	12.5	37.5	32.5	27.5	22.5	17.5	12.5	37.5	32.5	27.5	22.5	17.5	12.5	37.5	32.5	27.5	22.5	17.5
Mod. Wt. (kg)	17.9	18.5	19.0	19.6	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0
Comp. Wt. (kg)	3.2																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TLM85-TICA40-3

TLM85-TICA40-3

Unit:mm



Eff. Stroke: S	10	60	110	160	210	260	310	360	410	460	510	560	610	660	710	760	810	860	910	960
Mech. Stroke: S + All.	24	74	124	174	224	274	324	374	424	474	524	574	624	674	724	774	824	874	924	974
Total Length: L	378	428	478	528	578	628	678	728	778	828	878	928	978	1028	1078	1128	1178	1228	1278	1328
No. of Holes: N	6	7	8	9	9	10	11	12	13	14	14	15	16	17	18	19	19	20	21	22
Hole to End: A	29	24	19	14	39	34	29	24	19	14	39	34	29	24	19	14	39	34	29	24
Mod. Wt. (kg)	9.2	9.8	10.3	10.9	11.4	12.0	12.5	13.1	13.6	14.2	14.7	15.3	15.8	16.4	16.9	17.5	18.0	18.6	19.1	19.7
Comp. Wt. (kg)	4.7																			

Eff. Stroke: S	1010	1060	1110	1160	1210	1260	1310	1360	1410	1460	1510	1560	1610	1660	1710	1760	1810	1860	1910	1960
Mech. Stroke: S + All.	1024	1074	1124	1174	1224	1274	1324	1374	1424	1474	1524	1574	1624	1674	1724	1774	1824	1874	1924	1974
Total Length: L	1378	1428	1478	1528	1578	1628	1678	1728	1778	1828	1878	1928	1978	2028	2078	2128	2178	2228	2278	2328
No. of Holes: N	23	24	24	25	26	27	28	29	29	30	31	32	33	34	34	35	36	37	38	39
Hole to End: A	19	14	39	34	29	24	19	14	39	34	29	24	19	14	39	34	29	24	19	14
Mod. Wt. (kg)	20.2	20.8	21.3	21.2	21.7	22.2	22.7	23.2	23.7	24.2	24.7	25.2	25.7	26.2	26.7	27.2	27.7	28.2	28.7	29.2
Comp. Wt. (kg)	4.7																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

Linear module TLM140 series

Continuous thrust	91N~273N	Peak thrust	252N~756N	Temperature rise	< 0.05℃/W	Thrust fluctuation	< 2%

Product parameter

Motor Model	TICA55-1	TICA55-2	TICA55-3
Cont. Thrust (N)	91	182	273
Peak Thrust (N)	252	504	756
Cont. Current (A)	3.38	3.38	3.38
Max. Current (A)	10.31	10.31	10.31
Max. Speed*1 (m/s)	5		
Max. Accel.*1 (m/s²)	50		
Repeatability (μm)	Magnetic Scale：±3；Optical Scale：±2		
Max. Load*1 (kg)	100		
Height (mm)	78.5		
Stroke*2 (mm)	35~1985(50 pitch)	47~1997(50 pitch)	10~1960(50 pitch)

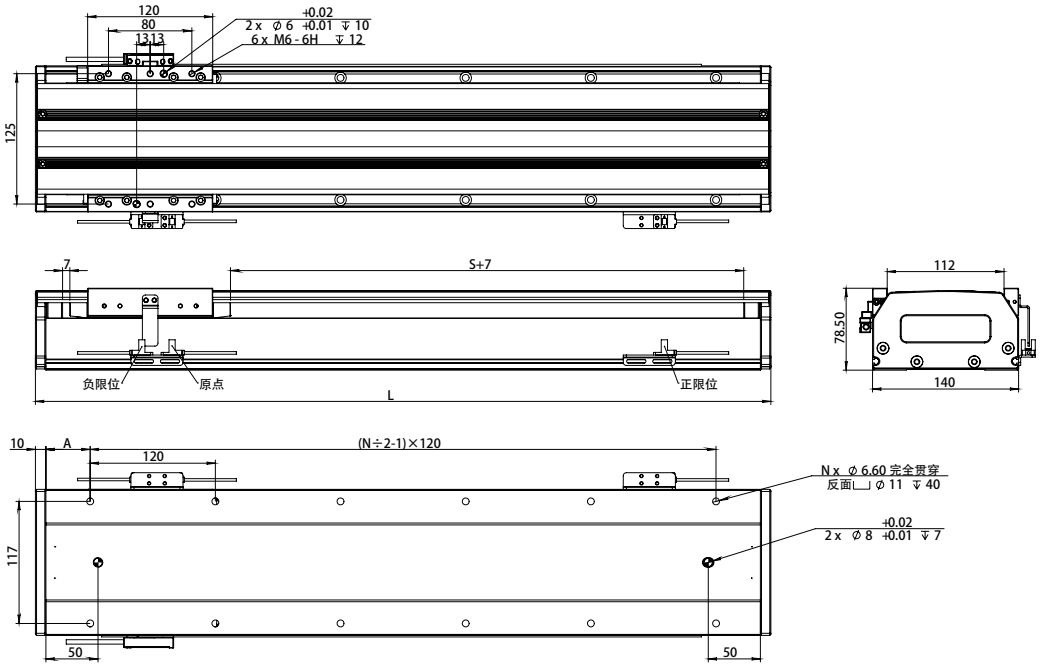
*1 Maximum acceleration, maximum speed, and maximum load are reference values. Actual values should be comprehensively evaluated based on the motion plan. If the actual parameters exceed the reference values, please contact the manufacturer for assessment.

*2 For longer strokes, please contact the manufacturer.

TLM140-TICA55-1

TLM140-TICA55-1

Unit:mm



Eff. Stroke: S	35	85	135	185	235	285	335	385	435	485	535	585	635	685	735	785	835	885	935	985
Mech. Stroke: S + All.	49	99	149	199	249	299	349	399	449	499	549	599	649	699	749	799	849	899	949	999
Total Length: L	255	305	355	405	455	505	555	605	655	705	755	805	855	905	955	1005	1055	1105	1155	1205
No. of Holes: N	4	6	6	6	8	8	10	10	12	12	12	14	14	16	16	16	18	18	20	20
Hole to End: A	57.5	22.5	47.5	72.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	72.5	37.5	62.5	27.5	52.5
Mod. Wt. (kg)	6.15	6.92	7.69	8.46	9.23	10	10.8	11.5	12.31	13.1	13.8	14.6	15.38	16.2	16.9	17.7	18.5	19.2	20	20.8
Comp. Wt. (kg)	2.35																			

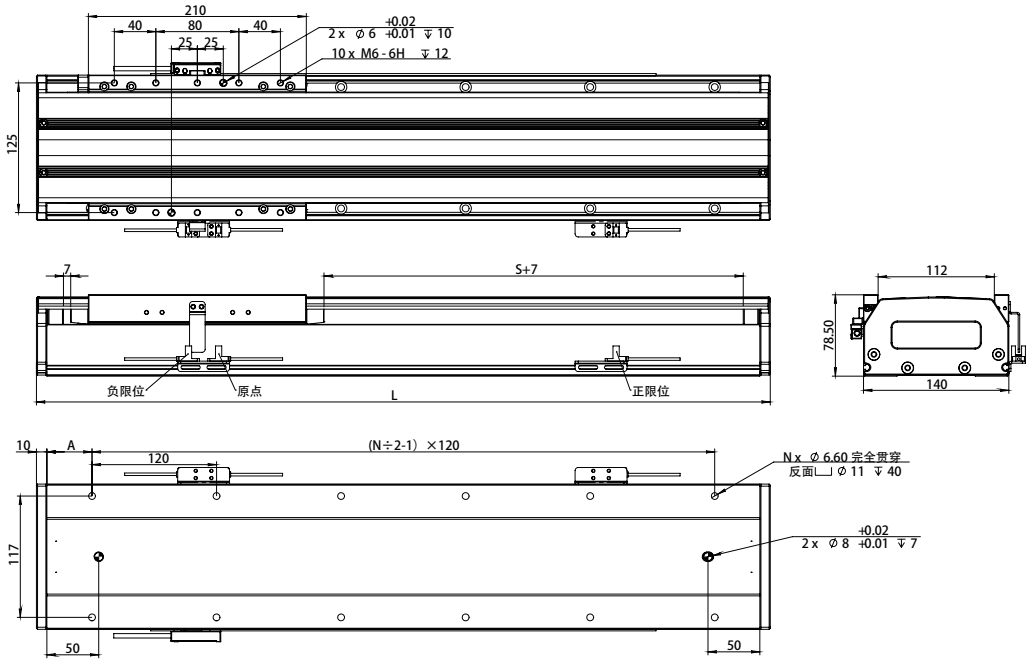
Eff. Stroke: S	1035	1085	1135	1185	1235	1285	1335	1385	1435	1485	1535	1585	1635	1685	1735	1785	1835	1885	1935	1985
Mech. Stroke: S + All.	1049	1099	1149	1199	1249	1299	1349	1399	1449	1499	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999
Total Length: L	1255	1305	1355	1405	1455	1505	1555	1605	1655	1705	1755	1805	1855	1905	1955	2005	2055	2105	2155	2205
No. of Holes: N	22	22	22	24	24	26	26	26	28	28	30	30	32	32	32	34	34	36	36	36
Hole to End: A	17.5	42.5	67.5	32.5	57.5	22.5	47.5	72.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	72.5
Mod. Wt. (kg)	21.5	22.3	23.08	23.8	24.6	25.4	26.2	26.9	27.69	28.5	29.2	30	30.77	31.5	32.3	33.1	33.8	34.6	35.38	36.1
Comp. Wt. (kg)	2.35																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TLM140-TICA55-2

TLM140-TICA55-2

Unit:mm



Eff. Stroke: S	47	97	147	197	247	297	347	397	447	497	547	597	647	697	747	797	847	897	947	997
Mech. Stroke: S + All.	61	111	161	211	261	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011
Total Length: L	357	407	457	507	557	607	657	707	757	807	857	907	957	1007	1057	1107	1157	1207	1257	1307
No. of Holes: N	6	6	8	8	10	10	12	12	12	14	14	16	16	16	18	18	20	20	22	22
Hole to End: A	48.5	73.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	23.5	48.5	73.5	38.5	63.5	28.5	53.5	18.5	43.5
Mod. Wt. (kg)	8.13	8.9	9.67	10.4	11.2	12	12.7	13.5	14.28	15.1	15.8	16.6	17.36	18.1	18.9	19.7	20.4	21.2	21.97	22.7
Comp. Wt. (kg)	3.35																			

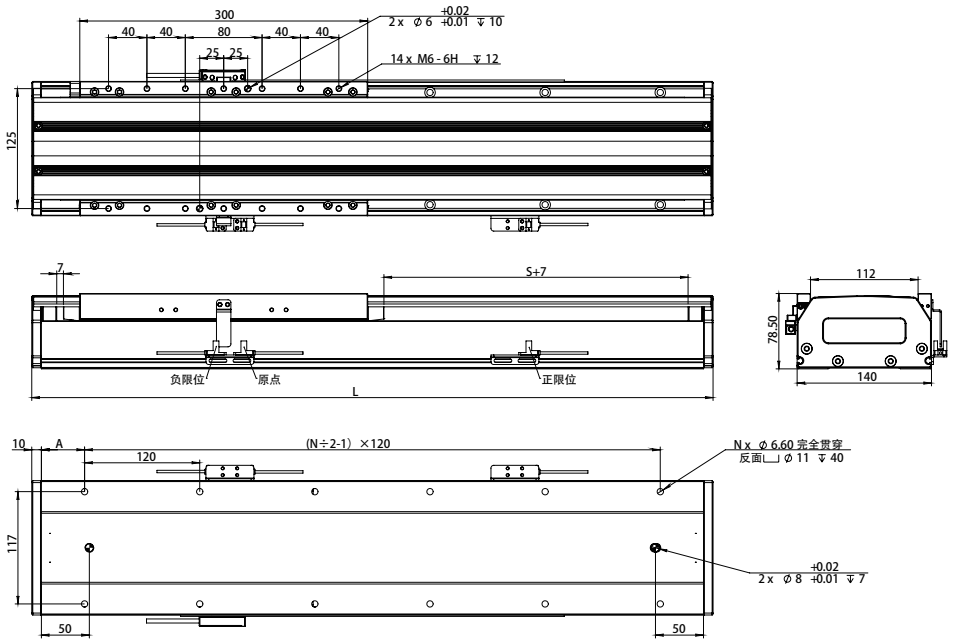
Eff. Stroke: S	1047	1097	1147	1197	1247	1297	1347	1397	1447	1497	1547	1597	1647	1697	1747	1797	1847	1897	1947	1997
Mech. Stroke: S + All.	1061	1111	1161	1211	1261	1311	1361	1411	1461	1511	1561	1611	1661	1711	1761	1811	1861	1911	1961	2011
Total Length: L	1357	1407	1457	1507	1557	1607	1657	1707	1757	1807	1857	1907	1957	2007	2057	2107	2157	2207	2257	2307
No. of Holes: N	22	24	24	26	26	26	28	28	30	30	32	32	32	34	34	36	36	36	38	38
Hole to End: A	68.5	33.5	58.5	23.5	48.5	73.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	23.5	48.5	73.5	38.5	63.5
Mod. Wt. (kg)	23.5	24.3	25.05	25.8	26.6	27.4	28.1	28.9	29.67	30.4	31.2	32	32.74	33.5	34.3	35.1	35.8	36.6	37.36	38.1
Comp. Wt. (kg)	3.35																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TLM140-TICA55-3

TLM140-TICA55-3

Unit:mm



Eff. Stroke: S	10	60	110	160	210	260	310	360	410	460	510	560	610	660	710	760	810	860	910	960
Mech. Stroke: S + All.	24	74	124	174	224	274	324	374	424	474	524	574	624	674	724	774	824	874	924	974
Total Length: L	410	460	510	560	610	660	710	760	810	860	910	960	1010	1060	1110	1160	1210	1260	1310	1360
No. of Holes: N	6	8	8	10	10	12	12	12	14	14	16	16	16	18	18	20	20	22	22	22
Hole to End: A	75	40	65	30	55	20	45	70	35	60	25	50	75	40	65	30	55	20	45	70
Mod. Wt. (kg)	10.6	11.3	12.11	12.9	13.6	14.4	15.1	15.9	16.65	17.4	18.2	18.9	19.68	20.4	21.2	22	22.7	23.5	24.23	25
Comp. Wt. (kg)	4.42																			

Eff. Stroke: S	1010	1060	1110	1160	1210	1260	1310	1360	1410	1460	1510	1560	1610	1660	1710	1760	1810	1860	1910	1960
Mech. Stroke: S + All.	1024	1074	1124	1174	1224	1274	1324	1374	1424	1474	1524	1574	1624	1674	1724	1774	1824	1874	1924	1974
Total Length: L	1410	1460	1510	1560	1610	1660	1710	1760	1810	1860	1910	1960	2010	2060	2110	2160	2210	2260	2310	2360
No. of Holes: N	24	24	26	26	26	28	28	30	30	32	32	32	34	34	36	36	36	38	38	40
Hole to End: A	35	60	25	50	75	40	65	30	55	20	45	70	35	60	25	50	75	40	65	30
Mod. Wt. (kg)	25.7	26.5	27.26	28.0	28.8	29.5	30.3	31.1	31.81	32.6	33.3	34.1	34.84	35.6	36.4	37.1	37.9	38.6	39.39	40.1
Comp. Wt. (kg)	4.42																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

Linear module TLM170 series

Continuous thrust	138N~414N	Peak thrust	371N~1113N	Temperature rise	< 0.05℃/W	Thrust fluctuation	< 2%

Product parameter

Motor Model	TICA75-1	TICA75-2	TICA75-3
Cont. Thrust (N)	138	276	414
Peak Thrust (N)	371	742	1113
Cont. Current (A)	3.23	3.23	3.23
Max. Current (A)	10.31	10.31	10.31
Max. Speed*1 (m/s)	5		
Max. Accel.*1 (m/s²)	50		
Repeatability (μm)	Magnetic Scale：±3；Optical Scale：±2		
Max. Load*1 (kg)	160		
Height (mm)	90.5		
Stroke*2 (mm)	35~1985(50 pitch)	47~1997(50 pitch)	10~1960(50 pitch)

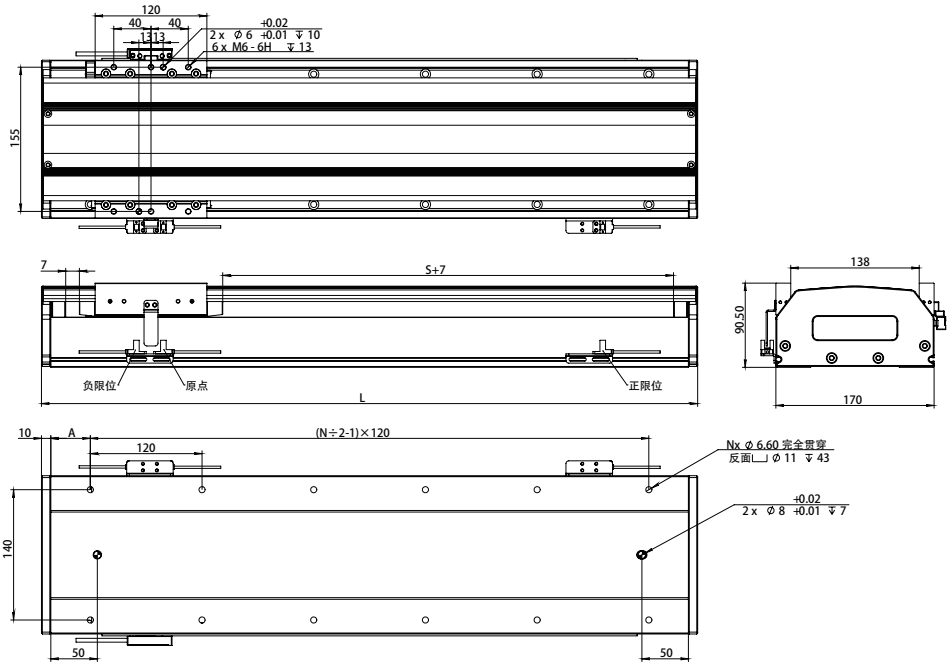
*1 Maximum acceleration, maximum speed, and maximum load are reference values. Actual values should be comprehensively evaluated based on the motion plan. If the actual parameters exceed the reference values, please contact the manufacturer for assessment.

*2 For longer strokes, please contact the manufacturer.

TLM170-TICA75-1

TLM170-TICA75-1

Unit:mm



Eff. Stroke: S	35	85	135	185	235	285	335	385	435	485	535	585	635	685	735	785	835	885	935	985
Mech. Stroke: S + All.	49	99	149	199	249	299	349	399	449	499	549	599	649	699	749	799	849	899	949	999
Total Length: L	255	305	355	405	455	505	555	605	655	705	755	805	855	905	955	1005	1055	1105	1155	1205
No. of Holes: N	4	6	6	6	8	8	10	10	12	12	12	14	14	16	16	16	18	18	20	20
Hole to End: A	57.5	22.5	47.5	72.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	72.5	37.5	62.5	27.5	52.5
Mod. Wt. (kg)	8.03	9.07	10.11	11.1	12.2	13.2	14.3	15.3	16.34	17.4	18.4	19.5	20.49	21.5	22.6	23.6	24.6	25.7	26.72	27.8
Comp. Wt. (kg)	2.9																			

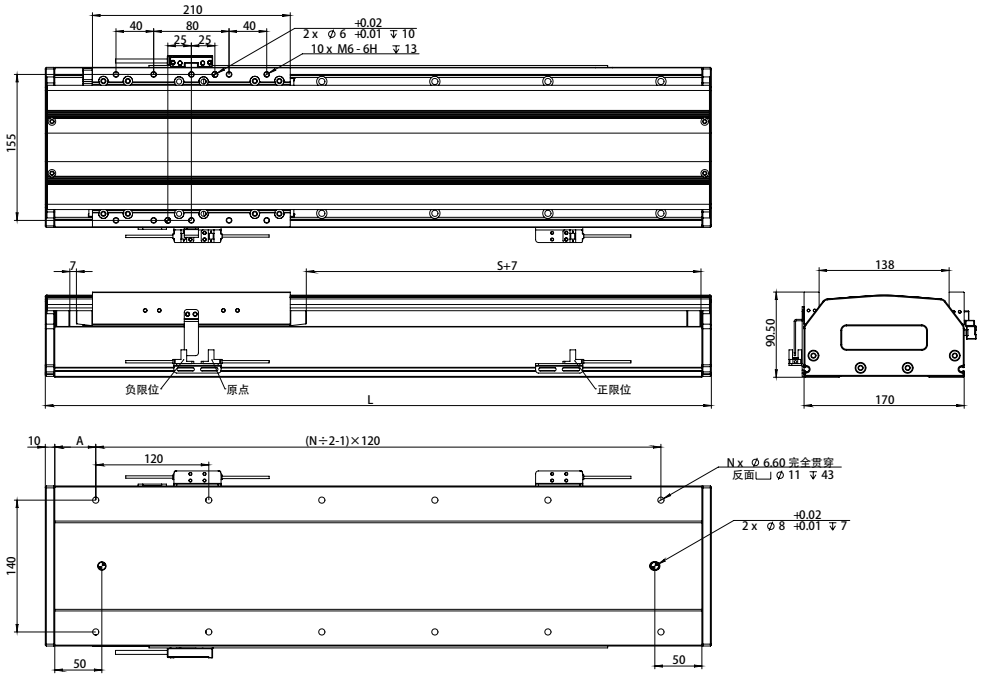
Eff. Stroke: S	1035	1085	1135	1185	1235	1285	1335	1385	1435	1485	1535	1585	1635	1685	1735	1785	1835	1885	1935	1985
Mech. Stroke: S + All.	1049	1099	1149	1199	1249	1299	1349	1399	1449	1499	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999
Total Length: L	1255	1305	1355	1405	1455	1505	1555	1605	1655	1705	1755	1805	1855	1905	1955	2005	2055	2105	2155	2205
No. of Holes: N	22	22	22	24	24	26	26	26	28	28	30	30	32	32	32	34	34	36	36	36
Hole to End: A	17.5	42.5	67.5	32.5	57.5	22.5	47.5	72.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	72.5
Mod. Wt. (kg)	28.8	29.8	30.87	31.9	32.9	34	35.1	36.1	37.10	38.1	39.2	40.2	41.25	42.3	43.3	44.4	45.4	46.4	47.48	48.5
Comp. Wt. (kg)	2.9																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TLM170-TICA75-2

TLM170-TICA75-2

Unit:mm



Eff. Stroke: S	47	97	147	197	247	297	347	397	447	497	547	597	647	697	747	797	847	897	947	997
Mech. Stroke: S + All.	61	111	161	211	261	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011
Total Length: L	357	407	457	507	557	607	657	707	757	807	857	907	957	1007	1057	1107	1157	1207	1257	1307
No. of Holes: N	6	6	8	8	10	10	12	12	12	14	14	16	16	16	18	18	20	20	22	22
Hole to End: A	48.5	73.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	23.5	48.5	73.5	38.5	63.5	28.5	53.5	18.5	43.5
Mod. Wt. (kg)	12.1	13.1	14.16	15.2	16.2	17.3	18.3	19.4	20.42	21.5	22.5	23.5	24.59	25.6	26.7	27.7	28.8	29.8	30.85	31.9
Comp. Wt. (kg)	4.81																			

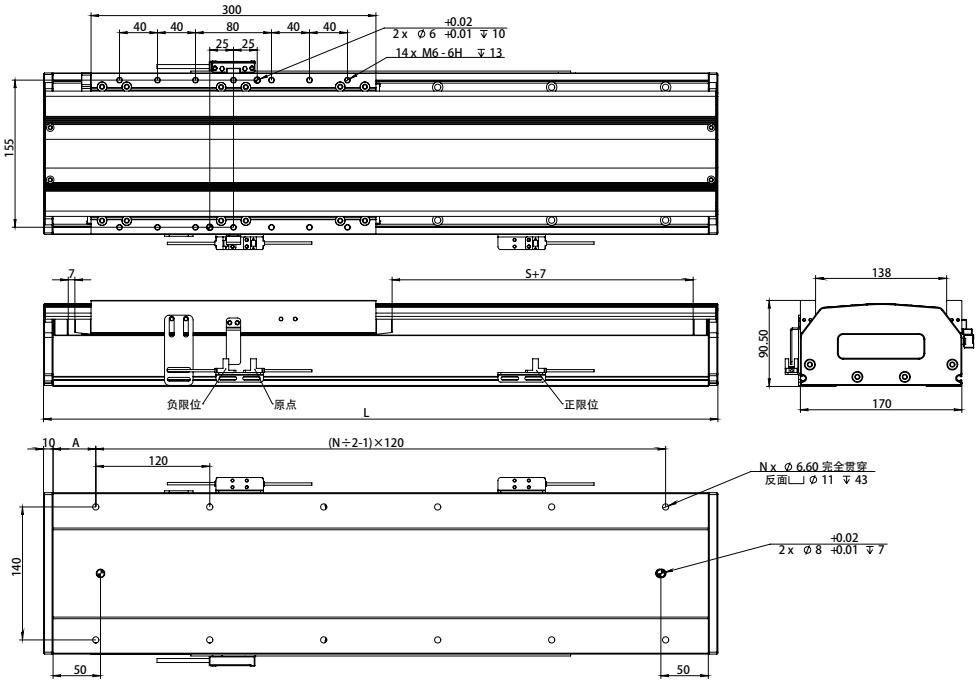
Eff. Stroke: S	1047	1097	1147	1197	1247	1297	1347	1397	1447	1497	1547	1597	1647	1697	1747	1797	1847	1897	1947	1997
Mech. Stroke: S + All.	1061	1111	1161	1211	1261	1311	1361	1411	1461	1511	1561	1611	1661	1711	1761	1811	1861	1911	1961	2011
Total Length: L	1357	1407	1457	1507	1557	1607	1657	1707	1757	1807	1857	1907	1957	2007	2057	2107	2157	2207	2257	2307
No. of Holes: N	22	24	24	26	26	26	28	28	30	30	32	32	32	34	34	36	36	36	38	38
Hole to End: A	68.5	33.5	58.5	23.5	48.5	73.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	23.5	48.5	73.5	38.5	63.5
Mod. Wt. (kg)	32.9	34	35.02	36.1	37.1	38.1	39.2	40.2	41.28	42.3	43.4	44.4	45.45	46.5	47.5	48.6	49.6	50.7	51.70	52.7
Comp. Wt. (kg)	4.81																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TLM170-TICA75-3

TLM170-TICA75-3

Unit:mm



Eff. Stroke: S	10	60	110	160	210	260	310	360	410	460	510	560	610	660	710	760	810	860	910	960
Mech. Stroke: S + All.	24	74	124	174	224	274	324	374	424	474	524	574	624	674	724	774	824	874	924	974
Total Length: L	410	460	510	560	610	660	710	760	810	860	910	960	1010	1060	1110	1160	1210	1260	1310	1360
No. of Holes: N	6	8	8	10	10	12	12	12	14	14	16	16	16	18	18	20	20	22	22	22
Hole to End: A	75	40	65	30	55	20	45	70	35	60	25	50	75	40	65	30	55	20	45	70
Mod. Wt. (kg)	14.3	15.3	16.34	17.4	18.4	19.4	20.5	21.5	22.52	23.5	24.6	25.6	26.64	27.7	28.7	29.7	30.8	31.8	32.82	33.8
Comp. Wt. (kg)	5.92																			

Eff. Stroke: S	1010	1060	1110	1160	1210	1260	1310	1360	1410	1460	1510	1560	1610	1660	1710	1760	1810	1860	1910	1960
Mech. Stroke: S + All.	1024	1074	1124	1174	1224	1274	1324	1374	1424	1474	1524	1574	1624	1674	1724	1774	1824	1874	1924	1974
Total Length: L	1410	1460	1510	1560	1610	1660	1710	1760	1810	1860	1910	1960	2010	2060	2110	2160	2210	2260	2310	2360
No. of Holes: N	24	24	26	26	26	28	28	30	30	32	32	32	34	34	36	36	36	38	38	40
Hole to End: A	35	60	25	50	75	40	65	30	55	20	45	70	35	60	25	50	75	40	65	30
Mod. Wt. (kg)	34.9	35.9	36.94	38	39	40	41.1	42.1	43.12	44.1	45.2	46.2	47.24	48.3	49.3	50.3	51.4	52.4	53.42	54.4
Comp. Wt. (kg)	5.92																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

Linear module TLM210 series

Continuous thrust	189N~567N	Peak thrust	522N~1566N	Temperature rise	< 0.05℃/W	Thrust fluctuation	< 2%

Product parameter

Motor Model	TICA95-1	TICA95-2	TICA95-3
Cont. Thrust (N)	189	378	567
Peak Thrust (N)	522	1044	1566
Cont. Current (A)	3.28	3.28	3.28
Max. Current (A)	10.3	10.3	10.3
Max. Speed*1 (m/s)	5		
Max. Accel.*1 (m/s²)	50		
Repeatability (μm)	Magnetic Scale：±3；Optical Scale：±2		
Max. Load*1 (kg)	250		
Height (mm)	97		
Stroke*2 (mm)	35~1985(50 pitch)	47~1997(50 pitch)	10~1960(50 pitch)

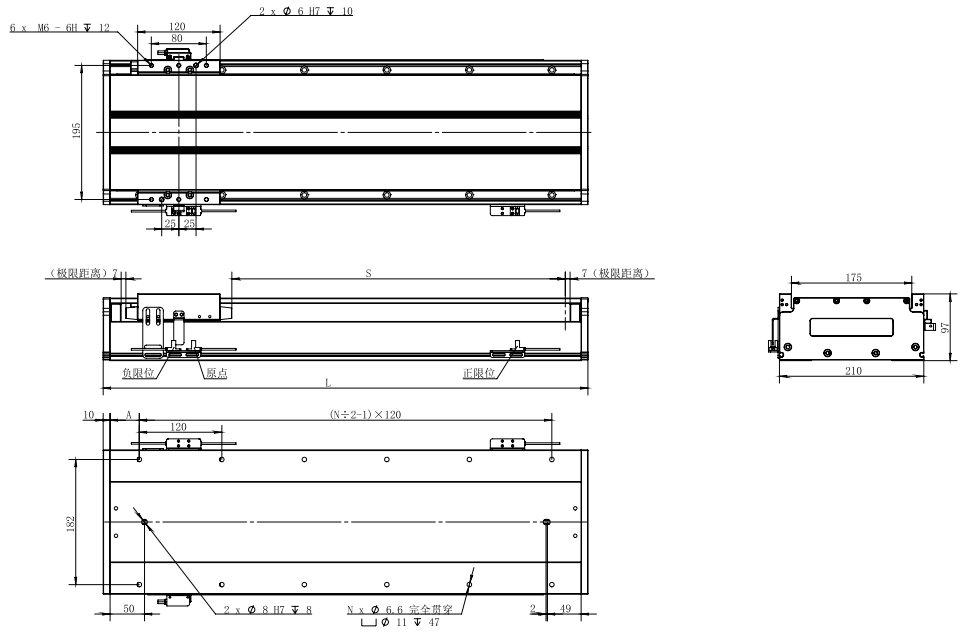
*1 Maximum acceleration, maximum speed, and maximum load are reference values. Actual values should be comprehensively evaluated based on the motion plan. If the actual parameters exceed the reference values, please contact the manufacturer for assessment.

*2 For longer strokes, please contact the manufacturer.

TLM210-TICA95-1

TLM210-TICA95-1

Unit:mm



Eff. Stroke: S	35	85	135	185	235	285	335	385	435	485	535	585	635	685	735	785	835	885	935	985
Mech. Stroke: S + All.	49	99	149	199	249	299	349	399	449	499	549	599	649	699	749	799	849	899	949	999
Total Length: L	255	305	355	405	455	505	555	605	655	705	755	805	855	905	955	1005	1055	1105	1155	1205
No. of Holes: N	4	6	6	6	8	8	10	10	12	12	12	14	14	16	16	16	18	18	20	20
Hole to End: A	57.5	22.5	47.5	72.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	72.5	37.5	62.5	27.5	52.5
Mod. Wt. (kg)	10.7	12.0	13.42	14.8	16.2	17.6	19	20.4	21.74	23.1	24.5	25.9	27.29	28.7	30.1	31.4	32.8	34.2	35.61	37
Comp. Wt. (kg)	3.91																			

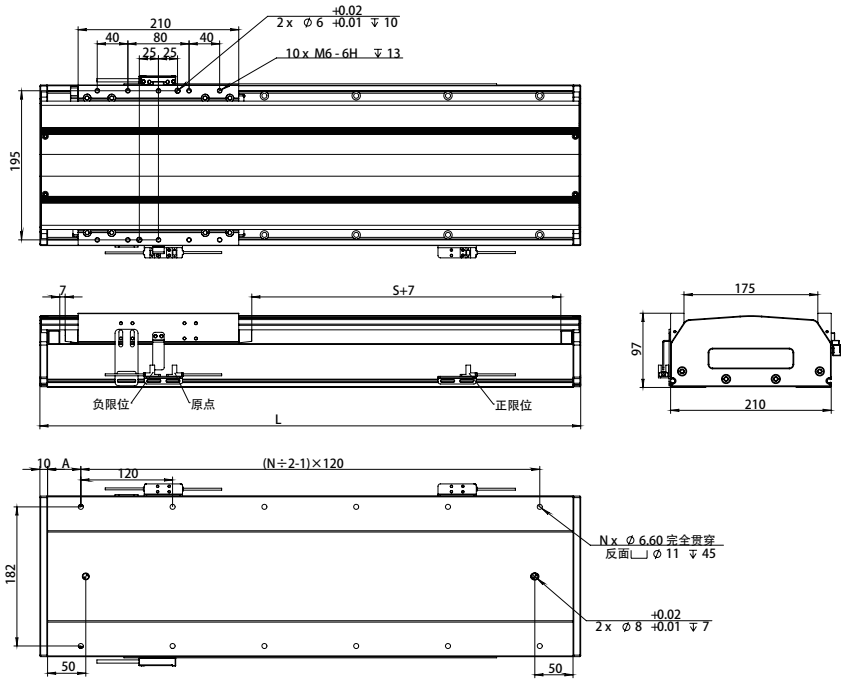
Eff. Stroke: S	1035	1085	1135	1185	1235	1285	1335	1385	1435	1485	1535	1585	1635	1685	1735	1785	1835	1885	1935	1985
Mech. Stroke: S + All.	1049	1099	1149	1199	1249	1299	1349	1399	1449	1499	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999
Total Length: L	1255	1305	1355	1405	1455	1505	1555	1605	1655	1705	1755	1805	1855	1905	1955	2005	2055	2105	2155	2205
No. of Holes: N	22	22	22	24	24	26	26	26	28	28	30	30	32	32	32	34	34	36	36	36
Hole to End: A	17.5	42.5	67.5	32.5	57.5	22.5	47.5	72.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	72.5
Mod. Wt. (kg)	38.4	39.8	41.16	42.5	43.9	45.3	46.7	48.1	49.47	50.9	52.2	53.6	55.02	56.4	57.8	59.2	60.6	62	63.33	64.7
Comp. Wt. (kg)	3.91																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TLM210-TICA95-2

TLM210-TICA95-2

Unit:mm



Eff. Stroke: S	47	97	147	197	247	297	347	397	447	497	547	597	647	697	747	797	847	897	947	997
Mech. Stroke: S + All.	61	111	161	211	261	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011
Total Length: L	357	407	457	507	557	607	657	707	757	807	857	907	957	1007	1057	1107	1157	1207	1257	1307
No. of Holes: N	6	6	8	8	10	10	12	12	12	14	14	16	16	16	18	18	20	20	22	22
Hole to End: A	48.5	73.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	23.5	48.5	73.5	38.5	63.5	28.5	53.5	18.5	43.5
Mod. Wt. (kg)	16.4	17.8	19.19	20.6	22	23.4	24.7	26.1	27.51	28.9	30.3	31.7	33.05	34.4	35.8	37.2	38.6	40	41.36	42.7
Comp. Wt. (kg)	6.86																			

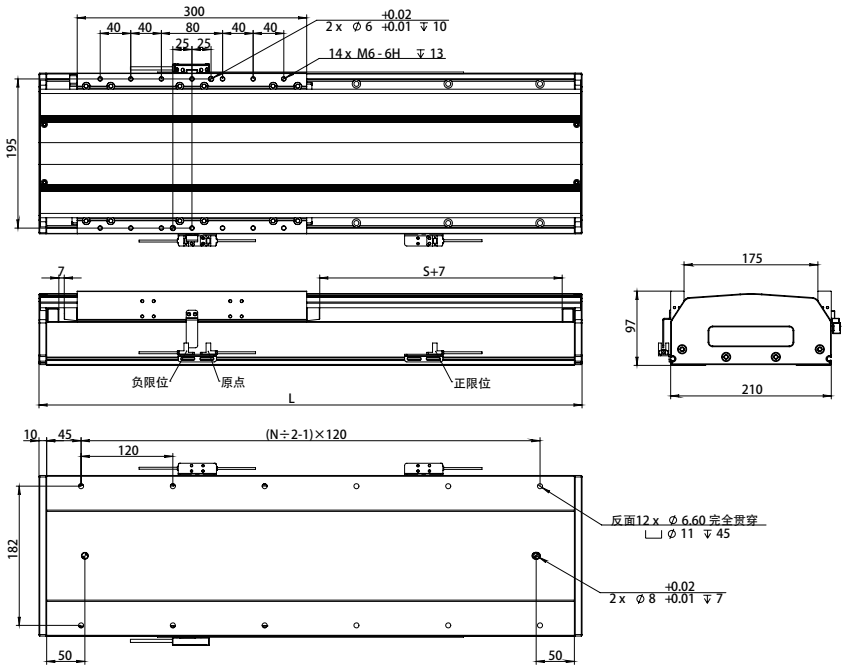
Eff. Stroke: S	1047	1097	1147	1197	1247	1297	1347	1397	1447	1497	1547	1597	1647	1697	1747	1797	1847	1897	1947	1997
Mech. Stroke: S + All.	1061	1111	1161	1211	1261	1311	1361	1411	1461	1511	1561	1611	1661	1711	1761	1811	1861	1911	1961	2011
Total Length: L	1357	1407	1457	1507	1557	1607	1657	1707	1757	1807	1857	1907	1957	2007	2057	2107	2157	2207	2257	2307
No. of Holes: N	22	24	24	26	26	26	28	28	30	30	32	32	32	34	34	36	36	36	38	38
Hole to End: A	68.5	33.5	58.5	23.5	48.5	73.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	23.5	48.5	73.5	38.5	63.5
Mod. Wt. (kg)	44.1	45.5	46.9	48.3	49.7	51.1	52.4	53.8	55.21	56.6	58	59.4	60.75	62.1	63.5	64.9	66.3	67.7	69.06	70.4
Comp. Wt. (kg)	6.86																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TLM210-TICA95-3

TLM210-TICA95-3

Unit:mm



Eff. Stroke: S	10	60	110	160	210	260	310	360	410	460	510	560	610	660	710	760	810	860	910	960
Mech. Stroke: S + All.	24	74	124	174	224	274	324	374	424	474	524	574	624	674	724	774	824	874	924	974
Total Length: L	410	460	510	560	610	660	710	760	810	860	910	960	1010	1060	1110	1160	1210	1260	1310	1360
No. of Holes: N	6	8	8	10	10	12	12	12	14	14	16	16	16	18	18	20	20	22	22	22
Hole to End: A	75	40	65	30	55	20	45	70	35	60	25	50	75	40	65	30	55	20	45	70
Mod. Wt. (kg)	20.1	21.5	22.86	24.2	25.6	27	28.4	29.8	31.17	32.6	33.9	35.3	36.72	38.1	39.5	40.9	42.3	43.6	45.04	46.4
Comp. Wt. (kg)	9.1																			

Eff. Stroke: S	1010	1060	1110	1160	1210	1260	1310	1360	1410	1460	1510	1560	1610	1660	1710	1760	1810	1860	1910	1960
Mech. Stroke: S + All.	1024	1074	1124	1174	1224	1274	1324	1374	1424	1474	1524	1574	1624	1674	1724	1774	1824	1874	1924	1974
Total Length: L	1410	1460	1510	1560	1610	1660	1710	1760	1810	1860	1910	1960	2010	2060	2110	2160	2210	2260	2310	2360
No. of Holes: N	24	24	26	26	26	28	28	30	30	32	32	32	34	34	36	36	36	38	38	40
Hole to End: A	35	60	25	50	75	40	65	30	55	20	45	70	35	60	25	50	75	40	65	30
Mod. Wt. (kg)	47.8	49.2	50.58	52	53.4	54.7	56.1	57.5	58.9	60.3	61.7	63.1	64.44	65.8	67.2	68.6	70	71.4	72.76	74.1
Comp. Wt. (kg)	9.1																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

Linear module TLM235 series

Continuous thrust	234N~819N	Peak thrust	648N~2277N	Temperature rise	< 0.05℃/W	Thrust fluctuation	< 2%

Product parameter

Motor Model	TICA115-1	TICA115-2	TICA115-3	TICA125-1	TICA125-2	TICA125-3
Cont. Thrust (N)	234	468	702	273	546	819
Peak Thrust (N)	648	1296	1944	759	1518	2277
Cont. Current (A)	3.22	3.22	3.22	3.38	3.38	3.38
Max. Current (A)	10.29	10.29	10.29	10.28	10.28	10.28
Max. Speed*1 (m/s)	4					
Max. Accel.*1 (m/s^2)	50					
Repeatability (μm)	Magnetic Scale：±3；Optical Scale：±2					
Max. Load*1 (kg)	300					
Height (mm)	105					
Stroke*2 (mm)	35~1985(50 pitch)	47~1997(50 pitch)	10~1960(50 pitch)	35~1985(50 pitch)	47~1997(50 pitch)	10~1960(50 pitch)

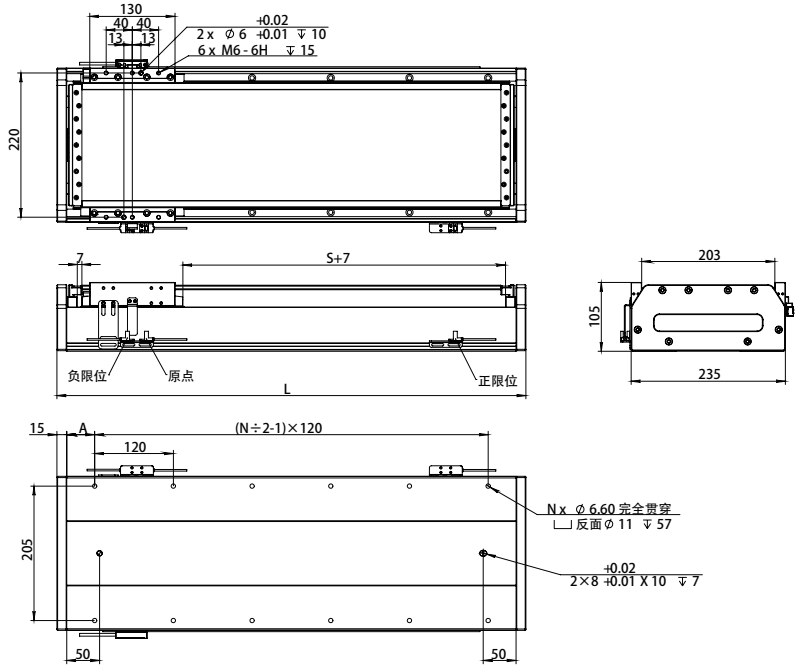
*1 Maximum acceleration, maximum speed, and maximum load are reference values. Actual values should be comprehensively evaluated based on the motion plan. If the actual parameters exceed the reference values, please contact the manufacturer for assessment.

*2 For longer strokes, please contact the manufacturer.

TLM235-TICA115-1

TLM235-TICA115-1

Unit:mm



Eff. Stroke: S	35	85	135	185	235	285	335	385	435	485	535	585	635	685	735	785	835	885	935	985
Mech. Stroke: S + All.	49	99	149	199	249	299	349	399	449	499	549	599	649	699	749	799	849	899	949	999
Total Length: L	265	315	365	415	465	515	565	615	665	715	765	815	865	915	965	1015	1065	1115	1165	1215
No. of Holes: N	4	6	6	6	8	8	10	10	12	12	12	14	14	16	16	16	18	18	20	20
Hole to End: A	57.5	22.5	47.5	72.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	72.5	37.5	62.5	27.5	52.5
Mod. Wt. (kg)	13.4	15.1	16.84	18.6	20.3	22	23.8	25.5	27.21	28.9	30.7	32.4	34.12	35.8	37.6	39.3	41	42.8	44.49	46.2
Comp. Wt. (kg)	4.63																			

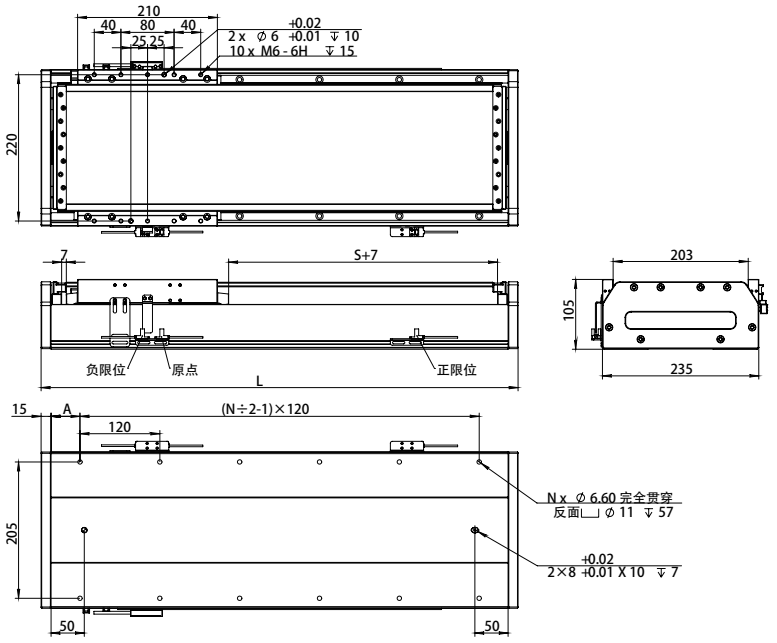
Eff. Stroke: S	1035	1085	1135	1185	1235	1285	1335	1385	1435	1485	1535	1585	1635	1685	1735	1785	1835	1885	1935	1985
Mech. Stroke: S + All.	1049	1099	1149	1199	1249	1299	1349	1399	1449	1499	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999
Total Length: L	1265	1315	1365	1415	1465	1515	1565	1615	1665	1715	1765	1815	1865	1915	1965	2015	2065	2115	2165	2215
No. of Holes: N	22	22	22	24	24	26	26	26	28	28	30	30	32	32	32	34	34	36	36	36
Hole to End: A	17.5	42.5	67.5	32.5	57.5	22.5	47.5	72.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	72.5
Mod. Wt. (kg)	47.9	49.7	51.4	53.1	54.9	56.6	58.3	60	61.77	63.5	65.2	67	68.68	70.4	72.1	73.9	75.6	77.3	79.05	80.8
Comp. Wt. (kg)	4.63																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TLM235-TICA115-2

TLM235-TICA115-2

Unit:mm



Eff. Stroke: S	47	97	147	197	247	297	347	397	447	497	547	597	647	697	747	797	847	897	947	997
Mech. Stroke: S + All.	61	111	161	211	261	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011
Total Length: L	367	417	467	517	567	617	667	717	767	817	867	917	967	1017	1067	1117	1167	1217	1267	1317
No. of Holes: N	6	6	8	8	10	10	12	12	12	14	14	16	16	16	18	18	20	20	22	22
Hole to End: A	48.5	73.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	23.5	48.5	73.5	38.5	63.5	28.5	53.5	18.5	43.5
Mod. Wt. (kg)	19.3	21	22.72	24.4	26.2	27.9	29.6	31.3	33.03	34.8	36.5	38.2	39.9	41.6	43.3	45.1	46.8	48.5	50.21	51.9
Comp. Wt. (kg)	7.22																			

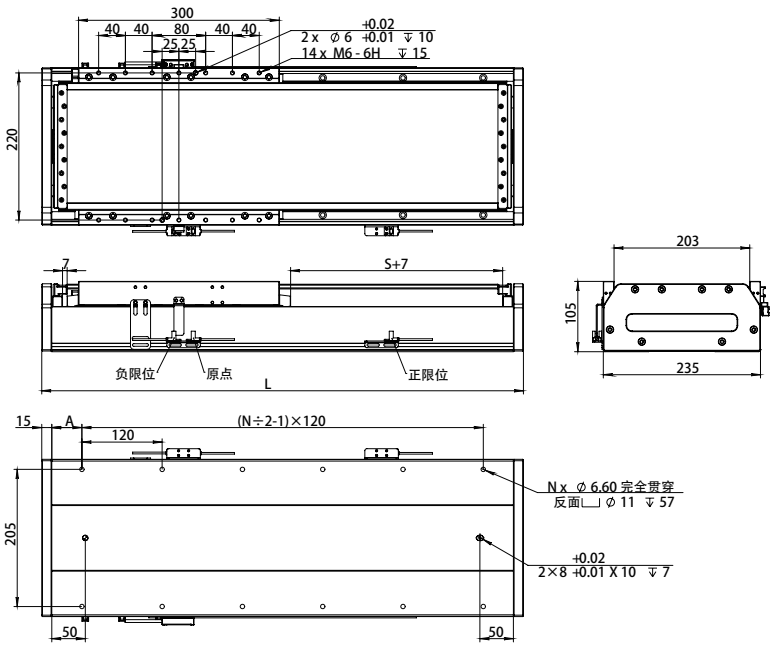
Eff. Stroke: S	1047	1097	1147	1197	1247	1297	1347	1397	1447	1497	1547	1597	1647	1697	1747	1797	1847	1897	1947	1997
Mech. Stroke: S + All.	1061	1111	1161	1211	1261	1311	1361	1411	1461	1511	1561	1611	1661	1711	1761	1811	1861	1911	1961	2011
Total Length: L	1367	1417	1467	1517	1567	1617	1667	1717	1767	1817	1867	1917	1967	2017	2067	2117	2167	2217	2257	2317
No. of Holes: N	22	24	24	26	26	26	28	28	30	30	32	32	32	34	34	36	36	36	38	38
Hole to End: A	68.5	33.5	58.5	23.5	48.5	73.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	23.5	48.5	73.5	38.5	63.5
Mod. Wt. (kg)	53.6	55.4	57.08	58.8	60.5	62.2	64	65.7	67.39	69.1	70.8	72.5	74.26	76	77.7	79.4	81.1	82.9	84.57	86.3
Comp. Wt. (kg)	7.22																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TLM235-TICA115-3

TLM235-TICA115-3

Unit:mm



Eff. Stroke: S	10	60	110	160	210	260	310	360	410	460	510	560	610	660	710	760	810	860	910	960
Mech. Stroke: S + All.	24	74	124	174	224	274	324	374	424	474	524	574	624	674	724	774	824	874	924	974
Total Length: L	420	470	520	570	620	670	720	770	820	870	920	970	1020	1070	1120	1170	1220	1270	1320	1370
No. of Holes: N	6	8	8	10	10	12	12	12	14	14	16	16	16	18	18	20	20	22	22	22
Hole to End: A	75	40	65	30	55	20	45	70	35	60	25	50	75	40	65	30	55	20	45	70
Mod. Wt. (kg)	23.9	25.6	27.36	29.1	30.8	32.6	34.3	36.1	37.79	39.5	41.3	43	44.74	46.5	48.2	50	51.7	53.4	55.17	56.9
Comp. Wt. (kg)	10.1																			

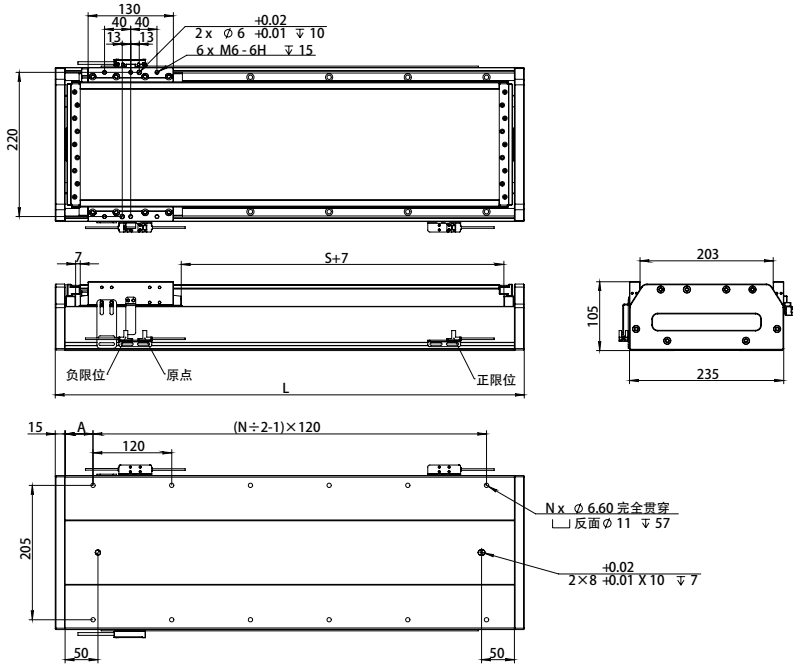
Eff. Stroke: S	1010	1060	1110	1160	1210	1260	1310	1360	1410	1460	1510	1560	1610	1660	1710	1760	1810	1860	1910	1960
Mech. Stroke: S + All.	1024	1074	1124	1174	1224	1274	1324	1374	1424	1474	1524	1574	1624	1674	1724	1774	1824	1874	1924	1974
Total Length: L	1420	1470	1520	1570	1620	1670	1720	1770	1820	1870	1920	1970	2020	2070	2120	2170	2220	2270	2320	2370
No. of Holes: N	24	24	26	26	26	28	28	30	30	32	32	32	34	34	36	36	36	38	38	40
Hole to End: A	35	60	25	50	75	40	65	30	55	20	45	70	35	60	25	50	75	40	65	30
Mod. Wt. (kg)	58.6	60.4	62.12	63.9	65.6	67.3	69.1	70.8	72.55	74.3	76	77.8	79.50	81.2	83	84.7	86.5	88.2	89.93	91.7
Comp. Wt. (kg)	10.1																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TLM235-TICA125-1

TLM235-TICA125-1

Unit:mm



Eff. Stroke: S	35	85	135	185	235	285	335	385	435	485	535	585	635	685	735	785	835	885	935	985
Mech. Stroke: S + All.	49	99	149	199	249	299	349	399	449	499	549	599	649	699	749	799	849	899	949	999
Total Length: L	265	315	365	415	465	515	565	615	665	715	765	815	865	915	965	1015	1065	1115	1165	1215
No. of Holes: N	4	6	6	6	8	8	10	10	12	12	12	14	14	16	16	16	18	18	20	20
Hole to End: A	57.5	22.5	47.5	72.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	72.5	37.5	62.5	27.5	52.5
Mod. Wt. (kg)	14.4	16.1	17.84	18.6	21.3	23	24.8	26.5	28.21	29.9	31.7	33.4	35.12	36.8	38.6	40.3	42	43.8	45.49	47.2
Comp. Wt. (kg)	4.85																			

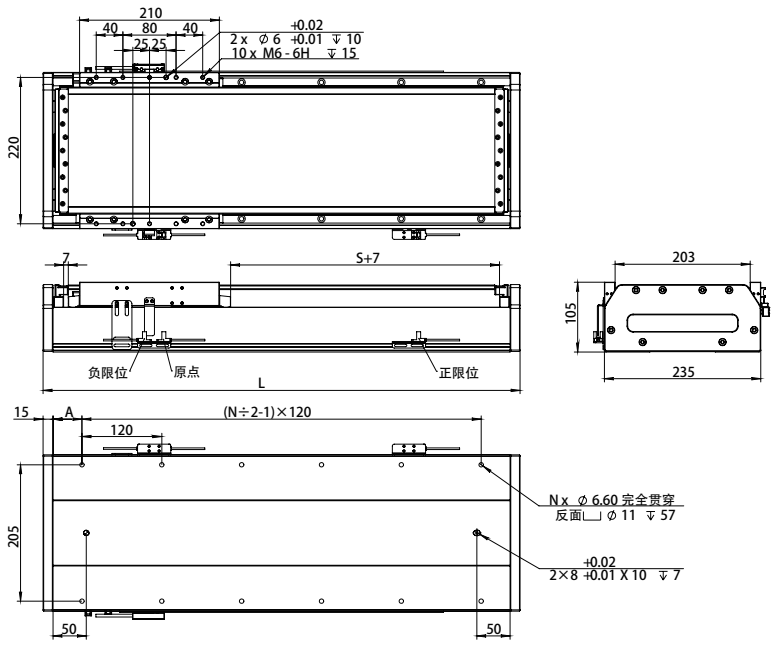
Eff. Stroke: S	1035	1085	1135	1185	1235	1285	1335	1385	1435	1485	1535	1585	1635	1685	1735	1785	1835	1885	1935	1985
Mech. Stroke: S + All.	1049	1099	1149	1199	1249	1299	1349	1399	1449	1499	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999
Total Length: L	1265	1315	1365	1415	1465	1515	1565	1615	1665	1715	1765	1815	1865	1915	1965	2015	2065	2115	2165	2215
No. of Holes: N	22	22	22	24	24	26	26	26	28	28	30	30	32	32	32	34	34	36	36	36
Hole to End: A	17.5	42.5	67.5	32.5	57.5	22.5	47.5	72.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	72.5
Mod. Wt. (kg)	48.9	50.7	52.4	54.1	55.9	57.6	59.3	61	62.77	64.5	66.2	68	69.68	71.4	73.1	74.9	76.6	78.3	80.05	81.8
Comp. Wt. (kg)	4.85																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TLM235-TICA125-2

TLM235-TICA125-2

Unit:mm



Eff. Stroke: S	47	97	147	197	247	297	347	397	447	497	547	597	647	697	747	797	847	897	947	997
Mech. Stroke: S + All.	61	111	161	211	261	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011
Total Length: L	367	417	467	517	567	617	667	717	767	817	867	917	967	1017	1067	1117	1167	1217	1267	1317
No. of Holes: N	6	6	8	8	10	10	12	12	12	14	14	16	16	16	18	18	20	20	22	22
Hole to End: A	48.5	73.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	23.5	48.5	73.5	38.5	63.5	28.5	53.5	18.5	43.5
Mod. Wt. (kg)	21.3	23	24.72	26.4	28.2	30.9	32.6	34.3	36.03	37.8	38.5	40.2	41.9	43.6	45.3	47.1	48.8	50.5	52.21	53.9
Comp. Wt. (kg)	8.22																			

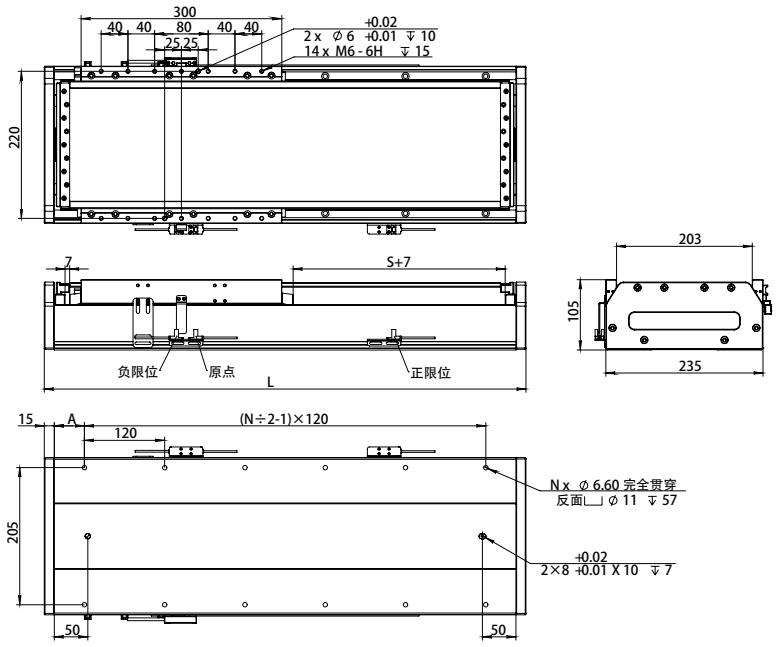
Eff. Stroke: S	1047	1097	1147	1197	1247	1297	1347	1397	1447	1497	1547	1597	1647	1697	1747	1797	1847	1897	1947	1997
Mech. Stroke: S + All.	1061	1111	1161	1211	1261	1311	1361	1411	1461	1511	1561	1611	1661	1711	1761	1811	1861	1911	1961	2011
Total Length: L	1367	1417	1467	1517	1567	1617	1667	1717	1767	1817	1867	1917	1967	2017	2067	2117	2167	2217	2267	2317
No. of Holes: N	22	24	24	26	26	26	28	28	30	30	32	32	32	34	34	36	36	36	38	38
Hole to End: A	68.5	33.5	58.5	23.5	48.5	73.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	23.5	48.5	73.5	38.5	63.5
Mod. Wt. (kg)	55.6	57.4	59.08	60.8	62.5	64.2	66	67.7	69.39	71.1	72.8	74.5	76.26	78	79.7	81.4	83.1	84.9	86.57	88.3
Comp. Wt. (kg)	8.22																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TLM235-TICA125-3

TLM235-TICA125-3

Unit:mm



Eff. Stroke: S	10	60	110	160	210	260	310	360	410	460	510	560	610	660	710	760	810	860	910	960
Mech. Stroke: S + All.	24	74	124	174	224	274	324	374	424	474	524	574	624	674	724	774	824	874	924	974
Total Length: L	420	470	520	570	620	670	720	770	820	870	920	970	1020	1070	1120	1170	1220	1270	1320	1370
No. of Holes: N	6	8	8	10	10	12	12	12	14	14	16	16	16	18	18	20	20	22	22	22
Hole to End: A	75	40	65	30	55	20	45	70	35	60	25	50	75	40	65	30	55	20	45	70
Mod. Wt. (kg)	25.9	27.6	29.36	31.1	32.8	34.6	36.3	38.1	39.79	41.5	43.3	45	46.74	48.5	50.2	52	53.7	55.4	57.17	58.9
Comp. Wt. (kg)	11.35																			

Eff. Stroke: S	1010	1060	1110	1160	1210	1260	1310	1360	1410	1460	1510	1560	1610	1660	1710	1760	1810	1860	1910	1960
Mech. Stroke: S + All.	1024	1074	1124	1174	1224	1274	1324	1374	1424	1474	1524	1574	1624	1674	1724	1774	1824	1874	1924	1974
Total Length: L	1420	1470	1520	1570	1620	1670	1720	1770	1820	1870	1920	1970	2020	2070	2120	2170	2220	2270	2320	2370
No. of Holes: N	24	24	26	26	26	28	28	30	30	32	32	32	34	34	36	36	36	38	38	40
Hole to End: A	35	60	25	50	75	40	65	30	55	20	45	70	35	60	25	50	75	40	65	30
Mod. Wt. (kg)	60.6	62.4	64.12	65.9	67.6	69.3	71.1	72.8	74.55	76.3	78	79.8	81.50	83.2	85	86.7	88.5	90.2	91.93	93.7
Comp. Wt. (kg)	11.35																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

02

LINEAR MOTOR FULLY SEALED MODULE

Intro

TOKK linear motor modules, known for their high precision, fast speed, smooth operation, simple structure, high integration, standardized series, and cost efficiency, have been widely applied across various industries. They have also gained high recognition and favor in the industry. From simple handling and conveying to precise measurement and machining, TOKK's linear motor technology is applicable in a wide range of processing techniques and working conditions. Additionally, its customizable flexible configurations, high stability, and excellent cost performance meet diverse customer application needs.

Advantages

❶ Molded parts and standardization for lower costs
❷ Compact structure
❸ Supports multi-axis configurations (Z-axis, cross, cantilever, gantry, etc.), offering versatility and flexibility
❹ Supports multiple mover-slider applications
❺ Unlimited stroke extension available
❻ High precision with optional feedback units, achieving sub-micron accuracy
❼ Easy to customize with flexible design options
❽ Wide range of applications

Disadvantages

❶ Higher costs for traditional drive systems
❷ Relative complexity in motion control

Application Industry

3C industry (Computers, Communication, Consumer electronics)
Semiconductor industry
Automotive industry
LCD panel industry
.....
New energy industry
Photovoltaic industry
Laser processing industry

TSLM series linear motor fully sealed module naming rules

TLM 140-1-L200-M0.5 S0 -CA55-1 H -5 -D00

Motor Type	
code	description
TLM	linear motor module
TSLM	fully-sealed linear motor module

Module Width	
code	description
140	140mm
170	170mm
210	210mm
235	235mm
...	...

Number of Slides	
code	description
1	single slider (standard)
2	double slider (custom)
...	...

Stroke	
code	description
L200	200mm
L300	300mm
...	...

Feedback Method	
code	description
M	magnetic scale
G	optical scale

Customization	
code	description
null	standard
D00	standard
D01	module

Cable length	
code	description
1	1m
2	2m
null	5m (standard)
...	...

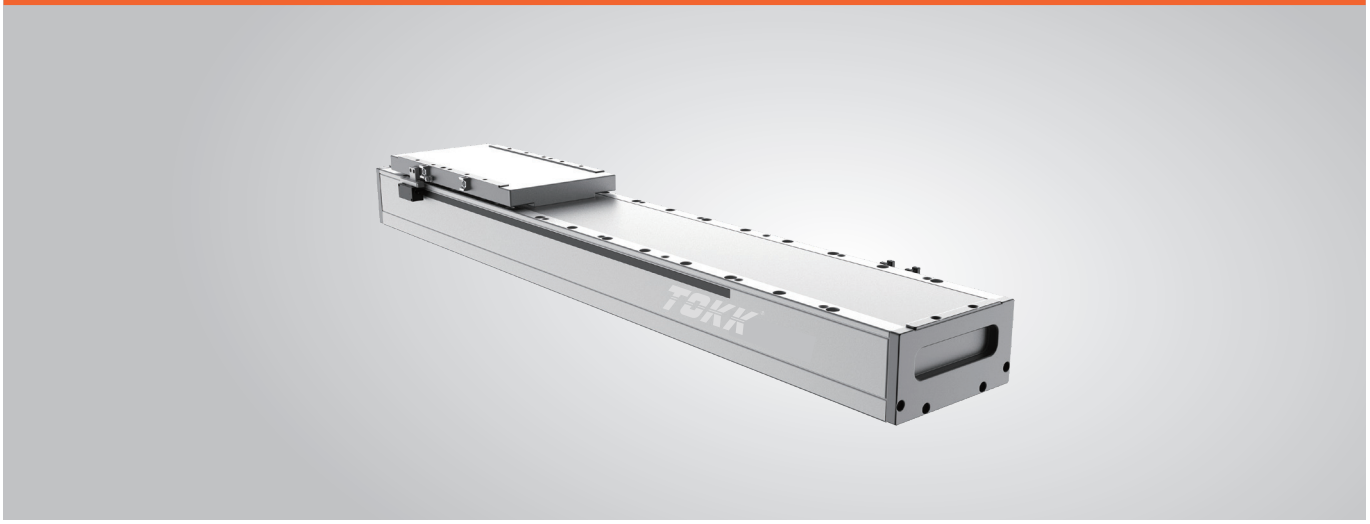
Sensor Option	
code	description
null	no sensor
H	with Hall sensor

Motor Type	
code	description
CA55-1	TICA55-105
CA55-2	TICA55-193
CA55-3	TICA55-280
UA38-1	TUA 38-61
UA38-2	TUA 38-121
...	...

Limit Switch	
code	description
null	photoelectric switch
S0	built-in encoder

Resolution	
code	description
1	1μm
0.5	0.5μm
...	...

Linear module TSLM140 series



Continuous thrust	48N~144N	Peak thrust	138N~414N	Temperature rise	< 0.05℃/W	Thrust fluctuation	< 2%

Product parameter

Motor Model	TICA35-1	TICA35-2	TICA35-3
Cont. Thrust (N)	48	96	144
Peak Thrust (N)	138	276	414
Cont. Current (A)	3.39	3.39	3.39
Max. Current (A)	10.34	10.34	10.34
Max. Speed*1 (m/s)	4		
Max. Accel.*1 (m/s²)	50		
Repeatability (μm)	Magnetic Scale：±3；Optical Scale：±2		
Max. Load*1 (kg)	30		
Height (mm)	89.5		
Stroke*2 (mm)	35~1985(50 pitch)	47~1997(50 pitch)	10~1960(50 pitch)

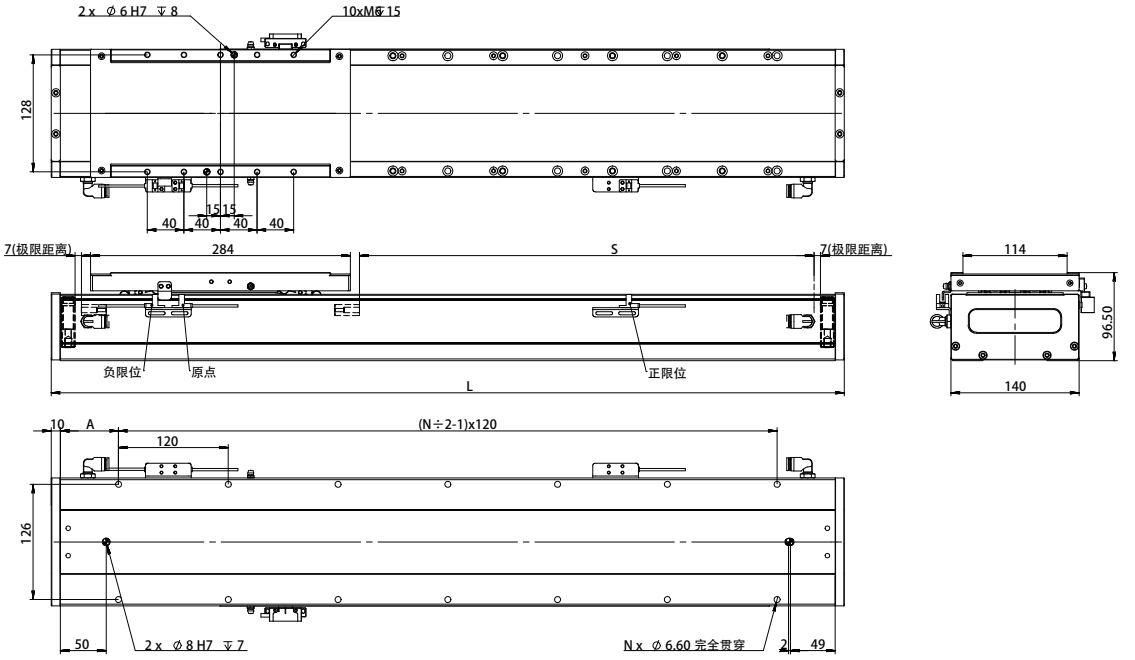
*1 Maximum acceleration, maximum speed, and maximum load are reference values. Actual values should be comprehensively evaluated based on the motion plan. If the actual parameters exceed the reference values, please contact the manufacturer for assessment.

*2 For longer strokes, please contact the manufacturer.

TSLM140-TICA35-1

TSLM140-TICA35-1

Unit:mm



Eff. Stroke: S	35	85	135	185	235	285	335	385	435	485	535	585	635	685	735	785	835	885	935	985
Mech. Stroke: S + All.	49	99	149	199	249	299	349	399	449	499	549	599	649	699	749	799	849	899	949	999
Total Length: L	405	455	505	555	605	655	705	755	805	855	905	955	1005	1055	1105	1155	1205	1255	1305	1355
No. of Holes: N	8	8	8	10	10	12	12	12	14	14	16	16	18	18	18	20	20	22	22	22
Hole to End: A	12.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	12.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5
Mod. Wt. (kg)	9.8	10.6	11.4	12.2	13	13.8	14.6	15.4	16.2	17	17.8	18.6	19.4	20.2	21	21.8	22.6	23.4	24.2	25
Comp. Wt. (kg)	2.8																			

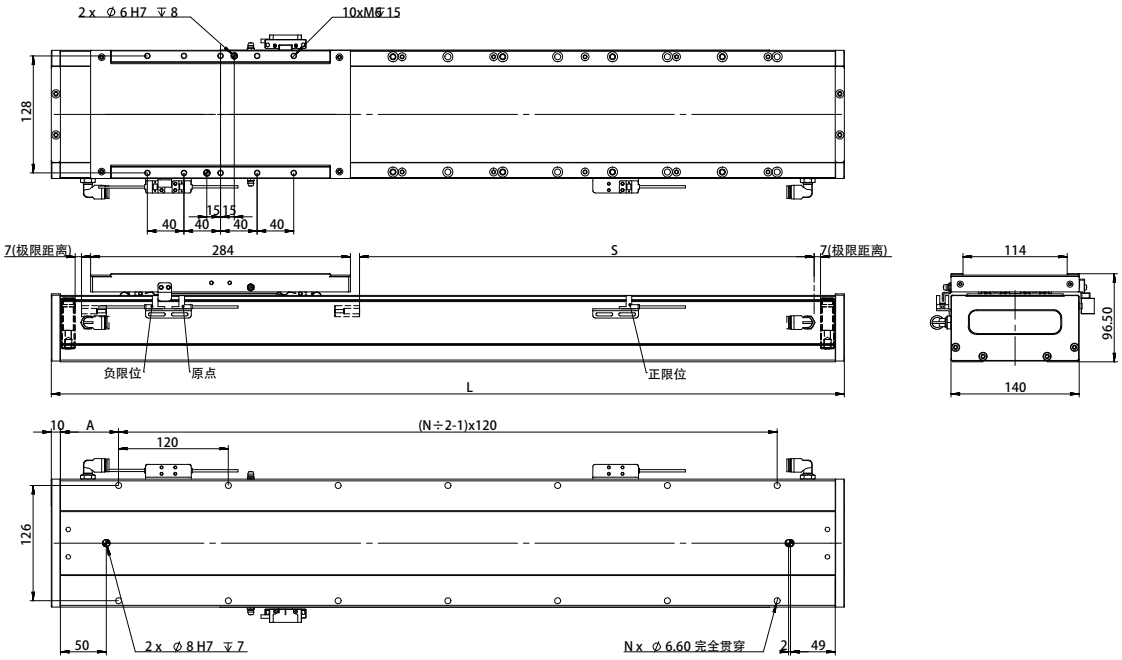
Eff. Stroke: S	1035	1085	1135	1185	1235	1285	1335	1385	1435	1485	1535	1585	1635	1685	1735	1785	1835	1885	1935	1985
Mech. Stroke: S + All.	1049	1099	1149	1199	1249	1299	1349	1399	1449	1499	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999
Total Length: L	1405	1455	1505	1555	1605	1655	1705	1755	1805	1855	1905	1955	2005	2055	2105	2155	2205	2255	2305	2355
No. of Holes: N	24	24	26	26	28	28	28	30	30	32	32	32	34	34	36	36	38	38	38	40
Hole to End: A	32.5	57.5	22.5	47.5	12.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	12.5	37.5	62.5	27.5
Mod. Wt. (kg)	25.8	26.6	27.4	28.2	29	29.8	30.6	31.4	32.2	33	33.8	34.6	35.4	36.2	37	37.8	38.6	39.4	40.2	41
Comp. Wt. (kg)	2.8																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TSLM140-TICA35-2

TSLM140-TICA35-2

Unit:mm



Eff. Stroke: S	47	97	147	197	247	297	347	397	447	497	547	597	647	697	747	797	847	897	947	997
Mech. Stroke: S + All.	61	111	161	211	261	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011
Total Length: L	417	467	517	567	617	23.5	717	767	817	867	917	967	1017	1067	1117	1167	1217	1267	1317	1367
No. of Holes: N	8	8	8	10	10	12	12	14	14	14	16	16	18	18	18	20	20	22	22	24
Hole to End: A	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5
Mod. Wt. (kg)	10.8	11.6	12.4	13.2	14	14.8	15.6	16.4	17.2	18	18.8	19.6	20.4	21.2	22	22.8	23.6	24.4	25.2	26
Comp. Wt. (kg)	3.0																			

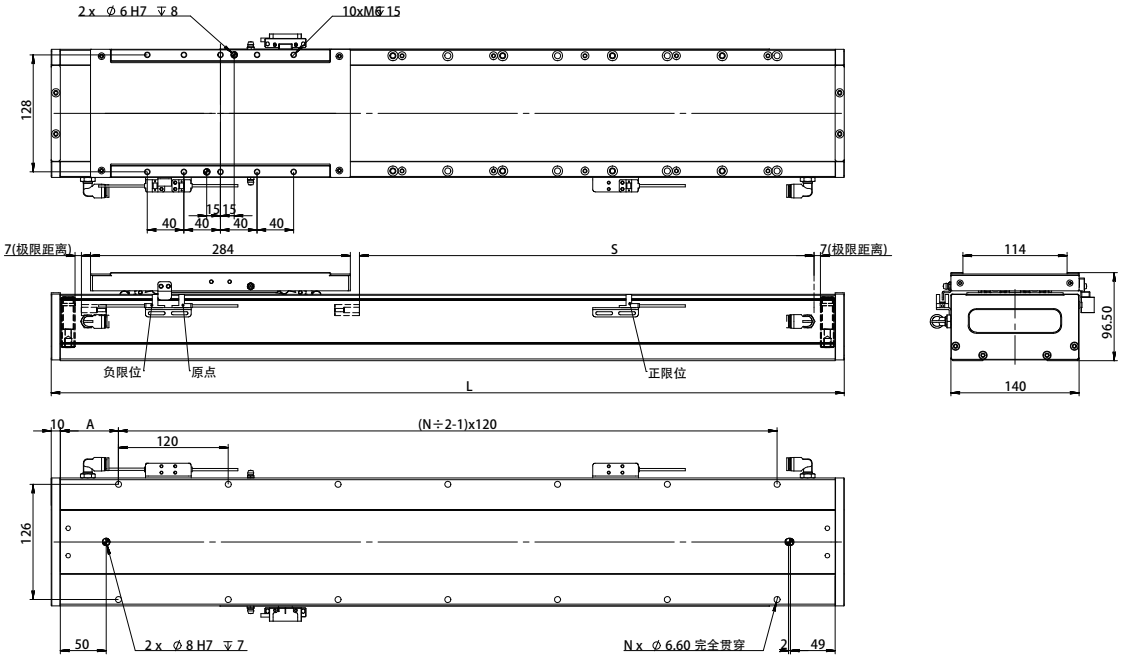
Eff. Stroke: S	1047	1097	1147	1197	1247	1297	1347	1397	1447	1497	1547	1597	1647	1697	1747	1797	1847	1897	1947	1997
Mech. Stroke: S + All.	1061	1111	1161	1211	1261	1311	1361	1411	1461	1511	1561	1611	1661	1711	1761	1811	1861	1911	1961	2011
Total Length: L	1417	1467	1517	1567	1617	1667	1717	1767	1817	1867	1917	1967	2017	2067	2117	2167	2217	2267	2317	2367
No. of Holes: N	24	24	26	26	28	28	28	30	30	32	32	34	34	34	36	36	38	38	38	40
Hole to End: A	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5
Mod. Wt. (kg)	26.8	27.6	28.4	29.2	30	30.8	31.6	32.4	33.2	34	34.8	35.6	36.4	37.2	38	38.8	39.6	40.4	41.2	42
Comp. Wt. (kg)	3.0																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TSLM140-TICA35-3

TSLM140-TICA35-3

Unit:mm



Eff. Stroke: S	10	60	110	160	210	260	310	360	410	460	510	560	610	660	710	760	810	860	910	960
Mech. Stroke: S + All.	24	74	124	174	224	274	324	374	424	474	524	574	624	674	724	774	824	874	924	974
Total Length: L	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230	1280	1330
No. of Holes: N	6	8	8	10	10	10	12	12	14	14	16	16	16	18	18	20	20	20	22	22
Hole to End: A	60	25	50	15	40	65	30	55	20	45	10	35	60	25	50	15	40	65	30	55
Mod. Wt. (kg)	9.8	10.6	11.4	12.2	13	13.8	14.6	15.4	16.2	17	17.8	18.6	19.4	20.2	21	21.8	22.6	23.4	24.2	25
Comp. Wt. (kg)	3.5																			

Eff. Stroke: S	1010	1060	1110	1160	1210	1260	1310	1360	1410	1460	1510	1560	1610	1660	1710	1760	1810	1860	1910	1960
Mech. Stroke: S + All.	1024	1074	1124	1174	1224	1274	1324	1374	1424	1474	1524	1574	1624	1674	1724	1774	1824	1874	1924	1974
Total Length: L	1380	1430	1480	1530	1580	1630	1680	1730	1780	1830	1880	1930	1980	2030	2080	2130	2180	2230	2280	2330
No. of Holes: N	24	24	26	26	26	28	28	30	30	30	32	32	34	34	36	36	36	38	38	40
Hole to End: A	20	45	10	35	60	25	50	15	40	65	30	55	20	45	10	35	60	25	50	15
Mod. Wt. (kg)	25.8	26.6	27.4	28.2	29	29.8	30.6	31.4	32.2	33	33.8	34.6	35.4	36.2	37	37.8	38.6	39.4	40.2	41
Comp. Wt. (kg)	3.5																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

Linear module TSLM170 series

Continuous thrust	91N~273N	Peak thrust	252N~756N	Temperature rise	< 0.05℃/W	Thrust fluctuation	< 2%

Product parameter

Motor Model	TICA55-1	TICA55-2	TICA55-3
Cont. Thrust (N)	91	182	273
Peak Thrust (N)	252	504	756
Cont. Current (A)	3.38	3.38	3.38
Max. Current (A)	10.31	10.31	10.31
Max. Speed*1 (m/s)	5		
Max. Accel.*1 (m/s^2)	50		
Repeatability (μm)	Magnetic Scale：±3；Optical Scale：±2		
Max. Load*1 (kg)	100		
Height (mm)	96.5		
Stroke*2 (mm)	35~1985(50 pitch)	47~1997(50 pitch)	10~1960(50 pitch)

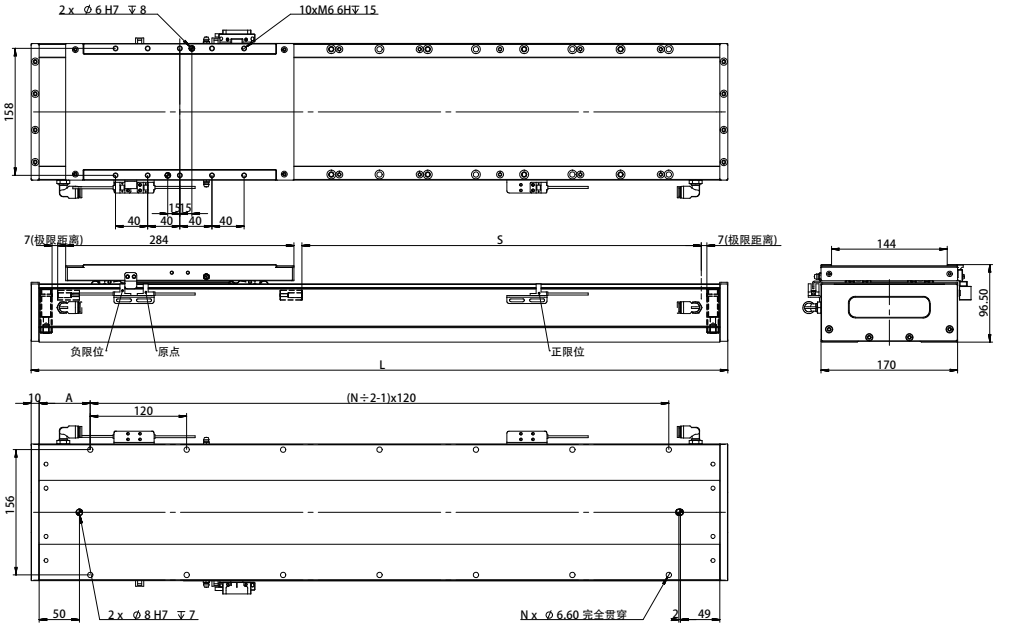
*1 Maximum acceleration, maximum speed, and maximum load are reference values. Actual values should be comprehensively evaluated based on the motion plan. If the actual parameters exceed the reference values, please contact the manufacturer for assessment.

*2 For longer strokes, please contact the manufacturer.

TSLM170-TICA55-1

TSLM170-TICA55-1

Unit:mm



Eff. Stroke: S	35	85	135	185	235	285	335	385	435	485	535	585	635	685	735	785	835	885	935	985
Mech. Stroke: S + All.	49	99	149	199	249	299	349	399	449	499	549	599	649	699	749	799	849	899	949	999
Total Length: L	405	455	505	555	605	655	705	755	805	855	905	955	1005	1055	1105	1155	1205	1255	1305	1355
No. of Holes: N	8	8	8	10	10	12	12	12	14	14	16	16	18	18	18	20	20	22	22	22
Hole to End: A	12.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	12.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5
Mod. Wt. (kg)	12.2	13.2	14.2	15.2	16.2	17.2	18.2	19.2	20.2	21.2	22.2	23.2	24.2	25.2	26.2	27.2	28.2	29.2	30.2	31.2
Comp. Wt. (kg)	4.1																			

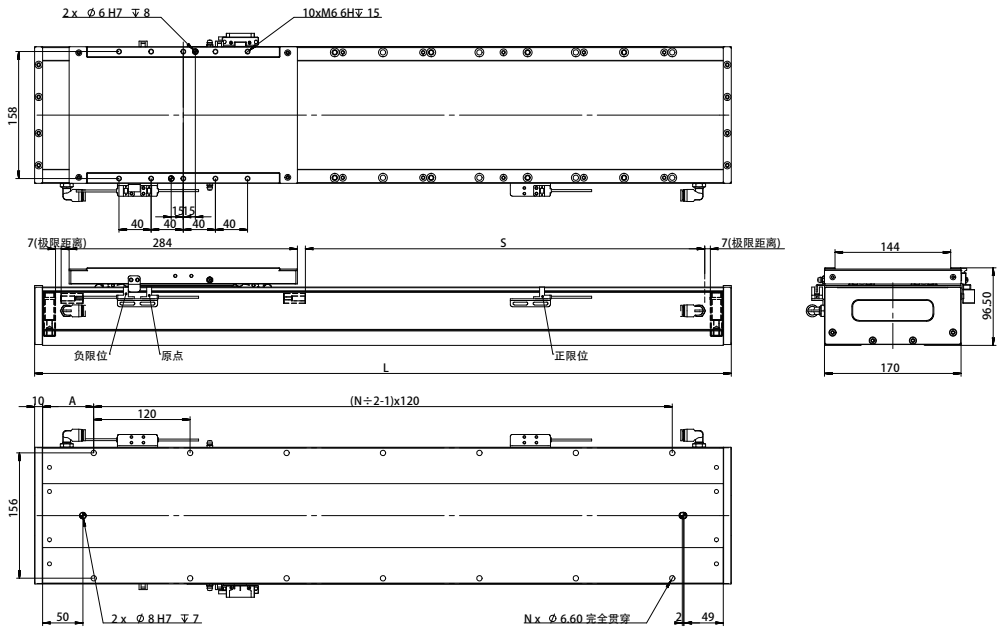
Eff. Stroke: S	1035	1085	1135	1185	1235	1285	1335	1385	1435	1485	1535	1585	1635	1685	1735	1785	1835	1885	1935	1985
Mech. Stroke: S + All.	1049	1099	1149	1199	1249	1299	1349	1399	1449	1499	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999
Total Length: L	1405	1455	1505	1555	1605	1655	1705	1755	1805	1855	1905	1955	2005	2055	2105	2155	2205	2255	2305	2355
No. of Holes: N	24	24	26	26	28	28	28	30	30	32	32	32	34	34	36	36	38	38	38	40
Hole to End: A	32.5	57.5	22.5	47.5	12.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	12.5	37.5	62.5	27.5
Mod. Wt. (kg)	32.2	33.2	34.2	35.2	36.2	37.2	38.2	39.2	40.2	41.2	42.2	43.2	44.2	45.2	46.2	47.2	48.2	49.2	50.2	51.2
Comp. Wt. (kg)	4.1																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TSLM170-TICA55-2

TSLM170-TICA55-2

Unit:mm



Eff. Stroke: S	47	97	147	197	247	297	347	397	447	497	547	597	647	697	747	797	847	897	947	997
Mech. Stroke: S + All.	61	111	161	211	261	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011
Total Length: L	417	467	517	567	617	23.5	717	767	817	867	917	967	1017	1067	1117	1167	1217	1267	1317	1367
No. of Holes: N	8	8	8	10	10	12	12	14	14	14	16	16	18	18	18	20	20	22	22	24
Hole to End: A	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5
Mod. Wt. (kg)	13.2	14.2	15.2	16.2	17.2	18.2	19.2	20.2	21.2	22.2	23.2	24.2	25.2	26.2	27.2	28.2	29.2	30.2	31.2	32.2
Comp. Wt. (kg)	4.5																			

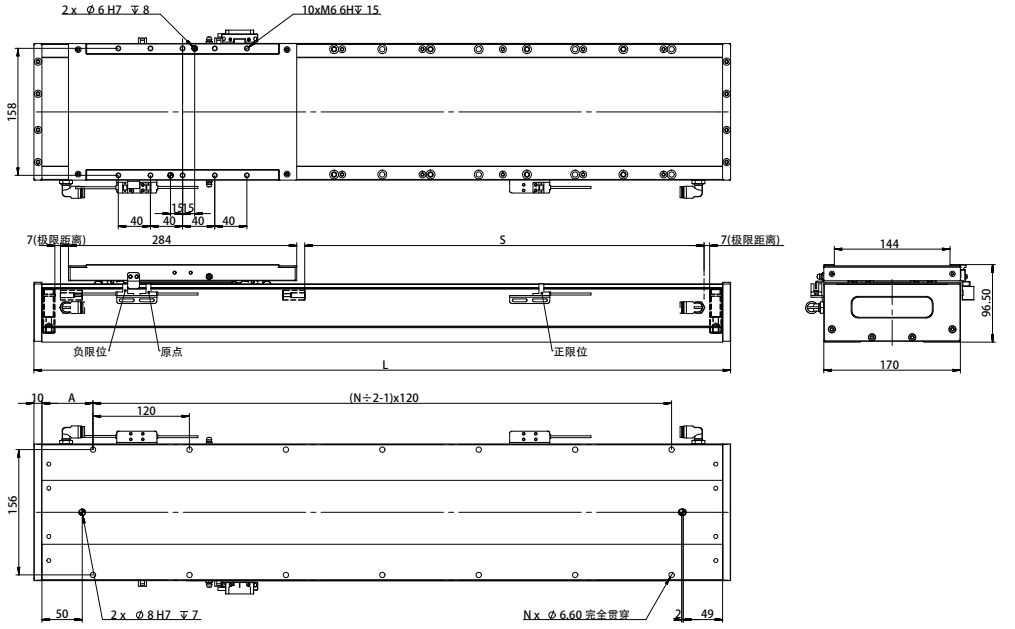
Eff. Stroke: S	1047	1097	1147	1197	1247	1297	1347	1397	1447	1497	1547	1597	1647	1697	1747	1797	1847	1897	1947	1997
Mech. Stroke: S + All.	1061	1111	1161	1211	1261	1311	1361	1411	1461	1511	1561	1611	1661	1711	1761	1811	1861	1911	1961	2011
Total Length: L	1417	1467	1517	1567	1617	1667	1717	1767	1817	1867	1917	1967	2017	2067	2117	2167	2217	2267	2317	2367
No. of Holes: N	24	24	26	26	28	28	28	30	30	32	32	34	34	34	36	36	38	38	38	40
Hole to End: A	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5
Mod. Wt. (kg)	33.2	34.2	35.2	36.2	37.2	38.2	39.2	40.2	41.2	42.2	43.2	44.2	45.2	46.2	47.2	48.2	49.2	50.2	51.2	52.2
Comp. Wt. (kg)	4.5																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TSLM170-TICA55-3

TSLM170-TICA55-3

Unit:mm

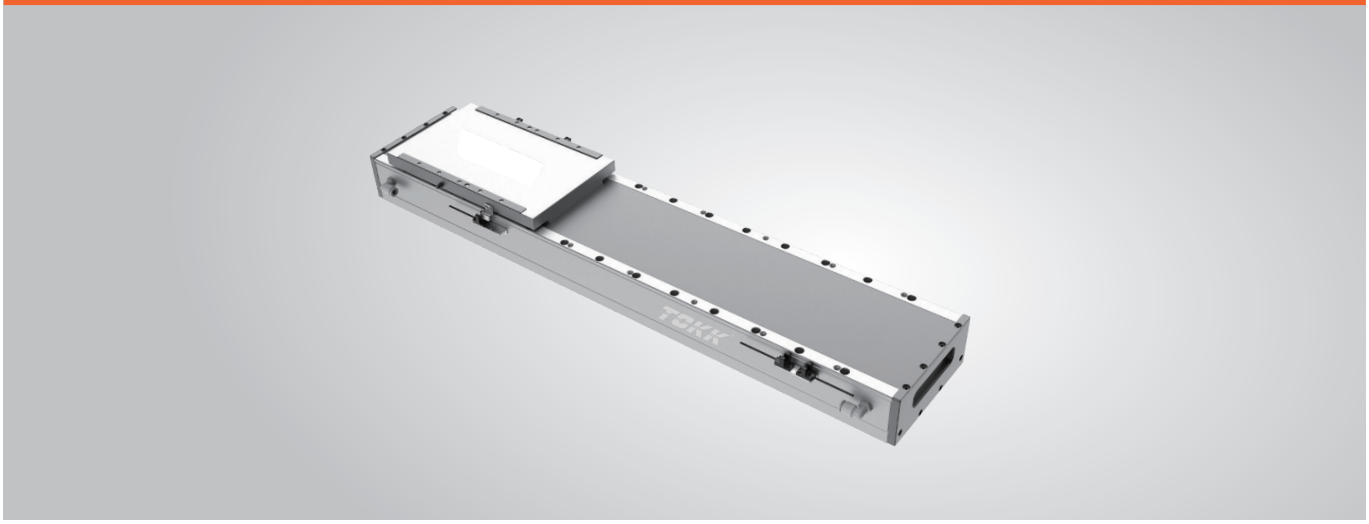


Eff. Stroke: S	10	60	110	160	210	210	310	360	410	460	510	560	610	660	710	760	810	860	910	960
Mech. Stroke: S + All.	24	74	124	174	224	224	324	374	424	474	524	574	624	674	724	774	824	874	924	974
Total Length: L	380	430	480	530	580	580	680	730	780	830	880	930	980	1030	1080	1130	1180	1230	1280	1330
No. of Holes: N	6	8	8	10	10	10	12	12	14	14	16	16	16	18	18	20	20	20	22	22
Hole to End: A	60	25	50	15	40	40	30	55	20	45	10	35	60	25	50	15	40	65	30	55
Mod. Wt. (kg)	13.1	14.1	15.1	16.1	17.1	17.1	19.1	20.1	21.1	22.1	23.1	24.1	25.1	26.1	27.1	28.1	29.1	30.1	31.1	32.1
Comp. Wt. (kg)	4.9																			

Eff. Stroke: S	1010	1060	1110	1160	1210	1260	1310	1360	1410	1460	1510	1560	1610	1660	1710	1760	1810	1860	1910	1960
Mech. Stroke: S + All.	1024	1074	1124	1174	1224	1274	1324	1374	1424	1474	1524	1574	1624	1674	1724	1774	1824	1874	1924	1974
Total Length: L	1380	1430	1480	1530	1580	1630	1680	1730	1780	1830	1880	1930	1980	2030	2080	2130	2180	2230	2280	2330
No. of Holes: N	24	24	26	26	26	28	28	30	30	30	32	32	34	34	36	36	36	38	38	40
Hole to End: A	20	45	10	35	60	25	50	15	40	65	30	55	20	45	10	35	60	25	50	15
Mod. Wt. (kg)	33.1	34.1	35.1	36.1	37.1	38.1	39.1	40.1	41.1	42.1	43.1	44.1	45.1	46.1	47.1	48.1	49.1	50.1	51.1	52.1
Comp. Wt. (kg)	4.9																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

Linear module TSLM170 series



Continuous thrust	26N~130N	Peak thrust	144N~720N	Temperature rise	< 0.07℃/W	Thrust fluctuation	< 2%

Product parameter

Motor Model	TUA38-1	TUA38-2	TUA38-3	TUA38-4	TUA38-5
Cont. Thrust (N)	26	52	78	104	130
Peak Thrust (N)	144	288	432	576	720
Cont. Current (A)	2.54	2.54	2.54	2.54	2.54
Max. Current (A)	14.3	14.3	14.3	14.3	14.3
Max. Speed*1 (m/s)	4				
Max. Accel.*1 (m/s^2)	40				
Repeatability (μm)	Magnetic Scale：±3；Optical Scale：±2				
Max. Load*1 (kg)	50				
Height (mm)	96.5				
Stroke*2 (mm)	49~1789(60 pitch)				

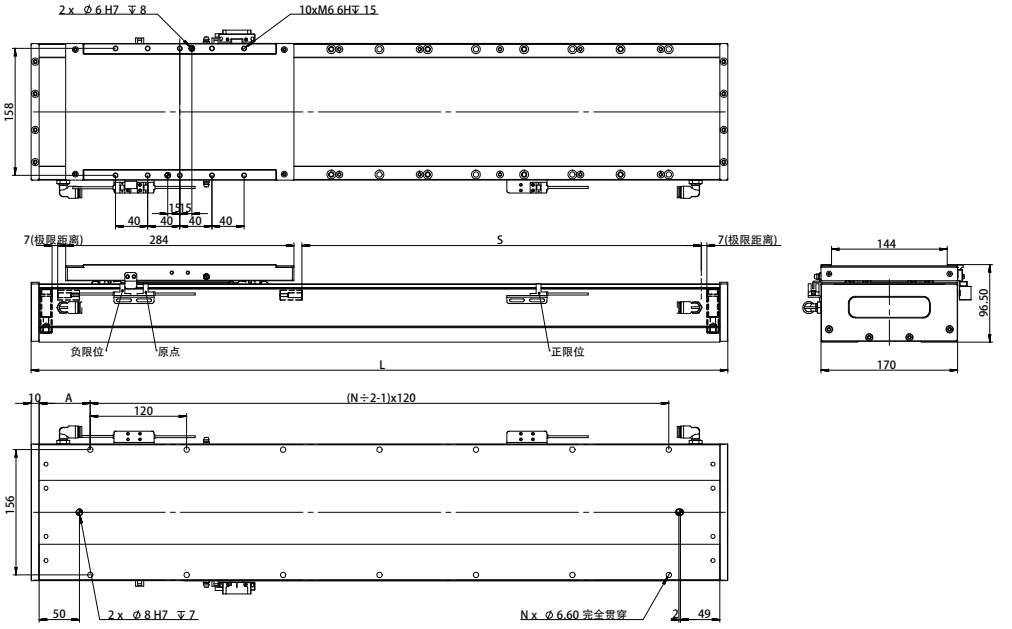
*1 Maximum acceleration, maximum speed, and maximum load are reference values. Actual values should be comprehensively evaluated based on the motion plan. If the actual parameters exceed the reference values, please contact the manufacturer for assessment.

*2 For longer strokes, please contact the manufacturer.

TSLM170-TUA38-1

TSLM170-TUA38-1

Unit:mm



Eff. Stroke: S	49	109	169	229	289	349	409	469	529	589	649	709	769	829	889	949	1009	1069	1129	1189
Mech. Stroke: S + All.	63	123	183	243	303	363	423	483	543	603	663	723	783	843	903	963	1023	1083	1143	1203
Total Length: L	419	479	539	599	659	719	779	839	899	959	1019	1079	1139	1199	1259	1319	1379	1439	1499	1559
No. of Holes: N	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	12.8	14.2	16	17.6	19.2	20.8	22.4	24	25.6	27.2	28.8	30.4	32	33.6	35.2	36.8	38.4	40	41.6	43.2
Comp. Wt. (kg)	3.3																			

Eff. Stroke: S	1249	1309	1369	1429	1489	1549	1609	1669	1729	1789	1849	1909	1969	2029	2089	2149	2209	2269	2329	2389
Mech. Stroke: S + All.	1263	1323	1383	1443	1503	1563	1623	1683	1743	1803	1863	1923	1983	2043	2103	2163	2223	2283	2343	2403
Total Length: L	1619	1679	1739	1799	1859	1919	1979	2039	2099	2159	2219	2279	2339	2399	2459	2519	2579	2639	2699	2759
No. of Holes: N	28	28	30	30	32	32	34	34	36	36	38	38	40	40	42	42	44	44	46	46
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	44.8	46.4	48	49.6	51.2	52.8	54.4	56	57.6	59.2	60.8	62.4	64.0	65.6	67.2	68.8	70.4	72.0	73.6	75.2
Comp. Wt. (kg)	3.3																			

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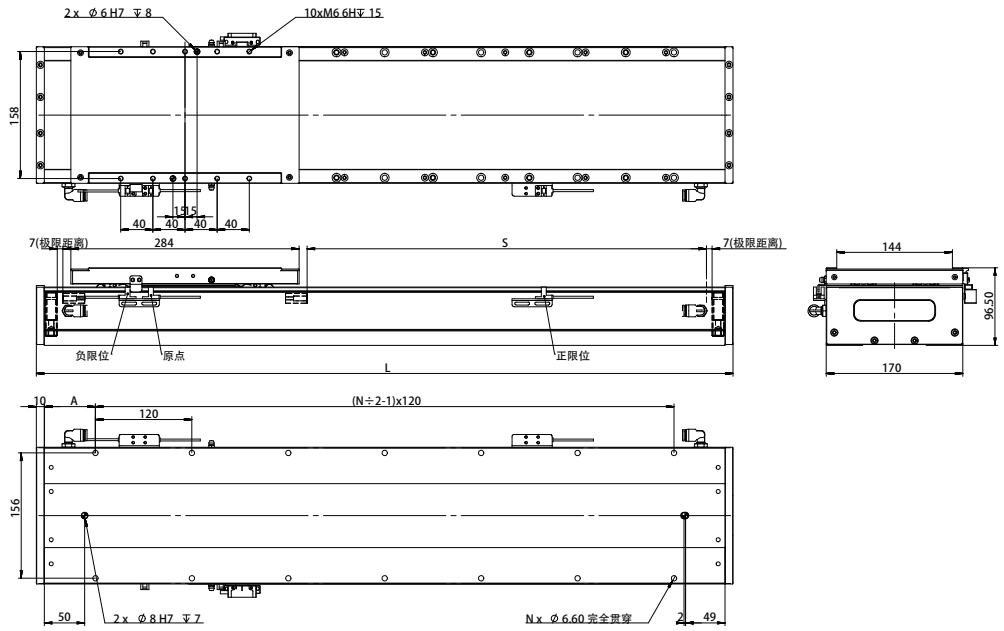
TSLM170-TUA38-2

TSLM170-TUA38-2

Unit:mm



Eff. Stroke: S	49	109	169	229	289	349	409	469	529	589	649	709	769	829	889	949	1009	1069	1129	1189
Mech. Stroke: S + All.	63	123	183	243	303	363	423	483	543	603	663	723	783	843	903	963	1023	1083	1143	1203
Total Length: L	419	479	539	599	659	719	779	839	899	959	1019	1079	1139	1199	1259	1319	1379	1439	1499	1559
No. of Holes: N	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	13	14.6	16.2	17.8	19.4	21	22.6	24.2	25.8	27.4	29	30.6	32.2	33.8	35.4	37	38.6	40.2	41.8	43.4
Comp. Wt. (kg)	3.45																			

Eff. Stroke: S	1249	1309	1369	1429	1489	1549	1609	1669	1729	1789	1849	1909	1969	2029	2089	2149	2209	2269	2329	2389
Mech. Stroke: S + All.	1263	1323	1383	1443	1503	1563	1623	1683	1743	1803	1863	1923	1983	2043	2103	2163	2223	2283	2343	2403
Total Length: L	1619	1679	1739	1799	1859	1919	1979	2039	2099	2159	2219	2279	2339	2399	2459	2519	2579	2639	2699	2759
No. of Holes: N	28	28	30	30	32	32	34	34	36	36	38	38	40	40	42	42	44	44	46	46
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	45	46.6	48.2	49.8	51.4	53	54.6	56.2	57.8	59.4	61	62.6	64.2	65.8	67.4	69	70.6	72.2	73.8	75.4
Comp. Wt. (kg)	3.45																			

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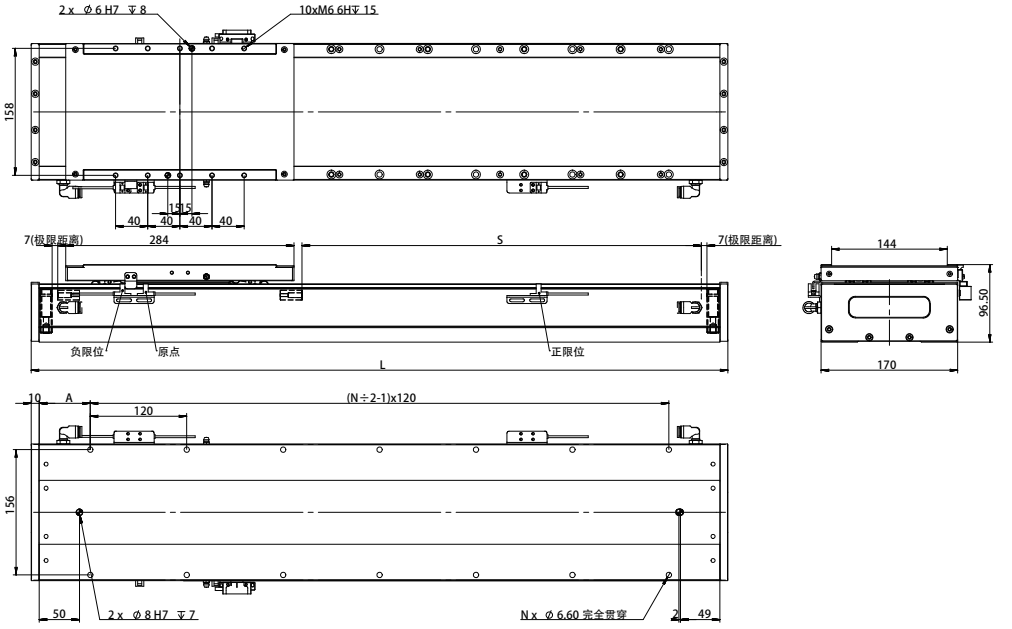
TSLM170-TUA38-3

TSLM170-TUA38-3

Unit:mm



Eff. Stroke: S	49	109	169	229	289	349	409	469	529	589	649	709	769	829	889	949	1009	1069	1129	1189
Mech. Stroke: S + All.	63	123	183	243	303	363	423	483	543	603	663	723	783	843	903	963	1023	1083	1143	1203
Total Length: L	419	479	539	599	659	719	779	839	899	959	1019	1079	1139	1199	1259	1319	1379	1439	1499	1559
No. of Holes: N	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	13.2	14.8	16.4	18	19.6	21.2	22.8	24.4	26	27.6	29.2	30.8	32.4	34	35.6	37.2	38.8	40.4	42	43.6
Comp. Wt. (kg)	3.6																			

Eff. Stroke: S	1249	1309	1369	1429	1489	1549	1609	1669	1729	1789	1849	1909	1969	2029	2089	2149	2209	2269	2329	2389
Mech. Stroke: S + All.	1263	1323	1383	1443	1503	1563	1623	1683	1743	1803	1863	1923	1983	2043	2103	2163	2223	2283	2343	2403
Total Length: L	1619	1679	1739	1799	1859	1919	1979	2039	2099	2159	2219	2279	2339	2399	2459	2519	2579	2639	2699	2759
No. of Holes: N	28	28	30	30	32	32	34	34	36	36	38	38	40	40	42	42	44	44	46	46
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	45.2	46.8	48.4	50	51.6	53.2	54.8	56.4	58	59.6	61.2	62.8	64.4	66	67.6	69.2	70.8	72.4	74	75.6
Comp. Wt. (kg)	3.6																			

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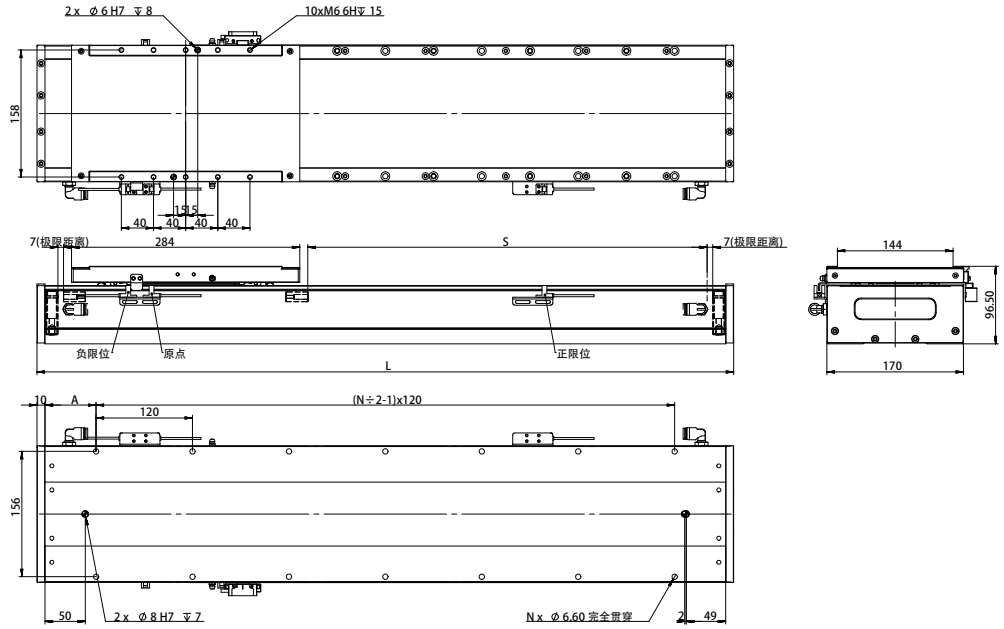
TSLM170-TUA38-4

TSLM170-TUA38-4

Unit:mm



Eff. Stroke: S	49	109	169	229	289	349	409	469	529	589	649	709	769	829	889	949	1009	1069	1129	1189
Mech. Stroke: S + All.	63	123	183	243	303	363	423	483	543	603	663	723	783	843	903	963	1023	1083	1143	1203
Total Length: L	419	479	539	599	659	719	779	839	899	959	1019	1079	1139	1199	1259	1319	1379	1439	1499	1559
No. of Holes: N	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	13.4	15	16.6	18.2	19.8	21.4	23	24.6	26.2	27.8	29.4	31	32.6	34.2	35.8	37.4	39	40.6	42.2	43.8
Comp. Wt. (kg)	3.75																			

Eff. Stroke: S	1249	1309	1369	1429	1489	1549	1609	1669	1729	1789	1849	1909	1969	2029	2089	2149	2209	2269	2329	2389
Mech. Stroke: S + All.	1263	1323	1383	1443	1503	1563	1623	1683	1743	1803	1863	1923	1983	2043	2103	2163	2223	2283	2343	2403
Total Length: L	1619	1679	1739	1799	1859	1919	1979	2039	2099	2159	2219	2279	2339	2399	2459	2519	2579	2639	2699	2759
No. of Holes: N	28	28	30	30	32	32	34	34	36	36	38	38	40	40	42	42	44	44	46	46
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	45.4	47	48.6	50.2	51.8	53.4	55	56.6	58.2	59.8	61.4	63	64.6	66.2	67.8	69.4	71	72.6	74.2	75.8
Comp. Wt. (kg)	3.75																			

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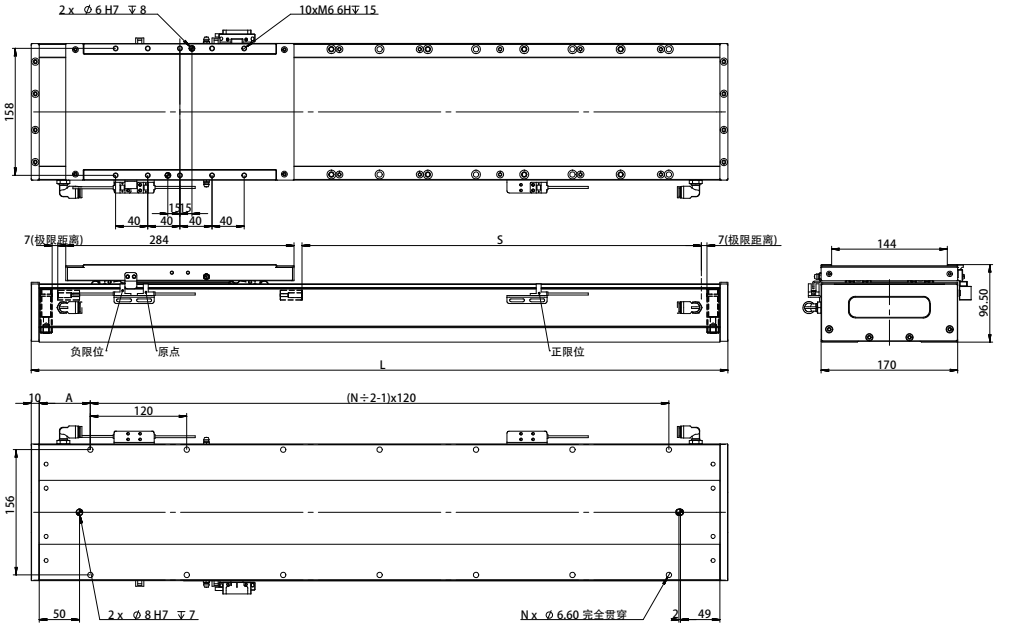
TSLM170-TUA38-5

TSLM170-TUA38-5

Unit:mm

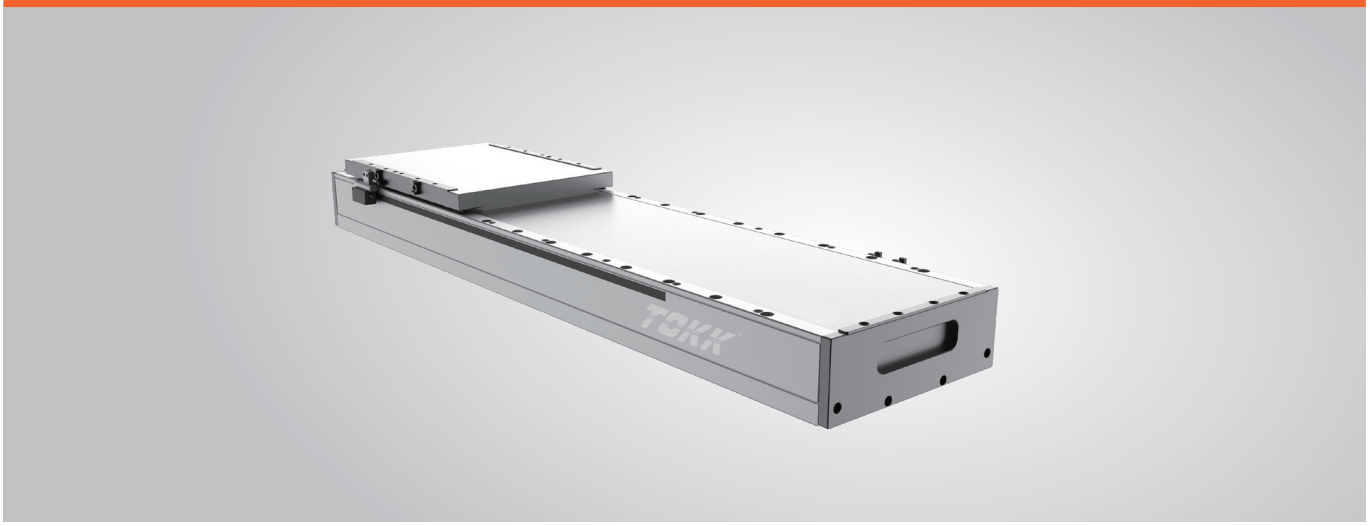


Eff. Stroke: S	49	109	169	229	289	349	409	469	529	589	649	709	769	829	889	949	1009	1069	1129	1189
Mech. Stroke: S + All.	63	123	183	243	303	363	423	483	543	603	663	723	783	843	903	963	1023	1083	1143	1203
Total Length: L	419	479	539	599	659	719	779	839	899	959	1019	1079	1139	1199	1259	1319	1379	1439	1499	1559
No. of Holes: N	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	13.6	15.2	16.8	18.4	20	21.6	23.2	24.8	26.4	28	29.6	31.2	32.8	34.4	36	37.6	39.2	40.8	42.4	44
Comp. Wt. (kg)	3.9																			

Eff. Stroke: S	1249	1309	1369	1429	1489	1549	1609	1669	1729	1789	1849	1909	1969	2029	2089	2149	2209	2269	2329	2389
Mech. Stroke: S + All.	1263	1323	1383	1443	1503	1563	1623	1683	1743	1803	1863	1923	1983	2043	2103	2163	2223	2283	2343	2403
Total Length: L	1619	1679	1739	1799	1859	1919	1979	2039	2099	2159	2219	2279	2339	2399	2459	2519	2579	2639	2699	2759
No. of Holes: N	28	28	30	30	32	32	34	34	36	36	38	38	40	40	42	42	44	44	46	46
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	45.6	47.2	48.8	50.4	52	53.6	55.2	56.8	58.4	60	61.6	63.2	64.8	66.4	68	69.6	71.2	72.8	74.4	76
Comp. Wt. (kg)	3.9																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

Linear module TSLM210 series



Continuous thrust	138N~567N	Peak thrust	371N~1566N	Temperature rise	< 0.05℃/W	Thrust fluctuation	< 2%

Product parameter

Motor Model	TICA75-1	TICA75-2	TICA75-3	TICA95-1	TICA95-2	TICA95-3
Cont. Thrust (N)	138	276	414	189	378	567
Peak Thrust (N)	371	742	1113	522	1044	1566
Cont. Current (A)	3.23	3.23	3.23	3.28	3.28	3.28
Max. Current (A)	10.31	10.31	10.31	10.3	10.3	10.3
Max. Speed*1 (m/s)	5					
Max. Accel.*1 (m/s^2)	50					
Repeatability (μm)	Magnetic Scale：±3；Optical Scale：±2					
Max. Load*1 (kg)	200					
Height (mm)	96.5					
Stroke*2 (mm)	35~1985(50 pitch)	47~1997(50 pitch)	10~1960(50 pitch)	35~1985(50 pitch)	47~1997(50 pitch)	10~1960(50 pitch)

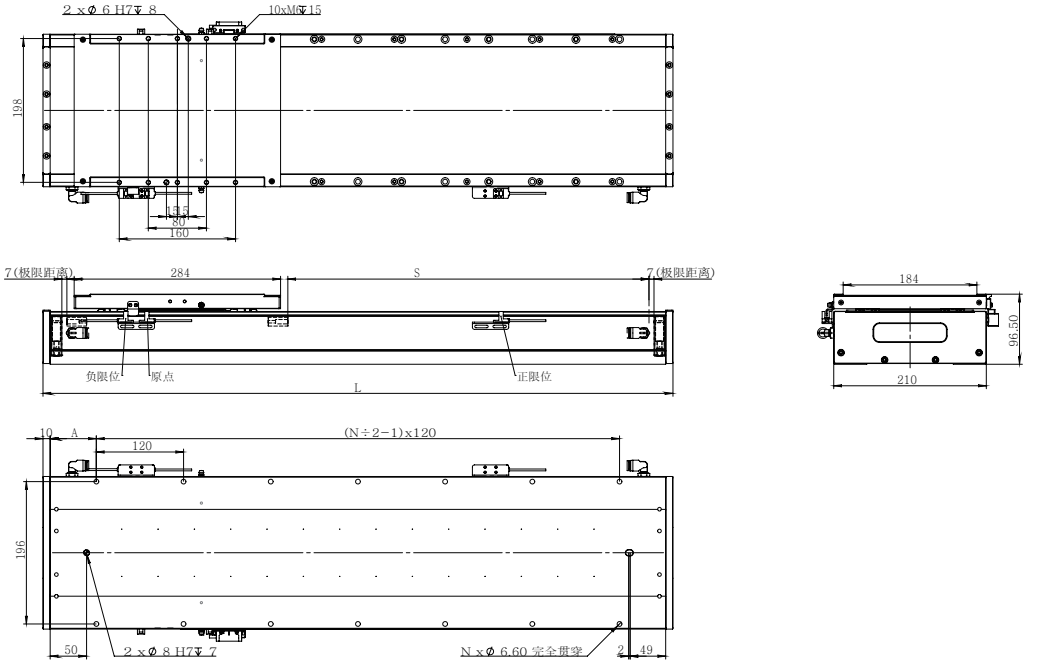
*1 Maximum acceleration, maximum speed, and maximum load are reference values. Actual values should be comprehensively evaluated based on the motion plan. If the actual parameters exceed the reference values, please contact the manufacturer for assessment.

*2 For longer strokes, please contact the manufacturer.

TSLM210-TICA75-1

TSLM210-TICA75-1

Unit:mm



Eff. Stroke: S	35	85	135	185	235	285	335	385	435	485	585	635	685	735	785	835	885	935	985	1035
Mech. Stroke: S + All.	49	99	149	199	249	299	349	399	449	499	599	649	699	749	799	849	899	949	999	1049
Total Length: L	405	455	505	555	605	655	705	755	805	855	955	1005	1055	1105	1155	1205	1255	1305	1355	1405
No. of Holes: N	8	8	8	10	10	12	12	12	14	14	16	18	18	18	20	20	22	22	22	24
Hole to End: A	12.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	47.5	12.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5
Mod. Wt. (kg)	14.7	15.9	17.1	18.3	19.5	20.7	21.9	23.1	24.3	25.5	27.9	29.1	30.3	31.5	32.7	33.9	35.1	36.3	37.5	38.9
Comp. Wt. (kg)	5.1																			

Eff. Stroke: S	1085	1135	1185	1235	1285	1335	1385	1435	1485	1085	1535	1585	1635	1685	1735	1785	1835	1885	1935	1985
Mech. Stroke: S + All.	1099	1149	1199	1249	1299	1349	1399	1449	1499	1099	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999
Total Length: L	1455	1505	1555	1605	1655	1705	1755	1805	1855	1455	1905	1955	2005	2055	2105	2155	2205	2255	2305	2355
No. of Holes: N	24	26	26	28	28	28	30	30	32	24	32	32	34	34	36	36	38	38	38	40
Hole to End: A	57.5	22.5	47.5	12.5	37.5	62.5	27.5	52.5	17.5	57.5	42.5	67.5	32.5	57.5	22.5	47.5	12.5	37.5	62.5	27.5
Mod. Wt. (kg)	40.1	41.3	42.5	43.7	44.9	46.1	47.3	48.5	49.7	40.1	50.9	52.1	53.3	54.5	55.7	56.9	57.1	58.3	59.5	61.1
Comp. Wt. (kg)	5.1																			

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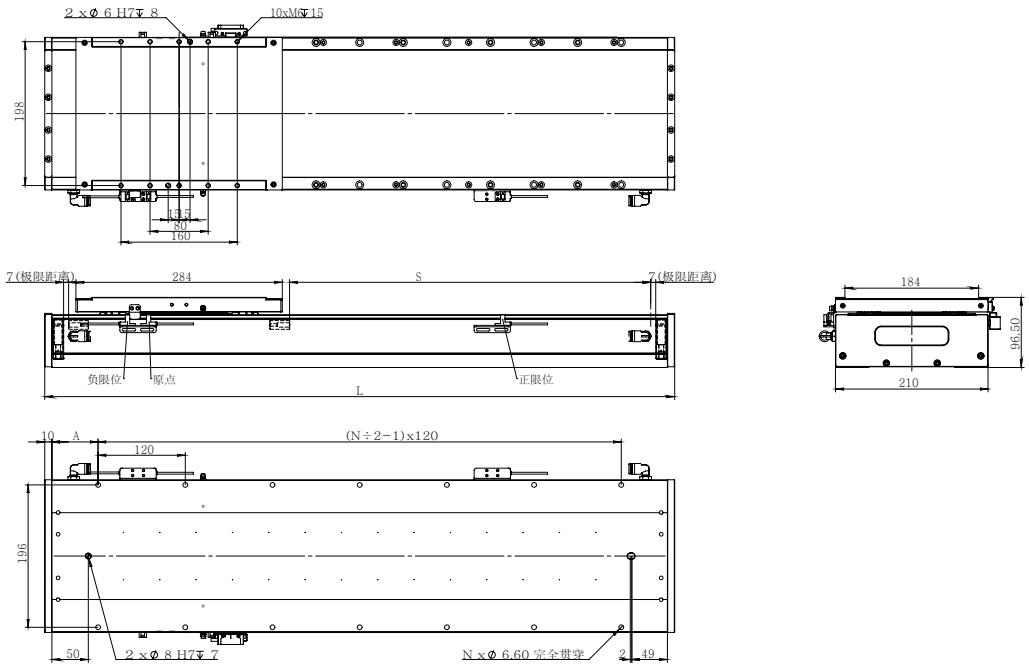
TSLM210-TICA75-2

TSLM210-TICA75-2

Unit:mm



Eff. Stroke: S	47	97	147	197	247	297	347	397	447	497	547	597	647	697	747	797	847	897	947	997
Mech. Stroke: S + All.	61	111	161	211	261	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011
Total Length: L	417	467	517	567	617	23.5	717	767	817	867	917	967	1017	1067	1117	1167	1217	1267	1317	1367
No. of Holes: N	8	8	8	10	10	12	12	14	14	14	16	16	18	18	18	20	20	22	22	24
Hole to End: A	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5
Mod. Wt. (kg)	16.9	18.1	19.3	20.5	21.7	22.9	24.1	25.3	26.5	27.68	28.9	30.1	31.3	32.5	33.7	34.9	36.1	37.3	38.5	39.7
Comp. Wt. (kg)	6																			

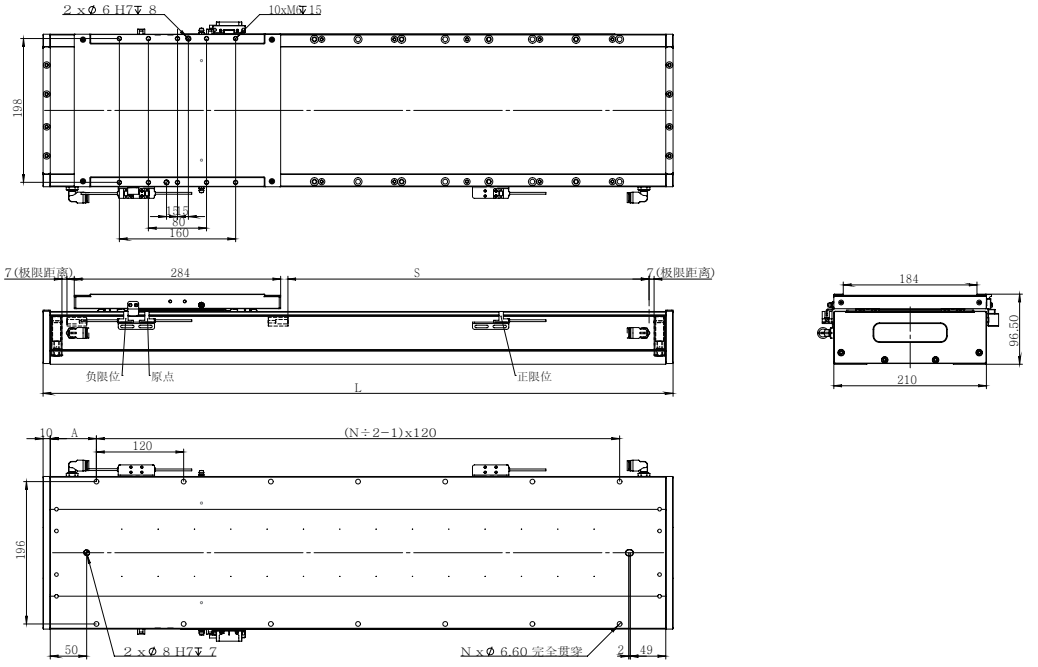
Eff. Stroke: S	1047	1097	1147	1197	1247	1297	1347	1397	1447	1497	1547	1597	1647	1697	1747	1797	1847	1897	1947	1997
Mech. Stroke: S + All.	1061	1111	1161	1211	1261	1311	1361	1411	1461	1511	1561	1611	1661	1711	1761	1811	1861	1911	1961	2011
Total Length: L	1417	1467	1517	1567	1617	1667	1717	1767	1817	1867	1917	1967	2017	2067	2117	2167	2217	2267	2317	2367
No. of Holes: N	24	24	26	26	28	28	28	30	30	32	32	34	34	34	36	36	38	38	38	40
Hole to End: A	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5
Mod. Wt. (kg)	40.9	42.1	43.3	44.5	45.7	46.9	48.1	49.3	50.5	51.7	52.9	54.1	55.3	56.5	57.7	58.9	60.1	61.1	62.3	63.5
Comp. Wt. (kg)	6																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TSLM210-TICA75-3

TSLM210-TICA75-3

Unit:mm



Eff. Stroke: S	10	60	110	160	210	260	310	360	410	460	510	560	610	660	710	760	810	860	910	960
Mech. Stroke: S + All.	24	74	124	174	224	274	324	374	424	474	524	574	624	674	724	774	824	874	924	974
Total Length: L	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230	1280	1330
No. of Holes: N	6	8	8	10	10	10	12	12	14	14	16	16	16	18	18	20	20	20	22	22
Hole to End: A	60	25	50	15	40	65	30	55	20	45	10	35	60	25	50	15	40	65	30	55
Mod. Wt. (kg)	17.4	18.6	19.8	21	22.2	23.4	24.6	25.8	27	28.2	29.4	30.6	31.8	33	34.2	35.4	36.6	37.8	39	40.2
Comp. Wt. (kg)	6.4																			

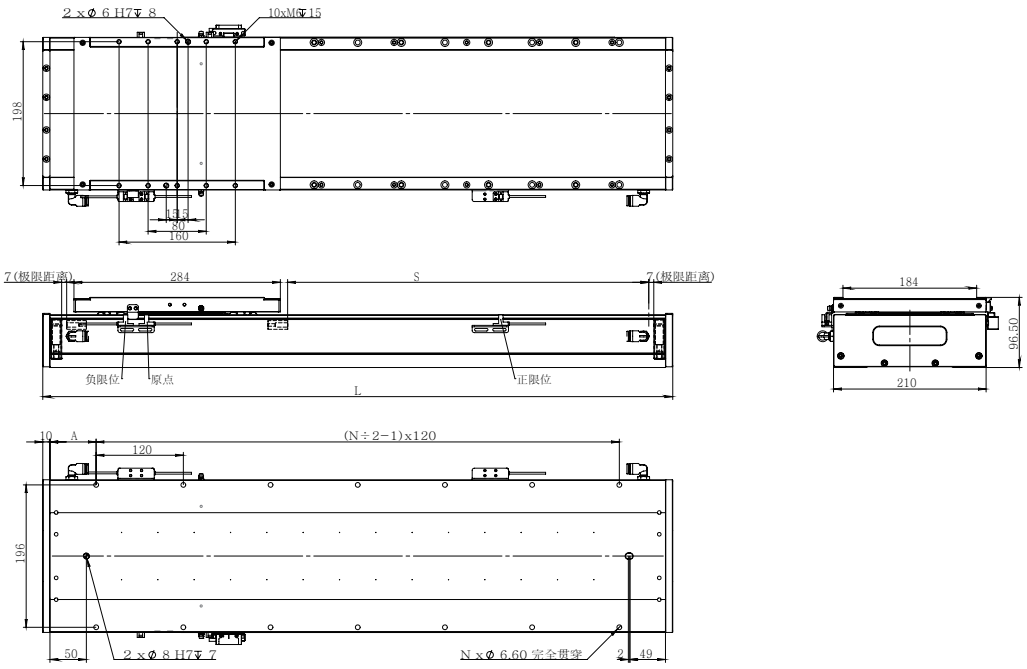
Eff. Stroke: S	1010	1060	1110	1160	1210	1260	1310	1360	1410	1460	1510	1560	1610	1660	1710	1760	1810	1860	1910	1960
Mech. Stroke: S + All.	1024	1074	1124	1174	1224	1274	1324	1374	1424	1474	1524	1574	1624	1674	1724	1774	1824	1874	1924	1974
Total Length: L	1380	1430	1480	1530	1580	1630	1680	1730	1780	1830	1880	1930	1980	2030	2080	2130	2180	2230	2280	2330
No. of Holes: N	24	24	26	26	26	28	28	30	30	30	32	32	34	34	36	36	36	38	38	40
Hole to End: A	20	45	10	35	60	25	50	15	40	65	30	55	20	45	10	35	60	25	50	15
Mod. Wt. (kg)	41.4	42.6	43.8	45	46.2	47.4	48.6	49.8	51	52.2	53.4	54.6	55.8	57	58.2	59.4	60.6	61.8	63	64.2
Comp. Wt. (kg)	6.4																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TSLM210-TICA95-1

TSLM210-TICA95-1

Unit:mm



Eff. Stroke: S	35	85	135	185	235	285	335	385	435	485	585	635	685	735	785	835	885	935	985	1035
Mech. Stroke: S + All.	49	99	149	199	249	299	349	399	449	499	599	649	699	749	799	849	899	949	999	1049
Total Length: L	405	455	505	555	605	655	705	755	805	855	955	1005	1055	1105	1155	1205	1255	1305	1355	1405
No. of Holes: N	8	8	8	10	10	12	12	12	14	14	16	18	18	18	20	20	22	22	22	24
Hole to End: A	12.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	47.5	12.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5
Mod. Wt. (kg)	14.7	15.9	17.1	18.3	19.5	20.7	21.9	23.1	24.3	25.5	27.9	29.1	30.3	31.5	32.7	33.9	35.1	36.3	37.5	38.9
Comp. Wt. (kg)	5.5																			

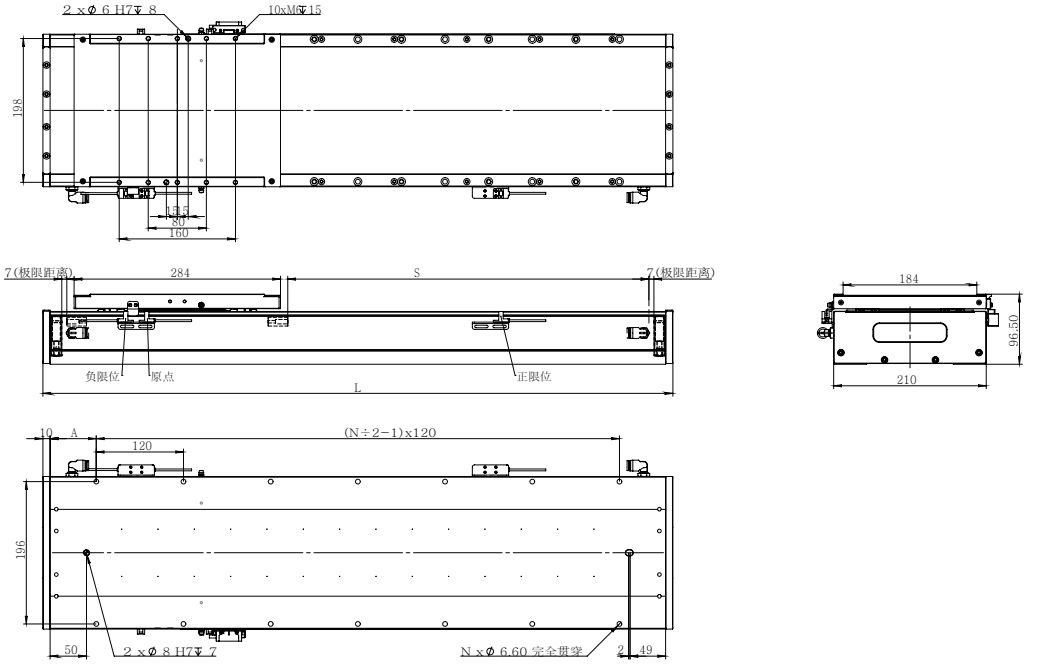
Eff. Stroke: S	1085	1135	1185	1235	1285	1335	1385	1435	1485	1085	1535	1585	1635	1685	1735	1785	1835	1885	1935	1985
Mech. Stroke: S + All.	1099	1149	1199	1249	1299	1349	1399	1449	1499	1099	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999
Total Length: L	1455	1505	1555	1605	1655	1705	1755	1805	1855	1455	1905	1955	2005	2055	2105	2155	2205	2255	2305	2355
No. of Holes: N	24	26	26	28	28	28	30	30	32	24	32	32	34	34	36	36	38	38	38	40
Hole to End: A	57.5	22.5	47.5	12.5	37.5	62.5	27.5	52.5	17.5	57.5	42.5	67.5	32.5	57.5	22.5	47.5	12.5	37.5	62.5	27.5
Mod. Wt. (kg)	40.1	41.3	42.5	43.7	44.9	46.1	47.3	48.5	49.7	40.1	50.9	52.1	53.3	54.5	55.7	56.9	57.1	58.3	59.5	61.1
Comp. Wt. (kg)	5.5																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TSLM210-TICA95-2

TSLM210-TICA95-2

Unit:mm



Eff. Stroke: S	47	97	147	197	247	297	347	397	447	497	547	597	647	697	747	797	847	897	947	997
Mech. Stroke: S + All.	61	111	161	211	261	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011
Total Length: L	417	467	517	567	617	23.5	717	767	817	867	917	967	1017	1067	1117	1167	1217	1267	1317	1367
No. of Holes: N	8	8	8	10	10	12	12	14	14	14	16	16	18	18	18	20	20	22	22	24
Hole to End: A	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5
Mod. Wt. (kg)	16.9	18.1	19.3	20.5	21.7	22.9	24.1	25.3	26.5	27.68	28.9	30.1	31.3	32.5	33.7	34.9	36.1	37.3	38.5	39.7
Comp. Wt. (kg)	6.7																			

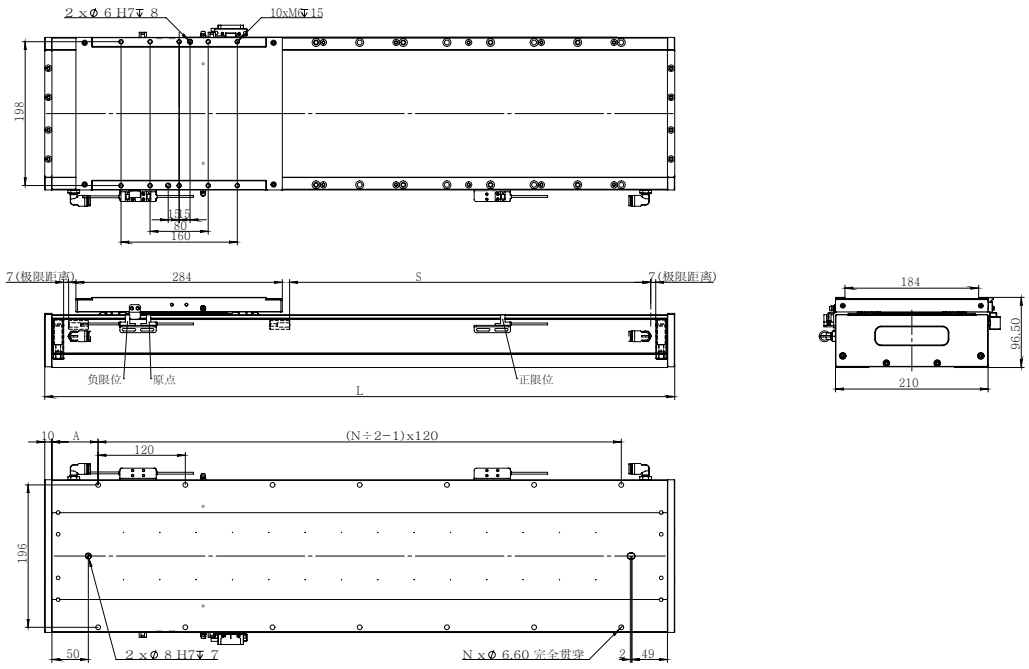
Eff. Stroke: S	1047	1097	1147	1197	1247	1297	1347	1397	1447	1497	1547	1597	1647	1697	1747	1797	1847	1897	1947	1997
Mech. Stroke: S + All.	1061	1111	1161	1211	1261	1311	1361	1411	1461	1511	1561	1611	1661	1711	1761	1811	1861	1911	1961	2011
Total Length: L	1417	1467	1517	1567	1617	1667	1717	1767	1817	1867	1917	1967	2017	2067	2117	2167	2217	2267	2317	2367
No. of Holes: N	24	24	26	26	28	28	28	30	30	32	32	34	34	34	36	36	38	38	38	40
Hole to End: A	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5
Mod. Wt. (kg)	40.9	42.1	43.3	44.5	45.7	46.9	48.1	49.3	50.5	51.7	52.9	54.1	55.3	56.5	57.7	58.9	60.1	61.1	62.3	63.5
Comp. Wt. (kg)	6.7																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TSLM210-TICA95-3

TSLM210-TICA95-3

Unit:mm



Eff. Stroke: S	10	60	110	160	210	260	310	360	410	460	510	560	610	660	710	760	810	860	910	960
Mech. Stroke: S + All.	24	74	124	174	224	274	324	374	424	474	524	574	624	674	724	774	824	874	924	974
Total Length: L	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230	1280	1330
No. of Holes: N	6	8	8	10	10	10	12	12	14	14	16	16	16	18	18	20	20	20	22	22
Hole to End: A	60	25	50	15	40	65	30	55	20	45	10	35	60	25	50	15	40	65	30	55
Mod. Wt. (kg)	17.4	18.6	19.8	21	22.2	23.4	24.6	25.8	27	28.2	29.4	30.6	31.8	33	34.2	35.4	36.6	37.8	39	40.2
Comp. Wt. (kg)	7.5																			

Eff. Stroke: S	1010	1060	1110	1160	1210	1260	1310	1360	1410	1460	1510	1560	1610	1660	1710	1760	1810	1860	1910	1960
Mech. Stroke: S + All.	1024	1074	1124	1174	1224	1274	1324	1374	1424	1474	1524	1574	1624	1674	1724	1774	1824	1874	1924	1974
Total Length: L	1380	1430	1480	1530	1580	1630	1680	1730	1780	1830	1880	1930	1980	2030	2080	2130	2180	2230	2280	2330
No. of Holes: N	24	24	26	26	26	28	28	30	30	30	32	32	34	34	36	36	36	38	38	40
Hole to End: A	20	45	10	35	60	25	50	15	40	65	30	55	20	45	10	35	60	25	50	15
Mod. Wt. (kg)	41.4	42.6	43.8	45	46.2	47.4	48.6	49.8	51	52.2	53.4	54.6	55.8	57	58.2	59.4	60.6	61.8	63	64.2
Comp. Wt. (kg)	7.5																			

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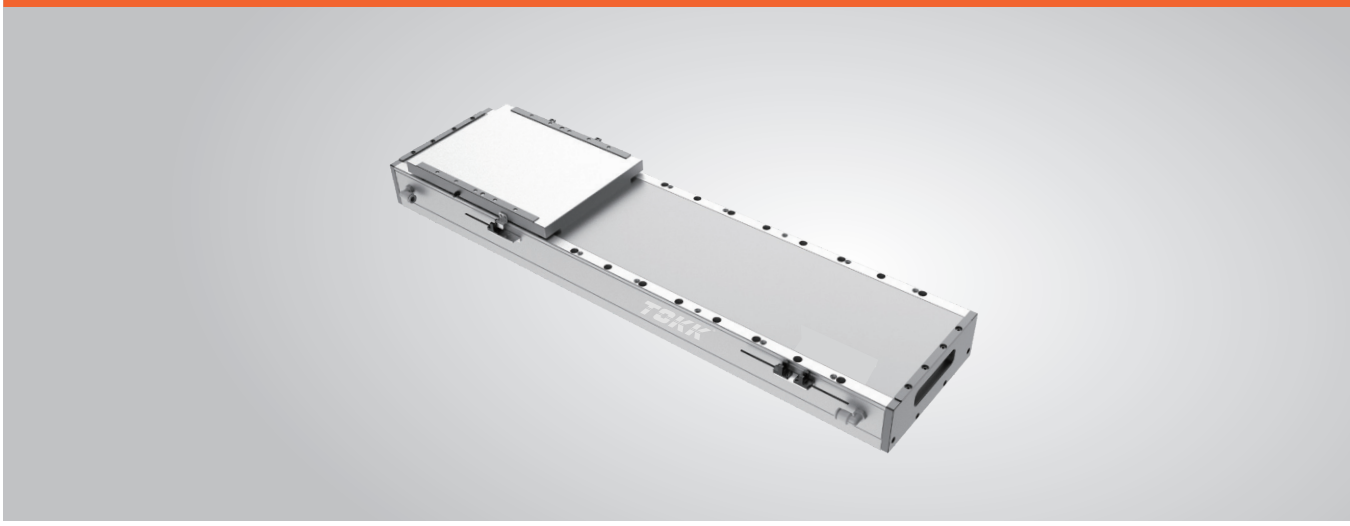
Linear module TSLM210 series



Continuous thrust	51N~255N	Peak thrust	288N~1440N	Temperature rise	< 0.07°C/W	Thrust fluctuation	< 2%

Product parameter

Motor Model	TUB38-1	TUB38-2	TUB38-3	TUB38-4	TUB38-5
Cont. Thrust (N)	51	102	153	204	255
Peak Thrust (N)	288	576	864	1152	1440
Cont. Current (A)	2.54	2.54	2.54	2.54	2.54
Max. Current (A)	14.3	14.3	14.3	14.3	14.3
Max. Speed*1 (m/s)	4				
Max. Accel.*1 (m/s²)	50				
Repeatability (μm)	Magnetic Scale：±3；Optical Scale：±2				
Max. Load*1 (kg)	80				
Height (mm)	96.5				
Stroke*2 (mm)	49~1789(60 pitch)				

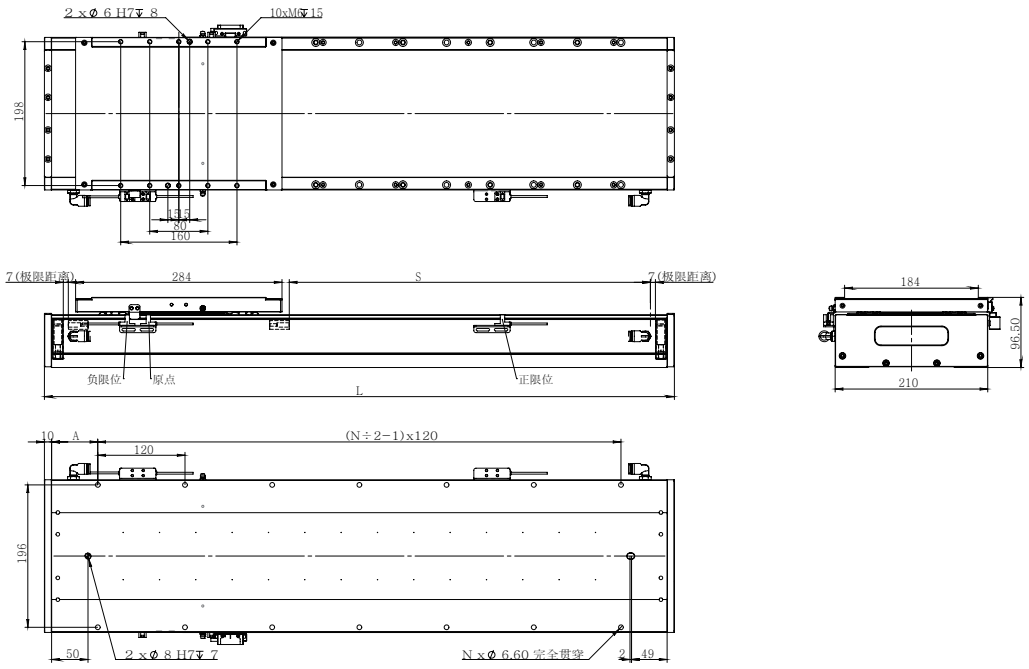
*1 Maximum acceleration, maximum speed, and maximum load are reference values. Actual values should be comprehensively evaluated based on the motion plan. If the actual parameters exceed the reference values, please contact the manufacturer for assessment.

*2 For longer strokes, please contact the manufacturer.

TSLM210-TUB38-1

TSLM210-TUB38-1

Unit:mm



Eff. Stroke: S	49	109	169	229	289	349	409	469	529	589	649	709	769	829	889	949	1009	1069	1129	1189
Mech. Stroke: S + All.	63	123	183	243	303	363	423	483	543	603	663	723	783	843	903	963	1023	1083	1143	1203
Total Length: L	419	479	539	599	659	719	779	839	899	959	1019	1079	1139	1199	1259	1319	1379	1439	1499	1559
No. of Holes: N	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	14	16.2	18.4	20.6	22.8	25	27.2	29.4	31.6	33.8	36	38.2	40.4	42.6	44.8	47	49.2	51.4	53.6	55.8
Comp. Wt. (kg)	4.2																			

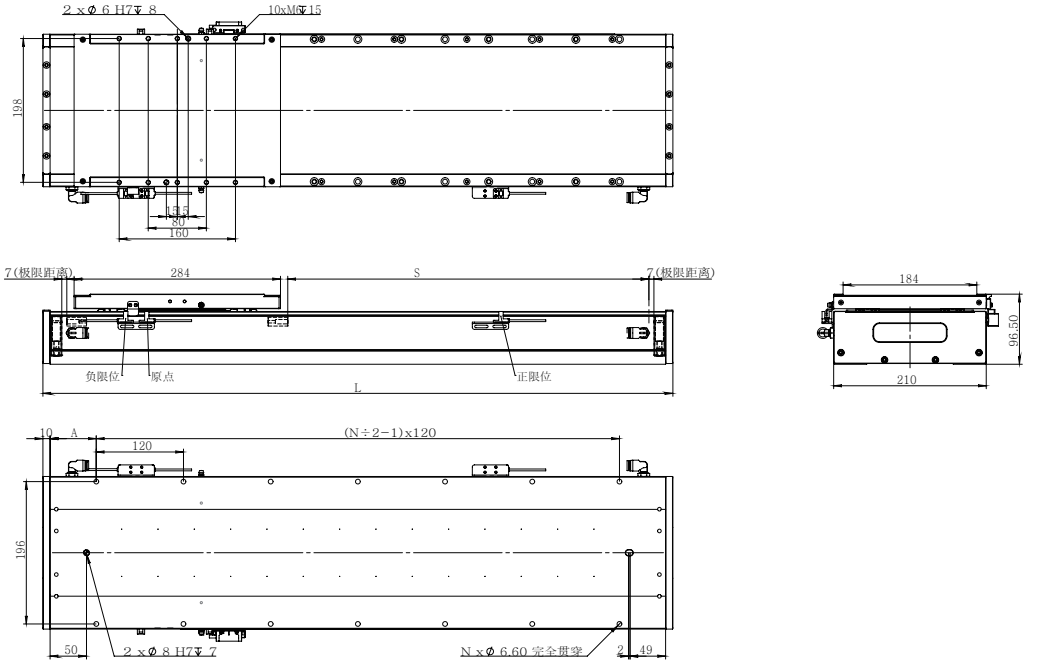
Eff. Stroke: S	1249	1309	1369	1429	1489	1549	1609	1669	1729	1789	1849	1909	1969	2029	2089	2149	2209	2269	2329	2389
Mech. Stroke: S + All.	1263	1323	1383	1443	1503	1563	1623	1683	1743	1803	1863	1923	1983	2043	2103	2163	2223	2283	2343	2403
Total Length: L	1619	1679	1739	1799	1859	1919	1979	2039	2099	2159	2219	2279	2339	2399	2459	2519	2579	2639	2699	2759
No. of Holes: N	28	28	30	30	32	32	34	34	36	36	38	38	40	40	42	42	44	44	46	46
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	58	60.2	62.4	64.6	66.8	69	71.2	73.4	75.6	77.8	80	82.2	84.4	86.6	88.8	91	93.2	95.4	97.6	99.8
Comp. Wt. (kg)	4.2																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TSLM210-TUB38-2

TSLM210-TUB38-2

Unit:mm



Eff. Stroke: S	49	109	169	229	289	349	409	469	529	589	649	709	769	829	889	949	1009	1069	1129	1189
Mech. Stroke: S + All.	63	123	183	243	303	363	423	483	543	603	663	723	783	843	903	963	1023	1083	1143	1203
Total Length: L	419	479	539	599	659	719	779	839	899	959	1019	1079	1139	1199	1259	1319	1379	1439	1499	1559
No. of Holes: N	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	14.2	16.4	18.6	20.8	23	25.2	27.4	29.6	31.8	34	36.2	38.4	40.6	42.8	45	47.2	49.4	51.6	53.8	56
Comp. Wt. (kg)	4.4																			

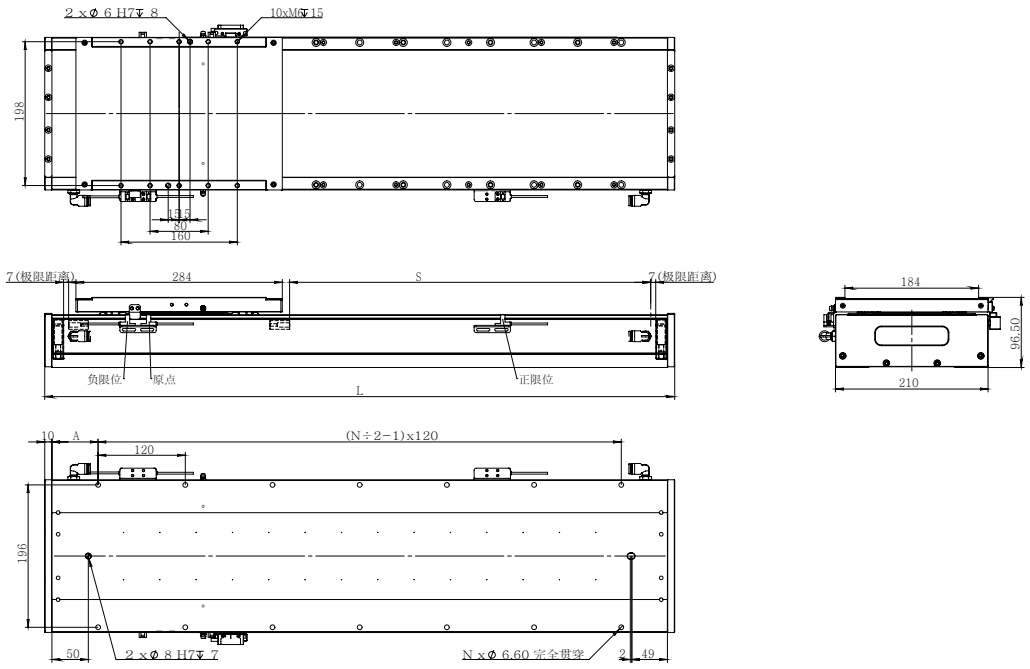
Eff. Stroke: S	1249	1309	1369	1429	1489	1549	1609	1669	1729	1789	1849	1909	1969	2029	2089	2149	2209	2269	2329	2389
Mech. Stroke: S + All.	1263	1323	1383	1443	1503	1563	1623	1683	1743	1803	1863	1923	1983	2043	2103	2163	2223	2283	2343	2403
Total Length: L	1619	1679	1739	1799	1859	1919	1979	2039	2099	2159	2219	2279	2339	2399	2459	2519	2579	2639	2699	2759
No. of Holes: N	28	28	30	30	32	32	34	34	36	36	38	38	40	40	42	42	44	44	46	46
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	58.2	60.4	62.6	64.8	67	69.2	71.4	73.6	75.8	78	80.2	82.4	84.6	86.8	89	91.2	93.4	95.6	97.8	100
Comp. Wt. (kg)	4.4																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TSLM210-TUB38-3

TSLM210-TUB38-3

Unit:mm



Eff. Stroke: S	49	109	169	229	289	349	409	469	529	589	649	709	769	829	889	949	1009	1069	1129	1189
Mech. Stroke: S + All.	63	123	183	243	303	363	423	483	543	603	663	723	783	843	903	963	1023	1083	1143	1203
Total Length: L	419	479	539	599	659	719	779	839	899	959	1019	1079	1139	1199	1259	1319	1379	1439	1499	1559
No. of Holes: N	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	14.4	16.6	18.8	21	23.2	25.4	27.6	29.8	32	34.2	36.4	38.6	40.8	43	45.2	47.4	49.6	51.8	54	56.2
Comp. Wt. (kg)	4.6																			

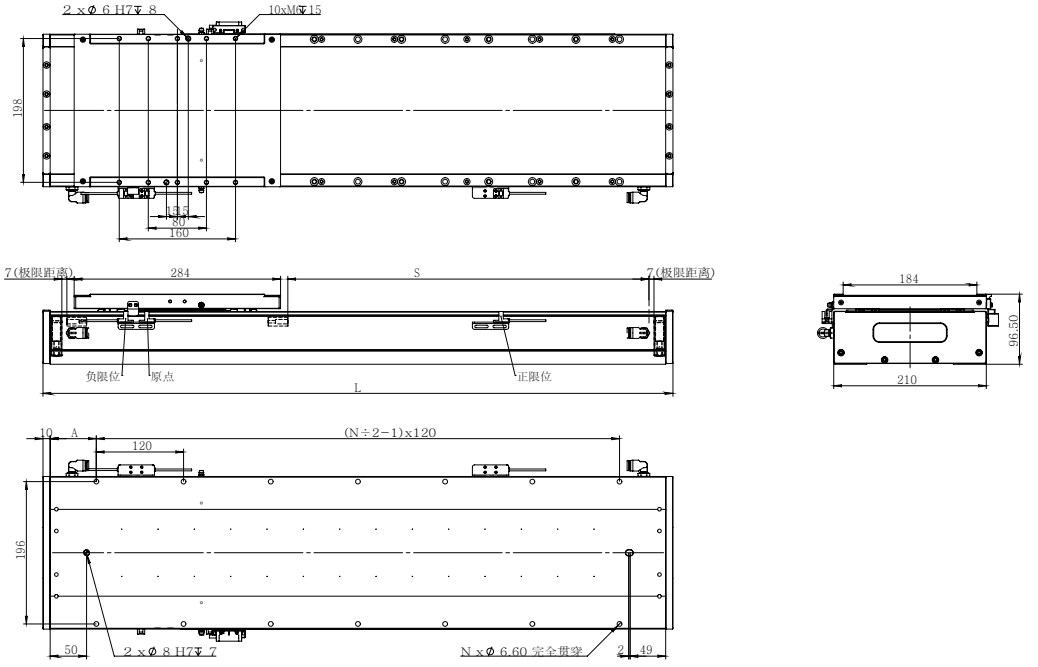
Eff. Stroke: S	1249	1309	1369	1429	1489	1549	1609	1669	1729	1789	1849	1909	1969	2029	2089	2149	2209	2269	2329	2389
Mech. Stroke: S + All.	1263	1323	1383	1443	1503	1563	1623	1683	1743	1803	1863	1923	1983	2043	2103	2163	2223	2283	2343	2403
Total Length: L	1619	1679	1739	1799	1859	1919	1979	2039	2099	2159	2219	2279	2339	2399	2459	2519	2579	2639	2699	2759
No. of Holes: N	28	28	30	30	32	32	34	34	36	36	38	38	40	40	42	42	44	44	46	46
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	58.4	60.6	62.8	65	67.2	69.4	71.6	73.8	76	78.2	80.4	82.6	84.8	87	89.2	91.4	93.6	95.8	98	100.2
Comp. Wt. (kg)	4.6																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TSLM210-TUB38-4

TSLM210-TUB38-4

Unit:mm



Eff. Stroke: S	49	109	169	229	289	349	409	469	529	589	649	709	769	829	889	949	1009	1069	1129	1189
Mech. Stroke: S + All.	63	123	183	243	303	363	423	483	543	603	663	723	783	843	903	963	1023	1083	1143	1203
Total Length: L	419	479	539	599	659	719	779	839	899	959	1019	1079	1139	1199	1259	1319	1379	1439	1499	1559
No. of Holes: N	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	14.6	16.8	19	21.2	23.4	25.6	27.8	30	32.2	34.4	36.6	38.8	41	43.2	45.4	47.6	49.8	52	54.2	56.8
Comp. Wt. (kg)	4.8																			

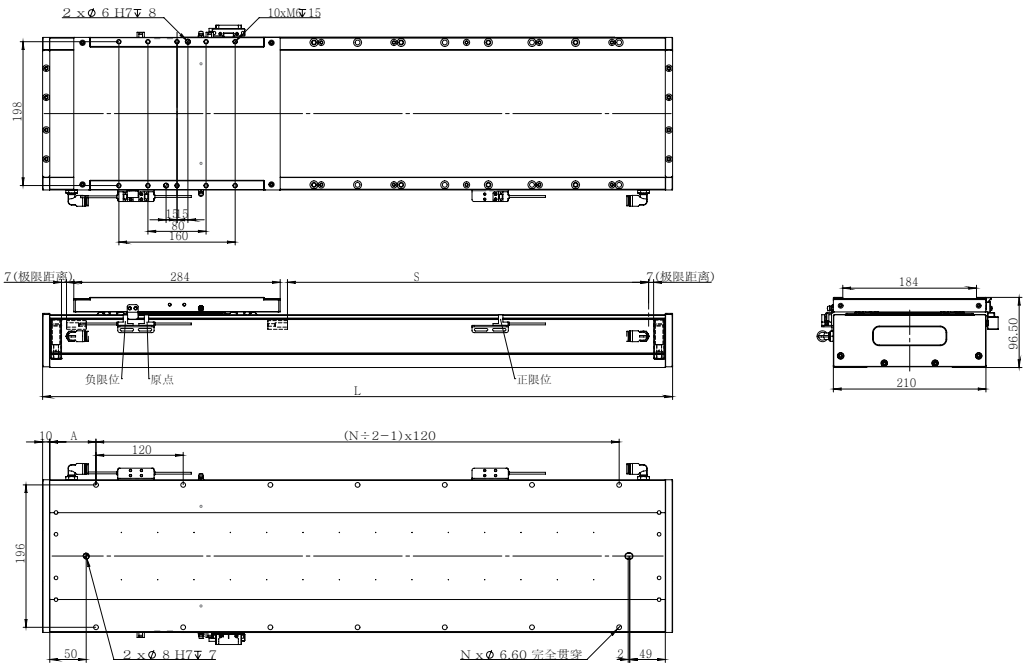
Eff. Stroke: S	1249	1309	1369	1429	1489	1549	1609	1669	1729	1789	1849	1909	1969	2029	2089	2149	2209	2269	2329	2389
Mech. Stroke: S + All.	1263	1323	1383	1443	1503	1563	1623	1683	1743	1803	1863	1923	1983	2043	2103	2163	2223	2283	2343	2403
Total Length: L	1619	1679	1739	1799	1859	1919	1979	2039	2099	2159	2219	2279	2339	2399	2459	2519	2579	2639	2699	2759
No. of Holes: N	28	28	30	30	32	32	34	34	36	36	38	38	40	40	42	42	44	44	46	46
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	58.6	60.8	63	65.2	67.4	69.6	71.8	74	76.2	78.4	80.6	82.8	85.0	87.2	89.4	91.6	93.8	96	98.2	100.4
Comp. Wt. (kg)	4.8																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TSLM210-TUB38-5

TSLM210-TUB38-5

Unit:mm

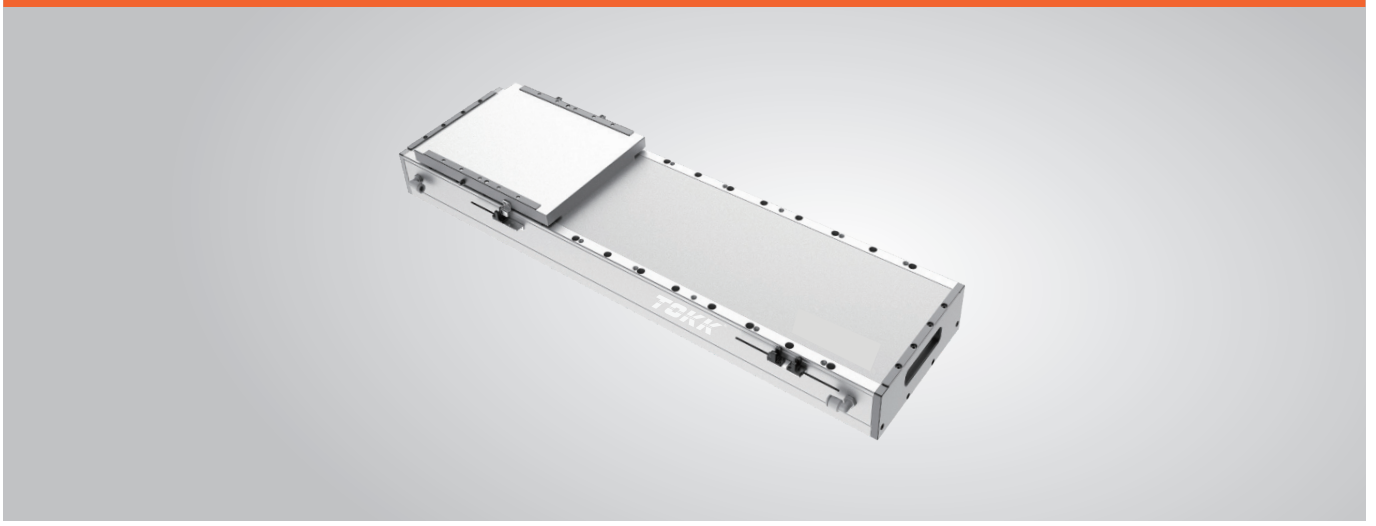


Eff. Stroke: S	49	109	169	229	289	349	409	469	529	589	649	709	769	829	889	949	1009	1069	1129	1189
Mech. Stroke: S + All.	63	123	183	243	303	363	423	483	543	603	663	723	783	843	903	963	1023	1083	1143	1203
Total Length: L	419	479	539	599	659	719	779	839	899	959	1019	1079	1139	1199	1259	1319	1379	1439	1499	1559
No. of Holes: N	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	14.6	17	19.2	21.4	23.6	25.8	28	30.2	32.4	34.6	36.8	39	41.2	43.4	45.6	47.8	50	52.2	54.4	57
Comp. Wt. (kg)	5																			

Eff. Stroke: S	1249	1309	1369	1429	1489	1549	1609	1669	1729	1789	1849	1909	1969	2029	2089	2149	2209	2269	2329	2389
Mech. Stroke: S + All.	1263	1323	1383	1443	1503	1563	1623	1683	1743	1803	1863	1923	1983	2043	2103	2163	2223	2283	2343	2403
Total Length: L	1619	1679	1739	1799	1859	1919	1979	2039	2099	2159	2219	2279	2339	2399	2459	2519	2579	2639	2699	2759
No. of Holes: N	28	28	30	30	32	32	34	34	36	36	38	38	40	40	42	42	44	44	46	46
Hole to End: A	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5	19.5	49.5
Mod. Wt. (kg)	58.8	61	63.2	65.4	67.6	69.8	72	74.2	76.4	78.6	80.8	83.0	85.2	87.4	89.6	91.8	94.0	96.2	98.4	100.6
Comp. Wt. (kg)	5																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

Linear module TSLM230 series



Continuous thrust	234N~819N	Peak thrust	648N~2277N	Temperature rise	< 0.05℃/W	Thrust fluctuation	< 2%

Product parameter

Motor Model	TICA115-1	TICA115-2	TICA115-3	TICA125-1	TICA125-2	TICA125-3
Cont. Thrust (N)	234	468	702	273	546	819
Peak Thrust (N)	648	1296	1944	759	1518	2277
Cont. Current (A)	3.22	3.22	3.22	3.38	3.38	3.38
Max. Current (A)	10.29	10.29	10.29	10.28	10.28	10.28
Max. Speed*1 (m/s)	4					
Max. Accel.*1 (m/s²)	50					
Repeatability (μm)	Magnetic Scale: ±3; Optical Scale: ±2					
Max. Load*1 (kg)	300					
Height (mm)	96.5					
Stroke*2 (mm)	35~1985(50 pitch)	47~1997(50 pitch)	10~1960(50 pitch)	35~1985(50 pitch)	47~1997(50 pitch)	10~1960(50 pitch)

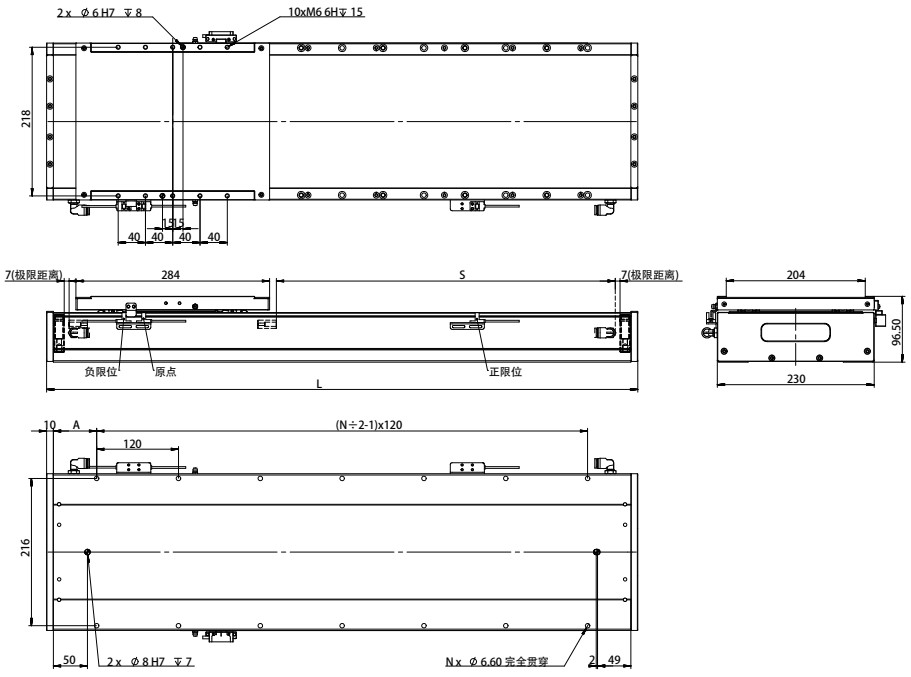
*1 Maximum acceleration, maximum speed, and maximum load are reference values. Actual values should be comprehensively evaluated based on the motion plan. If the actual parameters exceed the reference values, please contact the manufacturer for assessment.

*2 For longer strokes, please contact the manufacturer.

TSLM230-TICA115-1

TSLM230-TICA115-1

Unit:mm



Eff. Stroke: S	35	85	135	185	235	285	335	385	435	485	535	585	635	685	735	785	835	885	935	985
Mech. Stroke: S + All.	49	99	149	199	249	299	349	399	449	499	549	599	649	699	749	799	849	899	949	999
Total Length: L	405	455	505	555	605	655	705	755	805	855	905	955	1005	1055	1105	1155	1205	1255	1305	1355
No. of Holes: N	8	8	8	10	10	12	12	12	14	14	16	16	18	18	18	20	20	22	22	22
Hole to End: A	12.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	12.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5
Mod. Wt. (kg)	19.1	20.4	21.7	23	23.3	24.6	25.9	27.2	28.5	29.8	31.2	32.4	33.7	35	36.3	37.6	38.9	40.2	41.5	42.8
Comp. Wt. (kg)	6.1																			

Eff. Stroke: S	1035	1085	1135	1185	1235	1285	1335	1385	1435	1485	1535	1585	1635	1685	1735	1785	1835	1885	1935	1985
Mech. Stroke: S + All.	1049	1099	1149	1199	1249	1299	1349	1399	1449	1499	1549	1599	1649	1699	1749	1799	1849	1899	1949	1999
Total Length: L	1405	1455	1505	1555	1605	1655	1705	1755	1805	1855	1905	1955	2005	2055	2105	2155	2205	2255	2305	2355
No. of Holes: N	24	24	26	26	28	28	28	30	30	32	32	32	34	34	36	36	38	38	38	40
Hole to End: A	32.5	57.5	22.5	47.5	12.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	12.5	37.5	62.5	27.5
Mod. Wt. (kg)	44.1	45.4	46.7	48	49.3	50.6	51.9	53.2	54.5	55.8	57.1	58.4	59.7	61	62.3	63.6	64.9	65.2	66.5	67.8
Comp. Wt. (kg)	6.1																			

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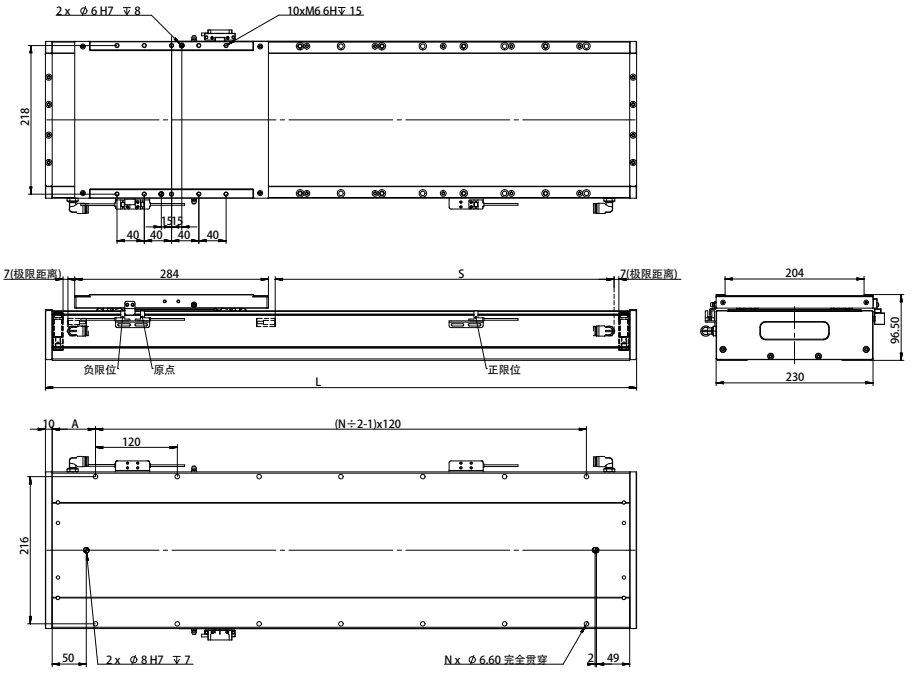
TSLM230-TICA115-2

TSLM230-TICA115-2

Unit:mm



Eff. Stroke: S	47	97	147	197	247	297	347	397	447	497	547	597	647	697	747	797	847	897	947	997
Mech. Stroke: S + All.	61	111	161	211	261	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011
Total Length: L	417	467	517	567	617	23.5	717	767	817	867	917	967	1017	1067	1117	1167	1217	1267	1317	1367
No. of Holes: N	8	8	8	10	10	12	12	14	14	14	16	16	18	18	18	20	20	22	22	24
Hole to End: A	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5
Mod. Wt. (kg)	19.4	20.8	22.2	23.6	25	26.4	27.8	29.2	30.6	32	33.4	34.8	36.2	37.6	39	40.4	41.8	43.2	44.6	46
Comp. Wt. (kg)	7.7																			

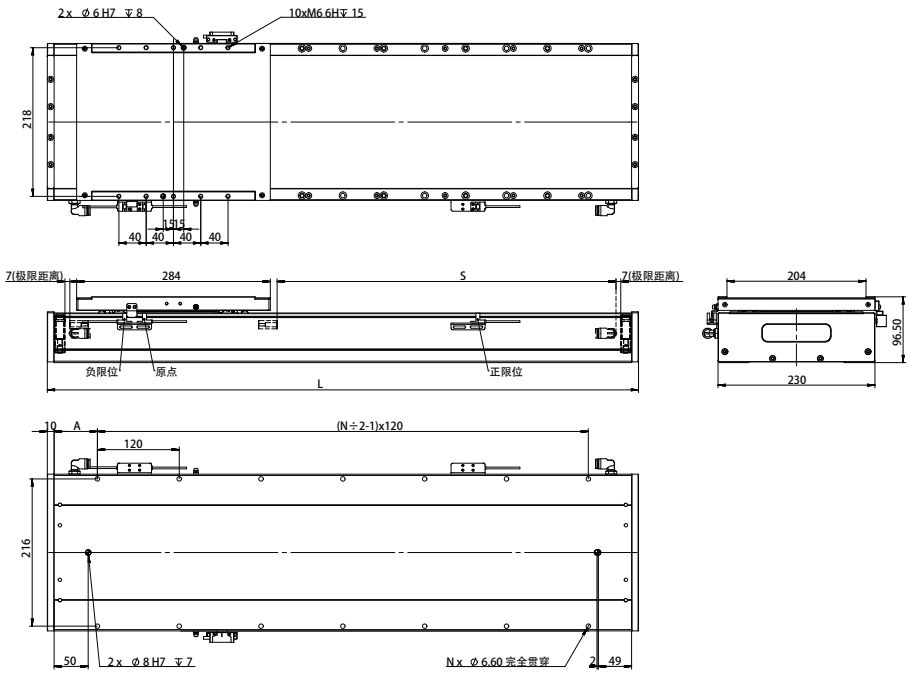
Eff. Stroke: S	1047	1097	1147	1197	1247	1297	1347	1397	1447	1497	1547	1597	1647	1697	1747	1797	1847	1897	1947	1997
Mech. Stroke: S + All.	1061	1111	1161	1211	1261	1311	1361	1411	1461	1511	1561	1611	1661	1711	1761	1811	1861	1911	1961	2011
Total Length: L	1417	1467	1517	1567	1617	1667	1717	1767	1817	1867	1917	1967	2017	2067	2117	2167	2217	2267	2317	2367
No. of Holes: N	24	24	26	26	28	28	28	30	30	32	32	34	34	34	36	36	38	38	38	40
Hole to End: A	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5
Mod. Wt. (kg)	47.4	48.8	50.2	51.6	53	54.4	55.8	57.2	58.6	60	61.4	62.8	64.2	65.6	67	68.4	69.8	71.2	72.6	74
Comp. Wt. (kg)	7.7																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TSLM230-TICA115-3

TSLM230-TICA115-3

Unit:mm



Eff. Stroke: S	10	60	110	160	210	260	310	360	410	460	510	560	610	660	710	760	810	860	910	960
Mech. Stroke: S + All.	24	74	124	174	224	274	324	374	424	474	524	574	624	674	724	774	824	874	924	974
Total Length: L	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230	1280	1330
No. of Holes: N	6	8	8	10	10	10	12	12	14	14	16	16	16	18	18	20	20	20	22	22
Hole to End: A	60	25	50	15	40	65	30	55	20	45	10	35	60	25	50	15	40	65	30	55
Mod. Wt. (kg)	20.7	22.1	23.5	24.9	26.3	27.7	29.1	30.5	31.9	33.3	34.7	36.1	37.5	38.9	40.3	41.7	43.1	44.5	45.9	47.3
Comp. Wt. (kg)	8.9																			

Eff. Stroke: S	1010	1060	1110	1160	1210	1260	1310	1360	1410	1460	1510	1560	1610	1660	1710	1760	1810	1860	1910	1960
Mech. Stroke: S + All.	1024	1074	1124	1174	1224	1274	1324	1374	1424	1474	1524	1574	1624	1674	1724	1774	1824	1874	1924	1974
Total Length: L	1380	1430	1480	1530	1580	1630	1680	1730	1780	1830	1880	1930	1980	2030	2080	2130	2180	2230	2280	2330
No. of Holes: N	24	24	26	26	26	28	28	30	30	30	32	32	34	34	36	36	36	38	38	40
Hole to End: A	20	45	10	35	60	25	50	15	40	65	30	55	20	45	10	35	60	25	50	15
Mod. Wt. (kg)	48.7	50.1	51.5	52.9	54.3	55.7	57.1	58.5	59.9	61.3	62.7	64.1	65.5	66.9	68.3	69.7	71.1	72.5	73.9	75.3
Comp. Wt. (kg)	8.9																			

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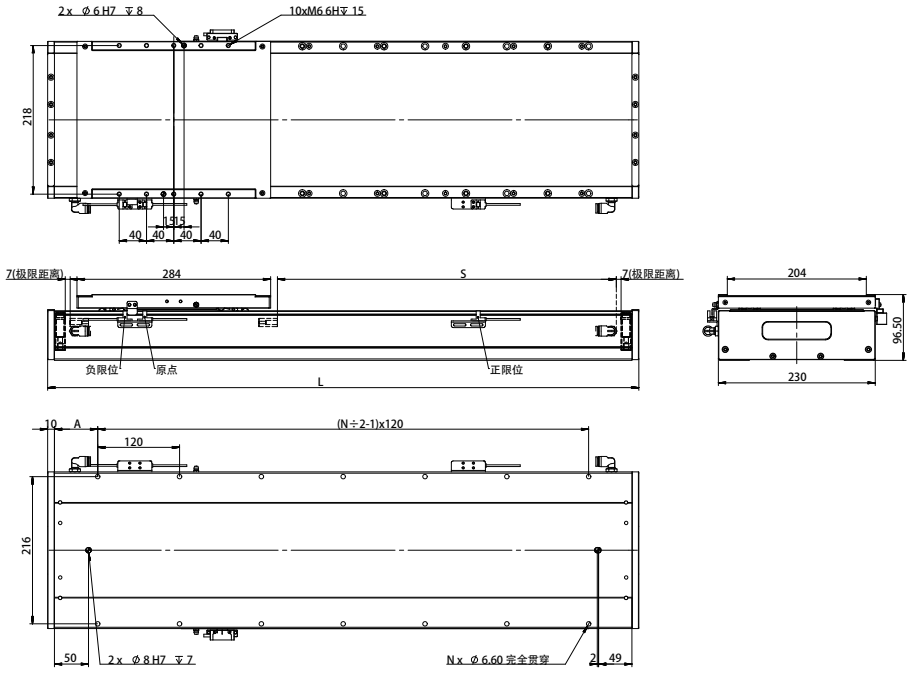
TSLM230-TICA125-1

TSLM230-TICA125-1

Unit:mm



Eff. Stroke: S	35	85	135	185	235	285	335	385	435	485	535	585	635	685	735	785	835	885	935	985
Mech. Stroke: S + All.	49	99	149	199	249	299	349	399	449	499	549	599	649	699	749	799	849	899	949	999
Total Length: L	405	455	505	555	605	655	705	755	805	855	905	955	1005	1055	1105	1155	1205	1255	1305	1355
No. of Holes: N	8	8	8	10	10	12	12	12	14	14	16	16	18	18	18	20	20	22	22	22
Hole to End: A	12.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5	32.5	57.5	22.5	47.5	12.5	37.5	62.5	27.5	52.5	17.5	42.5	67.5
Mod. Wt. (kg)	19.1	20.4	21.7	23	23.3	24.6	25.9	27.2	28.5	29.8	31.2	32.4	33.7	35	36.3	37.6	38.9	40.2	41.5	42.8
Comp. Wt. (kg)	6.3																			

Eff. Stroke: S	1035	1085	1135	1185	1235	1285	1335	1385	1435	1485	1485	1585	1635	1685	1735	1785	1835	1885	1935	1985
Mech. Stroke: S + All.	1049	1099	1149	1199	1249	1299	1349	1399	1449	1499	1499	1599	1649	1699	1749	1799	1849	1899	1949	1999
Total Length: L	1405	1455	1505	1555	1605	1655	1705	1755	1805	1855	1855	1955	2005	2055	2105	2155	2205	2255	2305	2355
No. of Holes: N	24	24	26	26	28	28	28	30	30	32	32	32	34	34	36	36	38	38	38	40
Hole to End: A	32.5	57.5	22.5	47.5	12.5	37.5	62.5	27.5	52.5	17.5	17.5	67.5	32.5	57.5	22.5	47.5	12.5	37.5	62.5	27.5
Mod. Wt. (kg)	44.1	45.4	46.7	48	49.3	50.6	51.9	53.2	54.5	55.8	55.8	58.4	59.7	61	62.3	63.6	64.9	65.2	66.5	67.8
Comp. Wt. (kg)	6.3																			

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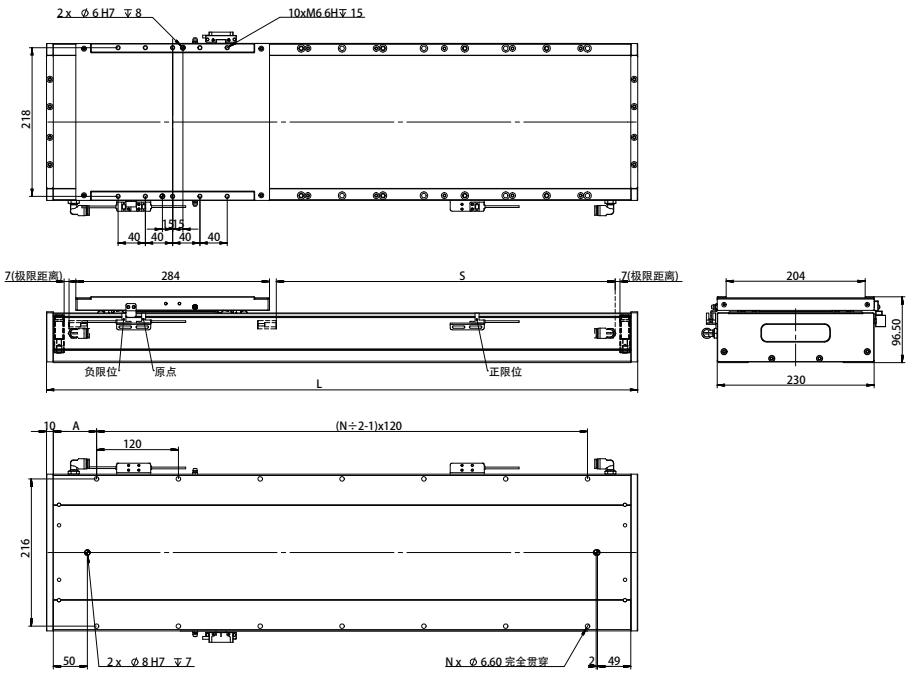
TSLM230-TICA125-2

TSLM230-TICA125-2

Unit:mm



Eff. Stroke: S	47	97	147	197	247	297	347	397	447	497	547	597	647	697	747	797	847	897	947	997
Mech. Stroke: S + All.	61	111	161	211	261	311	361	411	461	511	561	611	661	711	761	811	861	911	961	1011
Total Length: L	417	467	517	567	617	23.5	717	767	817	867	917	967	1017	1067	1117	1167	1217	1267	1317	1367
No. of Holes: N	8	8	8	10	10	12	12	14	14	14	16	16	18	18	18	20	20	22	22	24
Hole to End: A	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5
Mod. Wt. (kg)	19.4	20.8	22.2	23.6	25	26.4	27.8	29.2	30.6	32	33.4	34.8	36.2	37.6	39	40.4	41.8	43.2	44.6	46
Comp. Wt. (kg)	8.6																			

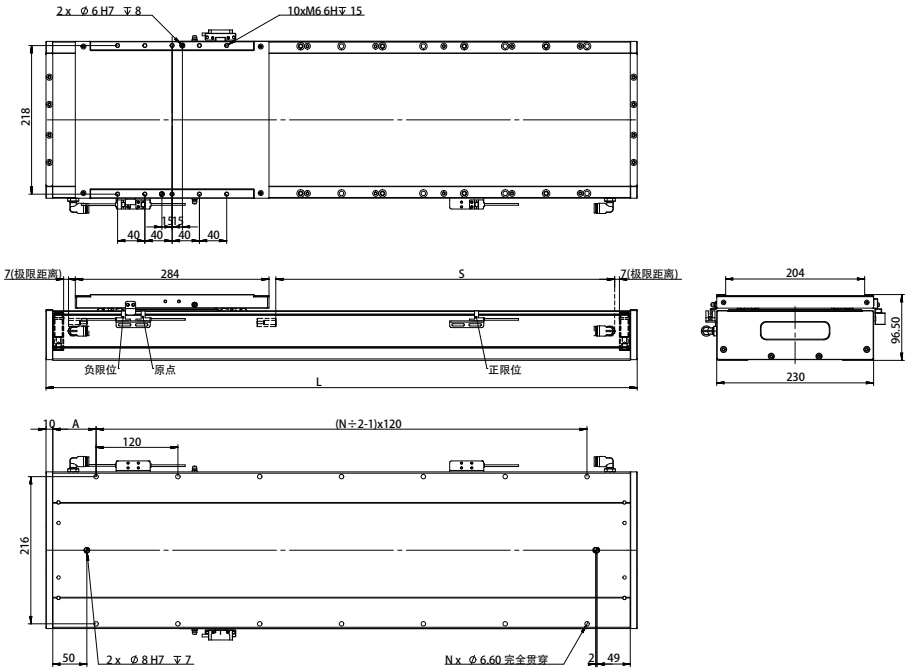
Eff. Stroke: S	1047	1097	1147	1197	1247	1297	1347	1397	1447	1497	1547	1597	1647	1697	1747	1797	1847	1897	1947	1997
Mech. Stroke: S + All.	1061	1111	1161	1211	1261	1311	1361	1411	1461	1511	1561	1611	1661	1711	1761	1811	1861	1911	1961	2011
Total Length: L	1417	1467	1517	1567	1617	1667	1717	1767	1817	1867	1917	1967	2017	2067	2117	2167	2217	2267	2317	2367
No. of Holes: N	24	24	26	26	28	28	28	30	30	32	32	34	34	34	36	36	38	38	38	40
Hole to End: A	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5	58.5	33.5	48.5	13.5	38.5	63.5	28.5	53.5	18.5	43.5	68.5	33.5
Mod. Wt. (kg)	47.4	48.8	50.2	51.6	53	54.4	55.8	57.2	58.6	60	61.4	62.8	64.2	65.6	67	68.4	69.8	71.2	72.6	74
Comp. Wt. (kg)	8.6																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

TSLM230-TICA125-3

TSLM230-TICA125-3

Unit:mm



Eff. Stroke: S	10	60	110	160	210	260	310	360	410	460	510	560	610	660	710	760	810	860	910	960
Mech. Stroke: S + All.	24	74	124	174	224	274	324	374	424	474	524	574	624	674	724	774	824	874	924	974
Total Length: L	380	430	480	530	580	630	680	730	780	830	880	930	980	1030	1080	1130	1180	1230	1280	1330
No. of Holes: N	6	8	8	10	10	10	12	12	14	14	16	16	16	18	18	20	20	20	22	22
Hole to End: A	60	25	50	15	40	65	30	55	20	45	10	35	60	25	50	15	40	65	30	55
Mod. Wt. (kg)	20.7	22.1	23.5	24.9	26.3	27.7	29.1	30.5	31.9	33.3	34.7	36.1	37.5	38.9	40.3	41.7	43.1	44.5	45.9	47.3
Comp. Wt. (kg)	10.2																			

Eff. Stroke: S	1010	1060	1110	1160	1210	1260	1310	1360	1410	1460	1510	1560	1610	1660	1710	1760	1810	1860	1910	1960
Mech. Stroke: S + All.	1024	1074	1124	1174	1224	1274	1324	1374	1424	1474	1524	1574	1624	1674	1724	1774	1824	1874	1924	1974
Total Length: L	1380	1430	1480	1530	1580	1630	1680	1730	1780	1830	1880	1930	1980	2030	2080	2130	2180	2230	2280	2330
No. of Holes: N	24	24	26	26	26	28	28	30	30	30	32	32	34	34	36	36	36	38	38	40
Hole to End: A	20	45	10	35	60	25	50	15	40	65	30	55	20	45	10	35	60	25	50	15
Mod. Wt. (kg)	48.7	50.1	51.5	52.9	54.3	55.7	57.1	58.5	59.9	61.3	62.7	64.1	65.5	66.9	68.3	69.7	71.1	72.5	73.9	75.3
Comp. Wt. (kg)	10.2																			

This diagram is for reference only. Actual dimensions are based on the provided 2D/3D drawings. Product style, appearance, and specifications are subject to change without prior notice.

03

LINEAR MOTOR WITH IRON CORE

Intro

The iron-core linear motor consists of two parts: a single row of magnet yokes and a rotor assembly. The rotor part is made up of copper coils wound around the iron core. The base plate provides an efficient path for magnetic flux circulation between the motor and the magnetic track, and it also serves as an effective means of heat dissipation for the motor. Special electromagnetic design is used to achieve the required technical parameters. This type of motor offers high thrust, making it particularly suitable for applications requiring large loads and high motion rigidity.

Advantages

1. The iron core structure concentrates magnetic flux, allowing for high thrust output.
2. The cost is relatively low, and the iron core design is inexpensive.
3. The iron core facilitates heat dissipation, enabling high power in full-load applications.

Disadvantages

1. The high magnetic attraction requires strict assembly standards.
2. There is cogging effect, which impacts motion smoothness, fluctuations, and settling error. Motion control is relatively complex.

Application Industry

3C industry (Computers, Communication, Consumer electronics)
Semiconductor industry
Automotive industry
LCD panel industry
.....
New energy industry
Photovoltaic industry
Laser processing industry

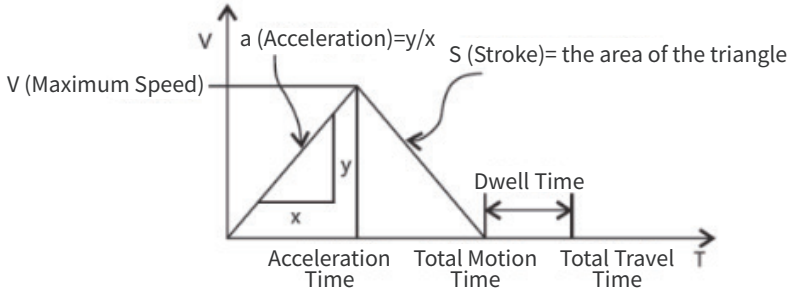
Linear motor selection:

1. The selection of a linear motor involves calculating the requirements for maximum thrust and continuous thrust.

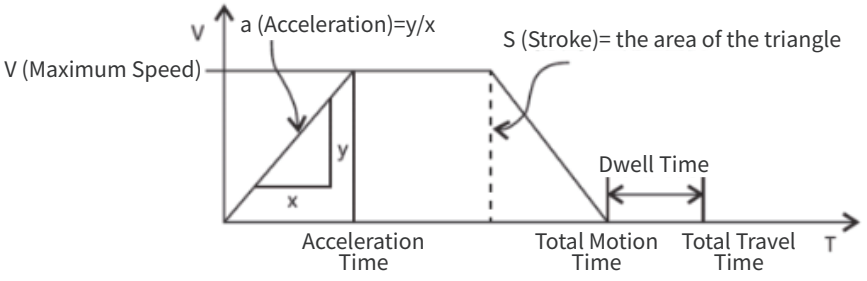
2. In accelerated linear motion, the force F=ma, where F is the force required to move the load (in Newtons), m is the mass of the moving object (in kilograms), and a is the acceleration (in meters per second squared). The maximum thrust is determined by the mass of the moving load and the maximum acceleration. In practical applications, thrust = total mass × acceleration + friction + external resistance.
For example: (Assuming no friction or external resistance) For a moving load of 10 kg (including the rotor) and an acceleration of 10 m/s^2, the motor would need to generate a force of 100 N.

3. Typically, the actual acceleration requirement is unknown, but the operating time is given. With a known travel distance and required time, the acceleration can be calculated. For short travel distances, a triangular velocity profile (without a constant speed phase) is recommended. For longer travel distances, a trapezoidal velocity profile is recommended.

4. Triangular Velocity Profile: $a = \frac{4S}{t^2}$
Where S is the travel distance, stroke, and t is the time.



5. Trapezoidal Profile: The preset constant velocity can determine the acceleration:
Acceleration = Constant velocity / (Total time - Dwell time - Displacement / Constant velocity)



6. Deceleration is calculated similarly to acceleration, unless there is an unbalanced force (such as gravity) acting on the motor.

7. To maintain constant velocity and during the dwell phase, friction and external resistance also need to be considered. (To maintain constant velocity, the motor will overcome friction and external resistance, and during servo dwell, the motor will overcome external resistance.)

8. The formula for calculating continuous thrust is as follows:

$$\text{Continuous Thrust} = \sqrt{\frac{Fa^2 \times Ta + Fc^2 \times Tc + Fd^2 \times Td + Fw^2 \times Tw}{Ta + Tc + Td + Tw}}$$

	force	duration
Acceleration Phase	Fa	Ta
Constant Velocity Phase	Fc	Tc
Deceleration Phase	Fd	Td
Dwell Phase	Fw	Tw

9. When selecting a motor based on maximum thrust and continuous thrust, a safety factor of 20-30% should be set to overcome friction and external resistance.

TIC series with iron core linear motor Order specifications:

Coil Model:

TIC A55 - 1P - 5H

Motor Type	
code	description
TIC	iron core motor

Coil/Magnet Assembly Thickness	
code	description
A	41.5mm
B	37.5mm
C	58mm
AA	60mm

Coil Width	
code	description
55	55mm
75	75mm
- -	- - -

Sensor Option	
code	description
null	no sensor
H	with Hall sensor

Cable Length	
code	description
0.5	0.5m
3	3m
null	5m
- -	- - -

Winding Type	
code	description
null	S (See Parameter Table)
P	See Parameter Table
T	See Parameter Table

Coil Length	
code	description
1	105mm
2	193mm
3	280mm
- -	- - -

Magnetic Rail Model:

TM A 55 -105 40

Motor Type	
code	description
TM	iron core motor

Coil/Magnet Assembly Thickness	
code	description
A	41.5mm
B	37.5mm
C	58mm

Coil Width	
code	description
55	55mm
75	75mm
- -	- - -

Magnetic Pole Pitch	
code	description
25	25mm
40	40mm
- -	- - -

Coil Length	
code	description
105	105mm
193	193mm
280	280mm
- -	- - -

TICA35 series with iron core

34.3mm Height

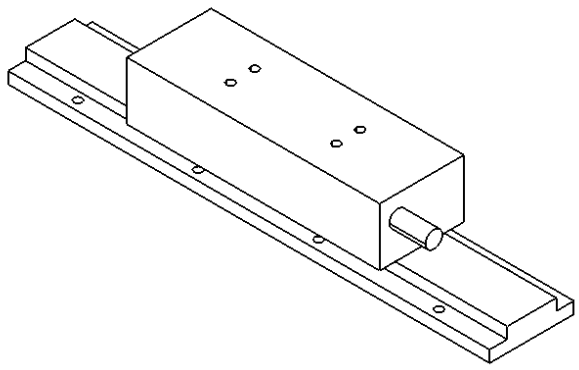
35mm width

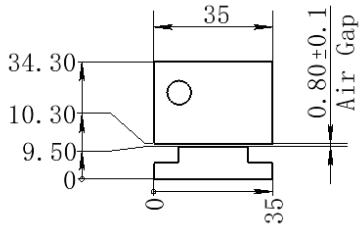
Continuous thrust	48N~144N	Peak thrust	138N~414N	Temperature rise	< 0.05℃/W	Thrust fluctuation	< 2%

Product parameter

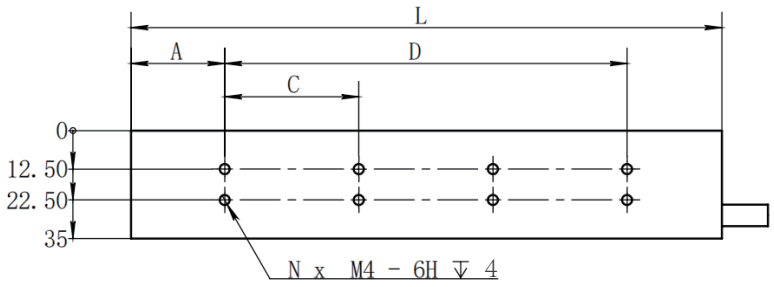
Motor Model	TICA35-1	TICA35-2	TICA35-3
Winding Code	S	S	S
Performance Parameters			
Maximum Thrust (N)	138	276	414
Continuous Thrust (N)	48	96	144
Maximum Power (W)	208	416	624
Continuous Power (W)	72	144	216
Forward Attraction Force (N)	312	624	936
Electrical Characteristics			
Maximum Current (Arms)	10.34	10.34	10.34
Continuous Current (Arms)	3.39	3.39	3.39
Thrust Constant (N/Arms)	61.36	28.32	42.48
Back EMF (Vpeak/m/s)	13.4	40.63	40.63
Line Resistance (Ohms)	1.91	3.47	5.03
Line Inductance (mH)	7.3	14.6	21.9
Time Constant (ms)	3.82	4.21	4.35
Motor Constant (N/$\sqrt{W}$)	29.6	12.41	15.46
Maximum Coil Temperature (°C)	100	100	100
Maximum Terminal Voltage (VDC)	310	310	310
Mechanical Characteristics			
Mover Length (mm)	105	193	280
Mover Mass (kg)	0.54	1.08	1.62
Stator Mass (kg/m)	2	2	2
Magnetic Pole Pitch (mm)	25	25	25

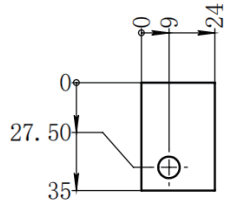
Motor outline





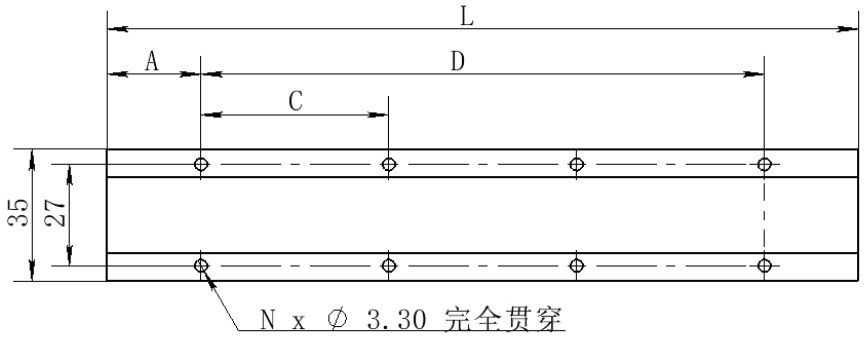
Coil profile

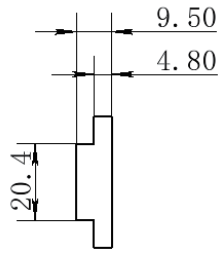




(单位:mm)	A	C	D	L	N
TICA35-1	30.6	43.8	43.8	105	4
TICA35-2	30.8	43.8	131.4	193	8
TICA35-3	30.5	43.8	291	280	12

Track profile



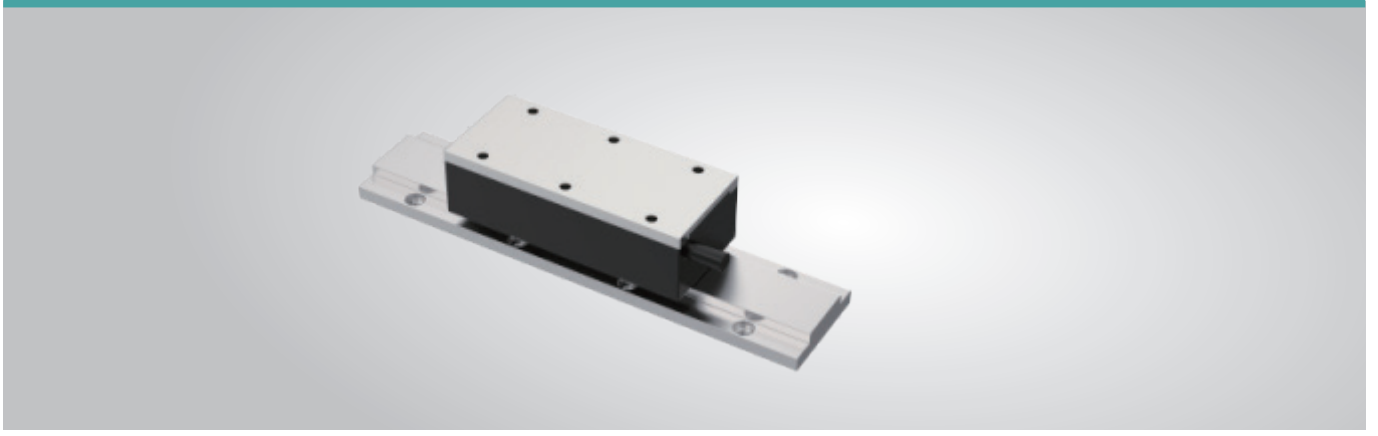


(单位:mm)	A	C	D	L	N
TMA35-150	25	50	100	150	6
TMA35-200	25	50	150	200	8
TMA35-250	25	50	200	250	10

TICA40 series with iron core

34.3mm Height

40mm width

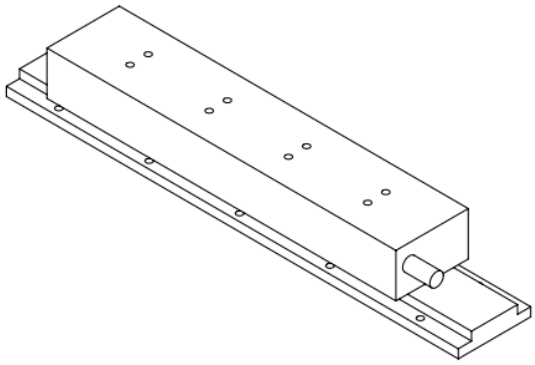


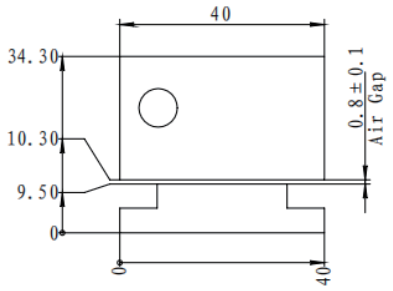
Continuous thrust	60N~180N	Peak thrust	173N~519N	Temperature rise	< 0.05℃/W	Thrust fluctuation	< 2%

Product parameter

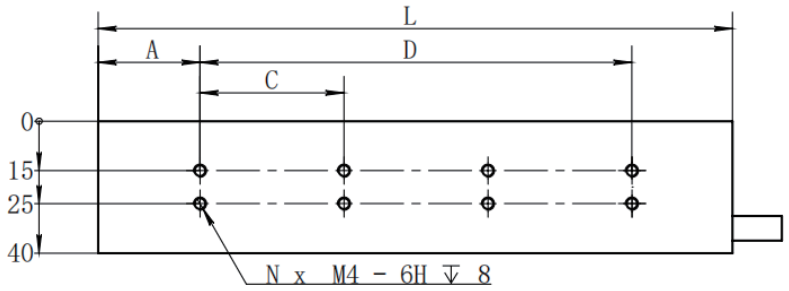
Motor Model	TICA40-1	TICA40-2	TICA40-3
Winding Code	S	S	S
Performance Parameters			
Maximum Thrust (N)	173	346	519
Continuous Thrust (N)	60	120	180
Maximum Power (W)	260	520	780
Continuous Power (W)	90	180	270
Forward Attraction Force (N)	379	758	1137
Electrical Characteristics			
Maximum Current (Arms)	10.37	10.37	10.37
Continuous Current (Arms)	3.4	3.4	3.4
Thrust Constant (N/Arms)	17.58	35.16	52.74
Back EMF (Vpeak/m/s)	16.73	33.46	50.19
Line Resistance (Ohms)	1.83	3.66	5.49
Line Inductance (mH)	8.37	16.74	25.11
Time Constant (ms)	4.58	4.58	4.58
Motor Constant (N/√W)	10.65	15.06	18.45
Maximum Coil Temperature (°C)	130	130	130
Maximum Terminal Voltage (VDC)	310	310	310
Mechanical Characteristics			
Mover Length (mm)	105	193	280
Mover Mass (kg)	0.5	0.8	2.6
Stator Mass (kg/m)	2	2	2
Magnetic Pole Pitch (mm)	25	25	25

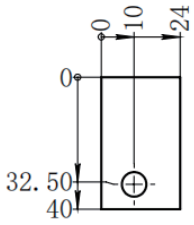
Motor outline





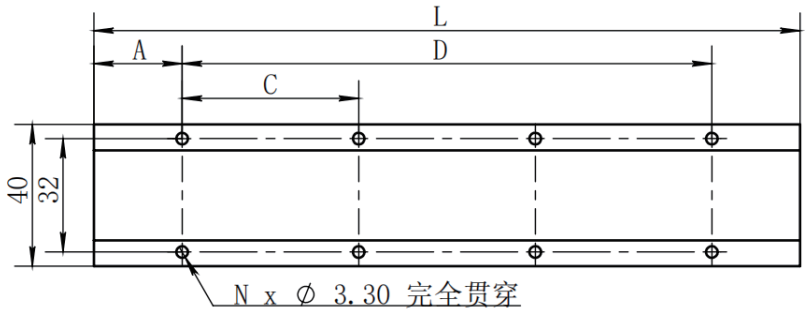
Coil profile

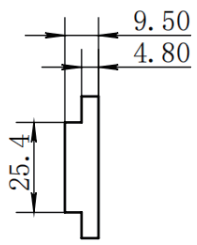




(单位:mm)	A	C	D	L	N
TICA40-1	30.6	43.8	43.8	105	4
TICA40-2	30.8	43.8	131.4	193	8
TICA40-3	30.5	43.8	219	280	12

Track profile



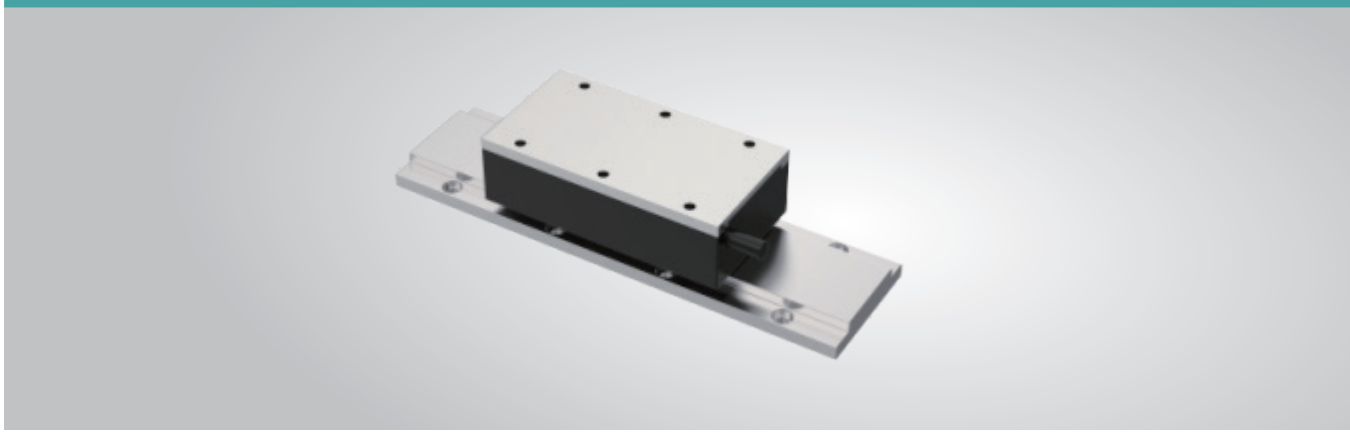


(单位:mm)	A	C	D	L	N
TMA40-150	25	50	100	150	6
TMA40-200	25	50	150	200	8
TMA40-250	25	50	200	250	10

TICA55 series with iron core

41.5mm Height

55mm width

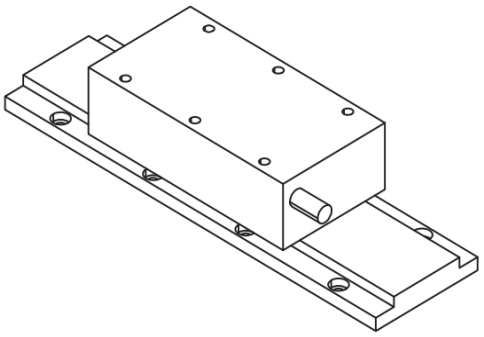


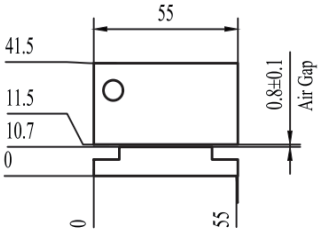
Continuous thrust	91N~273N	Peak thrust	252N~756N	Temperature rise	< 0.05℃/W	Thrust fluctuation	< 2%

Product parameter

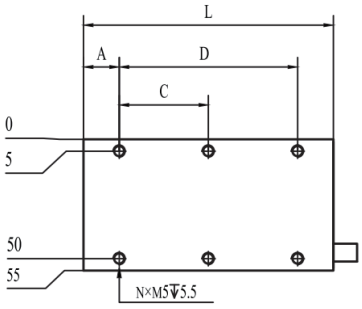
Motor Model	TICA55-1	TICA55-2		TICA55-3	
Winding Code	S	S	P	S	T
Performance Parameters					
Maximum Thrust (N)	252	504	504	756	756
Continuous Thrust (N)	91	182	182	273	273
Maximum Power (W)	396	792	792	1188	1188
Continuous Power (W)	137	274	274	411	411
Forward Attraction Force (N)	530	1060	1060	1590	1590
Electrical Characteristics					
Maximum Current (Arms)	10.31	10.31	20.62	10.31	30.93
Continuous Current (Arms)	3.38	3.38	6.76	3.38	10.14
Thrust Constant (N/Arms)	26.92	53.84	26.92	80.76	26.92
Back EMF (Vpeak/m/s)	23.42	46.84	23.42	70.26	23.42
Line Resistance (Ohms)	2.53	5.06	1.27	7.59	0.84
Line Inductance (mH)	11.6	23.2	5.8	34.8	3.87
Time Constant (ms)	4.58	4.58	4.58	4.58	4.58
Motor Constant (N/√W)	13.82	19.54	19.54	23.94	23.94
Maximum Coil Temperature (°C)	130	130	130	130	130
Maximum Terminal Voltage (VDC)	310	310	310	310	310
Mechanical Characteristics					
Mover Length (mm)	105	193	193	280	280
Mover Mass (kg)	0.9	1.3	1.3	1.7	1.7
Stator Mass (kg/m)	3.6	3.6	3.6	3.6	3.6
Magnetic Pole Pitch (mm)	25	25	25	25	25

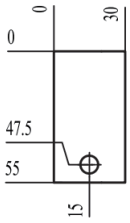
Motor outline





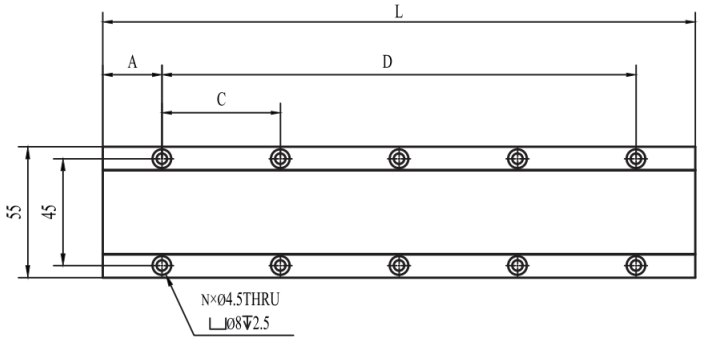
Coil profile

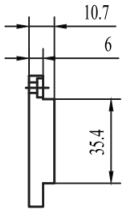




(单位:mm)	A	C	D	L	N
TICA55-1	15	37.5	75	105	6
TICA55-2	16.5	40	160	193	10
TICA55-3	20	40	240	280	14

Track profile



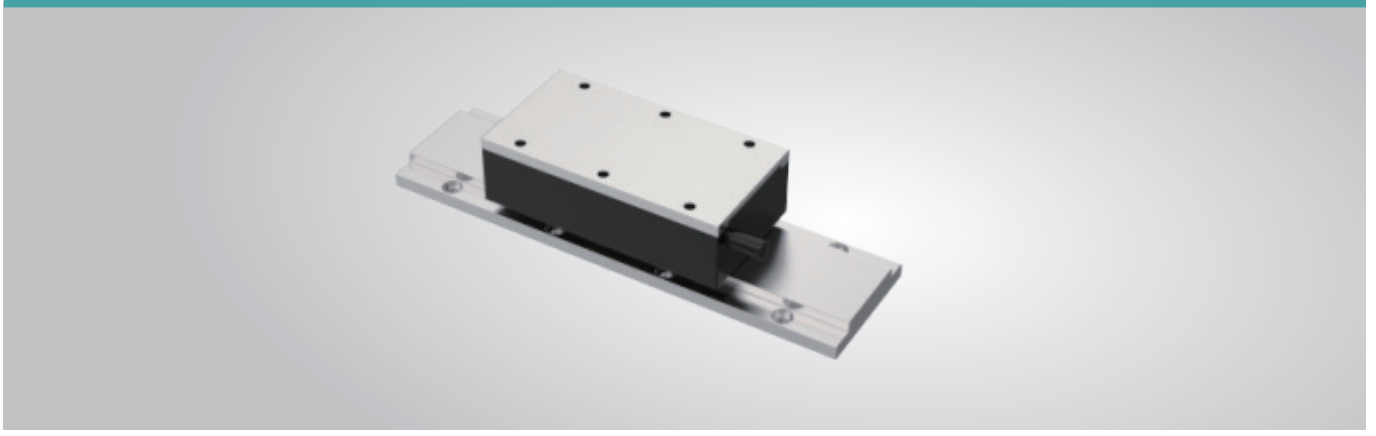


(单位:mm)	A	C	D	L	N
TMA55-150	25	50	100	150	6
TMA55-200	25	50	150	200	8
TMA55-250	25	50	200	250	10

TICAA55 series with iron core

60mm Height

55mm width

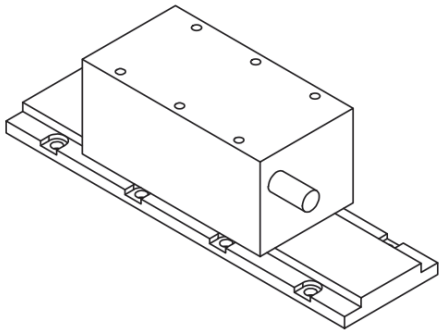


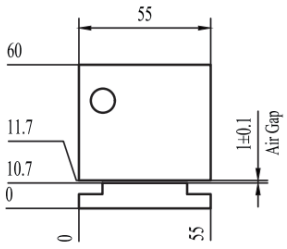
Continuous thrust	118N~471N	Peak thrust	270N~1073N	Temperature rise	< 0.05℃/W	Thrust fluctuation	< 2%

Product parameter

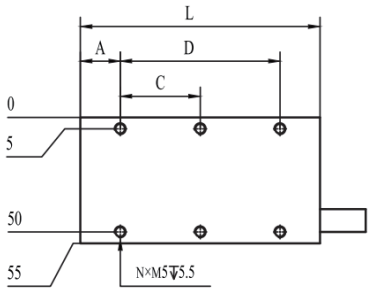
Motor Model	TICAA55-1	TICAA55-2	TICAA55-4
Winding Code	S	S	S
Performance Parameters			
Maximum Thrust (N)	270	541	1073
Continuous Thrust (N)	118	238	471
Maximum Power (W)	405	812	1609
Continuous Power (W)	178	357	707
Forward Attraction Force (N)	423	846	1691
Electrical Characteristics			
Maximum Current (Arms)	8.9	8.93	17.7
Continuous Current (Arms)	2.78	2.79	5.53
Thrust Constant (N/Arms)	42.6	85.19	85.19
Back EMF (Vpeak/m/s)	36.78	73.18	73.31
Line Resistance (Ohms)	4.19	8.37	4.15
Line Inductance (mH)	55.29	110.24	53.97
Time Constant (ms)	13.21	13.17	13.01
Motor Constant (N/$\sqrt{W}$)	17	24.04	34.16
Maximum Coil Temperature (°C)	130	130	130
Maximum Terminal Voltage (VDC)	310	310	310
Mechanical Characteristics			
Mover Length (mm)	105	198	380
Mover Mass (kg)	1.7	2.7	4.3
Stator Mass (kg/m)	3.6	3.6	3.6
Magnetic Pole Pitch (mm)	25	25	25

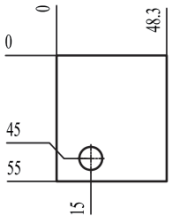
Motor outline





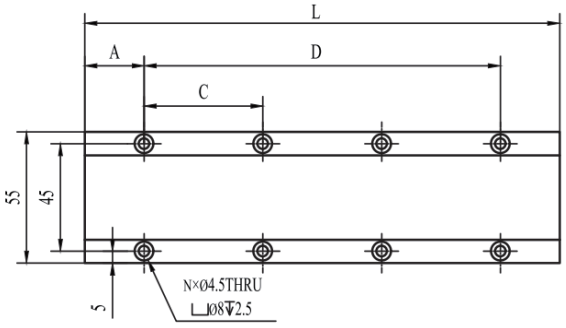
Coil profile

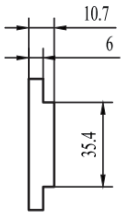




(单位:mm)	A	C	D	L	N
TICAA55-1	17.5	35	70	105	6
TICAA55-2	11.5	35	175	198	12
TICAA55-3	15	35	350	380	22

Track profile



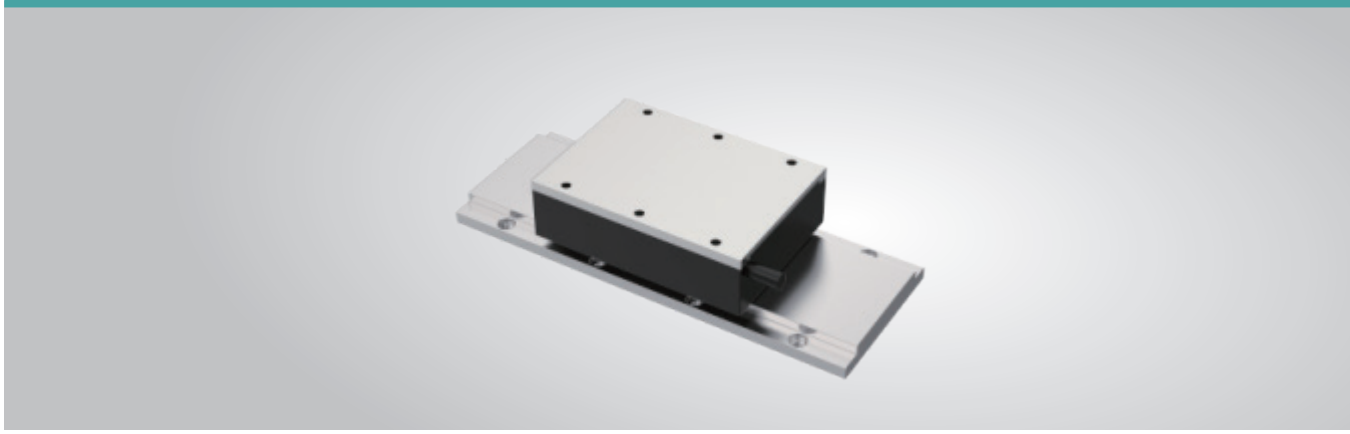


(单位:mm)	A	C	D	L	N
TMA55-150	25	50	100	150	6
TMA55-200	25	50	150	200	8
TMA55-250	25	50	200	250	10

TICA75 series with iron core

41.5mm Height

75mm width

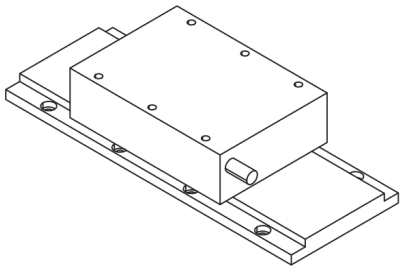


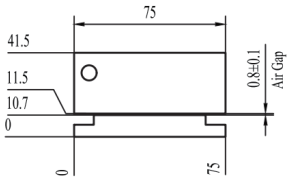
Continuous thrust	138N~414N	Peak thrust	371N~1113N	Temperature rise	< 0.05℃/W	Thrust fluctuation	< 2%

Product parameter

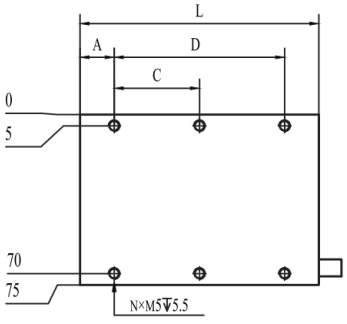
Motor Model	TICA75-1	TICA75-2		TICA75-3	
Winding Code	S	S	P	S	T
Performance Parameters					
Maximum Thrust (N)	371	742	742	1113	1113
Continuous Thrust (N)	138	276	276	414	414
Maximum Power (W)	557	1114	1114	1671	1671
Continuous Power (W)	207	414	414	621	621
Forward Attraction Force (N)	640	1280	1280	1920	1920
Electrical Characteristics					
Maximum Current (Arms)	10.31	10.31	20.62	10.31	30.93
Continuous Current (Arms)	3.23	3.23	6.46	3.23	9.69
Thrust Constant (N/Arms)	41.57	83.14	41.57	124.71	41.57
Back EMF (Vpeak/m/s)	36.7	73.4	36.7	110.1	36.7
Line Resistance (Ohms)	3.41	6.82	1.71	10.23	1.14
Line Inductance (mH)	15.66	31.32	7.83	46.98	5.22
Time Constant (ms)	4.59	4.59	4.59	4.59	4.59
Motor Constant (N/√W)	18.89	26.72	26.72	32.72	32.72
Maximum Coil Temperature (°C)	130	130	130	130	130
Maximum Terminal Voltage (VDC)	310	310	310	310	310
Mechanical Characteristics					
Mover Length (mm)	105	193	193	280	280
Mover Mass (kg)	1.16	2.1	2.1	2.5	2.5
Stator Mass (kg/m)	5.1	5.1	5.1	5.1	5.1
Magnetic Pole Pitch (mm)	25	25	25	25	25

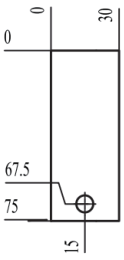
Motor outline





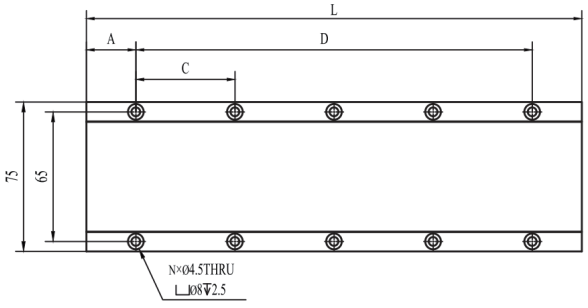
Coil profile

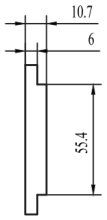




(单位:mm)	A	C	D	L	N
TICA75-1	15	37.5	75	105	6
TICA75-2	16.5	40	160	193	10
TICA75-3	20	40	240	280	14

Track profile



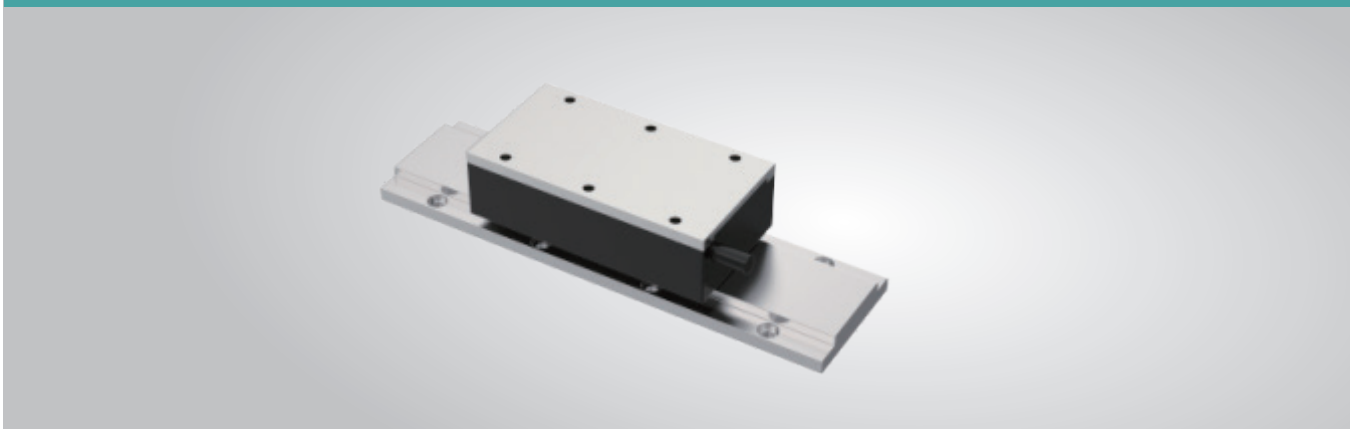


(单位:mm)	A	C	D	L	N
TMA75-150	25	50	100	150	6
TMA75-200	25	50	150	200	8
TMA75-250	25	50	200	250	10

TICAA75 series with iron core

60mm Height

75mm width



Continuous thrust 186N~739N

Peak thrust 413N~1652N

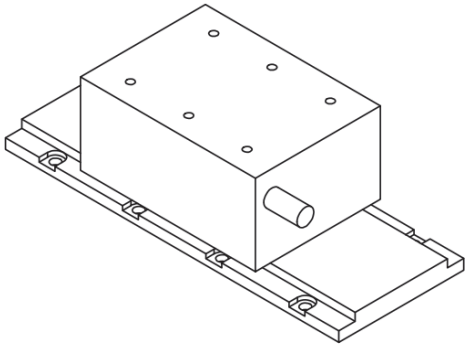
Temperature rise < 0.05℃/W

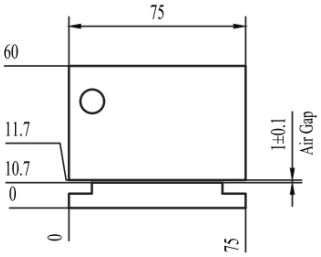
Thrust fluctuation < 2%

Product parameter

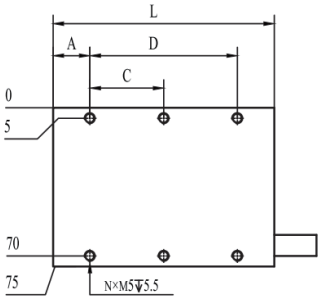
Motor Model	TICAA75-1	TICAA75-2	TICAA75-4
Winding Code	S	S	FSP
Performance Parameters			
Maximum Thrust (N)	413	826	1652
Continuous Thrust (N)	186	370	739
Maximum Power (W)	1240	2478	4956
Continuous Power (W)	557	1109	2217
Forward Attraction Force (N)	665	1329	2658
Electrical Characteristics			
Maximum Current (Arms)	8.68	8.67	17.33
Continuous Current (Arms)	2.78	2.77	5.52
Thrust Constant (N/Arms)	66.79	133.57	133.88
Back EMF (Vpeak/m/s)	57.8	115	115.2
Line Resistance (Ohms)	5.4	10.80	5.4
Line Inductance (mH)	68.54	137.08	57.04
Time Constant (ms)	12.69	12.69	10.56
Motor Constant (N/$\sqrt{W}$)	20.33	28.74	40.74
Maximum Coil Temperature (°C)	130	130	130
Maximum Terminal Voltage (VDC)	310	310	310
Mechanical Characteristics			
Mover Length (mm)	105	198	380
Mover Mass (kg)	2.1	3.8	6.5
Stator Mass (kg/m)	5.1	5.1	5.1
Magnetic Pole Pitch (mm)	25	25	25

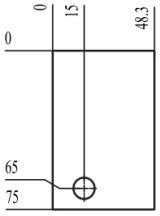
Motor outline





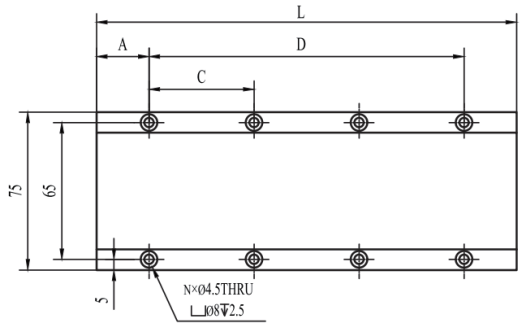
Coil profile

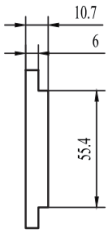




(单位:mm)	A	C	D	L	N
TICAA75-1	17.5	35	70	105	6
TICAA75-2	11.5	35	175	198	12
TICAA75-3	15	35	350	380	22

Track profile



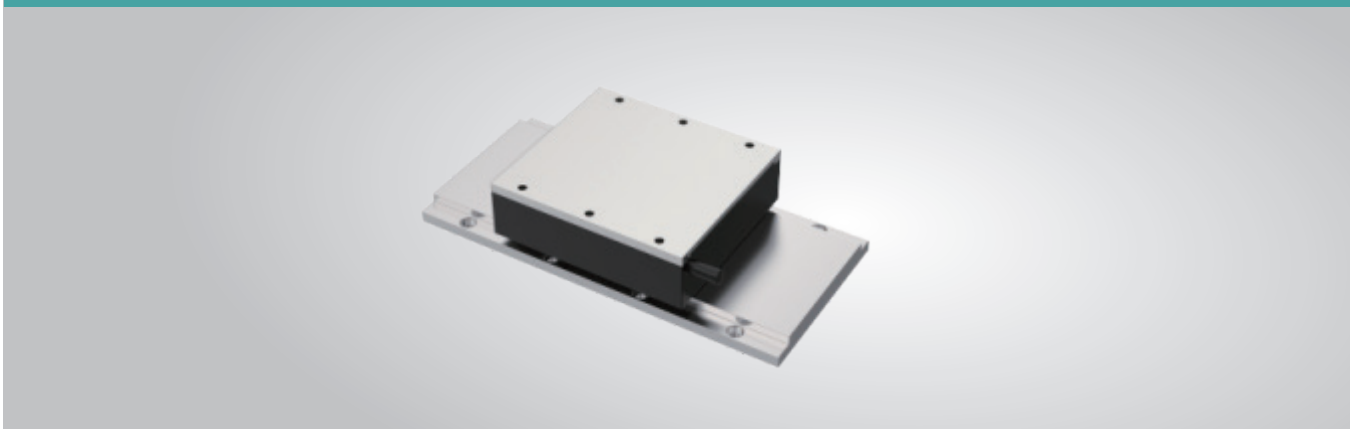


(单位:mm)	A	C	D	L	N
TMAA75-150	25	50	100	150	6
TMAA75-200	25	50	150	200	8
TMAA75-250	25	50	200	250	10

TICA95 series with iron core

41.5mm Height

95mm width



Continuous thrust 189N~567N

Peak thrust 522N~1566N

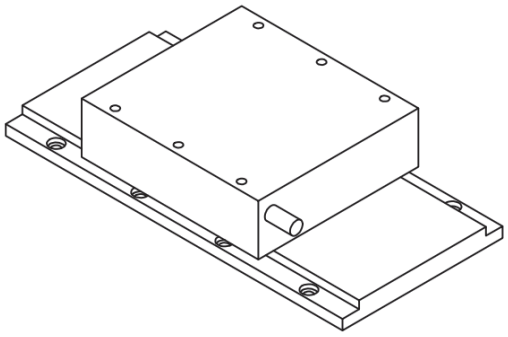
Temperature rise < 0.05℃/W

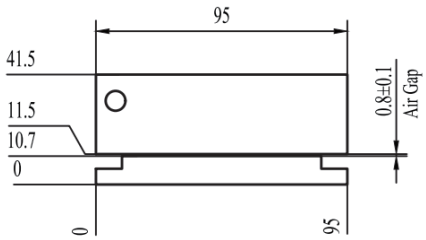
Thrust fluctuation < 2%

Product parameter

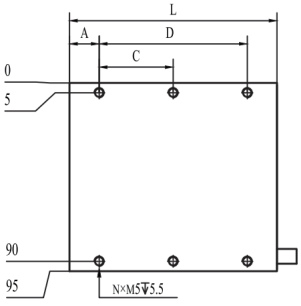
Motor Model	TICA95-1	TICA95-2		TICA95-3	
Winding Code	S	S	P	S	T
Performance Parameters					
Maximum Thrust (N)	522	1044	1044	1566	1566
Continuous Thrust (N)	189	378	378	567	567
Maximum Power (W)	783	1566	1566	2349	2349
Continuous Power (W)	283	566	566	849	849
Forward Attraction Force (N)	873	1746	1746	2619	2619
Electrical Characteristics					
Maximum Current (Arms)	10.3	10.3	20.6	10.3	30.9
Continuous Current (Arms)	3.28	3.28	6.56	3.28	9.84
Thrust Constant (N/Arms)	56.84	113.68	56.84	170.52	56.84
Back EMF (Vpeak/m/s)	50.18	100.36	50.18	150.54	50.18
Line Resistance (Ohms)	4.29	8.58	2.15	12.87	1.43
Line Inductance (mH)	23.6	47.2	11.8	70.8	7.87
Time Constant (ms)	5.5	5.5	5.5	5.5	5.5
Motor Constant (N/$\sqrt{W}$)	22.72	32.12	32.12	39.34	39.34
Maximum Coil Temperature (°C)	130	130	130	130	130
Maximum Terminal Voltage (VDC)	310	310	310	310	310
Mechanical Characteristics					
Mover Length (mm)	105	193	193	280	280
Mover Mass (kg)	1.52	2.8	2.8	3.6	3.6
Stator Mass (kg/m)	6.6	6.6	6.6	6.6	6.6
Magnetic Pole Pitch (mm)	25	25	25	25	25

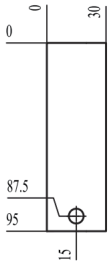
Motor outline





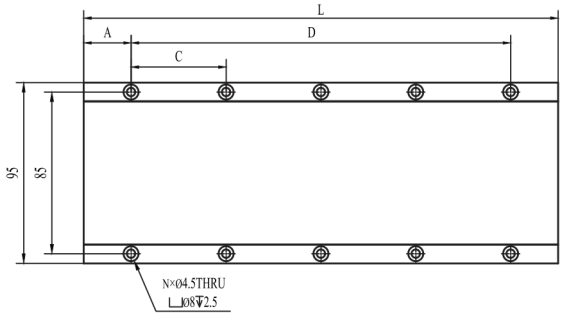
Coil profile

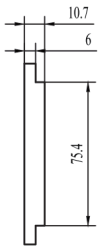




(单位:mm)	A	C	D	L	N
TICA95-1	15	37.5	75	105	6
TICA95-2	16.5	40	160	193	10
TICA95-3	20	40	240	280	14

Track profile

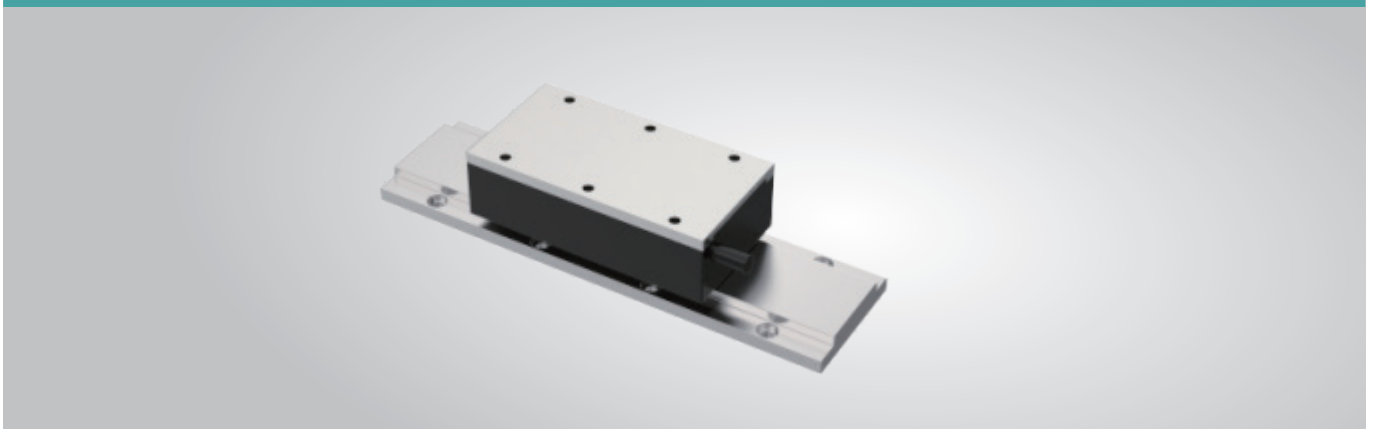




(单位:mm)	A	C	D	L	N
TMA95-150	25	50	100	150	6
TMA95-200	25	50	150	200	8
TMA95-250	25	50	200	250	10

TICAA95 series with iron core

60mm Height
95mm width

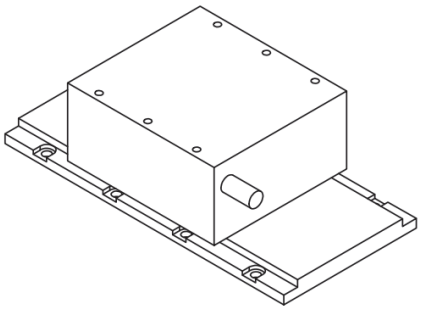


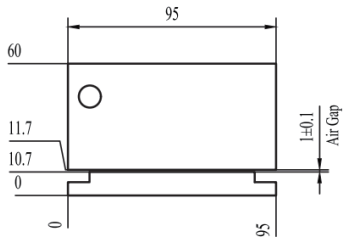
Continuous thrust 252N~1005N
Peak thrust 564N~2250N
Temperature rise < 0.05℃/W
Thrust fluctuation < 2%

Product parameter

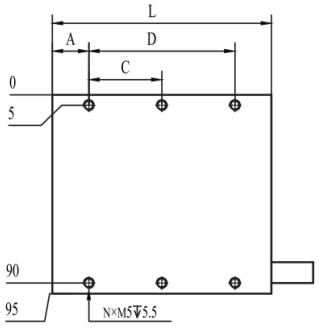
Motor Model	TICAA95-1	TICAA95-2	TICAA95-4	
Winding Code	S	S	FSP	P
Performance Parameters				
Maximum Thrust (N)	564	1128	2250	2250
Continuous Thrust (N)	252	504	1005	1005
Maximum Power (W)	1693	3386	6750	6750
Continuous Power (W)	756	1512	3014	3014
Forward Attraction Force (N)	906	1812	3625	3625
Electrical Characteristics				
Maximum Current (Arms)	8.69	8.69	17.32	34.76
Continuous Current (Arms)	2.77	2.77	5.52	11.08
Thrust Constant (N/Arms)	91.07	182.14	182.15	91.07
Back EMF (Vpeak/m/s)	78.82	157.64	157.09	78.82
Line Resistance (Ohms)	7.36	14.72	7.36	1.84
Line Inductance (mH)	93.46	186.92	93.46	23.37
Time Constant (ms)	12.69	12.69	12.69	12.69
Motor Constant (N/$\sqrt{W}$)	23.74	33.57	33.57	23.74
Maximum Coil Temperature (°C)	130	130	130	130
Maximum Terminal Voltage (VDC)	310	310	310	310
Mechanical Characteristics				
Mover Length (mm)	105	198	380	380
Mover Mass (kg)	2.9	5.1	8.4	8.4
Stator Mass (kg/m)	6.6	6.6	6.6	6.6
Magnetic Pole Pitch (mm)	25	25	25	25

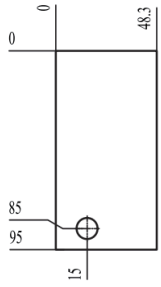
Motor outline





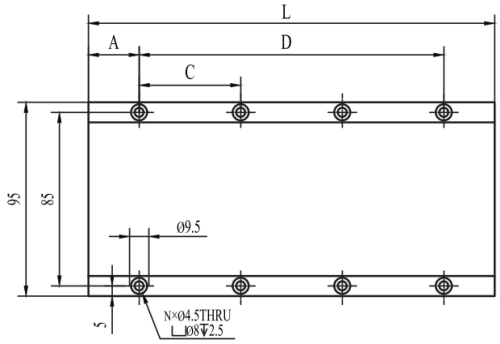
Coil profile

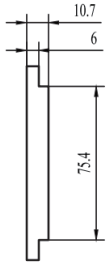




(单位:mm)	A	C	D	L	N
TICAA95-1	17.5	35	70	105	6
TICAA95-2	11.5	35	175	198	12
TICAA95-3	15	35	350	380	22

Track profile



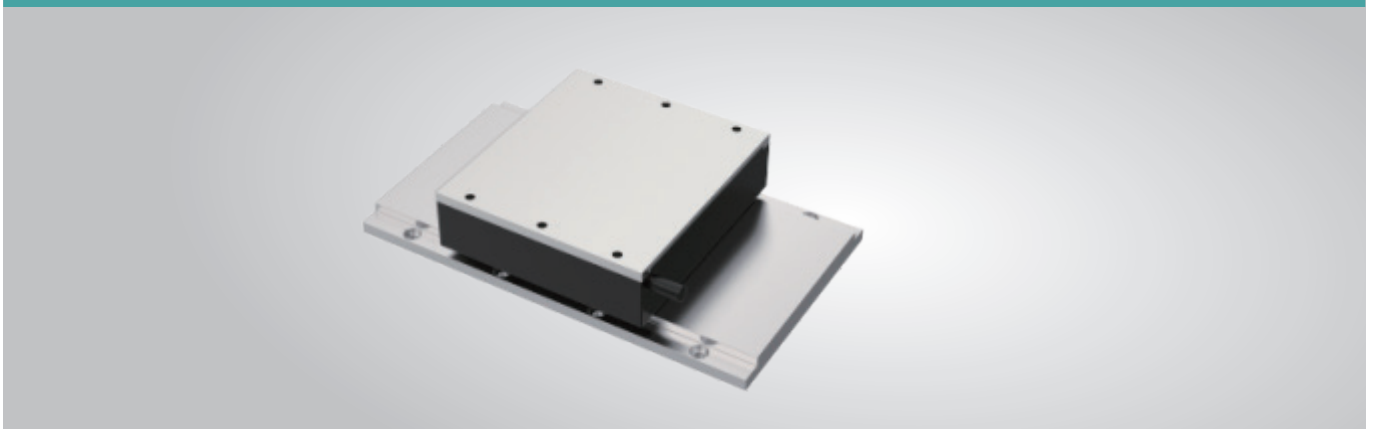


(单位:mm)	A	C	D	L	N
TMAA95-150	25	50	100	150	6
TMAA95-200	25	50	150	200	8
TMAA95-250	25	50	200	250	10

TICA115 series with iron core

41.5mm Height

115mm width



Continuous thrust 234N~702N

Peak thrust 648N~1944N

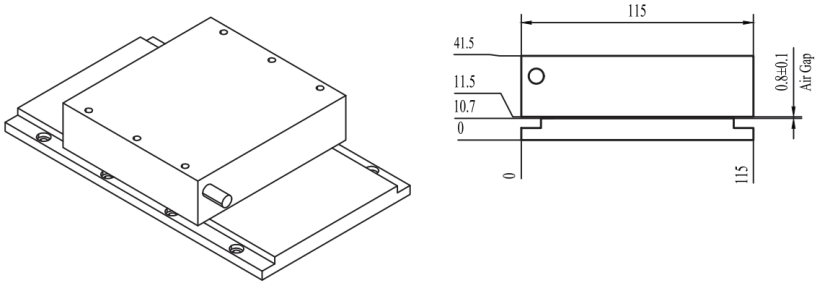
Temperature rise < 0.05℃/W

Thrust fluctuation < 2%

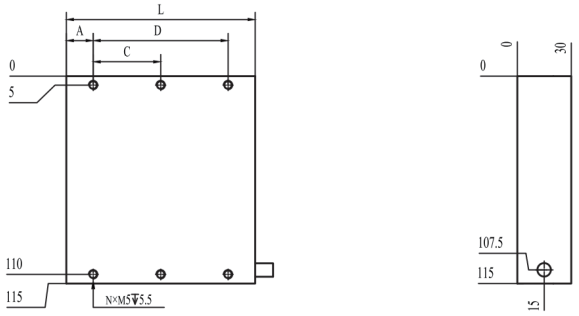
Product parameter

Motor Model	TICA115-1	TICA115-2		TICA115-3	
Winding Code	S	S	P	S	T
Performance Parameters					
Maximum Thrust (N)	648	1296	1296	1944	1944
Continuous Thrust (N)	234	468	468	702	702
Maximum Power (W)	972	1944	1944	2916	2916
Continuous Power (W)	351	702	702	1053	1053
Forward Attraction Force (N)	1105	2210	2210	3315	3315
Electrical Characteristics					
Maximum Current (Arms)	10.29	10.29	20.58	10.29	30.87
Continuous Current (Arms)	3.22	3.22	6.44	3.22	9.66
Thrust Constant (N/Arms)	72.02	144.04	72.02	216.06	72.02
Back EMF (Vpeak/m/s)	63.56	127.12	63.56	190.68	63.56
Line Resistance (Ohms)	4.2	8.4	2.1	12.6	1.4
Line Inductance (mH)	27.8	55.6	13.9	83.4	9.27
Time Constant (ms)	5.38	5.38	5.38	5.38	5.38
Motor Constant (N/$\sqrt{W}$)	28.95	40.95	40.95	50.15	50.15
Maximum Coil Temperature (°C)	130	130	130	130	130
Maximum Terminal Voltage (VDC)	310	310	310	310	310
Mechanical Characteristics					
Mover Length (mm)	105	193	193	280	280
Mover Mass (kg)	1.8	3.4	3.4	4.6	4.6
Stator Mass (kg/m)	8.2	8.2	8.2	8.2	8.2
Magnetic Pole Pitch (mm)	25	25	25	25	25

Motor outline

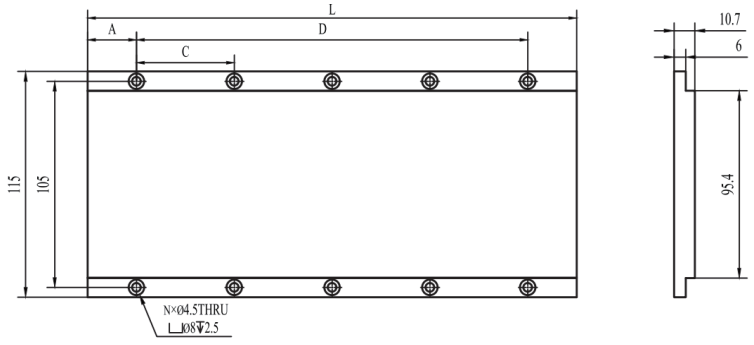


Coil profile



(单位:mm)	A	C	D	L	N
TICA115-1	15	37.5	75	105	6
TICA115-2	16.5	40	160	193	10
TICA115-3	20	40	240	280	14

Track profile

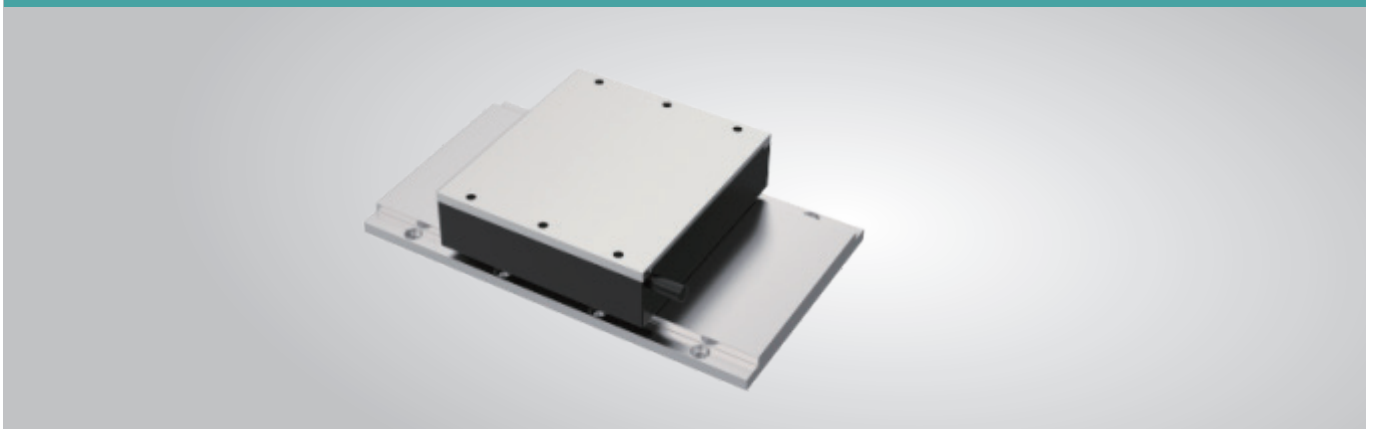


(单位:mm)	A	C	D	L	N
TMA115-150	25	50	100	150	6
TMA115-200	25	50	150	200	8
TMA115-250	25	50	200	250	10

TICA125 series with iron core

41.5mm Height

125mm width



Continuous thrust 273N~819N

Peak thrust 759N~2277N

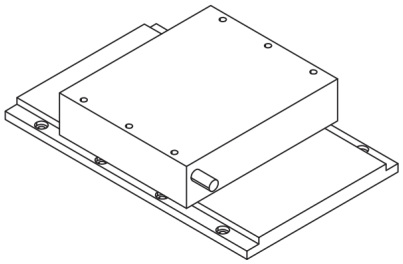
Temperature rise < 0.05℃/W

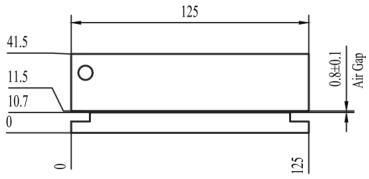
Thrust fluctuation < 2%

Product parameter

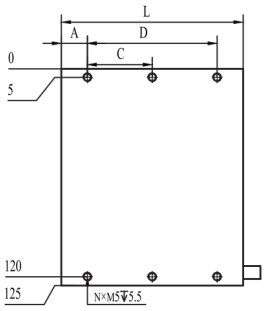
Motor Model	TICA125-1	TICA125-2		TICA125-3	
Winding Code	S	S	P	S	T
Performance Parameters					
Maximum Thrust (N)	759	1518	1518	2277	2277
Continuous Thrust (N)	273	546	546	819	819
Maximum Power (W)	1138.5	2277	2277	3415.5	3415.5
Continuous Power (W)	410	820	820	1230	1230
Forward Attraction Force (N)	1221	2442	2442	3663	3663
Electrical Characteristics					
Maximum Current (Arms)	10.28	10.28	20.56	10.28	30.84
Continuous Current (Arms)	3.38	3.38	6.76	3.38	10.14
Thrust Constant (N/Arms)	79.59	159.18	79.59	238.77	79.59
Back EMF (Vpeak/m/s)	70.25	140.5	70.25	210.75	70.25
Line Resistance (Ohms)	5.75	11.5	2.88	17.25	1.92
Line Inductance (mH)	31.46	62.92	15.73	94.38	10.49
Time Constant (ms)	5.47	5.47	5.47	5.47	5.47
Motor Constant (N/$\sqrt{W}$)	27.5	38.89	38.89	47.64	47.64
Maximum Coil Temperature (°C)	130	130	130	130	130
Maximum Terminal Voltage (VDC)	310	310	310	310	310
Mechanical Characteristics					
Mover Length (mm)	105	193	193	280	280
Mover Mass (kg)	2	4.3	4.3	5.9	5.9
Stator Mass (kg/m)	8.9	8.9	8.9	8.9	8.9
Magnetic Pole Pitch (mm)	25	25	25	25	25

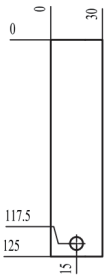
Motor outline





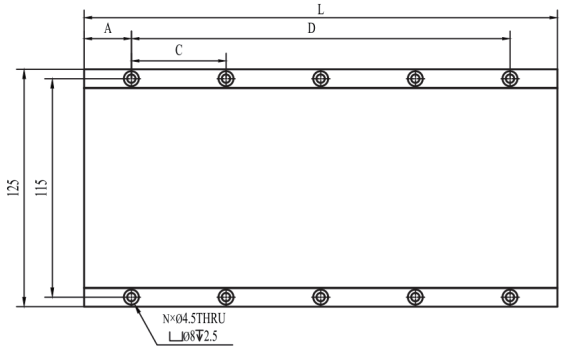
Coil profile





(单位:mm)	A	C	D	L	N
TICA125-1	15	37.5	75	105	6
TICA125-2	16.5	40	160	193	10
TICA125-3	20	40	240	280	14

Track profile

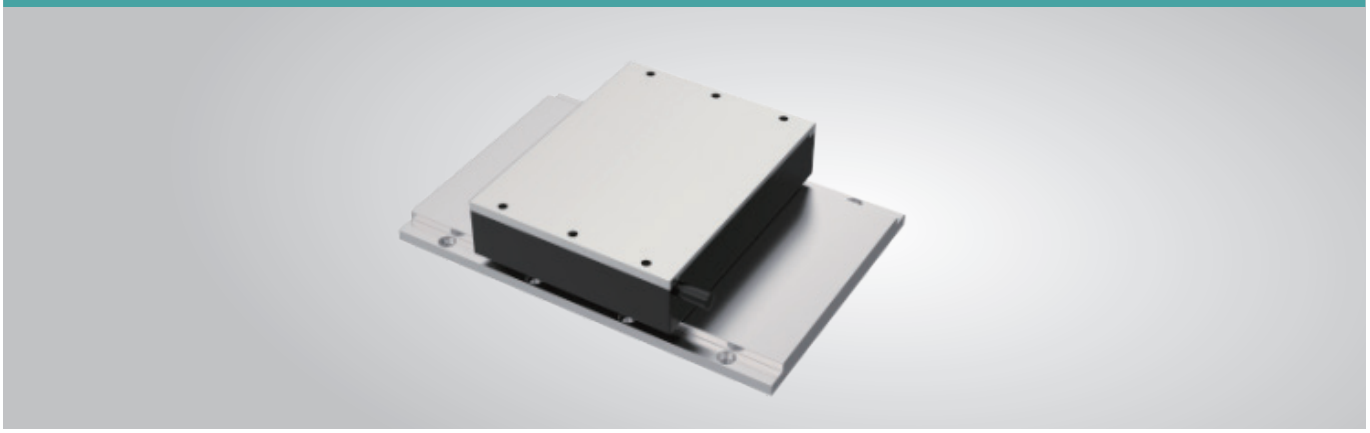


(单位:mm)	A	C	D	L	N
TMA125-150	25	50	100	150	6
TMA125-200	25	50	150	200	8
TMA125-250	25	50	200	250	10

TICA135 series with iron core

41.5mm Height

135mm width



Continuous thrust 294N~882N

Peak thrust 851N~2553N

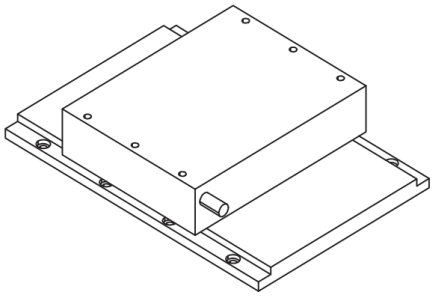
Temperature rise < 0.05℃/W

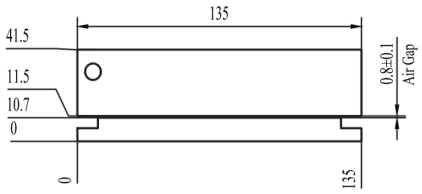
Thrust fluctuation < 2%

Product parameter

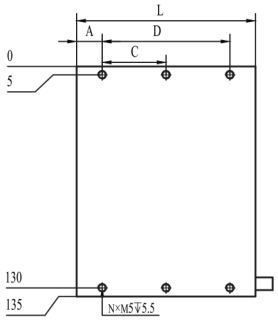
Motor Model	TICA135-1	TICA135-2		TICA135-3	
Winding Code	S	S	P	S	T
Performance Parameters					
Maximum Thrust (N)	851	1702	1702	2553	2553
Continuous Thrust (N)	294	588	588	882	882
Maximum Power (W)	1276	2552	2552	3828	3828
Continuous Power (W)	441	882	882	1323	1323
Forward Attraction Force (N)	1741	3482	3482	5223	5223
Electrical Characteristics					
Maximum Current (Arms)	10.31	10.31	20.62	10.31	30.93
Continuous Current (Arms)	3.38	3.38	6.76	3.38	10.14
Thrust Constant (N/Arms)	80.77	161.54	80.77	242.31	80.77
Back EMF (Vpeak/m/s)	70.26	140.52	70.26	210.78	70.26
Line Resistance (Ohms)	6.9	13.8	3.45	20.7	2.3
Line Inductance (mH)	34.8	69.6	17.4	104.4	11.6
Time Constant (ms)	4.58	4.58	4.58	4.58	4.58
Motor Constant (N/$\sqrt{W}$)	27.04	38.24	38.24	46.83	46.83
Maximum Coil Temperature (°C)	130	130	130	130	130
Maximum Terminal Voltage (VDC)	310	310	310	310	310
Mechanical Characteristics					
Mover Length (mm)	105	193	193	280	280
Mover Mass (kg)	2	4.3	4.3	5.9	5.9
Stator Mass (kg/m)	8.9	8.9	8.9	8.9	8.9
Magnetic Pole Pitch (mm)	25	25	25	25	25

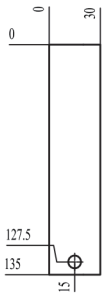
Motor outline





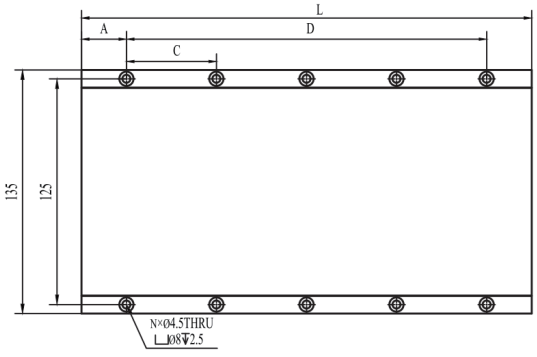
Coil profile

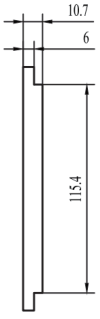




(单位:mm)	A	C	D	L	N
TICA135-1	15	37.5	75	105	6
TICA135-2	16.5	40	160	193	10
TICA135-3	20	40	240	280	14

Track profile



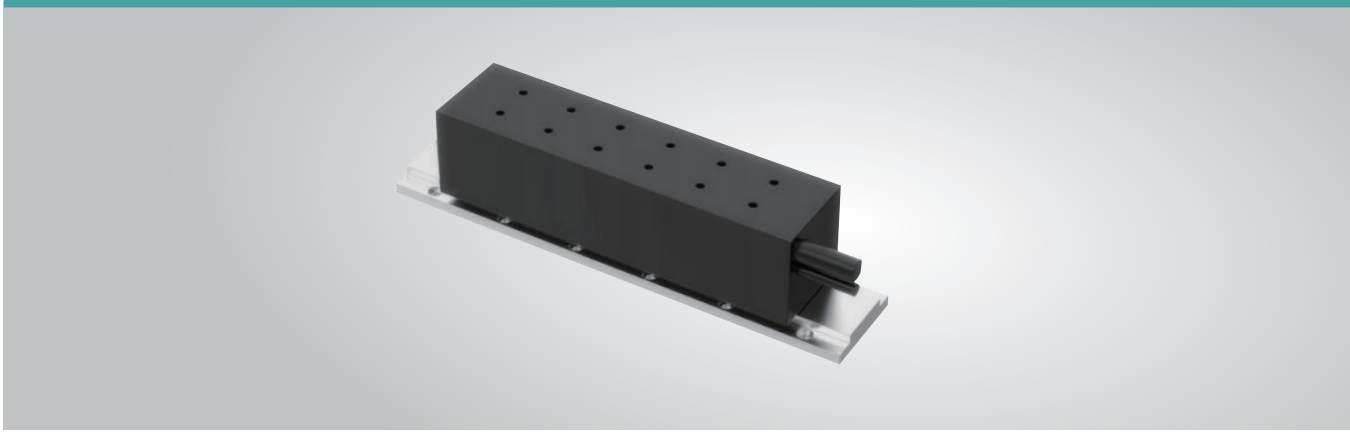


(单位:mm)	A	C	D	L	N
TMA135-150	25	50	100	150	6
TMA135-200	25	50	150	200	8
TMA135-250	25	50	200	250	10

TICG50 series with iron core

60.8mm Height

51mm width

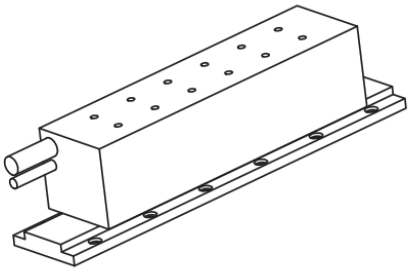


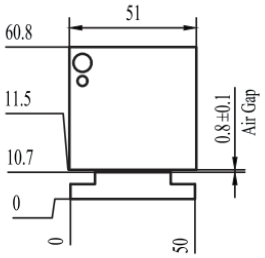
Continuous thrust	119.4N~477.6N	Peak thrust	253.5N~1014N	Temperature rise	< 0.06℃/W	Thrust fluctuation	< 2%

Product parameter

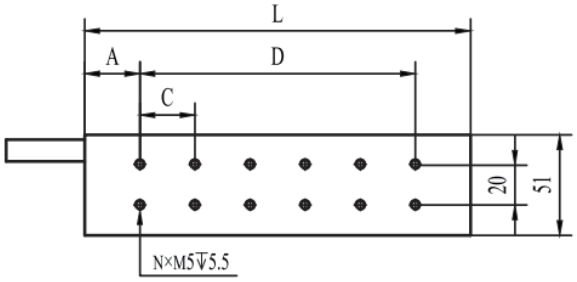
Motor Model	TICG50-1	TICG50-2	TICG50-4
Winding Code	S	S	FSP
Performance Parameters			
Maximum Thrust (N)	253.5	507	1014
Continuous Thrust (N)	119.4	238.8	477.6
Maximum Power (W)	760.5	1521	3042
Continuous Power (W)	358.2	716.4	1432.8
Forward Attraction Force (N)	390	780	1560
Electrical Characteristics			
Maximum Current (Arms)	14.52	14.52	29.04
Continuous Current (Arms)	4.84	4.84	9.68
Thrust Constant (N/Arms)	24.67	49.34	49.34
Back EMF (Vpeak/m/s)	20.31	40.63	40.63
Line Resistance (Ohms)	0.86	1.72	0.86
Line Inductance (mH)	19.8	39.6	19.8
Time Constant (ms)	23.02	23.02	23.02
Motor Constant (N/$\sqrt{W}$)	21.72	30.72	43.33
Maximum Coil Temperature (°C)	130	130	130
Maximum Terminal Voltage (VDC)	600	600	600
Mechanical Characteristics			
Mover Length (mm)	112	196	364
Mover Mass (kg)	1.5	2.7	5.1
Stator Mass (kg/m)	2.5	2.5	2.5
Magnetic Pole Pitch (mm)	42	42	42

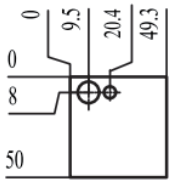
Motor outline





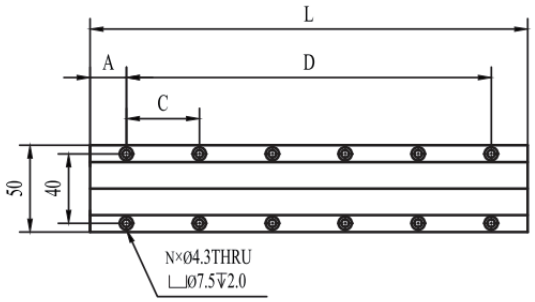
Coil profile

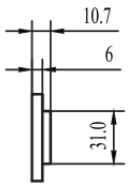




(单位:mm)	A	C	D	L	N
TICG50-1	28	28	56	112	6
TICG50-2	28	28	140	196	12
TICG50-4	28	28	308	364	24

Track profile



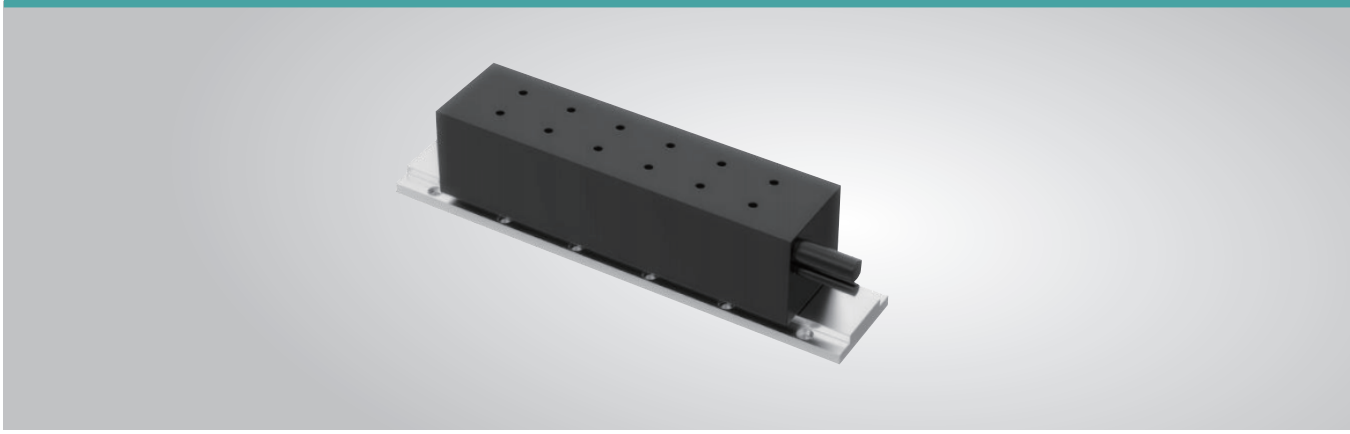


(单位:mm)	A	C	D	L	N
TMG50-168	21	42	126	168	8
TMG50-252	21	42	210	252	12
TMG50-420	21	42	378	420	20

TICG70 series with iron core

60.8mm Height

71mm width

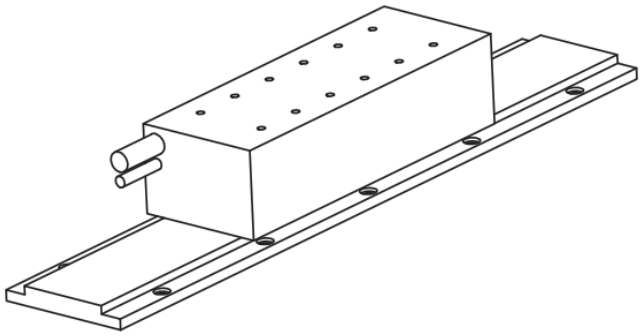


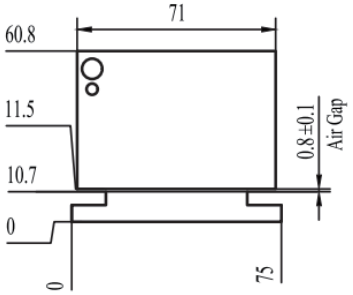
Continuous thrust	199N~796N	Peak thrust	422.5N~1690N	Temperature rise	< 0.06℃/W	Thrust fluctuation	< 2%

Product parameter

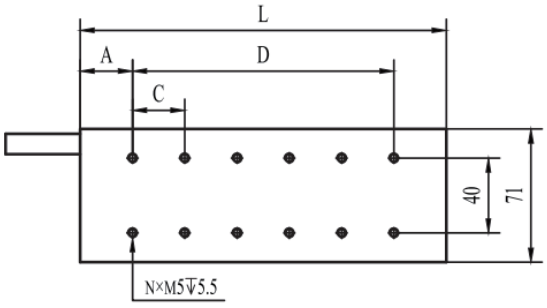
Motor Model	TICG70-1	TICG70-2	TICG70-4
Winding Code	S	S	FSP
Performance Parameters			
Maximum Thrust (N)	422.5	845	1690
Continuous Thrust (N)	199	398	796
Maximum Power (W)	1267.5	2535	5070
Continuous Power (W)	597	1194	2388
Forward Attraction Force (N)	650	1300	2600
Electrical Characteristics			
Maximum Current (Arms)	14.52	14.52	29.04
Continuous Current (Arms)	4.84	4.84	9.68
Thrust Constant (N/Arms)	41.12	82.23	82.23
Back EMF (Vpeak/m/s)	33.86	67.71	67.71
Line Resistance (Ohms)	1.27	2.54	1.27
Line Inductance (mH)	33	66	33
Time Constant (ms)	25.98	25.98	25.98
Motor Constant (N/√W)	29.79	42.13	59.58
Maximum Coil Temperature (°C)	130	130	130
Maximum Terminal Voltage (VDC)	600	600	600
Mechanical Characteristics			
Mover Length (mm)	112	196	364
Mover Mass (kg)	2.2	4.1	7.9
Stator Mass (kg/m)	4.7	4.7	4.7
Magnetic Pole Pitch (mm)	42	42	42

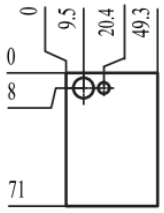
Motor outline





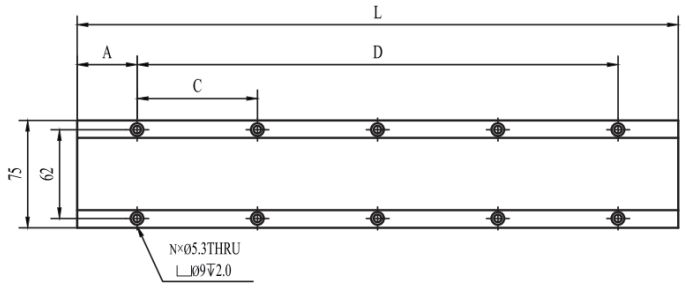
Coil profile

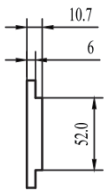




(单位:mm)	A	C	D	L	N
TICG70-1	28	28	56	112	6
TICG70-2	28	28	140	196	12
TICG70-4	28	28	308	364	24

Track profile



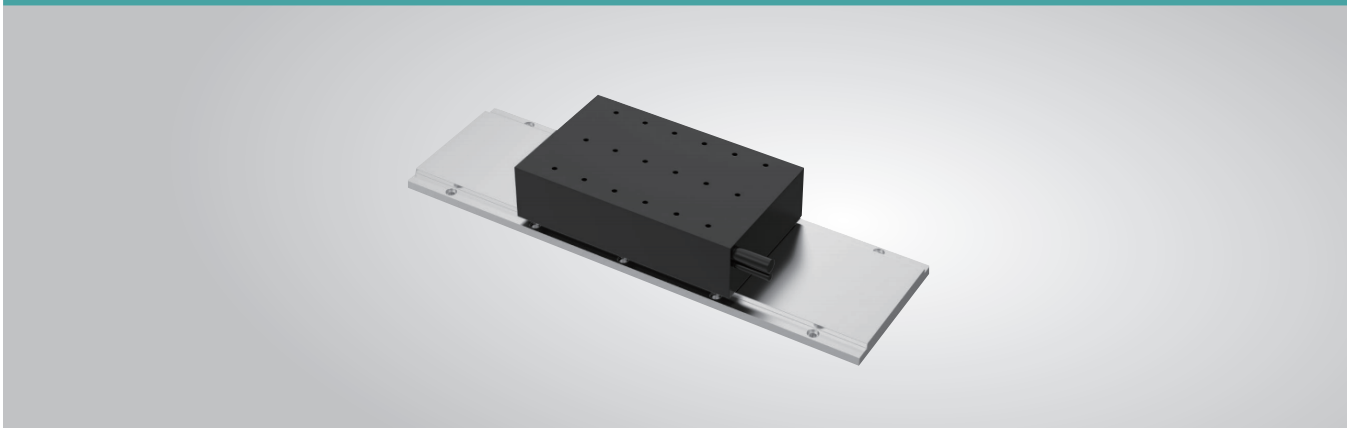


(单位:mm)	A	C	D	L	N
TMG70-168	42	84	84	168	8
TMG70-252	42	84	168	252	12
TMG70-420	42	84	336	420	20

TICG120 series with iron core

60.8mm Height

121mm width

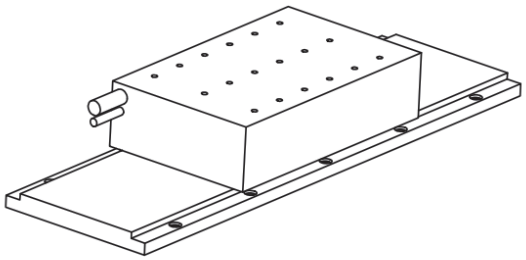


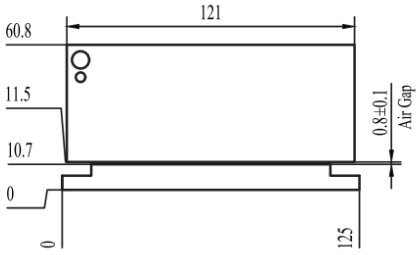
Continuous thrust	398N~1592N	Peak thrust	845N~3380N	Temperature rise	< 0.06℃/W	Thrust fluctuation	< 2%

Product parameter

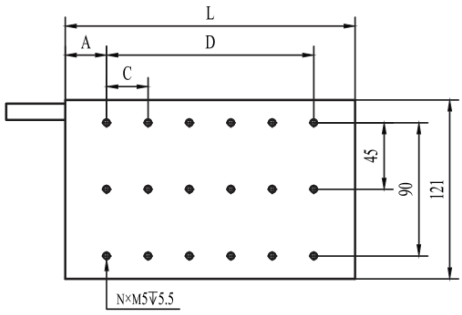
Motor Model	TICG120-1	TICG120-2	TICG120-4
Winding Code	S	S	FSP
Performance Parameters			
Maximum Thrust (N)	845	1690	3380
Continuous Thrust (N)	398	796	1592
Maximum Power (W)	2535	5070	10140
Continuous Power (W)	1194	2388	4776
Forward Attraction Force (N)	1300	2600	5200
Electrical Characteristics			
Maximum Current (Arms)	14.52	14.52	29.04
Continuous Current (Arms)	4.84	4.84	9.68
Thrust Constant (N/Arms)	82.23	164.46	164.46
Back EMF (Vpeak/m/s)	67.71	135.43	135.43
Line Resistance (Ohms)	2.3	4.6	2.3
Line Inductance (mH)	66	132	66
Time Constant (ms)	28.7	28.7	28.7
Motor Constant (N/√W)	44.27	62.61	88.54
Maximum Coil Temperature (°C)	130	130	130
Maximum Terminal Voltage (VDC)	600	600	600
Mechanical Characteristics			
Mover Length (mm)	112	196	364
Mover Mass (kg)	4	7	13.5
Stator Mass (kg/m)	8.5	8.5	8.5
Magnetic Pole Pitch (mm)	42	42	42

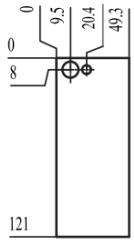
Motor outline





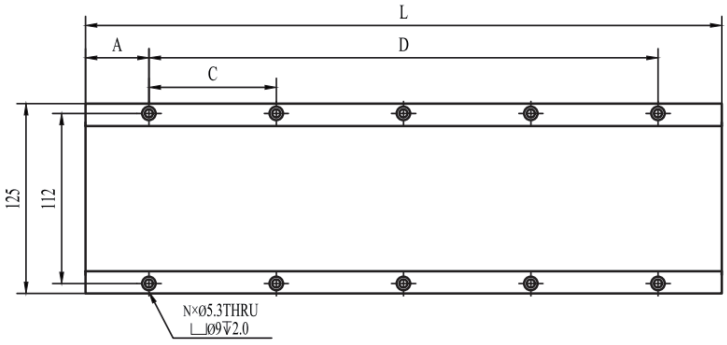
Coil profile

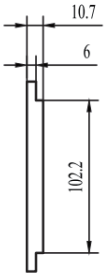




(单位:mm)	A	C	D	L	N
TICG120-1	28	28	56	112	9
TICG120-2	28	28	140	196	18
TICG120-4	28	28	308	364	36

Track profile



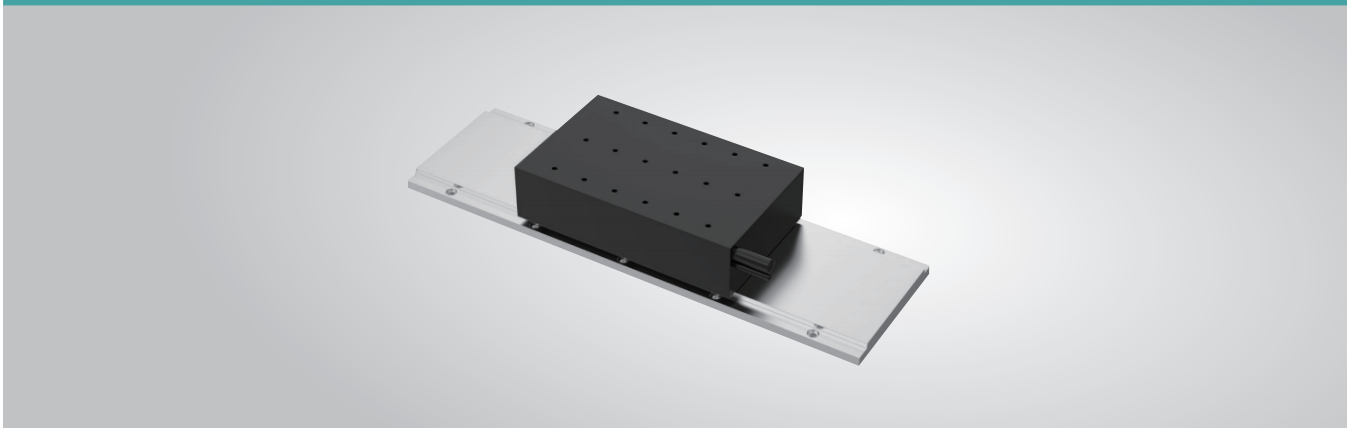


(单位:mm)	A	C	D	L	N
TMG70-168	42	84	84	168	8
TMG70-252	42	84	168	252	12
TMG70-420	42	84	336	420	20

TICG170 series with iron core

60.8mm Height

171mm width

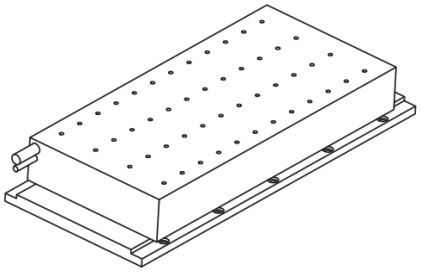


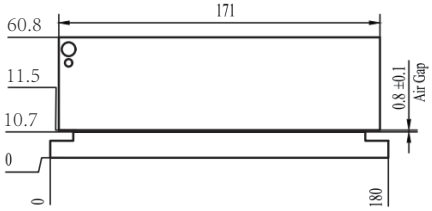
Continuous thrust	2388N~4776N	Peak thrust	5070N~10140N	Temperature rise	< 0.06℃/W	Thrust fluctuation	< 2%

Product parameter

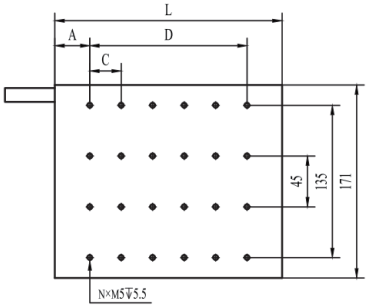
Motor Model	TICG170-4	TICG170-8
Winding Code	P	P
Performance Parameters		
Maximum Thrust (N)	5070	10140
Continuous Thrust (N)	2388	4776
Maximum Power (W)	15210	30420
Continuous Power (W)	7164	14328
Forward Attraction Force (N)	7800	15600
Electrical Characteristics		
Maximum Current (Arms)	29.04	58.08
Continuous Current (Arms)	9.68	19.36
Thrust Constant (N/Arms)	246.69	246.69
Back EMF (Vpeak/m/s)	203.14	203.14
Line Resistance (Ohms)	3.33	1.665
Line Inductance (mH)	99	49.5
Time Constant (ms)	29.73	29.73
Motor Constant (N/√W)	110.38	156.1
Maximum Coil Temperature (°C)	130	130
Maximum Terminal Voltage (VDC)	600	600
Mechanical Characteristics		
Mover Length (mm)	364	700
Mover Mass (kg)	20.2	39.4
Stator Mass (kg/m)	15.1	15.1
Magnetic Pole Pitch (mm)	42	42

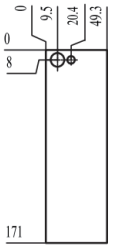
Motor outline





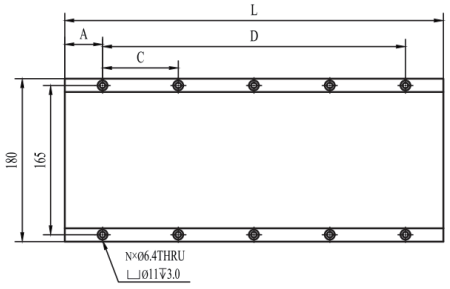
Coil profile

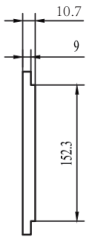




(单位:mm)	A	C	D	L	N
TICG170-4	28	28	308	364	48
TICG170-8	28	28	644	700	96

Track profile



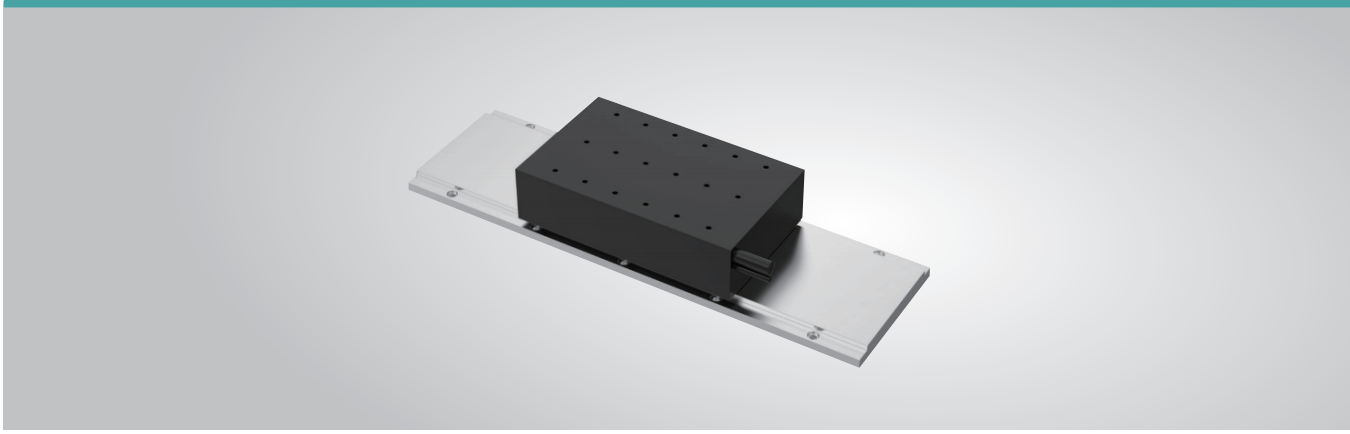


(单位:mm)	A	C	D	L	N
TMG170-168	42	84	84	168	8
TMG170-252	42	84	168	252	12
TMG170-420	42	84	336	420	20

TICG220 series with iron core

60.8mm Height

221mm width



Continuous thrust 3184N~6368N

Peak thrust 6760N~13520N

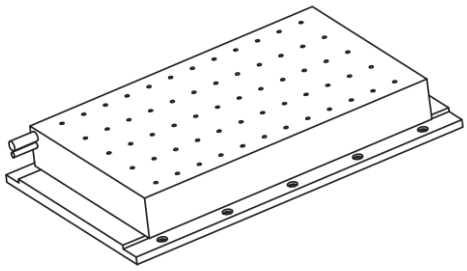
Temperature rise < 0.06℃/W

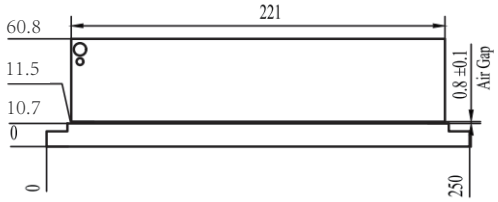
Thrust fluctuation < 2%

Product parameter

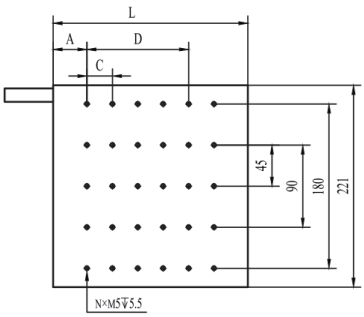
Motor Model	TICG220-4	TICG220-8
Winding Code	P	P
Performance Parameters		
Maximum Thrust (N)	6760	13520
Continuous Thrust (N)	3184	6368
Maximum Power (W)	20280	40560
Continuous Power (W)	9552	19104
Forward Attraction Force (N)	10400	20800
Electrical Characteristics		
Maximum Current (Arms)	29.04	58.08
Continuous Current (Arms)	9.68	19.36
Thrust Constant (N/Arms)	328.93	328.93
Back EMF (Vpeak/m/s)	270.85	270.85
Line Resistance (Ohms)	4.36	2.18
Line Inductance (mH)	132	66
Time Constant (ms)	30.28	30.28
Motor Constant (N/√W)	128.62	181.9
Maximum Coil Temperature (°C)	130	130
Maximum Terminal Voltage (VDC)	600	600
Mechanical Characteristics		
Mover Length (mm)	364	700
Mover Mass (kg)	26.5	51.6
Stator Mass (kg/m)	22.3	22.3
Magnetic Pole Pitch (mm)	42	42

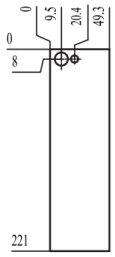
Motor outline





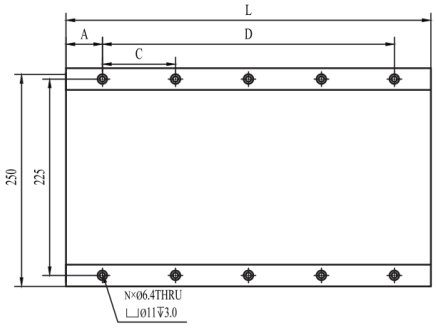
Coil profile

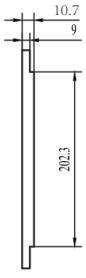




(单位:mm)	A	C	D	L	N
TICG220-4	28	28	308	364	60
TICG220-8	28	28	644	700	120

Track profile





(单位:mm)	A	C	D	L	N
TMG220-168	42	84	84	168	4
TMG220-252	42	84	168	252	6
TMG220-420	42	84	336	420	10

04 CORELESS LINEAR MOTOR

Intro

An iron core linear motor has a structure without a wound coil on the core, making it lightweight and free from normal attraction force. Additionally, the special double-row magnet structure eliminates cogging force. This type of motor is more suitable for applications requiring extremely high precision, stable operation, light load, and high-acceleration movement.

Advantage

❶ Zero Magnetic Attraction

❷ Zero Cogging Effect

❸ Lightweight Coil Assembly

❹ Easy to Install

Disadvantages

❶ Higher Thermal Resistance

❷ Longer Heat Dissipation Path with Smaller Surface Area, Low Power in Full-Load Applications, Twice the Cost Compared to Iron Core Magnet Parts

Application Industry

3C industry (Computers, Communication, Consumer electronics)
Semiconductor industry
Automotive industry
LCD panel industry
.....
New energy industry
Photovoltaic industry
Laser processing industry

TU series coreless linear motor order specifications

Coil Model:

TU A38 - 1P - 5H

Motor Type	
code	description
TU	coreless motor
TUMP	micro motor

Coil/Magnet Assembly Width	
code	description
A	65mm
B	93mm
C	125mm

coil Width	
code	description
38	38.1mm
48	48mm
- -	- - -

Coil Length	
code	description
1	61mm
2	121mm
3	181mm
4	241mm
5	301mm
6	361mm
7	481mm
8	601mm
- -	- - -

Sensor Option	
code	description
null	no sensor
H	with Hall sensor

Cable Length	
code	description
0.5	0.5m
3	3m
null	5m
- -	- - -

Winding Type	
code	description
null	S (See Parameter Table)
P	See Parameter Table
T	See Parameter Table

Magnetic Rail Model:

TUM A38 -120

Motor Type	
code	description
TU	coreless motor
TUMP	micro motor

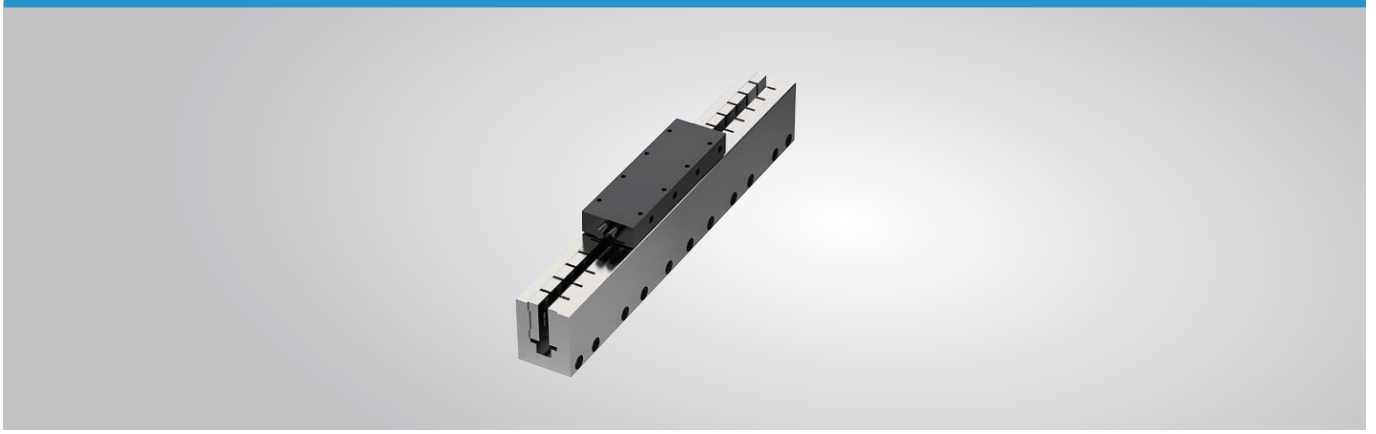
Coil/Magnet Assembly Width	
code	description
A	65mm
B	93mm
C	125mm

Magnetic Rail length	
code	description
120	120mm
180	180mm
240	240mm
300	300mm
- -	- - -

Coil Width	
code	description
38	38.1mm
48	48mm
- -	- - -

Coreless TUA38 series

65mm Height
38.1mm width

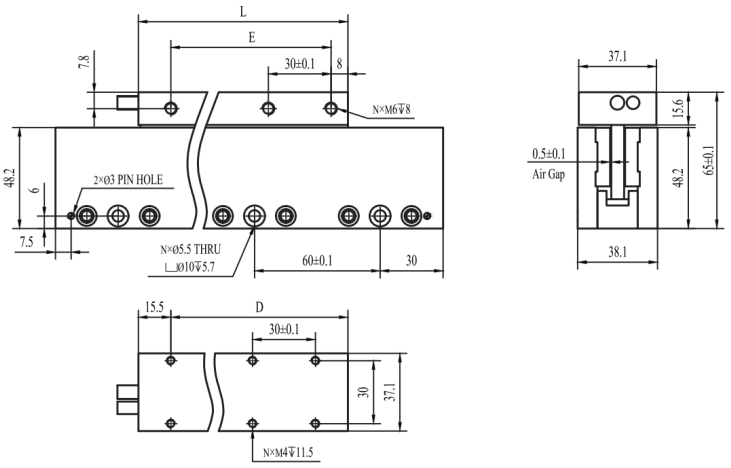


Continuous thrust 26N~130N
Peak thrust 144N~720N
Temperature rise < 0.07℃/W
Thrust fluctuation < 0.15%

Product parameter

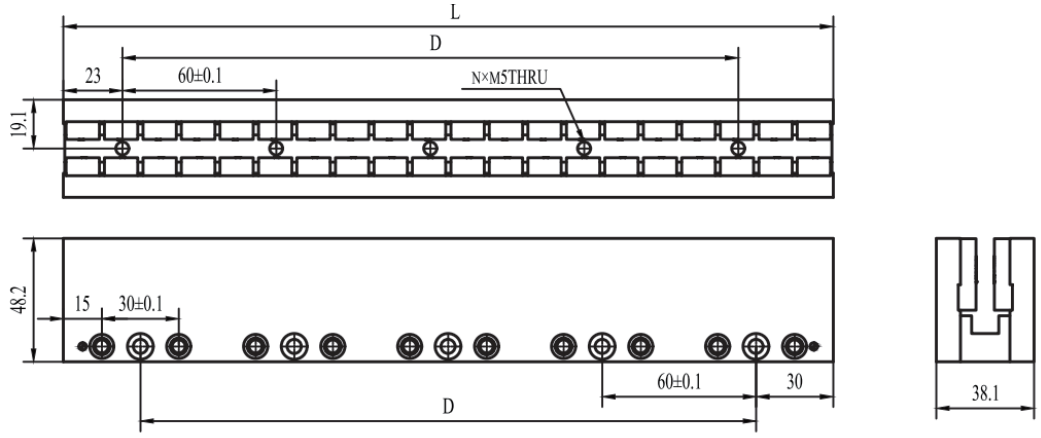
Motor Model	TUA38-1	TUA38-2	TUA38-3	TUA38-4	TUA38-5
Winding Code	S	S	S	S	S
Performance Parameters					
Maximum Thrust (N)	144	288	432	576	720
Continuous Thrust (N)	26	52	78	104	130
Maximum Power (W)	216	432	648	864	1080
Continuous Power (W)	39	78	117	156	195
Forward Attraction Force (N)	0	0	0	0	0
Electrical Characteristics					
Maximum Current (Arms)	14.3	14.3	14.3	14.3	14.3
Continuous Current (Arms)	2.54	2.54	2.54	2.54	2.54
Thrust Constant (N/Arms)	10.27	20.53	30.8	41.06	51.33
Back EMF (Vpeak/m/s)	8	16	24	32	40
Line Resistance (Ohms)	2.25	4.5	6.75	9	11.25
Line Inductance (mH)	0.53	1.07	1.59	2.14	2.66
Time Constant (ms)	0.24	0.24	0.24	0.24	0.24
Motor Constant (N/$\sqrt{W}$)	4.84	6.84	8.38	9.68	10.82
Maximum Coil Temperature (°C)	130	130	130	130	130
Maximum Terminal Voltage (VDC)	310	310	310	310	310
Mechanical Characteristics					
Mover Length (mm)	61	121	181	241	301
Mover Mass (kg)	0.15	0.3	0.45	0.6	0.75
Stator Mass (kg/m)	11	11	11	11	11
Magnetic Pole Pitch (mm)	30	30	30	30	30

Motor outline



(单位:mm)	D	E	L	N
TUA38-1	30	30	61	4
TUA38-2	90	90	121	8
TUA38-3	150	150	181	12
TUA38-4	210	210	241	16
TUA38-5	270	270	301	20

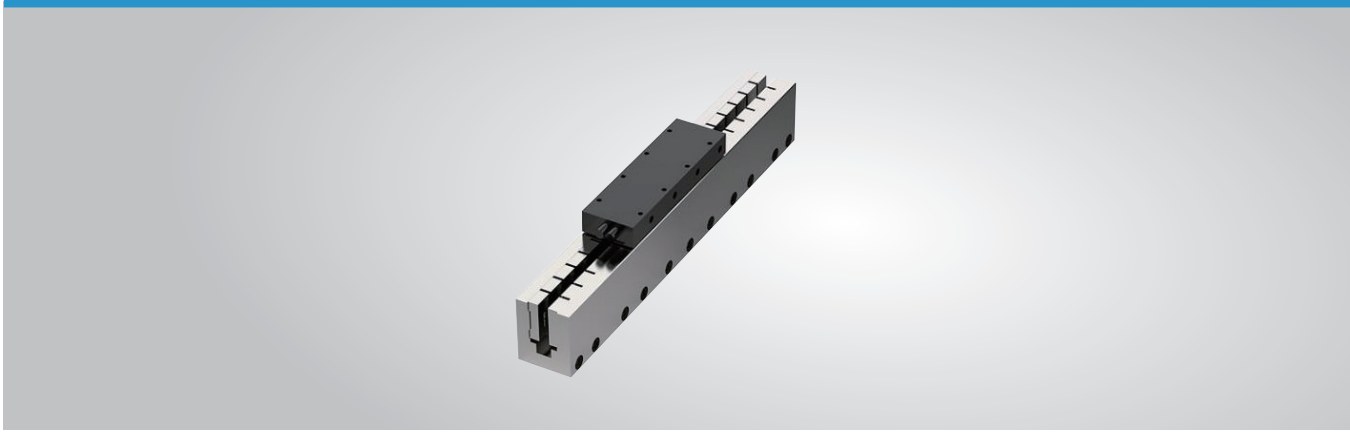
Track profile



(单位:mm)	L	N	D
TUMA38-120	120	2	60
TUMA38-180	180	3	120
TUMA38-240	240	4	180
TUMA38-300	300	5	240

Coreless TUB38 series

93mm Height
38.1mm width

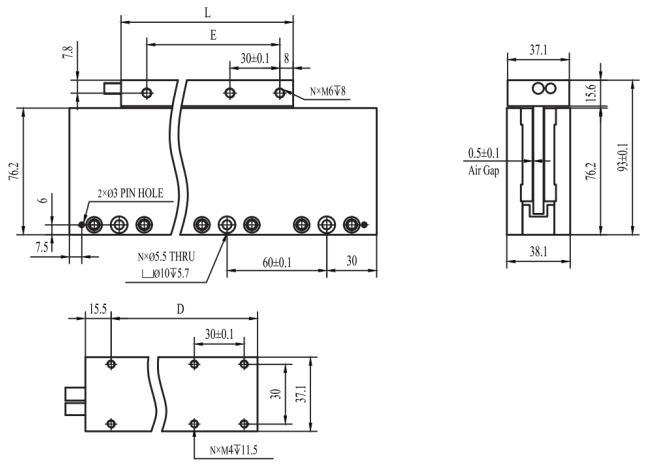


Continuous thrust 51N~255N
Peak thrust 288N~1440N
Temperature rise < 0.07°C/W
Thrust fluctuation < 0.15%

Product parameter

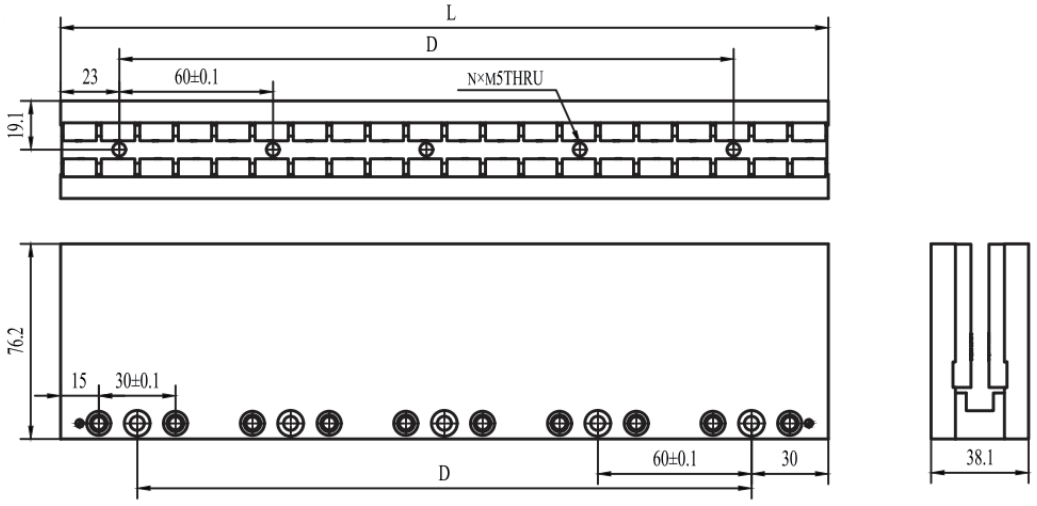
Motor Model	TUB38-1	TUB38-2	TUB38-3	TUB38-4	TUB38-5
Winding Code	S	S	S	S	S
Performance Parameters					
Maximum Thrust (N)	288	576	864	1152	1440
Continuous Thrust (N)	51	102	153	204	255
Maximum Power (W)	432	864	1296	1728	2160
Continuous Power (W)	76.5	153	229.5	306	382.5
Forward Attraction Force (N)	0	0	0	0	0
Electrical Characteristics					
Maximum Current (Arms)	14.3	14.3	14.3	14.3	14.3
Continuous Current (Arms)	2.54	2.54	2.54	2.54	2.54
Thrust Constant (N/Arms)	20.15	40.3	60.45	80.6	100.75
Back EMF (Vpeak/m/s)	16	32	48	64	80
Line Resistance (Ohms)	3.3	6.6	9.9	13.2	16.5
Line Inductance (mH)	1.07	2.14	3.21	4.28	5.35
Time Constant (ms)	0.33	0.33	0.33	0.33	0.33
Motor Constant (N/√W)	7.84	11.09	13.59	15.69	17.54
Maximum Coil Temperature (°C)	130	130	130	130	130
Maximum Terminal Voltage (VDC)	310	310	310	310	310
Mechanical Characteristics					
Mover Length (mm)	61	121	181	241	301
Mover Mass (kg)	0.2	0.4	0.6	0.8	1
Stator Mass (kg/m)	17.5	17.5	17.5	17.5	17.5
Magnetic Pole Pitch (mm)	30	30	30	30	30

Motor outline



(单位:mm)	D	E	L	N
TUB38-1	30	30	61	4
TUB38-2	90	90	121	8
TUB38-3	150	150	181	12
TUB38-4	210	210	241	16
TUB38-5	270	270	301	20

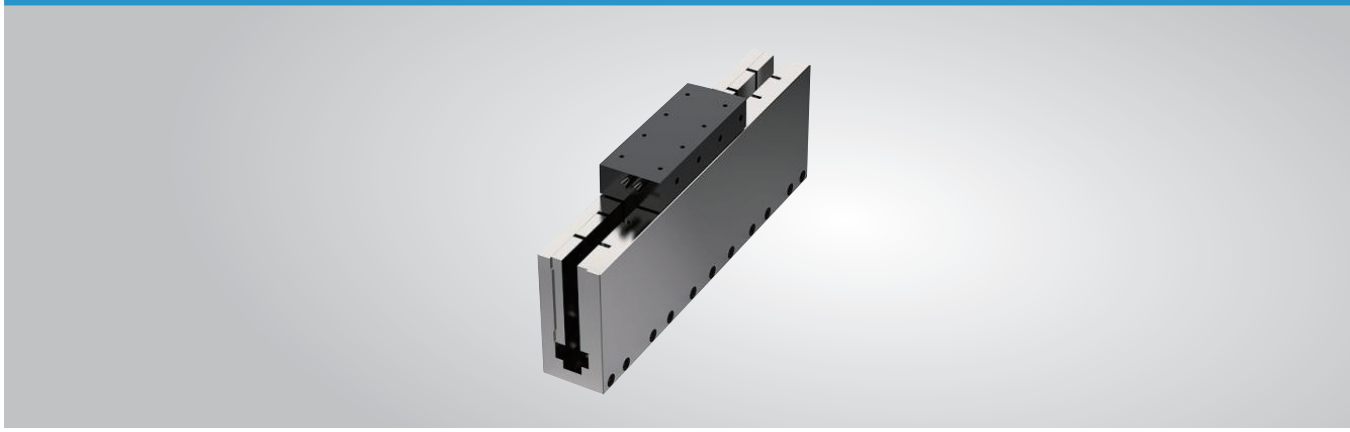
Track profile



(单位:mm)	L	N	D
TUMB38-120	120	2	60
TUMB38-180	180	3	120
TUMB38-240	240	4	180
TUMB38-300	300	5	240

Coreless TUC48 series

125mm Height
48mm width

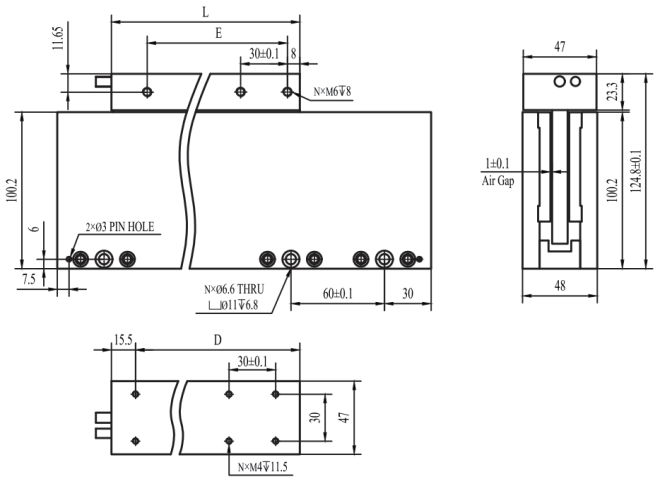


Continuous thrust 170N~722.5N
Peak thrust 850N~3612.5N
Temperature rise < 0.07°C/W
Thrust fluctuation < 0.15%

Product parameter

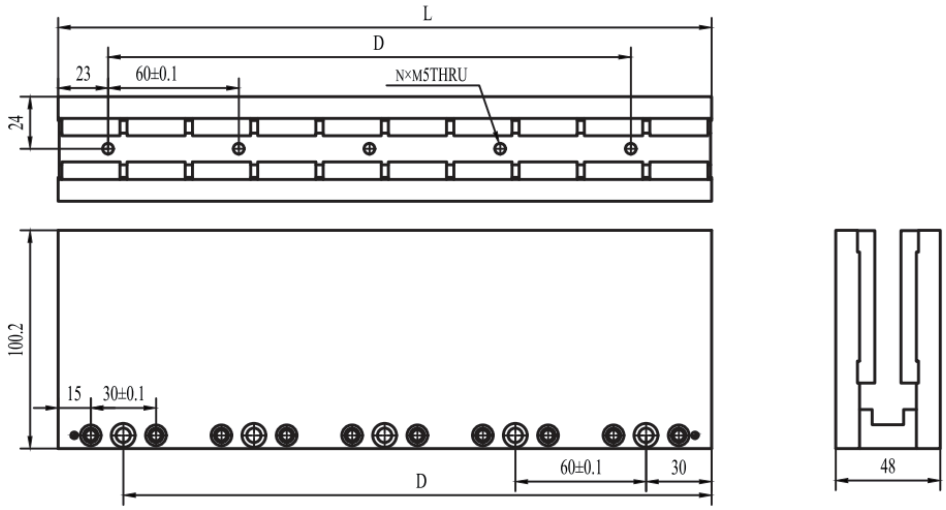
Motor Model	TUC48-1	TUC48-2	TUC48-3	TUB38-4	TUC48-5
Winding Code	S	S	S	S	S
Performance Parameters					
Maximum Thrust (N)	850	1649	2346	2992	3612.5
Continuous Thrust (N)	170	329.8	469.2	598.4	722.5
Maximum Power (W)	2550	4947	5865	5086.4	4696.3
Continuous Power (W)	510	989	1173	1017.3	939.3
Forward Attraction Force (N)	0	0	0	0	0
Electrical Characteristics					
Maximum Current (Arms)	20.7	20	18.4	18.2	17.6
Continuous Current (Arms)	4.1	4	3.7	3.6	3.5
Thrust Constant (N/Arms)	41.1	82.3	127.2	164.5	205.7
Back EMF (Vpeak/m/s)	33.4	66.8	100.2	133.6	167
Line Resistance (Ohms)	5	10	15	20	24.9
Line Inductance (mH)	5.8	11.3	17.1	23.2	29
Time Constant (ms)	1.2	1.1	1.1	1.2	1.2
Motor Constant (N/$\sqrt{W}$)	15	21.3	26.9	30.1	33.6
Maximum Coil Temperature (°C)	130	130	130	130	130
Maximum Terminal Voltage (VDC)	310	310	310	310	310
Mechanical Characteristics					
Mover Length (mm)	121	241	361	481	601
Mover Mass (kg)	0.55	0.95	1.35	1.75	2.15
Stator Mass (kg/m)	27	27	27	27	27
Magnetic Pole Pitch (mm)	60	60	60	60	60

Motor outline



(单位:mm)	D	E	L	N
TUC48-1	90	90	121	8
TUC48-2	210	210	241	16
TUC48-3	330	330	361	24
TUC48-4	450	450	481	32
TUC48-5	570	570	601	40

Track profile



(单位:mm)	L	N	D
TUMC48-120	120	2	60
TUMC48-180	180	3	120
TUMC48-240	240	4	180
TUMC48-300	300	5	240

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* All specifications, dimensions and construction shown in this catalogue are subject to change without prior notice.