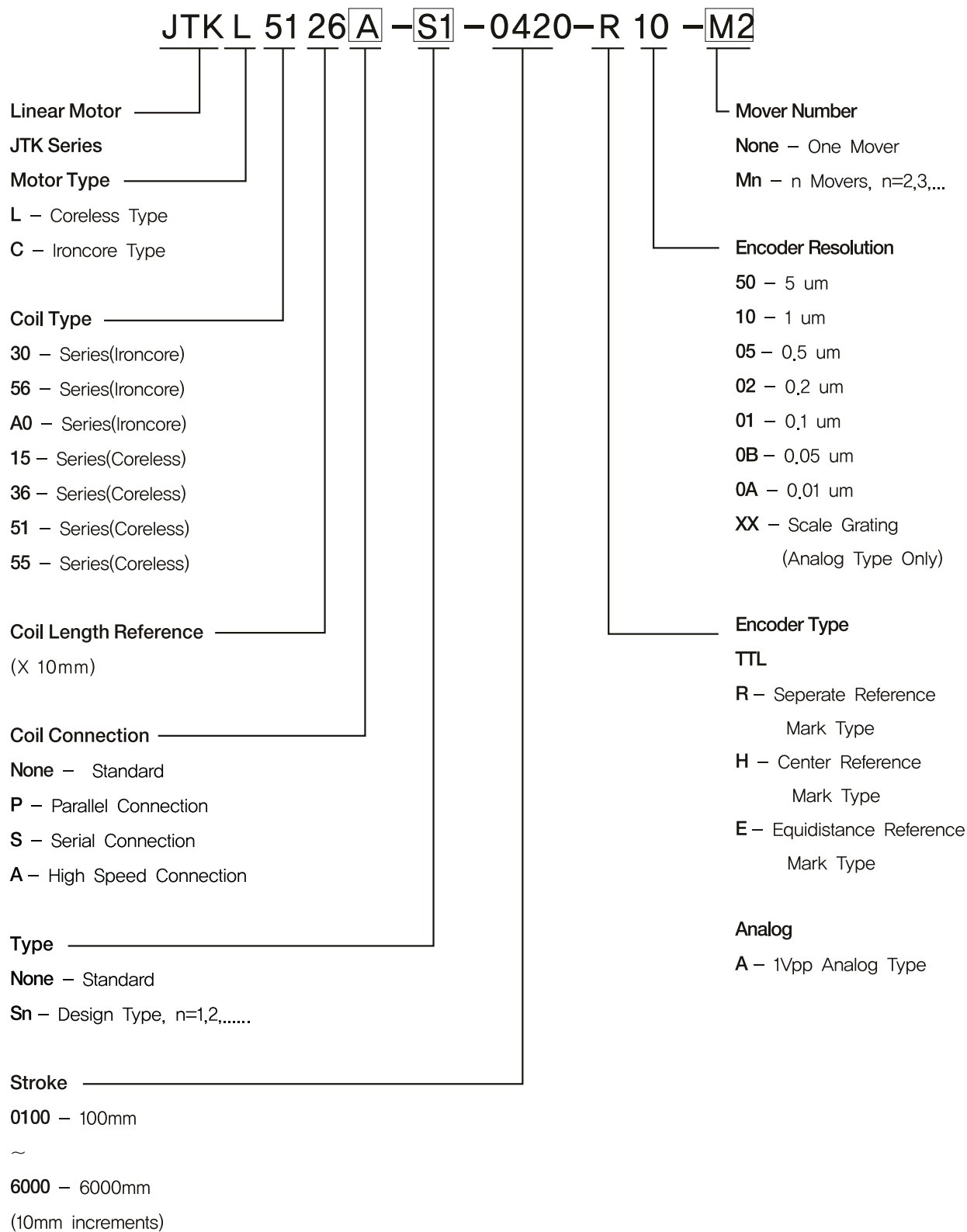


Model Name

Linear Motors : JTK Series



Specifications of Linear Motors

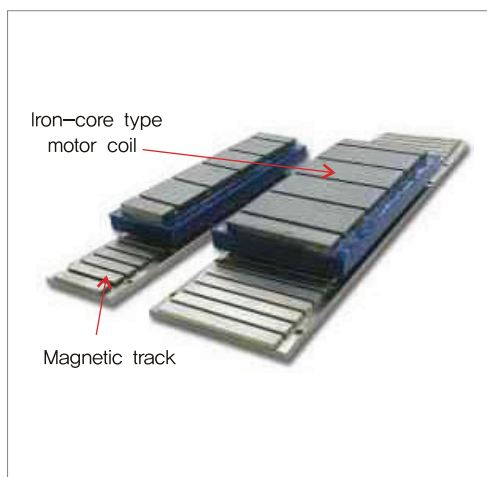
Iron-Core Type Linear Motors

□ Standard Specifications

Insulation Resistance	10M Ω (DC500V)
Insulation Dielectric Voltage	AC 1500V, 15mA, 1min
Ambient Humidity	20 to 80%RH (non-condensing)
Ambient Temperature	0 to 40°C

Model			JTKC 3006A	JTKC 3012A	JTKC 3025A	JTKC 5606A	JTKC 5612A	JTKC 5625A	JTKC 5638A	JTKC 5625	JTKC 5650	JTKC A025	JTKC A050
Performance Parameters	Symbol	Units											
Continuous Force	Fc	N	26	52	105	57,5	115	230	345	230	460	400	800
Peak Force	Fp	N	78	157	315	172,5	345	690	1035	690	1380	1200	2400
Continuous Current	IcTmax	A _{rms}	1,0	2,0	4,0	1,2	2,4	4,8	7,2	3,6	7,2	6,0	12,0
Peak Current	I _p	A _{rms}	3,0	6,0	12,0	3,6	7,2	14,4	21,6	10,8	21,6	18,0	36,0
Force Constant	Kf	N/A _{rms}	26,3	26,3	26,3	47,9	47,9	47,9	47,9	63,9	63,9	66,7	66,7
Electrical Time Constant	te	ms	7,9	7,9	7,9	10,0	10,0	10,0	10,0	10,5	10,5	3,9	3,9
Back EMF Constant (phase to phase)	Ke	V _{rms} /m/s	15,2	15,2	15,2	27,7	27,7	27,7	27,7	36,9	36,9	38,5	38,5
Resistance (phase to phase at 25°C)	Rs	Ω	5,6	2,8	1,4	8,8	4,4	2,2	1,5	4,0	2,0	1,8	0,9
Inductance (phase to phase)	Ls	mH	44,0	22,0	11,0	88,0	44,0	22,0	14,7	42,0	21,0	7,1	3,5
Motor Constant	KM	N/ \sqrt{W}	8,0	11,3	16,0	11,6	16,4	23,2	28,5	23,0	32,5	35,7	50,5
Coil Mass	Mc	kg	0,4	0,8	1,6	0,7	1,3	2,7	3,8	2,7	5,4	4,3	8,6
Maximum Speed	Vmax	m/s	5,0	5,0	5,0	4,0	4,0	4,0	4,0	3,0	3,0	3,0	3,0

□ Features



Iron-core type

- Generation of stronger force possible relative to the coreless type motors
- Cost effective
- Attraction force between the coil and magnet array
- Cogging force can be minimized by optimal design
- Suitable for applications with mid-heavy load or high frequency motions

Coreless Type Linear Motors

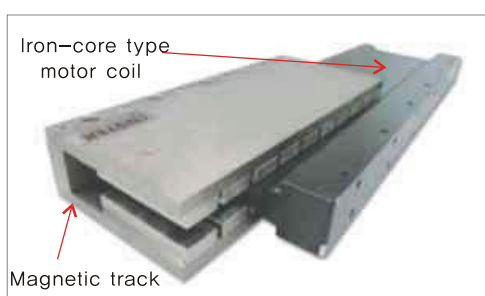
□ Standard Specifications

Insulation Resistance	10M Ω (DC500V)
Insulation Dielectric Voltage	AC 1500V, 15mA, 1min
Ambient Humidity	20 to 80%RH (non-condensing)
Ambient Temperature	0 to 40°C

Model			JTKL 5113A	JTKL 5126A	JTKL 5139A	JTKL 5153A	JTKL 5179A	JTKL 5113	JTKL 5126	JTKL 5139	JTKL 5153	JTKL 5179	JTKL 1506B	JTKL 3610	JTKL 3619	JTKL 3629	JTKL 3638
Performance Parameters	Symbol	Units															
Continuous Force	Fc	N	125	250	375	500	750	125	250	375	500	750	18	52	104	156	208
Peak Force	Fp	N	500	1000	1500	2000	3000	500	1000	1500	2000	3000	54	208	416	624	832
Continuous Current	IcTmax	A _{rms}	1,3	2,6	3,9	5,2	7,8	2,0	4,0	6,0	8,0	12,0	2,0	1,5	3,0	4,5	6,0
Peak Current	Ip	A _{rms}	5,2	10,4	15,6	20,8	31,2	8,0	16,0	24,0	32,0	48,0	6,0	6,0	12,0	18,0	24,0
Force Constant	Kf	N/A _{rms}	96,2	96,2	96,2	96,2	96,2	62,5	62,5	62,5	62,5	62,5	9,0	34,7	34,7	34,7	34,7
Electrical Time Constant	te	ms	2,0	2,0	2,0	2,0	2,0	2,1	2,1	2,1	2,1	2,1	0,2	1,4	1,4	1,4	1,4
Back EMF Constant (phase to phase)	Ke	V _{ms} /m/s	55,5	55,5	55,5	55,5	55,5	36,1	36,1	36,1	36,1	36,1	5,2	20,0	20,0	20,0	20,0
Resistance (phase to phase at 25°C)	Rs	Ω	15,6	7,8	5,1	3,9	2,6	6,4	3,2	2,1	1,6	1,1	3,7	5,8	2,9	1,9	1,5
Inductance (phase to phase)	Ls	mH	30,8	15,4	10,3	7,7	5,1	13,6	6,8	4,5	3,4	2,3	0,8	8,0	4,0	2,7	2,0
Motor Constant	KM	N/ \sqrt{W}	17,5	24,8	30,6	35,0	42,9	17,8	25,1	31,0	35,5	43,5	3,4	10,4	14,6	17,9	20,7
Coil Mass	Mc	kg	1,2	2,2	3,3	4,4	6,5	1,2	2,2	3,3	4,4	6,5	0,1	0,7	1,2	1,8	2,3
Maximum Speed	Vmax	m/s	2,5	2,5	2,5	2,5	2,5	4,0	4,0	4,0	4,0	4,0	5,0	5,0	5,0	5,0	5,0

Model			JTKL 5113HB	JTKL 5126HB	JTKL 5139HB	JTKL 5153HB	JTKL 5179HB	JTKL 5153HBS	JTKL 5513	JTKL 5526	JTKL 5539	JTKL 5553	JTKL 5579	JTKL 5553S
Performance Parameters	Symbol	Units												
Continuous Force	Fc	N	147	293	440	587	880	587	214	427	641	854	1281	854
Peak Force	Fp	N	587	1173	1760	2347	3520	2347	854	1708	2562	3416	5124	3416
Continuous Current	IcTmax	A _{rms}	3,0	6,0	9,0	12,0	18,0	6,0	5,3	10,6	15,9	21,2	31,8	10,6
Peak Current	Ip	A _{rms}	12,0	24,0	36,0	48,0	72,0	24,0	21,2	42,4	63,6	84,9	127,3	42,4
Force Constant	Kf	N/A _{rms}	48,9	48,9	48,9	48,9	48,9	97,8	40,3	40,3	40,3	40,3	40,3	80,5
Electrical Time Constant	te	ms	2,2	2,2	2,2	2,2	2,2	2,2	2,3	2,3	2,3	2,3	2,3	2,3
Back EMF Constant (phase to phase)	Ke	V _{ms} /m/s	28,2	28,2	28,2	28,2	28,2	56,5	23,2	23,2	23,2	23,2	23,2	46,5
Resistance (phase to phase at 25°C)	Rs	Ω	3,1	1,6	1,0	0,8	0,5	3,1	1,4	0,7	0,5	0,4	0,2	1,4
Inductance (phase to phase)	Ls	mH	7,0	3,5	2,3	1,8	1,2	7,0	3,3	1,7	1,1	0,8	0,6	3,3
Motor Constant	KM	N/ \sqrt{W}	19,8	28,1	34,4	39,7	48,6	39,7	24,0	34,0	41,6	48,1	58,9	48,1
Coil Mass	Mc	kg	1,2	2,4	3,6	4,8	7,2	4,8	1,0	2,0	2,9	5,0	5,9	5,0
Maximum Speed	Vmax	m/s	4,8	4,8	4,8	4,8	4,8	2,2	6,0	6,0	6,0	6,0	6,0	2,8

□ Features



Coreless type

- Zero magnetic attraction force
- Minimal speed ripple due to lack of cogging force
- Lower efficiency relative to the iron-core type motors
- Suitable for high speed repetitive motion applications with small-medium loads
- Option for high precision motion control

Linear Motors

Core Type Linear Motors : JTKC30A Series

Features

- Iron-core type coil, integral LM guide & encoder design
- Simple and comprehensive design, yet with low price
- Accuracy compensation by use of laser interferometer (optional)



(Pic) JTKC30A Series

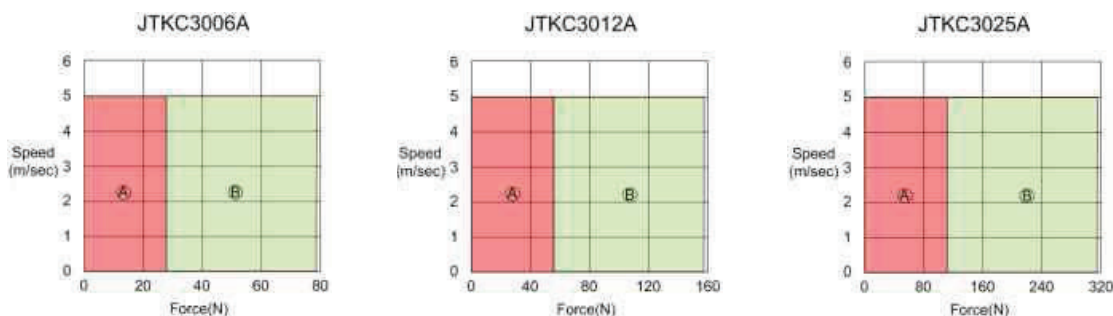
Standard Specifications

Insulation Resistance	10M Ω (DC500V)
Insulation Dielectric Voltage	AC 1500V, 15mA, 1min
Ambient Humidity	20 to 80%RH (non-condensing)
Ambient Temperature	0 to 40°C

Model			JTKC3006A	JTKC3012A	JTKC3025A
Performance Parameters	Symbol	Units			
Continuous Force	Fc	N	26	52	105
Peak Force	Fp	N	78	157	315
Continuous Current	IcTmax	A _{rms}	1,0	2,0	4,0
Peak Current	I _p	A _{rms}	3,0	6,0	12,0
Force Constant	Kf	N/A _{rms}	26,3	26,3	26,3
Electrical Time Constant	te	ms	7,9	7,9	7,9
Back EMF Constant (phase to phase)	Ke	V _{ms} /m/s	15,2	15,2	15,2
Resistance (phase to phase at 25°C)	Rs	Ω	5,6	2,8	1,4
Inductance (phase to phase)	Ls	mH	44,0	22,0	11,0
Motor Constant	KM	N/ \sqrt{W}	8,0	11,3	16,0
Coil Mass	Mc	kg	0,4	0,8	1,6
Maximum Speed *1	Vmax	m/s	5,0	5,0	5,0

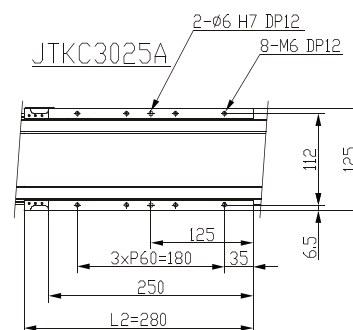
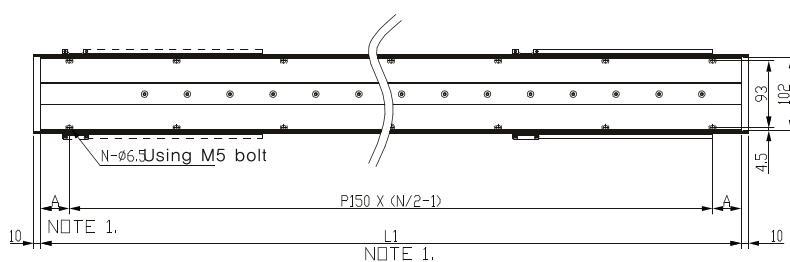
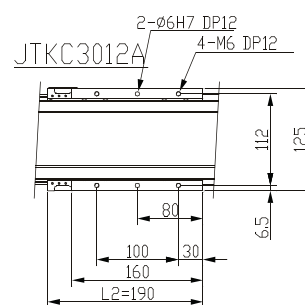
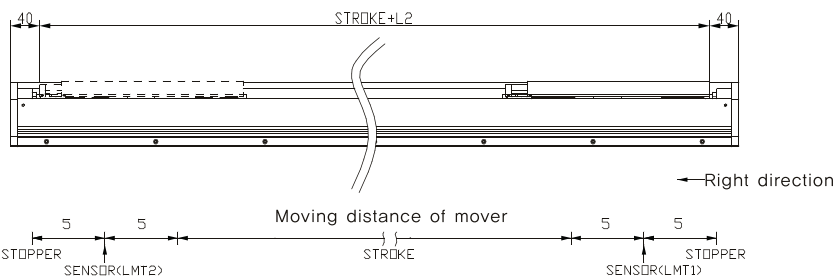
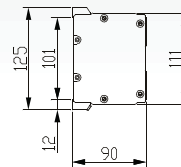
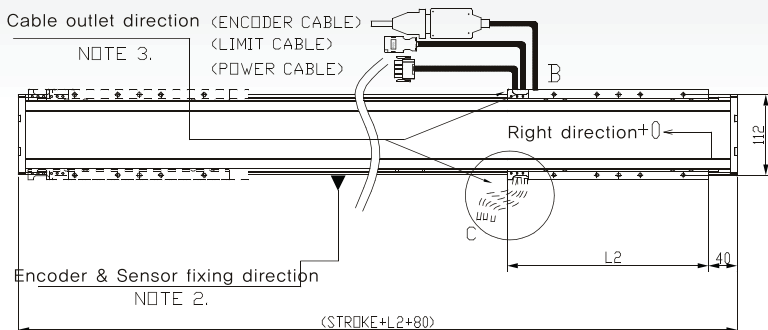
*Note1 : Maximum speed for 1 μ m of resolution

Force-Speed Characteristics



(A) Continuous region (B) Repetitive region

Dimensions



Remarks

- Note 1, Refer to the Stroke Table below for stroke variables (L1, N, A)
- Note 2, Secure space for the maintenance of sensors and encoders
- Note 3, Direction of cabling outlet : B: standard type, C: nonstandard type
(Cable : 3 types, power cable Ø8, sensor cable Ø7, encoder cable Ø5)

Stroke Table

JTKC 3012A	Stroke	L1	N	A	Stroke	L1	N	A
	200	450	6	75	1100	1350	18	75
	300	550	8	50	1200	1450	20	50
	400	650	10	25	1300	1550	22	25
	500	750	10	75	1400	1650	22	75
	600	850	12	50	1500	1750	24	50
	700	950	14	25	1600	1850	26	25
	800	1050	14	75	1700	1950	26	75
	900	1150	16	50	1800	2050	28	50
	1000	1250	18	25	1900	2150	28	25

JTKC 3025A	Stroke	L1	N	A	Stroke	L1	N	A
	200	540	8	45	1100	1440	20	45
	300	640	10	20	1200	1540	22	20
	400	740	10	70	1300	1640	22	70
	500	840	12	45	1400	1740	24	45
	600	940	14	20	1500	1840	26	20
	700	1040	14	70	1600	1940	26	70
	800	1140	16	45	1700	2040	28	45
	900	1240	18	20	1800	2140	28	20
	1000	1340	18	70	1900	2240	30	70

Linear Motors

Core Type Linear Motors : JTKC56A Series

□ Features

- Improved speed relative to the JTKC56 series
- Diverse applications possible, low cost per force
- Iron-core type coil, integral LM guide & encoder design
- Accuracy compensation by use of laser interferometer (optional)



〈Pic〉 JTKC56A series

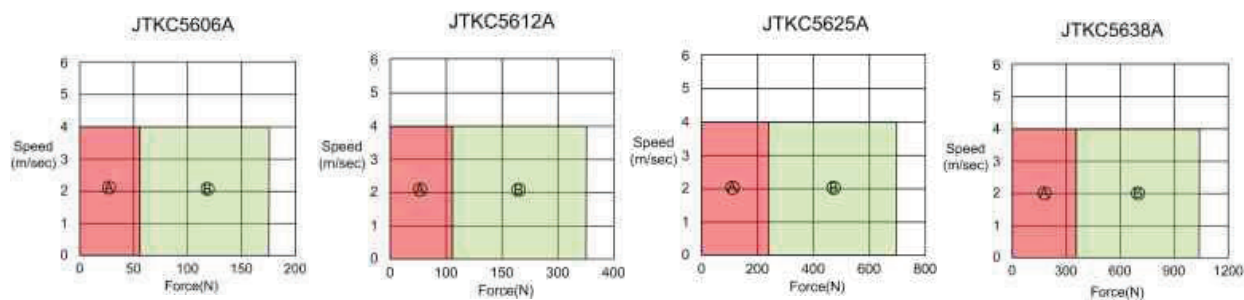
□ Standard Specifications

Insulation Resistance	10M Ω (DC500V)
Insulation Dielectric Voltage	AC 1500V, 15mA, 1min
Ambient Humidity	20 to 80%RH (non-condensing)
Ambient Temperature	0 to 40°C

Model			JTKC5606A	JTKC5612A	JTKC5625A	JTKC5638A
Performance Parameters	Symbol	Units				
Continuous Force	Fc	N	57,5	115	230	345
Peak Force	Fp	N	172,5	345	690	1035
Continuous Current	IcTmax	A _{rms}	1,2	2,4	4,8	7,2
Peak Current	Ip	A _{rms}	3,6	7,2	14,4	21,6
Force Constant	Kf	N/A _{rms}	47,9	47,9	47,9	47,9
Electrical Time Constant	te	ms	10,0	10,0	10,0	10,0
Back EMF Constant (phase to phase)	Ke	V _{rms} /m/s	27,7	27,7	27,7	27,7
Resistance (phase to phase at 25°C)	Rs	Ω	8,8	4,4	2,2	1,5
Inductance (phase to phase)	Ls	mH	88,0	44,0	22,0	14,7
Motor Constant	KM	N/ \sqrt{W}	11,6	16,4	23,2	28,5
Coil Mass	Mc	kg	0,7	1,3	2,7	3,8
Maximum Speed *1	Vmax	m/s	4,0	4,0	4,0	4,0

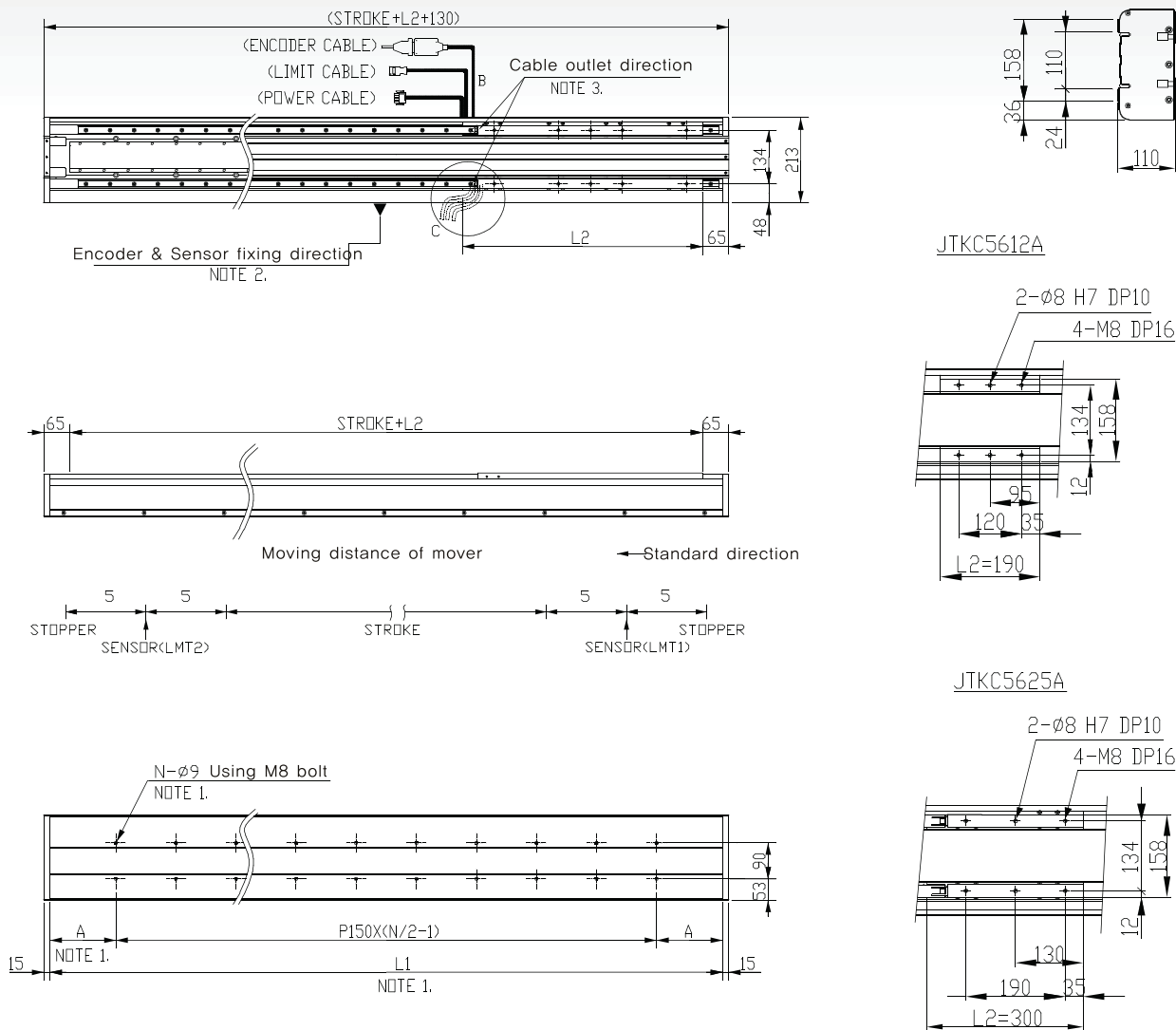
*Note1 : Maximum speed for 1 μ m of resolution

□ Force-Speed Characteristics



(A) Continuous region (B) Repetitive region

Dimensions



Remarks

- Note 1, Refer to the Stroke Table below for stroke variables (L1, N, A)
- Note 2, Secure space for the maintenance of sensors and encoders
- Note 3, Direction of cabling outlet : B: standard type, C: nonstandard type
(Cable : 3 types, power cable $\varnothing 8$, sensor cable $\varnothing 7$, encoder cable $\varnothing 5$)

Stroke Table

JTKC 5612A	Stroke	L1	N	A	Stroke	L1	N	A
	200	490	8	20	1100	1390	20	20
	300	590	8	70	1200	1490	20	70
	400	690	10	45	1300	1590	22	45
	500	790	12	20	1400	1690	24	20
	600	890	12	70	1500	1790	24	70
	700	990	14	45	1600	1890	26	45
	800	1090	16	20	1700	1990	26	20
	900	1190	16	70	1800	2090	28	70
	1000	1290	18	45	1900	2190	30	45

JTKC 5625A	Stroke	L1	N	A	Stroke	L1	N	A
	200	600	8	75	1100	1500	20	75
	300	700	10	50	1200	1600	22	50
	400	800	12	25	1300	1700	24	25
	500	900	12	75	1400	1800	24	75
	600	1000	14	50	1500	1900	26	50
	700	1100	16	25	1600	2000	28	25
	800	1200	16	75	1700	2100	28	70
	900	1300	18	50	1800	2200	30	50
	1000	1400	20	25	1900	2300	32	25

Linear Motors

Core Type Linear Motors : JTKC56 Series

Features

- Diverse applications possible, low cost per force
- Iron-core type coil, integral LM guide & encoder design
- Accuracy compensation by use of laser interferometer (optional)



〈Pic〉 JTKC56 series

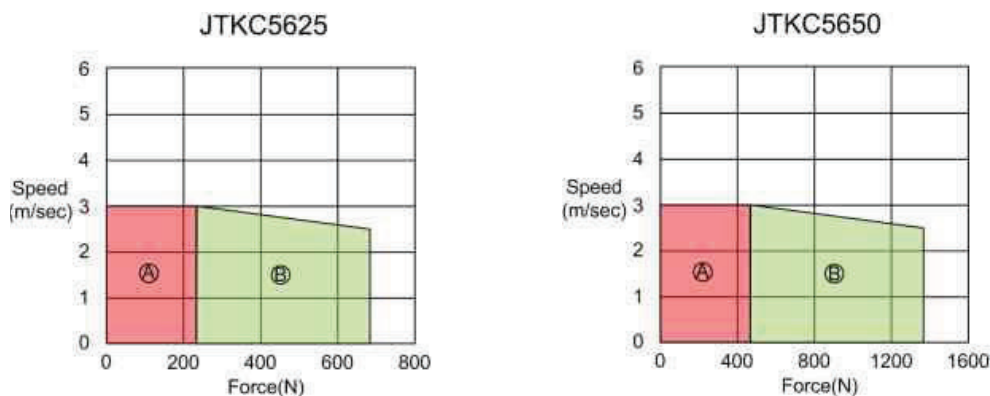
Standard Specifications

Insulation Resistance	10M Ω (DC500V)
Insulation Dielectric Voltage	AC 1500V, 15mA, 1min
Ambient Humidity	20 to 80%RH (non-condensing)
Ambient Temperature	0 to 40°C

Model			JTKC5625	JTKC5650
Performance Parameters	Symbol	Units		
Continuous Force	Fc	N	230	460
Peak Force	Fp	N	690	1380
Continuous Current	IcTmax	A _{rms}	3,6	7,2
Peak Current	Ip	A _{rms}	10,8	21,6
Force Constant	Kf	N/A _{rms}	63,9	63,9
Electrical Time Constant	te	ms	10,5	10,5
Back EMF Constant (phase to phase)	Ke	V _{rms} /m/s	36,9	36,9
Resistance (phase to phase at 25°C)	Rs	Ω	4,0	2,0
Inductance (phase to phase)	Ls	mH	42,0	21,0
Motor Constant	KM	N/ \sqrt{W}	23,0	32,5
Coil Mass	Mc	kg	2,7	5,4
Maximum Speed *1	Vmax	m/s	3,0	3,0

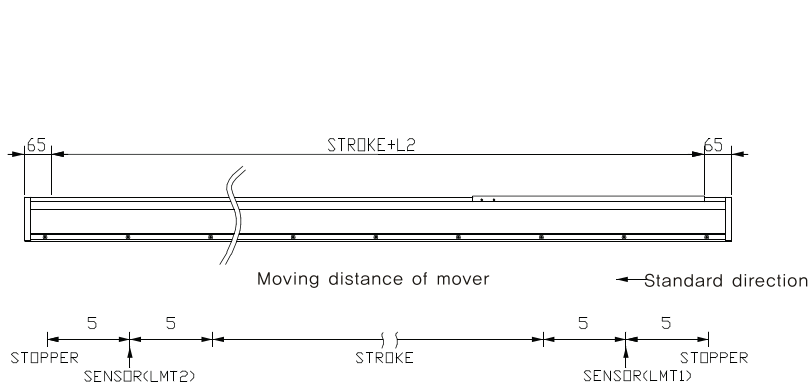
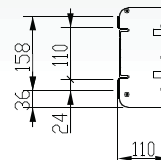
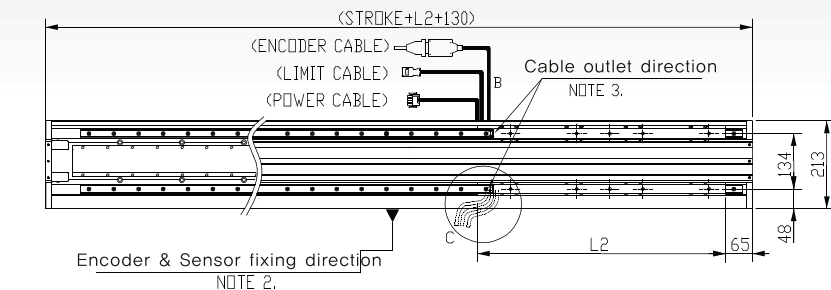
*Note1 : Maximum speed for 1 μ m of resolution

Force-Speed Characteristics

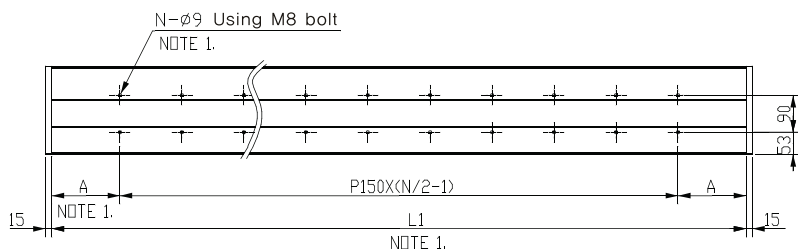
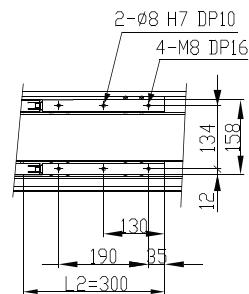


(A) Continuous region (B) Repetitive region

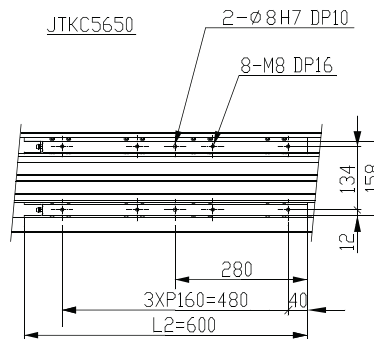
Dimensions



JTKC5625



JTKC5650



Remarks

Note 1, Refer to the Stroke Table below for stroke variables ($L1$, N , A)

Note 2, Secure space for the maintenance of sensors and encoders

Note 3, Direction of cabling outlet : B: standard type, C: nonstandard type

(Cable : 3 types, power cable $\phi 8$, sensor cable $\phi 7$, encoder cable $\phi 5$)

Stroke Table

JTKC 5625	Stroke	L1	N	A	Stroke	L1	N	A
	200	600	8	75	1100	1500	20	75
	300	700	10	50	1200	1600	22	50
	400	800	12	25	1300	1700	24	25
	500	900	12	75	1400	1800	24	75
	600	1000	14	50	1500	1900	26	50
	700	1100	16	25	1600	2000	26	25
	800	1200	16	75	1700	2100	28	75
	900	1300	18	50	1800	2200	30	50
	1000	1400	20	25	1900	2300	30	25

JTKC 5650	Stroke	L1	N	A	Stroke	L1	N	A
	200	900	12	75	1100	1800	24	75
	300	1000	14	50	1200	1900	26	50
	400	1100	16	25	1300	2000	28	25
	500	1200	16	75	1400	2100	28	75
	600	1300	18	50	1500	2200	30	50
	700	1400	20	25	1600	2300	30	25
	800	1500	20	75	1700	2400	32	75
	900	1600	22	50	1800	2500	34	50
	1000	1700	24	25	1900	2600	34	25

Linear Motors

Core Type Linear Motors : JTKCA0 Series

Features

- Iron-core type coil, integral LM guide & encoder design
- Appropriate for applications with high thrust and high speed
- Accuracy compensation by use of laser interferometer (optional)



〈Pic〉 JTKCA0 series

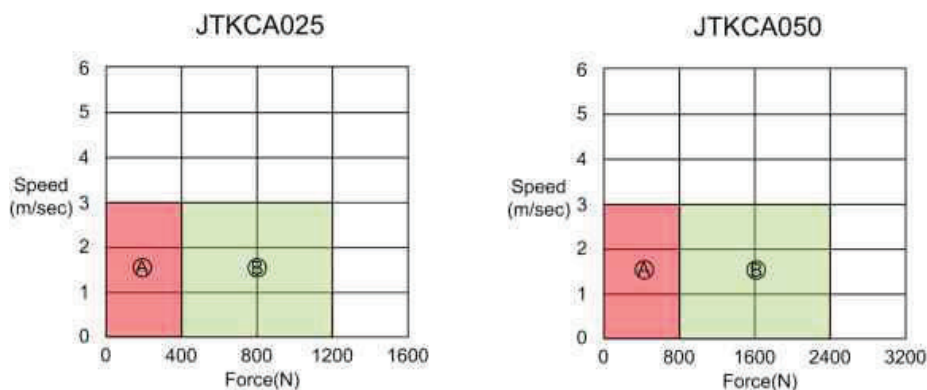
Standard Specifications

Insulation Resistance	10M Ω (DC500V)
Insulation Dielectric Voltage	AC 1500V, 15mA, 1min
Ambient Humidity	20 to 80%RH (non-condensing)
Ambient Temperature	0 to 40°C

Model			JTKCA025	JTKCA050
Performance Parameters	Symbol	Units		
Continuous Force	Fc	N	400	800
Peak Force	Fp	N	1200	2400
Continuous Current	IcTmax	A _{rms}	6.0	12.0
Peak Current	I _p	A _{rms}	18.0	36.0
Force Constant	Kf	N/A _{rms}	66.7	66.7
Electrical Time Constant	te	ms	3.9	3.9
Back EMF Constant (phase to phase)	Ke	V _{rms} /m/s	38.5	38.5
Resistance (phase to phase at 25°C)	Rs	Ω	1.8	0.9
Inductance (phase to phase)	Ls	mH	7.1	3.5
Motor Constant	KM	N/ \sqrt{W}	35.7	50.5
Coil Mass	Mc	kg	4.3	8.6
Maximum Speed *1	Vmax	m/s	3.0	3.0

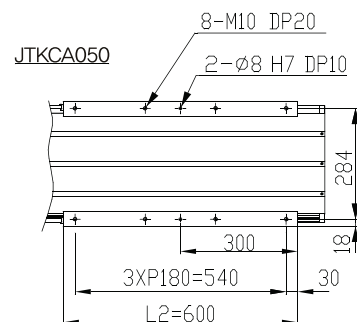
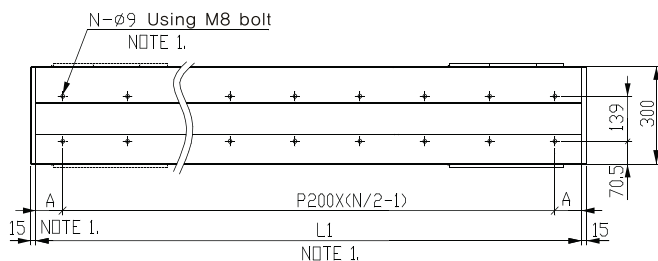
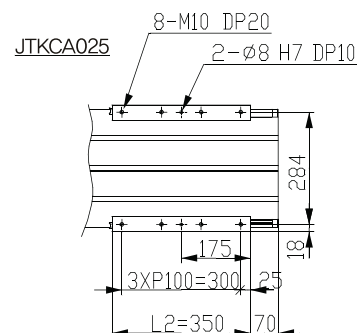
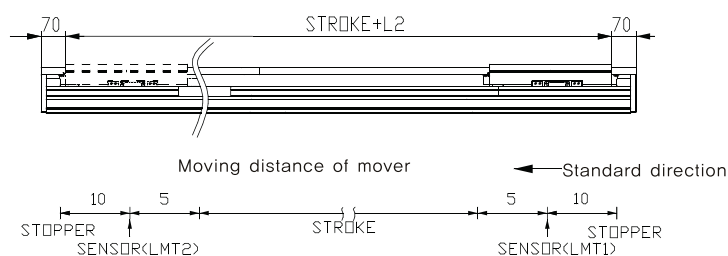
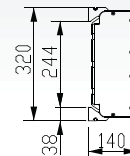
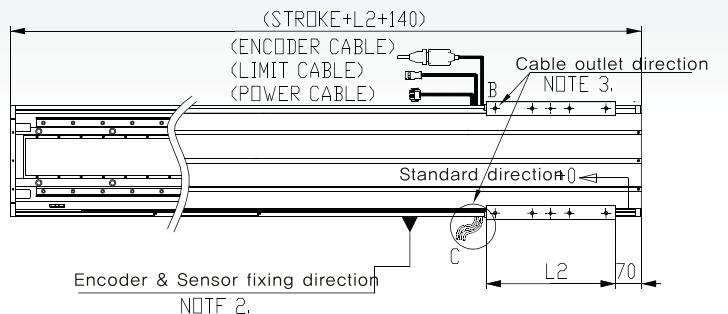
*Note1 : Maximum speed for 1 μ m of resolution

Force-Speed Characteristics



(A) Continuous region (B) Repetitive region

Dimensions



- Remarks**
- Note 1, Refer to the Stroke Table below for stroke variables (L1, N, A)
 - Note 2, Secure space for the maintenance of sensors and encoders
 - Note 3, Direction of cabling outlet : B: standard type, C: nonstandard type
(Cable : 3 types, power cable Ø8, sensor cable Ø7, encoder cable Ø5)

Stroke Table

JTKC A025	Stroke	L1	N	A	Stroke	L1	N	A
	200	660	8	30	1100	1560	16	80
	300	760	8	80	1200	1660	18	30
	400	860	10	30	1300	1760	18	80
	500	960	10	80	1400	1860	20	30
	600	1060	12	30	1500	1960	20	80
	700	1160	12	80	1600	2060	22	30
	800	1260	14	30	1700	2160	22	80
	900	1360	14	80	1800	2260	24	30
	1000	1460	16	30	1900	2360	24	80

JTKC A050	Stroke	L1	N	A	Stroke	L1	N	A
	200	900	5	50	1100	1800	9	100
	300	1000	5	100	1200	1900	10	50
	400	1100	6	50	1300	2000	10	100
	500	1200	6	100	1400	2100	11	50
	600	1300	7	50	1500	2200	11	100
	700	1400	7	100	1600	2300	12	50
	800	1500	8	50	1700	2400	12	100
	900	1600	8	100	1800	2500	13	50
	1000	1700	9	50	1900	2600	13	100

Linear Motors

Coreless Type Linear Motors : JTKL36 Series

Features

- Coreless type coil, integral design of LM guide & encoders
- Suitable for applications requiring high force and high speed
- Accuracy compensation by use of laser interferometer (optional)



(Pic) JTKL36 series

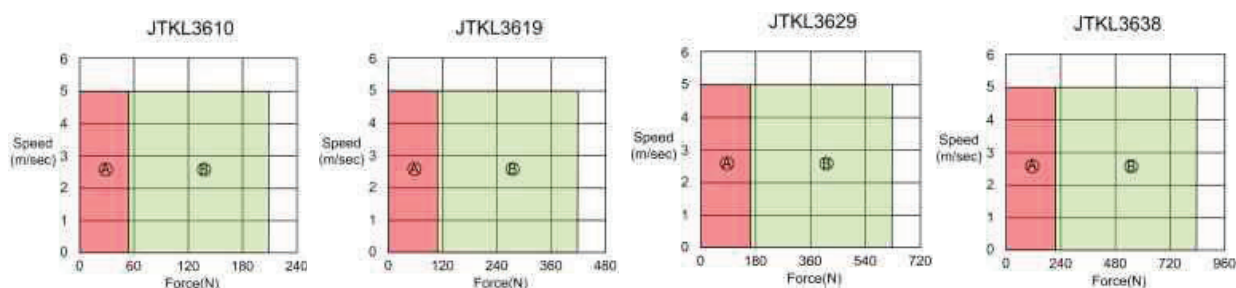
Standard Specifications

Insulation Resistance	10M Ω (DC500V)
Insulation Dielectric Voltage	AC 1500V, 15mA, 1min
Ambient Humidity	20 to 80%RH (non-condensing)
Ambient Temperature	0 to 40°C

Model			JTKL3610	JTKL3619	JTKL3629	JTKL3638
Performance Parameters	Symbol	Units				
Continuous Force	Fc	N	52	104	156	208
Peak Force	Fp	N	208	416	624	832
Continuous Current	IcTmax	A _{rms}	1,5	3,0	4,5	6,0
Peak Current	Ip	A _{rms}	6,0	12,0	18,0	24,0
Force Constant	Kf	N/A _{rms}	34,7	34,7	34,7	34,7
Electrical Time Constant	te	ms	1,4	1,4	1,4	1,4
Back EMF Constant (phase to phase)	Ke	V _{rms} /m/s	20,0	20,0	20,0	20,0
Resistance (phase to phase at 25°C)	Rs	Ω	5,8	2,9	1,9	1,5
Inductance (phase to phase)	Ls	mH	8,0	4,0	2,7	2,0
Motor Constant	KM	N/ \sqrt{W}	10,4	14,6	17,9	20,7
Coil Mass	Mc	kg	0,7	1,2	1,8	2,3
Maximum Speed *1	Vmax	m/s	5,0	5,0	5,0	5,0

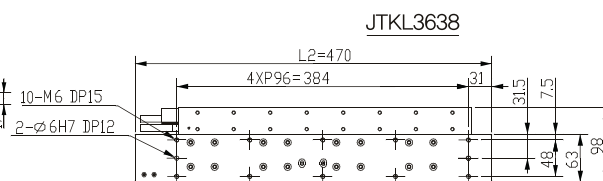
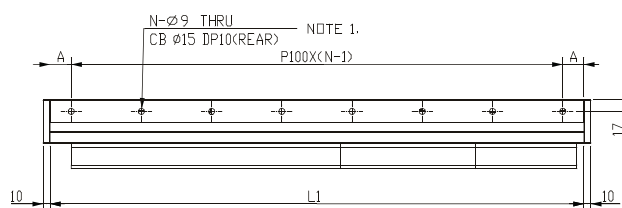
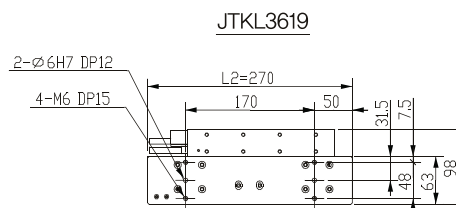
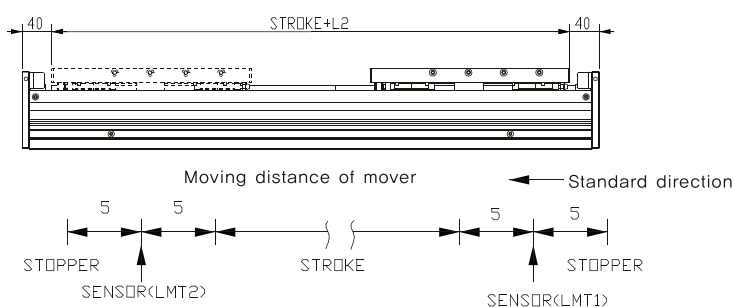
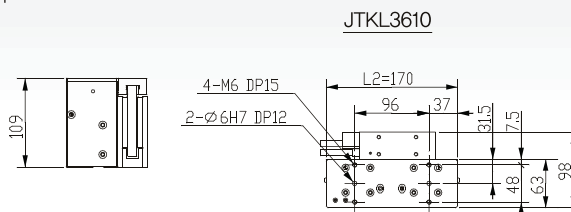
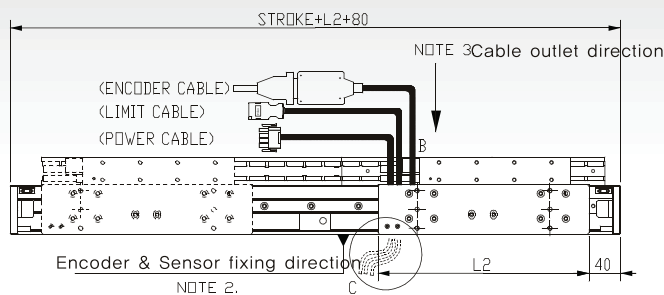
*Note1 : Maximum speed for 1 μ m of resolution

Force-Speed Characteristics



(A) Continuous region (B) Repetitive region

Dimensions



- Remarks**
- Note 1, Refer to the Stroke Table below for stroke variables (L1, N, A)
 - Note 2, Secure space for the maintenance of sensors and encoders
 - Note 3, Direction of cabling outlet : B: standard type, C: nonstandard type
(Cable : 3 types, power cable Ø8, sensor cable Ø7, encoder cable Ø5)

Stroke Table

JTKL 3610	Stroke	L1	N	A	Stroke	L1	N	A
	200	430	5	15	1100	1330	14	15
	300	530	6	15	1200	1430	15	15
	400	630	7	15	1300	1530	16	15
	500	730	8	15	1400	1630	17	15
	600	830	9	15	1500	1730	18	15
	700	930	10	15	1600	1830	19	15
	800	1030	11	15	1700	1930	20	15
	900	1130	12	15	1800	2030	21	15
	1000	1230	13	15	1900	2130	22	15

JTKL 3619	Stroke	L1	N	A	Stroke	L1	N	A
	200	530	6	15	1100	1430	15	15
	300	630	7	15	1200	1530	16	15
	400	730	8	15	1300	1630	17	15
	500	830	9	15	1400	1730	18	15
	600	930	10	15	1500	1830	19	15
	700	1030	11	15	1600	1930	20	15
	800	1130	12	15	1700	2030	21	15
	900	1230	13	15	1800	2130	22	15
	1000	1330	14	15	1900	2230	23	15

JTKL 3629	Stroke	L1	N	A	Stroke	L1	N	A
	200	630	7	15	1100	1530	16	15
	300	730	8	15	1200	1630	17	15
	400	830	9	15	1300	1730	18	15
	500	930	10	15	1400	1830	19	15
	600	1030	11	15	1500	1930	20	15
	700	1130	12	15	1600	2030	21	15
	800	1230	13	15	1700	2130	22	15
	900	1330	14	15	1800	2230	23	15
	1000	1430	15	15	1900	2330	24	15

JTKL 3638	Stroke	L1	N	A	Stroke	L1	N	A
	200	730	8	15	1100	1630	17	15
	300	830	9	15	1200	1730	18	15
	400	930	10	15	1300	1830	19	15
	500	1030	11	15	1400	1930	20	15
	600	1130	12	15	1500	2030	21	15
	700	1230	13	15	1600	2130	22	15
	800	1330	14	15	1700	2230	23	15
	900	1430	15	15	1800	2330	24	15
	1000	1530	16	15	1900	2430	25	15

Linear Motors

Coreless Type Linear Motors : JTKL51A Series

Features

- Suitable for applications with high speed and high precision
- Simple yet comprehensive design
- Accuracy compensation by use of laser interferometer (optional)



<Pic> JTKL51A series

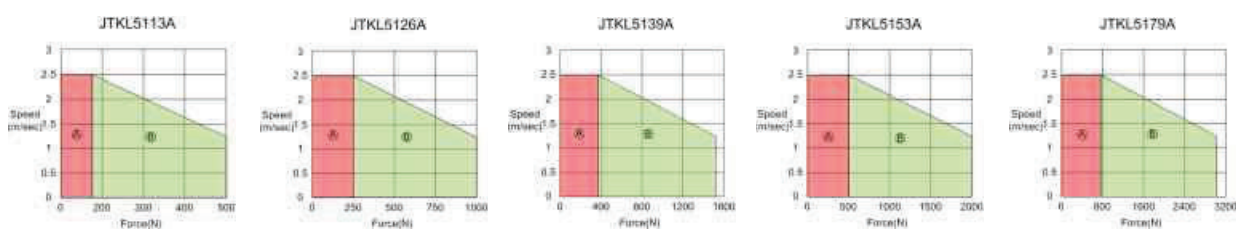
Standard Specifications

Insulation Resistance	10M Ω (DC500V)
Insulation Dielectric Voltage	AC 1500V, 15mA, 1min
Ambient Humidity	20 to 80%RH (non-condensing)
Ambient Temperature	0 to 40°C

Model			JTKL5113A	JTKL5126A	JTKL5139A	JTKL5153A	JTKL5179A
Performance Parameters	Symbol	Units					
Continuous Force	Fc	N	125	250	375	500	750
Peak Force	Fp	N	500	1000	1500	2000	3000
Continuous Current	IcTmax	A _{rms}	1,3	2,6	3,9	5,2	7,8
Peak Current	I _p	A _{rms}	5,2	10,4	15,6	20,8	31,2
Force Constant	Kf	N/A _{rms}	96,2	96,2	96,2	96,2	96,2
Electrical Time Constant	te	ms	2,0	2,0	2,0	2,0	2,0
Back EMF Constant (phase to phase)	Ke	V _{rms} /m/s	55,5	55,5	55,5	55,5	55,5
Resistance (phase to phase at 25°C)	Rs	Ω	15,6	7,8	5,1	3,9	2,6
Inductance (phase to phase)	Ls	mH	30,8	15,4	10,3	7,7	5,1
Motor Constant	KM	N/ \sqrt{W}	17,5	24,8	30,6	35,0	42,9
Coil Mass	Mc	kg	1,2	2,2	3,3	4,4	6,5
Maximum Speed *1	Vmax	m/s	2,5	2,5	2,5	2,5	2,5

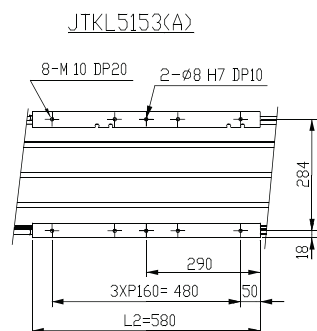
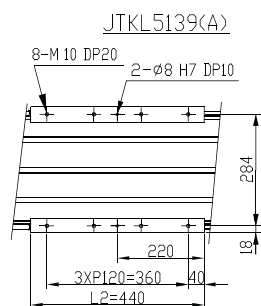
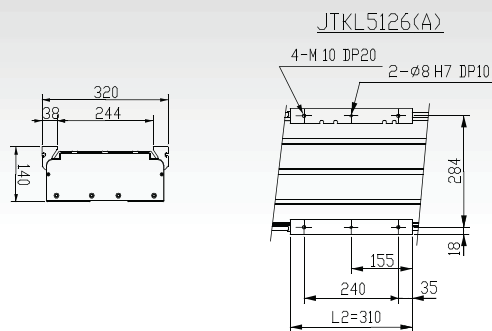
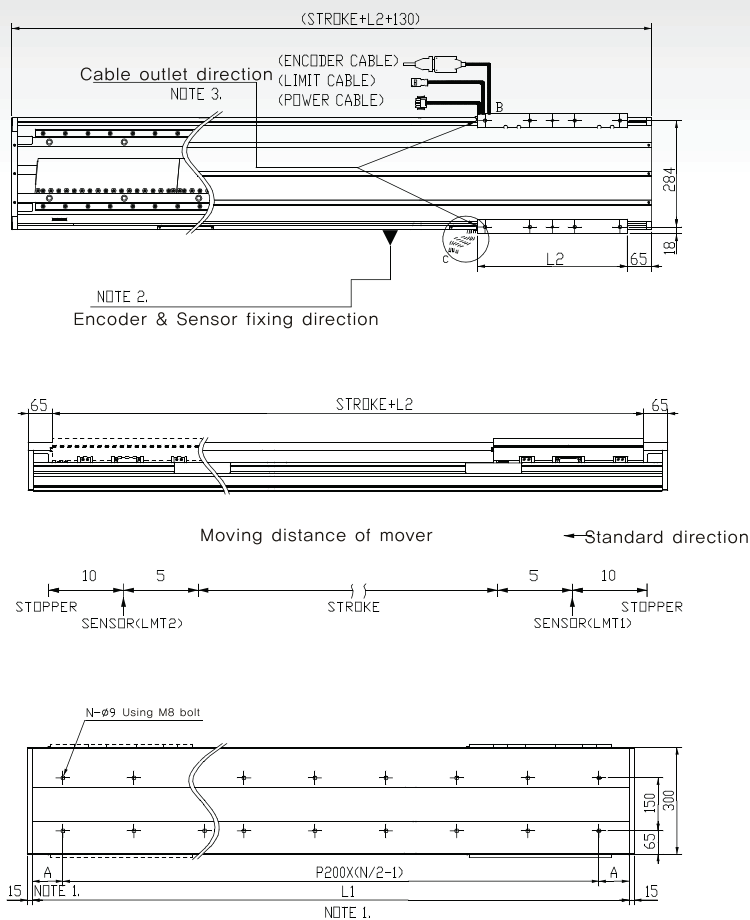
*Note1 : Maximum speed for 1 μ m of resolution

Force-Speed Characteristics



(A) Continuous region (B) Repetitive region

Dimensions



Stroke Table

Remarks

Note 1, Refer to the Stroke Table below for stroke variables (L1, N, A)
 Note 2, Secure space for the maintenance of sensors and encoders
 Note 3, Direction of cabling outlet : B: standard type, C: nonstandard type
 (Cable : 3 types, power cable Ø8, sensor cable Ø7, encoder cable Ø5)

JTKL 5113A	Stroke	L1	N	A	Stroke	L1	N	A
	200	480	3	40	1100	1380	7	90
	300	580	3	90	1200	1480	8	40
	400	680	4	40	1300	1580	8	90
	500	780	4	90	1400	1680	9	40
	600	880	5	40	1500	1780	9	90
	700	980	5	90	1600	1880	10	40
	800	1080	6	40	1700	1980	10	90
	900	1180	6	90	1800	2080	11	40
	1000	1280	7	40	1900	2180	11	90

JTKL 5126A	Stroke	L1	N	A	Stroke	L1	N	A
	200	610	3	105	1100	1510	8	55
	300	710	4	55	1200	1610	8	105
	400	810	4	105	1300	1710	9	55
	500	910	5	55	1400	1810	9	105
	600	1010	5	105	1500	1910	10	55
	700	1110	6	55	1600	2010	10	105
	800	1210	6	105	1700	2110	11	55
	900	1310	7	55	1800	2210	11	105
	1000	1410	7	105	1900	2310	12	55

JTKL 5139A	Stroke	L1	N	A	Stroke	L1	N	A
	200	740	4	70	1100	1640	9	20
	300	840	5	20	1200	1740	9	70
	400	940	5	70	1300	1840	10	20
	500	1040	6	20	1400	1940	10	70
	600	1140	6	70	1500	2040	11	20
	700	1240	7	20	1600	2140	11	70
	800	1340	7	70	1700	2240	12	20
	900	1440	8	20	1800	2340	12	70
	1000	1540	8	70	1900	2440	13	20

JTKL 5153A	Stroke	L1	N	A	Stroke	L1	N	A
	200	880	5	40	1100	1780	9	90
	300	980	5	90	1200	1880	10	40
	400	1080	6	40	1300	1980	10	90
	500	1180	6	90	1400	2080	11	40
	600	1280	7	40	1500	2180	11	90
	700	1380	7	90	1600	2280	12	40
	800	1480	8	40	1700	2380	12	90
	900	1580	8	90	1800	2480	13	40
	1000	1680	9	40	1900	2580	13	90

Linear Motors

Coreless type Linear motors : JTKL51 series

Features

- Appropriate for applications with high speed and high precision
- Simple yet comprehensive design
- Accuracy compensation by use of laser interferometer (optional)

Standard Specifications

Insulation Resistance	10M Ω (DC500V)
Insulation Dielectric Voltage	AC 1500V, 15mA, 1min
Ambient Humidity	20 to 80%RH (non-condensing)
Ambient Temperature	0 to 40°C

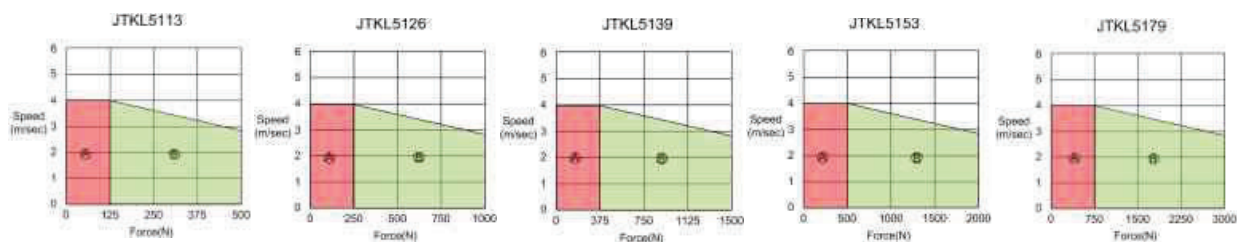


(Pic) JTKL51 series

Model			JTKL5113	JTKL5126	JTKL5139	JTKL5153	JTKL5179
Performance Parameters	Symbol	Units					
Continuous Force	Fc	N	125	250	375	500	750
Peak Force	Fp	N	500	1000	1500	2000	3000
Continuous Current	IcTmax	A _{rms}	2,0	4,0	6,0	8,0	12,0
Peak Current	Ip	A _{rms}	8,0	16,0	24,0	32,0	48,0
Force Constant	Kf	N/A _{rms}	62,5	62,5	62,5	62,5	62,5
Electrical Time Constant	te	ms	2,1	2,1	2,1	2,1	2,1
Back EMF Constant (phase to phase)	Ke	V _{rms} /m/s	36,1	36,1	36,1	36,1	36,1
Resistance (phase to phase at 25°C)	Rs	Ω	6,4	3,2	2,1	1,6	1,1
Inductance (phase to phase)	Ls	mH	13,6	6,8	4,5	3,4	2,3
Motor Constant	KM	N/ \sqrt{W}	17,8	25,1	31,0	35,5	43,5
Coil Mass	Mc	kg	1,2	2,2	3,3	4,4	6,5
Maximum Speed *1	Vmax	m/s	4,0	4,0	4,0	4,0	4,0

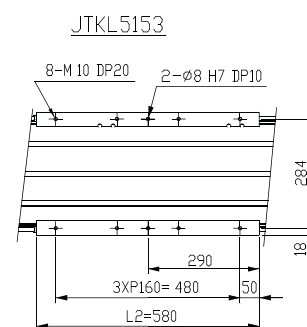
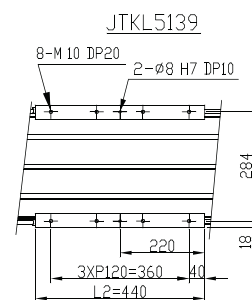
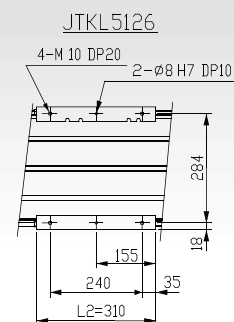
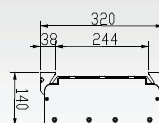
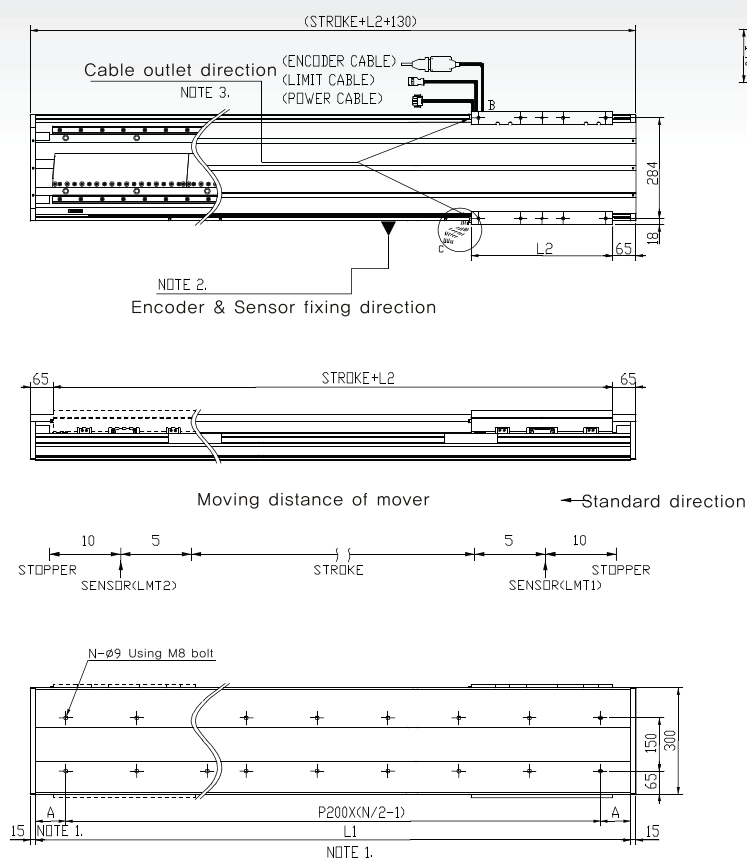
*Note1 : Maximum speed for 1 μ m of resolution

Force-Speed Characteristics



(A) Continuous region (B) Repetitive region

Dimensions



Remarks

- Note 1, Refer to the Stroke Table below for stroke variables (L1, N, A)
- Note 2, Secure space for the maintenance of sensors and encoders
- Note 3, Direction of cabling outlet : B: standard type, C: nonstandard type
(Cable : 3 types, power cable Ø8, sensor cable Ø7, encoder cable Ø5)

Stroke Table

JTKL 5113	Stroke	L1	N	A	Stroke	L1	N	A
	200	480	3	40	1100	1380	7	90
	300	580	3	90	1200	1480	8	40
	400	680	4	40	1300	1580	8	90
	500	780	4	90	1400	1680	9	40
	600	880	5	40	1500	1780	9	90
	700	980	5	90	1600	1880	10	40
	800	1080	6	40	1700	1980	10	90
	900	1180	6	90	1800	2080	11	40
	1000	1280	7	40	1900	2180	11	90

JTKL 5126	Stroke	L1	N	A	Stroke	L1	N	A
	200	610	3	105	1100	1510	8	55
	300	710	4	55	1200	1610	8	105
	400	810	4	105	1300	1710	9	55
	500	910	5	55	1400	1810	9	105
	600	1010	5	105	1500	1910	10	55
	700	1110	6	55	1600	2010	10	105
	800	1210	6	105	1700	2110	11	55
	900	1310	7	55	1800	2210	11	105
	1000	1410	7	105	1900	2310	12	55

JTKL 5139	Stroke	L1	N	A	Stroke	L1	N	A
	200	740	4	70	1100	1640	9	20
	300	840	5	20	1200	1740	9	70
	400	940	5	70	1300	1840	10	20
	500	1040	6	20	1400	1940	10	70
	600	1140	6	70	1500	2040	11	20
	700	1240	7	20	1600	2140	11	70
	800	1340	7	70	1700	2240	12	20
	900	1440	8	20	1800	2340	12	70
	1000	1540	8	70	1900	2440	13	20

JTKL 5153	Stroke	L1	N	A	Stroke	L1	N	A
	200	880	5	40	1100	1780	9	90
	300	980	5	90	1200	1880	10	40
	400	1080	6	40	1300	1980	10	90
	500	1180	6	90	1400	2080	11	40
	600	1280	7	40	1500	2180	11	90
	700	1380	7	90	1600	2280	12	40
	800	1480	8	40	1700	2380	12	90
	900	1580	8	90	1800	2480	13	40
	1000	1680	9	40	1900	2580	13	90