

▶ 直线电机模组 Linear motor module

XICS-LNP3

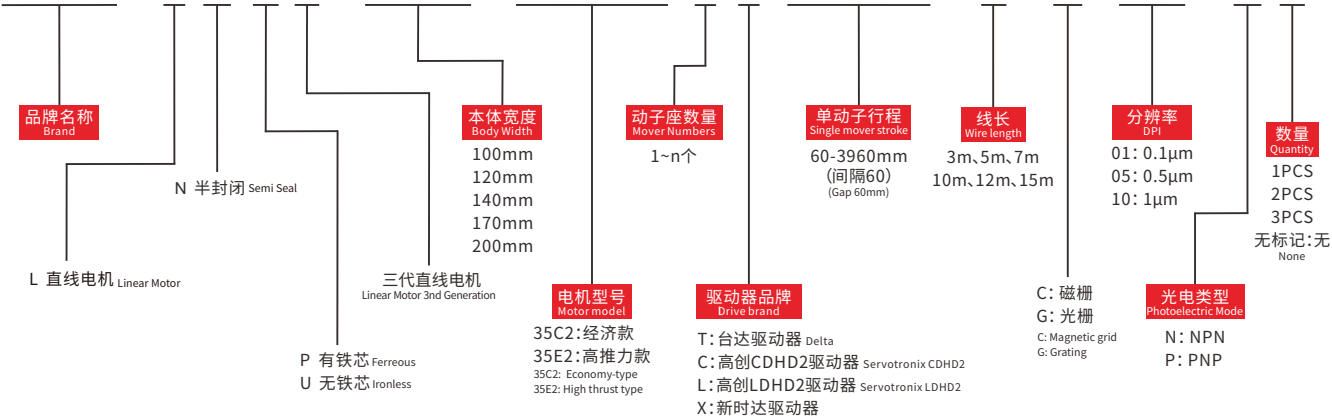
结构示意图 Structure diagram

- 1、扁平化:组合高度相比一代更低,重心更稳。
- 2、防异物:防护物品掉落内部结构,减少异物掉落电机内部造成的电机损伤和飞车。
- 3、易安装:无需拆卸工件,外部锁固螺丝即可完成安装。
- 4、大推力:对比二代,同宽幅下,推力更大。
- 5、高刚性:优化结构设计,模组本身刚性提升,可做横梁应用。
- 6、重量轻:本体重量轻,多轴搭建降低下轴负担。



型号表达方式 Ordering method

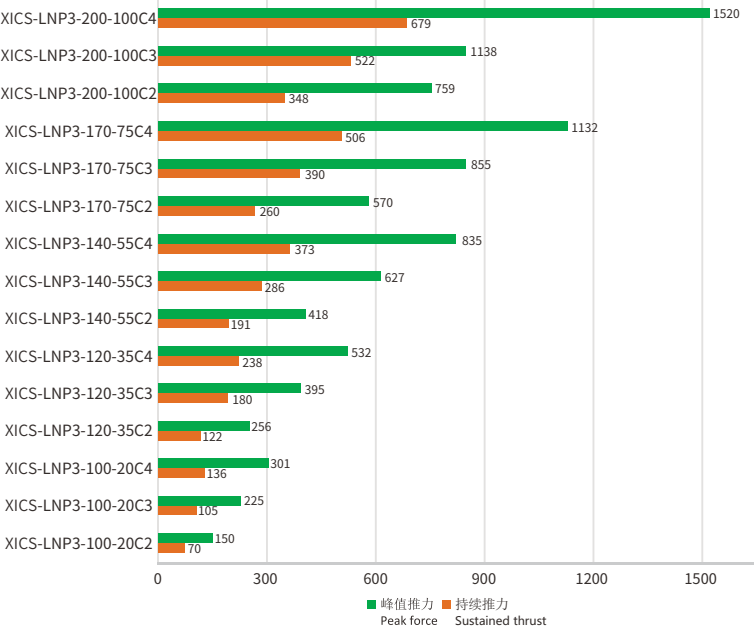
XICS-LNP3-120-35C2-1L-L720-3-C-05-N3



直线电机模组参数表 Parameter list of linear motor module

系列 Series	动子系列 Mover Model			定子系列 Stator Model		
XICS-LNP3-100	PQ20-C2	PQ20-C3	PQ20-C4	PQ20-L240	PQ20-L180	PQ20-L120
XICS-LNP3-120	PQ35-C2	PQ35-C3	PQ35-C4	PQ35-L240	PQ35-L180	PQ35-L120
XICS-LNP3-140	PQ55-C2	PQ55-C3	PQ55-C4	PQ55-L240	PQ55-L180	PQ55-L120
XICS-LNP3-170	PQ75-C2	PQ75-C3	PQ75-C4	PQ75-L240	PQ75-L180	PQ75-L120
XICS-LNP3-200	PQ100-C2	PQ100-C3	PQ100-C4	PQ100-L240	PQ100-L180	PQ100-L120

型号 Model	持续推力 Sustained thrust(N)	峰值推力 Peak force(N)	行程 Stroke(mm)
XICS-LNP3-100-20C2	70	150	60~3960
XICS-LNP3-100-20C3	105	225	60~3960
XICS-LNP3-100-20C4	136	301	60~3960
XICS-LNP3-120-35C2	122	265	60~3960
XICS-LNP3-120-35C3	180	395	60~3960
XICS-LNP3-120-35C4	238	532	60~3960
XICS-LNP3-140-55C2	191	418	60~3960
XICS-LNP3-140-55C3	286	627	60~3960
XICS-LNP3-140-55C4	373	835	60~3960
XICS-LNP3-170-75C2	260	570	60~3960
XICS-LNP3-170-75C3	390	855	60~3960
XICS-LNP3-170-75C4	506	1132	60~3960
XICS-LNP3-200-100C2	348	759	60~3960
XICS-LNP3-200-100C3	522	1138	60~3960
XICS-LNP3-200-100C4	679	1520	60~3960

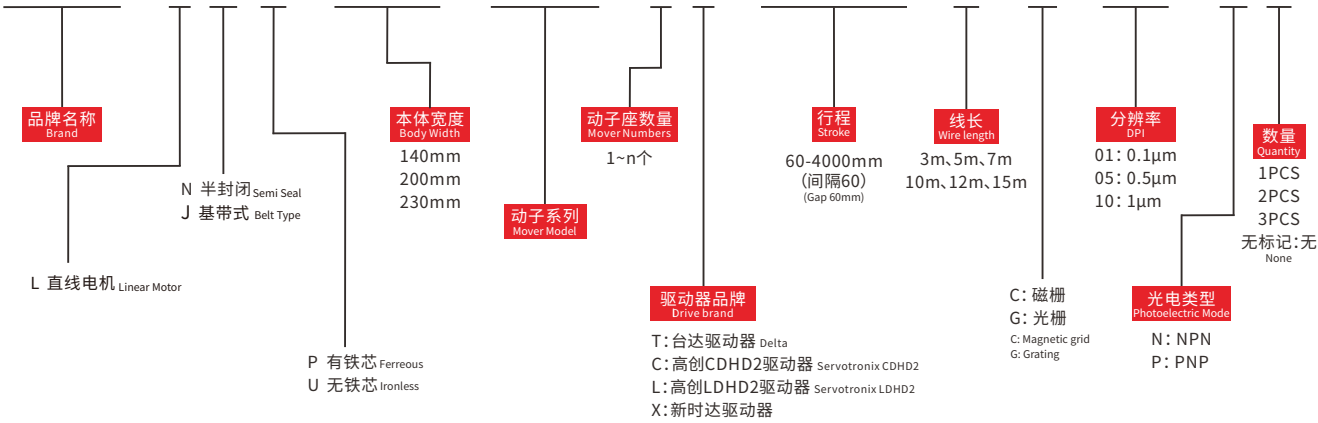


结构示意图 Structure diagram



型号表达方式 Ordering method

X I C S - L N P - 1 4 0 - P 1 1 - 1 L - L 7 2 0 - 3 - C - 0 5 - N 3



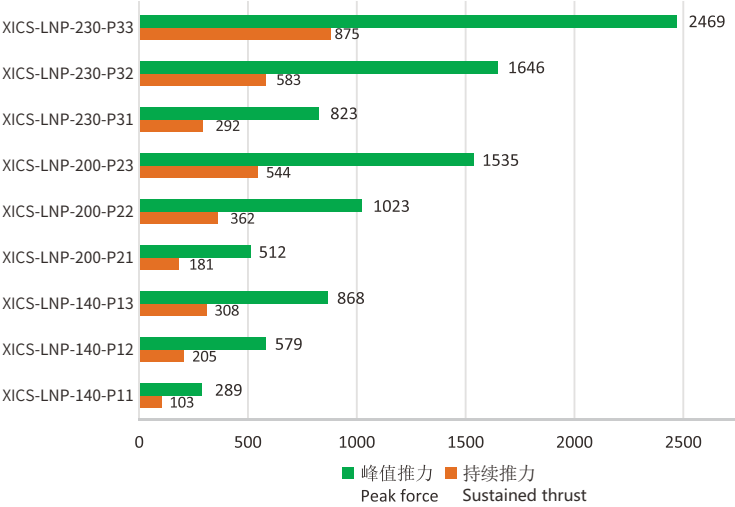
补充: 直线电机推力只与动子有关。
Supplement: The thrust of linear motor is only related to the Mover.

补充: 磁栅分辨率只有0.5μm和1μm。
Supplement: The magnetic grating resolution is only 0.5μm and 1μm.

系列 Series	动子系列 Mover Model			定子系列 Stator Model		
	P11	P12	P13	PS11	PS12	PS13
XICS-LNP-140	P11	P12	P13	PS11	PS12	PS13
XICS-LNP-200	P21	P22	P23	PS21	PS22	PS23
XICS-LNP-230	P31	P32	P33	PS31	PS32	PS33

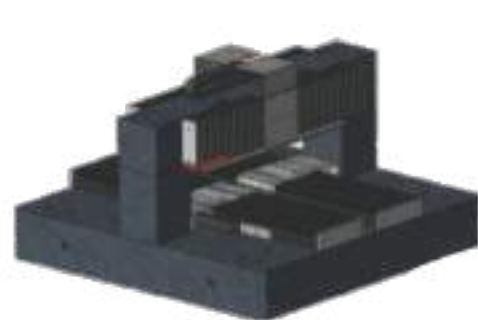
直线电机模组参数表 Parameter list of linear motor module

型号 Model	持续推力 Sustained thrust(N)	峰值推力 Peak force(N)	行程 Stroke(mm)
XICS-LNP-140-P11	103	289	60~5760
XICS-LNP-140-P12	205	579	60~5700
XICS-LNP-140-P13	308	868	60~5580
XICS-LNP-200-P21	181	512	60~5760
XICS-LNP-200-P22	362	1023	60~5640
XICS-LNP-200-P23	544	1535	60~5580
XICS-LNP-230-P31	292	823	60~5700
XICS-LNP-230-P32	583	1646	60~5700
XICS-LNP-230-P33	875	2469	60~5580



定制化精密直线电机平台

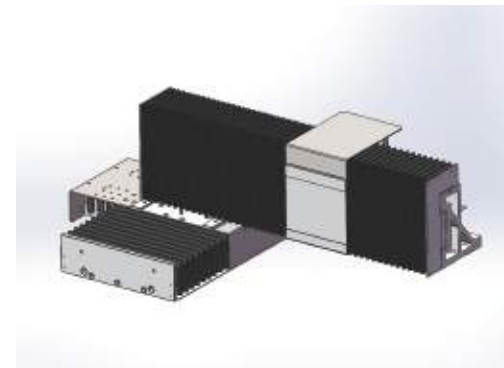
Customized Precise Linear Motor Actuator Stage



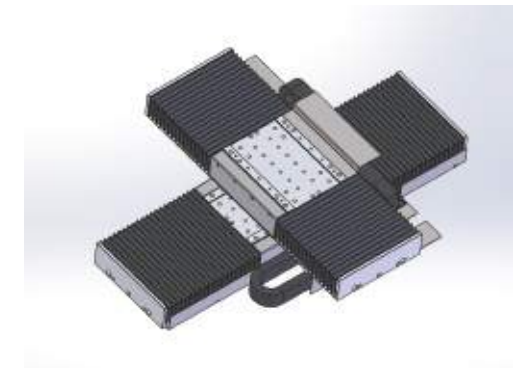
双XY桥架平台
Double XY bridge Stage



XYZ 轴平台
XYZ Axis Stage



XY 悬臂
Cantilever Type



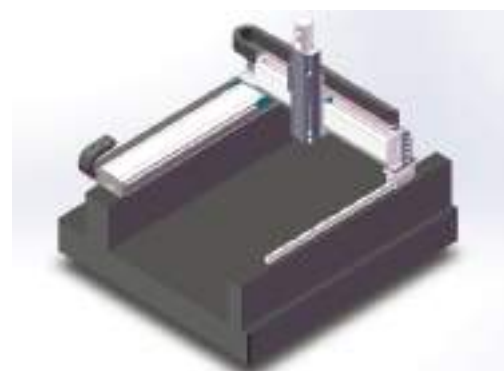
XY 平台
Cross Type



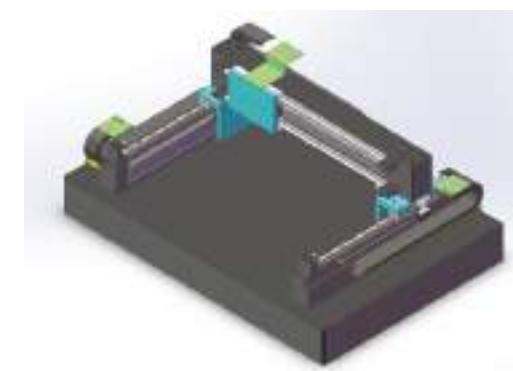
高精度运动控制平台
High precision motion control platform



气浮平台
Air floating Stage



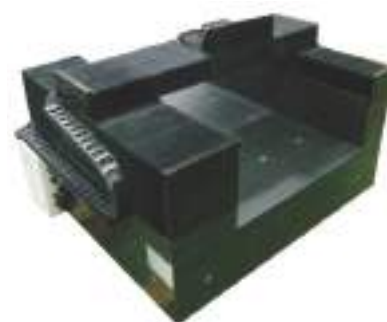
辅轨龙门式平台
Gantry Linear Motor With Auxiliary Rails



双驱龙门式平台
Double-drive Gantry Type



XY轴平台
XY Stage



龙门双驱平台
Double Drive Gantry Stage



XY 平台双动子
XY Stage Double Movers

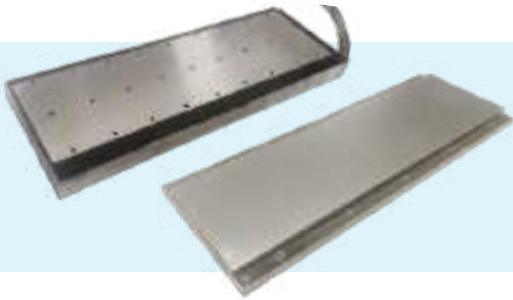


XY 桥架标准平台
XY bridge standard stage

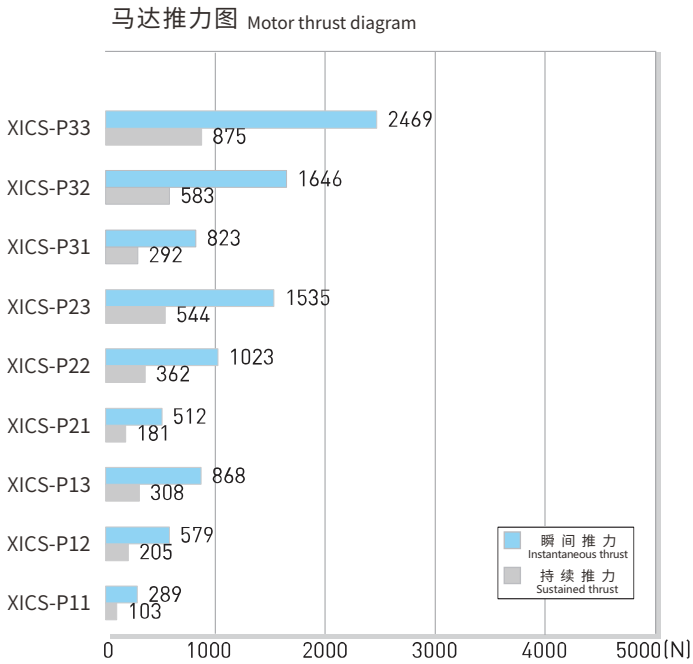
*更多组合形式请咨询我司相关人员。For more combination forms, please consult relevant personnel of our company.

XICS-P系列线性马达 XICS-P series linear motors

XICS同步线性马达XICS-P系列是属于线性驱动产品中推力较大的一型。它的特色在于高推力密度与低顿力。
此三项马达是由铁心构成的一次侧[动子]与永久磁铁构成的二次侧[定子]组成。由于定子可无限延长,所以行程将不受限制。



- ◇ 高动态响应 High dynamic response
- ◇ 低安装高度 Low installation height
- ◇ UL与CE认证 UL and CE certification
- ◇ 持续推力范围103N至1579N The sustained thrust range is 103N to 1579N
- ◇ 瞬间推力范围289N至4458N Instantaneous thrust range 289N to 4458N
- ◇ 安装高度34mm,36mm The mounting height is 34mm and 36mm



产品型号说明 Product model description

动子型号 Mover model

XICS-P11

品牌名称 Brand

动子型号 Mover model

P11

P12

P13

定子型号 Stator model

XICS-PS11

品牌名称 Brand

定子系列 Stator Model

长度 Length

PS11

120mm

PS12

180mm

PS13

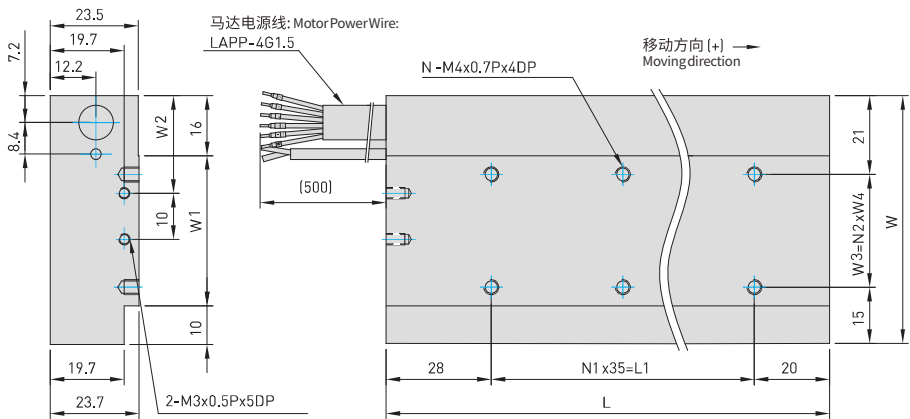
300mm

XICS 动 定子尺寸图

XICS Dimension diagram of Mover & stator

XICS-P 动子尺寸图 XICS-P moving size diagram

单位:Unit: mm



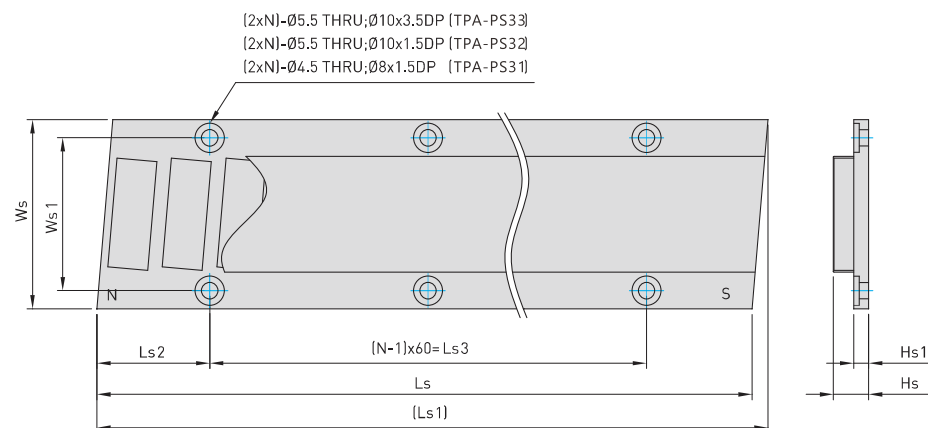
型号 Model	L	L1	W	W1	W2	W3	W4	N	N1	N2
XICS-P11	118	70	56	30	26	20	20	6	2	1
XICS-P12	223	175	56	30	26	20	20	12	5	1
XICS-P13	328	280	56	30	26	20	20	18	8	1
XICS-P21	118	70	86	60	41	50	50	6	2	1
XICS-P22	223	175	86	60	41	50	50	12	5	1
XICS-P23	328	280	86	60	41	50	50	18	8	1
XICS-P31	118	70	116	90	56	80	40	9	2	2
XICS-P32	223	175	116	90	56	80	40	18	5	2
XICS-P33	328	280	116	90	56	80	40	27	8	2

XICS 动 定子尺寸图

XICS Dimension diagram of Mover & stator

XICS-P 定子尺寸图 XICS-P stator dimensions

单位:Unit: mm



型号 Model	Ls	Ls1	Ls2	Ls3	Ws	Ws1	Hs	Hs1	N
XICS-PS11	120	124.36	31	60	52	42	9.7	4.1	2
XICS-PS12	180	184.36	31	120	52	42	9.7	4.1	3
XICS-PS13	300	304.36	31	240	52	42	9.7	4.1	5
XICS-PS21	120	122.7	30.57	60	86	74	9.7	4.1	2
XICS-PS22	180	182.7	30.57	120	86	74	9.7	4.1	3
XICS-PS23	300	302.7	30.57	240	86	74	9.7	4.1	5
XICS-PS31	120	123.04	30.37	60	116	104	11.7	6.1	2
XICS-PS32	180	183.04	30.37	120	116	104	11.7	6.1	3
XICS-PS33	300	303.04	30.37	240	116	104	11.7	6.1	5

XICS组合尺寸图

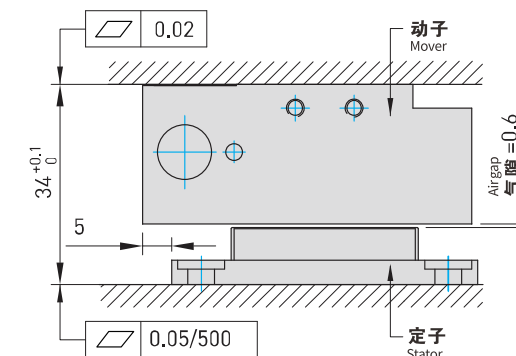
XICS Combined dimension drawing

XICS 组合尺寸图 XICS Combined dimension drawing

单位:Unit: mm

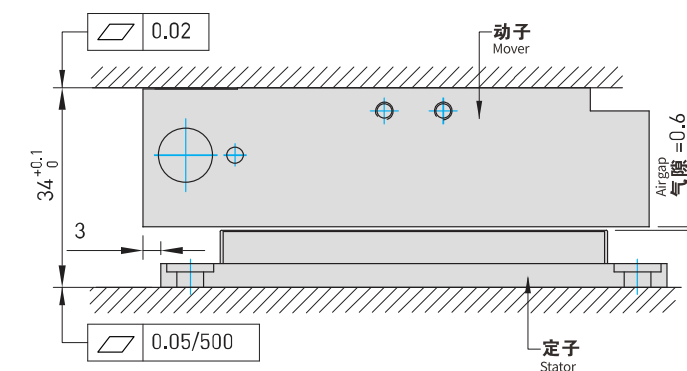
XICS-P1系列

XICS -P1 Series



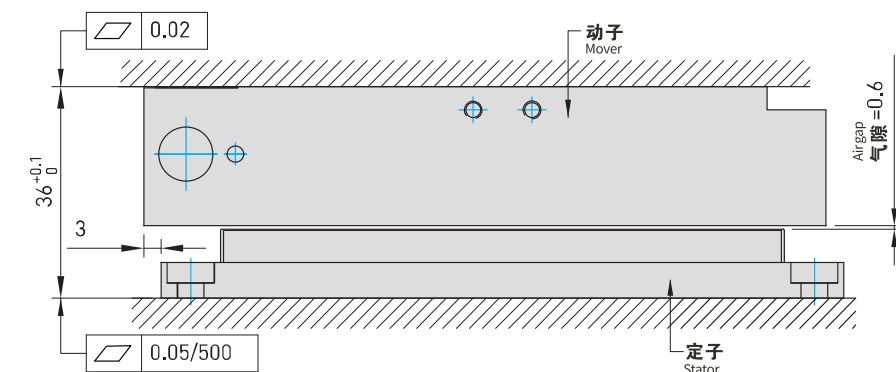
XICS-P2系列

XICS -P2 Series



XICS-P3系列

XICS -P3 Series



产品型号说明 Product model description

动子型号 Mover model

X I C S - P Q 2 0 - C 2

品牌名称
Brand

动子型号
Mover model

PQ20
PQ35
PQ55
PQ75

绕组方式
Winding mode

C2
C3
C4

定子型号 Stator model

X I C S - P Q 2 0 - L 1 2 0

品牌名称
Brand

定子系列
Stator Model

PQ20
PQ35
PQ55
PQ75

长度
Length

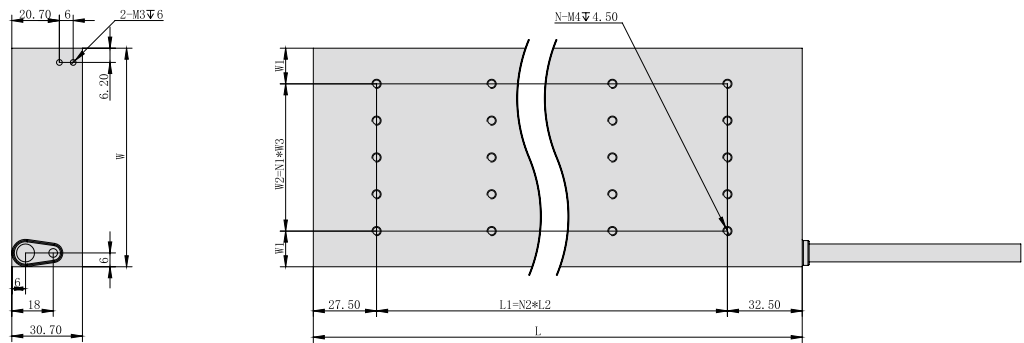
120mm
180mm
240mm

XICS动子尺寸图

XICS Dimension diagram of Mover & stator

XICS-PQ 动子尺寸图 XICS-PQ moving size diagram

单位:Unit: mm



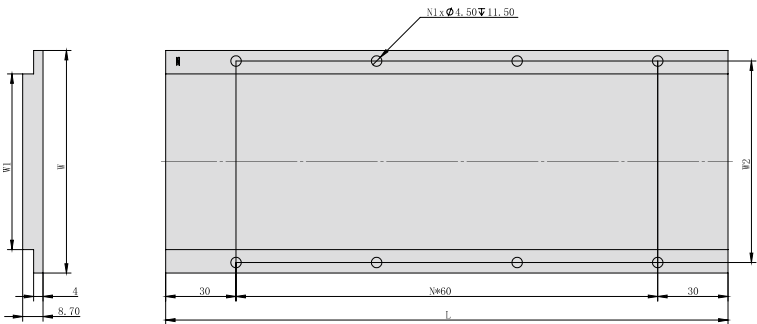
型号 Model	L	L1	L2	W	W1	W2	W3	N	N1	N2
XICS-PQ20-C2	110	50	50	40	15	10	10	4	1	1
XICS-PQ20-C3	160	100	50	40	15	10	10	6	1	2
XICS-PQ20-C4	210	150	50	40	15	10	10	8	1	3
XICS-PQ35-C2	110	50	50	55	14.5	26	13	6	2	1
XICS-PQ35-C3	160	100	50	55	14.5	26	13	9	2	2
XICS-PQ35-C4	210	150	50	55	14.5	26	13	12	2	3
XICS-PQ55-C2	110	50	50	75	17.5	40	20	6	2	1
XICS-PQ55-C3	160	100	50	75	17.5	40	20	9	2	2
XICS-PQ55-C4	210	150	50	75	17.5	40	20	12	2	3
XICS-PQ75-C2	110	50	50	95	15.5	64	16	10	4	1
XICS-PQ75-C3	160	100	50	95	15.5	64	16	15	4	2
XICS-PQ75-C4	210	150	50	95	15.5	64	16	20	4	3

XICS 动 定子尺寸图

XICS Dimension diagram of Mover & stator

XICS-PQ 定子尺寸图 XICS-PQ stator dimensions

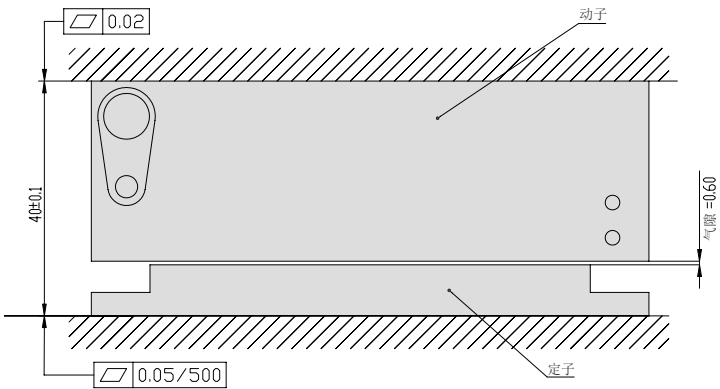
单位:Unit: mm



型号 Model	L	W	N	N1	W1	W2
XICS-PQ20-L120	120	40	4	1	20	31
XICS-PQ20-L180	180	40	6	2	20	31
XICS-PQ20-L240	240	40	8	3	20	31
XICS-PQ35-L120	120	55	4	1	35	46
XICS-PQ35-L180	180	55	6	2	35	46
XICS-PQ35-L240	240	55	8	3	35	46
XICS-PQ55-L120	120	75	4	1	55	66
XICS-PQ55-L180	180	75	6	2	55	66
XICS-PQ55-L240	240	75	8	3	55	66
XICS-PQ75-L120	120	95	4	1	75	86
XICS-PQ75-L180	180	95	6	2	75	86
XICS-PQ75-L240	240	95	8	3	75	86

XICS-PQ 组合尺寸图

XICS-PQ Combined dimension drawing



XICS-UH

性能参数 Performance parameter	单位 Unit	XICS-UH31-S1	XICS-UH32-S2	XICS-UH33-S3
		串联S Series connection	串联S Series connection	串联S Series connection
最高母线电压 Maximum bus voltage	V	600	600	600
额定推力@100°C (*1) Rated thrust @100°C (*1)	N	40	80	120
额定电流@100°C (*1) Rated current @100°C (*1)	A _{rms}	2.02	2.02	2.02
峰值推力 Peak force	N	240	480	720
峰值电流 Peak current	A _{rms}	12.12	12.12	12.12
推力常数±10% Constant @ 25°C±10%	N/A _{rms}	19.80	39.60	59.40
反电势常数±10% Back EMF constant±10%	V _{peak} /(m/s)	16.17	32.33	48.50
电阻(L-L)@25°C±10%(*2) Resistance @25°C±10%(*2)	Ω	5.60	11.20	16.80
电感(L-L)±30%(*3) Inductance(L-L)±30%(*3)	mH	4.80	7.20	10.80
电气时间常数 Electrical time constant	ms	0.86	0.64	0.64
磁吸力 Magnetic attractive force	KN	0	0	0
线圈最高温度 Maximum coil temperature	°C	120	120	120
极对距(N-N) Polar distance (N-N)	mm	60	60	60
动子长度 Mover length	mm	60	120	180
动子质量 Mover mass	kg	0.22	0.44	0.66
定子质量 Stator mass	kg/m	8.20	8.20	8.20
电机常数@25°C Motor constant @25°C	N/sqrt(W)	6.83	9.66	11.83
最大持续热功率@100°C Max Continuous thermal power@100°C	W	46.83	93.67	140.50
热阻系数 Thermal resistance coefficient	°C/W	2.03	1.01	0.68

XICS-UH33-S3

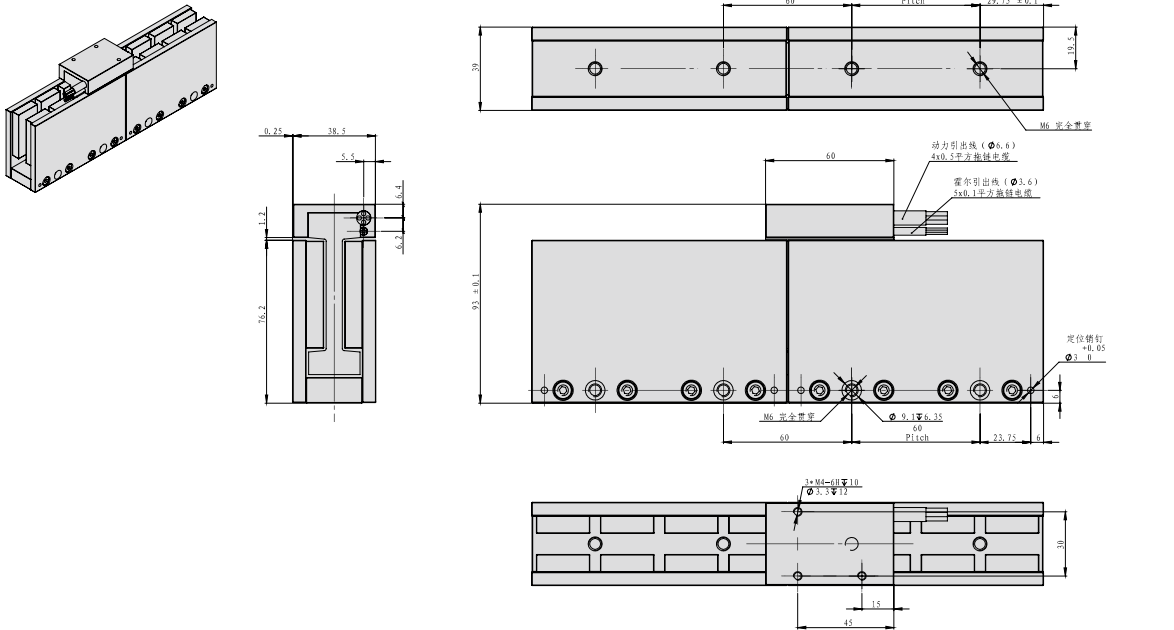
XICS-UH4系列规格

XICS-UH4 series specifications

性能参数 Performance parameter	单位 Unit	XICS-UH41-S1	XICS-UH42-S2	XICS-UH43-S3	XICS-UH44-S4	XICS-UH45-S5	XICS-UH46-S6
		串联S Series connection	串联S Series connection	串联S Series connection	串联S Series connection	并联P Parallel connection	并联P Parallel connection
最高母线电压 Maximum bus voltage	V	600	600	600	600	600	600
额定推力@100℃(*1) Rated thrust @100℃(*1)	N	68	136	204	272	340	408
额定电流@100℃(*1) Rated current @100℃(*1)	A _{rms}	2.09	2.09	2.09	2.09	4.17	4.17
峰值推力 Peak force	N	408	816	1224	1632	2040	2448
峰值电流 Peak current	A _{rms}	12.52	12.52	12.52	12.52	25.03	25.03
推力常数±10% Constant @ 25 C±10%	N/A _{rms}	32.60	65.20	97.80	130.40	81.50	97.80
反电势常数±10% Back EMF constant±10%	V _{peak} /(m/s)	26.62	53.24	79.85	106.47	66.54	79.85
电阻(L-L)@25℃±10%(*2) Resistance @25℃±10%(*2)	Ω	7.12	14.24	21.36	28.48	8.90	10.68
电感(L-L)±30%(*3) Inductance(L-L)±30%(*3)	mH	6.32	12.64	18.96	25.28	7.90	9.48
电气时间常数 Electrical time constant	ms	0.89	0.89	0.89	0.89	0.89	0.89
磁吸力 Magnetic attractive force	KN	0	0	0	0	0	0
线圈最高温度 Maximum coil temperature	℃	120	120	120	120	120	120
极对距(N-N) Polar distance (N-N)	mm	60	60	60	60	60	60
动子长度 Mover length	mm	60	120	180	240	300	360
动子质量 Mover mass	kg	0.28	0.56	0.84	1.12	1.40	1.68
定子质量 Stator mass	kg/m	14	14	14	14	14	14
电机常数@25℃ Motor constant @25℃	N/sqrt(W)	9.98	14.11	17.28	19.95	22.31	24.43
最大持续热功率@100℃ Max Continuous thermal power@100℃	W	63.48	126.96	190.44	253.92	317.40	380.88
热阻系数 Thermal resistance coefficient	℃/W	1.50	0.75	0.50	0.37	0.30	0.25

XICS 动 定子尺寸图
XICS Dimension diagram of Mover & stator

XICS-UH41-S1



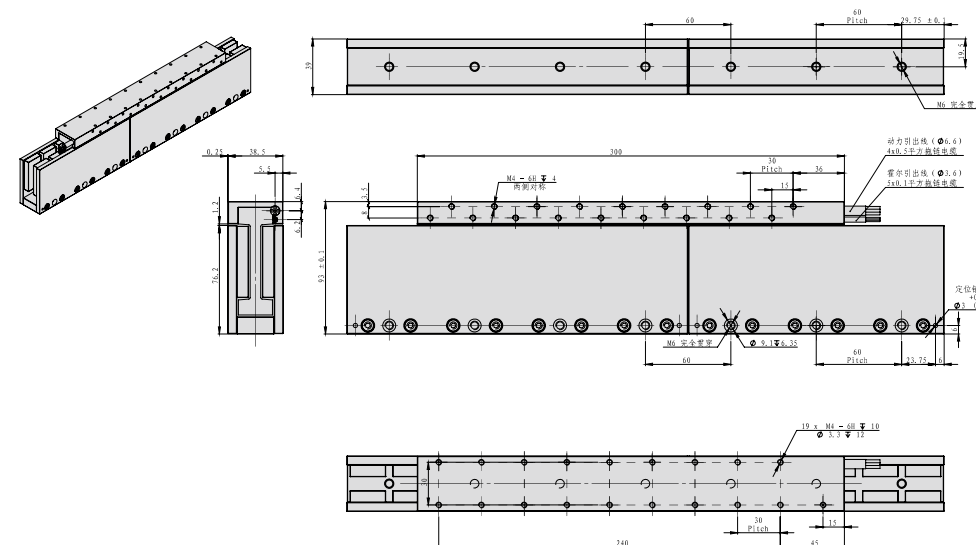
XICS-UH

XICS 动 定子尺寸图

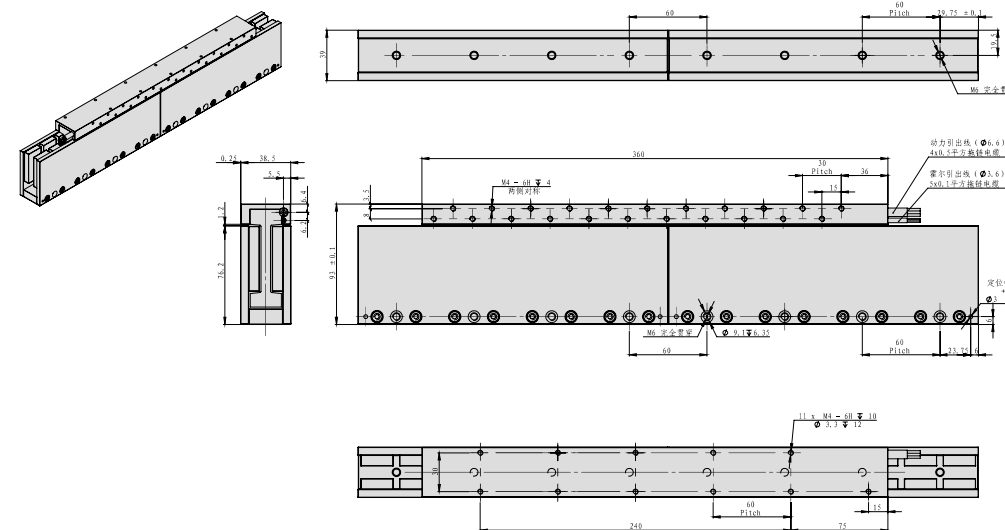
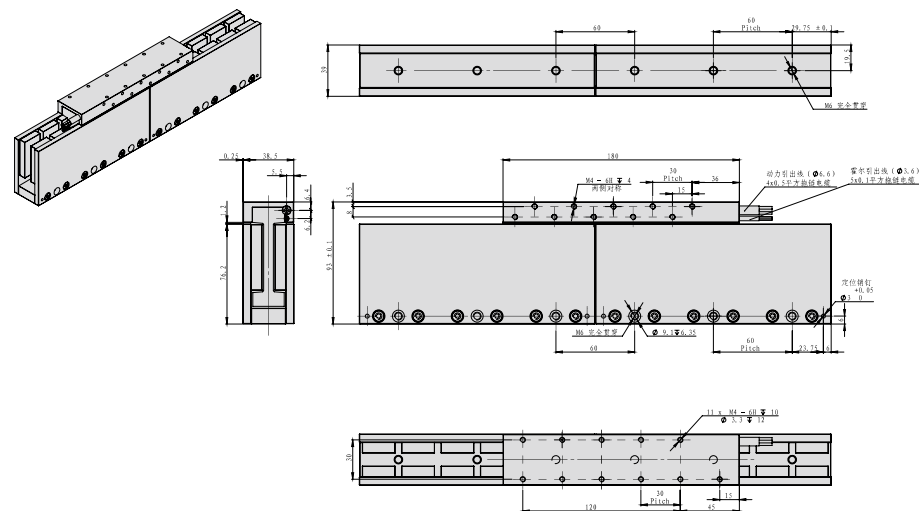
XICS Dimension diagram of Mover & stator

XICS-UH45-S5

单位:Unit: mm



XICS-UH46-S6



XICS-UH46-S6

XICS-UH5系列规格

XICS-UH5 series specifications

性能参数 Performance parameter	单位 Unit	XICS-UH51-S1	XICS-UH52-S2	XICS-UH53-S3	XICS-UH54-S4	XICS-UH55-S5
		串联S Series connection	串联S Series connection	串联S Series connection	并联P Parallel connection	并联P Parallel connection
最高母线电压 Maximum bus voltage	V	600	600	600	600	600
额定推力@100°C (*1) Rated thrust @100°C (*1)	N	83	166	249	332	415
额定电流@100°C (*1) Rated current @100°C (*1)	A _{rms}	2.63	2.63	2.63	5.25	5.25
峰值推力 Peak force	N	498	996	1494	1992	2490
峰值电流 Peak current	A _{rms}	15.76	15.76	15.76	31.52	31.52
推力常数±10% Constant @ 25°C±10%	N/A _{rms}	31.60	63.20	94.80	63.20	79
反电势常数±10% Back EMF constant±10%	V _{peak} /(m/s)	25.79	51.57	77.36	51.57	64.46
电阻(L-L)@25°C±10%(*2) Resistance @25°C±10%(*2)	Ω	4.08	8.16	12.24	4.08	5.10
电感(L-L)±30%(*3) Inductance(L-L)±30%(*3)	mH	6.04	12.08	18.11	6.04	7.57
电气时间常数 Electrical time constant	ms	1.48	1.48	1.48	1.48	1.48
磁吸力 Magnetic attractive force	KN	0	0	0	0	0
线圈最高温度 Maximum coil temperature	°C	120	120	120	120	120
极对距(N-N) Polar distance (N-N)	mm	60	120	60	60	60
动子长度 Mover length	mm	60	60	180	240	300
动子质量 Mover mass	kg	0.65	1.30	1.95	2.70	3.25
定子质量 Stator mass	kg/m	25	25	25	25	25
电机常数@25°C Motor constant @25°C	N/sqrt(W)	12.77	18.06	22.12	25.55	28.56
最大持续热功率@100°C Max Continuous thermal power@100°C	W	54.67	109.33	164	218.67	273.33
热阻系数 Thermal resistance coefficient	°C/W	1.65	0.82	0.55	0.41	0.33

注:1、本表数据为马达在环境温度25℃且无强制冷却下的值。

Note: 1. The data in this table are the values of the motor at the ambient temperature of 25°C without forced cooling.

2、热阻数据为动子安装在散热板上量测之值。

2. The data of thermal resistance is measured when the Mover is installed on the heat dissipation plate.

3、除了尺寸规格以外,其余规格有±10%的误差范围。

3. Except the size specification, the other specifications have an error range of 10%.

4、本公司保有变更的权利,请以客户确认图为主。

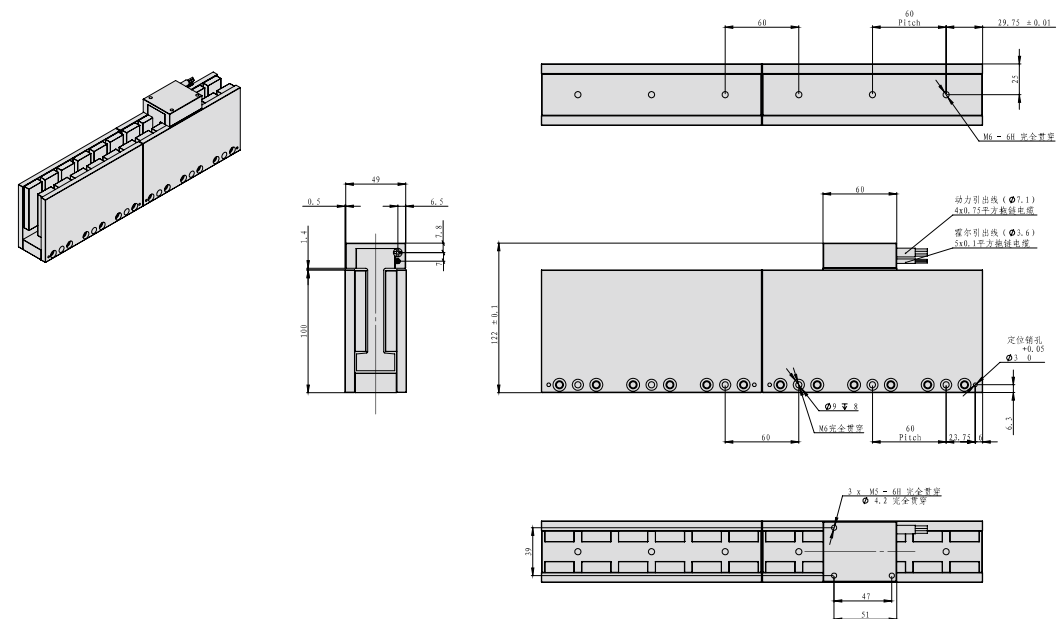
4. Our company reserves the right to make changes. Please give priority to the customer confirmation chart.

XICS 动 定子尺寸图

XICS Dimension diagram of Mover & stator

XICS-UH51-S1

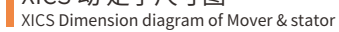
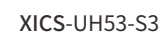
单位:Unit: mm



XICS-UH

XICS Dimension diagram of Mover & stator

单位:Unit: mm



单位:Unit: mm

