

有铁芯直线电机命名规则 Iron core linear motor naming rules

动子命名规则

Name of the Motor Forcer

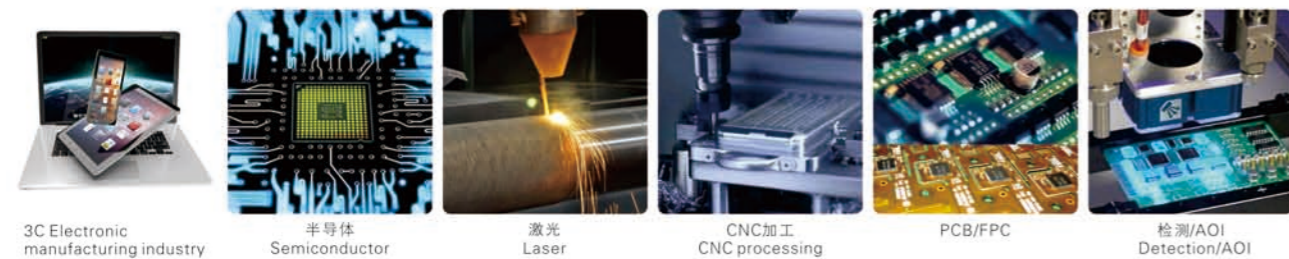


定子命名规则

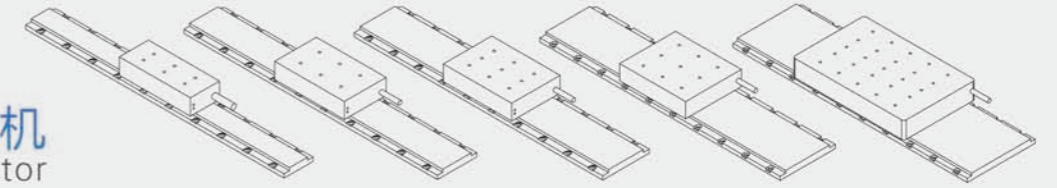
Name of the stator



直线电机应用 linear motor application



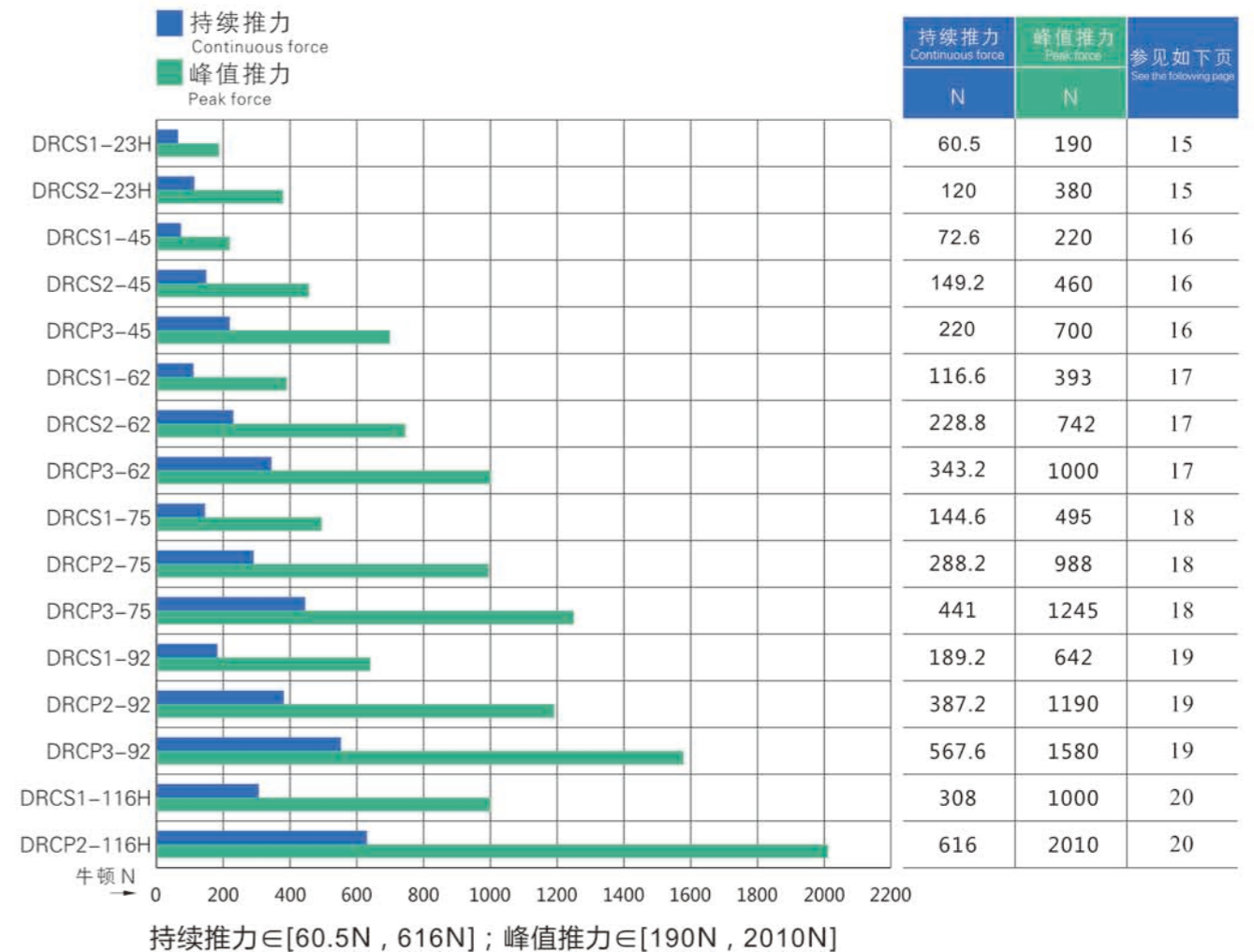
DRC系列电机 DRC Series motor



有铁芯直线电机产品DRC系列，基于半导体行业应用而设计，且性能可满足3C、激光、检测、非标自动化等行业应用。以较于同类产品更优异的推力质量比、热散性能、力常数、国际最新制程工艺与高品质原材料等特性，易于实现高速度（3m/s以上）、高加速度（2G以上）、高精度（重复精度5μm以内），常用于高性能点位运动应用。

DRC series: Originated from semiconductor industry, suit for 3C, Laser applications, detection, customized automation, etc. Better performance in force mass ratio, Heat dispersion, force constantans. Easy to achieve high speed (3m/s or more), high acceleration (2g or more), high precision (repeatability < 5μm). Usually used for high performance position motion.

DRC系列电机推力参数 DRC series motor force parameters

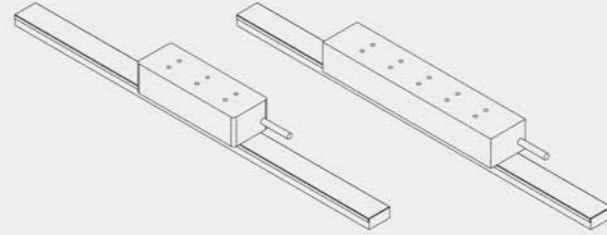


DRC系列电机

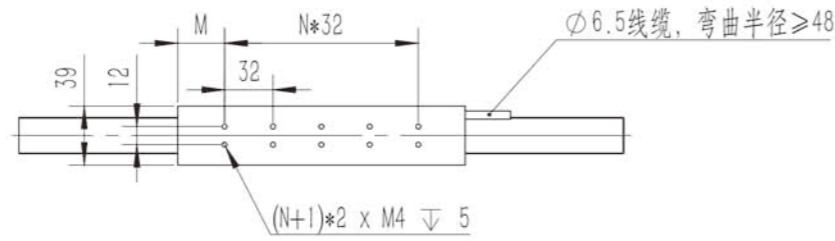
DRC Series motor

动子型号 Forcer Model

DRCS1-23H
DRCS2-23H



性能参数 Performance parameters	S1-23H	S2-23H	单位 unit
峰值推力 Peak force	190	380	N
持续推力 Continuous force	60.5	120	N
峰值电流 Peak current	10	10	Arms
持续电流 Continuous current	2.3	2.3	Arms
电机常数 Motor constant	12.4	17.4	N/SQRT(W)
持续功率 Continuous power	23.8	47.6	W
最大线圈温度 Maximum coil temperature	120	120	°C
力常数 Force constant	26.3	52	N/Arms
磁变周期 Pole-Pole-Pitch	20	20	mm
电阻 Resistance	4.5	9	ohms
电感 Inductance	26	52	mH
电气时间常数 Electric time constant	5.8	5.8	ms
反电动势常数 Back EMF Constant	21	42	Vpeak/m/s
动子质量 Forcer weight	0.5	1	kg
定子质量 Stator weight	2.3	2.3	kg/m
吸力大小 magnetic attraction force	0.36	0.72	KN
动子总长 (L) Forcer Length (L)	110	190	mm
孔边距 (M) Hole margin (M)	23	31	mm
孔距总数 (N) Total hole distance(N)	2	4	pcs
孔位数量 Number of holes	6	10	pcs

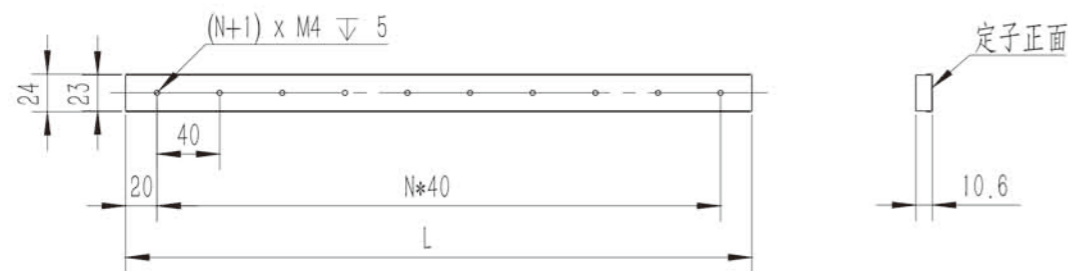


定子型号

Stator model

DRC23M-400CS
DRC23M-200CS
DRC23M-80CS

定子型号 Stator model	定子长度 (L) Stator length(L)	孔距总数 (N) Total hole distance(N)	孔位数量 Number of holes
DRC23M-400CS	400	9	10
DRC23M-200CS	200	4	5
DRC23M-80CS	80	1	2

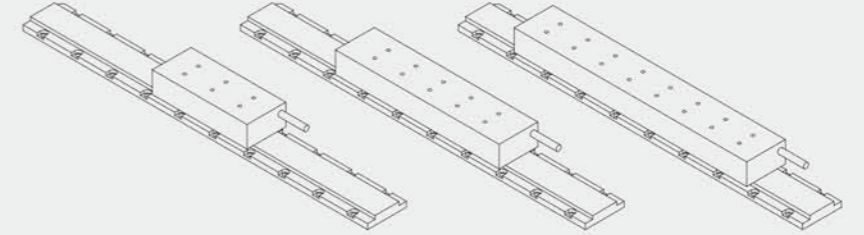


DRC系列电机

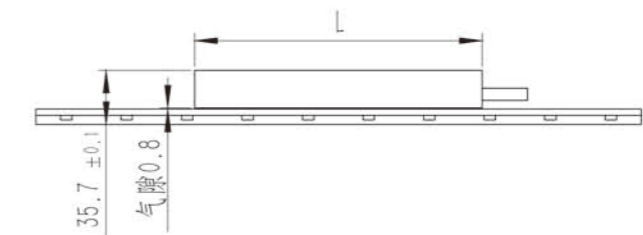
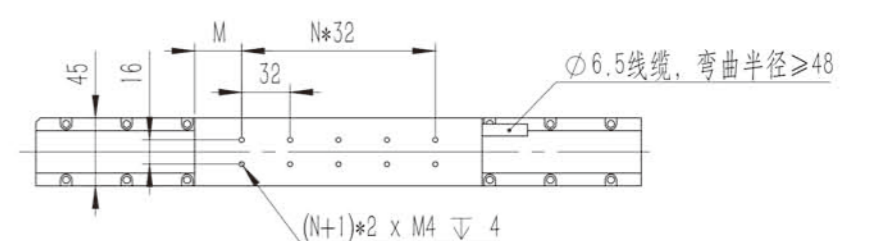
DRC Series motor

动子型号 Forcer Model

DRCS1-45
DRCS2-45
DRCP3-45



性能参数 Performance parameters	S1-45	S2-45	P3-45	单位 unit
峰值推力 Peak force	220	460	700	N
持续推力 Continuous force	72.6	149.2	220	N
峰值电流 Peak current	10	10	18	Arms
持续电流 Continuous current	2.2	2.2	4.4	Arms
电机常数 Motor constant	16.3	23.7	28.4	N/SQRT(W)
持续功率 Continuous power	19.8	39.7	60	W
最大线圈温度 Maximum coil temperature	120	120	120	°C
力常数 Force constant	33	67.8	50	N/Arms
磁变周期 Pole-Pole-Pitch	20	20	20	mm
电阻 Resistance	4.1	8.2	3.1	ohms
电感 Inductance	21	42	16	mH
电气时间常数 Electric time constant	5.1	5.1	5.2	ms
反电动势常数 Back EMF Constant	27	55.3	40.8	Vpeak/m/s
动子质量 Forcer weight	0.6	1.1	1.6	kg
定子质量 Stator weight	2.8	2.8	2.8	kg/m
吸力大小 magnetic attraction force	0.44	0.89	1.3	KN
动子总长 (L) Forcer Length (L)	110	190	270	mm
孔边距 (M) Hole margin (M)	23	31	23	mm
孔距总数 (N) Total hole distance(N)	2	4	7	pcs
孔位数量 Number of holes	6	10	16	pcs



定子型号

Stator model

DRC45M-400CS
DRC45M-200CS
DRC45M-80CS

定子型号 Stator model	定子长度 (L) Stator length(L)	孔距总数 (N) Total hole distance(N)	孔位数量 Number of holes
DRC45M-400CS	400	9	20
DRC45M-200CS	200	4	10
DRC45M-80CS	80	1	4

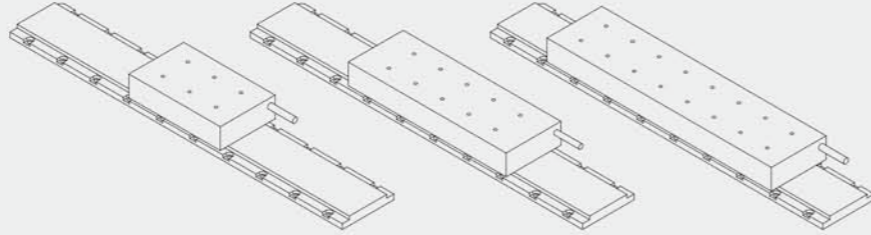


DRC系列电机

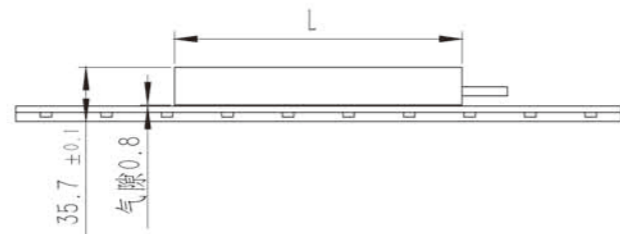
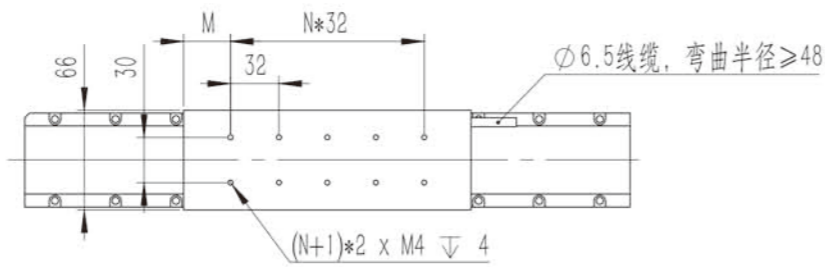
DRC Series motor

定子型号 Forcer Model

DRCS1-62
DRCS2-62
DRCP3-62



性能参数 Performance parameters	S1-62	S2-62	P3-62	单位 unit
峰值推力 Peak force	393.0	742	1000	N
持续推力 Continuous force	116.6	228.8	343.2	N
峰值电流 Peak current	10	10	18	Arms
持续电流 Continuous current	2.2	2.2	4.4	Arms
电机常数 Motor constant	21.5	30	36.4	N/SQRT(W)
持续功率 Continuous power	29.5	58.1	89.1	W
最大线圈温度 Maximum coil temperature	120	120	120	°C
力常数 Force constant	53	104	78	N/Arms
磁变周期 Pole-Pole-Pitch	20	20	20	mm
电阻 Resistance	6.1	12	4.6	ohms
电感 Inductance	31.2	62	23.4	mH
电气时间常数 Electric time constant	5.1	5.2	5.1	ms
反电动势常数 Back EMF Constant	43.2	84.9	63.6	Vpeak/m/s
定子质量 Forcer weight	1	1.7	2.4	kg
定子质量 Stator weight	4	4	4	kg/m
吸力大小 magnetic attraction force	0.70	1.4	2.1	KN
定子总长 (L) Forcer Length (L)	110	190	270	mm
孔边距 (M) Hole margin (M)	23	31	23	mm
孔距总数 (N) Total hole distance(N)	2	4	7	pcs
孔位数量 Number of holes	6	10	16	pcs

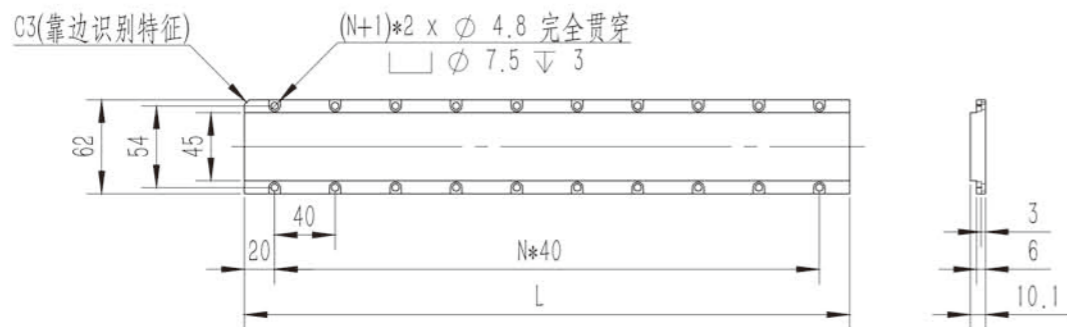


定子型号

Stator model

DRC62M-400CS
DRC62M-200CS
DRC62M-80CS

定子型号 Stator model	定子长度 (L) Stator length(L)	孔距总数 (N) Total hole distance(N)	孔位数量 Number of holes
DRC62M-400CS	400	9	20
DRC62M-200CS	200	4	10
DRC62M-80CS	80	1	4

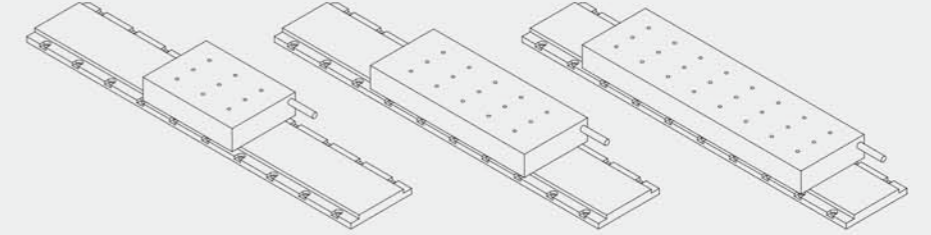


DRC系列电机

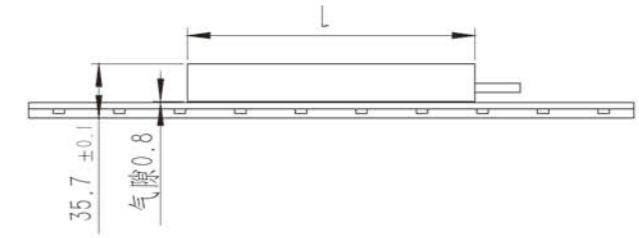
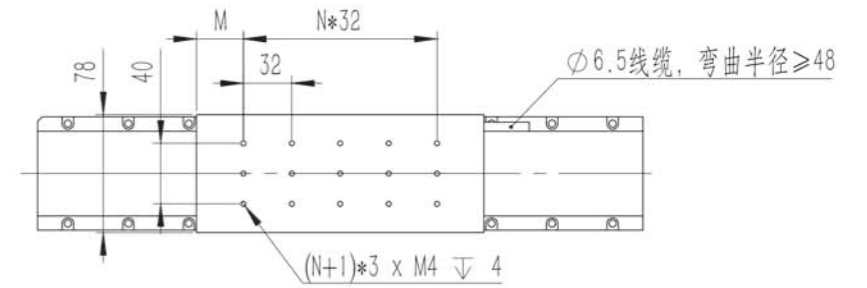
DRC Series motor

定子型号 Forcer Model

DRCS1-75
DRCP2-75
DRCP3-75



性能参数 Performance parameters	S1-75	P2-75	P3-75	单位 unit
峰值推力 Peak force	495	988	1245	N
持续推力 Continuous force	144.1	288.2	441	N
峰值电流 Peak current	10	18	18	Arms
持续电流 Continuous current	2.2	4.4	4.5	Arms
电机常数 Motor constant	24.6	34.5	42.6	N/SQRT(W)
持续功率 Continuous power	34.4	69.7	107.3	W
最大线圈温度 Maximum coil temperature	120	120	120	°C
力常数 Force constant	65.5	65.5	98	N/Arms
磁变周期 Pole-Pole-Pitch	20	20	20	mm
电阻 Resistance	7.1	3.6	5.3	ohms
电感 Inductance	37	18.6	27.7	mH
电气时间常数 Electric time constant	5.2	5.2	5.2	ms
反电动势常数 Back EMF Constant	51.4	53.4	80.0	Vpeak/m/s
定子质量 Forcer weight	1.2	2.1	3.1	kg
定子质量 Stator weight	4.8	4.8	4.8	kg/m
吸力大小 magnetic attraction force	0.9	1.7	2.6	KN
定子总长 (L) Forcer Length (L)	110	190	270	mm
孔边距 (M) Hole margin (M)	23	31	23	mm
孔距总数 (N) Total hole distance(N)	2	4	7	pcs
孔位数量 Number of holes	9	15	24	pcs

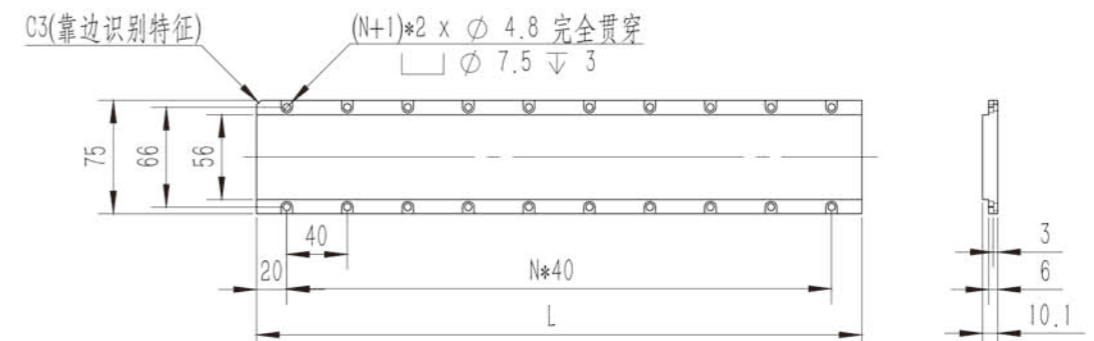


定子型号

Stator model

DRC75M-400CS
DRC75M-200CS
DRC75M-80CS

定子型号 Stator model	定子长度 (L) Stator length(L)	孔距总数 (N) Total hole distance(N)	孔位数量 Number of holes
DRC75M-400CS	400	9	20
DRC75M-200CS	200	4	10
DRC75M-80CS	80	1	4

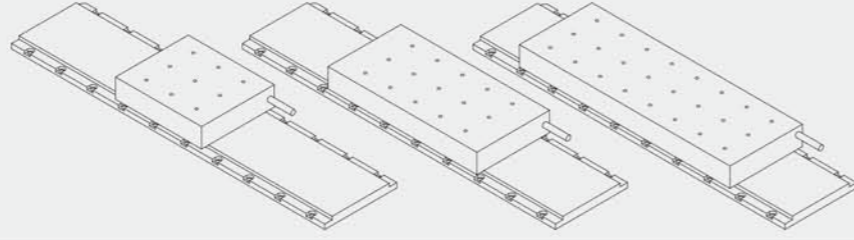


DRC系列电机

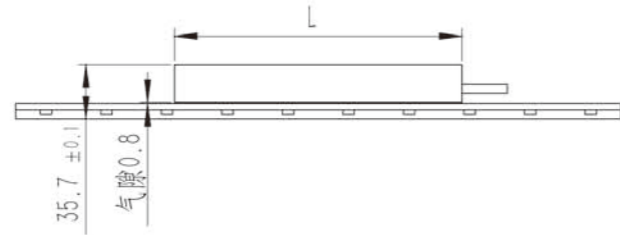
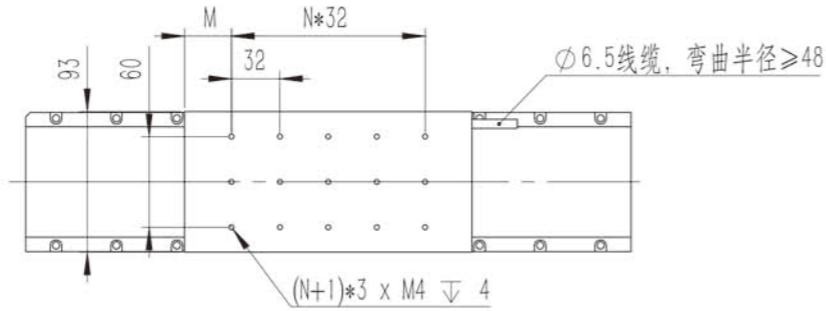
DRC Series motor

定子型号 Forcer Model

DRCS1-92
DRCP2-92
DRCP3-92



性能参数 Performance parameters	S1-92	P2-92	P3-92	单位 unit
峰值推力 Peak force	642	1190	1580	N
持续推力 Continuous force	189.2	387.2	567.6	N
峰值电流 Peak current	10	18	24	Arms
持续电流 Continuous current	2.2	4.4	6.6	Arms
电机常数 Motor constant	28.7	30.9	49.7	N/SQRT(W)
持续功率 Continuous power	43.6	87.1	130.7	W
最大线圈温度 Maximum coil temperature	120	120	120	°C
力常数 Force constant	86	88	86	N/Arms
磁变周期 Pole-Pole-Pitch	20	20	20	mm
电阻 Resistance	9	4.5	3	ohms
电感 Inductance	47	24	15.7	mH
电气时间常数 Electric time constant	5.2	5.3	5.2	ms
反电动势常数 Back EMF Constant	70	71.8	70.2	Vpeak/m/s
定子质量 Stator weight	1.5	3	4.5	kg
定子质量 Stator weight	6.3	6.3	6.3	kg/m
吸力大小 magnetic attraction force	1.1	2.3	3.4	KN
定子总长 (L) Forcer Length (L)	110	190	270	mm
孔边距 (M) Hole margin (M)	23	31	23	mm
孔距总数 (N) Total hole distance(N)	2	4	7	pcs
孔位数量 Number of holes	9	15	24	pcs

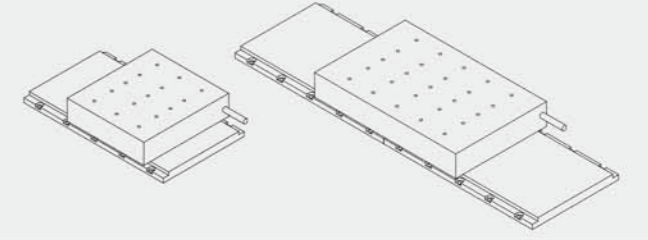


DRC系列电机

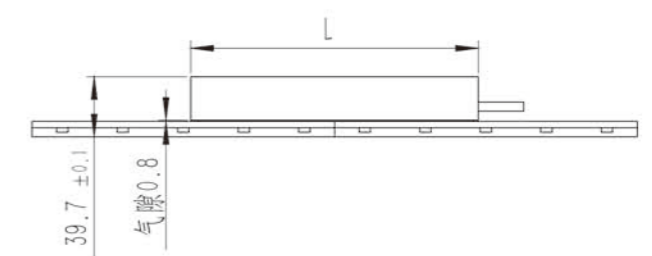
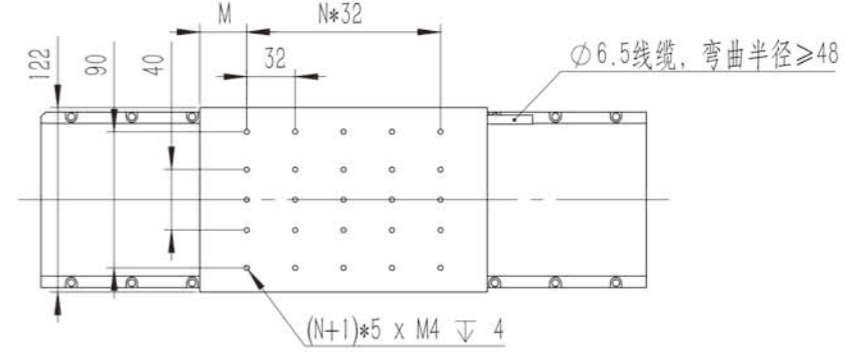
DRC Series motor

定子型号 Forcer Model

DRCS1-116H
DRCP2-116H



性能参数 Performance parameters	S1-116H	P2-116H	单位 unit
峰值推力 Peak force	1000	2010	N
持续推力 Continuous force	308	616	N
峰值电流 Peak current	10	18	Arms
持续电流 Continuous current	2.2	4.4	Arms
电机常数 Motor constant	31.6	52.9	N/SQRT(W)
持续功率 Continuous power	67.8	135.5	W
最大线圈温度 Maximum coil temperature	120	120	°C
力常数 Force constant	140	140	N/Arms
磁变周期 Pole-Pole-Pitch	20	20	mm
电阻 Resistance	14	7	ohms
电感 Inductance	105	53	mH
电气时间常数 Electric time constant	7.5	7.6	ms
反电动势常数 Back EMF Constant	97.1	114.2	Vpeak/m/s
定子质量 Stator weight	2.2	4.5	kg
定子质量 Stator weight	8	8	kg/m
吸力大小 magnetic attraction force	1.8	3.7	KN
定子总长 (L) Forcer Length (L)	110	190	mm
孔边距 (M) Hole margin (M)	23	31	mm
孔距总数 (N) Total hole distance(N)	2	4	pcs
孔位数量 Number of holes	15	25	pcs

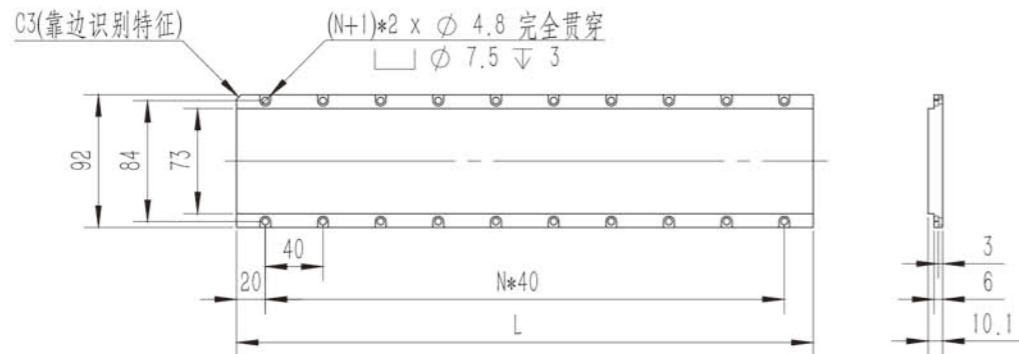


定子型号

Stator model

DRC92M-400CS
DRC92M-200CS
DRC92M-80CS

定子型号 Stator model	定子长度 (L) Stator length(L)	孔距总数 (N) Total hole distance(N)	孔位数量 Number of holes
DRC92M-400CS	400	9	20
DRC92M-200CS	200	4	10
DRC92M-80CS	80	1	4

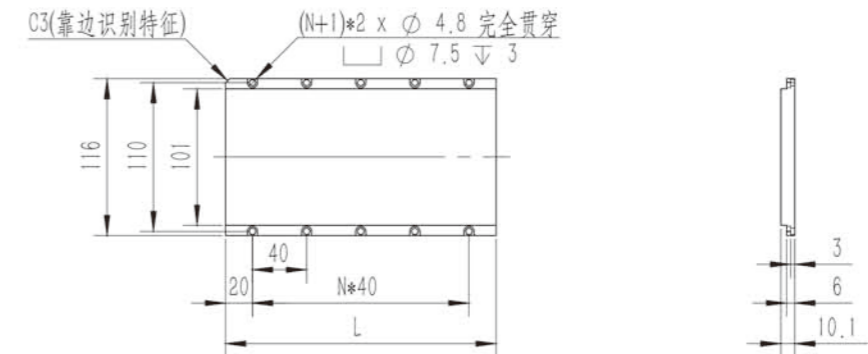


定子型号

Stator model

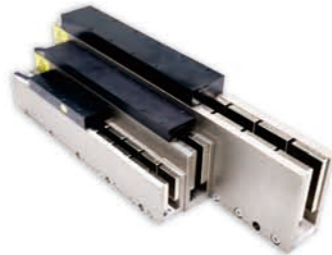
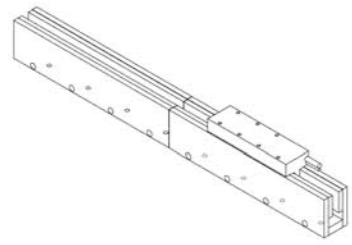
DRC116M-200CS
DRC116M-80CS

定子型号 Stator model	定子长度 (L) Stator length(L)	孔距总数 (N) Total hole distance(N)	孔位数量 Number of holes
DRC116M-200CS	200	4	10
DRC116M-80CS	80	1	4



DIREC SEIKO

无铁芯直线电机 Ironless Linear Motor



德瑞DRI系列无铁芯直线电机，基于绝对的零齿槽力效应、超平滑运动要求的设计理念，以更大限度地产生驱动力和通量回转路径用于磁路。这些设计特点特别适用于高精度、高加速度的应用，成为您高配置要求的理想解决方案。

DIREC DRI series ironless linear motors perform with zero cogging force effect, ultra-smooth motion requirements of the design concept, to generate more driving force and flux swing path for the magnetic circuit. These design features are ideal for high precision, high acceleration applications, making them an ideal solution for your high configuration requirements.

无铁芯直线电机命名规则 Ironless linear motor naming rules

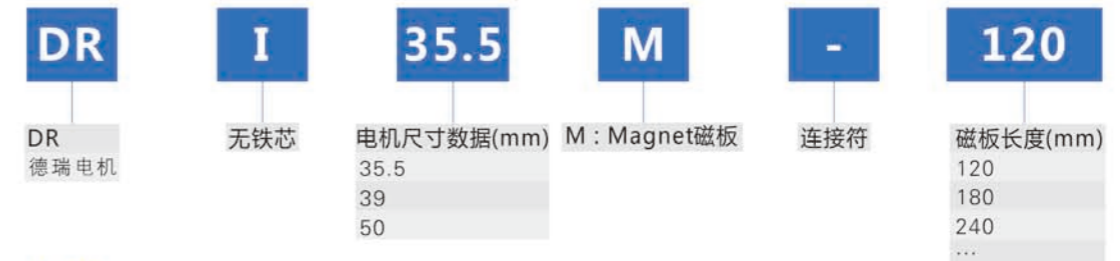
动子命名规则

Name of the Motor Forcer



定子命名规则

Name of the stator



优势 Advantage

- ※ 无电磁吸引力、无齿槽力
- ※ No electromagnetic attraction, no cogging force
- ※ 高峰值推力和持续推力
- ※ High peak force and continuous force
- ※ 低重量动子，高速度、高加速度
- ※ Low weight mover, high speed, high acceleration
- ※ 固定气隙，易于对齐及安装
- ※ Fixed air gap for easy alignment and installation
- ※ 拼接定子，行程可无限延长
- ※ Stitching the stator, the stroke can be extended indefinitely

应用范围 Application Range

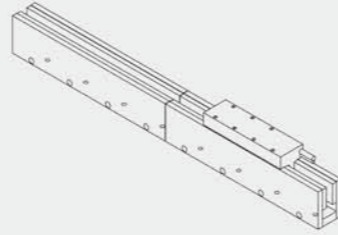
- ※ 激光加工设备【激光切割/雕刻/打标/钻孔/划线】
- ※ Laser Processing
- ※ 半导体设备【半导体固晶机/焊线机/晶圆探针台】
- ※ Semiconductor
- ※ 精密数控机床
- ※ Precision CNC Machine
- ※ 电子生产设备
- ※ Electronic Production
- ※ 精密检测设备
- ※ Precision Testing
- ※ 医疗设备
- ※ Medical equipment
- ※ 3D打印
- ※ 3D Printing
- ※ 工业自动化领域
- ※ Industrial Automation
- ※ 物流运输系统和轨道交通等行业
- ※ Logistics Transmission Systems and Rail Transit

无铁芯直线电机

Ironless linear motor

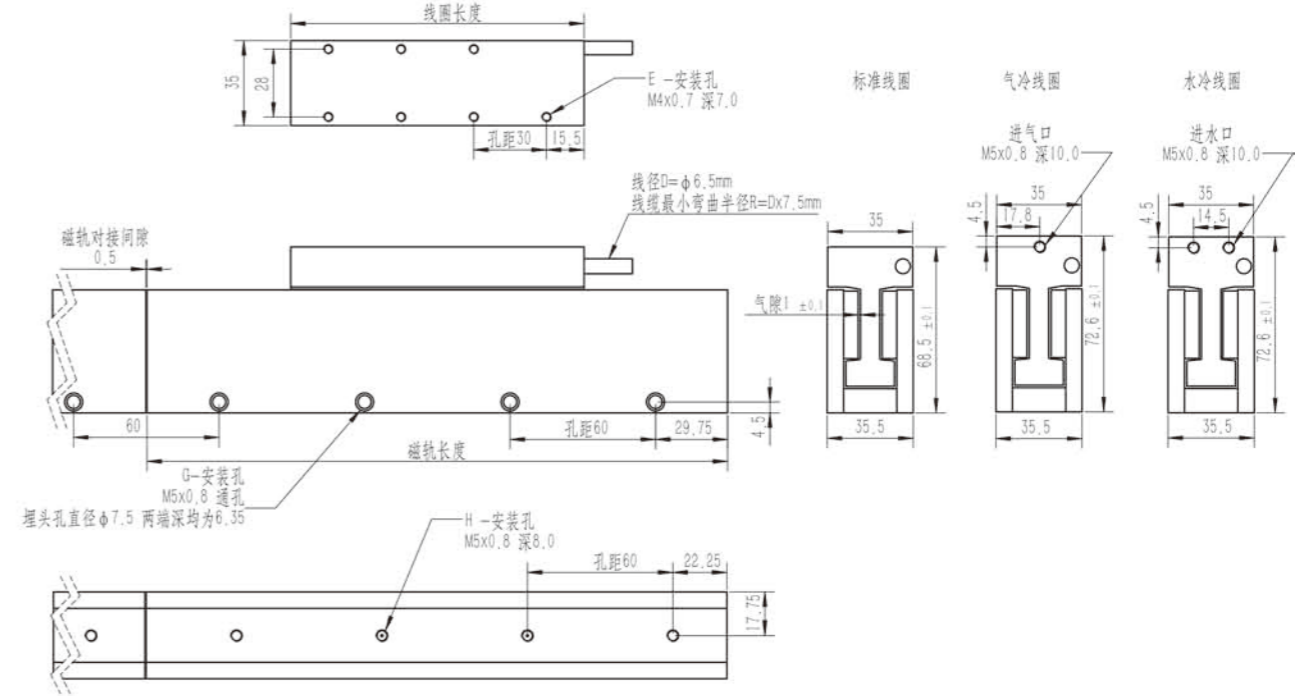
DRIS/PS-35.5系列

- ◆ 持续推力 28.35-170.1N
- ◆ 峰值推力 141.75-850.5N
- ◆ Continuous force 28.35-170.1N
- ◆ Peak force 141.75-850.5N



性能参数 Performance parameters	SS1-35.5	SS2-35.5	PS2-35.5	SS3-35.5	PS3-35.5	SS4-35.5	PS4-35.5	SS6-35.5	PS6-35.5	单位 unit
	串联 In series	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	
持续推力,线圈@100°C Continuous force, coil @100°C	28.35	56.7		85		113.4		170.1		N
持续推力,气冷线圈@100°C Continuous force, air cooled, coil @100°C	32.4	64.8		97.2		129.6		194.4		N
持续推力,水冷线圈@100°C Continuous force, water cooled, coil @100°C	33.75	67.5		101.25		135		202.5		N
峰值推力 Peak force	141.75	283.5		425.25		567		850.5		N
电机常数 Motor constant	7.67	10.84		13.27		15.34		18.78		N/SqRt(W)
持续功率 Continuous power	13.67	27.34		41		54.68		82		W
峰值功率 Peak power	314.78	683.55		1025.3		1367		2050.6		W
电气周期 Electrical cycle	60	60		60		60		60		mm
最大总线电压 Maximum bus voltage	330	330		330		330		330		V
最大线圈温度 Maximum coil temperature	130	130		130		130		130		°C
热耗散常数 Heat dissipation constant	0.18	0.36		0.54		0.72		1.08		W/°C
持续电流 Continuous current	2.1	2.1	4.2	2.1	4.2	2.1	4.2	2.1	4.2	Arms
持续电流,气冷 Continuous current, Air cooling	2.4	2.4	4.8	2.4	4.8	2.4	4.8	2.4	4.8	Arms
持续电流,水冷 Continuous current, Water cooling	2.5	2.5	5	2.5	5	2.5	5	2.5	5	Arms
峰值电流 Peak current	10.5	10.5	21	10.5	21	10.5	21	10.5	21	Arms
力常数 Force constant	13.5	27	13.5	40.5	20.25	54	27	81	40.5	N/Arms
反电动势常数 Back EMF Constant	11.02	22.03	11.02	33.05	16.52	44.06	22.03	66.1	33.05	Vpeak/(m/s)
电感 Inductance	2.3	4.59	1.15	6.88	1.72	9.18	2.29	13.76	3.44	mH
终端电阻@25°C Terminal resistance @25°C	3.1	6.2	3.1	9.3	2.33	12.4	3.1	18.6	4.65	Ohms
电气时间常数 Electric time constant	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	ms
最大速度 (直流母线电压: 310V) Maximum speed (DC bus voltage: 310V)	21.1	10.6	21.1	7.0	14.1	5.3	10.6	3.5	7.0	m/s
机械参数 Mechanical parameters										
线圈质量 Coil weight	0.2	0.4		0.65		0.95		1.35		Kg
线圈长度 Coil length	61	121		181		241		361		mm
磁轨质量 (每120毫米) Magnetic track weight (per 120mm)					1					Kg
磁吸引力 Magnetic attraction					0					N

DRIS-35.5系列尺寸 mm



电机线圈 Motor coil		
型号 Model	线圈长 (mm) Coil length (mm)	正面安装孔数量 (E) Number of front mounting holes (E)
DRIS/PS1-35.5	61.0	3
DRIS/PS2-35.5	121.0	7
DRIS/PS3-35.5	181.0	11
DRIS/PS4-35.5	241.0	15
DRIS/PS6-35.5	361.0	23

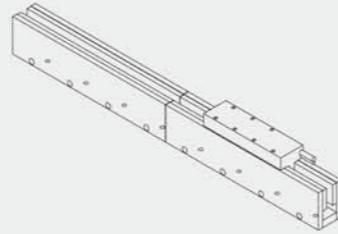
电机磁轨 Motor track			
型号 Model	磁轨长 Track length	侧面安装孔数量 (G) Number of side mounting holes (G)	底面安装孔数量 (H) Number of bottom mounting holes (H)
DRI35.5M-120	119.5	2	2
DRI35.5M-180	179.5	3	3
DRI35.5M-240	239.5	4	4
DRI35.5M-300	299.5	5	5

无铁芯直线电机

Ironless linear motor

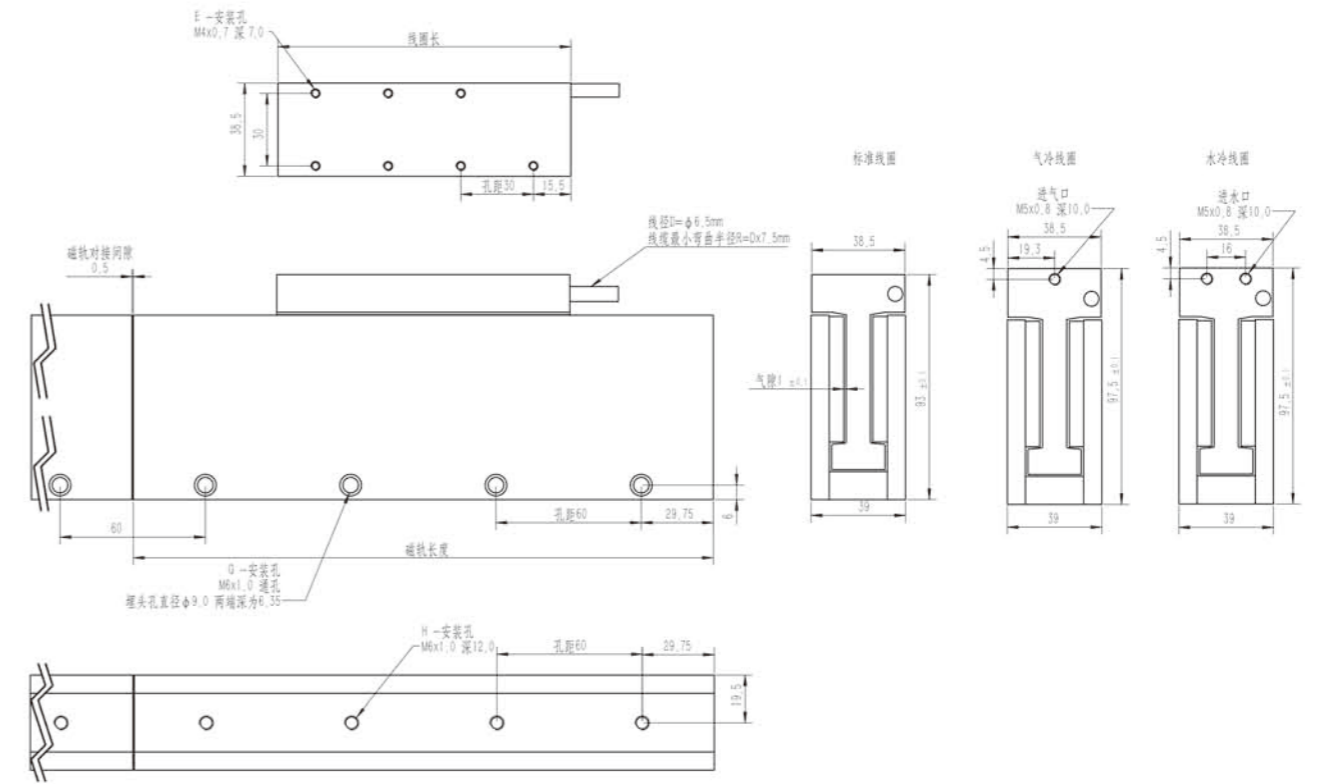
DRIS/PS-39系列

- ◆ 持续推力 56-442N
- ◆ 峰值推力 315-2496N
- ◆ Continuous force 56-442N
- ◆ Peak force 315-2496N



性能参数 Performance parameters	SS1-39		SS2-39		PS2-39		SS3-39		PS3-39		SS4-39		PS4-39		SS5-39		PS5-39		SS6-39		PS6-39		SS8-39		PS8-39		单位 unit
	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	
持续推力,线圈@100°C Continuous force, coil @100°C	56	112	168	220	275	332	442																			N	
持续推力,气冷线圈@100°C Continuous force, air cooled, coil @100°C	67	131	200	264	330	395	530																			N	
持续推力,水冷线圈@100°C Continuous force, water cooled, coil @100°C	78	155	225	300	380	460	614																			N	
峰值推力 Peak force	315	625	938	1240	1562	1870	2496																			N	
电机常数 Motor constant	11.2	15.8	19.4	22.4	25	27.4	31.65																			N/SqRt(W)	
持续功率 Continuous power	24.3	48.7	73	97.3	121.7	146	194.7																			W	
峰值功率 Peak power	780	1550	2330	3100	3885	4664	6219.2																			W	
电气周期 Electrical cycle	60	60	60	60	60	60	60																			mm	
最大总线电压 Maximum bus voltage	330	330	330	330	330	330	330																			V	
最大线圈温度 Maximum coil temperature	130	130	130	130	130	130	130																			°C	
热耗散常数 Heat dissipation constant	0.32	0.65	0.97	1.3	1.62	1.95	2.6																			W/°C	
持续电流 Continuous current	2.3	2.3	4.6	2.3	4.6	2.3	4.6	2.3	4.6	2.3	4.6	2.3	4.6	2.3	4.6	2.3	4.6	2.3	4.6	2.3	4.6	2.3	4.6	2.3	4.6	Arms	
持续电流,气冷 Continuous current, Air cooling	2.8	2.8	5.5	2.8	5.5	2.8	5.5	2.8	5.5	2.8	5.5	2.8	5.5	2.8	5.5	2.8	5.5	2.8	5.5	2.8	5.5	2.8	5.5	2.8	5.5	Arms	
持续电流,水冷 Continuous current, Water cooling	3.2	3.2	6.4	3.2	6.4	3.2	6.4	3.2	6.4	3.2	6.4	3.2	6.4	3.2	6.4	3.2	6.4	3.2	6.4	3.2	6.4	3.2	6.4	3.2	6.4	Arms	
峰值电流 Peak current	13	13	26	13	26	13	26	13	26	13	26	13	26	13	26	13	26	13	26	13	26	13	26	13	26	Arms	
力常数 Force constant	24.3	48.7	24.3	73	36.5	95.7	47.8	119.6	59.8	144.3	72.2	192.2	96.1													N/Arms	
反电动势常数 Back EMF Constant	19.5	39	19.5	58.4	29.2	78.6	39.3	97	48.5	116.4	58.2	156	78													Vpeak/(m/s)	
电感 Inductance	3.45	6.88	1.7	10.4	2.6	13.5	3.4	17	4.3	22	5.3	27	6.8													mH	
终端电阻@25°C Terminal resistance @25°C	4.5	9.1	2.2	13.8	3.4	18.3	4.5	22.5	5.7	27.5	6.8	37	9.4													Ohms	
电气时间常数 Electric time constant	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76													ms	
最大速度 (直流母线电压: 310V) Maximum speed (DC bus voltage: 310V)	11.9	6.0	11.9	4.0	8.0	3.0	5.9	2.4	4.8	2.0	4.0	1.5	3.0													m/s	
机械参数 Mechanical parameters																											
线圈质量 Coil weight	0.3	0.6	0.9	1.21	1.51	1.82	2.4																			Kg	
线圈长度 Coil length	61	121	181	241	301	361	481																			mm	
磁轨质量 (每120毫米) Magnetic track weight (per 120mm)	1.800																										Kg
磁吸引力 Magnetic attraction																											N

DRIS-39系列尺寸 mm



电机线圈 Motor coil		
型号 Model	线圈长 (mm) Coil length (mm)	正面安装孔数量 (E) Number of front mounting holes (E)
DRIS/PS1-39	61.0	3
DRIS/PS2-39	121.0	7
DRIS/PS3-39	181.0	11
DRIS/PS4-39	241.0	15
DRIS/PS5-39	301.0	19
DRIS/PS6-39	361.0	23
DRIS/PS8-39	481.0	31

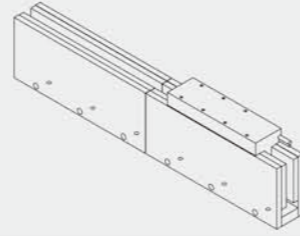
电机磁轨 Motor track			
型号 Model	磁轨长 Track length	侧面安装孔数量 (G) Number of side mounting holes (G)	底面安装孔数量 (H) Number of bottom mounting holes (H)
DRI39M-120	119.5	2	2
DRI39M-180	179.5	3	3
DRI39M-240	239.5	4	4
DRI39M-300	299.5	5	5

无铁芯直线电机

Ironless linear motor

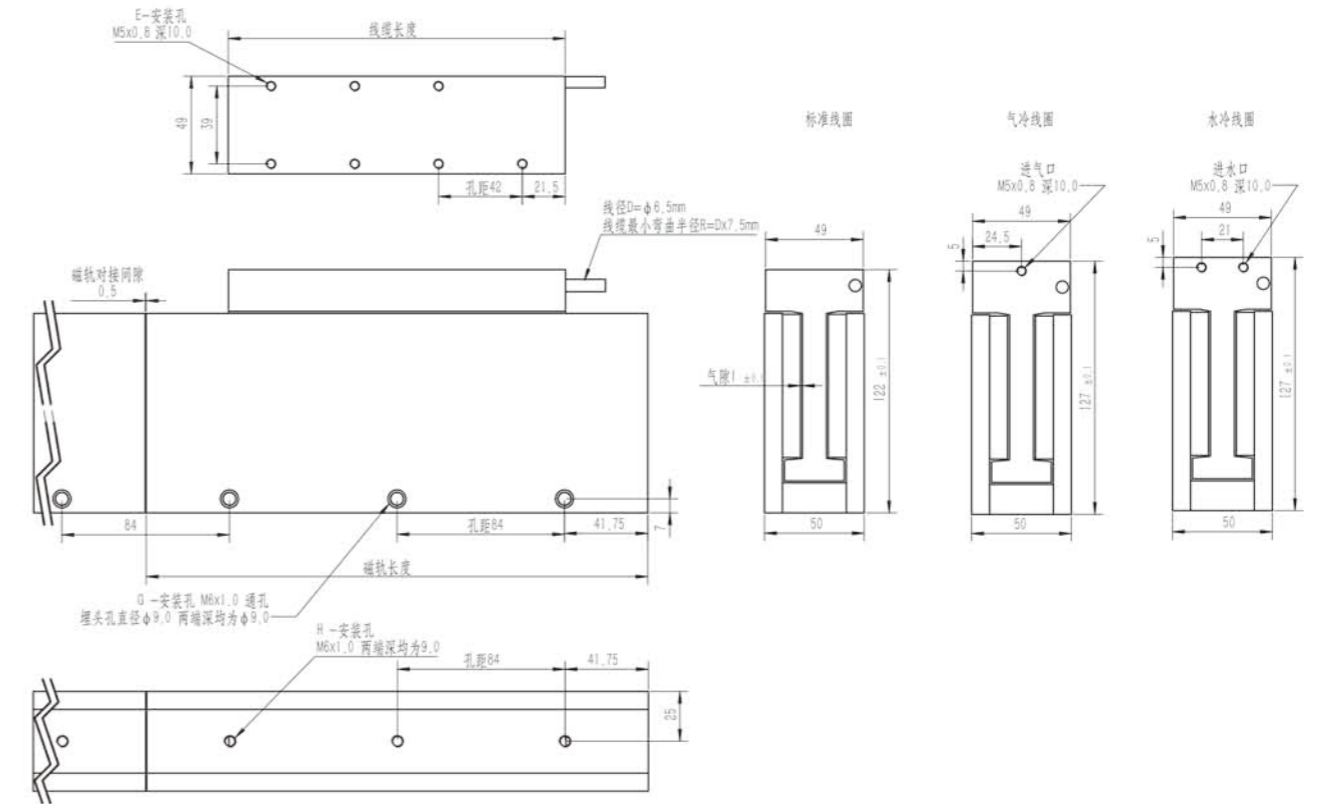
DRIS/PS-50系列

- ◆ 持续推力 96-884N
- ◆ 峰值推力 700-6360N
- ◆ Continuous force 96-884N
- ◆ Peak force 700-6360N



性能参数 Performance parameters	SS1-50		SS2-50		PS2-50		SS3-50		PS3-50		SS4-50		PS4-50		SS5-50		PS5-50		SS6-50		PS6-50		SS8-50		PS8-50		SS9-50		PS9-50		单位 unit									
	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel	串联 In series	并联 In parallel												
持续推力,线圈@100°C Continuous force, coil @100°C	96	190	294	390	490	588	785	884																						N										
持续推力,气冷,线圈@100°C Continuous force, air cooled, coil @100°C	116	235	353	470	588	705	940	1060																						N										
持续推力,水冷,线圈@100°C Continuous force, water cooled, coil @100°C	126	250	384	510	640	760	1020	1140																						N										
峰值推力 Peak force	700	1420	2130	2835	3540	4240	5650	6360																						N										
电机常数 Motor constant	19.2	27	33	38.4	43	47	54.2	57.5																						N/SqRt(W)										
持续功率 Continuous power	26.3	52.5	78.8	105	131.3	157.5	210	236.3																						W										
峰值功率 Peak power	1360	2730	4050	4450	6810	8170	10900	12300																						W										
电气周期 Electrical cycle	84	84	84	84	84	84	84	84																						mm										
最大总线电压 Maximum bus voltage	330	330	330	330	330	330	330	330																						V										
最大线圈温度 Maximum coil temperature	130	130	130	130	130	130	130	130																						°C										
热耗散常数 Heat dissipation constant	0.35	0.7	1.05	1.4	1.75	2.1	2.8	3.15																						W/°C										
持续电流 Continuous current	2.5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	Arms										
持续电流,气冷 Continuous current, Air cooling	3	3	6	3	6	3	6	3	6	3	6	3	6	3	6	3	6	3	6	3	6	3	6	3	6	3	6	3	6	Arms										
持续电流,水冷 Continuous current, Water cooling	3.3	3.3	6.5	3.3	6.5	3.3	6.5	3.3	6.5	3.3	6.5	3.3	6.5	3.3	6.5	3.3	6.5	3.3	6.5	3.3	6.5	3.3	6.5	3.3	6.5	3.3	6.5	3.3	6.5	Arms										
峰值电流 Peak current	18	18	36	18	36	18	36	18	36	18	36	18	36	18	36	18	36	18	36	18	36	18	36	18	36	18	36	18	36	Arms										
力常数 Force constant	38.4	76	38	117.6	58.8	156	78	196	98	235.2	117.6	314	157	353.7	176.9															N/Arms										
反电动势常数 Back EMF Constant	32	65	32	96	48	128	64	162	81	193	96.5	257	128.5	288.8	144.4															Vpeak/(m/s)										
电感 Inductance	6.5	13	3.25	19.4	4.85	26	6.5	32.2	8.04	39.4	9.85	51	12.7	58.5	14.63															mH										
终端电阻@25°C Terminal resistance @25°C	4.1	8.3	2.15	12.5	3.1	17.2	4.3	21.8	5.3	25	6.2	32	8.3	37.8	9.45															Ohms										
电气时间常数 Electric time constant	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55															ms										
最大速度 (直流母线电压: 310V) Maximum speed (DC bus voltage: 310V)	7.3	3.6	7.3	2.4	4.8	1.8	3.6	1.4	2.9	1.2	2.4	0.9	1.8	0.8	1.6															m/s										
机械参数 Mechanical parameters																																								
线圈质量 Coil weight	0.75	1.5	2.2	3.0	3.75	4.5	5.8	6.6																						Kg										
线圈长度 Coil length	85.0	169.0	253.0	337.0	421.0	505.0	673.0	757.0																						mm										
磁轨质量 (每120毫米) Magnetic track weight (per 120mm)																4.3																						Kg		
磁吸引力 Magnetic attraction																0																								N

DRIS-50系列尺寸 mm

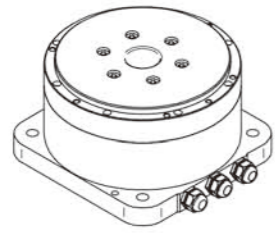


电机线圈 Motor coil		
型号 Model	线圈长 (mm) Coil length (mm)	正面安装孔数量 (E) Number of front mounting holes (E)
DRIS/PS1-50	85.0	3
DRIS/PS2-50	169.0	7
DRIS/PS3-50	253.0	11
DRIS/PS4-50	337.0	15
DRIS/PS5-50	421.0	19
DRIS/PS6-50	505.0	23
DRIS/PS8-50	673.0	31
DRIS/PS9-50	757.0	35

电机磁轨 Motor track			
型号 Model	磁轨长 Track length	侧面安装孔数量 (G) Number of side mounting holes (G)	底面安装孔数量 (H) Number of bottom mounting holes (H)
DRIS0M-168	167.5	2	2
DRIS0M-252	251.5	3	3
DRIS0M-420	419.5	5	5

DIREC SEIKO

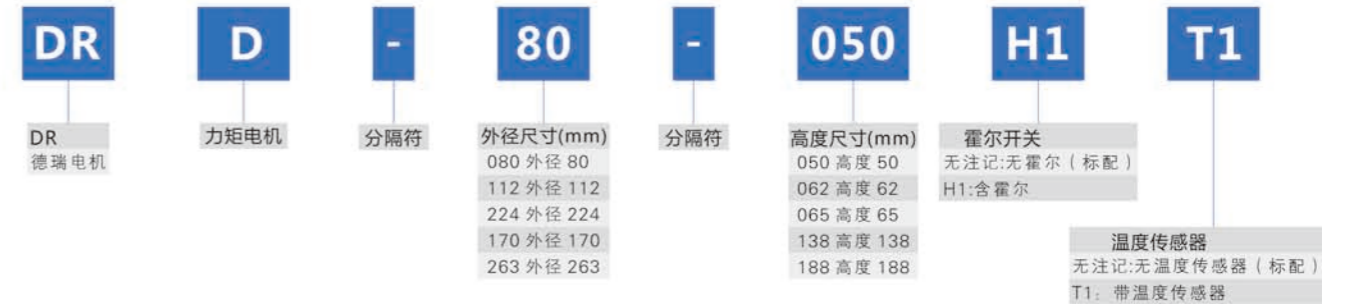
力矩电机 Torque Motor



德瑞DRD系列力矩电机集成高分辨率编码器，具有高动态响应和重复精度，能够实现较高的可靠性和低振动、低噪音，可适用于高速和低速工况，采用中空轴设计，安装灵活，方便布线。

DIREC DRD series torque Motors integrate high-resolution encoders, with high dynamic response and repeatability, high reliability, low vibration/noise, fit for high-speed & low-speed operating conditions, hollow axis design, flexible installation, easy wiring.

力矩电机命名规则 Torque motor naming rules



优势 Advantage

- 安装灵活、可完全集成于机器中、降低空间需求
- 具有优异的精度、性能、动态特性
- 高重复性
- 集成霍尔 (可选)、集成温度传感器 (可选)
- Flexible and integrated in installation in a smaller space
- Excellent precision, performance and dynamics
- High repeatability
- Integrated hall (optional), integrated temperature sensor (optional)

应用范围 Application Range

- 旋转分度机器、回转台、旋转轴
- 工业机器人
- 检测、测试设备
- Rotary Indexing Machine, Rotary Table, Rotary Shaft
- Industrial Robot
- Inspection and Testing Equipment

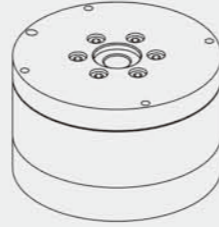
环境要求 Environmental Requirements

		电机本体 Motor ontology	备注 Note
工作环境 The operation environment	温度 Temperature	0 ~ 60°C	
	湿度 Humidity	相对90%@温度40°C Relative 90% @ temperature 40 °C	无结霜 There is no frost
储存环境 Storage environment	温度 Temperature	-20 ~ 70°C	
	湿度 Humidity	相对90%@温度40°C Relative 90% @ temperature 40 °C	无结霜 There is no frost
环境要求 Environmental requirements		无腐蚀性气体尘埃 Non-corrosive gas dust 海拔1000M以下 The altitude is below 1000M	

力矩电机 Torque motor

DRD-080-050

- ◆ 连续转矩 0.6N.m
- ◆ 峰值转矩 1.9N.m
- ◆ Continuous torque 0.6N.m
- ◆ Peak torque 1.9N.m



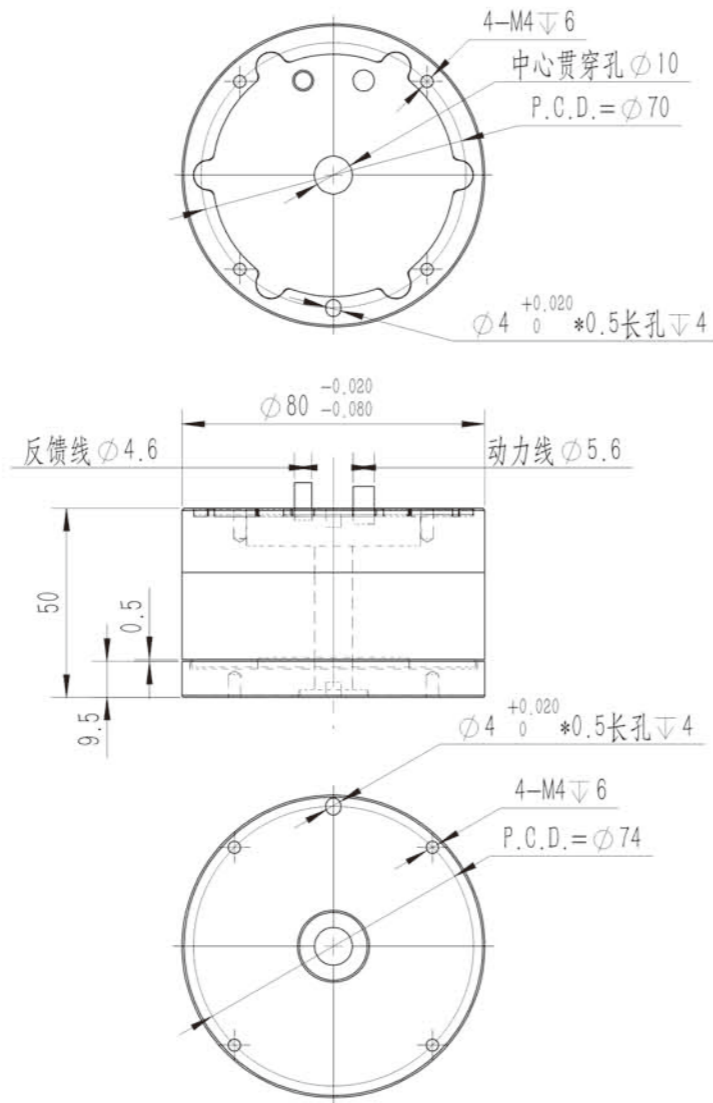
特点:

- 中空轴设置，可完全集成于机器中
- 精度保持性能好
- 集成高精密光栅码盘
- 高速、大扭矩
- 适合多工位精密分割盘控制应用

Features:

- Hollow shaft setting for complete integration in the machine
- Precision retaining ability
- Integrated high precision grating code disk
- High speed, high torque
- Suitable for multi-station precision segmentation disc control applications

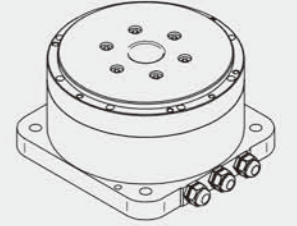
性能参数 Performance parameters	数值 Value	单位 unit
连续转矩 Continuous torque	0.6	N.m
连续电流 Continuous current	3.2	Arms
峰值转矩 Peak torque	1.9	N.m
峰值电流 Peak current	9.6	Arms
转矩常数 Torque constant	0.2	Nm/Arms
电阻(25°C) Resistance	1.2	Ω(25°C)
电感(25°C) Inductance	1	mH(25°C)
极数 Force constant	10	
反电动势常数 Back EMF Constant	0.16	V/rad/s
最大额定功耗 Maximum rated power consumption	23.5	W(25°C)
电机常数 Motor constant	0.1	Nm/√W
转动惯量 Moment of inertia	1.5*10 ⁻⁴	Kg.m ²
电机重量 Motor weight	1.2	Kg
最高转速 Highest speed	480	rpm(220VAC)
定位精度 Positioning accuracy	±50	Arc sec
重复精度 Repeatability	±2.5	Arc sec
分辨率 Resolution ratio	5000	sin/cos
最大轴向载荷 Maximum axial load	50	N
最大径向载荷 Maximum radial load	/	N.m
轴向偏摆 Axial runout	0.03	mm
径向偏摆 Radial runout	0.03	mm
电机高度 Motor height	50	mm



力矩电机 Torque motor

DRD-112-065

- ◆ 连续转矩 3.0N.m
- ◆ 峰值转矩 9N.m
- ◆ Continuous torque 3.0N.m
- ◆ Peak torque 9N.m



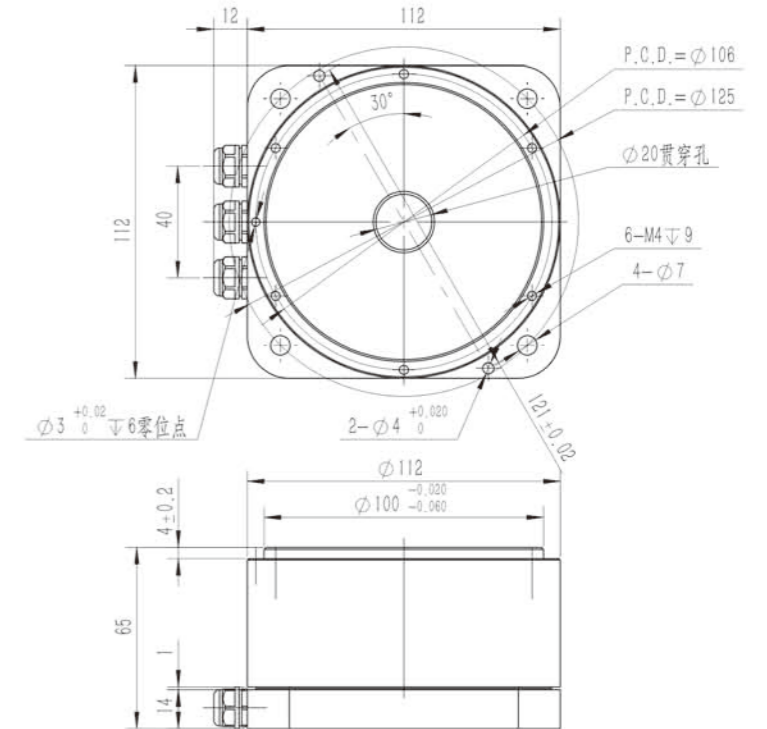
特点:

- 力矩电机
- 集成高精密光栅码盘
- 高速、大扭矩
- 适合多工位精密分割盘控制应用

Features:

- Torque motor
- Integrated high-precision grating code disk
- High speed, high torque
- Suitable for multi-station precision split disk control applications

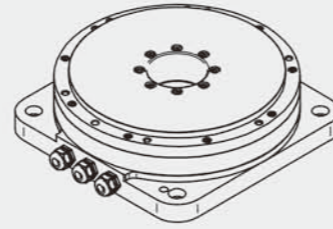
性能参数 Performance parameters	数值 Value	单位 unit
连续转矩 Continuous torque	3.0	N.m
连续电流 Continuous current	2.5	Arms
峰值转矩 Peak torque	9	N.m
峰值电流 Peak current	7.5	Arms
转矩常数 Torque constant	1.2	Nm/Arms
电阻(25°C) Resistance	2.2	Ω(25°C)
电感(25°C) Inductance	1.8	mH(25°C)
极数 Force constant	28	
反电动势常数 Back EMF Constant	1.0	V/rad/s
最大额定功耗 Maximum rated power consumption	26.3	W(25°C)
电机常数 Motor constant	0.6	Nm/√W
转动惯量 Moment of inertia	0.0026	Kg.m ²
电机重量 Motor weight	2.7	Kg
最高转速 Highest speed	280	rpm(220VAC)
定位精度 Positioning accuracy	±30	Arc sec
重复精度 Repeatability	±2.5	Arc sec
分辨率 Resolution ratio	8192	sin/cos
最大轴向载荷 Maximum axial load	2500	N
最大径向载荷 Maximum radial load	20	N.m
轴向偏摆 Axial runout	0.005	mm
径向偏摆 Radial beat	0.005	mm
电机高度 Motor height	65	mm



力矩电机 Torque motor

DRD-170-050

- ◆ 连续转矩 4.5N.m
- ◆ 峰值转矩 14N.m
- ◆ Continuous torque 4.5N.m
- ◆ Peak torque 14N.m



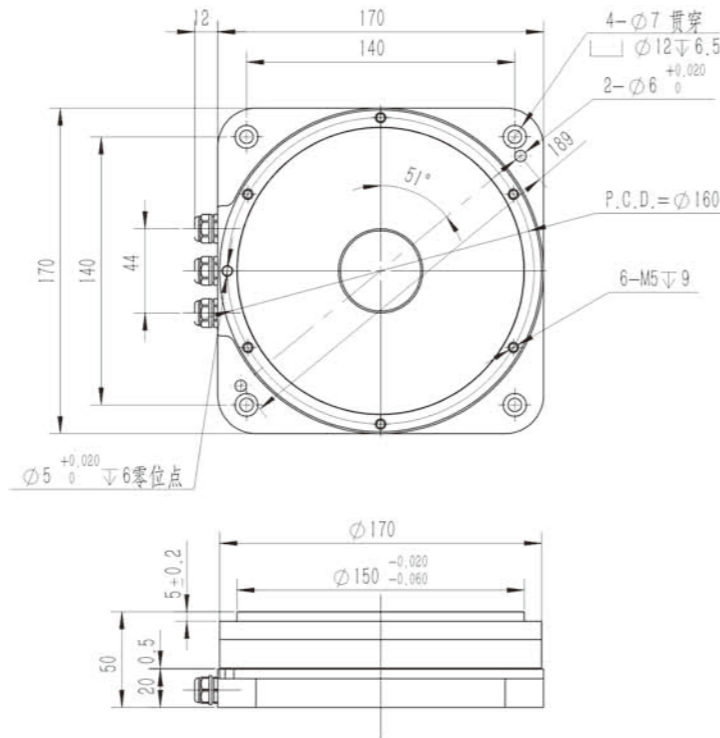
特点:

- 力矩电机 (外转子)
- 集成高精光栅码盘
- 高速、大扭矩
- 适合多工位精密分割盘控制应用

Features:

- Torque motor (outer rotor)
- Integrated high-precision grating code disk
- High speed, high torque
- Suitable for multi-station precision split disk control applications

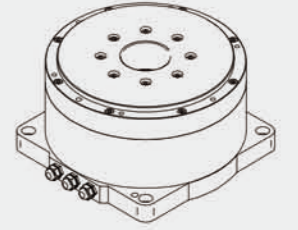
性能参数 Performance parameters	数值 Value	单位 unit
连续转矩 Continuous torque	4.5	N.m
连续电流 Continuous current	1.4	Arms
峰值转矩 Peak torque	14.0	N.m
峰值电流 Peak current	4.2	Arms
转矩常数 Torque constant	3.4	Nm/Arms
电阻(25°C) Resistance	6.0	Ω(25°C)
电感(25°C) Inductance	7.6	mH(25°C)
极数 Pole count	30	
反电动势常数 Back EMF Constant	2.8	V/rad/s
最大额定功耗 Maximum rated power consumption	22.5	W(25°C)
电机常数 Motor constant	0.9	Nm/√W
转动惯量 Moment of inertia	0.0068	Kg.m ²
电机重量 Motor weight	3.9	Kg
最高转速 Highest speed	360	rpm(220VAC)
定位精度 Positioning accuracy	±30	Arc sec
重复精度 Repeatability	±2.5	Arc sec
分辨率 Resolution ratio	11740	sin/cos
最大轴向载荷 Maximum axial load	2500	N
最大径向载荷 Maximum radial load	20	N.m
轴向偏摆 Axial runout	0.005	mm
径向偏摆 Radial runout	0.005	mm
电机高度 Motor height	50	mm



力矩电机 Torque motor

DRD-170-095

- ◆ 连续转矩 23.8N.m
- ◆ 峰值转矩 71N.m
- ◆ Continuous torque 23.8N.m
- ◆ Peak torque 71N.m



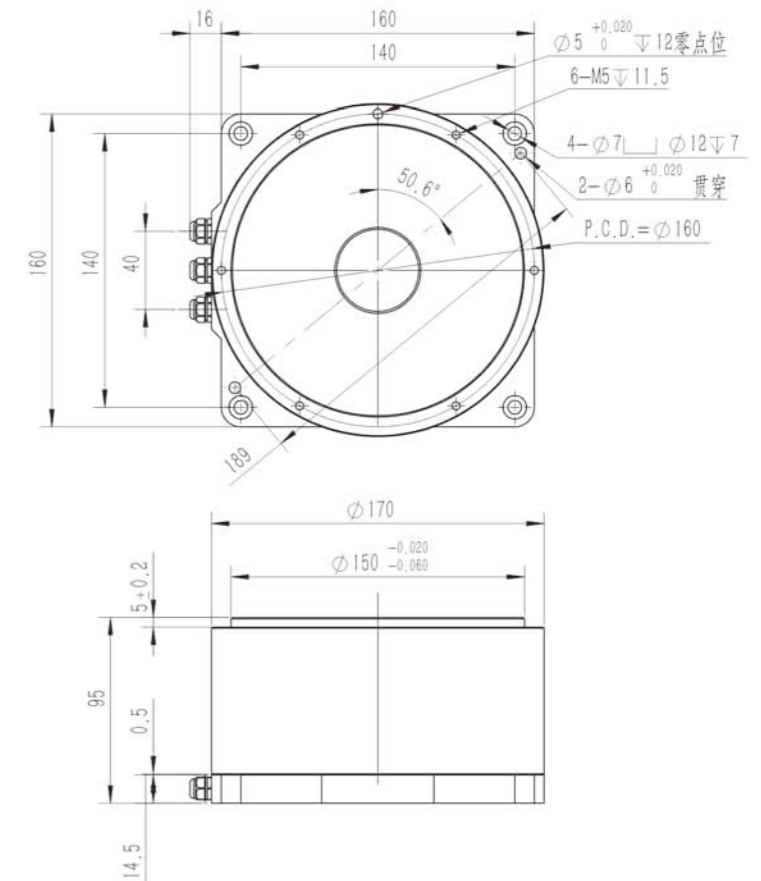
特点:

- 力矩电机 (外转子)
- 集成高精光栅码盘
- 高速、大扭矩
- 适合多工位精密分割盘控制应用

Features:

- Torque motor (outer rotor)
- Integrated high-precision grating code disk
- High speed, high torque
- Suitable for multi-station precision split disk control applications

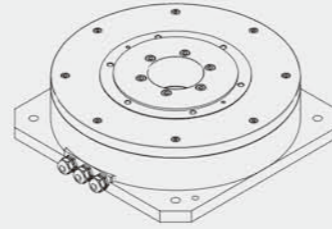
性能参数 Performance parameters	数值 Value	单位 unit
连续转矩 Continuous torque	23.8	N.m
连续电流 Continuous current	2.5	Arms
峰值转矩 Peak torque	71	N.m
峰值电流 Peak current	7.5	Arms
转矩常数 Torque constant	9.5	Nm/Arms
电阻(25°C) Resistance	2.52	Ω(25°C)
电感(25°C) Inductance	5.4	mH(25°C)
极数 Pole count	30	
反电动势常数 Back EMF Constant	7.8	V/rad/s
最大额定功耗 Maximum rated power consumption	30.1	W(25°C)
电机常数 Motor constant	4.3	Nm/√W
转动惯量 Moment of inertia	0.018	Kg.m ²
电机重量 Motor weight	9.5	Kg
最高转速 Highest speed	190	rpm(220VAC)
定位精度 Positioning accuracy	±30	Arc sec
重复精度 Repeatability	±2.5	Arc sec
分辨率 Resolution ratio	11740	sin/cos
最大轴向载荷 Maximum axial load	15000	N
最大径向载荷 Maximum radial load	150	N.m
轴向偏摆 Axial runout	0.005	mm
径向偏摆 Radial runout	0.005	mm
电机高度 Motor height	95	mm



力矩电机 Torque motor

DRD-224-062

- ◆ 连续转矩 35N.m
- ◆ 峰值转矩 105N.m
- ◆ Continuous torque 35N.m
- ◆ Peak torque 105N.m



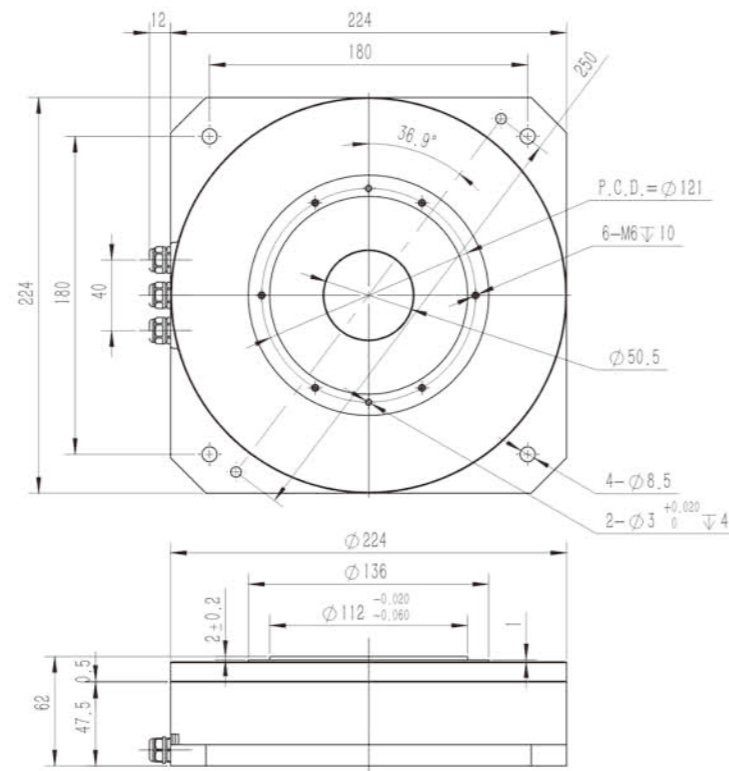
特点:

- 力矩电机 (外转子)
- 集成高精光栅码盘
- 高速、大扭矩
- 适合多工位精密分割盘控制应用

Features:

- Torque motor (outer rotor)
- Integrated high-precision grating code disk
- High speed, high torque
- Suitable for multi-station precision split disk control applications

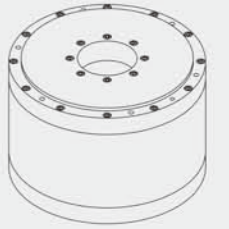
性能参数 Performance parameters	数值 Value	单位 unit
连续转矩 Continuous torque	35.0	N.m
连续电流 Continuous current	2.2	Arms
峰值转矩 Peak torque	105.0	N.m
峰值电流 Peak current	6.6	Arms
转矩常数 Torque constant	15.7	Nm/Arms
电阻(25°C) Resistance	13.2	Ω(25°C)
电感(25°C) Inductance	36.5	mH(25°C)
极数 Force constant	40	
反电动势常数 Back EMF Constant	12.8	V/rad/s
最大额定功耗 Maximum rated power consumption	122.0	W(25°C)
电机常数 Motor constant	5.6	Nm/√W
转动惯量 Moment of inertia	0.02	Kg.m ²
电机重量 Motor weight	9.2	Kg
最高转速 Highest speed	160	rpm(220VAC)
定位精度 Positioning accuracy	±30	Arc sec
重复精度 Repeatability	±2.5	Arc sec
分辨率 Resolution ratio	16384	sin/cos
最大轴向载荷 Maximum axial load	10000	N
最大径向载荷 Maximum radial load	100	N.m
轴向偏摆 Axial runout	0.005	mm
径向偏摆 Radial runout	0.005	mm
电机高度 Motor height	62	mm



力矩电机 Torque motor

DRD-263-138

- ◆ 连续转矩 150N.m
- ◆ 峰值转矩 300N.m
- ◆ Continuous torque 150N.m
- ◆ Peak torque 300N.m



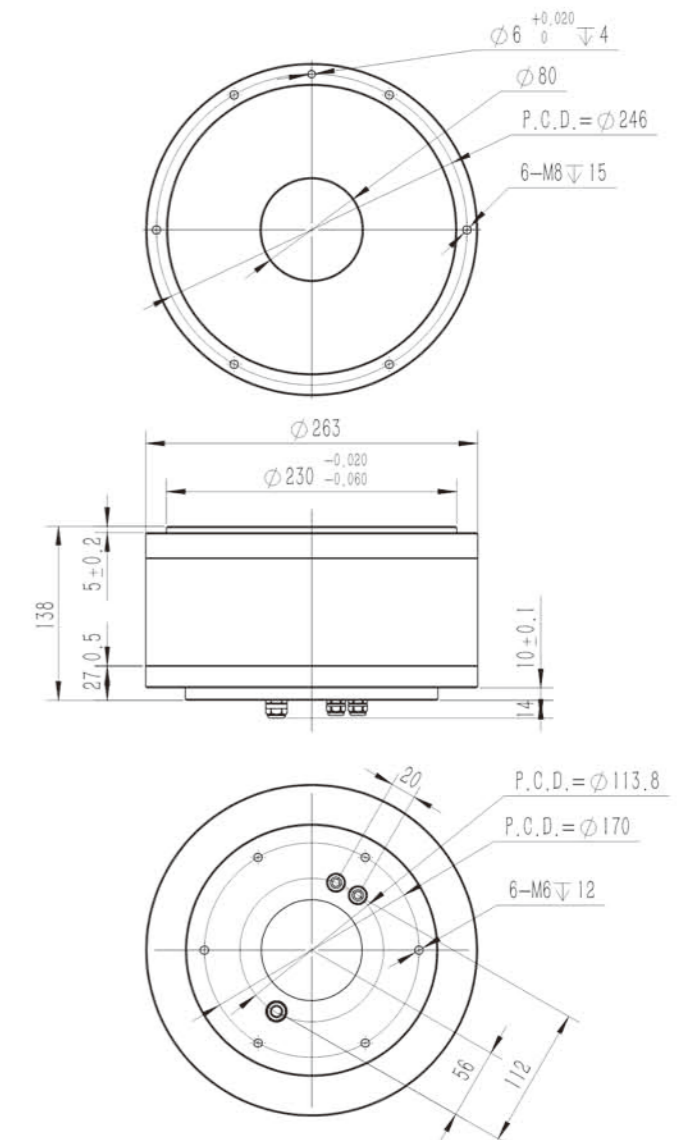
特点:

- 力矩电机
- 集成高精光栅码盘
- 较大的扭矩输出
- 适合多工位精密分割盘控制应用

Features:

- Torque motor
- Integrated high-precision grating code disk
- Larger torque output
- Suitable for multi-station precision split disk control applications

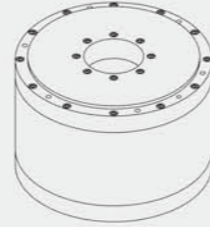
性能参数 Performance parameters	数值 Value	单位 unit
连续转矩 Continuous torque	150.0	N.m
连续电流 Continuous current	7.1	Arms
峰值转矩 Peak torque	300.0	N.m
峰值电流 Peak current	14.2	Arms
转矩常数 Torque constant	21.9	Nm/Arms
电阻(25°C) Resistance	4.2	Ω(25°C)
电感(25°C) Inductance	13.9	mH(25°C)
极数 Force constant	40	
反电动势常数 Back EMF Constant	17.9	V/rad/s
最大额定功耗 Maximum rated power consumption	404.3	W(25°C)
电机常数 Motor constant	7.9	Nm/√W
转动惯量 Moment of inertia	0.15	Kg.m ²
电机重量 Motor weight	35	Kg
最高转速 Highest speed	96	rpm(220VAC)
定位精度 Positioning accuracy	±30	Arc sec
重复精度 Repeatability	±2.5	Arc sec
分辨率 Resolution ratio	16384	sin/cos
最大轴向载荷 Maximum axial load	40000	N
最大径向载荷 Maximum radial load	400	N.m
轴向偏摆 Axial runout	0.008	mm
径向偏摆 Radial runout	0.008	mm
电机高度 Motor height	138	mm



力矩电机 Torque motor

DRD-263-188

- ◆ 连续转矩 250N.m
- ◆ 峰值转矩 500N.m
- ◆ Continuous torque 250N.m
- ◆ Peak torque 500N.m



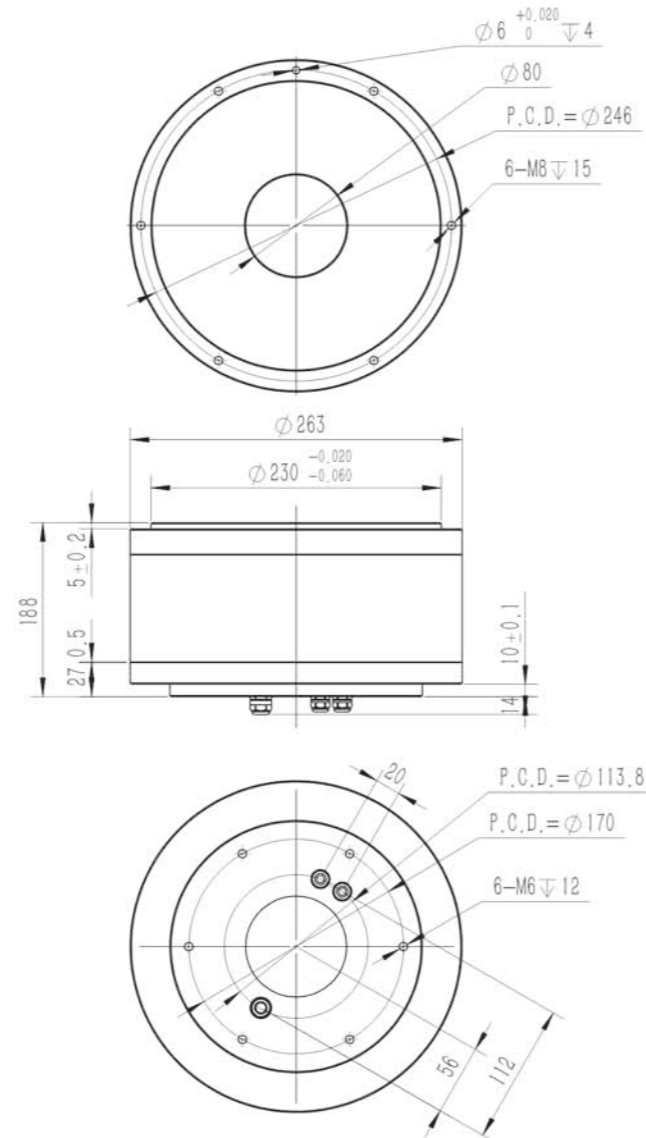
特点:

- 力矩电机
- 集成高精度光栅码盘
- 较大的扭矩输出
- 适合多工位精密分割盘控制应用

Features:

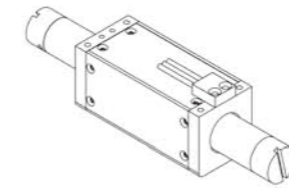
- Torque motor
- Integrated high-precision grating code disk
- Larger torque output
- Suitable for multi-station precision split disk control applications

性能参数 Performance parameters	数值 Value	单位 unit
连续转矩 Continuous torque	250.0	N.m
连续电流 Continuous current	7.1	Arms
峰值转矩 Peak torque	500.0	N.m
峰值电流 Peak current	14.2	Arms
转矩常数 Torque constant	35.2	Nm/Arms
电阻(25°C) Resistance	6.7	Ω(25°C)
电感(25°C) Inductance	22.8	mH(25°C)
极数 Force constant	40	
反电动势常数 Back EMF Constant	28.7	V/rad/s
最大额定功耗 Maximum rated power consumption	644.9	W(25°C)
电机常数 Motor constant	7.9	Nm/√W
转动惯量 Moment of inertia	0.21	Kg.m ²
电机重量 Motor weight	48	Kg
最高转速 Highest speed	80	rpm(220VAC)
定位精度 Positioning accuracy	±30	Arc sec
重复精度 Repeatability	±2.5	Arc sec
分辨率 Resolution ratio	16384	sin/cos
最大轴向载荷 Maximum axial load	40000	N
最大径向载荷 Maximum radial load	400	N.m
轴向偏摆 Axial runout	0.008	mm
径向偏摆 Radial runout	0.008	mm
电机高度 Motor height	188	mm



DIREC SEIKO

棒状直线电机 Rod Linear Motor



德瑞DRR系列棒状马达是工业位移控制的理想解决方案。该系列电机磨损小、噪音低、速度快、精度高，比传统滚珠丝杆有更好的性能和可靠性，比传统气缸有更好的控制灵活性。

DRR系列棒状直线电机由高防护等级的动子和304不锈钢外壳的定子组成，定子内是形成完整正弦气隙磁场的高性能稀土磁钢。平稳的双动子结构使其可以非常方便的按照客户具体需求组成各种结构的精密运动单元。

DIREC DRR series rod motors are the ideal solution for industrial motion control. They can operate with low wear, low noise, high speed and high precision. It has better performance and reliability than traditional ball screws and has better control flexibility than traditional cylinders.

The DRR series rod linear motor consists of a high-protection mover and a stator of 304 stainless steel housing. The stator is a high-performance rare earth magnet that forms a complete sinusoidal air gap magnetic field. The smooth dual - forcer structure makes it possible to form precise motion units of various structures according to the specific needs of customers.

棒状直线电机命名规则 Rod linear motor naming rules

定子命名规则

Name of the Motor Forcer



定子命名规则

Name of the stator



优势 Advantage

- 适合高速直线运动 For high speed linear motion
- 初级绕组利用率高 High primary winding utilization
- 无横向边缘效应 No lateral edge effect
- 体积小、易于调节和控制 Small, easy adjusting and controlling

应用范围 Application Range

- 包装 Package
- 物料输送 Material Handling
- 自动化装配 Automated Assembly
- 生物医学 Biomedical Science
- 半导体和机器人 Semiconductors and Robots

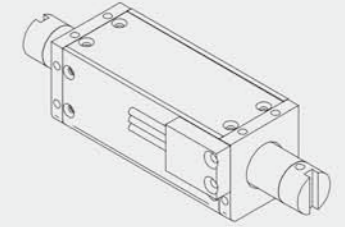
棒状直线电机

Rod linear motor

DRR-12系列

DRR-12-65 ◆ 持续推力 4.9N
◆ Continuous force 4.9N

◆ 峰值推力 13N
◆ Peak force 13N



性能参数 Performance parameters	数值 Value	单位 unit
峰值推力 Peak force	13	N
持续推力 Continuous force	4.9	N
峰值电流 Peak current	3.6	Arms
持续电流 Continuous current	0.9	Arms
电机常数 Motor constant	1.6	N/SQRT(W)
持续功率 Continuous power	9.3	W
最大线圈温度 Maximum coil temperature	100	°C
力常数 Force constant	5.4	N/Arms
磁变周期 Pole-Pole-Pitch	24.9	mm
电阻 Resistance	11.5	ohms
电感 Inductance	1.8	mH
电气时间常数 Electric time constant	0.2	ms
反电动势常数 Back EMF Constant	4.5	Vpeak/m/s
定子质量 Forcer weight	0.13	kg
定子质量 Stator weight	0.9	kg/m

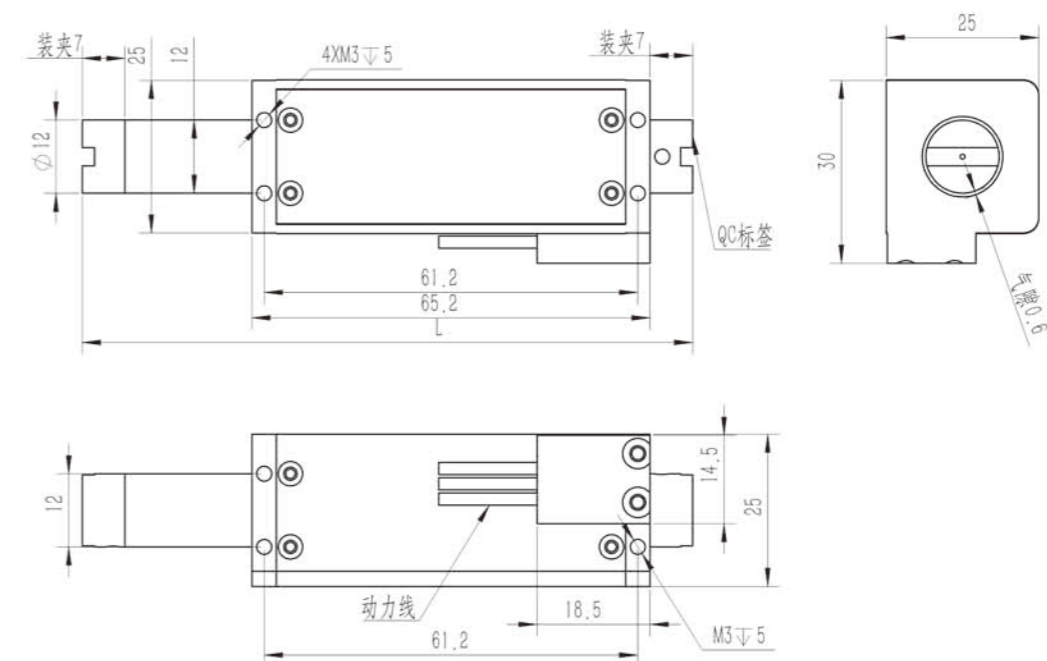
特点:

- 高速度, 高响应, 低噪音;
- 结构简单、高精度、非接触;
- 零齿槽效应;
- 有效行程30mm-450mm, 最短长度120mm, 增量为13的倍数。定子标签端为运动基准端。定子的总长L=行程+装夹7*2+4+65.2;
- 封闭磁体, 有效利用磁通量。

Features:

- High Speed, high frequency response, Low Noise;
- Simple Structure, High Precision, Non-Contact;
- Zero Cogging Effect;
- The effective stroke is 30mm-450mm, the shortest length is 120mm, In increments of 13. The label end of the stator is the motion reference end. The total length of the stator L = stroke + clamping 7*2+4+65.2;
- Closed Magnet For Higher Utilization.

外形尺寸 mm Shape size mm

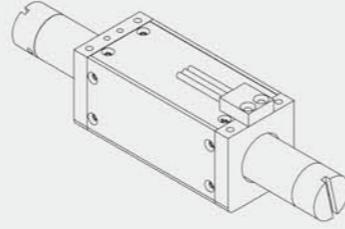


棒状直线电机 Rod linear motor

DRR-16系列

DRR-16-70

- ◆ 持续推力 13.6N
- ◆ 峰值推力 50N
- ◆ Continuous force 13.6N
- ◆ Peak force 50N



性能参数 Performance parameters	数值 Value	单位 unit
峰值推力 Peak force	50	N
持续推力 Continuous force	13.6	N
峰值电流 Peak current	3.6	Arms
持续电流 Continuous current	0.9	Arms
电机常数 Motor constant	3.8	N/SQRT(W)
持续功率 Continuous power	12.6	W
最大线圈温度 Maximum coil temperature	100	°C
力常数 Force constant	15.1	N/Arms
磁变周期 Pole-Pole-Pitch	26	mm
电阻 Resistance	15.5	ohms
电感 Inductance	3	mH
电气时间常数 Electric time constant	0.2	ms
反电动势常数 Back EMF Constant	12.3	Vpeak/m/s
定子质量 Forcer weight	0.15	kg
定子质量 Stator weight	1.5	kg/m

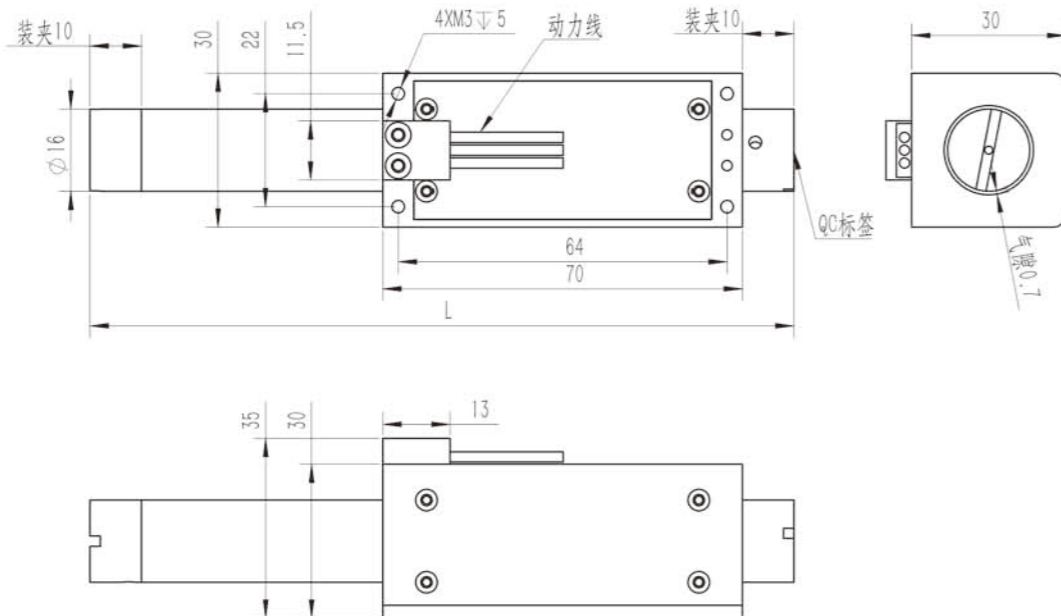
特点:

- 高速度，高响应，低噪音；
- 结构简单、高精度、非接触；
- 零齿槽效应；
- 有效行程26mm-450mm，最短长度120mm，增量为13的倍数。定子标签端为运动基准端。定子的总长L=行程+装夹10*2+4+70；
- 封闭磁体，有效利用磁通量。

Features:

- High Speed, high frequency response, Low Noise;
- Simple Structure, High Precision, Non-Contact;
- Zero Cogging Effect;
- The effective stroke is 26mm-450mm, the shortest length is 120mm, In increments of 13. The label end of the stator is the motion reference end. The total length of the stator L = stroke + clamping 10*2+4+70;
- Closed Magnet For Higher Utilization.

外形尺寸 mm Shape size mm

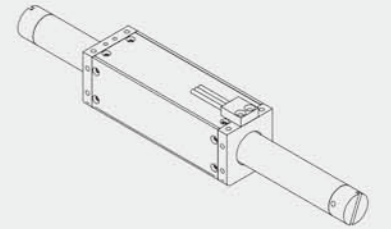


棒状直线电机 Rod linear motor

DRR-16系列

DRR-16-95

- ◆ 持续推力 20.3N
- ◆ 峰值推力 75N
- ◆ Continuous force 20.3N
- ◆ Peak force 75N



性能参数 Performance parameters	数值 Value	单位 unit
峰值推力 Peak force	75	N
持续推力 Continuous force	20.3	N
峰值电流 Peak current	3.6	Arms
持续电流 Continuous current	0.9	Arms
电机常数 Motor constant	5.2	N/SQRT(W)
持续功率 Continuous power	15.1	W
最大线圈温度 Maximum coil temperature	100	°C
力常数 Force constant	22.6	N/Arms
磁变周期 Pole-Pole-Pitch	26	mm
电阻 Resistance	18.6	ohms
电感 Inductance	4.5	mH
电气时间常数 Electric time constant	0.2	ms
反电动势常数 Back EMF Constant	18.4	Vpeak/m/s
定子质量 Forcer weight	0.3	kg
定子质量 Stator weight	1.5	kg/m

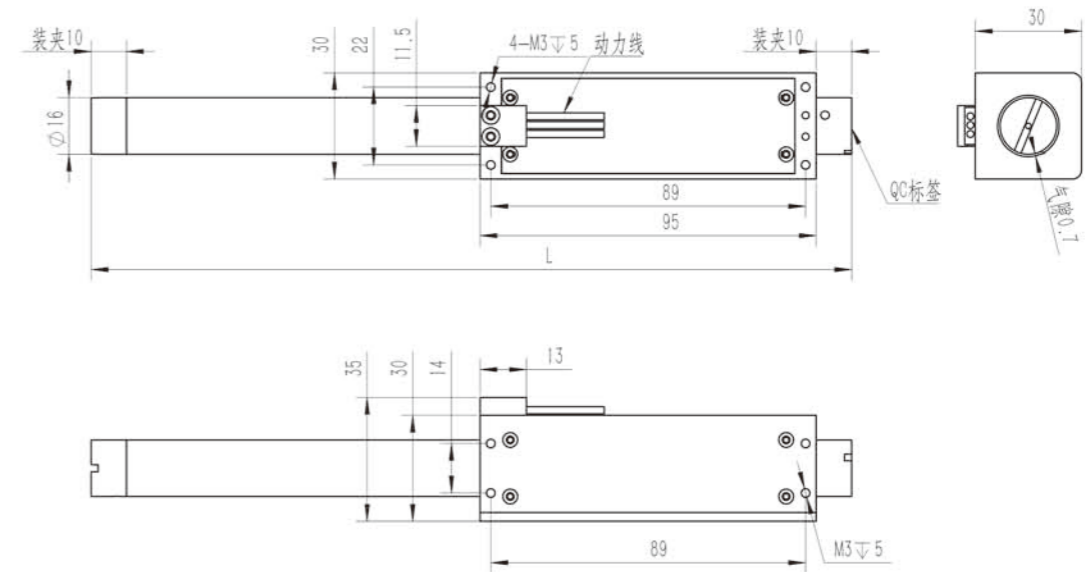
特点:

- 高速度，高响应，低噪音；
- 结构简单、高精度、非接触；
- 零齿槽效应；
- 有效行程26mm-450mm，最短长度145mm，增量为13的倍数。定子标签端为运动基准端。定子的总长L=行程+装夹10*2+4+95；
- 封闭磁体，有效利用磁通量。

Features:

- High Speed, high frequency response, Low Noise;
- Simple Structure, High Precision, Non-Contact;
- Zero Cogging Effect;
- The effective stroke is 26mm-450mm, the shortest length is 145mm, In increments of 13. The label end of the stator is the motion reference end. The total length of the stator L = stroke + clamping 10*2+4+95;
- Closed Magnet For Higher Utilization.

外形尺寸 mm Shape size mm

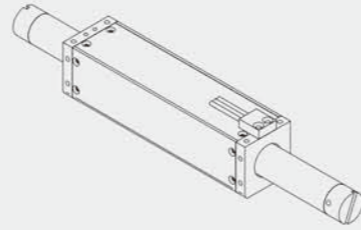


棒状直线电机 Rod linear motor

DRR-16系列

DRR-16-120 ◆ 持续推力 27N
◆ Continuous force 27N

◆ 峰值推力 100N
◆ Peak force 120N



性能参数 Performance parameters	数值 Value	单位 unit
峰值推力 Peak force	100	N
持续推力 Continuous force	27	N
峰值电流 Peak current	3.6	Arms
持续电流 Continuous current	0.9	Arms
电机常数 Motor constant	5.4	N/SQRT(W)
持续功率 Continuous power	25.1	W
最大线圈温度 Maximum coil temperature	100	°C
力常数 Force constant	30.2	N/Arms
磁变周期 Pole-Pole-Pitch	26	mm
电阻 Resistance	31	ohms
电感 Inductance	6	mH
电气时间常数 Electric time constant	0.2	ms
反电动势常数 Back EMF Constant	24.6	Vpeak/m/s
转子质量 Rotor weight	0.4	kg
定子质量 Stator weight	1.5	kg/m

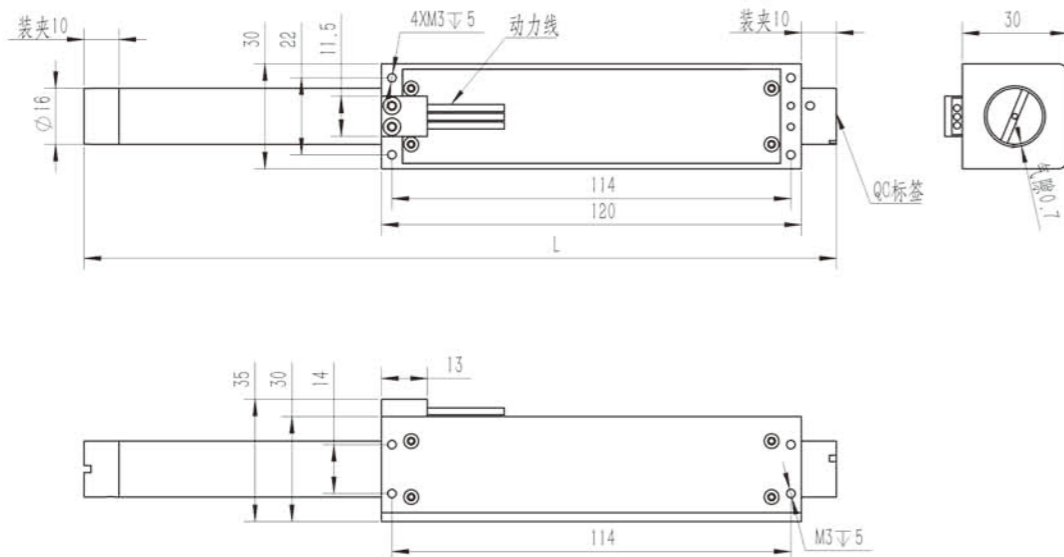
特点:

- 高速度，高响应，低噪音；
- 结构简单、高精度、非接触；
- 零齿槽效应；
- 有效行程26mm-450mm，最短长度170mm，增量为13的倍数。定子标签端为运动基准端。定子的总长L=行程+装夹10*2+4+120；
- 封闭磁体，有效利用磁通量。

Features:

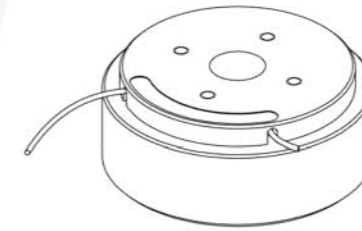
- High Speed, high frequency response, Low Noise;
- Simple Structure, High Precision, Non-Contact;
- Zero Cogging Effect;
- The effective stroke is 26mm-450mm, the shortest length is 170mm, In increments of 13. The label end of the stator is the motion reference end. The total length of the stator L = stroke + clamping 10*2+4+120;
- Closed Magnet For Higher Utilization.

外形尺寸 mm Shape size mm



DIREC SEIKO

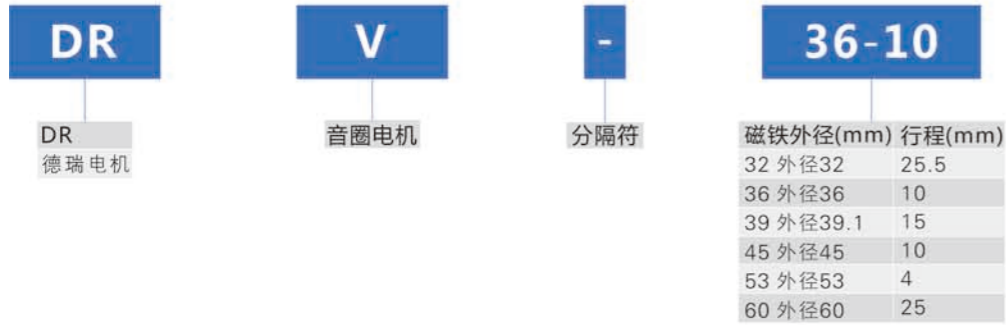
音圈电机 Voice coil Motor



德瑞DRV系列音圈电机产品具有高频响应、高精度的特点，适合用于短行程的闭环伺服应用。由于它体积小，特别适用在一些狭小的空间。它响应速度快（毫秒级），本身重量小，因而可以达到很高的加速度，可以做高速振荡往复运动（可达几十赫兹）。控制简单可靠、无需换向装置、免维护、长寿命，可以长期连续工作。

DIREC DRV series voice coil motor products have high frequency response and high precision, suitable for short - stroke closed - loop servo applications. The small size fits in tiny spaces. The response speed (ms level) and lightness allows its high acceleration with high frequency (tens of Hz). Simple and reliable control without reversing device, maintenance - free, good endurance with non - stop working.

音圈电机命名规则 Voice coil motor naming rules



优势 Advantage

- 直驱、无齿槽效应；
- 高响应带宽的低质量线圈；
- 线圈与模块间的运动无磨损；
- 超高解析度的低速平滑运动；
- Direct drive, no cogging;
- Low weight coil with high response bandwidth;
- Zero wear between the coil and the module;
- Ultra-high resolution smooth motion;

应用范围 Application range

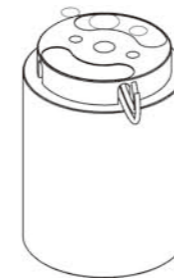
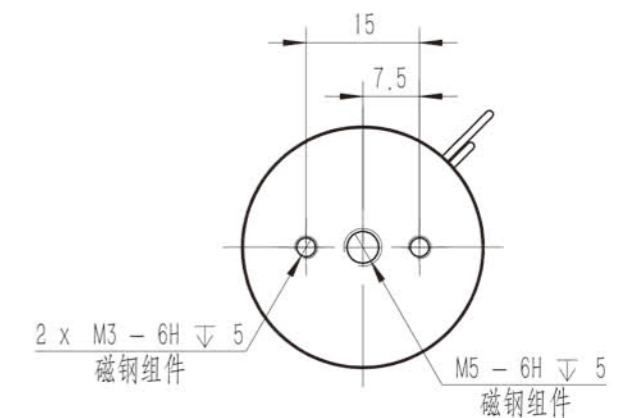
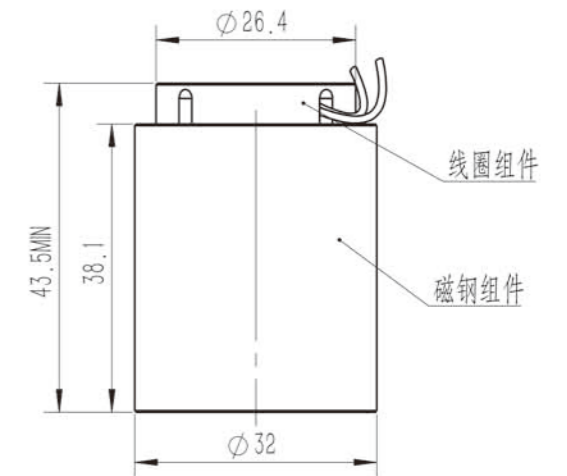
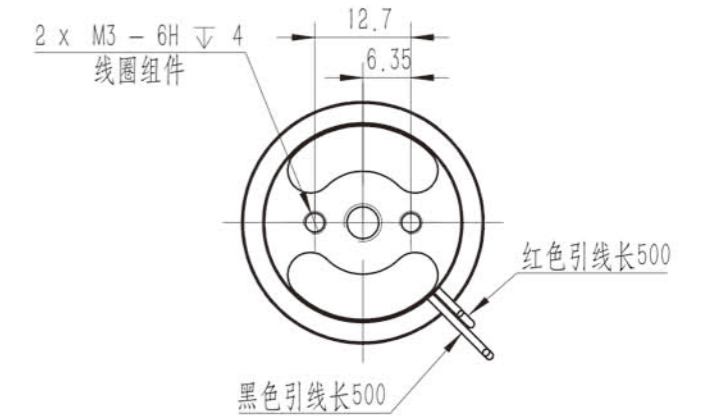
- 光学系统领域
- 半导体设备领域
- 振动控制领域
- 直线压缩机和控制阀领域
- 机械加工领域
- Optical System
- Semiconductor Equipment
- Vibration Control
- Linear Compressor and Control Valve
- Machining

音圈电机 Voice coil motor

DRV-32-25系列

- ◆ 持续推力 7.8N
- ◆ Continuous force 7.8N
- ◆ 峰值推力 25N
- ◆ Peak force 25N

性能参数 Performance parameters	数值 Value	单位 unit
峰值推力 Peak force	25	N
持续推力 Continuous force	7.8	N
峰值电流 Peak current	6.0	A
额定电流 Rated current	1.85	A
推力常数 Force constant	4.2	N/A
反电动势常数 EMF constant	4.2	Vpk/m/s
最大电压 Maximum voltage	26.8	V
总行程 Total trip	25.2	mm
直流电阻 DC Resistance	4.5	Ω
电感 Inductance	1.8	mH
最大功耗 Maximum power consumption	160	W
侧面间隙 Side clearance	0.4	mm
热阻 Thermal resistance	8.0	a/w
线圈允许最高温度 Coil allows maximum temperature	150	$^{\circ}\text{C}$
线圈组件重量 Coil assembly weight	52	g
磁钢组件重量 Magnetic steel component weight	185	g
电机重量 Motor weight	237	g

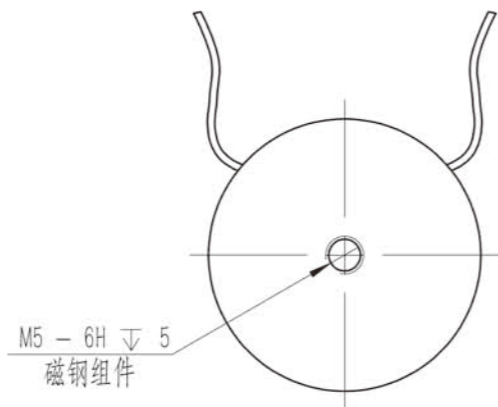
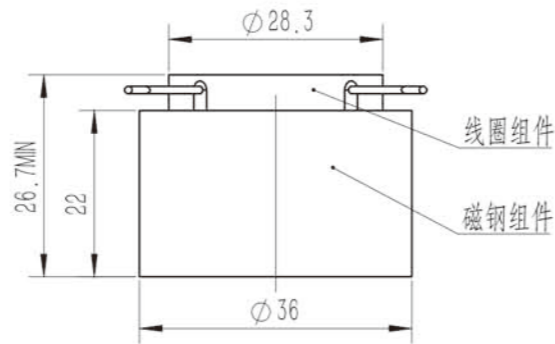
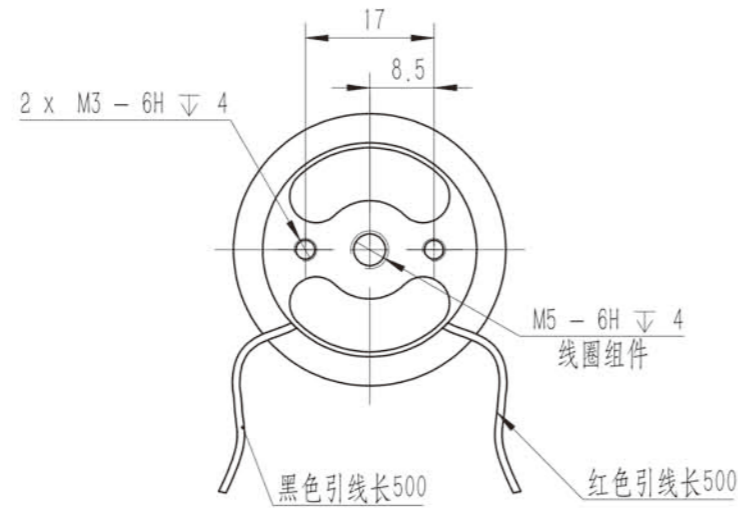


音圈电机 Voice coil motor

DRV-36-10系列

- ◆ 持续推力 8.3N
- ◆ Continuous force 8.3N
- ◆ 峰值推力 33N
- ◆ Peak force 33N

性能参数 Performance parameters	数值 Value	单位 Unit
峰值推力 Peak force	33	N
持续推力 Continuous force	8.3	N
峰值电流 Peak current	5.6	A
额定电流 Rated current	1.4	A
推力常数 Force constant	5.9	N/A
反电动势常数 EMF constant	5.9	Vpk/m/s
最大电压 Maximum voltage	23.5	V
总行程 Total trip	10	mm
直流电阻 DC Resistance	4.2	Ω
电感 Inductance	1.2	mH
最大功耗 Maximum power consumption	132	W
侧面间隙 Side clearance	0.5	mm
热阻 Thermal resistance	15.2	a/w
线圈允许最高温度 Coil allows maximum temperature	150	$^{\circ}\text{C}$
线圈组件重量 Coil assembly weight	24	g
磁钢组件重量 Magnetic steel component weight	138	g
电机重量 Motor weight	162	g

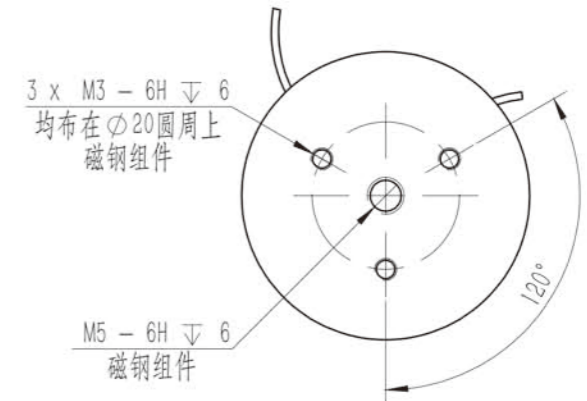
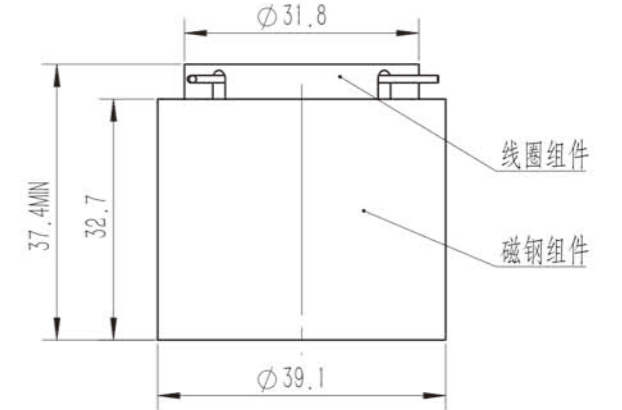
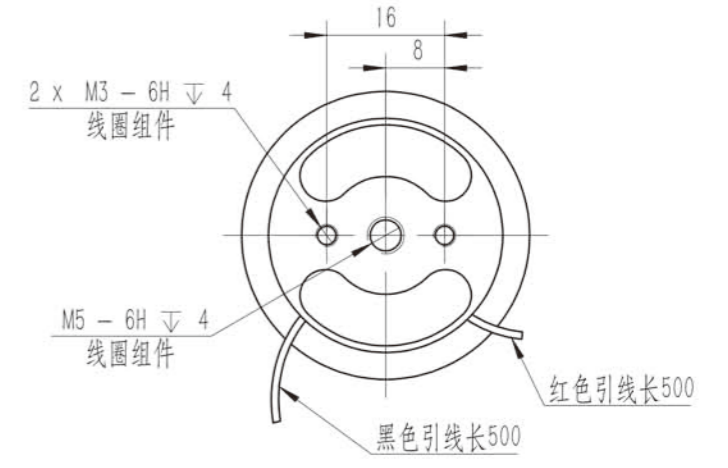


音圈电机 Voice coil motor

DRV-39-15系列

- ◆ 持续推力 15.6N
- ◆ Continuous force 15.6N
- ◆ 峰值推力 45N
- ◆ Peak force 45N

性能参数 Performance parameters	数值 Value	单位 Unit
峰值推力 Peak force	45	N
持续推力 Continuous force	15.6	N
峰值电流 Peak current	4.9	A
额定电流 Rated current	1.7	A
推力常数 Force constant	9.2	N/A
反电动势常数 EMF constant	9.2	Vpk/m/s
最大电压 Maximum voltage	27.9	V
总行程 Total trip	15	mm
直流电阻 DC Resistance	5.7	Ω
电感 Inductance	2.9	mH
最大功耗 Maximum power consumption	167	W
侧面间隙 Side clearance	0.5	mm
热阻 Thermal resistance	7.6	a/w
线圈允许最高温度 Coil allows maximum temperature	150	$^{\circ}\text{C}$
线圈组件重量 Coil assembly weight	58	g
磁钢组件重量 Magnetic steel component weight	220	g
电机重量 Motor weight	278	g



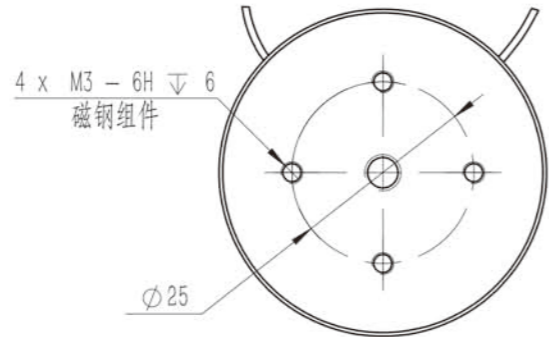
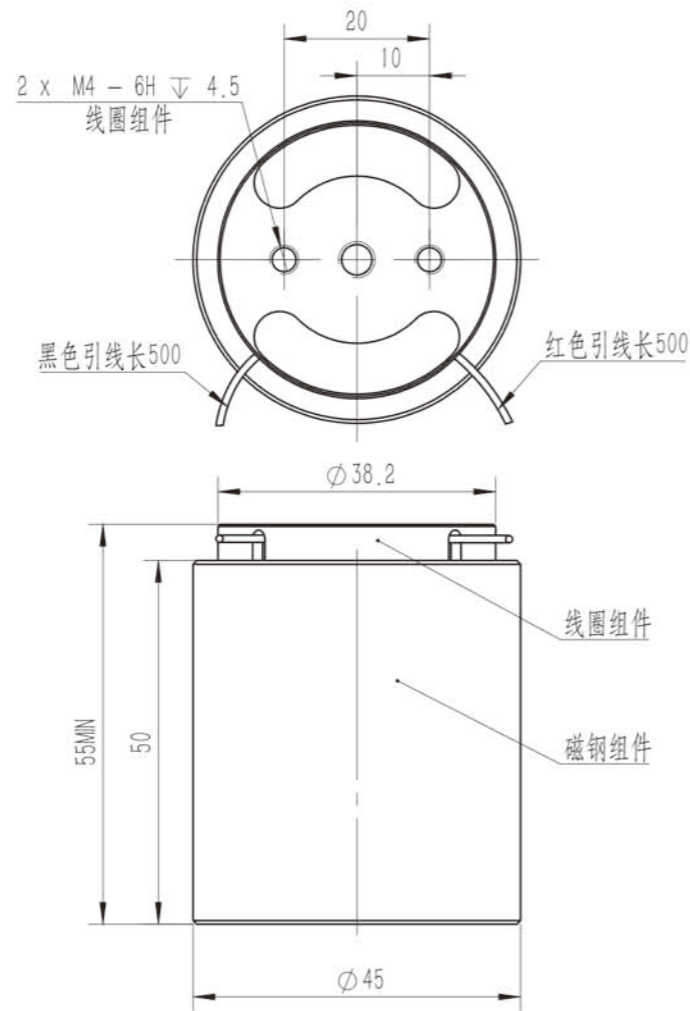
音圈电机

Voice coil motor

DRV-45-10系列

- ◆ 持续推力 32.1N
- ◆ 峰值推力 90N
- ◆ Continuous force 32.1N
- ◆ Peak force 90N

性能参数 Performance parameters	数值 Value	单位 Unit
峰值推力 Peak force	90	N
持续推力 Continuous force	32.1	N
峰值电流 Peak current	4.5	A
额定电流 Rated current	1.6	A
推力常数 Force constant	20.1	N/A
反电动势常数 EMF constant	20.1	Vpk/m/s
最大电压 Maximum voltage	30.4	V
总行程 Total trip	10	mm
直流电阻 DC Resistance	6.8	Ω
电感 Inductance	2.5	mH
最大功耗 Maximum power consumption	136	W
侧面间隙 Side clearance	1.0	mm
热阻 Thermal resistance	7.2	a/w
线圈允许最高温度 Coil allows maximum temperature	150	$^{\circ}\text{C}$
线圈组件重量 Coil assembly weight	80	g
磁钢组件重量 Magnetic steel component weight	430	g
电机重量 Motor weight	510	g



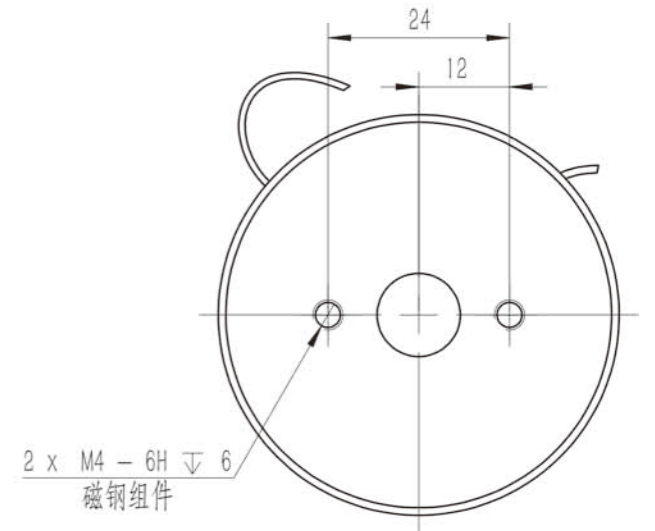
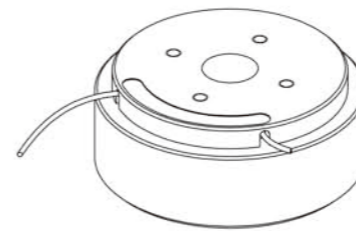
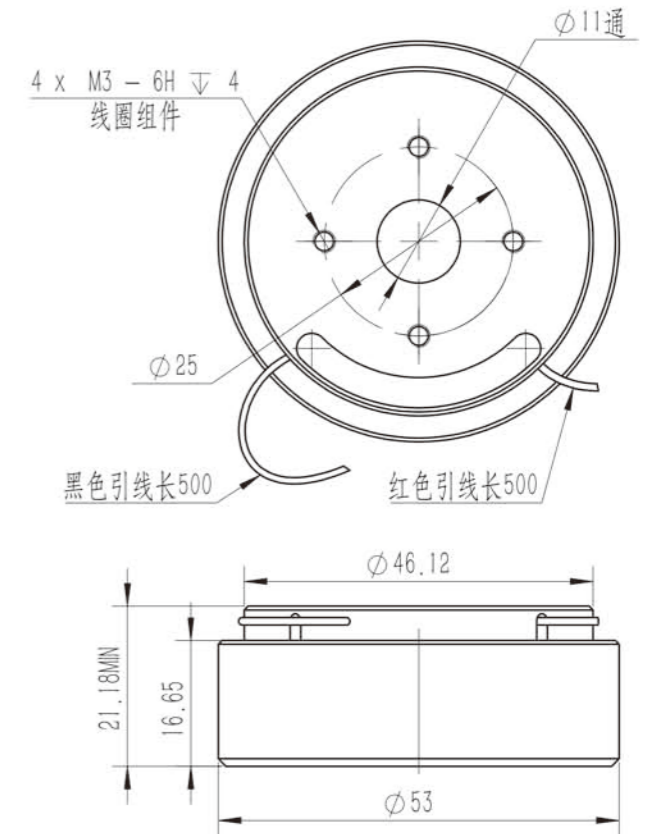
音圈电机

Voice coil motor

DRV-53-04系列

- ◆ 持续推力 16.3N
- ◆ 峰值推力 44N
- ◆ Continuous force 16.3N
- ◆ Peak force 44N

性能参数 Performance parameters	数值 Value	单位 Unit
峰值推力 Peak force	44	N
持续推力 Continuous force	16.3	N
峰值电流 Peak current	3.9	A
额定电流 Rated current	1.83	A
推力常数 Force constant	8.9	N/A
反电动势常数 EMF constant	8.9	Vpk/m/s
最大电压 Maximum voltage	18.3	V
总行程 Total trip	4	mm
直流电阻 DC Resistance	3.7	Ω
电感 Inductance	1.0	mH
最大功耗 Maximum power consumption	90.5	W
侧面间隙 Side clearance	0.5	mm
热阻 Thermal resistance	10.0	a/w
线圈允许最高温度 Coil allows maximum temperature	150	$^{\circ}\text{C}$
线圈组件重量 Coil assembly weight	45	g
磁钢组件重量 Magnetic steel component weight	225	g
电机重量 Motor weight	270	g



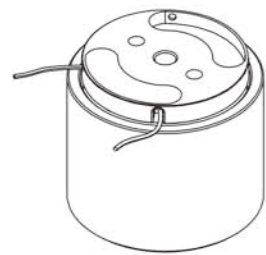
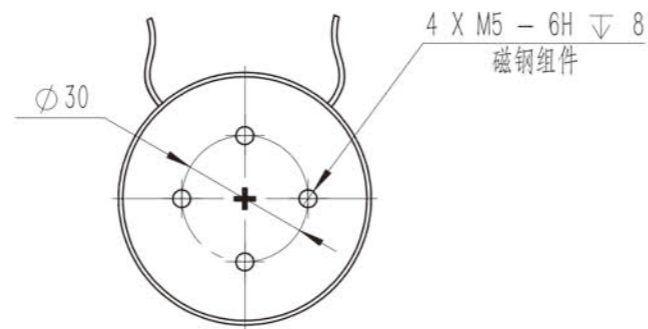
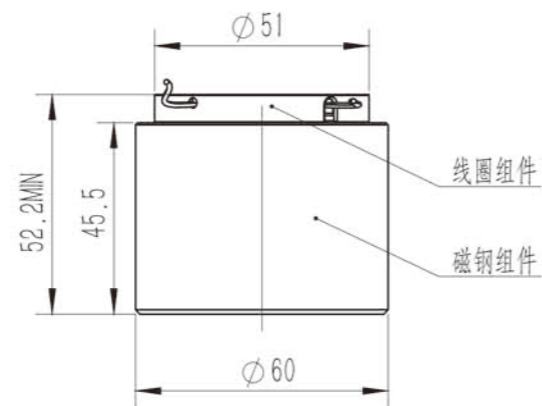
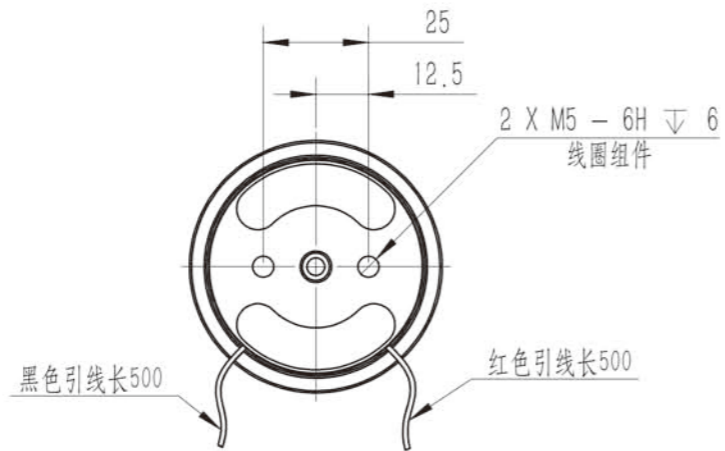
音圈电机

Voice coil motor

DRV-60-25系列

- ◆ 持续推力 35.5N
- ◆ 峰值推力 120N
- ◆ Continuous force 35.5N
- ◆ Peak force 120N

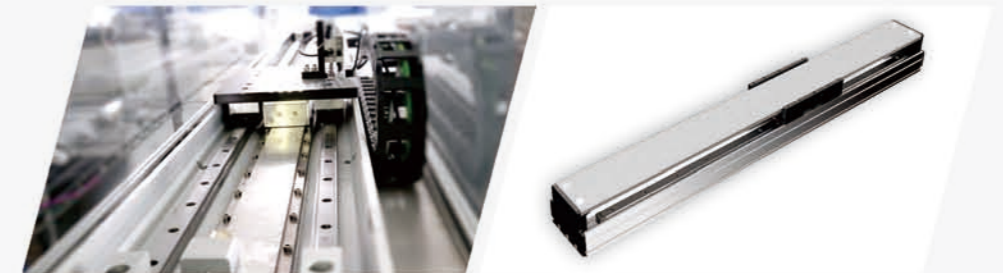
性能参数 Performance parameters	数值 Value	单位 unit
峰值推力 Peak force	120	N
持续推力 Continuous force	35.5	N
峰值电流 Peak current	8.5	A
额定电流 Rated current	2.5	A
推力常数 Force constant	14.25	N/A
反电动势常数 EMF constant	14.25	Vpk/m/s
最大电压 Maximum voltage	26.1	V
总行程 Total trip	25	mm
直流电阻 DC Resistance	3.1	Ω
电感 Inductance	2.6	mH
最大功耗 Maximum power consumption	220	W
侧面间隙 Side clearance	0.5	mm
热阻 Thermal resistance	6.5	a/w
线圈允许最高温度 Coil allows maximum temperature	155	$^{\circ}\text{C}$
线圈组件重量 Coil assembly weight	180	g
磁钢组件重量 Magnetic steel component weight	695	g
电机重量 Motor weight	875	g



DIREC SEIKO

直线电机模组

Linear Motor Module



基于各行业自动化设计的高效、便捷、标准直线电机运动系统。常用于上下料、搬运、长行程、单轴多动子、XY平台组合（叠加、定梁龙门与H型龙门）等运动形式。适用行业：3C、锂电池、激光加工、AOI检测应用等。

High efficiency, standard product, convenient for application in: Loading / unloading, long stroke movement, multi-forcer with single axel, XY stage (crossover, fixed - girder, gantry) etc. Suitable for industry: 3C, Lithium Cell, laser, AOI detection, etc.

