

TPA-UH3系列规格

TPA-UH3 series specifications

性能参数 Performance parameter	单位 Unit	TPA-UH31	TPA-UH32	TPA-UH33
		串联S Series connection	串联S Series connection	串联S Series connection
持续推力@线圈100°C Sustained thrust @ coil 100°C	N	41.16	82.32	123.48
峰值力 Peak force	N	226.38	452.76	679.14
电机常数 Motor constant	Nm/√W	7.31	10.34	12.66
持续热功率 Continuous thermal power	W	31.69	63.38	95.07
电气周期 Electrical cycle	mm		60.00	
最高线圈温度 Maximum coil temperature	°C		100.00	
持续电流 Persistent current	A _{rms}		2.10	
峰值电流 Peak current	A _{rms}		11.55	
最大总线电压 Maximum bus voltage	V _{dc}		330.00	
力常数@25°C+10% Constant @ 25°C+10%	N/A _{rms}	19.60	39.20	58.80
反电动势常数+10% Back EMF constant+10%	V _{peak} /(m/s)	15.99	31.99	47.98
电感+20% Inductance+20%	mH	2.30	4.60	6.90
终端电阻@25°C+10% Termination resistance @ 25°C+10%	ohms	3.70	7.40	11.10
热态电阻+10% Thermal resistance+10%	R _{hot} (Ω)	4.79	9.58	14.37
电气时间常数 Electrical time constant	ms		0.62	
热散耗常数 Heat dissipation constant	W/°C	0.42	0.85	1.27
热阻系数 Thermal resistance coefficient	°C/W	2.37	1.18	0.79
机械参数 Mechanical parameters		-		
线圈质量+/-15% Coil mass+/-15%	kg	0.34	0.45	0.68
线圈长度+/-1.0 Coil length+/-1.0	mm	63.0	123.0	183.0
磁轨质量25°C+/-15% Magnetic track mass 25°C+/-15%	kg/m		1	
磁吸力 Magnetic attractive force	N		0	

注:1、本表数据为马达在环境温度25°C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.

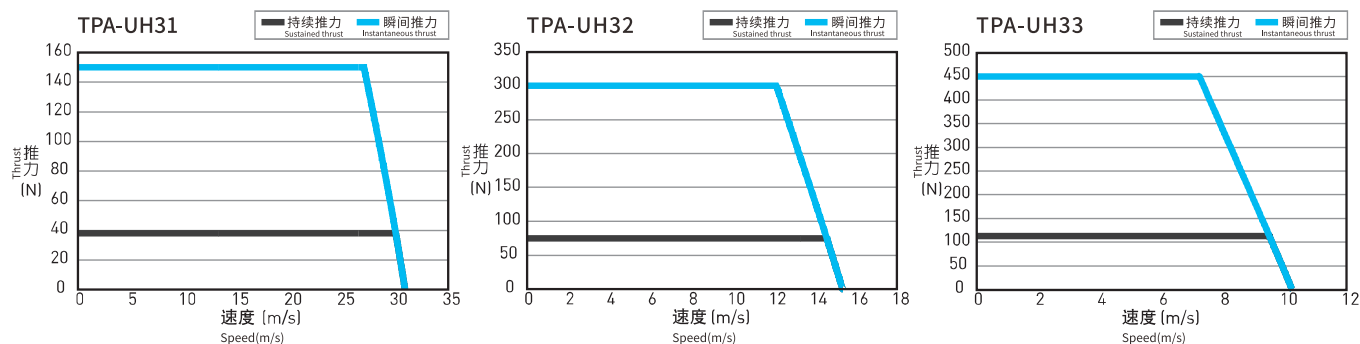
3、除了尺寸规格以外,其余规格有±10%的误差范围。

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。

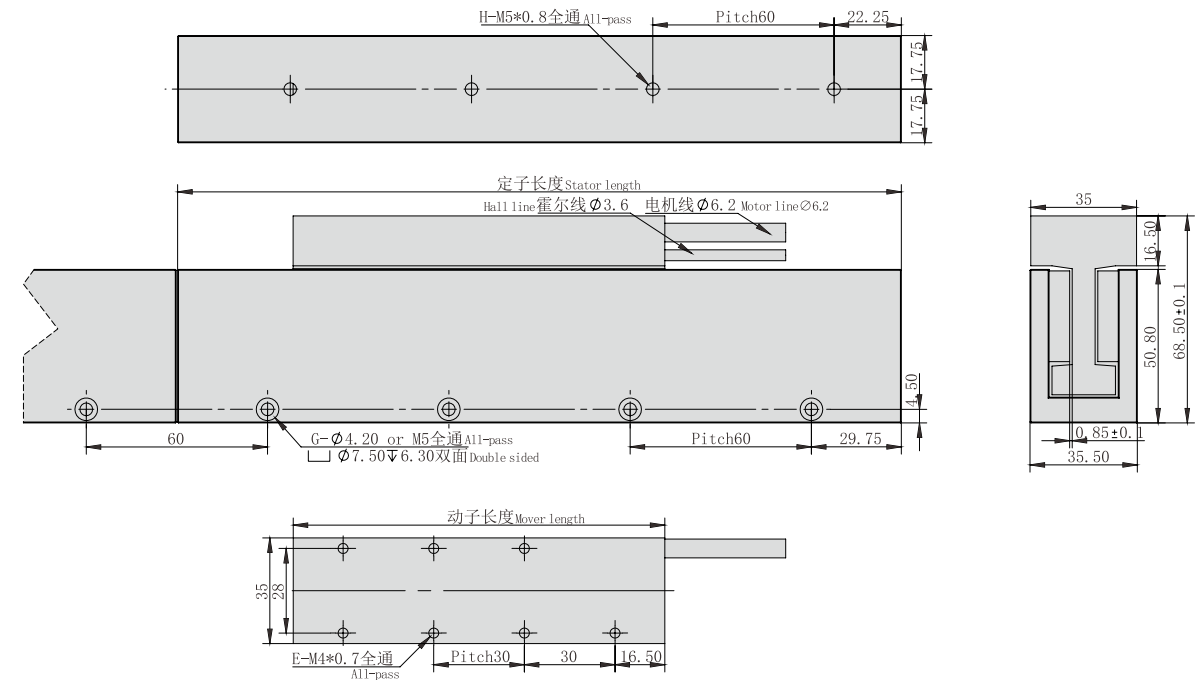
4. Our company reserves the right to make changes. Please give priority to the customer confirmation chart.

■ 推力与速度曲线图 [DC bus voltage=330VDC] Graph of thrust and velocity [DC bus voltage = 330Vdc]



TPA 动 定子尺寸图

TPA Drawing of Mover & Stator



电机动子 Motor Mover		
动子型号 Mover model	动子长度mm Mover length	E
TPA-UH31	63	3
TPA-UH32	123	7
TPA-UH33	183	11

电机定子 Motor stator			
定子型号 Stator model	定子长度mm Stator length	G	H
TPA-UH3-120	119.5	2	2
TPA-UH3-180	179.5	3	3
TPA-UH3-240	239.5	4	4
TPA-UH3-300	299.5	5	5
TPA-UH3-360	599.5	10	10

HNR
HCR
HNB
HCB
HNT
XYZ
ONB
OCB
GCR
GCB
GCBS
GCRS
ESR
EMR
EHR
KSR
LNP
DDR
参考资料
Reference data

TPA-UH4系列规格

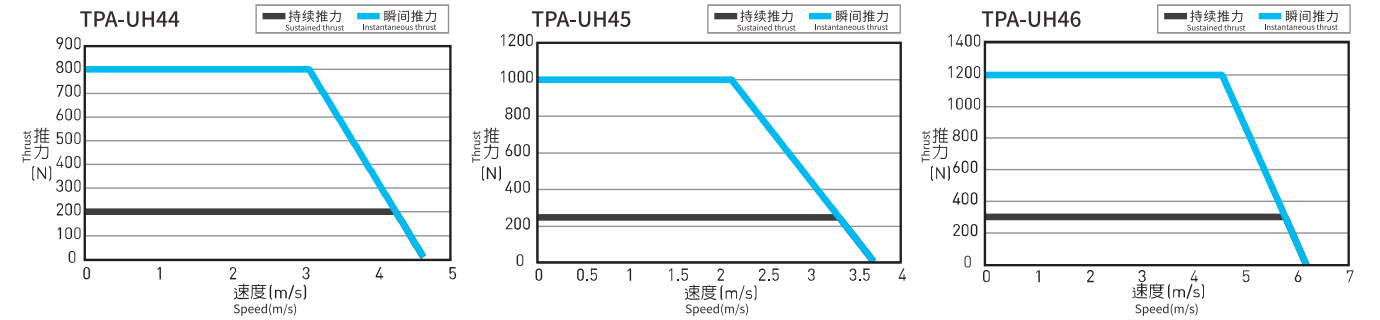
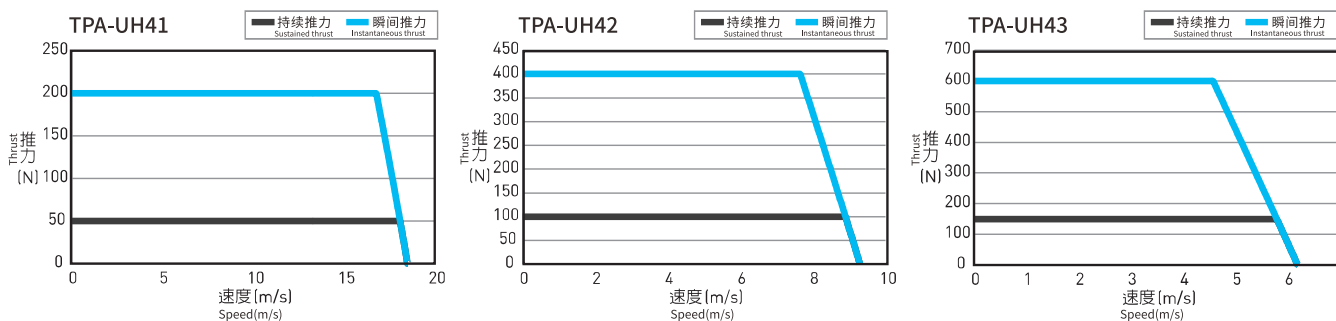
TPA-UH4 series specifications

性能参数 Performance parameter	单位 Unit	TPA-UH41	TPA-UH42	TPA-UH43	TPA-UH44	TPA-UH45	TPA-UH46
		串联S Series connection	串联S Series connection	串联S Series connection	串联S Series connection	串联S Series connection	并联P2 Parallel connection
持续推力@线圈100°C Sustained thrust @ coil 100°C	N	66.64	133.28	199.92	266.56	333.20	399.84
峰值力 Peak force	N	333.20	666.40	999.60	1332.80	1666.00	1999.20
电机常数 Motor constant	Nm/√W	7.61	10.77	13.18	15.22	17.02	18.65
持续热功率 Continuous thermal power	W	76.64	153.28	229.92	306.56	383.19	459.83
电气周期 Electrical cycle	mm	60.00					60.00
最高线圈温度 Maximum coil temperature	°C	100.00					100.00
持续电流 Persistent current	A _{rms}	2.80					5.60
峰值电流 Peak current	A _{rms}	14.00					28.00
最大总线电压 Maximum bus voltage	V _{dc}	330.00					330.00
力常数@25°C±10% Constant @ 25°C±10%	N/A _{rms}	23.80	47.60	71.40	95.20	119.00	71.40
反电动势常数±10% Back EMF constant±10%	V _{peak} /(m/s)	19.42	38.84	58.26	77.68	97.10	58.26
电感±20% Inductance±20%	mH	5.18	10.37	15.55	20.74	25.92	7.78
终端电阻@25°C±10% Termination resistance @ 25°C±10%	ohms	5.03	10.07	15.10	20.13	25.17	7.55
热态电阻±10% Thermal resistance±10%	R _{hot} (Ω)	6.52	13.03	19.55	26.07	32.58	9.78
电气时间常数 Electrical time constant	ms	1.03	1.03	1.03	1.03	1.03	1.03
热散耗常数 Heat dissipation constant	W/°C	1.02	2.04	3.07	4.09	5.11	6.13
热阻系数 Thermal resistance coefficient	°C/W	0.98	0.49	0.33	0.24	0.20	0.16
机械参数 Mechanical parameters		-					
线圈质量±15% Coil mass±15%	kg	0.34	0.65	0.95	1.30	1.58	1.75
线圈长度±1.0 Coil length±1.0	mm	63.0	123.0	183.0	243.0	303.0	363.0
磁轨质量25°C±15% Magnetic track mass 25°C±15%	kg/m	1					1
磁吸力 Magnetic attractive force	N	0					0

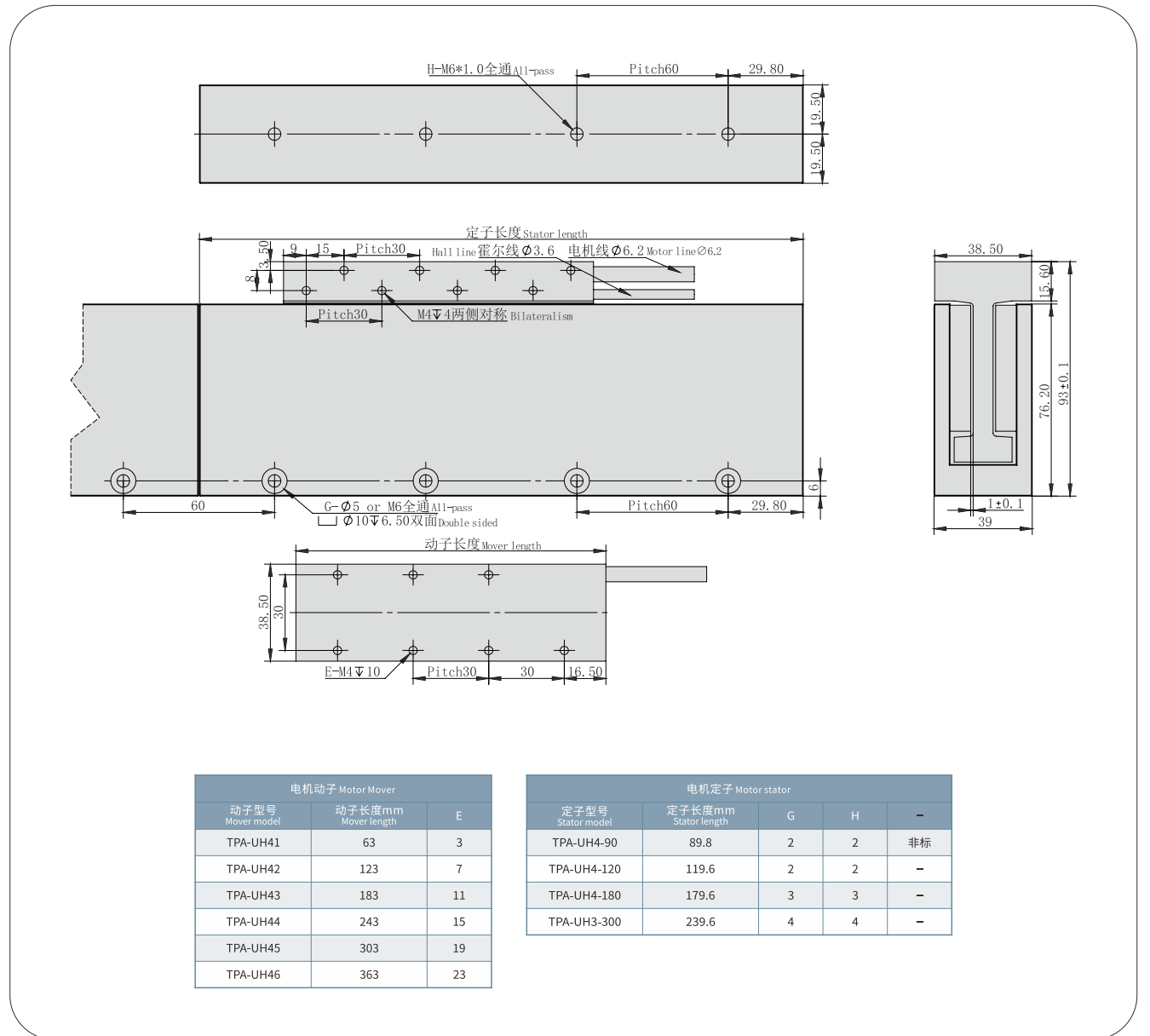
注:1、本表数据为马达在环境温度25°C且无强制冷却下的值。
Note: 1. The data in this table are the values of the motor at the ambient temperature of 25°C without forced cooling.

- 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%.
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■ 推力与速度曲线图 (DC bus voltage=330VDC) Graph of thrust and velocity [DC bus voltage = 330Vdc]



TPA 动 定子尺寸图 TPA Drawing of Mover & Stator



HNR
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XYZ
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OCB
GCR
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GCRS
ESR
EMR
EHR
KSR
LNP
DDR

参考资料
Reference data

TPA-UH5系列规格

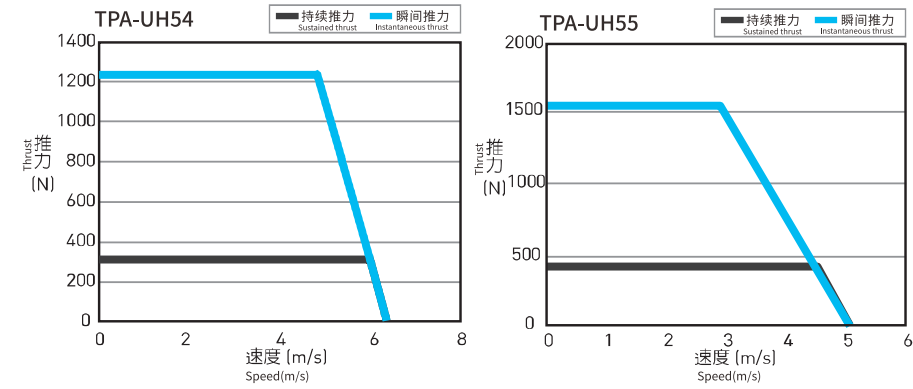
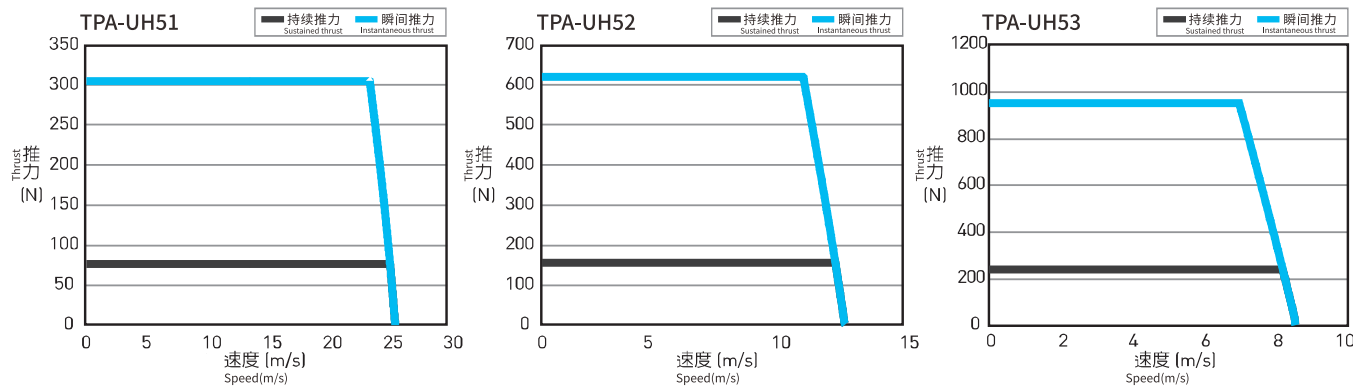
TPA-UH5 series specifications

性能参数 Performance parameter	单位 Unit	TPA-UH51	TPA-UH52	TPA-UH53	TPA-UH54	TPA-UH55
		串联S Series connection	串联S Series connection	串联S Series connection	串联S Series connection	串联S Series connection
持续推力@线圈100°C Sustained thrust @ coil 100°C	N	140.40	280.80	421.20	561.60	702.00
峰值力 Peak force	N	912.60	1825.20	2737.80	3650.40	4563.00
电机常数 Motor constant	Nm/√W	17.46	24.69	30.24	34.92	39.04
持续热功率 Continuous thermal power	W	64.67	129.35	194.02	258.69	323.36
电气周期 Electrical cycle	mm	84.00	84.00	84.00	84.00	84.00
最高线圈温度 Maximum coil temperature	°C	100.00	100.00	100.00	100.00	100.00
持续电流 Persistent current	A _{rms}	3.00	3.00	3.00	3.00	3.00
峰值电流 Peak current	A _{rms}	19.50	19.50	19.50	19.50	19.50
最大总线电压 Maximum bus voltage	V _{dc}	330.00	330.00	330.00	330.00	330.00
力常数@25°C±10% Constant @ 25°C±10%	N/A _{rms}	46.80	93.60	140.40	187.20	234.00
反电动势常数±10% Back EMF constant±10%	V _{peak} /(m/s)	38.19	76.38	114.57	152.76	190.94
电感±20% Inductance±20%	mH	7.70	15.40	23.10	30.78	38.50
终端电阻@25°C±10% Termination resistance @ 25°C±10%	ohms	3.70	7.40	11.10	14.80	18.50
热态电阻±10% Thermal resistance±10%	R _{hot} (Ω)	4.79	9.58	14.37	19.16	23.95
电气时间常数 Electrical time constant	ms	2.08	2.08	2.08	2.08	2.08
热散耗常数 Heat dissipation constant	W/°C	0.86	1.72	2.59	2.08	2.08
热阻系数 Thermal resistance coefficient	°C/W	1.16	0.58	0.39	0.48	0.48
机械参数 Mechanical parameters	-					
线圈质量±15% Coil mass±15%	kg	0.80	0.80	1.60	3.20	4.00
线圈长度±1.0 Coil length±1.0	mm	87.00	171.00	255.00	339.00	423.00
磁轨质量25°C±15% Magnetic track mass 25°C±15%	kg/m	36				
磁吸力 Magnetic attractive force	N	0				

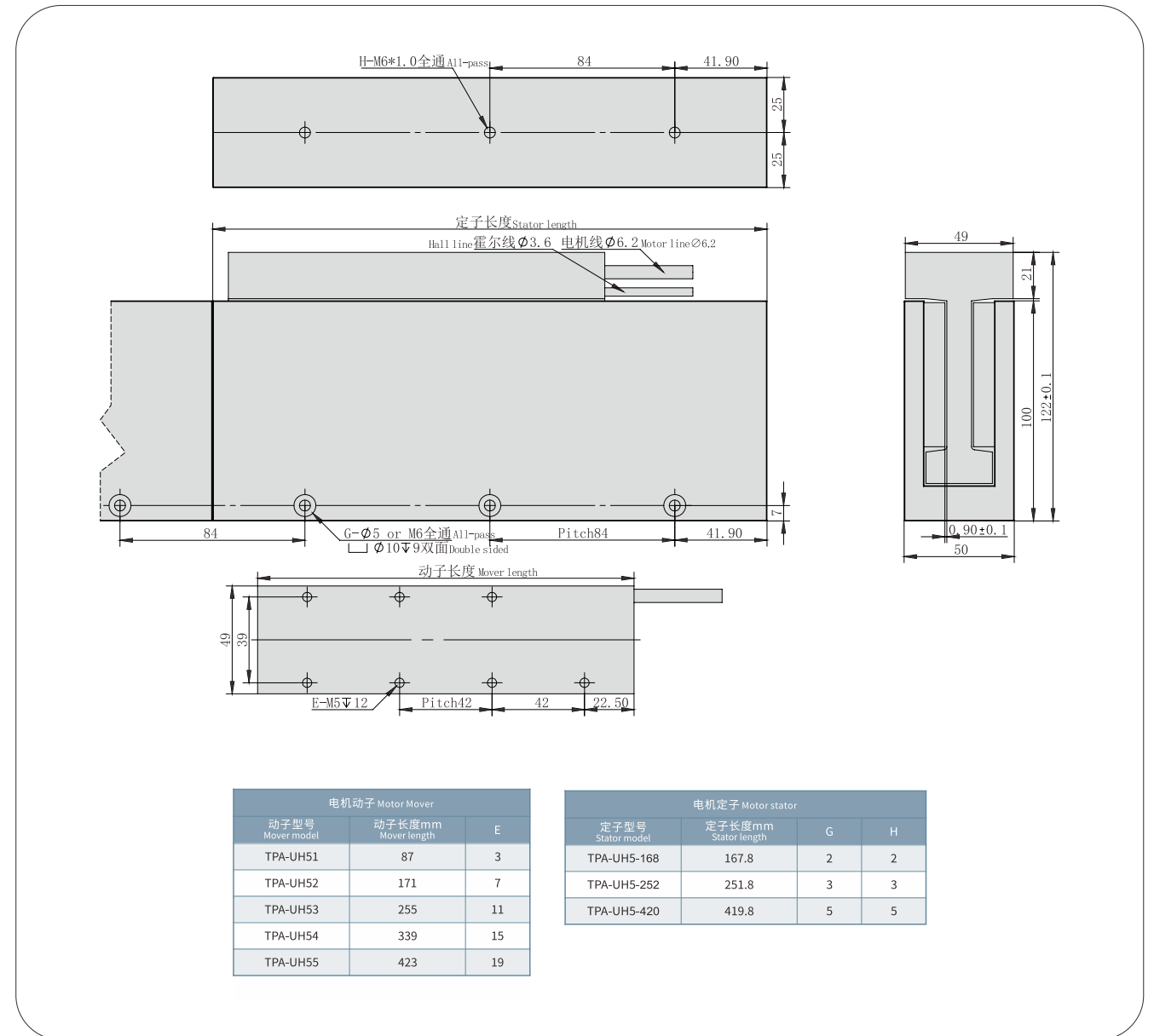
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TPA 动 定子尺寸图
TPA Drawing of Mover & Stator



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- HCR
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- HCB
- HNT
- XYZ
- ONB
- OCB
- GCR
- GCB
- GCBS
- GCRS
- ESR
- EMR
- EHR
- KSR
- LNP**
- DDR

参考资料
Reference data