

# ADR-F 系列



小体积紧凑设计



直驱无刷电机



高扭矩密度



低齿槽转矩



可选低速绕组或者高速绕组

# ADR-F

## 参数规格

性能参数	Unit	ADR45-F				ADR60-F			
		S	P	S	P	S	P	S	P
串联/并联	S/P	S	P	S	P	S	P	S	P
持续转矩@100°C	Nm	0.05	0.05	0.10	0.10	0.33	0.33	0.65	0.65
峰值扭矩	Nm	0.15	0.15	0.31	0.31	0.98	0.98	1.95	1.95
齿槽转矩 (峰峰值)	Nm	4.16E-04		8.32E-04		2.24E-03		4.48E-03	
转矩常数	Nm/Arms	0.09	0.04	0.17	0.09	0.11	0.05	0.21	0.11
反电势常数	Vpk/krpm	7.32	3.66	14.65	7.32	8.97	4.49	17.95	8.97
电机常数	Nm/√watt	0.04	0.04	0.06	0.06	0.11	0.11	0.16	0.16
终端电阻 <sup>①</sup>	ohm	3.65	0.91	5.40	1.35	0.65	0.16	1.10	0.28
终端电感	mH	0.79	0.20	1.30	0.33	0.47	0.12	0.81	0.20
电气时间常数	ms	0.22		0.24		0.72		0.74	
持续电流@100°C <sup>②</sup>	Arms	0.60	1.20	0.60	1.20	3.10	6.20	3.10	6.20
峰值电流	Arms	1.80	3.60	1.80	3.60	9.30	18.60	9.30	18.60
持续热功率@100°C	W	2.55	2.55	3.77	3.77	12.12	12.12	20.52	20.52
最高线圈温度	°C	100							
热耗散常数@100°C	W/°C	0.03		0.05		0.16		0.27	
最高母线电压	Vdc	48							
极数	-	16				14			
总质量	g	79		112		219		346	
转子惯量	kg·m <sup>2</sup>	2.60E-06		5.20E-06		1.02E-05		2.03E-05	
最大速度@24Vdc或者48Vdc <sup>③</sup>	rpm	1500	3000	1500	3000	1500	3000	1500	3000

机械参数	Unit	ADR45-F		ADR60-F	
定子外径	mm	45.0		60.0	
转子内径	mm	25.0		30.0	
定子叠厚	mm	5.0	10.0	10.0	20.0
定子总高	mm	14.0	19.0	22.0	32.0

① 测试电阻时，环境温度 25 °C

② 测量持续电流时，环境温度 25 °C

③ 转速会随着母线电压和所用编码器而改变,在任何工况下都不允许超过此最大转速值

注：除尺寸外，所有参数浮动为 ± 10%

# ADR-F

## 参数规格

性能参数	Unit	ADR75-F				ADR90-F			
		S	P	S	P	S	P	S	P
串联/并联	S/P	S	P	S	P	S	P	S	P
持续转矩@100°C	Nm	0.80	0.80	1.61	1.61	1.88	1.88	3.75	3.75
峰值扭矩	Nm	2.41	2.41	4.82	4.82	5.63	5.63	11.26	11.26
齿槽转矩 (峰峰值)	Nm	3.00E-03		6.00E-03		5.40E-03		1.10E-02	
转矩常数	Nm/Arms	0.12	0.06	0.24	0.12	0.28	0.14	0.56	0.28
反电势常数	Vpk/krpm	10.26	5.13	20.51	10.26	23.93	11.97	47.86	23.93
电机常数	Nm/√watt	0.20	0.20	0.32	0.32	0.38	0.38	0.61	0.61
终端电阻 <sup>①</sup>	ohm	0.25	0.06	0.38	0.10	0.37	0.09	0.57	0.14
终端电感	mH	0.40	0.10	0.70	0.18	0.80	0.20	1.45	0.36
电气时间常数	ms	1.60		1.84		2.16		2.54	
持续电流@100°C <sup>②</sup>	Arms	6.70	13.40	6.70	13.40	6.70	13.40	6.70	13.40
峰值电流	Arms	20.10	40.20	20.10	40.20	20.10	40.20	20.10	40.20
持续热功率@100°C	W	21.78	21.78	33.11	33.11	32.24	32.24	49.66	49.66
最高线圈温度	°C	100							
热耗散常数@100°C	W/°C	0.29		0.44		0.43		0.66	
最高母线电压	Vdc	48							
极数	-	14				14			
总质量	g	458		797		852		1487	
转子惯量	kg·m <sup>2</sup>	3.25E-05		6.47E-05		1.03E-04		2.04E-04	
最大速度@24Vdc或者48Vdc <sup>③</sup>	rpm	1500	3000	1500	3000	1500	3000	750	1500

机械参数	Unit	ADR75-F		ADR90-F	
定子外径	mm	75.0		90.0	
转子内径	mm	35.0		40.0	
定子叠厚	mm	15.0	30.0	20.0	40.0
定子总高	mm	31.0	46.0	38.5	58.5

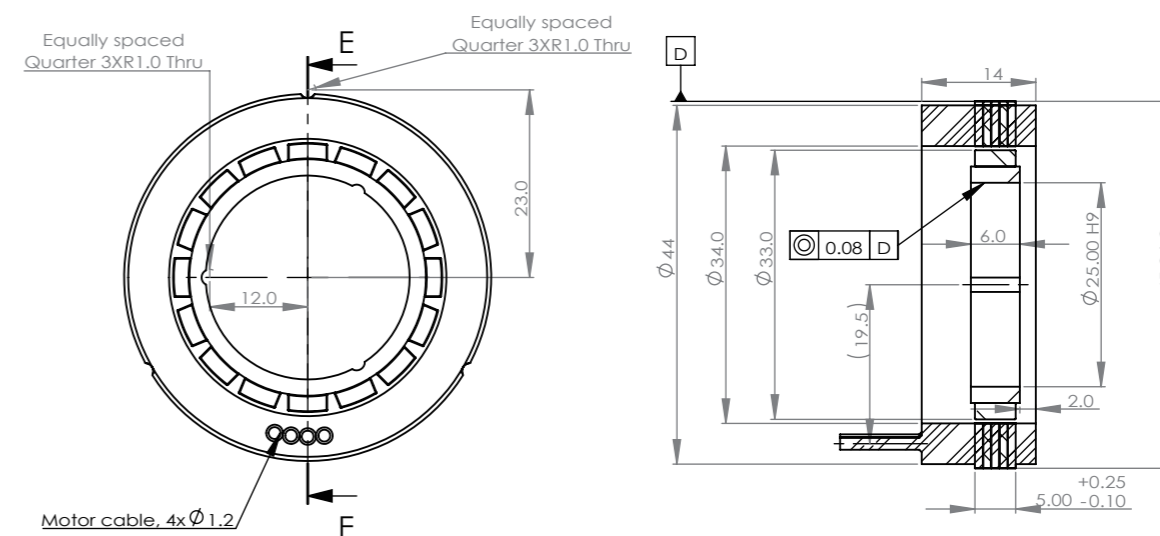
- ① 测试电阻时, 环境温度 25 °C
- ② 测量持续电流时, 环境温度 25 °C
- ③ 转速会随着母线电压和所用编码器而改变, 在任何工况下都不允许超过此最大转速值

注: 除尺寸外, 所有参数浮动为 ±10%

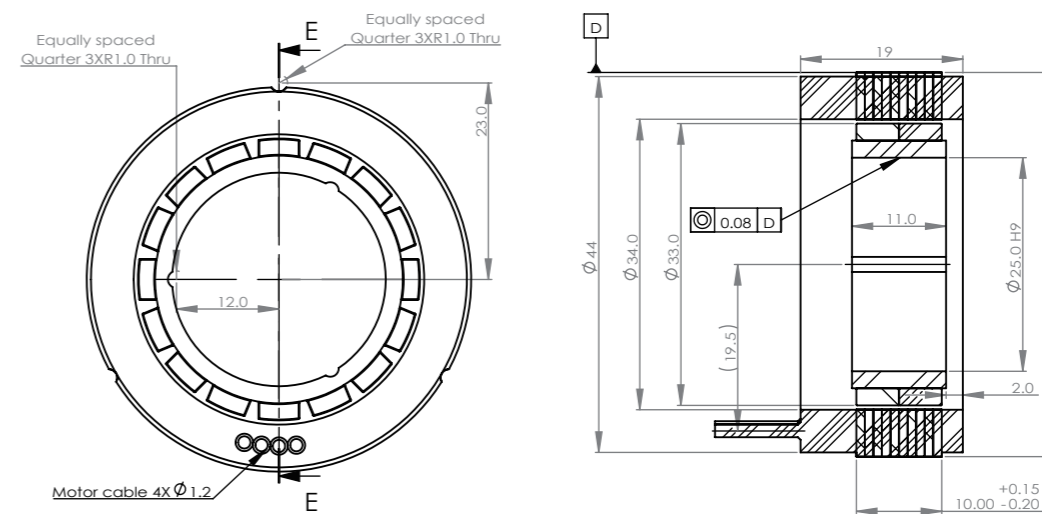
# ADR-F

## 系列尺寸

### ADR45-F-5



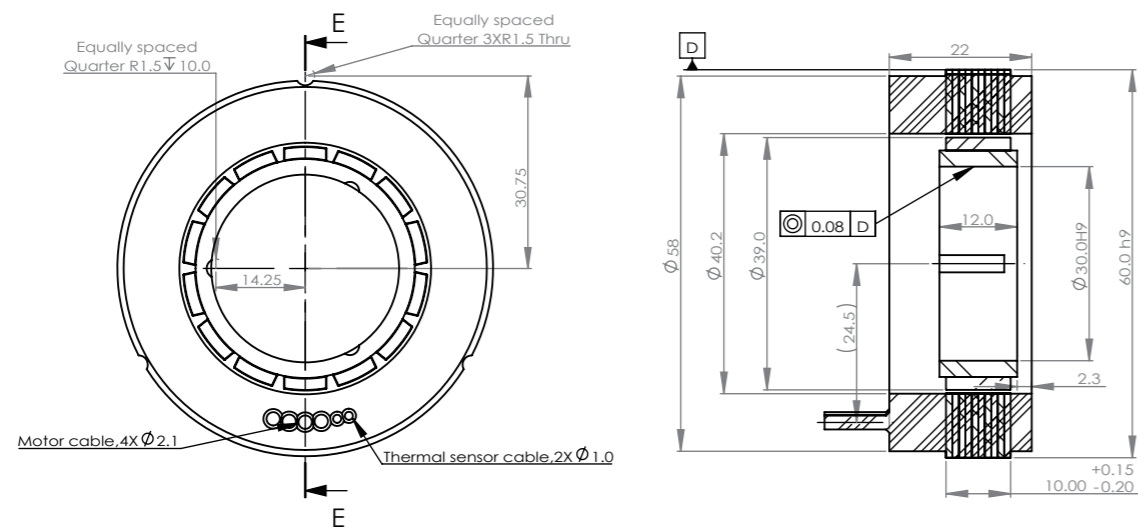
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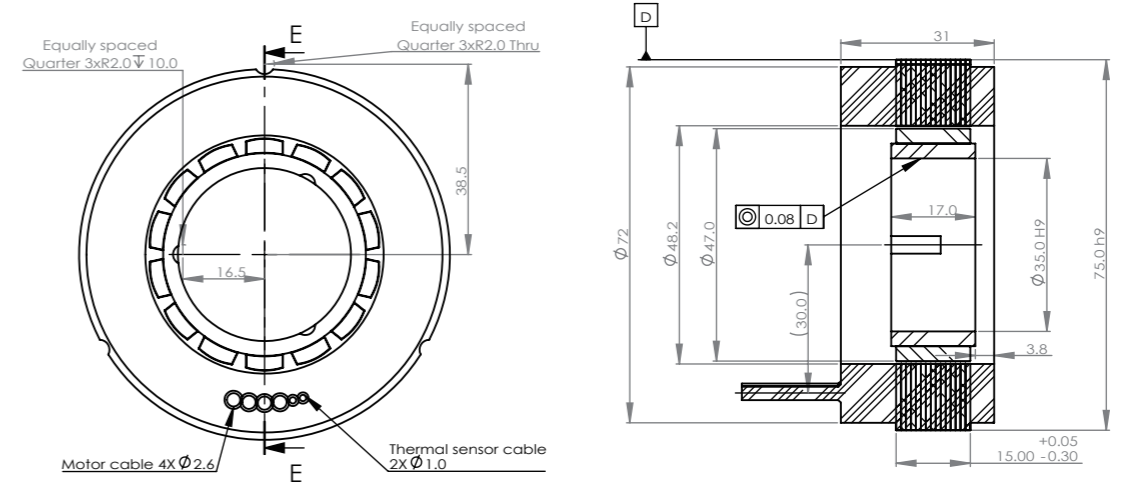
# ADR-F

系列尺寸

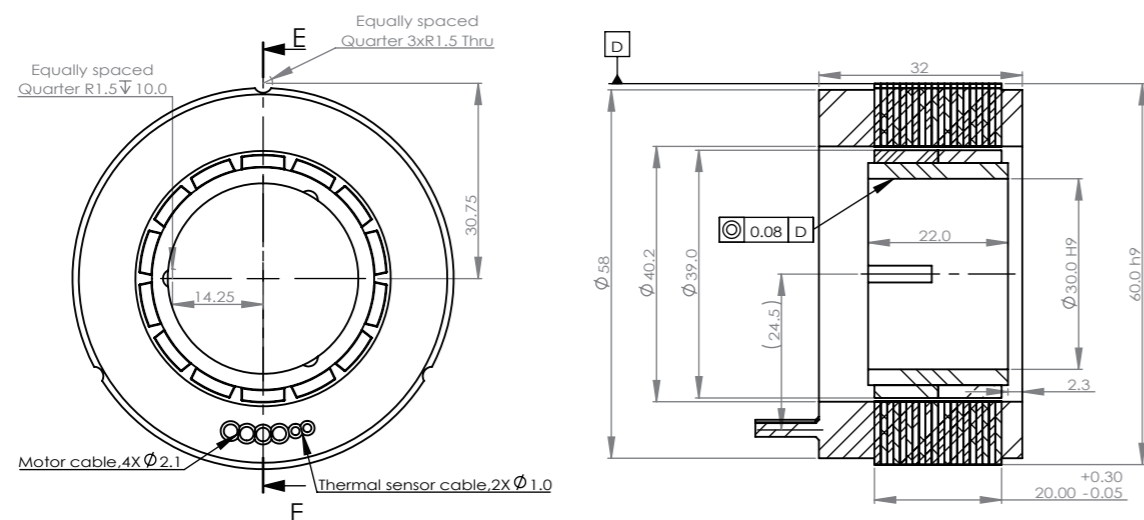
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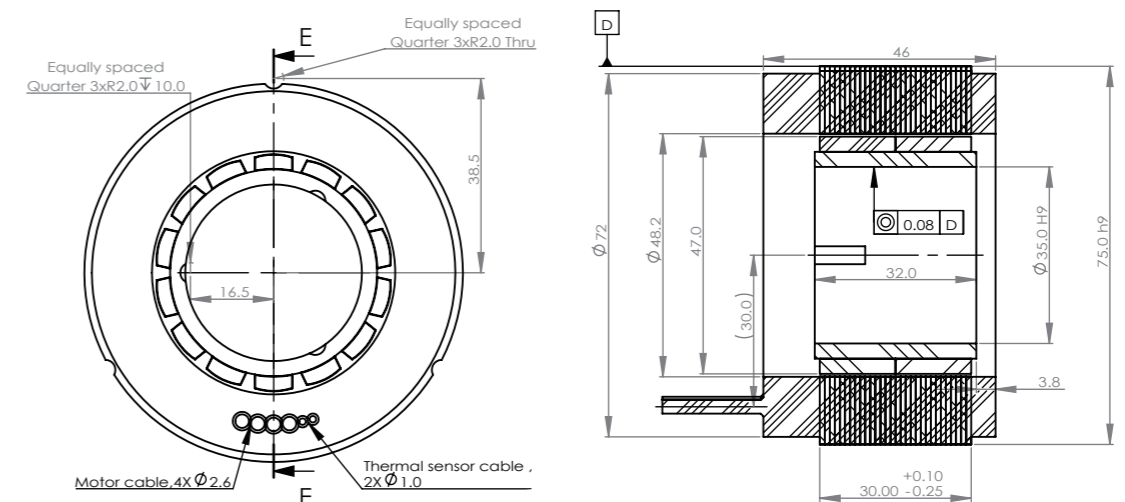
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ADR60-F-20



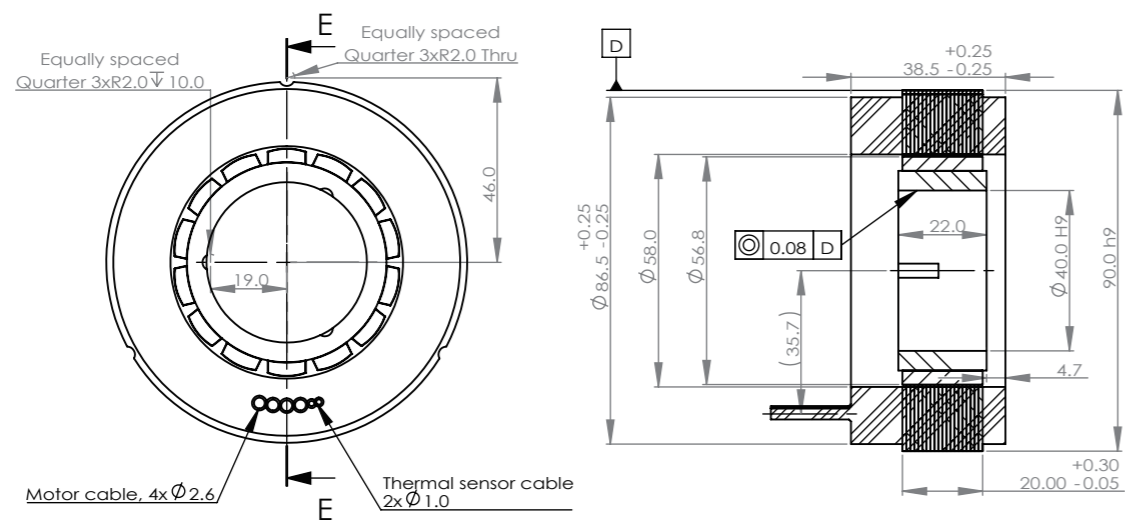
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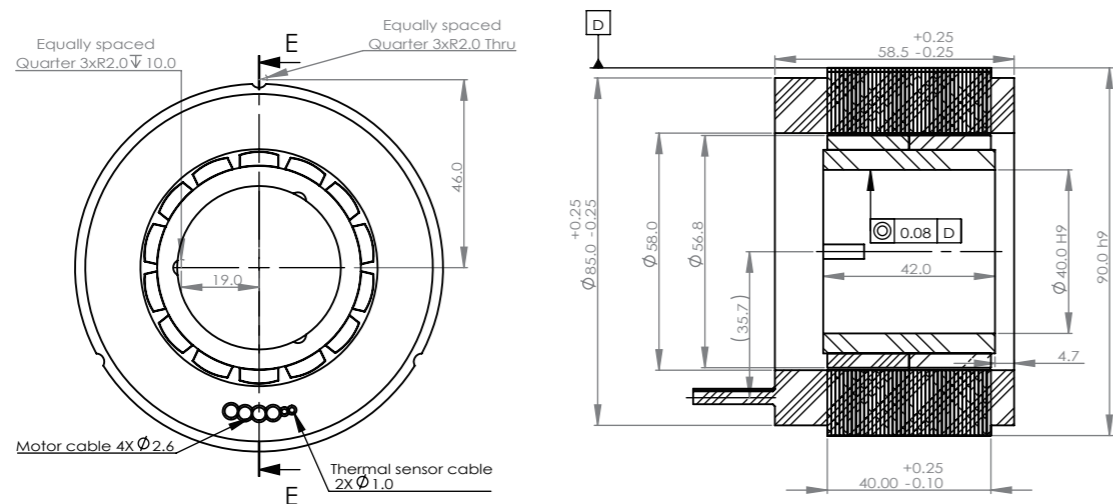
# ADR-F

## 系列尺寸

### ADR90-F-20



### ADR90-F-40



## 订购规则

# ADR-F



线圈

### ADR45-F-5-S-0.5

型号  
ADR45-F-5  
ADR45-F-10

电缆长度(m)  
0.5

串并联类型  
S=串联, P=并联

### ADR60-F-20-P-K-0.5

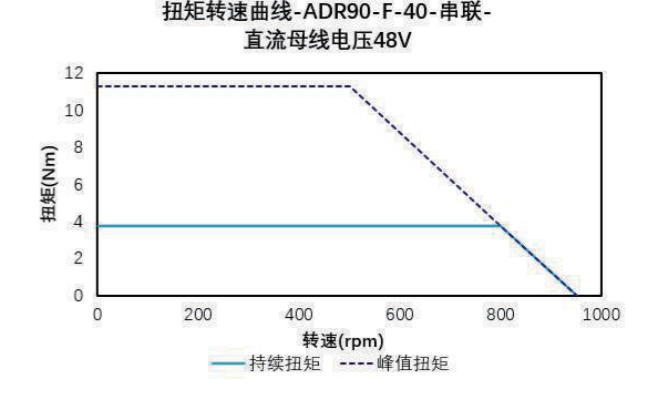
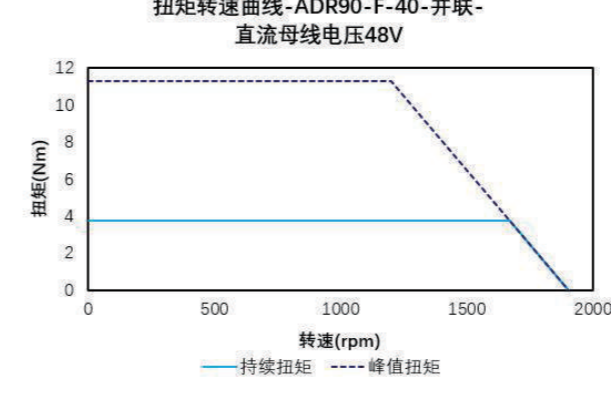
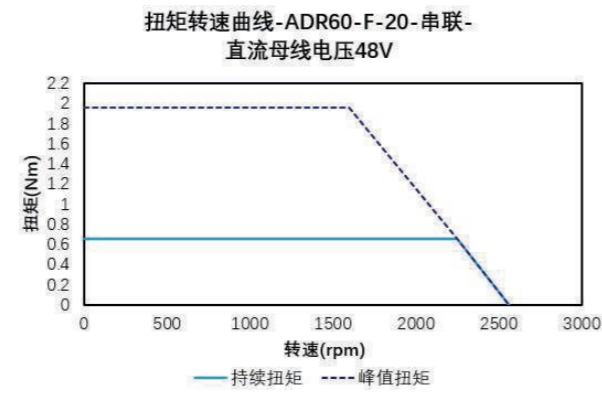
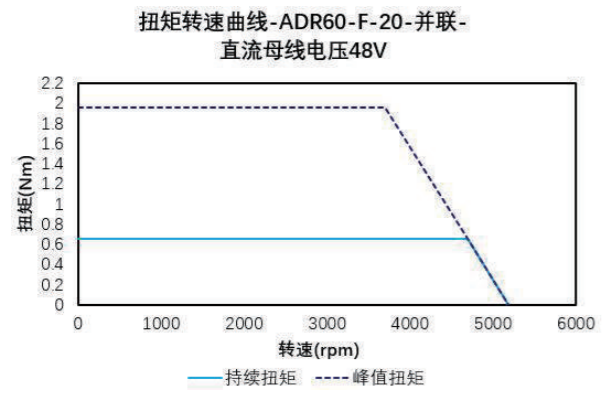
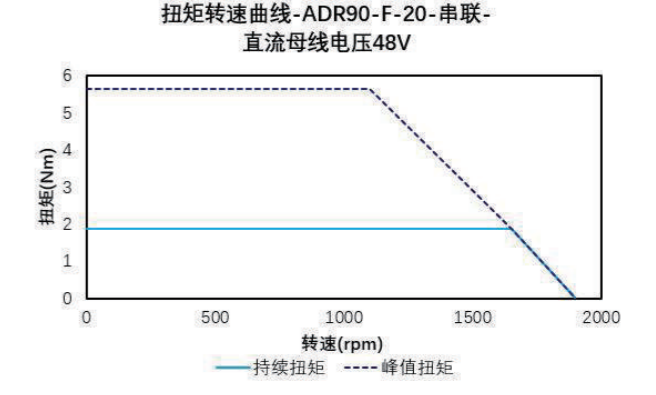
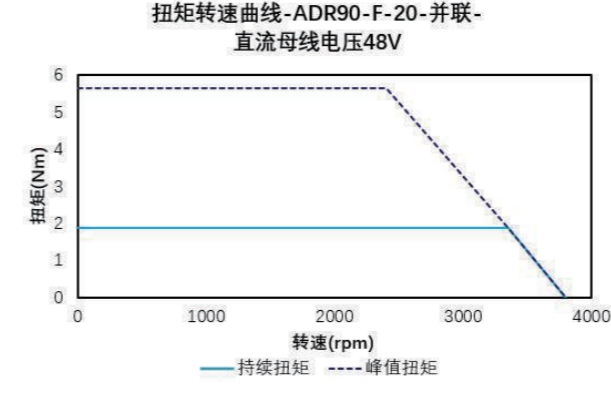
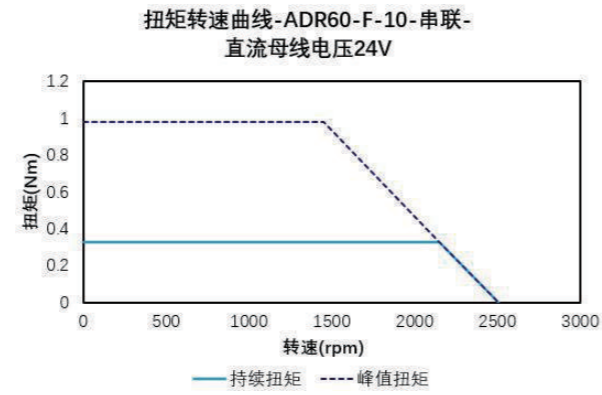
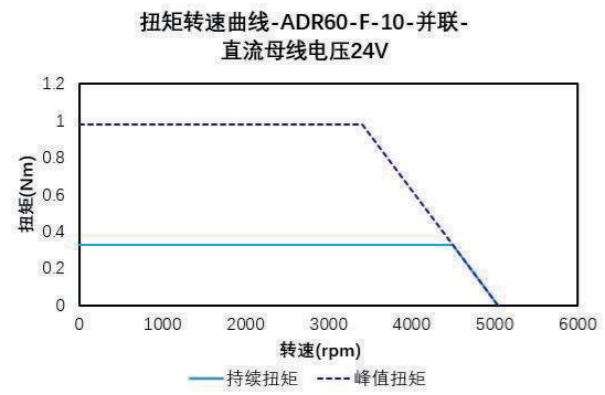
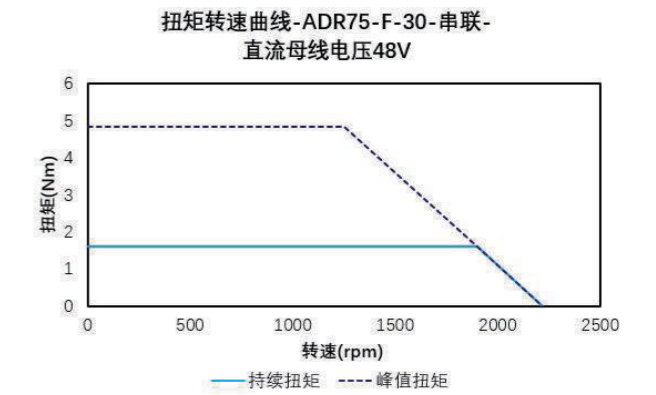
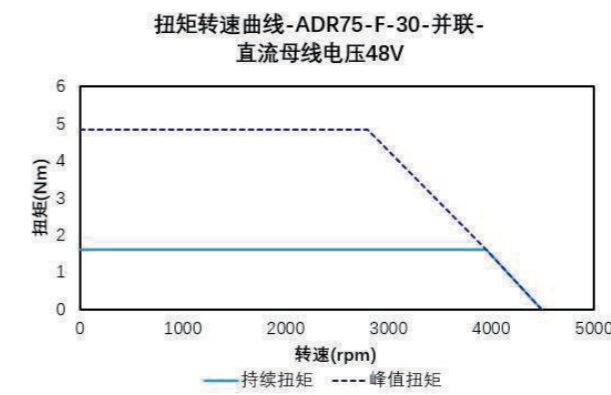
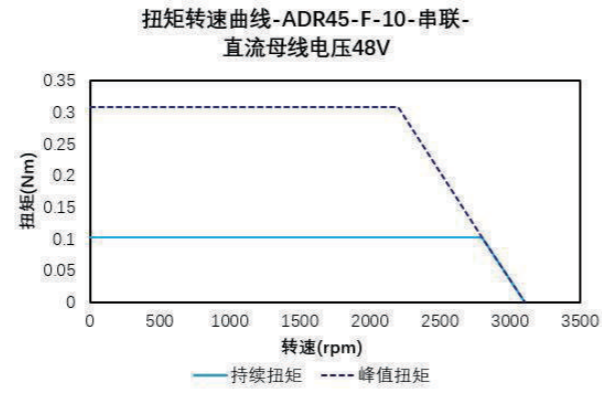
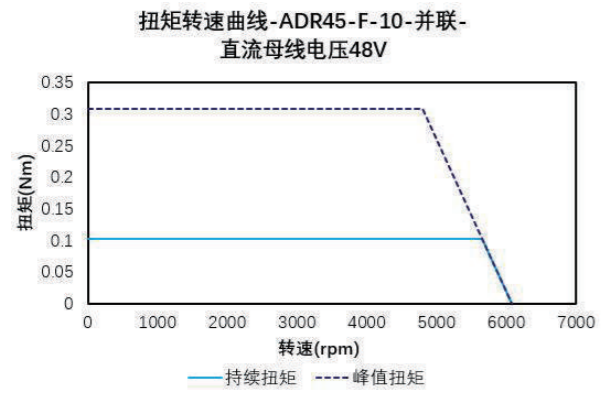
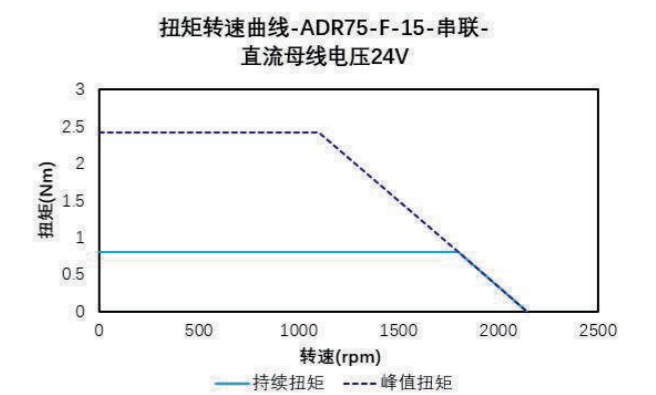
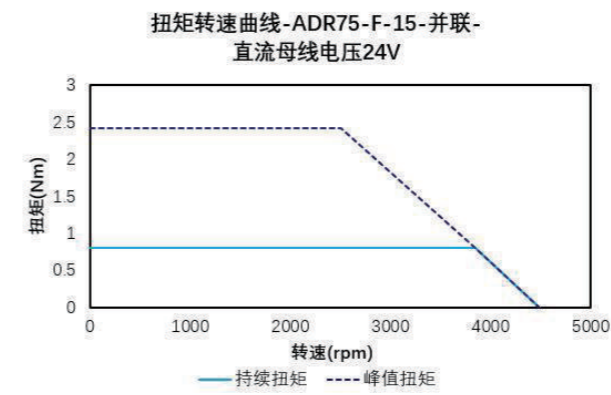
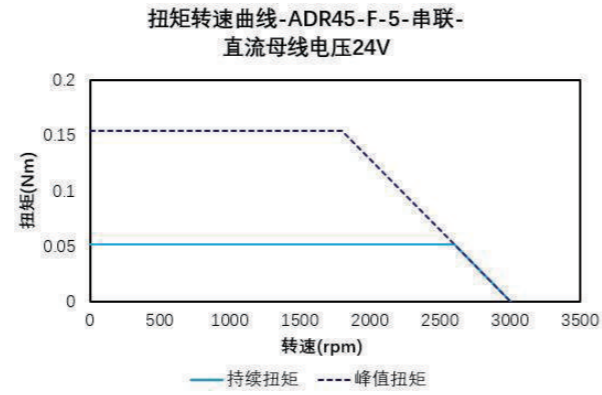
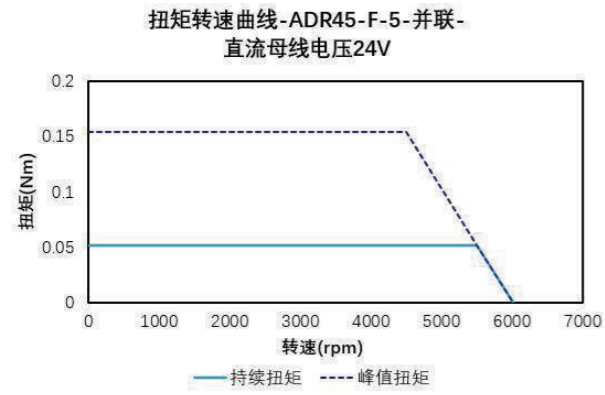
型号  
ADR60-F-10  
ADR60-F-20  
ADR75-F-15  
ADR75-F-30  
ADR90-F-20  
ADR90-F-40

串并联类型  
S=串联, P=并联

电缆长度(m)  
0.5

热传感器  
K=PT100 (RTD)

# 力矩-速度-曲线



力矩电机

力矩电机