

有铁芯直线电机, 又称平板电机, 以其卓越的推力、散热性能在重负载、高加减速、高速、长行程运动中表现出色。由于其体积大、线圈单元大, 内部集成增磁性材料, 成为点位精度和轨迹精度应用的理想选择。生产工艺积累和电磁优化使莱盟有铁芯直线电机具备超低顿振效应, 在推力和稳定性方面表现卓越。标规产品的持续推力范围为C [120-800]N, 峰值范围为C [300-2400]N, 几乎涵盖了工业自动化运动应用的所有需求。同时, 莱盟支持针对特殊客户应用的有铁芯直线电机定制。

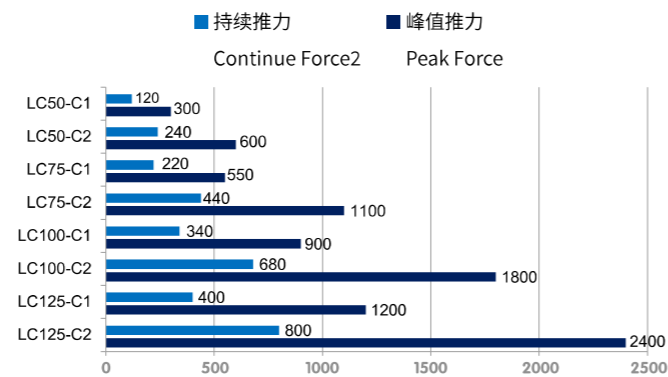
产品特征 Product features

- ★ 低顿挫、热散性能优异
Low setback, excellent heat dissipation performance
- ★ 推力强大、承载重负载
- ★ 高加减速、高运行速度
High acceleration and deceleration, high operating speed
- ★ 功率范围覆盖广泛
Wide coverage of power range
- ★ 可根据客户需求灵活定制产品
Flexible customization of products according to customer needs

应用领域 Application field

- ★ 数控机床
CNC machining
- ★ 半导体设备
Semiconductor equipment
- ★ 医疗器械
Medical devices
- ★ 激光切割机
Laser cutter
- ★ 3D打印机
3D printer
- ★ 纺织机械
Textile machinery
- ★ 电子设备生产线
Electronic equipment production line
- ★ 飞行模拟器
Flight simulator
- ★ 机器人
Robot
- ★ 包装机械
Packaging machinery

The iron-core linear motor, or flat motor, excels in thrust and heat dissipation for heavy-duty, high-speed, and precision applications. Limon's expertise and electromagnetic optimization result in low vibration, ensuring superior stability. With a standard thrust range of C [120-800]N and a peak range of C [300-2400]N, it effectively meets diverse industrial automation motion needs. Customization options are available for specific customer applications.



命名规则 Naming Rule

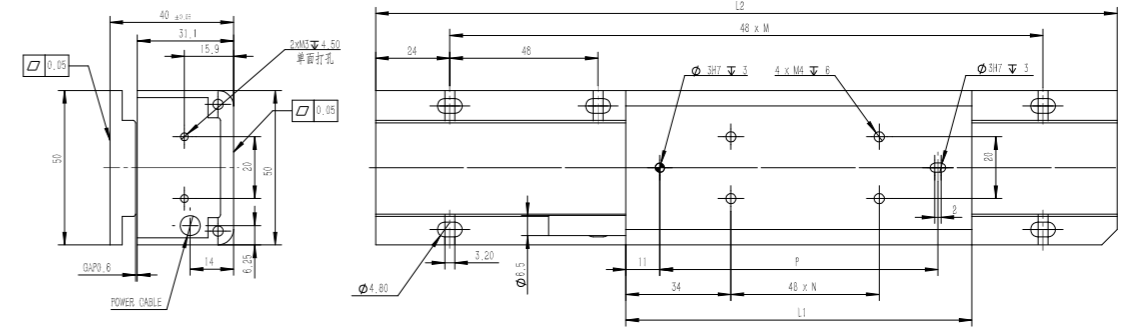
定子命名规则 Naming Rule of Motor Forcer

LC	50	C1	T	H	W	05
有铁芯直线电机 Linear motor with iron core	产品系列 Product Series	具体产品型号 Specific product model	温度传感器 Temperature Sensor	Hall传感器 Hall Sensor	冷却形式 Cooling form	出线长度 Outlet length
			- 无温度传感器 T 有温度传感器	- 无Hall传感器 H 有Hall传感器	- 自然冷却 A 空气冷却 W 水冷却	03 300mm 05 500mm 10 1000mm 30 3000mm 50 5000mm

定子命名规则 Naming Rule of Motor Stator

LC	50	M	48
有铁芯直线电机 Linear motor with iron core	电机系列 Motor Series	定子产品 Stator product	定子长度 Stator Length
			48 144 240

LC 50



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尺寸参数 Dimension Parameter

电机型号 Electric Motor Item No.	L1	N	P	L2	M
定子型号 Coil Item No.					
LC50-C1	112	1	90	/	/
LC50-C2	208	3	186	/	/
LC50-M48	/	/	/	48	0
LC50-M144	/	/	/	144	2
LC50-M240	/	/	/	240	4

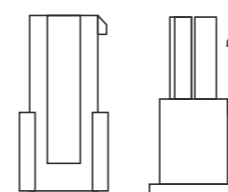


性能参数 Performance Parameter

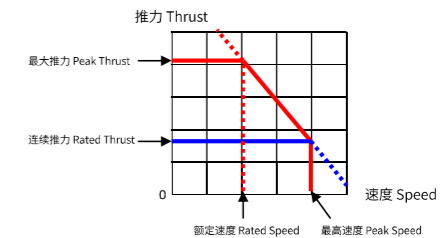
定子型号 Coil Item No.	持续推力 Continue Force (n)	峰值推力 Peak Force (n)	负载 Load (1G)	额定电流 Rated Current (A)	最大电流 Peak Current (A)	推力常数 Force Constant (n/arms)	电阻 Resistance (Ω)	电感 Inductance (mh)	质量 Weight (kg)	极距 Polar Distance (mm)	额定速度 Rated Speed (m/s)	最大速度 Maximum Speed (m/s)	相互吸力 Mutual Attraction (N)
LC50-C1	120	300	25	3.6	9.1	33	3.5	18.1	0.83	24	5	8	600
LC50-C2	240	600	50	3.6	9.1	66	7	36.2	1.6	24	2.6	4.1	1200

插针编号 Pin no.	信号源 Signal	线缆编号 Wire no.
1	Phase U	1
2	Phase V	2
3	Phase W	3
4	FG	Yellow Green

◎ Note 1
电机电缆规格 Specification of motor cable
外径尺寸 Outer diameter (mm): φ6.5mm
偶发弯曲 Occasional flexing: 7.5 × outer diameter
固定安装 Fixed installation: 4 × outer diameter



公端子 Public Terminal:
HX42001-31PT
公端子壳体 Male terminal housing:
HX42000-4R
母端子 Mother Terminal:
HX42000-31RT
母端子壳体 Mother terminal housing:
HX42001-4P



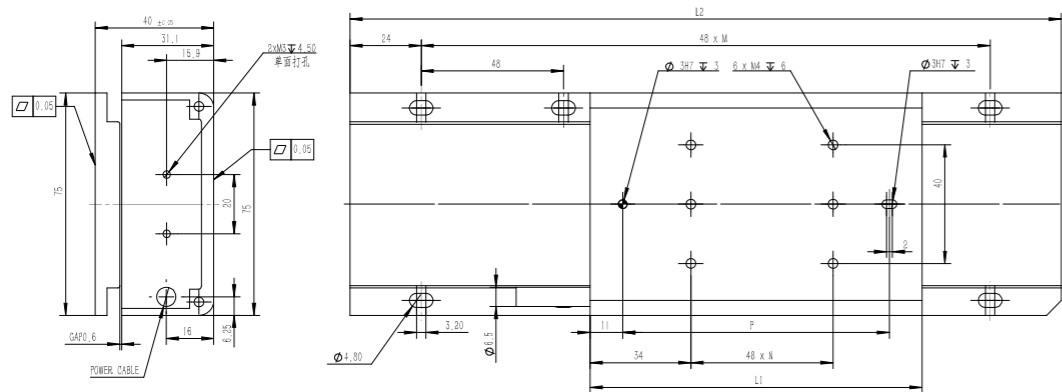
推力速度曲线定义图
Definition diagram of thrust speed curve

LC 75 LC系列有铁芯直线电机

LC Series Ironcore Linear Motor

LC 75

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尺寸参数 Dimension Parameter

电机型号 Electric Motor Item No.		L1	N	P	L2	M
定子型号 Coil Item No.	LC75-C1	112	1	90	/	/
	LC75-C2	208	3	186	/	/
定子型号 Stator Item No.	LC75-M48	/	/	/	48	0
	LC75-M144	/	/	/	144	2
	LC75-M240	/	/	/	240	4

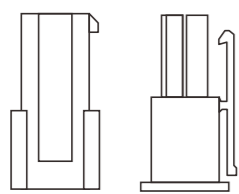


性能参数 Performance Parameter

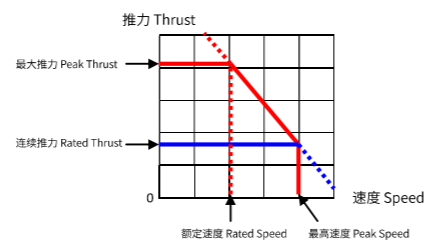
定子型号 Coil Item No.	持续推力 Continue Force (n)	峰值推力 Peak Force (n)	负载 Load (1G)	额定电流 Rated Current (A)	最大电流 Peak Current (A)	推力常数 Force Constant (n/arms)	电阻 Resistance (Ω)	电感 Inductance (mh)	质量 Weight (kg)	极距 Polar Distance (mm)	额定速度 Rated Speed (m/s)	最大速度 Maximum Speed (m/s)	相互吸力 Mutual Attraction (N)
LC75-C1	220	550	40	3.6	9.1	61	5.4	30.4	1.3	24	2.6	4.1	1100
LC75-C2	440	1100	80	7.2	18.2	61	2.8	16.3	2.4	24	2.6	4.1	2200

插针编号Pin no.	信号源Signal	线缆编号Wire no.
1	Phase U	1
2	Phase V	2
3	Phase W	3
4	FG	Yellow Green

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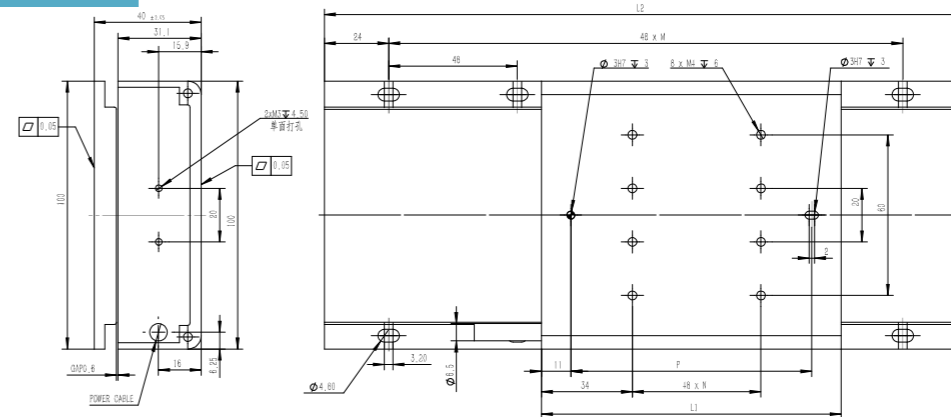
推力速度曲线定义图
Definition diagram of thrust speed curve

LC系列有铁芯直线电机 LC 100

LC Series Ironcore Linear Motor

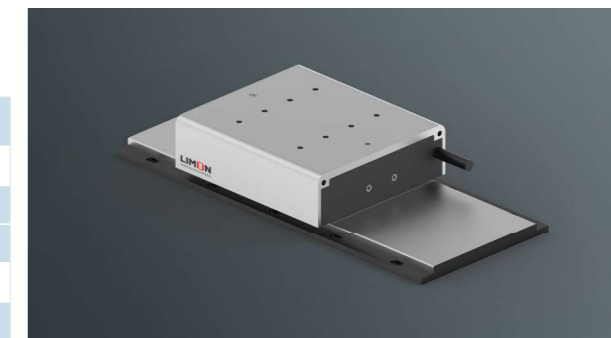
LC 100

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尺寸参数 Dimension Parameter

电机型号 Electric Motor Item No.		L1	N	P	L2	M
定子型号 Coil Item No.	LC100-C1	112	1	90	/	/
	LC100-C2	208	3	186	/	/
定子型号 Stator Item No.	LC100-M48	/	/	/	48	0
	LC100-M144	/	/	/	144	2
	LC100-M240	/	/	/	240	4

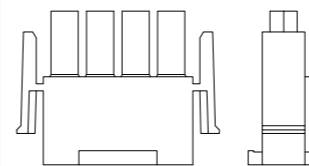


性能参数 Performance Parameter

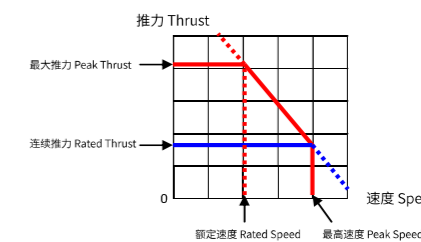
定子型号 Coil Item No.	持续推力 Continue Force (n)	峰值推力 Peak Force (n)	负载 Load (1G)	额定电流 Rated Current (A)	最大电流 Peak Current (A)	推力常数 Force Constant (n/arms)	电阻 Resistance (Ω)	电感 Inductance (mh)	质量 Weight (kg)	极距 Polar Distance (mm)	额定速度 Rated Speed (m/s)	最大速度 Maximum Speed (m/s)	相互吸力 Mutual Attraction (N)
LC100-C1	340	900	60	3.6	9.6	94	7.5	42.3	1.8	24	2	3.1	1700
LC100-C2	680	1800	120	7.2	19.2	94	3.9	21.5	3.3	24	2	3.1	3400

插针编号Pin no.	信号源Signal	线缆编号Wire no.
1	Phase U	1
2	Phase V	2
3	Phase W	3
4	FG	Yellow Green

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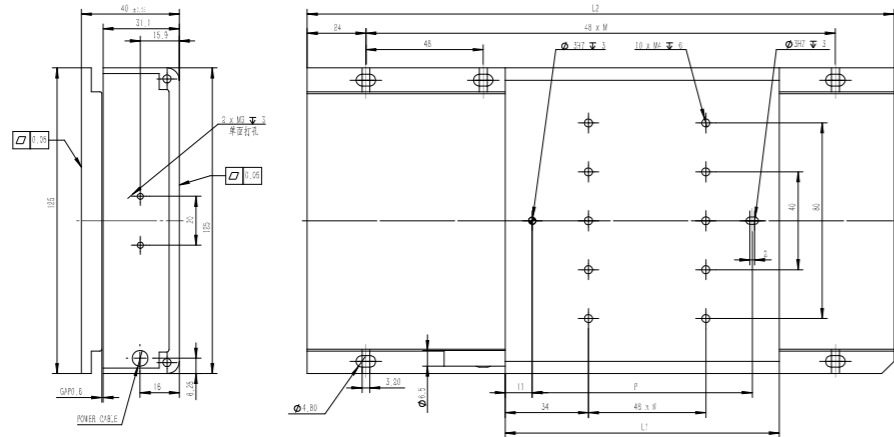


推力速度曲线定义图
Definition diagram of thrust speed curve

LC 125 LC系列有铁芯直线电机

LC Series Ironcore Linear Motor

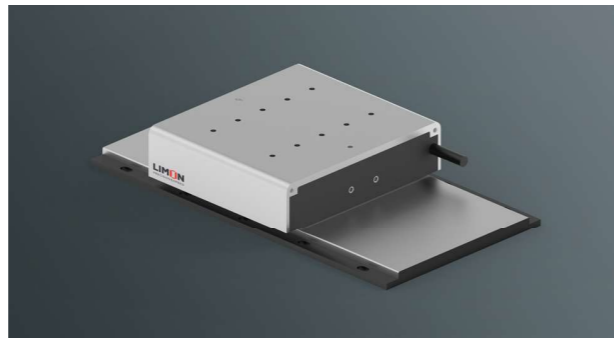
LC 125



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尺寸参数 Dimension Parameter

电机型号 Electric Motor Item No.		L1	N	P	L2	M
动子型号 Coil Item No.	LC125-C1	112	1	90	/	/
	LC125-C2	208	3	186	/	/
定子型号 Stator Item No.	LC125-M48	/	/	/	48	0
	LC125-M144	/	/	/	144	2
	LC125-M240	/	/	/	240	4



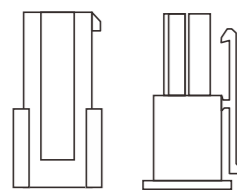
性能参数 Performance Parameter

动子型号 Coil Item No.	持续推力 Continue Force (n)	峰值推力 Peak Force (n)	负载 Load (1G)	额定电流 Rated Current (A)	最大电流 Peak Current (A)	推力常数 Force Constant (n/arms)	电阻 Resistance (Ω)	电感 Inductance (mh)	质量 Weight (kg)	极距 Polar Distance (mm)	额定速度 Rated Speed (m/s)	最大速度 Maximum Speed (m/s)	相互吸力 Mutual Attraction (N)
LC125-C1	400	1200	80	6.2	18.6	63	2.5	13.5	2.2	24	2.6	4.1	2000
LC125-C2	800	2400	160	6.2	18.6	129	5.1	27.6	4.2	24	1.5	2	4000

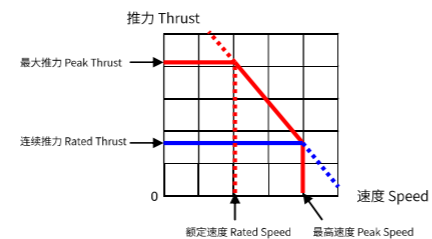
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2	Phase V	2
3	Phase W	3
4	FG	Yellow Green

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Definition diagram of thrust speed curve