



КАТАЛОГ ПРОДУКЦИИ
FULLING MOTOR
BLDC электродвигатели
и мотор-редукторы



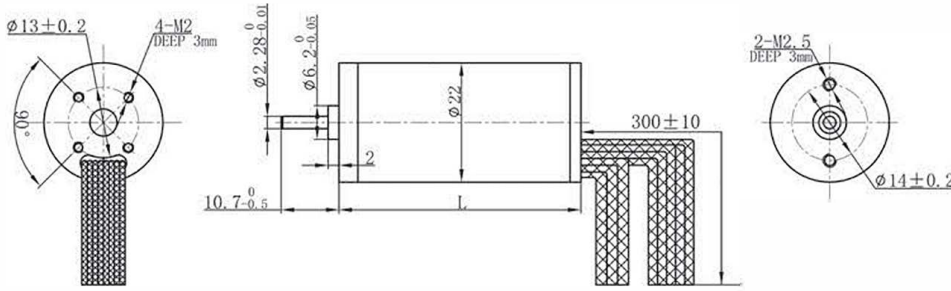
Purelogic R&D -
авторизованный дилер
Changzhou Fulling Motor CO., Ltd.
в России и странах СНГ



FL22RBL系列 (Series)

内转子无刷电机 Inner Rotor BLDC Motor

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	5N 距法兰 10mm (10mm From the flange)
最大轴向负载(Max axial force)	2N
介电强度(Dielectric Strength)	360VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

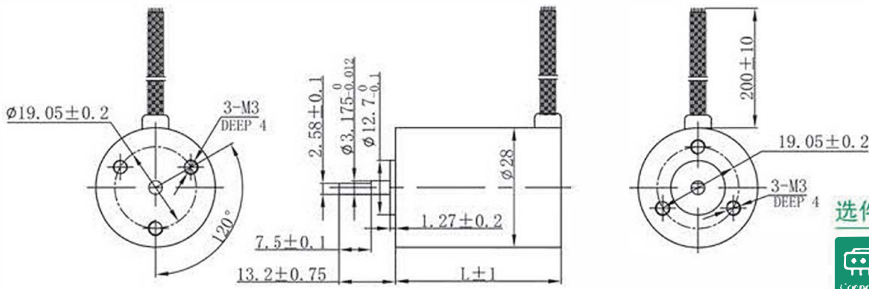
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1007 AWG28	蓝色 (Blue)	霍尔电源正 (Vcc)
	黄色 (Yellow)	霍尔 U (Hu)
	棕色 (Brown)	霍尔 V (Hv)
	红色 (Red)	霍尔 W (Hw)
	绿色 (Green)	霍尔电源负 (GND)
UL1007 AWG26	红色 (Red)	U 相 (Phase U)
	棕色 (Brown)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL22RBL45-24V-4604A	FL22RBL70-24V-3515A
极数 (Number of poles)			8
相数 (Number of phases)			3
额定电压 (Rated voltage)	VDC		24
额定转矩 (Rated torque)	mN.m	8	20
连续运行转矩 (Continuous stall torque)	mN.m	9.6	24
额定速度 (Rated speed)	RPM	4600	3800
额定功率 (Rated power)	W	3.8	8
峰值扭矩 (Peak torque)	mN.m	24	60
峰值电流 (Peak current)	A	1.1	2.0
线电阻 (Line to line resistance)	ohms@20°C	23	11.6
线电感 (Line to line inductance)	mH	6.2	4.3
转矩常数 (Torque constant)	mN.m/A	29.7	35.8
反电势 (Back EMF)	Vrms/KRPM	2.2	2.65
转动惯量 (Rotor inertia)	g.cm ²	0.66	1.32
机身长度 (Motor length)	L mm	45	68
重量 (Weight)	Kg	0.07	0.12

机械尺寸 (Dimensions)



A1

选件 Options



特性概要 (General Specifications)

绕组连接方式 (Winding Type)	星形 (Star connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	10N 距法兰 10mm (10mm From the flange)
最大轴向负载 (Max axial force)	2N
介电强度 (Dielectric Strength)	600VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度 (Ambient Temperature)	-20°C ~ +50°C
绝缘等级 (Insulation Class)	Class B

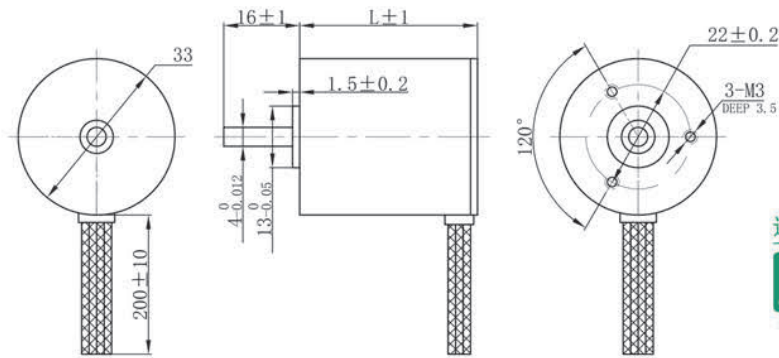
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1007 AWG26	黄色 (Yellow)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	橙色 (Orange)	霍尔 V (Hv)
	棕色 (Brown)	霍尔 W (Hw)
	白色 (White)	霍尔电源负 (GND)
UL1007 AWG26	绿色 (Green)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL28BL28-15V-8006AF	FL28BL38	FL28BL77-24V-3116AF
极数 (Number of poles)		4		
相数 (Number of phases)		3		
额定电压 (Rated voltage)	VDC	15	24	
额定转矩 (Rated torque)	mN.m	5	14	50
连续运行转矩 (Continuous stall torque)	mN.m	6	17	60
额定速度 (Rated speed)	RPM	8000	10000	4000
额定功率 (Rated power)	W	4	15	21
峰值扭矩 (Peak torque)	mN.m	15	42	150
峰值电流 (Peak current)	A	1.1	2.5	4.1
线电阻 (Line to line resistance)	ohms@20°C	8.2	4.2	4.2
线电感 (Line to line inductance)	mH	2.3	1.69	2.3
转矩常数 (Torque constant)	mN.m/A	14.3	16.9	37.4
反电势 (Back EMF)	Vrms/KRPM	1.06	1.25	2.77
转动惯量 (Rotor inertia)	g.cm ²	2.35	3.69	10.98
机身长度 (Motor length)	L mm	28	38	77
重量 (Weight)	Kg	0.06	0.082	0.28

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式 (Winding Type)	星形 (Star connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	10N 距法兰 10mm (10mm From the flange)
最大轴向负载 (Max axial force)	2N
介电强度 (Dielectric Strength)	600VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度 (Ambient Temperature)	-20°C ~ +50°C
绝缘等级 (Insulation Class)	Class B

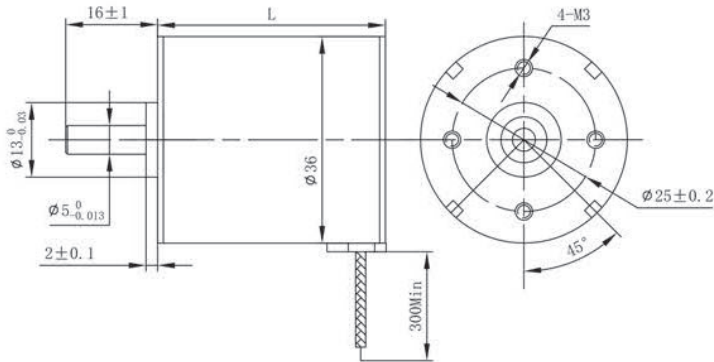
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1007 AWG26	黄色 (Yellow)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	橙色 (Orange)	霍尔 V (Hv)
	棕色 (Brown)	霍尔 W (Hw)
	白色 (White)	霍尔电源负 (GND)
UL1007 AWG26	绿色 (Green)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL33BL38-24V-3007A	FL33BL80-24V-7840A-S	FL33BL80-48V-10040AS
极数 (Number of poles)		4		
相数 (Number of phases)		3		
额定电压 (Rated voltage)	VDC	24	24	48
额定转矩 (Rated torque)	mN.m	22	50	40
连续运行转矩 (Continuous stall torque)	mN.m	26	60	48
额定速度 (Rated speed)	RPM	3000	7800	10000
额定功率 (Rated power)	W	7	40	40
峰值扭矩 (Peak torque)	mN.m	66	150	120
峰值电流 (Peak current)	A	1.5	5.6	2.9
线电阻 (Line to line resistance)	ohms@20°C	14.2	0.86	2.3
线电感 (Line to line inductance)	mH	7	0.55	1.45
转矩常数 (Torque constant)	mN.m/A	46.3	27	41.8
反电势 (Back EMF)	Vrms/KRPM	3.43	2.0	3.1
转动惯量 (Rotor inertia)	g.cm ²	7.95	23.55	23.55
机身长度 (Motor length)	L mm	38	80	80
重量 (Weight)	Kg	0.085	0.2	0.2

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	15N 距法兰 10mm (10mm From the flange)
最大轴向负载(Max axial force)	10N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1061 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
UL1061 AWG24	黑色 (Black)	霍尔电源负 (GND)
	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

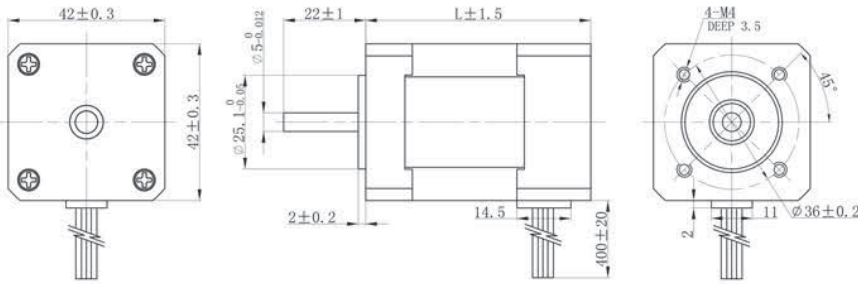
	单位 (Unit)	FL36RBLs40-24V-4818A	FL36RBLs57-24V-4524A
极数 (Number of poles)			8
相数 (Number of phases)			3
额定电压 (Rated voltage)	VDC		24
额定转矩 (Rated torque)	mN.m	36	50
连续运行转矩 (Continuous stall torque)	mN.m	43	60
额定速度 (Rated speed)	RPM	4800	4500
额定功率 (Rated power)	W	18	24
峰值转矩 (Peak torque)	mN.m	108	150
峰值电流 (Peak current)	A	3.4	3.8
线电阻 (Line to line resistance)	ohms@20°C	2.4	2
线电感 (Line to line inductance)	mH	2.1	2.0
转矩常数 (Torque constant)	mN.m/A	32.4	39.8
反电势 (Back EMF)	Vrms/KRPM	2.4	2.95
转动惯量 (Rotor inertia)	g.cm ²	14	24
机身长度 (Motor length) L	mm	40	55
重量 (Weight)	Kg	0.16	0.25



FL42BLA系列 (Series)

内转子无刷电机 Inner Rotor BLDC Motor

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	28N 距法兰 20mm (20mm From the flange)
最大轴向负载(Max axial force)	10N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1430 AWG20	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

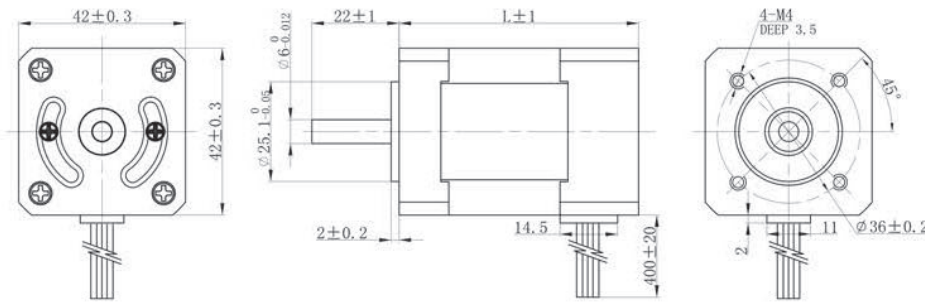
电性能 (Electrical Specifications)

	单位 (Unit)	FL42BLA01	FL42BLA02	FL42BLA03	FL42BLA04
极数 (Number of poles)		10			
相数 (Number of phases)		3			
额定电压 (Rated voltage)	VDC	24			
额定转矩 (Rated torque)	mN.m	70	160	260	360
连续运行转矩 (Continuous stall torque)	mN.m	81	190	300	410
额定速度 (Rated speed)	RPM	3000	3000	3000	3000
额定功率 (Rated power)	W	22	50	81	113
峰值转矩 (Peak torque)	mN.m	210	480	780	1080
峰值电流 (Peak current)	A	3.9	8	13	17.5
线电阻 (Line to line resistance)	ohms@20°C	2.6	1.1	0.7	0.5
线电感 (Line to line inductance)	mH	1.83	0.96	0.58	0.44
转矩常数 (Torque constant)	N.m/A	0.054	0.06	0.06	0.062
反电势 (Back EMF)	Vrms/KRPM	4.06	4.5	4.5	4.6
转动惯量 (Rotor inertia)	g.cm ²	48	101	154	207
机身长度 (Motor length)	L mm	40.3	60.3	80.3	100.3
重量 (Weight)	Kg	0.26	0.46	0.65	0.85

FL42BLB系列 (Series) 内转子无刷电机 Inner Rotor BLDC Motor



机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式 (Winding Type)	星形 (Star connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	28N 距法兰 20mm (20mm From the flange)
最大轴向负载 (Max axial force)	10N
介电强度 (Dielectric Strength)	600VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温 (Ambient Temperature)	-20°C ~ +50°C
绝缘等 (Insulation Class)	Class B

接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1430 AWG20	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL42BLB01	FL42BLB02	FL42BLB03	FL42BLB04	
极数 (Number of poles)		6				
相数 (Number of phases)		3				
额定电压 (Rated voltage)	VDC	24				
额定转矩 (Rated torque)	mN.m	64	170	300	440	
连续运行转矩 (Continuous stall torque)	mN.m	74	200	350	490	
额定速度 (Rated speed)	RPM	3000	3000	3000	3000	
额定功率 (Rated power)	W	20	53.5	94	138	
峰值转矩 (Peak torque)	mN.m	192	510	900	1320	
峰值电流 (Peak current)	A	3.5	8.5	14.5	21	
线电阻 (Line to line resistance)	ohms@20°C	4	1.05	0.54	0.4	
线电感 (Line to line inductance)	mH	2.1	0.75	0.46	0.3	
转矩常数 (Torque constant)	N.m/A	0.057	0.06	0.062	0.0624	
反电势 (Back EMF)	Vrms/KRPM	4.2	4.5	4.57	4.6	
转动惯量 (Rotor inertia)	g.cm ²	80	100	120	140	
机身长度 (Motor length)	L	mm	40.3	60.3	80.3	100.3
重量 (Weight)		Kg	0.4	0.6	0.8	1

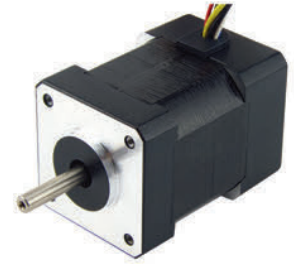
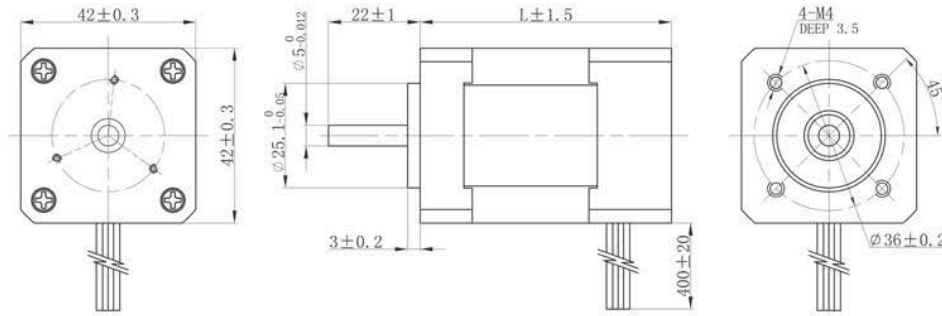
该款电机可以根据客户需求定制 The motor can be designed & manufactured with customized request.



FL42BLS系列 (Series)

内转子无刷电机 Inner Rotor BLDC Motor

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	三角形 (Delta connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	28N 距法兰 20mm (20mm From the flange)
最大轴向负载(Max axial force)	10N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

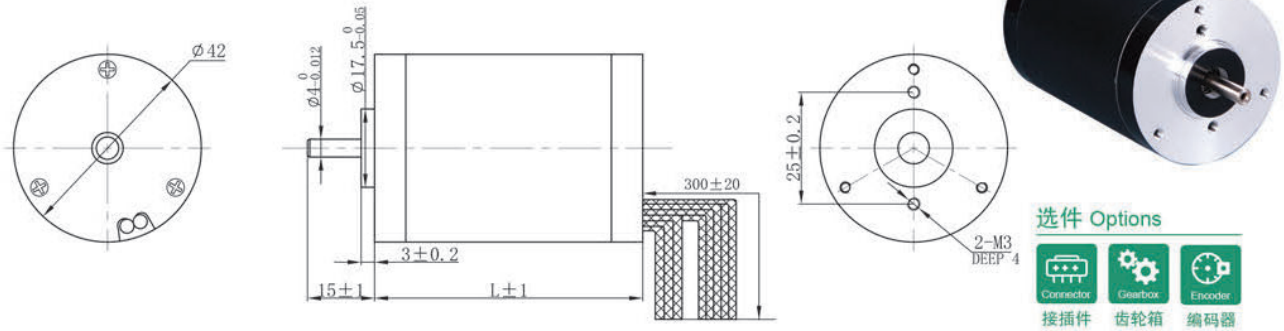
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1430 AWG20	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL42BLS01	FL42BLS02	FL42BLS03	FL42BLS04	
极数 (Number of poles)		8				
相数 (Number of phases)		3				
额定电压 (Rated voltage)	VDC	24				
额定转矩 (Rated torque)	mN.m	62.5	125	185	250	
连续运行转矩 (Continuous stall torque)	mN.m	75	150	220	300	
额定速度 (Rated speed)	RPM	4000	4000	4000	4000	
额定功率 (Rated power)	W	26	52.5	77.5	105	
峰值转矩 (Peak torque)	mN.m	190	380	560	750	
峰值电流 (Peak current)	A	5.75	10.4	15.1	21.2	
线电阻 (Line to line resistance)	ohms@20°C	1.5	0.8	0.43	0.3	
线电感 (Line to line inductance)	mH	2.1	1.2	0.71	0.5	
转矩常数 (Torque constant)	Nm/A	0.033	0.0366	0.037	0.0354	
反电势 (Back EMF)	Vrms/KRPM	2.45	2.71	2.74	2.62	
转动惯量 (Rotor inertia)	g.cm ²	24	48	72	96	
机身长度 (Motor length)	L	mm	40.3	60.3	80.3	100.3
重量 (Weight)		Kg	0.30	0.45	0.65	0.80

机械尺寸 (Dimensions)



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	10N 距法兰 10mm (10mm From the flange)
最大轴向负载(Max axial force)	2N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

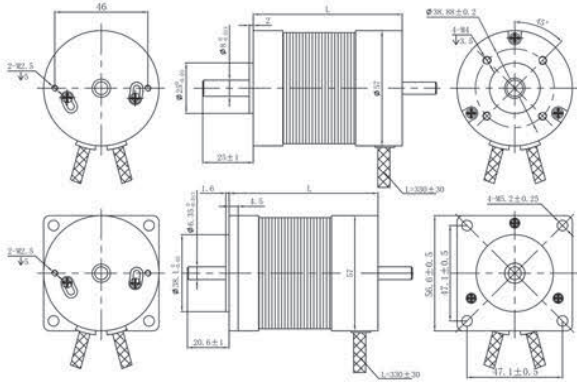
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1007 AWG26	蓝色 (Blue)	霍尔电源正 (Vcc)
	黄色 (Yellow)	霍尔 U (Hu)
	棕色 (Brown)	霍尔 V (Hv)
	红色 (Red)	霍尔 W (Hw)
	绿色 (Green)	霍尔电源负 (GND)
UL1007 AWG22	红色 (Red)	U 相 (Phase U)
	棕色 (Brown)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL42RBL30- 24V-4009A-P	FL42RBL60- 24V-4030A-P	FL42RBL85- 24V-4060A-P	FL42RBL93- 24V-6375A-P	
极数 (Number of poles)		8				
相数 (Number of phases)		3				
额定电压 (Rated voltage)	VDC	24				
额定转矩 (Rated torque)	mN.m	20	56	150	115	
连续运行转矩 (Continuous stall torque)	mN.m	24	68	180	138	
额定速度 (Rated speed)	RPM	4000	4200	4000	6300	
额定功率 (Rated power)	W	8.4	25	62	76	
峰值扭矩 (Peak torque)	mN.m	60	170	450	350	
峰值电流 (Peak current)	A	1.5	4.2	11.2	11.5	
线电阻 (Line to line resistance)	ohms@20°C	5.9	1.6	0.71	0.325	
线电感 (Line to line inductance)	mH	5.1	1.94	0.86	0.36	
转矩常数 (Torque constant)	mN.m/A	39.8	41.04	40.5	30.6	
反电势 (Back EMF)	Vrms/KRPM	2.95	3.04	3.0	2.27	
转动惯量 (Rotor inertia)	g.cm ²	15.6	33	84	94	
机身长度 (Motor length)	L	mm	30	60	85	93
重量 (Weight)		Kg	0.25	0.4	0.7	0.8

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式 (Winding Type)	三角形 (Delta connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.025mm@460g
轴向间隙 (Axial Play)	0.025mm@4000g
最大径向负载 (Max radial force)	75N 距法兰 20mm (20mm From the flange)
最大轴向负载 (Max axial force)	15N
介电强度 (Dielectric Strength)	600VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度 (Ambient Temperature)	-20°C ~ +50°C
绝缘等级 (Insulation Class)	Class B

接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1430 AWG20	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

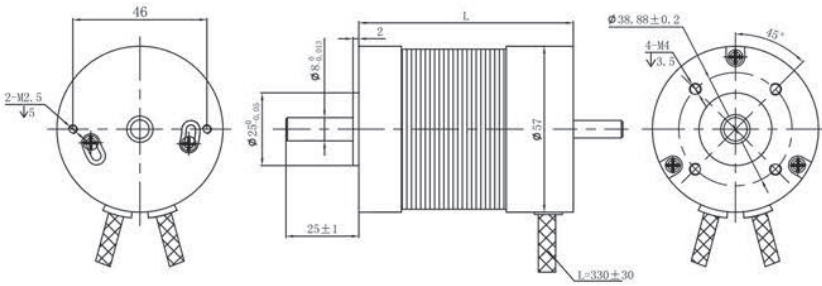
电性能 (Electrical Specifications)

	单位 (Unit)	FL57BL(S)01	FL57BL(S)02	FL57BL(S)03	FL57BL(S)04	
极数 (Number of poles)		4				
相数 (Number of phases)		3				
额定电压 (Rated voltage)	VDC	36				
额定转矩 (Rated torque)	N.m	0.11	0.22	0.33	0.44	
连续运行转矩 (Continuous stall torque)	N.m	0.132	0.264	0.396	0.528	
额定速度 (Rated speed)	RPM	4000	4000	4000	4000	
额定功率 (Rated power)	W	46	99	138	184	
峰值转矩 (Peak torque)	N.m	0.39	0.7	1.0	1.27	
峰值电流 (Peak current)	A	6.5	12	16	21	
线电阻 (Line to line resistance)	ohms@20°C	1.63	0.64	0.45	0.33	
线电感 (Line to line inductance)	mH	4.4	2	1.5	0.95	
转矩常数 (Torque constant)	N.m/A	0.0607	0.0601	0.0648	0.0621	
反电势 (Back EMF)	Vrms/KRPM	4.5	4.45	4.8	4.6	
转动惯量 (Rotor inertia)	g.cm ²	75	119	173	230	
机身长度 (Motor length)	L	mm	53.6	73.6	93.6	113.6
重量 (Weight)		Kg	0.44	0.72	0.95	1.2

FL57BLA系列 (Series) 内转子无刷电机 Inner Rotor BLDC Motor



机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	115N 距法兰 20mm (20mm From the flange)
最大轴向负载(Max axial force)	45N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

接线说明 (Electric Connection)

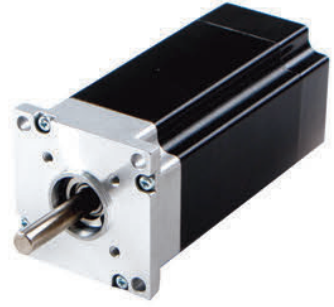
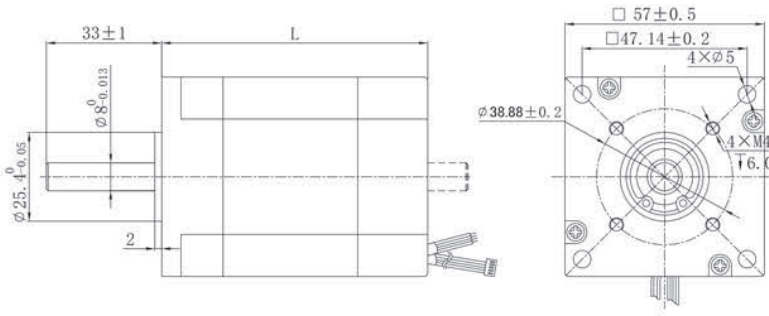
引出线 型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1332 AWG18	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL57BLA01	FL57BLA02	FL57BLA03	FL57BLA04
极数 (Number of poles)		6			
相数 (Number of phases)		3			
额定电压 (Rated voltage)	VDC	36			
额定转矩 (Rated torque)	N.m	0.2	0.4	0.6	0.8
连续运行转矩 (Continuous stall torque)	N.m	0.24	0.48	0.72	0.96
额定速度 (Rated speed)	RPM	4000	4000	4000	4000
额定功率 (Rated power)	W	83	166	249	332
峰值转矩 (Peak torque)	N.m	0.6	1.2	1.8	2.4
峰值电流 (Peak current)	A	9.1	17.9	28.2	34.3
线电阻 (Line to line resistance)	ohms@20°C	0.87	0.38	0.25	0.21
线电感 (Line to line inductance)	mH	1	0.55	0.3	0.25
转矩常数 (Torque constant)	N.m/A	0.066	0.067	0.064	0.07
反电势 (Back EMF)	Vrms/KRPM	4.9	5	4.7	5.2
转动惯量 (Rotor inertia)	g.cm ²	275	375	510	693
机身长度 (Motor length)	L mm	53.6	73.6	93.6	113.6
重量 (Weight)	Kg	0.76	1	1.25	1.52

该款电机可以根据客户需求定制 The motor can be designed & manufactured with customized request.

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式 (Winding Type)	星形 (Star connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	115N 距法兰 20mm (20mm From the flange)
最大轴向负载 (Max axial force)	45N
介电强度 (Dielectric Strength)	600VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度 (Ambient Temperature)	-20°C ~ +50°C
绝缘等级 (Insulation Class)	Class B

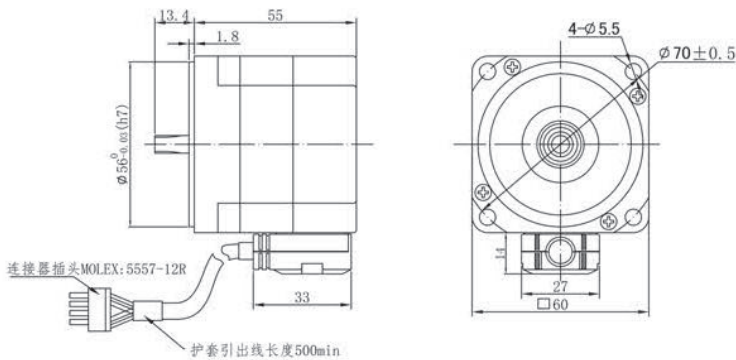
接线说明 (Electric Connection)

引出线 型号 Type	引出线颜色 Color	功能 Functions
UL1061 AWG28	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1430 AWG18	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL57BLB40	FL57BLB60	FL57BLB80
极数 (Number of poles)		8		
相数 (Number of phases)		3		
额定电压 (Rated voltage)	VDC	36		
额定转矩 (Rated torque)	N.m	0.3	0.45	0.6
连续运行转矩 (Continuous stall torque)	N.m	0.36	0.54	0.72
额定速度 (Rated speed)	RPM	3000	3000	3000
额定功率 (Rated power)	W	94	141	188
峰值扭矩 (Peak torque)	N.m	0.9	1.35	1.8
峰值电流 (Peak current)	A	12.3	18.2	23.8
线电阻 (Line to line resistance)	ohms@20°C	1.2	0.8	0.5
线电感 (Line to line inductance)	mH	1.2	0.8	0.6
转矩常数 (Torque constant)	N.m/A	0.076	0.076	0.077
反电势 (Back EMF)	Vrms/KRPM	5.6	5.6	5.7
转动惯量 (Rotor inertia)	g.cm ²	210	320	430
机身长度 (Motor length) L	mm	76	96	116
重量 (Weight)	Kg	0.8	1.0	1.2

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	115N 距法兰 20mm (20mm From the flange)
最大轴向负载(Max axial force)	45N
介电强度(Dielectric Strength)	1800VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

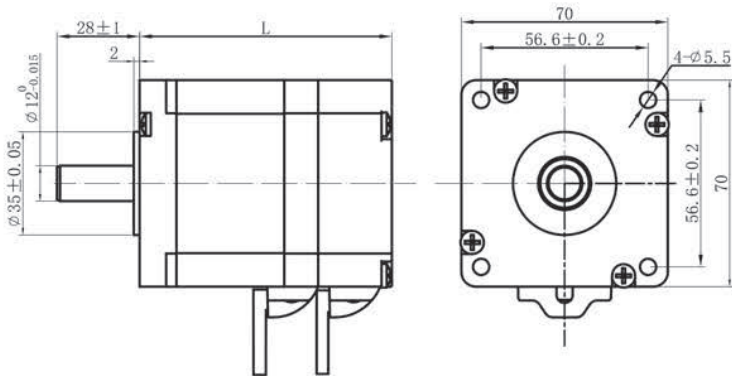
接线说明 (Electric Connection)

引出线 型号 Type	引出线颜色 Color	功能 Functions
UL3266 AWG22	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	白色 (White)	霍尔 V (Hv)
	绿色 (Green)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL3266 AWG18	红色 (Red)	U 相 (Phase U)
	黄色 (Yellow)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL60BLS01
极数 (Number of poles)		4
相数 (Number of phases)		3
额定电压 (Rated voltage)	VDC	160
额定转矩 (Rated torque)	N.m	0.1
连续运行转矩 (Continuous stall torque)	N.m	0.12
额定速度 (Rated speed)	RPM	5000
额定功率 (Rated power)	W	57
峰值转矩 (Peak torque)	N.m	0.3
峰值电流 (Peak current)	A	1.6
线电阻 (Line to line resistance)	ohms@20°C	31
线电感 (Line to line inductance)	mH	70
转矩常数 (Torque constant)	Nm/A	0.196
反电势 (Back EMF)	Vrms/KRPM	14.6
转动惯量 (Rotor inertia)	g.cm ²	50
机身长度 (Motor length)	mm	55
重量 (Weight)	Kg	0.7

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式 (Winding Type)	星形 (Star connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	115N 距法兰 20mm (20mm From the flange)
最大轴向负载 (Max axial force)	45N
介电强度 (Dielectric Strength)	600VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度 (Ambient Temperature)	-20°C ~ +50°C
绝缘等级 (Insulation Class)	Class B

接线说明 (Electric Connection)

引出线 型号 Type	引出线颜色 Color	功能 Functions
UL2464 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL2464 AWG16	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

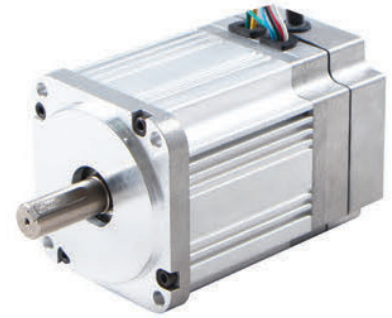
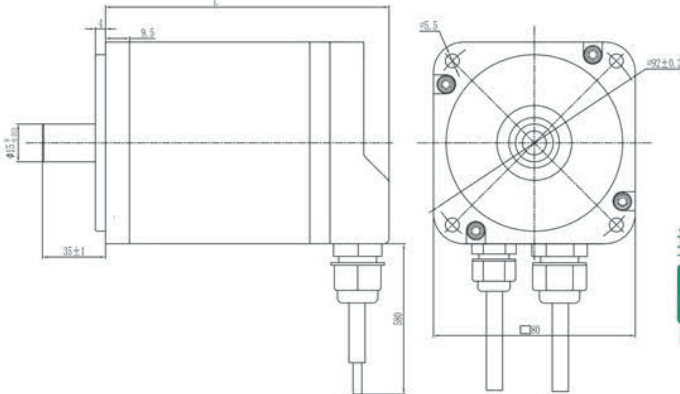
电性能 (Electrical Specifications)

	单位 (Unit)	FL70BLS01	FL70BLS02	FL70BLS03
极数 (Number of poles)		8		
相数 (Number of phases)		3		
额定电压 (Rated voltage)	VDC	48		
额定转矩 (Rated torque)	N.m	0.5	1.0	1.5
连续运行转矩 (Continuous stall torque)	N.m	0.6	1.2	1.8
额定速度 (Rated speed)	RPM	3000	3000	3000
额定功率 (Rated power)	W	157	314	471
峰值转矩 (Peak torque)	N.m	1.5	3.0	4.5
峰值电流 (Peak current)	A	13.0	26	38
线电阻 (Line to line resistance)	ohms@20°C	0.6	0.3	0.22
线电感 (Line to line inductance)	mH	1.4	0.7	0.55
转矩常数 (Torque constant)	Nm/A	0.12	0.12	0.12
反电势 (Back EMF)	Vrms/KRPM	9.0	9.0	9.0
转动惯量 (Rotor inertia)	g.cm ²	200	400	600
机身长度 (Motor length)	L	mm	116	136
重量 (Weight)	Kg	1.3	2.1	2.9

FL80BLS系列 (Series) 内转子无刷电机 Inner Rotor BLDC Motor



机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	三角形 (Delta)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	115N 距法兰 20mm (20mm From the flange)
最大轴向负载(Max axial force)	45N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

接线说明 (Electric Connection)

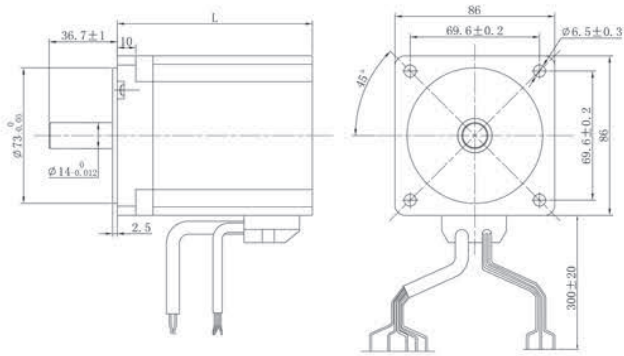
引出线型号 Type	引出线颜色 Color	功能 Functions
UL2464 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL2517 AWG16 或 UL10393 AWG12	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL80BLS84	FL80BLS105	FL80BLS120	FL80BLS140
极数 (Number of poles)		8			
相数 (Number of phases)		3			
额定电压 (Rated voltage)	VDC	48			
额定转矩 (Rated torque)	N.m	0.9	1.7	2.2	3
连续运行转矩 (Continuous stall torque)	N.m	1.08	2.04	2.64	3.96
额定速度 (Rated speed)	RPM	3000	3000	3000	3000
额定功率 (Rated power)	W	280	530	700	950
峰值转矩 (Peak torque)	N.m	2.7	5.1	6.6	9.9
峰值电流 (Peak current)	A	23	45	61	89
线电阻 (Line to line resistance)	ohms@20°C	0.25	0.10	0.07	0.057
线电感 (Line to line inductance)	mH	1.3	0.6	0.4	0.3
转矩常数 (Torque constant)	N.m/A	0.118	0.113	0.109	0.111
反电势 (Back EMF)	Vrms/KRPM	8.7	8.4	8.1	8.2
转动惯量 (Rotor inertia)	g.cm ²	544	1020	1360	1900
机身长度 (Motor length) L	mm	84	105	120	140
重量 (Weight)	Kg	1.6	2	2.5	2.9

该款电机可以根据客户需求定制 The motor can be designed & manufactured with customized request.

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	220N 距法兰 20mm (20mm From the flange)
最大轴向负载(Max axial force)	45N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

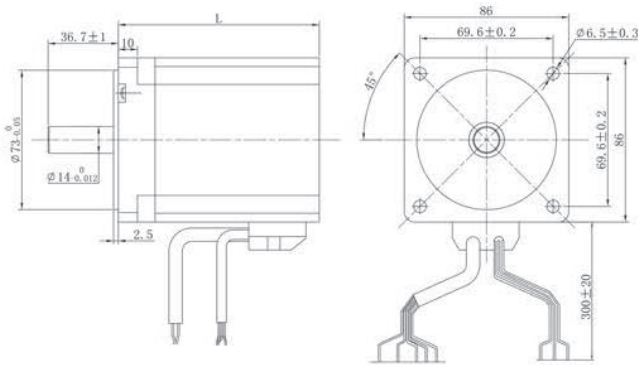
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG24	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1332 AWG16	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL86BLC64	FL86BLC77	FL86BLC105	FL86BLC125	
极数 (Number of poles)		8				
相数 (Number of phases)		3				
额定电压 (Rated voltage)	VDC	48				
额定转矩 (Rated torque)	N.m	0.4	0.8	1.6	2.22	
连续运行转矩 (Continuous stall torque)	N.m	0.48	0.96	1.92	2.66	
额定速度 (Rated speed)	RPM	3000	3000	3000	3000	
额定功率 (Rated power)	W	130	250	500	700	
峰值扭矩 (Peak torque)	N.m	1.2	2.4	4.8	6.66	
峰值电流 (Peak current)	A	10	17	36	51	
线电阻 (Line to line resistance)	ohms@20°C	1	0.34	0.14	0.1	
线电感 (Line to line inductance)	mH	1.4	0.6	0.36	0.24	
转矩常数 (Torque constant)	N.m/A	0.122	0.149	0.135	0.131	
反电势 (Back EMF)	Vrms/KRPM	9	11	10	9.7	
转动惯量 (Rotor inertia)	g.cm ²	400	800	1600	2400	
机身长度 (Motor length)	L	mm	64	77	105	125
重量 (Weight)		Kg	1.5	1.85	2.7	4

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	220N 距法兰 20mm (20mm From the flange)
最大轴向负载(Max axial force)	45N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

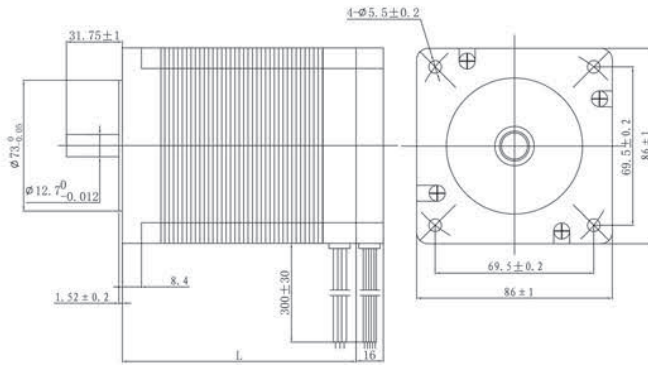
接线说明 (Electric Connection)

引出线 型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG24	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1332 AWG16	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL86BLD62	FL86BLD86	FL86BLD110	FL86BLD134	
极数 (Number of poles)		8				
相数 (Number of phases)		3				
额定电压 (Rated voltage)	VDC	48				
额定转矩 (Rated torque)	N.m	0.44	1.27	1.9	2.54	
连续运行转矩 (Continuous stall torque)	N.m	0.52	1.52	2.28	3.04	
额定速度 (Rated speed)	RPM	3000	3000	3000	3000	
额定功率 (Rated power)	W	140	400	600	800	
峰值扭矩 (Peak torque)	N.m	1.32	3.8	5.7	7.62	
峰值电流 (Peak current)	A	11	30	44	56	
线电阻 (Line to line resistance)	ohms@20°C	0.85	0.17	0.09	0.06	
线电感 (Line to line inductance)	mH	1.4	0.6	0.3	0.22	
转矩常数 (Torque constant)	N.m/A	0.127	0.129	0.13	0.137	
反电势 (Back EMF)	Vrms/KRPM	9.42	9.56	9.7	10.2	
转动惯量 (Rotor inertia)	g.cm ²	360	1000	1800	2500	
机身长度 (Motor length)	L	mm	62	86	110	134
重量 (Weight)		Kg	1.4	2.1	3.0	4.3

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	220N 距法兰 20mm (20mm From the flange)
最大轴向负载(Max axial force)	60N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

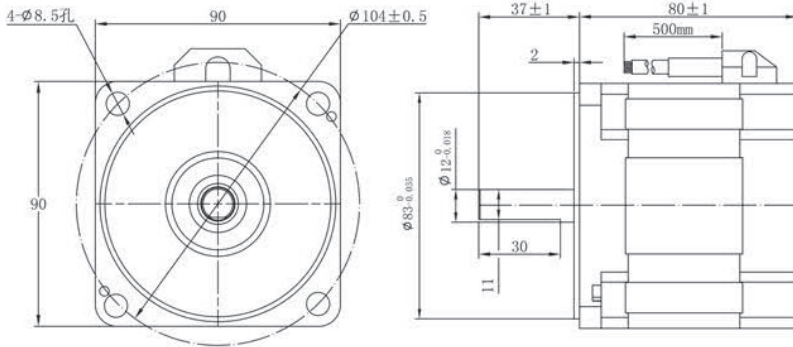
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1332 AWG22	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1332 AWG18	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL86BLS58	FL86BLS71	FL86BLS84	FL86BLS98	FL86BLS125	
极数 (Number of poles)		8					
相数 (Number of phases)		3					
额定电压 (Rated voltage)	VDC	48					
额定转矩 (Rated torque)	N.m	0.35	0.7	1.05	1.4	2.1	
连续运行转矩 (Continuous stall torque)	N.m	0.42	0.84	1.26	1.68	2.52	
额定速度 (Rated speed)	RPM	3000	3000	3000	3000	3000	
额定功率 (Rated power)	W	110	220	330	440	660	
峰值扭矩 (Peak torque)	N.m	1.05	2.1	3.15	4.2	6.3	
峰值电流 (Peak current)	A	9.5	17.5	25	33.5	50	
线电阻 (Line to line resistance)	ohms@20°C	0.9	0.34	0.2	0.16	0.1	
线电感 (Line to line inductance)	mH	2.6	1	0.66	0.5	0.31	
转矩常数 (Torque constant)	N.m/A	0.116	0.122	0.127	0.127	0.128	
反电势 (Back EMF)	Vrms/KRPM	8.6	9	9.4	9.4	9.5	
转动惯量 (Rotor inertia)	g.cm ²	400	800	1200	1600	2400	
机身长度 (Motor length)	L	mm	56	70	84	96	123
重量 (Weight)		Kg	1.6	2.12	2.64	3.15	4.2

机械尺寸 (Dimensions)



选件 Options



A1

特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	220N@20mm from the flange
最大轴向负载(Max axial force)	45N
介电强度(Dielectric Strength)	1800VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

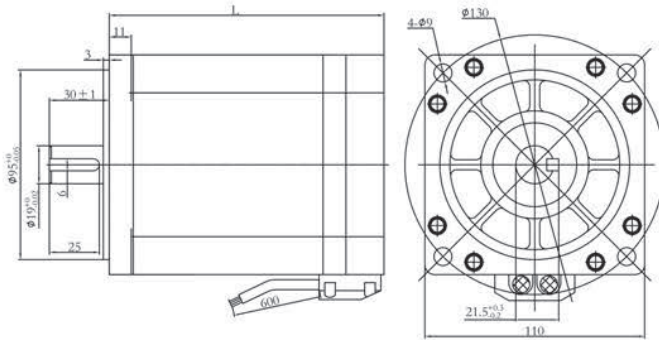
接线说明 (Electric Connection)

引出线 型号 Type	引出线颜色 Color	功能 Functions
UL3266 AWG22	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL3266 AWG18	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

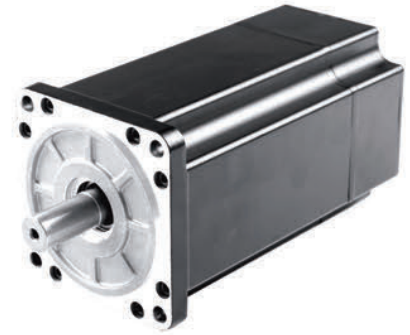
电性能 (Electrical Specifications)

	单位 (Unit)	FL90BLS80-115VAC-66220A
极数 (Number of poles)		4
相数 (Number of phases)		3
额定电压 (Rated voltage)	VDC	160
额定转矩 (Rated torque)	N.m	0.4
连续运行转矩 (Continuous stall torque)	N.m	0.48
额定速度 (Rated speed)	RPM	5300
额定功率 (Rated power)	W	220
峰值转矩 (Peak torque)	N.m	1.2
峰值电流 (Peak current)	A	7.5
线电阻 (Line to line resistance)	ohms@20°C	1.8
线电感 (Line to line inductance)	mH	0.4
转矩常数 (Torque constant)	N.m/A	0.162
反电势 (Back EMF)	Vrms/KRPM	12.0
转动惯量 (Rotor inertia)	g.cm ²	285
机身长度 (Motor length)	mm	80
重量 (Weight)	Kg	2.2

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	630N 距法兰 10mm (20mm From the flange)
最大轴向负载(Max axial force)	315N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

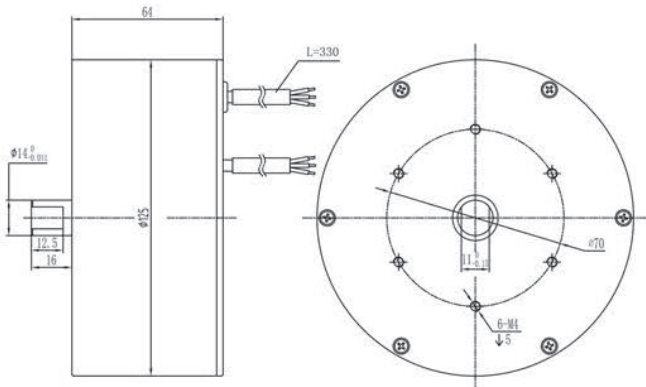
接线说明 (Electric Connection)

引出线 型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1332 AWG14/12	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL110BLS51	FL110BLS68
极数 (Number of poles)			8
相数 (Number of phases)			3
额定电压 (Rated voltage)	VDC		60
额定转矩 (Rated torque)	N.m	3	4.5
连续运行转矩 (Continuous stall torque)	N.m	3.6	5.4
额定速度 (Rated speed)	RPM	3000	3000
额定功率 (Rated power)	W	942	1413
峰值转矩 (Peak torque)	N.m	9	13.5
峰值电流 (Peak current)	A	68	110
线电阻 (Line to line resistance)	ohms@20°C	0.069	0.046
线电感 (Line to line inductance)	mH	0.42	0.283
转矩常数 (Torque constant)	N.m/A	0.134	0.123
反电势 (Back EMF)	Vrms/KRPM	9.9	9.1
转动惯量 (Rotor inertia)	g.cm ²	4350	5800
机身长度 (Motor length) L	mm	120	137
重量 (Weight)	Kg	4.8	6.8

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.025mm@460g
轴向间隙(Axial Play)	0.08mm@4000g
最大径向负载(Max radial force)	220N 距法兰 20mm (20mm From the flange)
最大轴向负载(Max axial force)	60N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

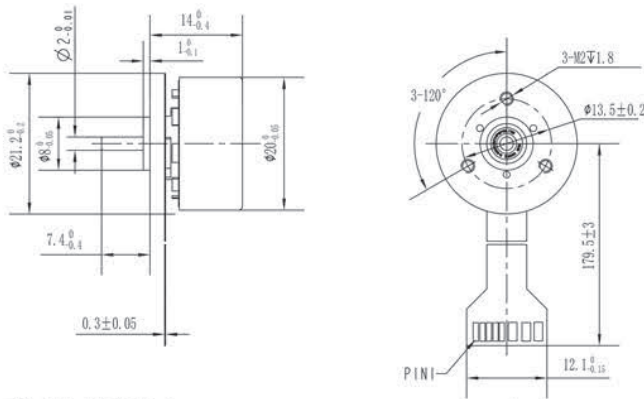
接线说明 (Electric Connection)

引出线 型号 Type	引出线颜色 Color	功能 Functions
UL1332 AWG22	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
UL3135 AWG14	黑色 (Black)	霍尔电源负 (GND)
	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL125BL60
极数 (Number of poles)		28
相数 (Number of phases)		3
额定电压 (Rated voltage)	VDC	60
额定转矩 (Rated torque)	N.m	6.8
连续运行转矩 (Continuous stall torque)	N.m	8.16
额定速度 (Rated speed)	RPM	480
额定功率 (Rated power)	W	340
峰值扭矩 (Peak torque)	N.m	40
峰值电流 (Peak current)	A	46
线电阻 (Line to line resistance)	ohms@20°C	1.1
线电感 (Line to line inductance)	mH	2.4
转矩常数 (Torque constant)	N.m/A	0.88
反电势 (Back EMF)	Vrms/KRPM	65
转动惯量 (Rotor inertia)	g.cm ²	2100
机身长度 (Motor length)	L mm	64
重量 (Weight)	Kg	2.9

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式 (Winding Type)	星形 (Star connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	5.3N 距法兰 5mm (5mm From the flange)
最大轴向负载 (Max axial force)	1.8N
介电强度 (Dielectric Strength)	360VAC/1S
绝缘电阻 (Insulation Resistance)	100M Ω , 500VDC
环境温度 (Ambient Temperature)	-20°C ~ +50°C
绝缘等级 (Insulation Class)	Class B

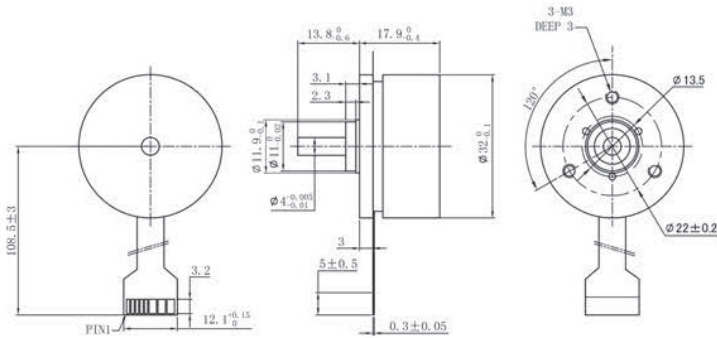
接线说明 (Electric Connection)

Pin No	引出线型号 Type	功能 Functions
1	FPC	霍尔电源正 (Vcc)
2		霍尔 W (Hw)
3		霍尔 U (Hu)
4		霍尔 V (Hv)
5		霍尔电源负 (GND)
6		W 相 (Phase W)
7		V 相 (Phase V)
8		U 相 (Phase U)

电性能 (Electrical Specifications)

	单位 (Unit)	FL20BLW14-12V-5105A	FL20BLW14-24V-5205A
极数 (Number of poles)		8	
相数 (Number of phases)		3	
额定电压 (Rated voltage)	VDC	12	24
额定转矩 (Rated torque)	mN.m	7.59	7.74
连续运行转矩 (Continuous stall torque)	mN.m	9.1	9.2
额定速度 (Rated speed)	RPM	5170	5220
额定功率 (Rated power)	W	5	5
峰值转矩 (Peak torque)	mN.m	19	20
峰值电流 (Peak current)	A	1.62	0.85
线电阻 (Line to line resistance)	ohms@20°C	7.2	26.1
线电感 (Line to line inductance)	mH	0.62	2.6
转矩常数 (Torque constant)	mN.m/A	12	24
反电势 (Back EMF)	Vrms/KRPM	0.89	1.78
转动惯量 (Rotor inertia)	g.cm ²	5.1	5.1
机身长度 (Motor length)	mm	14	14
重量 (Weight)	g	23	23

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式 (Winding Type)	星形 (Star connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	14N 距法兰 5mm (5mm From the flange)
最大轴向负载 (Max axial force)	4.8N
介电强度 (Dielectric Strength)	600VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度 (Ambient Temperature)	-20° C ~ +50° C
绝缘等级 (Insulation Class)	Class B

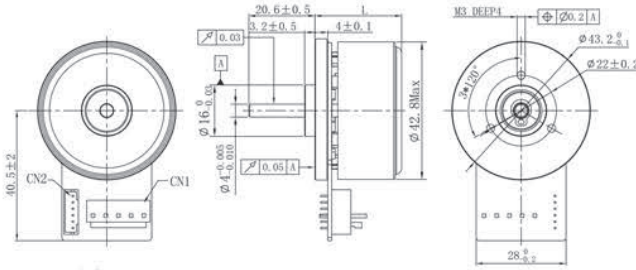
接线说明 (Electric Connection)

Pin No	引出线型号 Type	功能 Functions
1	FPC	霍尔电源正 (Vcc)
2		霍尔 W (Hw)
3		霍尔 U (Hu)
4		霍尔 V (Hv)
5		霍尔电源负 (GND)
6		W 相 (Phase W)
7		V 相 (Phase V)
8		U 相 (Phase U)

电性能 (Electrical Specifications)

	单位 (Unit)	FL32BLW18-9V-3706A	FL32BLW18-12V-4607A	FL32BLW18-24V-4507A	FL32BLW18-48V-4808A
极数 (Number of poles)		8			
相数 (Number of phases)		3			
额定电压 (Rated voltage)	VDC	9	12	24	48
额定转矩 (Rated torque)	mN.m	29.5	25.1	25.5	24.7
连续运行转矩 (Continuous stall torque)	mN.m	35.4	30.1	30.6	29.6
额定速度 (Rated speed)	RPM	2100	2800	2760	2950
额定功率 (Rated power)	W	6	7	7	8
峰值转矩 (Peak torque)	mN.m	73.8	75.3	76.5	74.1
峰值电流 (Peak current)	A	3.4	3.2	1.7	0.97
线电阻 (Line to line resistance)	ohms@20°C	2.87	3.43	13.7	53
线电感 (Line to line inductance)	mH	1.61	1.87	7.73	27.8
转矩常数 (Torque constant)	mN.m/A	23	24.8	51	96.1
反电势 (Back EMF)	Vrms/KRPM	1.7	1.83	3.77	7.1
转动惯量 (Rotor inertia)	g.cm ²	35	35	35	35
机身长度 (Motor length)	mm	18	18	18	18
重量 (Weight)	g	50	50	50	50

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式 (Winding Type)	星形 (Star connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度
	(Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.14mm@450g
最大径向负载 (Max radial force)	20N 距法兰 10mm
	(10mm From the flange)
最大轴向负载 (Max axial force)	10N
介电强度 (Dielectric Strength)	600VAC/1S
绝缘电阻 (Insulation Resistance)	100M Ω , 500VDC
环境温度 (Ambient Temperature)	-20°C ~ +50°C
绝缘等级 (Insulation Class)	Class B

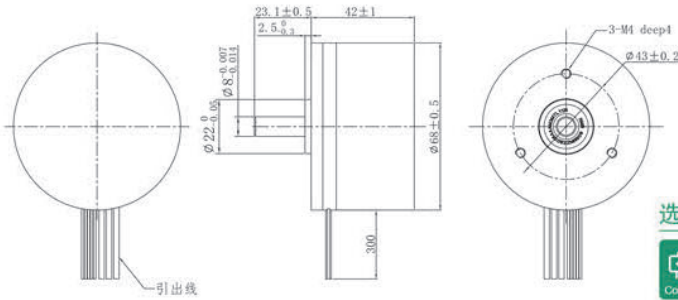
接线说明 (Electric Connection)

接插件型号	Pin 位	功能
Connector Model	Pin number	Functions
JST B6B-PH-K-S	Pin 2	霍尔电源正 (Vcc)
	Pin 3	霍尔 U (Hu)
	Pin 4	霍尔 V (Hv)
	Pin 5	霍尔 W (Hw)
	Pin 1/ Pin 6	霍尔电源负 (GND)
	JST B5P-VH	Pin 2
Pin 3		V 相 (Phase V)
Pin 4		W 相 (Phase W)
Pin 1/ Pin 5		电源负 (GND)

电性能 (Electrical Specifications)

	单位 (Unit)	FL45BLW18-24V-7130A	FL45BLW21-24V-6750A	FL45BLW27-24V-6170A
极数 (Number of poles)			16	
相数 (Number of phases)			3	
额定电压 (Rated voltage)	VDC		24	
额定转矩 (Rated torque)	mN.m	50	84	130
连续运行转矩 (Continuous stall torque)	mN.m	60	100	156
额定速度 (Rated speed)	RPM	5000	5260	4840
额定功率 (Rated power)	W	30	50	70
峰值转矩 (Peak torque)	mN.m	150	250	390
峰值电流 (Peak current)	A	4.3	7.4	11
线电阻 (Line to line resistance)	ohms@20°C	1.42	0.72	0.56
线电感 (Line to line inductance)	mH	0.59	0.33	0.27
转矩常数 (Torque constant)	mN.m/A	35.2	34.4	37.1
反电势 (Back EMF)	Vrms/KRPM	2.61	2.55	2.75
转动惯量 (Rotor inertia)	g.cm ²	100	135	180
机身长度 (Motor length) L	mm	18	21.6	27
重量 (Weight)	Kg	0.08	0.12	0.15

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	28N 距法兰 10mm (10mm From the flange)
最大轴向负载(Max axial force)	10N
介电强度 (Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

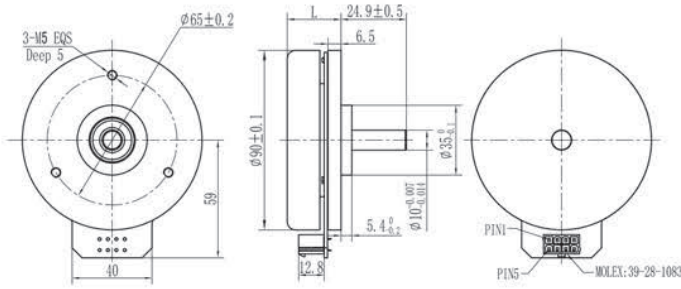
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1332 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1332 AWG18	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL60BLW42-24V-37110A-01
极数 (Number of poles)		14
相数 (Number of phases)		3
额定电压 (Rated voltage)	VDC	24
额定转矩 (Rated torque)	mN.m	290
连续运行转矩 (Continuous stall torque)	mN.m	348
额定速度 (Rated speed)	RPM	3700
额定功率 (Rated power)	W	110
峰值转矩 (Peak torque)	mN.m	870
峰值电流 (Peak current)	A	17
线电阻 (Line to line resistance)	ohms@20°C	0.25
线电感 (Line to line inductance)	mH	0.3
转矩常数 (Torque constant)	mN.m/A	54
反电势 (Back EMF)	Vrms/KRPM	4.0
转动惯量 (Rotor inertia)	g.cm ²	1000
机身长度 (Motor length)	mm	42
重量 (Weight)	Kg	0.5

机械尺寸 (Dimensions)



选件 Optic



特性概要 (General Specifications)

绕组连接方式 (Winding Type)	星形 (Star connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	110N 距法兰 10mm (10mm From the flange)
最大轴向负载 (Max axial force)	45N
介电强度 (Dielectric Strength)	600VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度 (Ambient Temperature)	-20°C ~ +50°C
绝缘等级 (Insulation Class)	Class B

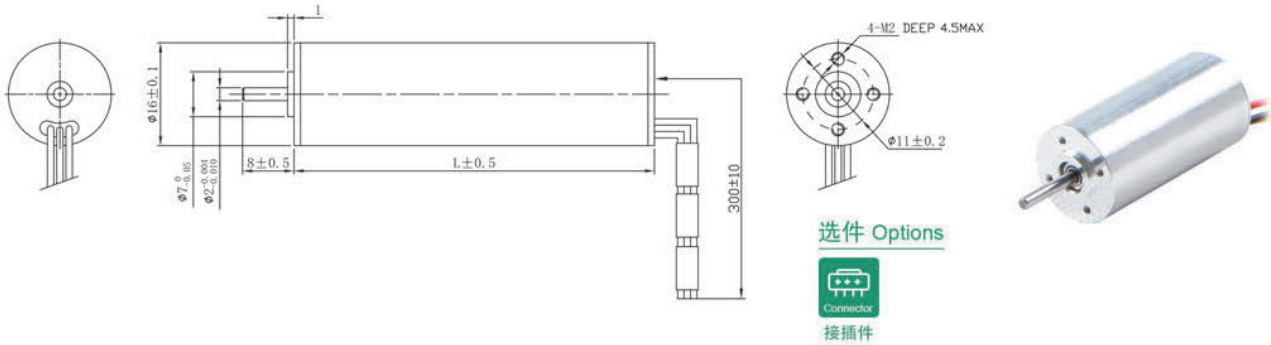
接线说明 (Electric Connection)

接插件型号 Connector Model	Pin 位 Pin number	功能 Functions
MOLEX:39-28-1083	PIN3	霍尔电源正 (Vcc)
	PIN1	霍尔 U (Hu)
	PIN2	霍尔 V (Hv)
	PIN5	霍尔 W (Hw)
	PIN6	霍尔电源负 (GND)
	PIN7	U 相 (Phase U)
	PIN8	V 相 (Phase V)
	PIN4	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL90BLW27-24V-27130A	FL90BLW40-48V-16170A
极数 (Number of poles)			22
相数 (Number of phases)			3
额定电压 (Rated voltage)	VDC	24	48
额定转矩 (Rated torque)	N.m	0.457	0.964
连续运行转矩 (Continuous stall torque)	N.m	0.548	1.157
额定速度 (Rated speed)	RPM	2700	1670
额定功率 (Rated power)	W	130	169
峰值转矩 (Peak torque)	N.m	1.6	3
峰值电流 (Peak current)	A	23	13
线电阻 (Line to line resistance)	ohms@20°C	0.21	0.65
线电感 (Line to line inductance)	mH	0.19	0.9
转矩常数 (Torque constant)	mN.m/A	63	241
反电势 (Back EMF)	Vrms/KRPM	5.2	17.9
转动惯量 (Rotor inertia)	g.cm ²	3000	5000
机身长度 (Motor length) L	mm	27	40
重量 (Weight)	Kg	0.6	1

机械尺寸 (Dimensions)



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形(Star)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.025mm@360g
轴向间隙(Axial Play)	0.3mm@1000g
最大径向负载(Max radial force)	15N
最大轴向负载(Max axial force)	5N
介电强度(Dielectric Strength)	360VAC/1S
绝缘电阻(Insulation Resistance)	100M Ω , 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class F

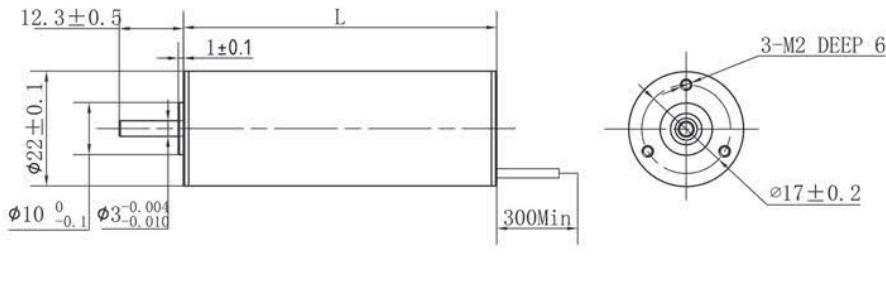
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL3135 AWG14	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL16SBL28-12V-270-4A	FL16SBL40-24V-300-10A	FL16SBL56-24V-3000-24A
极数 (Number of poles)		2		
相数 (Number of phases)		3		
额定电压 (Rated voltage)	VDC	12	24	24
额定转矩 (Rated torque)	mN.m	1.6	4	9
连续运行转矩 (Continuous stall torque)	mN.m	1.92	4.8	10.8
额定速度 (Rated speed)	RPM	22000	25000	25000
额定功率 (Rated power)	W	3.7	10	24
峰值转矩 (Peak torque)	mN.m	4.8	12	27
峰值电流 (Peak current)	A	1.2	1.7	3.7
线电阻 (Line to line resistance)	ohms@20°C	5.4	6.6	3.15
线电感 (Line to line inductance)	mH	0.17	0.21	0.15
转矩常数 (Torque constant)	mN.m/A	4.18	7.42	7.42
反电势 (Back EMF)	Vrms/KRPM	0.31	0.55	0.55
转动惯量 (Rotor inertia)	g.cm ²	0.4	0.66	1.02
机身长度 (Motor length)	L mm	28	40	56
重量 (Weight)	g	29	42	64

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.14mm@450g
最大径向负载(Max radial force)	5N 距法兰 10mm (10mm From the flange)
最大轴向负载(Max axial force)	2N
介电强度(Dielectric Strength)	360VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +40°C
绝缘等级(Insulation Class)	Class B

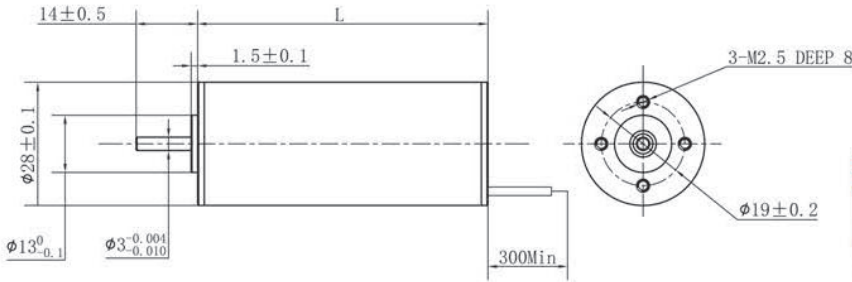
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG28	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1430 AWG26	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL22SBL40-24V-400-25A	FL22SBL60-36V-400-70A	FL22SBL70-24V-300-50A	
极数 (Number of poles)		2			
相数 (Number of phases)		3			
额定电压 (Rated voltage)	VDC	24	36	24	
额定转矩 (Rated torque)	mN.m	6	21	25	
连续运行转矩 (Continuous stall torque)	mN.m	7	25	30	
额定速度 (Rated speed)	RPM	35000	32000	22000	
额定功率 (Rated power)	W	25	65	50	
峰值转矩 (Peak torque)	mN.m	18	63	75	
峰值电流 (Peak current)	A	3.2	7.6	10.5	
线电阻 (Line to line resistance)	ohms@20°C	2	1	0.75	
线电感 (Line to line inductance)	mH	0.13	0.07	0.07	
转矩常数 (Torque constant)	mN.m/A	5.67	8.37	7.42	
反电势 (Back EMF)	Vrms/KRPM	0.42	0.62	0.55	
转动惯量 (Rotor inertia)	g.cm ²	1	3.2	4.5	
机身长度 (Motor length)	L	mm	40	60	70
重量 (Weight)		Kg	0.04	0.15	0.2

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.014mm@450g
最大径向负载(Max radial force)	5N 距法兰 10mm (10mm From the flange)
最大轴向负载(Max axial force)	2N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +40°C
绝缘等级(Insulation Class)	Class B

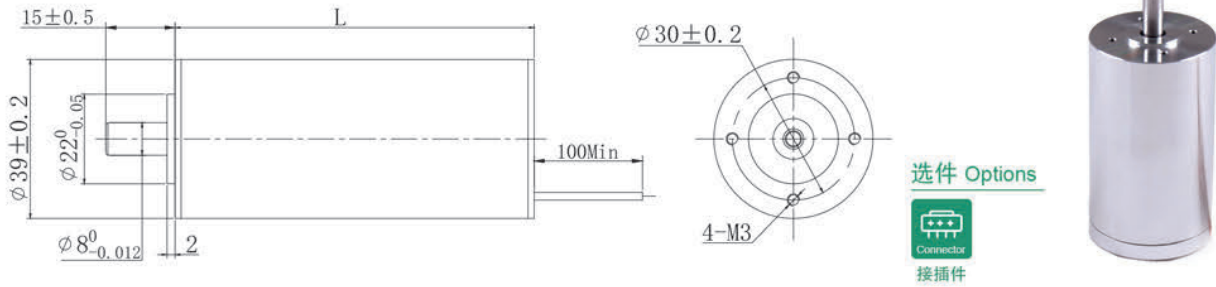
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG28	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1430 AWG26	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL28SBL44-24V- 100-15A	FL28SBL66-24V- 170-75A	FL28SBL80-12V- 75-38A
极数 (Number of poles)		2		
相数 (Number of phases)		3		
额定电压 (Rated voltage)	VDC	24	24	12
额定转矩 (Rated torque)	mN.m	18	54	60
连续运行转矩 (Continuous stall torque)	mN.m	21.6	64.8	72
额定速度 (Rated speed)	RPM	8000	14000	6000
额定功率 (Rated power)	W	15	75	38
峰值转矩 (Peak torque)	mN.m	55	162	90
峰值电流 (Peak current)	A	2.5	11	6.5
线电阻 (Line to line resistance)	ohms@20°C	4.2	0.6	1
线电感 (Line to line inductance)	mH	0.42	0.064	0.11
转矩常数 (Torque constant)	mN.m/A	23	15.3	15
反电势 (Back EMF)	Vrms/KRPM	1.7	1.13	1.12
转动惯量 (Rotor inertia)	g.cm ²	8.8	16.2	20.2
机身长度 (Motor length) L	mm	44	66	80
重量 (Weight)	Kg	0.14	0.225	0.25

机械尺寸 (Dimensions)



特性概要 (General Specifications)

绕组连接方式 (Winding Type)	星形 (Star connection)
霍尔分布角度 (Hall Effect Angle)	120°电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	28N 距法兰 20mm (20mm From the flange)
最大轴向负载 (Max axial force)	12N
介电强度 (Dielectric Strength)	2000VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度 (Ambient Temperature)	-25°C ~ +55°C
绝缘等级 (Insulation Class)	Class F

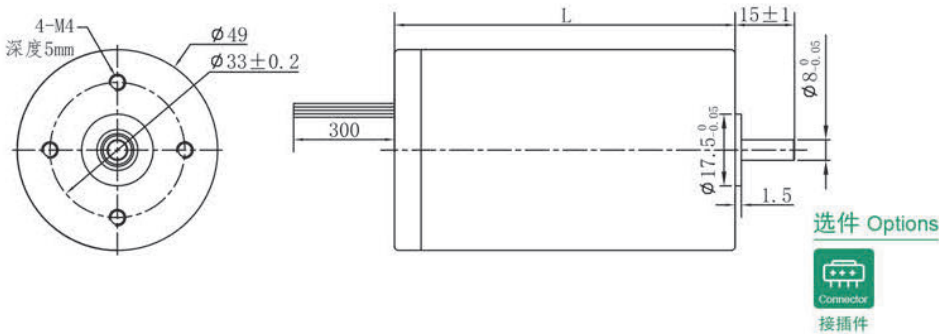
接线说明 (Electric Connection)

引出线 型号 Type	引出线颜色 Color	功能 Functions
UL1332 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
UL1332 AWG18	黑色 (Black)	霍尔电源负 (GND)
	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL39SBL120-320V-150-1350A	FL39SBL80-48V-140-140A
极数 (Number of poles)		2	
相数 (Number of phases)		3	
额定电压 (Rated voltage)	VDC	320	48
额定转矩 (Rated torque)	mN.m	150	100
连续运行转矩 (Continuous stall torque)	mN.m	175	140
额定速度 (Rated speed)	RPM	15000	14000
额定功率 (Rated power)	W	235	140
峰值转矩 (Peak torque)	mN.m	450	300
峰值电流 (Peak current)	A	3	15
线电阻 (Line to line resistance)	ohms@20°C	12.6	0.1
线电感 (Line to line inductance)	mH	3.8	0.08
转矩常数 (Torque constant)	mN.m/A	152	21.6
反电势 (Back EMF)	Vrms/KRPM	11.3	1.6
转动惯量 (Rotor inertia)	g.cm ²	60	40
机身长度 (Motor length)	mm	120	80
重量 (Weight)	Kg	0.7	0.5

机械尺寸 (Dimensions)



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	56N 距法兰 10mm (10mm From the flange)
最大轴向负载(Max axial force)	12N
介电强度(Dielectric Strength)	1200VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

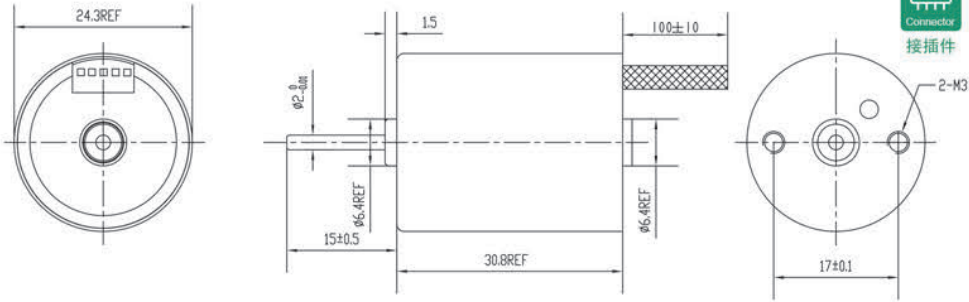
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1332 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1332 AWG18	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL49SBL90-110V-130200A	FL49SBL120-48V-240500A
极数 (Number of poles)			2
相数 (Number of phases)			3
额定电压 (Rated voltage)	VDC	110	48
额定转矩 (Rated torque)	mN.m	140	200
连续运行转矩 (Continuous stall torque)	mN.m	168	240
额定速度 (Rated speed)	RPM	13000	24000
额定功率 (Rated power)	W	200	500
峰值扭矩 (Peak torque)	mN.m	420	600
峰值电流 (Peak current)	A	6	38
线电阻 (Line to line resistance)	ohms@20°C	2.6	0.09
线电感 (Line to line inductance)	mH	1.8	0.08
转矩常数 (Torque constant)	mN.m/A	71.5	16.8
反电势 (Back EMF)	Vrms/KRPM	5.3	1.25
转动惯量 (Rotor inertia)	g.cm ²	110	175
机身长度 (Motor length)	L	90	120
重量 (Weight)	Kg	1.1	1.5

机械尺寸 (Dimensions)



选件 Options



接插件 齿轮箱



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.025
轴向间隙(Axial Play)	0.2-0.5
最大径向负载(Max radial force)	5N 距法兰 10mm (10mm From the flange)
最大轴向负载(Max axial force)	2N
介电强度(Dielectric Strength)	300VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

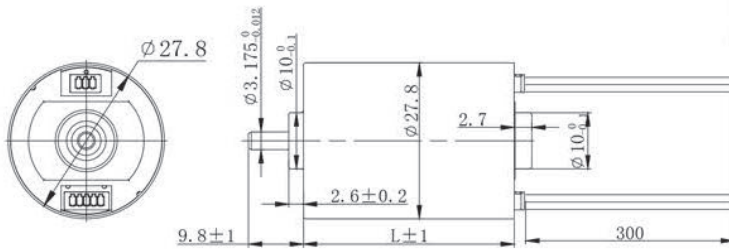
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG28	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1430 AWG26	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL24CBL30-12V-4002A
极数 (Number of poles)		12
相数 (Number of phases)		3
额定电压 (Rated voltage)	VDC	12
额定转矩 (Rated torque)	mN.m	5.7
连续运行转矩 (Continuous stall torque)	mN.m	6.8
额定速度 (Rated speed)	RPM	4000
额定功率 (Rated power)	W	2.4
峰值转矩 (Peak torque)	mN.m	17.1
峰值电流 (Peak current)	A	0.9
线电阻 (Line to line resistance)	ohms@20°C	7.3
线电感 (Line to line inductance)	mH	1.7
转矩常数 (Torque constant)	mN.m/A	20
反电势 (Back EMF)	Vrms/KRPM	1.48
转动惯量 (Rotor inertia)	g.cm ²	2.3
机身长度 (Motor length)	mm	30.8
重量 (Weight)	Kg	0.04

机械尺寸 (Dimensions)



选件 Options



接插件 齿轮箱



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	5N 距法兰 10mm (10mm From the flange)
最大轴向负载(Max axial force)	2N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

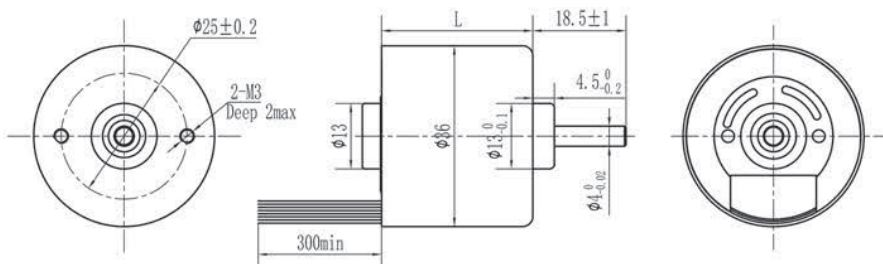
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1061 AWG28	黄色 (Yellow)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	橙色 (Orange)	霍尔 V (Hv)
	棕色 (Brown)	霍尔 W (Hw)
	白色 (White)	霍尔电源负 (GND)
UL1061 AWG26	绿色 (Green)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL28CBLA38-24V-4012A	FL28CBLA48-24V-4524A
极数 (Number of poles)		8	
相数 (Number of phases)		3	
额定电压 (Rated voltage)	VDC	24	
额定转矩 (Rated torque)	mN.m	28	50
连续运行转矩 (Continuous stall torque)	mN.m	33.6	60
额定速度 (Rated speed)	RPM	4000	4500
额定功率 (Rated power)	W	12	24
峰值转矩 (Peak torque)	mN.m	84	150
峰值电流 (Peak current)	A	2.0	4.5
线电阻 (Line to line resistance)	ohms@20°C	5.7	2.5
线电感 (Line to line inductance)	mH	2.48	1.2
转矩常数 (Torque constant)	mN.m/A	42.8	36
反电势 (Back EMF)	Vrms/KRPM	3.165	2.68
转动惯量 (Rotor inertia)	g.cm ²	5.8	7.3
机身长度 (Motor length)	L	mm	48
重量 (Weight)	Kg	0.095	0.12

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式 (Winding Type)	星形 (Star connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	15N 距法兰 10mm (10mm From the flange)
最大轴向负载 (Max axial force)	10N
介电强度 (Dielectric Strength)	600VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度 (Ambient Temperature)	-20°C ~ +50°C
绝缘等级 (Insulation Class)	Class B

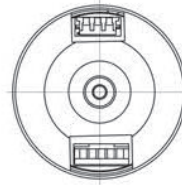
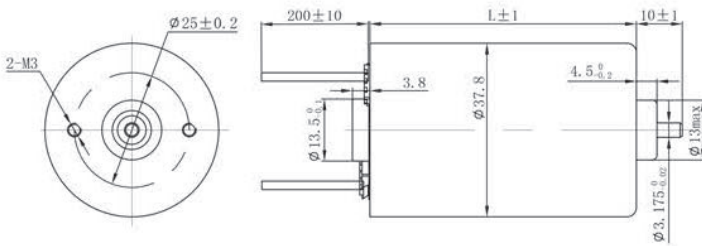
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1430 AWG24	黄色 (Yellow)	U 相 (Phase U)
	棕色 (Brown)	V 相 (Phase V)
	橙色 (Orange)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL36CBL30- 24V-488A-02	FL36CBL 40-24V- 4818A-01	FL36CBL50 -24V-4828A	FL36CBL57 -24V-4533A	FL36CBL60 -24V-4840A	FL36CBL65 -24V-4845A
极数 (Number of poles)		8					
相数 (Number of phases)		3					
额定电压 (Rated voltage)	VDC	24					
额定转矩 (Rated torque)	mN.m	15	35	55	70	80	90
连续运行转矩 (Continuous stall torque)	mN.m	18	42	66	84	96	108
额定速度 (Rated speed)	RPM	4800	4800	4800	4500	4800	4800
额定功率 (Rated power)	W	8	18	28	33	40	45
峰值转矩 (Peak torque)	mN.m	45	105	165	210	240	270
峰值电流 (Peak current)	A	1.3	2.7	4.3	5.3	6	6.8
线电阻 (Line to line resistance)	ohms@ 20°C	5.2	2	1.2	1.05	0.95	0.88
线电感 (Line to line inductance)	mH	3.3	1.75	1.2	1	0.85	0.8
转矩常数 (Torque constant)	mN.m/A	36	40	39	40	40	40
反电势 (Back EMF)	Vrms/KR PM	2.7	3	2.9	3	3	3
转动惯量 (Rotor inertia)	g.cm ²	6	12	22	27	30	32
机身长度 (Motor length) L	mm	30	40	50	57	60	65
重量 (Weight)	Kg	0.12	0.16	0.23	0.25	0.27	0.28

机械尺寸 (Dimensions)



选件 Options



接插件 齿轮箱

特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	15N 距法兰 10mm (10mm From the flange)
最大轴向负载(Max axial force)	10N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

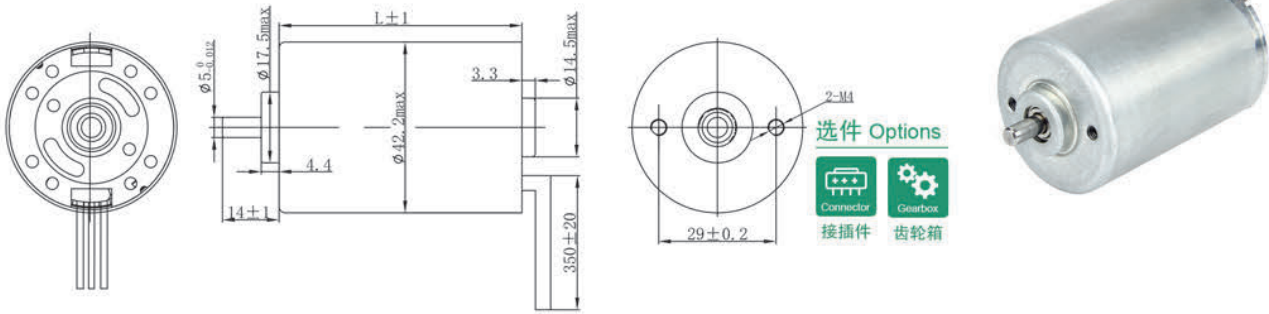
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1430 AWG22	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL38CBL58-24V-4030A
极数 (Number of poles)		4
相数 (Number of phases)		3
额定电压 (Rated voltage)	VDC	24
额定转矩 (Rated torque)	mN.m	70
连续运行转矩 (Continuous stall torque)	mN.m	84
额定速度 (Rated speed)	RPM	4000
额定功率 (Rated power)	W	30
峰值转矩 (Peak torque)	mN.m	210
峰值电流 (Peak current)	A	4.8
线电阻 (Line to line resistance)	ohms@20°C	1.5
线电感 (Line to line inductance)	mH	1.5
转矩常数 (Torque constant)	mN.m/A	44.55
反电势 (Back EMF)	Vrms/KRPM	3.3
转动惯量 (Rotor inertia)	g.cm ²	36
机身长度 (Motor length) L	mm	58
重量 (Weight)	Kg	0.24

机械尺寸 (Dimensions)



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	15N 距法兰 10mm (10mm From the flange)
最大轴向负载(Max axial force)	10N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

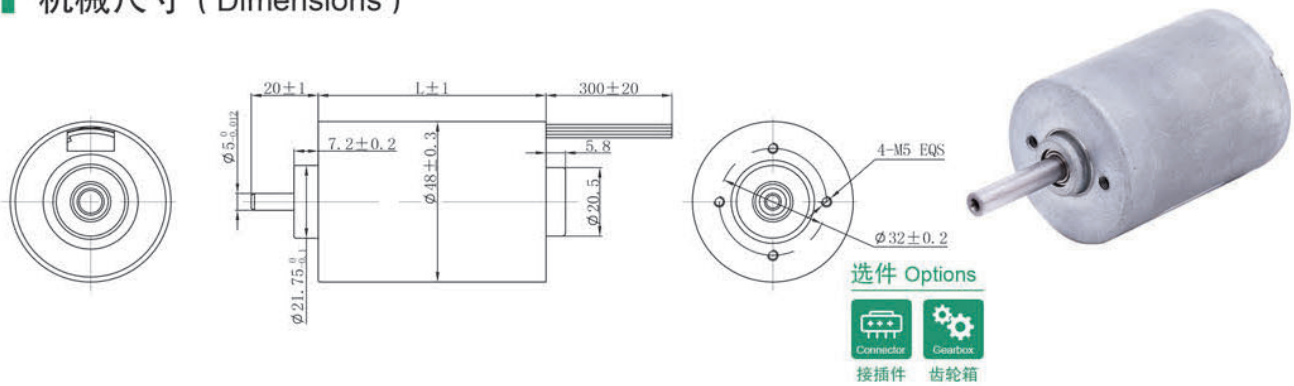
接线说明 (Electric Connection)

引出线 型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1332 AWG22	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL42CBL60-24V- 3240A	FL42CBL60-24V- 5943	FL42CBL66-24V- 4063A
极数 (Number of poles)		8		
相数 (Number of phases)		3		
额定电压 (Rated voltage)	VDC	24		
额定转矩 (Rated torque)	mN.m	120	68	150
连续运行转矩 (Continuous stall torque)	mN.m	144	81.6	180
额定速度 (Rated speed)	RPM	3200	5900	4000
额定功率 (Rated power)	W	40	43	63
峰值转矩 (Peak torque)	mN.m	360	204	450
峰值电流 (Peak current)	A	6.7	6.3	11.2
线电阻 (Line to line resistance)	ohms@20°C	1.2	0.6	0.75
线电感 (Line to line inductance)	mH	1.6	0.63	0.8
转矩常数 (Torque constant)	mN.m/A	54	32.4	40.5
反电势 (Back EMF)	Vrms/KRPM	4.0	2.4	3
转动惯量 (Rotor inertia)	g.cm ²	44	44	55
机身长度 (Motor length)	L	mm	60	66
重量 (Weight)		Kg	0.35	0.44

机械尺寸 (Dimensions)



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	15N 距法兰 10mm (10mm From the flange)
最大轴向负载 (Max axial force)	10N
介电强度 (Dielectric Strength)	600VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度 (Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

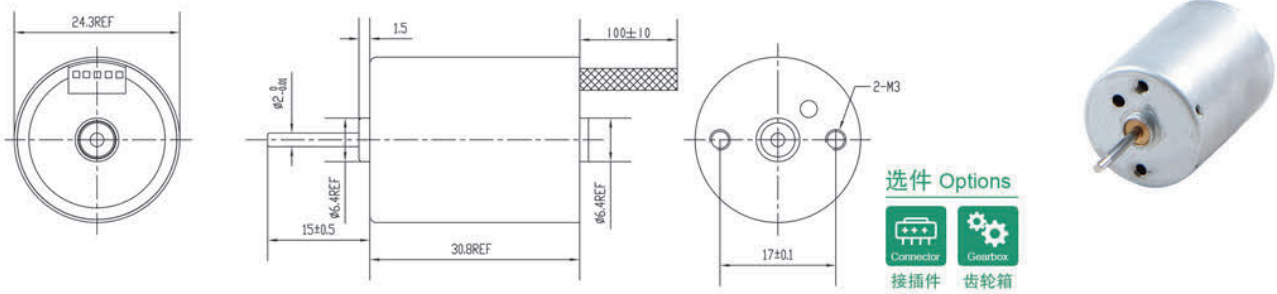
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG26	红色 (Red)	霍尔电源正 (Vcc)
	蓝色 (Blue)	霍尔 U (Hu)
	绿色 (Green)	霍尔 V (Hv)
	白色 (White)	霍尔 W (Hw)
	黑色 (Black)	霍尔电源负 (GND)
UL1430 AWG20	黄色 (Yellow)	U 相 (Phase U)
	红色 (Red)	V 相 (Phase V)
	黑色 (Black)	W 相 (Phase W)

电性能 (Electrical Specifications)

	单位 (Unit)	FL48CBL68-24V-3060A
极数 (Number of poles)		10
相数 (Number of phases)		3
额定电压 (Rated voltage)	VDC	24
额定转矩 (Rated torque)	mN.m	180
连续运行转矩 (Continuous stall torque)	mN.m	216
额定速度 (Rated speed)	RPM	3000
额定功率 (Rated power)	W	60
峰值转矩 (Peak torque)	mN.m	540
峰值电流 (Peak current)	A	9.4
线电阻 (Line to line resistance)	ohms@20°C	0.7
线电感 (Line to line inductance)	mH	0.7
转矩常数 (Torque constant)	mN.m/A	58
反电势 (Back EMF)	Vrms/KRPM	4.3
转动惯量 (Rotor inertia)	g.cm ²	80
机身长度 (Motor length)	L mm	68
重量 (Weight)	Kg	0.5

机械尺寸 (Dimensions)



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.025
轴向间隙(Axial Play)	0.2-0.5
最大径向负载(Max radial force)	5N 距法兰 10mm (10mm From the flange)
最大轴向负载(Max axial force)	2N
介电强度(Dielectric Strength)	300VAC/1min
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-25°C ~ +55°C
绝缘等级(Insulation Class)	Class B

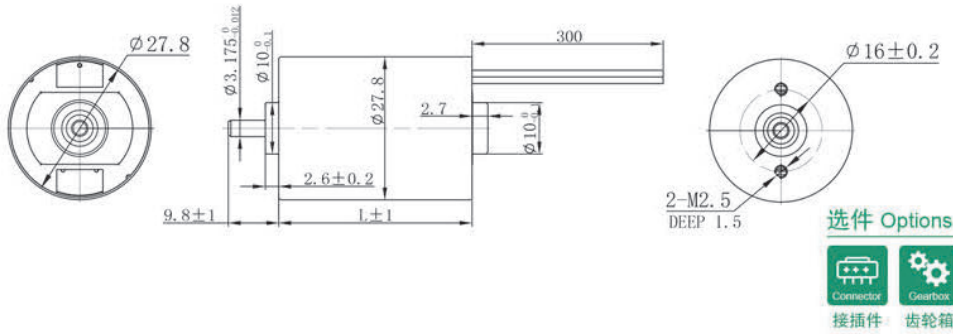
接线说明 (Electric Connection)

引出线 型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG26	黄色 (Yellow)	电源正 (Vcc)
	黑色 (Black)	电源负 (GND)
	白色 (White)	转向控制 (Rotating Direction) CW/CCW
	绿色 (Green)	PWM 调速 (Speed Control)
	蓝色 (Blue)	转速信号反馈 (Tacho out)

电性能 (Electrical Specifications)

	单位 (Unit)	FL24CBL30-12V-4002A-IE
极数 (Number of poles)		12
相数 (Number of phases)		3
额定电压 (Rated voltage)	VDC	12
额定转矩 (Rated torque)	mN.m	5.7
连续运行转矩 (Continuous stall torque)	mN.m	6.8
额定速度 (Rated speed)	RPM	4000
额定功率 (Rated power)	W	2.4
峰值转矩 (Peak torque)	mN.m	17.1
峰值电流 (Peak current)	A	0.9
线电阻 (Line to line resistance)	ohms@20°C	7.3
线电感 (Line to line inductance)	mH	1.7
转矩常数 (Torque constant)	mN.m/A	20
反电势 (Back EMF)	Vrms/KRPM	1.48
转动惯量 (Rotor inertia)	g.cm ²	2.3
机身长度 (Motor length)	L mm	30.8
重量 (Weight)	Kg	0.04

机械尺寸 (Dimensions)



特性概要 (General Specifications)

绕组连接方式 (Winding Type)	星形 (Star connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	5N 距法兰 10mm (10mm From the flange)
最大轴向负载 (Max axial force)	2N
介电强度 (Dielectric Strength)	360VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度 (Ambient Temperature)	-20°C ~ +50°C
绝缘等级 (Insulation Class)	Class B

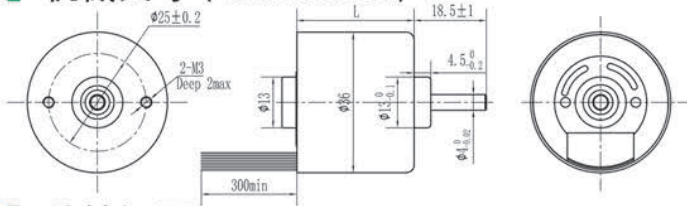
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG28	红色 (Red)	电源正 (Vcc)
	黑色 (Black)	电源负 (GND)
	绿色 (Green)	转向控制 (Rotating Direction) CW/CCW
	蓝色 (Blue)	PWM 调速 (Speed Control)
	白色 (White)	转速信号反馈 (Tacho out) PG

电性能 (Electrical Specifications)

	单位 (Unit)	FL28CBLA38-24V-4012A-IE	FL28CBLA48-24V-4524A-IE
极数 (Number of poles)			8
相数 (Number of phases)			3
额定电压 (Rated voltage)	VDC	24	24
额定转矩 (Rated torque)	mN.m	28	50
连续运行转矩 (Continuous stall torque)	mN.m	33.6	60
额定速度 (Rated speed)	RPM	4000	4500
额定功率 (Rated power)	W	12	24
峰值扭矩 (Peak torque)	mN.m	38.9	70
峰值电流 (Peak current)	A	1.0	2.0
线电阻 (Line to line resistance)	ohms@20°C	5.7	2.5
线电感 (Line to line inductance)	mH	2.48	1.2
转矩常数 (Torque constant)	mNm/A	42.8	36.2
反电势 (Back EMF)	Vrms/KRPM	3.165	2.68
转动惯量 (Rotor inertia)	g.cm ²	5.8	7.3
机身长度 (Motor length) L	mm	38	48
重量 (Weight)	Kg	0.095	0.12

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式 (Winding Type)	星形 (Star connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	15N 距法兰 10mm (10mm From the flange)
最大轴向负载 (Max axial force)	10N
介电强度 (Dielectric Strength)	600VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度 (Ambient Temperature)	-20°C ~ +50°C
绝缘等级 (Insulation Class)	Class B

接线说明 (Electric Connection)

引出线 型号 Type	引出线颜色 Color	功能 Functions
红色 Red 黑色 Black, UL1430 AWG24; others UL1430 AWG26	红色 (Red)	电源正 (Vcc)
	黑色 (Black)	电源负 (GND)
	蓝色 (Blue)	转向控制 (Rotating Direction) CW/CCW
	绿色 (Green)	PWM 调速 (Speed Control)
	黄色 (Yellow)	转速信号反馈 (Tacho out)
	白色 (White)	刹车 (Break)

电性能 (Electrical Specifications)

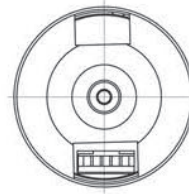
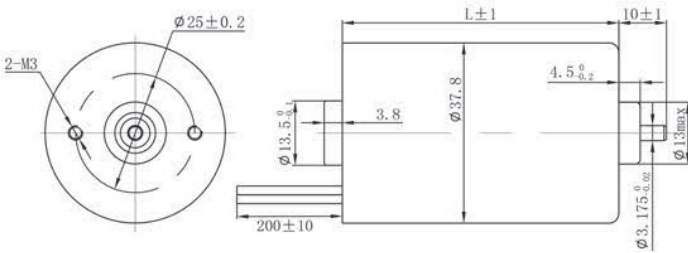
	单位 (Unit)	FL36CBL 30-24V- 488A-IE- 02	FL36CBL40 -24V-4818A- IE-01	FL36CBL50 -24V-4828A- IE	FL36CBL57 -24V-4533A- IE	FL36CBL60 -24V-4840A- IE-01	FL36CBL65- 24V-4845A- IE
极数 (Number of poles)		8					
相数 (Number of phases)		3					
额定电压 (Rated voltage)	VDC	24					
额定转矩 (Rated torque)	mN.m	15	35	55	70	80	90
连续运行转矩 (Continuous stall torque)	mN.m	18	42	66	84	96	108
额定速度 (Rated speed)	RPM	4800	4800	4800	4500	4800	4800
额定功率 (Rated power)	W	8	18	28	33	40	45
峰值扭矩 (Peak torque)	mN.m	45	105	110	110	110	110
峰值电流 (Peak current)	A	1.3	3	3	3	3	3
线电阻 (Line to line resistance)	ohms@ 20°C	5.2	2	1.2	1.05	0.95	0.88
线电感 (Line to line inductance)	mH	3.3	1.75	1.2	1	0.85	0.8
转矩常数 (Torque constant)	mN.m/A	36	40	39	40	40	40
反电势 (Back EMF)	Vrms/KR PM	2.7	3	2.9	3	3	3
转动惯量 (Rotor inertia)	g.cm ²	6	12	22	27	30	32
机身长度 (Motor length) L	mm	30	40	50	57	60	65
重量 (Weight)	Kg	0.12	0.16	0.23	0.25	0.27	0.28

FL38CBL-IE系列 (Series)

一体式无刷电机 BLDC Motor with Integrated Driver



机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	15N 距法兰 10mm (10mm From the flange)
最大轴向负载 (Max axial force)	10N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG22	红色 (Red)	电源正 (Vcc)
	黑色 (Black)	电源负 (GND)
UL1430 AWG26	绿色 (Green)	转向控制 (Rotating Direction) CW/CCW
	白色 (White)	PWM 调速 (Speed Control)
	蓝色 (Blue)	刹车 (Brake)
	黄色 (Yellow)	PG 转速信号反馈 (Tacho out)

电性能 (Electrical Specifications)

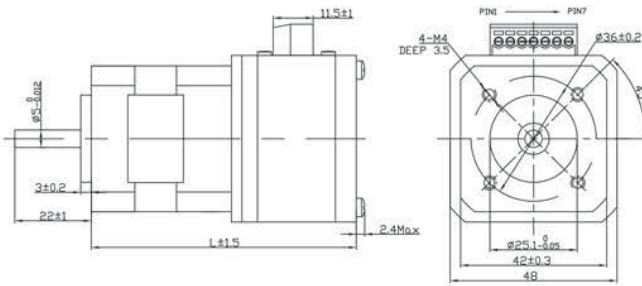
	单位 (Unit)	FL38CBL58-24V-4030A-IE
极数 (Number of poles)		4
相数 (Number of phases)		3
额定电压 (Rated voltage)	VDC	24
额定转矩 (Rated torque)	mN.m	70
连续运行转矩 (Continuous stall torque)	mN.m	84
额定速度 (Rated speed)	RPM	4000
额定功率 (Rated power)	W	30
峰值转矩 (Peak torque)	mN.m	126
峰值电流 (Peak current)	A	3
线电阻 (Line to line resistance)	ohms@20°C	2.0
线电感 (Line to line inductance)	mH	1.5
转矩常数 (Torque constant)	mN.m/A	44.55
反电势 (Back EMF)	Vrms/KRPM	3.3
转动惯量 (Rotor inertia)	g.cm ²	36
机身长度 (Motor length)	L mm	58
重量 (Weight)	Kg	0.24

该款电机可以根据客户需求定制 The motor can be designed & manufactured with customized request.

FL42BLS-IE系列 (Series)

一体式无刷电机 BLDC Motor with Integrated Driver

机械尺寸 (Dimensions)



选件 Options



+5V	F/R	SV	PG	GND	GND	+Vp
○	○	○	○	○	○	○
1	2	3	4	5	6	7



特性概要 (General Specifications)

绕组连接方式(Winding Type)	三角形 (Delta connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙(Radial Play)	0.025mm@460g
轴向间隙(Axial Play)	0.08mm@4000g
最大径向负载 (Max radial force)	10N 距法兰 10mm (10mm From the flange)
最大轴向负载(Max axial force)	10N
介电强度 (Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级 (Insulation Class)	Class B

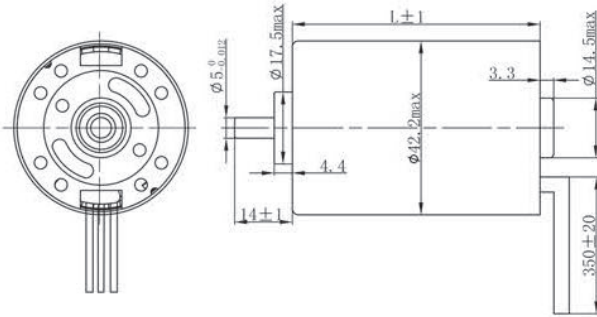
接线说明 (Electric Connection)

Pin No		功能 Functions
1	+5V	电压输出(VOLTAGE OUTPUT)
2	F/R	转向控制(ROTATING DIRECTION)
3	SV	调速电压 0—5VDC (SPEED VOLTAGE 0—5VDC)
4	PG	速度脉冲输出(TTL) (SPEED PULSE OUTPUT(TTL))
5	GND	接地(GND)
6	GND	接地(GND)
7	+Vp	+24VDC(DC POWER INPUT +24VDC)

电性能 (Electrical Specifications)

	单位 (Unit)	FL42BLS01-IE	FL42BLS02-IE	FL42BLS03-IE	FL42BLS04-IE
极数 (Number of poles)		8			
相数 (Number of phases)		3			
额定电压 (Rated voltage)	VDC	24			
额定转矩 (Rated torque)	N.m	0.0625	0.125	0.185	0.25
连续运行转矩 (Continuous stall torque)	N.m	0.075	0.15	0.22	0.3
额定速度 (Rated speed)	RPM	4000	4000	4000	4000
额定功率 (Rated power)	W	26	52	78	104
峰值扭矩 (Peak torque)	N.m	0.11	0.18	0.28	0.28
峰值电流 (Peak current)	A	3.5	5.0	7.5	7.5
线电阻 (Line to line resistance)	ohms@20°C	1.5	0.8	0.43	0.3
线电感 (Line to line inductance)	mH	2.1	1.2	0.71	0.5
转矩常数 (Torque constant)	N.m/A	0.033	0.036	0.037	0.035
反电势 (Back EMF)	Vrms/KRPM	2.45	2.71	2.74	2.62
转动惯量 (Rotor inertia)	g.cm ²	24	48	72	96
机身长度 (Motor length) L	mm	77	97	137	157
重量 (Weight)	Kg	0.45	0.6	0.8	0.95

机械尺寸 (Dimensions)



选件 Options



接插件 齿轮箱

特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	15N 距法兰 10mm (10mm From the flange)
最大轴向负载 (Max axial force)	10N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级 (Insulation Class)	Class B

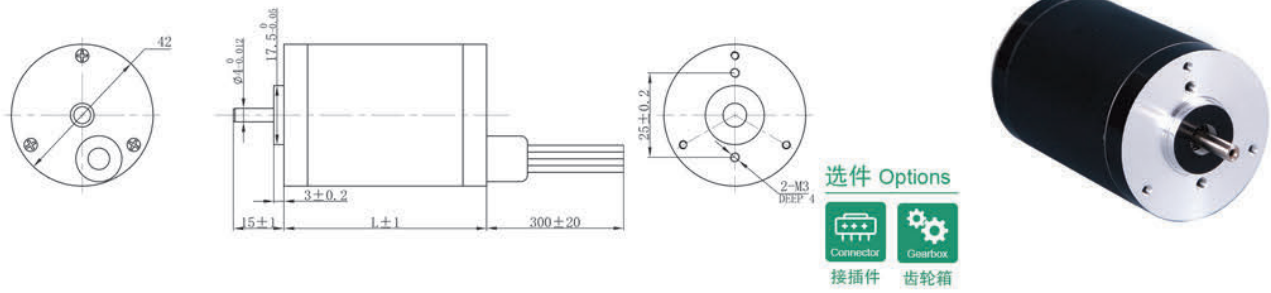
接线说明 (Electric Connection)

引出线 型号 Type	引出线颜色 Color	功能 Functions
UL1332	红色 (Red)	电源正 (Vcc)
AWG22	黑色 (Black)	电源负 (GND)
UL1430 AWG26	绿色 (Green)	转向控制 (Rotating Direction) CW/CCW
	白色 (White)	PWM 调速 (Speed Control)
	蓝色 (Blue)	刹车 (Brake)
	黄色 (Yellow)	PG 转速信号反馈 (Tacho out)

电性能 (Electrical Specifications)

	单位 (Unit)	FL42CBL60-24V-5943-IE	FL42CBL66-24V-3031A-IE
极数 (Number of poles)		4	
相数 (Number of phases)		3	
额定电压 (Rated voltage)	VDC	24	
额定转矩 (Rated torque)	mN.m	68	100
连续运行转矩 (Continuous stall torque)	mN.m	81.6	120
额定速度 (Rated speed)	RPM	5900	3000
额定功率 (Rated power)	W	43	31
峰值转矩 (Peak torque)	mN.m	92	200
峰值电流 (Peak current)	A	3	3
线电阻 (Line to line resistance)	ohms@20°C	0.82	2.5
线电感 (Line to line inductance)	mH	1.2	3.3
转矩常数 (Torque constant)	mN.m/A	33.75	65
反电势 (Back EMF)	Vrms/KRPM	2.5	4.82
转动惯量 (Rotor inertia)	g.cm ²	44	55
机身长度 (Motor length)	L mm	60	66
重量 (Weight)	Kg	0.35	0.44

机械尺寸 (Dimensions)



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载(Max radial force)	15N 距法兰 10mm (10mm From the flange)
最大轴向负载(Max axial force)	10N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

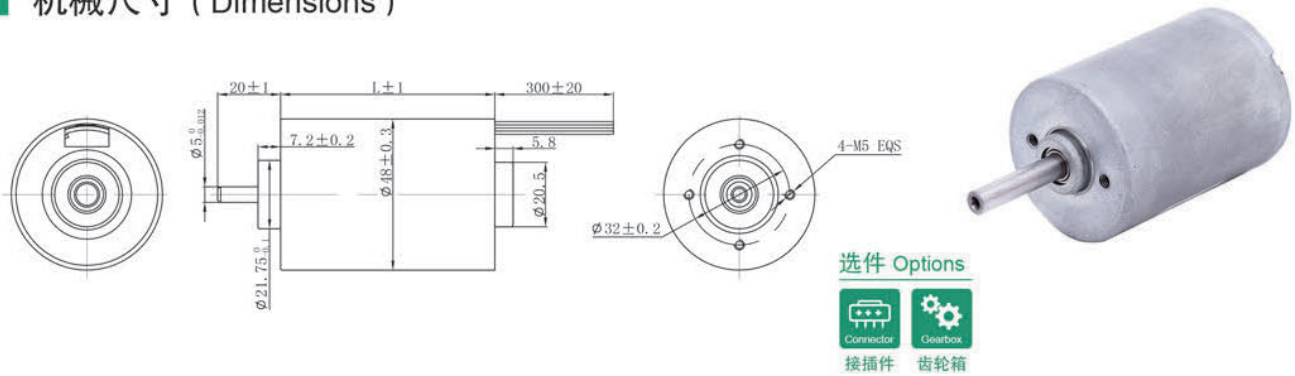
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1007 AWG22	红色 (Red)	电源正 (Vcc)
	黑色 (Black)	电源负 (GND)
UL1007 AWG22	白色 (White)	转向控制 (Rotating Direction) CW/CCW
	蓝色 (Blue)	模拟量调速(Speed Control with analog ref) SV
	黄色 (Yellow)	转速信号反馈 (Tacho out) PG

电性能 (Electrical Specifications)

	单位 (Unit)	FL42RBL60-24V-4030A-IE
极数 (Number of poles)		8
相数 (Number of phases)		3
额定电压 (Rated voltage)	VDC	24
额定转矩 (Rated torque)	mN.m	56
连续运行转矩 (Continuous stall torque)	mN.m	68
额定速度 (Rated speed)	RPM	4200
额定功率 (Rated power)	W	25
峰值转矩 (Peak torque)	mN.m	105
峰值电流 (Peak current)	A	3
线电阻 (Line to line resistance)	ohms@20°C	1.6
线电感 (Line to line inductance)	mH	1.94
转矩常数 (Torque constant)	mN.m/A	41.31
反电势 (Back EMF)	Vrms/KRPM	3.04
转动惯量 (Rotor inertia)	g.cm ²	33
机身长度 (Motor length) L	mm	64
重量 (Weight)	Kg	0.4

机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙(Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	15N 距法兰 10mm (10mm From the flange)
最大轴向负载 (Max axial force)	10N
介电强度(Dielectric Strength)	600VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度 (Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

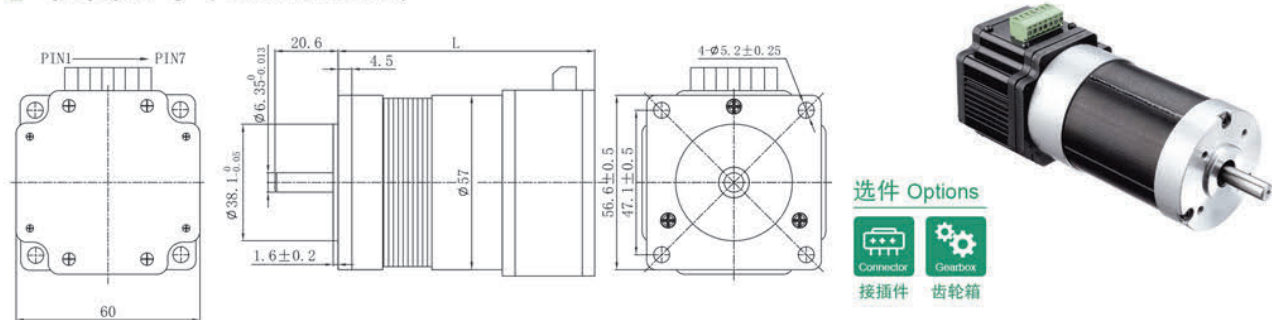
接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG20	红色 (Red)	电源正 (Vcc)
	黑色 (Black)	电源负 (GND)
UL1430 AWG26	绿色 (Green)	转向控制 (Rotating Direction) CW/CCW
	白色 (White)	PWM 调速 (Speed Control)
	蓝色 (Blue)	刹车 (Brake)
	黄色 (Yellow)	转速信号反馈 (Tacho out) PG

电性能 (Electrical Specifications)

	单位 (Unit)	FL48CBL68-24V-3060A
极数 (Number of poles)		10
相数 (Number of phases)		3
额定电压 (Rated voltage)	VDC	24
额定转矩 (Rated torque)	mN.m	180
连续运行转矩 (Continuous stall torque)	mN.m	216
额定速度 (Rated speed)	RPM	3000
额定功率 (Rated power)	W	60
峰值转矩 (Peak torque)	mN.m	257
峰值电流 (Peak current)	A	5
线电阻 (Line to line resistance)	ohms@20°C	0.7
线电感 (Line to line inductance)	mH	0.7
转矩常数 (Torque constant)	mN.m/A	58
反电势 (Back EMF)	Vrms/KRPM	4.3
转动惯量 (Rotor inertia)	g.cm ²	80
机身长度 (Motor length)	L mm	68
重量 (Weight)	Kg	0.5

机械尺寸 (Dimensions)



特性概要 (General Specifications)

绕组连接方式 (Winding Type)	三角形 (Delta connection)
霍尔分布角度 (Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	115N 距法兰 20mm (20mm From the flange)
最大轴向负载 (Max axial force)	45N
介电强度 (Dielectric Strength)	650VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度 (Ambient Temperature)	-20°C ~ +50°C
绝缘等级 (Insulation Class)	Class B

接线说明 (Electric Connection)

+Vp	GND	GND	PG	SV	F/R	+5V
○	○	○	○	○	○	○
1	2	3	4	5	6	7

1 +Vp---输入电压 +36VDC(DC POWER INPUT +36VDC)

2 GND---系统的公共接地(COMMON GROUND OF SYSTEM)

3 GND---系统的公共接地(COMMON GROUND OF SYSTEM)

4 PG---速度脉冲输出(TTL), 6个/转(SPEED PULSE OUTPUT(TTL), 6 PULSE/REV)

5 SV---调速电压 0—5VDC (SPEED VOLTAGE 0—5VDC)

6 F/R---转向控制(ROTATING DIRECTION)

7 +5V---+5V 电压输出(VOLTAGE OUTPUT)

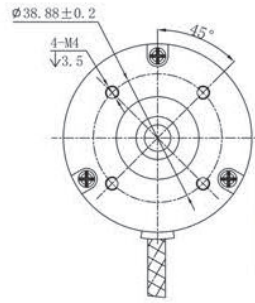
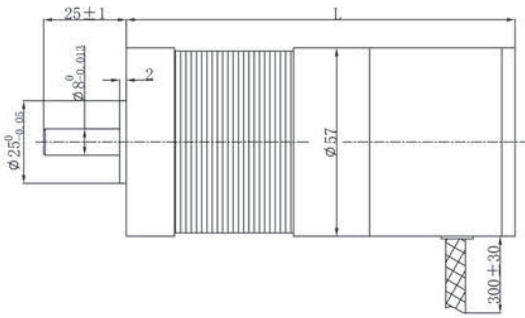
电性能 (Electrical Specifications)

	单位 (Unit)	FL57BL(S)005-IE	FL57BL(S)01-IE	FL57BL(S)02-IE	FL57BL(S)03-IE	
极数 (Number of poles)		4				
相数 (Number of phases)		3				
额定电压 (Rated voltage)	VDC	36				
额定转矩 (Rated torque)	N.m	0.055	0.11	0.22	0.33	
连续运行转矩 (Continuous stall torque)	N.m	0.066	0.132	0.264	0.396	
额定速度 (Rated speed)	RPM	4000	4000	4000	4000	
额定功率 (Rated power)	W	25	46	99	138	
峰值扭矩 (Peak torque)	N.m	0.15	0.3	0.45	0.48	
峰值电流 (Peak current)	A	3.0	5.0	7.5	7.5	
线电阻 (Line to line resistance)	ohms@20°C	4.3	1.63	0.64	0.45	
线电感 (Line to line inductance)	mH	10	4.4	2.0	1.5	
转矩常数 (Torque constant)	N.m/A	0.052	0.061	0.060	0.065	
反电势 (Back EMF)	Vrms/KRPM	3.8	4.5	4.45	4.8	
转动惯量 (Rotor inertia)	g.cm ²	30	75	119	173	
机身长度 (Motor length)	L	mm	90	100	139	159
重量 (Weight)	Kg	0.56	0.67	0.9	1.2	

FL57BL-IEX系列 (Series) 一体式无刷电机 BLDC Motor with Integrated Driver



机械尺寸 (Dimensions)



选件 Options



特性概要 (General Specifications)

绕组连接方式(Winding Type)	星形 (Star connection)
霍尔分布角度(Hall Effect Angle)	120 度电角度 (Electrical Angle of 120 degree)
径向间隙 (Radial Play)	0.02mm@450g
轴向间隙 (Axial Play)	0.08mm@450g
最大径向负载 (Max radial force)	115N 距法兰 20mm (20mm From the flange)
最大轴向负载 (Max axial force)	45N
介电强度 (Dielectric Strength)	650VAC/1S
绝缘电阻 (Insulation Resistance)	100MΩ, 500VDC
环境温度(Ambient Temperature)	-20°C ~ +50°C
绝缘等级(Insulation Class)	Class B

接线说明 (Electric Connection)

引出线型号 Type	引出线颜色 Color	功能 Functions
UL1430 AWG18	红色 (Red)	电源正 (Vcc)
	黑色 (Black)	电源负 (GND)
UL1430 AWG26	蓝色 (Blue)	转向控制 (Rotating Direction) CW/CCW
	黄色 (Yellow)	0 ~ +5V speed regulation voltage
	白色 (White)	Speed pulse output(TTL)

电性能 (Electrical Specifications)

	单位 (Unit)	FL57BL005-IEX	FL57BL01-IEX	FL57BL02-IEX
极数 (Number of poles)		4		
相数 (Number of phases)		3		
额定电压 (Rated voltage)	VDC	24		
额定转矩 (Rated torque)	N.m	0.055	0.11	0.22
连续运行转矩 (Continuous stall torque)	N.m	0.066	0.132	0.264
额定速度 (Rated speed)	RPM	4000	4000	4000
额定功率 (Rated power)	W	25	46	99
峰值转矩 (Peak torque)	N.m	0.15	0.22	0.22
峰值电流 (Peak current)	A	4.0	6.0	6.0
线电阻 (Line to line resistance)	ohms@20°C	2.1	0.82	0.35
线电感 (Line to line inductance)	mH	4.1	2.3	1.0
转矩常数 (Torque constant)	N.m/A	0.04	0.04	0.04
反电势 (Back EMF)	Vrms/KRPM	3.0	3.0	3.0
转动惯量 (Rotor inertia)	g.cm ²	30	75	119
机身长度 (Motor length)	L mm	80	90	120
重量 (Weight)	Kg	0.5	0.6	0.8

该款电机可以根据客户需求定制 The motor can be designed & manufactured with customized request.

无刷直流行星齿轮减速电机（内齿圈材质：金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL22RBL/22JN10K

Φ22行星减速器，允许转矩范围：0.05N.m~1N.m

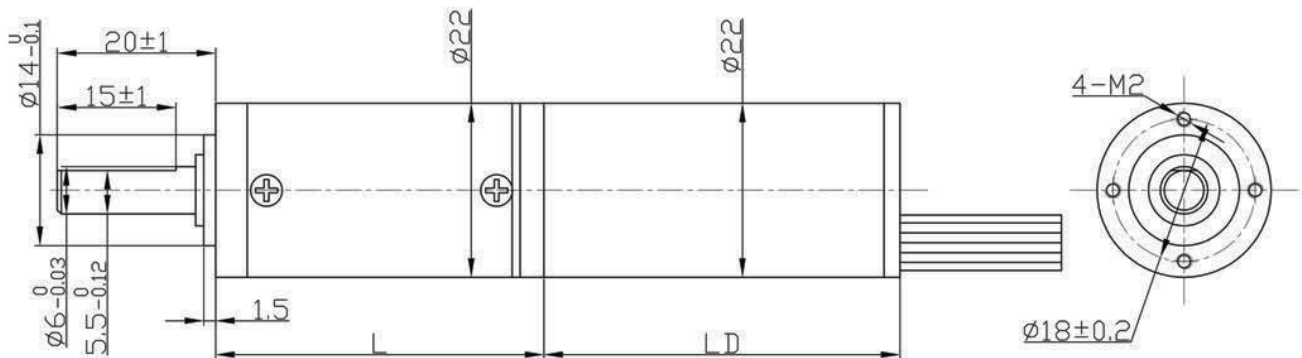
22mm OD Planetary Gearbox, Permissible Load Range: 0.05N.m~1N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
红	棕	黑	蓝	黄	棕	红	绿
Red	Brown	Black	Blue	Yellow	Brown	Red	Green
UL1007 AWG26		UL1007 AWG28					

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Reak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL22RBL45-2470	8	3	24	7000	4600	8.0	4.0	24	0.8	23	6.2
FL22RPL68-2460	8	3	24	6000	3800	20.0	8.0	60	1.7	11.6	4.3

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL22RBL45-2470 无刷直流电机 FL22RBL45-2470 DC Brushless Motor

减速比 Reduction ratio		3.7	5.2	14	19	27	51	71	100	139	189	264	369
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	4	4	4
减速器长度(L) Length(L)	mm	24.4	24.4	31.0	31.0	31.0	37.4	37.4	37.4	37.4	43.8	43.8	43.8
空载转速 No-load speed	r/min	1887	1351	500	368	259	137	99	70	50	37	27	19
额定转速 Rated speed	r/min	1240	888	329	242	170	90	65	46	33	24	17	12
额定转矩 Rated torque	N.m	0.027	0.037	0.091	0.12	0.17	0.30	0.41	0.58	0.80	1	1	1
最大瞬间允许负载 Max. permissible load in a short time	N.m	0.3	0.3	1.2	1.2	1.2	2.5	2.5	2.5	2.5	3	3	3

配置 FL22RBL68-2460 无刷直流电机 FL22RBL68-2460 DC Brushless Motor

减速比 Reduction ratio		3.7	5.2	14	19	27	51	71	100	139
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3
减速器长度(L) Length(L)	mm	24.4	24.4	33.0	33.0	33.0	41.5	41.5	41.5	41.5
空载转速 No-load speed	r/min	1617	1158	429	316	222	118	85	60	43
额定转速 Rated speed	r/min	1027	730	271	200	140	74	53	38	27
额定转矩 Rated torque	N.m	0.067	0.093	0.23	0.31	0.44	0.74	1	1	1
最大瞬间允许负载 Max. permissible load in a short time	N.m	0.3	0.3	1.2	1.2	1.2	3	3	3	3

无刷直流行星齿轮减速电机（内齿圈材质：金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL28BL/28JN30K

Φ28行星减速器，允许转矩范围：0.3N.m~3.0N.m

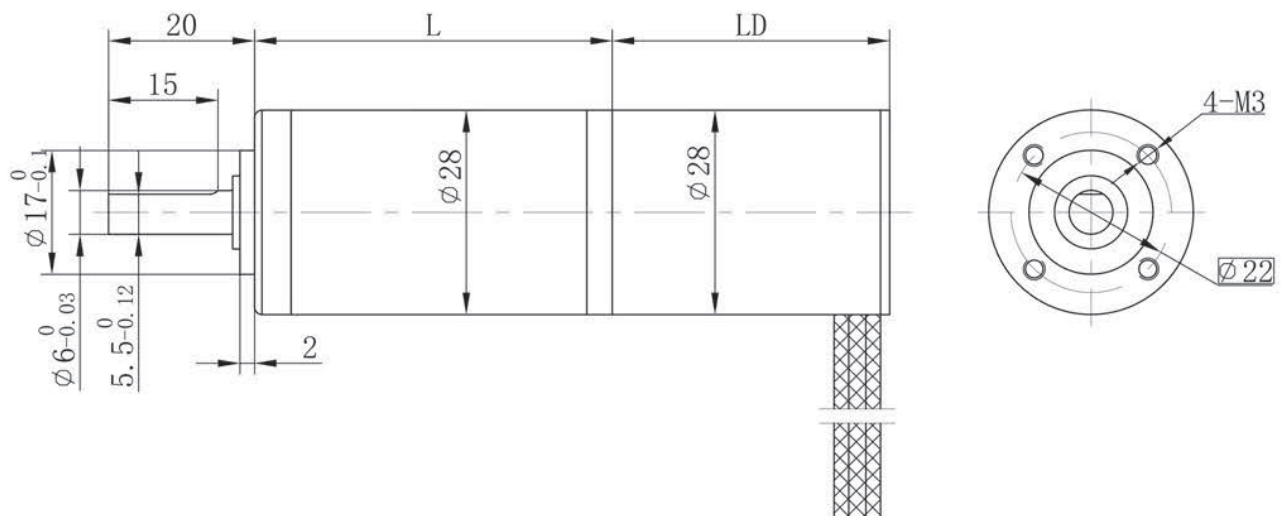
28mm OD Planetary Gearbox, Permissible Load Range: 0.3N.m~3.0N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
绿	红	黑	黄	蓝	橙	棕	白
Green	Red	Black	Yellow	Blue	Orange	Brown	White
UL1007				26AWG			

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Reak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL28BL38-2460	4	3	24	6000	4350	10	4.5	30	1.0	19	7.8
FL28BL77-2460	4	3	24	6000	4000	50	20	150	3	4.2	2.2

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL28BL38-2460 无刷直流电机(LD=38mm) FL28BL38-2460 DC Brushless Motor(LD=38mm)

减速比 Reduction ratio		3.7	5.2	14	19	27	35	51	71	100	139	189	264	369	516	720
减速级数 Number of gear trains		1	1	2	2	2	2	3	3	3	3	4	4	4	4	4
减速器长度(L) Length(L)	mm	29.0	29.0	36.1	36.1	36.1	36.1	43.0	43.0	43.0	43.0	49.9	49.9	49.9	49.9	49.9
额定转速 Rated speed	r/min	1173	840	311	229	161	124	85	61	44	31	23	17	12	8.4	6.0
额定转矩 Rated torque	N.m	0.033	0.047	0.11	0.15	0.22	0.28	0.37	0.52	0.73	1.0	1.2	1.7	2.4	3	3
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.0	1.0	3.5	3.5	3.5	3.5	7.5	7.5	7.5	7.5	9.0	9.0	9.0	9.0	9.0

配置 FL28BL77-2460 无刷直流电机 (LD=77mm) FL28BL77-2460 DC Brushless Motor(LD=77mm)

减速比 Reduction ratio		3.7	5.2	14	19	27	35	51	71	100	139
减速级数 Number of gear trains		1	1	2	2	2	2	3	3	3	3
减速器长度(L) Length(L)	mm	29.0	29.0	36.1	36.1	36.1	36.1	43.0	43.0	43.0	43.0
空载转速 No-load speed	r/min	1617	1158	429	316	222	171	118	85	60	43
额定转速 Rated speed	r/min	1080	769	285	210	148	114	78	56	40	2.9
额定转矩 Rated torque	N.m	0.17	0.23	0.57	0.77	1.1	1.4	1.9	2.6	3	3
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.0	1.0	3.5	3.5	3.5	3.5	7.5	7.5	7.5	7.5

无刷直流行星齿轮减速电机（内齿圈材质：金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL33BL/32JXE30K

Φ32行星减速器，允许转矩范围：0.3N.m~3.0N.m

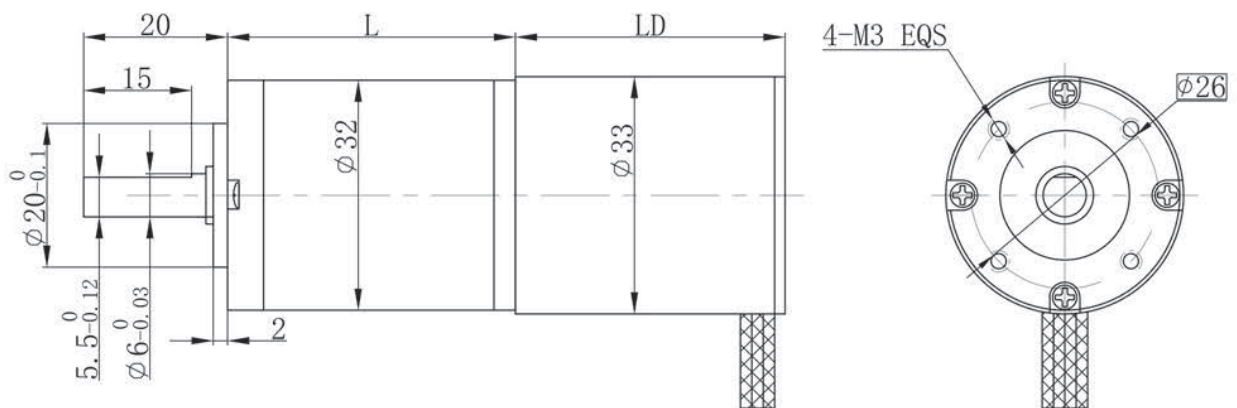
32mm OD Planetary Gearbox, Permissible Load Range: 0.3N.m~3.0N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
绿	红	黑	黄	蓝	橙	棕	白
Green	Red	Black	Yellow	Blue	Orange	Brown	White
UL1007				26AWG			

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Reak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL33BL38-2445	4	3	24	4500	3000	22	7	66	0.64	12.8	7
FL33BL80-2490	4	3	24	9000	7800	50	40	350	11	0.86	0.55

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL33BL38-2445 无刷直流电机 (LD=38mm) FL33BL38-2445 DC Brushless Motor(LD=38mm)

减速比 Reduction ratio			3.7	5.2	14	19	27	35	51	71	100	139	189	264	369
减速级数 Number of gear trains			1	1	2	2	2	2	3	3	3	3	4	4	4
减速器长度(L) Length(L)	mm		25.7	25.7	32.8	32.8	32.8	32.8	39.7	39.7	39.7	39.7	46.6	46.6	46.6
空载转速 No-load speed	r/min		1213	869	321	237	167	129	88	63	45	32	24	17	12
额定转速 Rated speed	r/min		809	579	214	158	111	86	59	42	30	22	16	11	8.1
额定转矩 Rated torque	N.m		0.073	0.10	0.25	0.34	0.48	0.62	0.82	1.1	1.6	2.2	2.7	3	3
最大瞬间允许负载 Max. permissible load in a short time	N.m		1.0	1.0	3.5	3.5	3.5	3.5	7.5	7.5	7.5	7.5	9.0	9.0	9.0

配置 FL33BL80-2490 无刷直流电机(LD=80mm) (FL33BL80-2490 DC Brushless Motor) (LD=80mm)

减速比 Reduction ratio			3.7	5.2	14	19	27	35	51	71	100	139
减速级数 Number of gear trains			1	1	2	2	2	2	3	3	3	3
减速器长度(L) Length(L)	mm		25.7	25.7	32.8	32.8	32.8	32.8	39.7	39.7	39.7	39.7
空载转速 No-load speed	r/min		2425	1737	643	474	333	257	176	127	90	65
额定转速 Rated speed	r/min		2102	1506	557	411	289	223	153	110	78	56
额定转矩 Rated torque	N.m		0.17	0.23	0.57	0.77	1.1	1.4	1.9	2.5	3	3
最大瞬间允许负载 Max. permissible load in a short time	N.m		1.0	1.0	3.5	3.5	3.5	3.5	7.5	7.5	7.5	7.5

无刷直流行星齿轮减速电机（内齿圈材质：金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

36RBL/36JXE30K

Φ36行星减速器，允许转矩范围：0.3N.m~3.0N.m

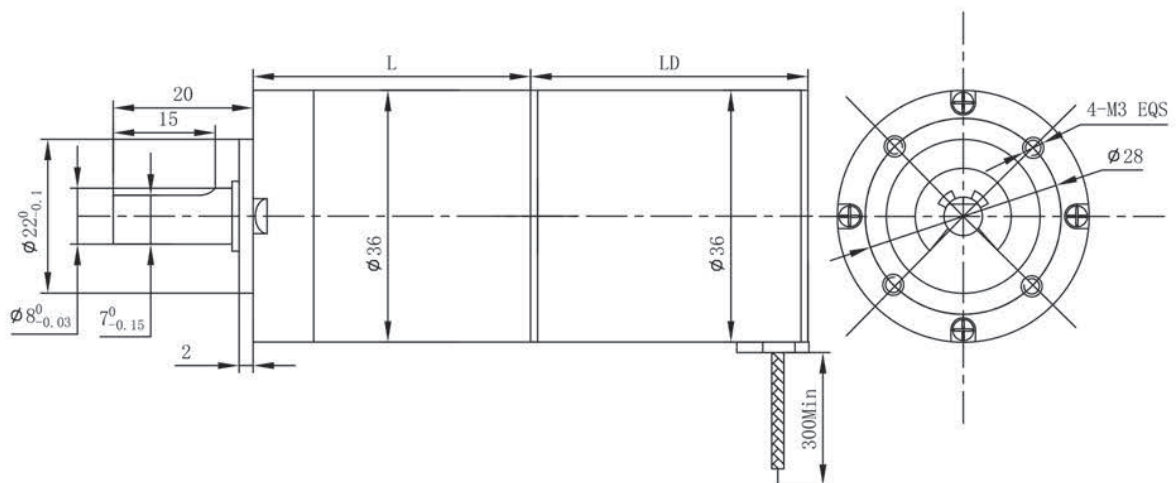
36mm OD Planetary Gearbox, Permissible Load Range: 0.3N.m~3.0N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
黄 Yellow	红 Red	黑 Black	红 Red	蓝 Blue	绿 Green	白 White	黑 Black
UL1061	AWG20/24			UL1061	AWG26		

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Peak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL36RBLS40-24V-4818A	4	3	24	7000	4800	36	18	108	3.7	2.4	2.1
FL36RBLS57-24V-4524A	4	3	24	5800	4500	50	24	150	4.1	2	2.0

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL36RBLS40-24V-4818A 无刷直流电机 (长度 LD=40) FL36RBLS40-24V-4818A DC Brushless Motor (LD=40)

减速比 Reduction ratio		3.7	5.2	14	19	27	35	51	71	96	115	139	181	219
减速级数 Number of gear trains		1	1	2	2	2	2	3	3	3	3	3	4	4
减速器长度(L) Length(L)	mm	31.0	31.0	40.1	40.1	40.1	40.1	49.0	49.0	49.0	49.0	49.0	57.9	57.9
空载转速 No-load speed	r/min	1887	1351	500	368	259	200	137	99	73	61	50	39	32
额定转速 Rated speed	r/min	1294	927	343	253	178	137	94	68	50	42	35	27	22
额定转矩 Rated torque	N.m	0.12	0.17	0.41	0.55	0.79	1.0	1.3	1.9	2.5	3	3	3	3
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.0	1.0	3.5	3.5	3.5	3.5	7.5	7.5	7.5	7.5	7.5	9	9

配置 FL36RBLS57-24V-4524A 无刷直流电机 (长度 LD=57) FL36RBLS57-24V-4524A DC Brushless Motor (LD=57)

减速比 Reduction ratio		3.7	5.2	14	19	27	35	51	71	96	115	139	181	219
减速级数 Number of gear trains		1	1	2	2	2	2	3	3	3	3	3	4	4
减速器长度(L) Length(L)	mm	31.0	31.0	40.1	40.1	40.1	40.1	49.0	49.0	49.0	49.0	49.0	57.9	57.9
空载转速 No-load speed	r/min	1563	1120	414	305	215	166	114	82	60	50	42	32	27
额定转速 Rated speed	r/min	1213	869	321	237	167	129	88	63	47	39	32	25	21
额定转矩 Rated torque	N.m	0.17	0.23	0.57	0.77	1.1	1.4	1.9	2.6	3	3	3	3	3
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.0	1.0	3.5	3.5	3.5	3.5	7.5	7.5	7.5	7.5	7.5	9	9

无刷直流行星齿轮减速电机（内齿圈材质：金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL42RBL/42JMG50K

Φ42行星减速器，允许转矩范围：0.5N.m~5.0N.m

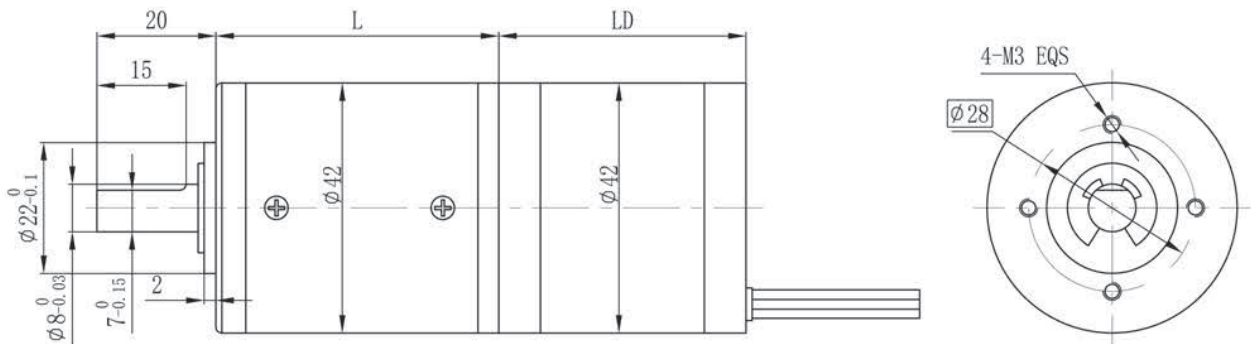
42mm OD Planetary Gearbox, Permissible Load Range: 0.5N.m~5.0N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
红 Red	棕 Brown	黑 Black	蓝 Blue	黄 Yellow	棕 Brown	红 Red	绿 Green
UL1007 AWG22			UL1007 AWG26				

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Peak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL42RBL30-2455	8	3	24	5500	4000	20	8.4	60	1.7	5.9	5.1
FL42RBL60-2454	8	3	24	5400	4200	56	25	170	4.4	1.6	1.94

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL42RBL30-2455 无刷直流电机 (LD=30mm) FL42RBL30-2455 DC Brushless Motor(LD=30mm)

减速比 Reduction ratio		3.8	4.9	15	19	24	56	71	91	116	212	271	346	442	565
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	4	4	4	4	4
减速器长度 (L) Length(L)	mm	35.2	35.2	45.7	45.7	45.7	56.0	56.0	56.0	56.0	66.3	66.3	66.3	66.3	66.3
空载转速 No-load speed	r/min	1440	1127	367	289	229	98	77	60	47	26	20	16	12	9.7
额定转速 Rated speed	r/min	1047	820	267	211	167	71	56	44	34	19	15	12	9.0	7.1
额定转矩 Rated torque	N.m	0.07	0.09	0.24	0.31	0.39	0.82	1.0	1.3	1.7	2.8	3.5	4.5	5	5
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.5	1.5	6	6	6	12	12	12	12	15	15	15	15	15

配置 FL42RBL60-2454 无刷直流电机(LD=60mm) FL42RBL60-2454 DC Brushless Motor(LD=60mm)

减速比 Reduction ratio		3.8	4.9	15	19	24	56	71	91	116	212
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	4
减速器长度(L) Length(L)	mm	35.2	35.2	45.7	45.7	45.7	56.0	56.0	56.0	56.0	66.3
空载转速 No-load speed	r/min	1414	1107	360	264	225	96	76	59	47	25
额定转速 Rated speed	r/min	1099	861	280	221	175	75	59	46	36	20
额定转矩 Rated torque	N.m	0.19	0.25	0.68	0.86	1.1	2.3	2.9	3.7	4.7	5
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.5	1.5	6	6	6	12	12	12	12	15

无刷直流行星齿轮减速电机 (内齿圈材质: 金属)

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL42RBL85/42JM100K

Φ42行星减速器, 允许转矩范围: 1N.m~10N.m

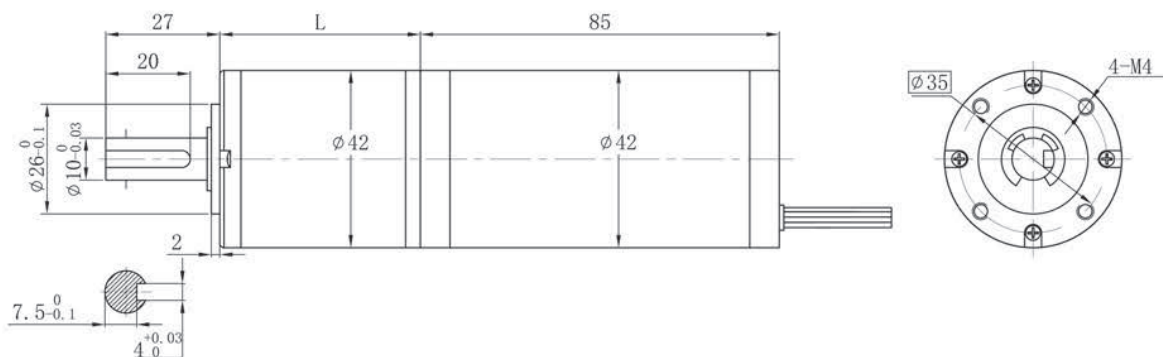
42mm OD Planetary Gearbox, Permissible Load Range: 1N.m~10N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
红 Red	棕 Brown	黑 Black	蓝 Blue	黄 Yellow	棕 Brown	红 Red	绿 Green
UL1007 AWG22			UL1007 AWG26				

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Peak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL42RBL85-2454	8	3	24	5400	4000	150	62	450	11.4	0.71	0.86

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL42RBL85-2454 无刷直流电机 FL42RBL85-2454 DC Brushless Motor

减速比 Reduction ratio		3.7	5.2	14	19	27	49	59	68	82	95	115
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	3	3
减速器长度(L) Length(L)	mm	31.5	31.5	42.1	42.1	42.1	52.5	52.5	52.5	52.5	52.5	52.5
空载转速 No-load speed	r/min	1456	1042	386	284	200	110	92	79	66	57	47
额定转速 Rated speed	r/min	1078	772	286	211	148	82	68	59	49	42	35
额定转矩 Rated torque	N.m	0.50	0.70	1.7	2.3	3.3	5.4	6.5	7.5	9.0	10	10
最大瞬间允许负载 Max. permissible load in a short time	N.m	3	3	12	12	12	25	25	25	25	25	25

无刷直流行星齿轮减速电机（内齿圈材质：金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL42RBL93/42JMG200K

Φ42行星减速器，允许转矩范围：2N.m~20N.m

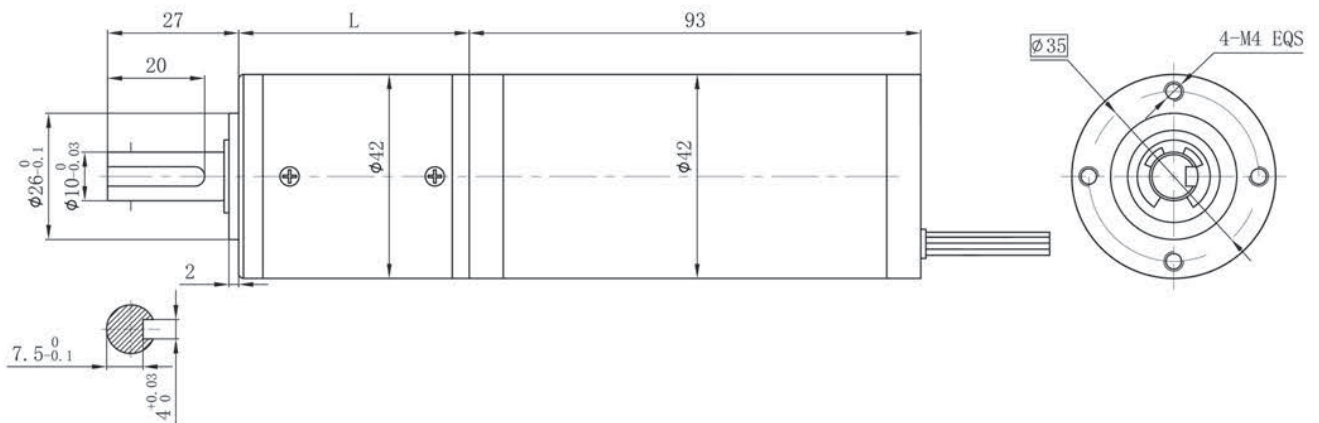
42mm OD Planetary Gearbox, Permissible Load Range: 0.5N.m~5.0N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
红	棕	黑	蓝	黄	棕	红	绿
Red	Brown	Black	Blue	Yellow	Brown	Red	Green
UL1007 AWG22			UL1007 AWG26				

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Reak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL42RBL93-2478	8	3	24	7800	6300	115	76	350	11.8	0.325	0.36

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL42RBL93-2478 无刷直流电机 FL42RBL93-2478 DC Brushless Motor

减速比 Reduction ratio		4.44	17	22	65	83	106	247	316	403
减速级数 Number of gear trains		1	2	2	2	3	3	3	3	3
减速器长度(L) Length(L)	mm	37.5	48.0	48.0	48.0	58.3	58.3	58.3	58.3	58.3
空载转速 No-load speed	r/min	1755	459	355	120	94	74	32	25	19
额定转速 Rated speed	r/min	1418	371	286	97	76	59	26	20	16
额定转矩 Rated torque	N.m	0.46	1.58	2.1	5.5	7.0	8.9	18	20	20
最大瞬间允许负载 Max. permissible load in a short time	N.m	6	25	25	25	50	50	50	50	50

无刷直流行星齿轮减速电机（内齿圈材质：金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL42BLS40/42JMG50K

FL42BLA40/42JMG50K

FL42BLB40/42JMG50K

Φ42行星减速器，允许转矩范围：0.5N.m~5.0N.m

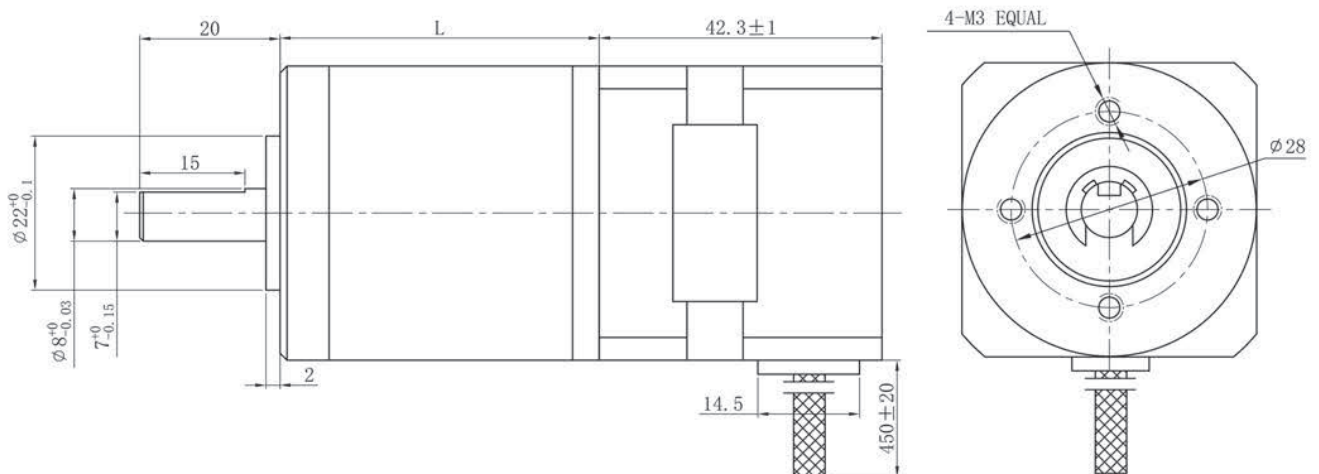
42mm OD Planetary Gearbox, Permissible Load Range: 0.5N.m~5.0N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
黄	红	黑	红	蓝	绿	白	黑
Yellow	Red	Black	Red	Blue	Green	White	Black
UL1430 AWG20			UL1430 AWG26				

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Peak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL42BLS40-2465	8	3	24	6500	4000	62.5	26	190	5.4	1.5	2.1
FL42BLA40-2442	10	3	24	4200	3000	70	22	210	3.9	2.6	1.83
FL42BLB40-2440	6	3	24	4000	3000	64	20	192	3.5	3.6	1.8

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL42BLS40-2465 无刷直流电机 (FL42BLS40-2465 DC Brushless Motor)

减速比 Reduction ratio		3.8	4.9	15	19	24	56	71	91	116	212	271
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	4	4
减速器长度(L) Length(L)	mm	35.2	35.2	45.7	45.7	45.7	56.0	56.0	56.0	56.0	66.3	66.3
额定转速 Rated speed	r/min	1047	820	267	211	167	71	56	44	34	19	15
额定转矩 Rated torque	N.m	0.21	0.27	0.76	0.96	1.2	2.6	3.2	4.2	5	5	5
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.5	1.5	6	6	6	12	12	12	12	15	15

配置 FL42BLA40-2442 无刷直流电机 粘结稀土磁钢 (FL42BLA40-2442 DC Brushless Motor)

减速比 Reduction ratio		3.8	4.9	15	19	24	56	71	91	116	212	271
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	4	4
减速器长度(L) Length(L)	mm	35.2	35.2	45.7	45.7	45.7	56.0	56.0	56.0	56.0	66.3	66.3
额定转速 Rated speed	r/min	785	615	200	158	125	54	42	33	26	14	11
额定转矩 Rated torque	N.m	0.24	0.31	0.85	1.1	1.4	2.9	3.6	4.7	5	5	5
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.5	1.5	6	6	6	12	12	12	12	15	15

配置 FL42BLB40-2442 无刷直流电机 烧结稀土磁钢 (FL42BLB40-2442 DC Brushless Motor)

减速比 Reduction ratio		3.8	4.9	15	19	24	56	71	91	116	212	271
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	4	4
减速器长度(L) Length(L)	mm	35.2	35.2	45.7	45.7	45.7	56.0	56.0	56.0	56.0	66.3	66.3
额定转速 Rated speed	r/min	785	615	200	158	125	54	42	33	26	14	11
额定转矩 Rated torque	N.m	0.22	0.28	0.78	0.98	1.2	2.6	3.3	4.3	5	5	5
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.5	1.5	6	6	6	12	12	12	12	15	15

无刷直流行星齿轮减速电机（内齿圈材质：金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

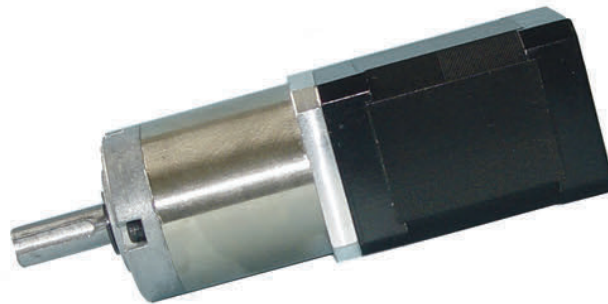
FL42BLS60/42JM100K

FL42BLA60/42JM100K

FL42BLB60/42JM100K

Φ42行星减速器，允许转矩范围：1N.m~10N.m

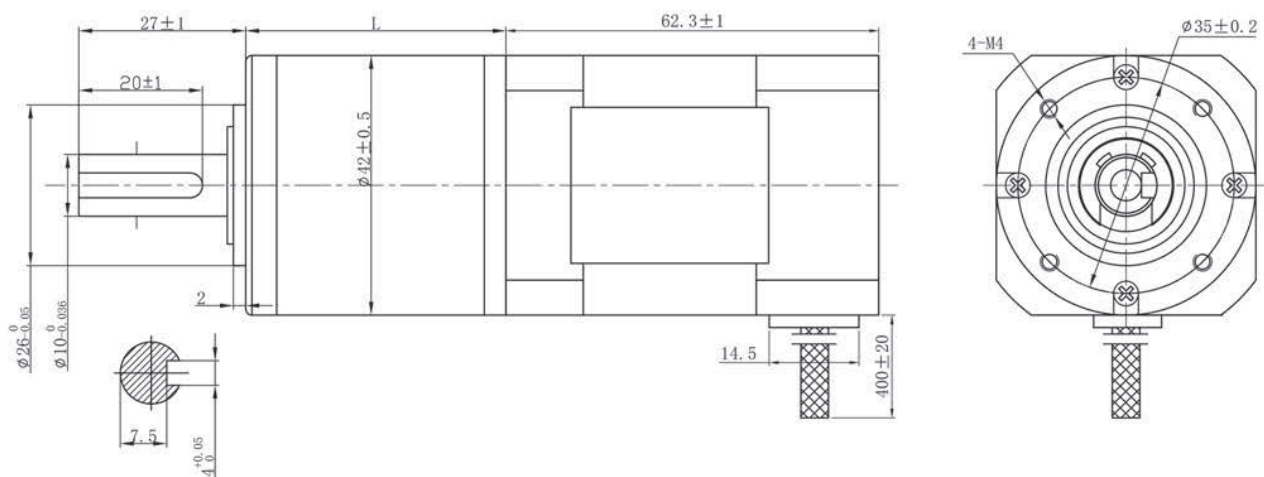
42mm OD Planetary Gearbox, Permissible Load Range: 1N.m~10N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
黄	红	黑	红	蓝	绿	白	黑
Yellow	Red	Black	Red	Blue	Green	White	Black
UL1430 AWG20			UL1430 AWG26				

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Reak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL42BLS60-2460	8	3	24	6000	4000	125	52.5	380	10.6	0.8	1.2
FL42BLA60-2440	10	3	24	4000	3000	160	50	480	8	1.1	0.96
FL42BLB60-2440	6	3	24	4000	3000	170	53.5	510	9	1.05	0.75

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL42BLS60-2460 无刷直流电机 FL42BLS60-2460 DC Brushless Motor

减速比 Reduction ratio		3.71	5.18	14	19	27	49	59	58	82	95	115
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	3	3
减速器长度(L) Length(L)	mm	31.5	31.5	42.1	42.1	42.1	52.5	52.5	52.5	52.5	52.5	52.5
额定转速 Rated speed	r/min	1078	772	286	211	148	82	68	59	49	42	35
额定转矩 Rated torque	N.m	0.42	0.58	1.4	1.9	2.7	4.4	5.3	6.2	7.4	8.7	10
最大瞬间允许负载 Max. permissible load in a short time	N.m	3	3	12	12	12	25	25	25	25	25	25

配置 FL42BLA60-2440 无刷直流电机 FL42BLA60-2440 DC Brushless Motor

减速比 Reduction ratio		3.71	5.18	14	19	27	49	59	58	82	95	115
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	3	3
减速器长度(L) Length(L)	mm	31.5	31.5	42.1	42.1	42.1	52.5	52.5	52.5	52.5	52.5	52.5
额定转速 Rated speed	r/min	809	579	214	158	111	61	51	44	37	32	26
额定转矩 Rated torque	N.m	0.53	0.74	1.8	2.4	3.5	5.7	6.8	7.9	9.5	10	10
最大瞬间允许负载 Max. permissible load in a short time	N.m	3	3	12	12	12	25	25	25	25	25	25

配置 FL42BLB60-2440 无刷直流电机 FL42BLB60-2440 DC Brushless Motor

减速比 Reduction ratio		3.71	5.18	14	19	27	49	59	58	82	95	115
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	3	3
减速器长度(L) Length(L)	mm	31.5	31.5	42.1	42.1	42.1	52.5	52.5	52.5	52.5	52.5	52.5
额定转速 Rated speed	r/min	809	579	214	158	111	61	51	44	37	32	26
额定转矩 Rated torque	N.m	0.56	0.79	1.9	2.6	3.7	6.1	7.3	8.4	10	10	10
最大瞬间允许负载 Max. permissible load in a short time	N.m	3	3	12	12	12	25	25	25	25	25	25

无刷直流行星齿轮减速电机（内齿圈材质：金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL42BLS/42JMG200K

FL42BLA/42JMG200K

FL42BLB/42JMG200K

Φ42行星减速器，允许转矩范围：0.5N.m~5.0N.m

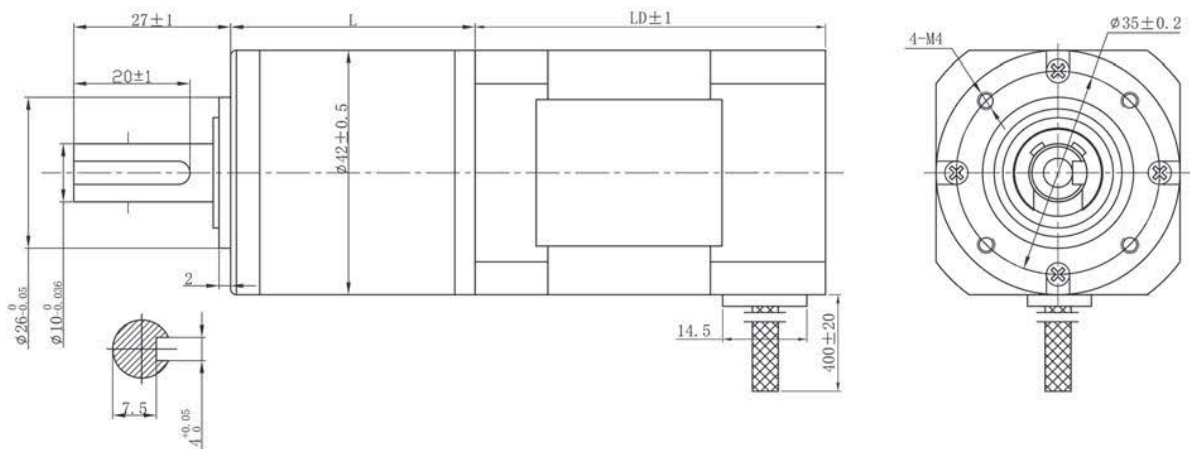
42mm OD Planetary Gearbox, Permissible Load Range: 0.5N.m~5.0N.m

接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
黄 Yellow	红 Red	黑 Black	红 Red	蓝 Blue	绿 Green	白 White	黑 Black
UL1430 AWG20			UL1430 AWG26				



外形和安装尺寸 (Dimensions)



无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值扭矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage VDC	No-load speed r/min	Rated speed r/min	Rated torque mN.m	Rated power W	Reak torque mN.m	Peak current A	Line to line resistance ohms	Line to line inductance mH
FL42BLS80-2461	8	3	24	6100	4000	185	77.5	560	14.6	0.43	0.71
FL42BLA80-2441	10	3	24	4100	3000	260	81	780	13	0.7	0.58
FL42BLB80-2437	6	3	24	3750	3000	300	94	900	14.5	0.54	0.46
FL42BLS100-2463	8	3	24	6300	4000	250	105	750	21.5	0.3	0.5
FL42BLA100-2440	10	3	24	4000	3000	360	113	1080	17.5	0.48	0.44
FL42BLB100-2437	6	3	24	3700	3000	440	138	1320	21	0.4	0.3

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL42BLS80-2461 无刷直流电机 (LD=82.3mm) FL42BLS80-2461 DC Brushless Motor (LD=82.3mm)

减 速 比 Reduction ratio		4.444	17	22	65	83	106	247
减速级数 Number of gear trains		1	2	2	3	3	3	4
减速器长度(L) Length(L)	mm	37.5	48.0	48.0	58.3	58.3	58.3	68.6
额定转速 Rated speed	r/min	900	235	182	62	48	38	16
额定转矩 Rated torque	N.m	0.47	2.5	3.3	8.7	11	14	20
最大瞬间允许负载 Max. permissible load in a short time	N.m	6	25	25	50	50	50	60

配置 FL42BLA80-2441 无刷直流电机 (LD=82.3mm) FL42BLA80-2441 DC Brushless Motor (LD=82.3mm)

减 速 比 Reduction ratio		4.444	17	22	65	83	106	247
减速级数 Number of gear trains		1	2	2	3	3	3	4
减速器长度(L) Length(L)	mm	37.5	48.0	48.0	58.3	58.3	58.3	68.6
额定转速 Rated speed	r/min	675	176	136	46	36	28	12
额定转矩 Rated torque	N.m	1.0	3.6	4.6	12	16	20	20
最大瞬间允许负载 Max. permissible load in a short time	N.m	6	25	25	50	50	50	60

配置 FL42BLB80-2437 无刷直流电机 (LD=82.3mm) FL42BLB80-2437 DC Brushless Motor (LD=82.3mm)

减 速 比 Reduction ratio		4.444	17	22	65	83	106	247
减速级数 Number of gear trains		1	2	2	3	3	3	4
减速器长度(L) Length(L)	mm	37.5	48.0	48.0	58.3	58.3	58.3	68.6
额定转速 Rated speed	r/min	675	176	136	46	36	28	12
额定转矩 Rated torque	N.m	1.2	4.1	5.4	14	18	20	20
最大瞬间允许负载 Max. permissible load in a short time	N.m	6	25	25	50	50	50	60

配置 FL42BLS100-2463 无刷直流电机 (LD=102.3mm) FL42BLS100-2463 DC Brushless Motor(LD=102.3mm)

减 速 比 Reduction ratio		4.444	17	22	65	83	106
减速级数 Number of gear trains		1	2	2	3	3	3
减速器长度(L) Length(L)	mm	37.5	48.0	48.0	58.3	58.3	58.3
额定转速 Rated speed	r/min	900	235	182	62	48	38
额定转矩 Rated torque	N.m	1.0	3.4	4.5	12	15	19
最大瞬间允许负载 Max. permissible load in a short time	N.m	6	25	25	50	50	50

配置 FL42BLA100-2440 无刷直流电机 (LD=102.3mm) FL42BLA100-2440 DC Brushless Motor(LD=102.3mm)

减 速 比 Reduction ratio		4.444	17	22	65	83	106
减速级数 Number of gear trains		1	2	2	3	3	3
减速器长度(L) Length(L)	mm	37.5	48.0	48.0	58.3	58.3	58.3
额定转速 Rated speed	r/min	675	176	136	46	36	28
额定转矩 Rated torque	N.m	1.4	5.0	6.4	17	20	20
最大瞬间允许负载 Max. permissible load in a short time	N.m	6	25	25	50	50	50

无刷直流行星齿轮减速电机（内齿圈材质：金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL57BL/56JM300K

Φ57行星减速器, 允许转矩范围: 3N.m~30N.m

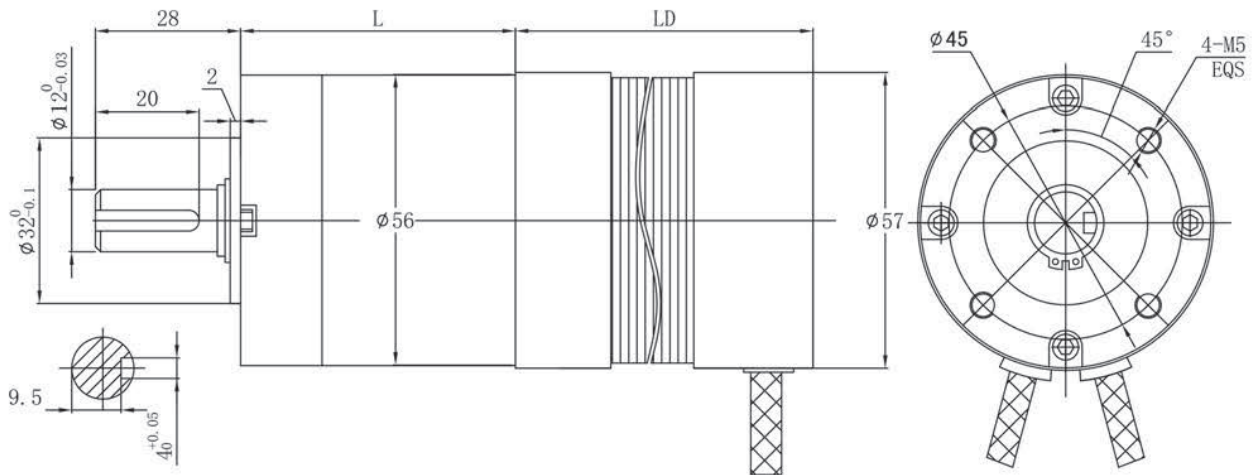
57mm OD Planetary Gearbox, Permissible Load Range: 3N.m~30N.m

接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
黄 Yellow	红 Red	黑 Black	红 Red	蓝 Blue	绿 Green	白 White	黑 Black
UL1430 AWG20		UL1430 AWG26					



外形和安装尺寸 (Dimensions)



无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数 Number of poles	相数 Number of phase	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值扭矩	峰值电流	电阻	电感
			VDC	r/min	r/min	N.m	W	N.m	A	Line to line resistance ohms	Line to line inductance mH
FL57BL54-3650	4	3	36	5000	4000	0.11	46	0.39	6.8	1.63	4.4
FL57BL74-3650	4	3	36	5000	4000	0.22	99	0.7	12	0.64	2
FL57BLA54-3650	6	3	36	5000	4000	0.2	83	0.6	14	0.87	1

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL57BLS54-3650 无刷直流电机 (LD=53.6mm)

FL57BLS54-3650 DC Brushless Motor(LD=53.6mm)

减速比 Reduction ratio	3.60	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154	187	220
减速级数 Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4	4
减速器长度(L) Length(L) mm	37.8	37.8	37.8	49.5	49.5	49.5	49.5	49.5	60.8	60.8	60.8	60.8	60.8	60.8	71.9	71.9	71.9
额定转速 Rated speed r/min	111	941	750	308	267	222	174	143	93	77	66	56	42	33	26	21	18
额定转矩 Rated torque N.m	0.36	0.42	0.53	1.2	1.3	1.6	2.0	2.5	3.5	4.2	4.9	5.8	7.7	9.7	11	13	16
最大瞬间允许负载 N.m Max. permissible load in a short time	9	9	9	36	36	36	36	36	72	72	72	72	72	72	90	90	90

配置 FL57BLS74-3650 无刷直流电机 (LD=73.6mm)

FL57BLS74-3650 DC Brushless Motor(LD=73.6mm)

减速比 Reduction ratio	3.60	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154	187	220
减速级数 Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4	4
减速器长度(L) Length(L) mm	37.8	37.8	37.8	49.5	49.5	49.5	49.5	49.5	60.8	60.8	60.8	60.8	60.8	60.8	71.9	71.9	71.9
额定转速 Rated speed r/min	111	941	750	308	267	222	174	143	93	77	66	56	42	33	26	21	18
额定转矩 Rated torque N.m	0.71	0.84	1.1	2.3	2.7	3.2	4.1	5.0	6.9	8.4	9.8	12	15	19	22	27	30
最大瞬间允许负载 N.m Max. permissible load in a short time	9	9	9	36	36	36	36	36	72	72	72	72	72	72	90	90	90

配置 FL57BLA54-3650 无刷直流电机 (LD=53.6mm)

FL57BLA54-3650 DC Brushless Motor(LD=53.6mm)

减速比 Reduction ratio	3.60	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154	187	220
减速级数 Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4	4
减速器长度(L) Length(L) mm	37.8	37.8	37.8	49.5	49.5	49.5	49.5	49.5	60.8	60.8	60.8	60.8	60.8	60.8	71.9	71.9	71.9
额定转速 Rated speed r/min	111	941	750	308	267	222	174	143	93	77	66	56	42	33	26	21	18
额定转矩 Rated torque N.m	0.65	0.77	1.0	2.1	2.4	2.9	3.7	4.5	6.3	7.6	8.9	11	14	18	20	24	29
最大瞬间允许负载 N.m Max. permissible load in a short time	9	9	9	36	36	36	36	36	72	72	72	72	72	72	90	90	90

无刷直行星齿轮减速电机（内齿圈材质：金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL57BL/56JM450K

Φ57行星减速器，允许转矩范围：4N.m~45N.m

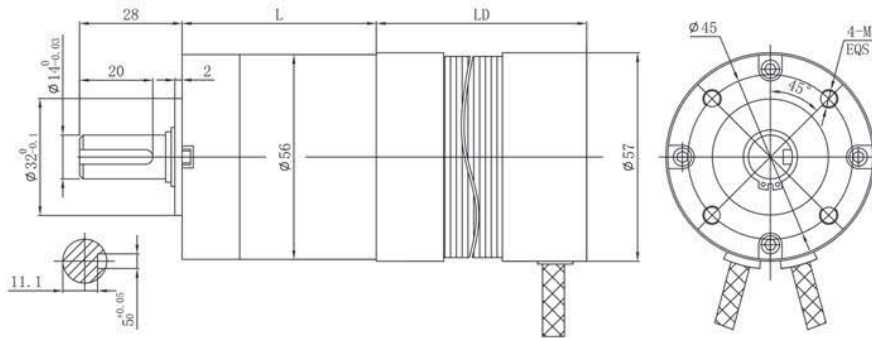
57mm OD Planetary Gearbox, Permissible Load Range: 4N.m~45N.m

接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
黄 Yellow	红 Red	黑 Black	红 Red	蓝 Blue	绿 Green	白 White	黑 Black
UL1332 AWG18			UL1430 AWG26				



外形和安装尺寸 (Dimensions)



无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage VDC	No-load speed r/min	Rated speed r/min	Rated torque N.m	Rated power W	Peak torque N.m	Peak current A	Line to line resistance ohms	Line to line inductance mH
FL57BLA74-3650	6	3	36	5000	4000	0.4	166	1.2	27	0.38	0.55
FL57BLA94-3650	6	3	36	5000	4000	0.6	249	1.8	42	0.25	0.3
FL57BLA114-3650	6	3	36	5000	4000	0.8	332	2.4	53	0.21	0.25
FL57BL94-3655	4	3	36	5500	4000	0.33	138	1.0	16	0.45	1.5
FL57BL114-3650	4	3	36	5500	4000	0.44	184	1.32	21	0.33	0.95

无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL57BLA74-3650 无刷直流电机 (LD=73.6mm)

FL57BLA74-3650 DC Brushless Motor (LD=73.6mm)

减速比 Reduction ratio	3.60	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154	187	220
减速级数 Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4	4
减速器长度(L) Length(L) mm	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2	67.2	67.2	80.6	80.6	80.6
空载转速 No-load speed r/min	1389	1176	938	385	333	278	217	179	116	96	82	69	52	41	32	27	23
额定转速 Rated speed r/min	111	941	750	308	267	222	174	143	93	77	66	56	42	33	26	21	18
额定转矩 Rated torque N.m	1.3	1.5	1.9	4.2	4.9	5.8	7.5	9.1	13	15	18	21	28	35	40	45	45
最大瞬间允许负载 Max. permissible load in a short time N.m	12	12	12	36	36	36	36	36	72	72	72	72	72	72	90	90	90

配置 FL57BLA94-3650 无刷直流电机 (LD=93.6mm)

FL57BLA94-3650 DC Brushless Motor (LD=93.6mm)

减速比 Reduction ratio	3.60	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121
减速级数 Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3
减速器长度(L) Length(L) mm	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2	67.2	67.2
空载转速 No-load speed r/min	1389	1176	938	385	333	278	217	179	116	96	82	69	52	41
额定转速 Rated speed r/min	111	941	750	308	267	222	174	143	93	77	66	56	42	33
额定转矩 Rated torque N.m	1.9	2.3	2.9	6.3	7.3	8.7	11	14	19	23	27	32	42	45
最大瞬间允许负载 Max. permissible load in a short time N.m	12	12	12	36	36	36	36	36	72	72	72	72	72	72

配置 FL57BLA114-3650 无刷直流电机 (LD=113.6mm)

FL57BLA114-3650 DC Brushless Motor (LD=113.6mm)

减速比 Reduction ratio	3.60	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121
减速级数 Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3
减速器长度(L) Length(L) mm	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2	67.2	67.2
空载转速 No-load speed r/min	1389	1176	938	385	333	278	217	179	116	96	82	69	52	41
额定转速 Rated speed r/min	111	941	750	308	267	222	174	143	93	77	66	56	42	33
额定转矩 Rated torque N.m	2.6	3.1	3.8	8.4	9.7	12	15	18	25	30	36	42	45	45
最大瞬间允许负载 Max. permissible load in a short time N.m	12	12	12	36	36	36	36	36	72	72	72	72	72	72

配置 FL57BL94-3655 无刷直流电机 (LD=93.6mm)

FL57BLS94-3655 DC Brushless Motor (LD=93.6mm)

减速比 Reduction ratio	3.60	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154	187	220
减速级数 Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4	4
减速器长度(L) Length(L) mm	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2	67.2	67.2	80.6	80.6	80.6
空载转速 No-load speed r/min	1528	1294	1032	423	367	306	239	196	128	106	90	76	57	45	36	29	25
额定转速 Rated speed r/min	1111	941	750	308	267	222	174	143	93	77	66	56	42	33	26	21	18
额定转矩 Rated torque N.m	1.1	1.3	1.6	3.5	4.0	4.8	6.1	7.5	10	13	15	17	23	29	33	40	45
最大瞬间允许负载 Max. permissible load in a short time N.m	12	12	12	36	36	36	36	36	72	72	72	72	72	72	90	90	90

配置 FL57BL114-3650 无刷直流电机 (LD=113.6mm)

FL57BL114-3650 DC Brushless Motor (LD=113.6mm)

减速比 Reduction ratio	3.60	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154	187	220
减速级数 Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4	4
减速器长度(L) Length(L) mm	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2	67.2	67.2	80.6	80.6	80.6
空载转速 No-load speed r/min	1528	1294	1032	423	367	306	239	196	128	106	90	76	57	45	36	29	25
额定转速 Rated speed r/min	1111	941	750	308	267	222	174	143	93	77	66	56	42	33	26	21	18
额定转矩 Rated torque N.m	1.4	1.7	2.1	4.6	5.3	6.4	8.2	10	14	17	20	23	31	39	44	45	45
最大瞬间允许负载 Max. permissible load in a short time N.m	12	12	12	36	36	36	36	36	72	72	72	72	72	72	90	90	90

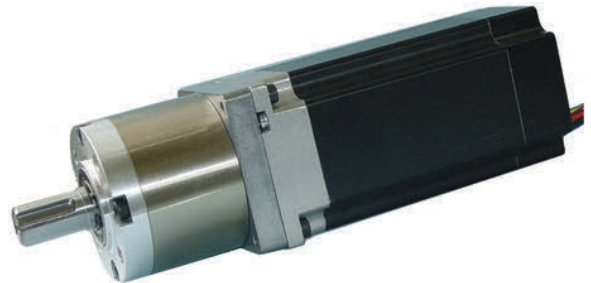
无刷直流行星齿轮减速电机（内齿圈材质：金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL57BLB/56JM450K

Φ57行星减速器，允许转矩范围：4N.m~45N.m

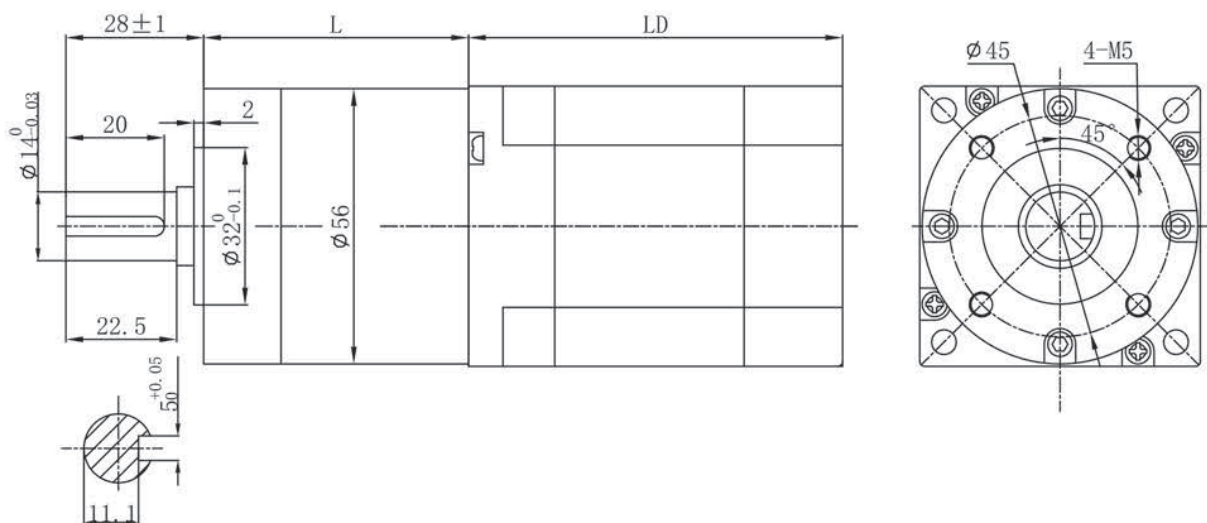
57mm OD Planetary Gearbox, Permissible Load Range: 4N.m~45N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
黄	红	黑	红	蓝	绿	白	黑
Yellow	Red	Black	Red	Blue	Green	White	Black
UL1430		AWG18		UL3265		AWG28	

外形和安装尺寸 (Dimensions)



无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值扭矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Peak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	N.m	W	N.m	A	ohms	mH
FL57BLB76-3644	8	3	36	4400	3000	0.3	94	0.9	12.3	1.2	1.2
FL57BLB96-3644	8	3	36	4400	3000	0.45	141	1.35	18.2	0.8	0.8
FL57BLB116-3644	8	3	36	4400	3000	0.6	188	1.8	23.8	0.5	0.6

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL57BLB76-3644 无刷直流电机 (LD=76mm) FL57BLB76-3644 DC Brushless Motor(LD=76mm)

减 速 比 Reduction ratio	3.60	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154	187	220
减速级数 Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4	4
减速器长度(L) Length(L) mm	37.8	37.8	37.8	49.5	49.5	49.5	49.5	49.5	60.8	60.8	60.8	60.8	60.8	60.8	71.9	71.9	71.9
额定转速 Rated speed r/min	833	706	563	231	200	167	130	107	70	58	49	42	31	25	19	16	14
额定转矩 Rated torque N.m	0.97	1.2	1.4	3.2	3.6	4.4	5.6	6.8	9.4	11	13	16	21	27	30	30	30
最大瞬间允许负载 N.m Max. permissible load in a short time	9	9	9	36	36	36	36	36	72	72	72	72	72	72	90	90	90

配置 FL57BLB96-3644 无刷直流电机 (LD=96mm) FL57BLB96-3644 DC Brushless Motor(LD=96mm)

减 速 比 Reduction ratio	3.60	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154
减速级数 Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4
减速器长度(L) Length(L) mm	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2	67.2	67.2	80.6
额定转速 Rated speed r/min	833	706	563	231	200	167	130	107	70	58	49	42	31	25	19
额定转矩 Rated torque N.m	1.5	1.7	2.2	4.7	5.5	6.6	8.4	10	14	17	20	24	32	40	45
最大瞬间允许负载 N.m Max. permissible load in a short time	12	12	12	36	36	36	36	36	72	72	72	72	72	72	90

配置 FL57BLB116-3644 无刷直流电机 (LD=116mm) FL57BLB116-3644 DC Brushless Motor (LD=116mm)

减 速 比 Reduction ratio	3.60	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121
减速级数 Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3
减速器长度(L) Length(L) mm	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2	67.2	67.2
额定转速 Rated speed r/min	833	706	563	231	200	167	130	107	70	58	49	42	31	25
额定转矩 Rated torque N.m	1.9	2.3	2.9	6.3	7.3	8.7	11	14	19	23	27	32	42	45
最大瞬间允许负载 N.m Max. permissible load in a short time	12	12	12	36	36	36	36	36	72	72	72	72	72	72

无刷直流行星齿轮减速电机 (内齿圈材质: 金属)

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL60BLS55/60JM300K

Φ57行星减速器, 允许转矩范围: 3N.m~30N.m

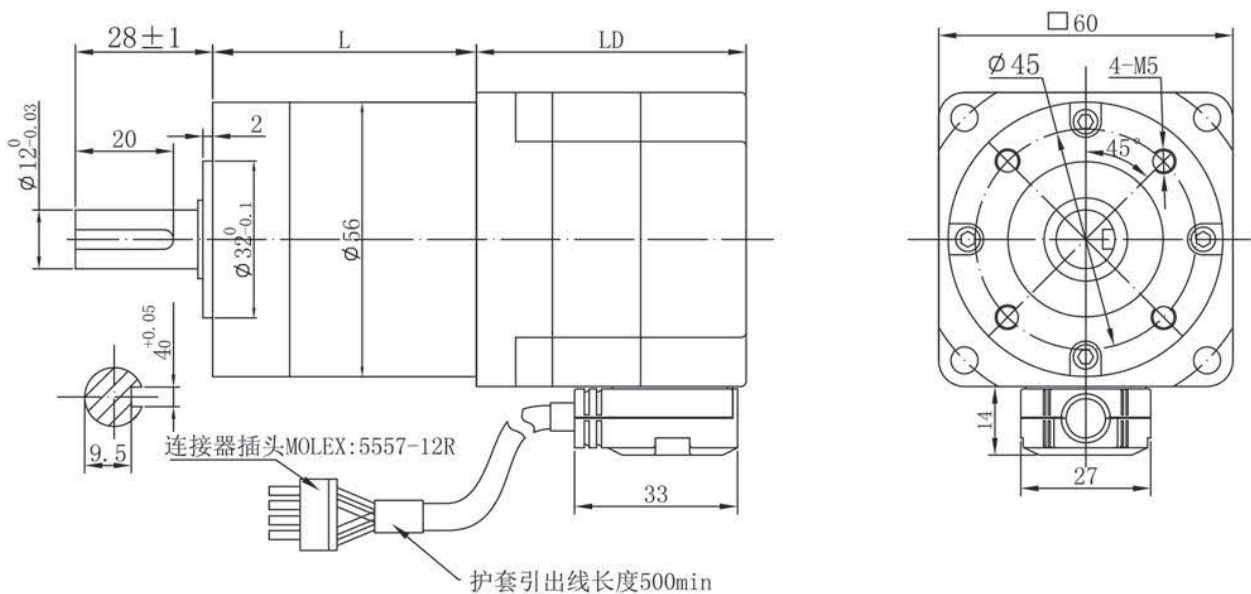
57mm OD Planetary Gearbox, Permissible Load Range: 3N.m~30N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
黄	红	黑	红	蓝	绿	白	黑
Yellow	Red	Black	Red	Blue	Green	White	Black
UL3266 AWG18			UL3266 AWG22				

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Reak torque	Peak current	Line to line resistance	Line to line inductance
			VAC	r/min	r/min	N.m	W	N.m	A	ohms	mH
FL60BLS55-11562	4	3	115	6200	5000	0.1	57	0.3	3.0	31	70

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL60BLS55-11560 无刷交流电机 FL60BLS55-11560 AC Brushless Motor

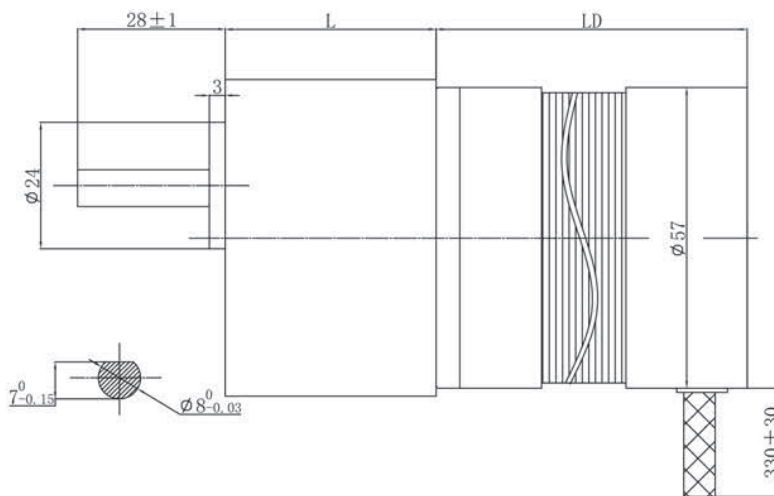
减速比 Reduction ratio	3.60	4.25	5.33	13	18	28	43	61	96	121	154	187	220	260	307	409	514
减速级数 Number of gear trains	1	1	1	2	2	2	3	3	3	3	4	4	4	4	4	4	4
减速器长度(L) Length(L) mm	37.8	37.8	37.8	49.5	49.5	49.5	60.8	60.8	60.8	60.8	71.9	71.9	71.9	71.9	71.9	71.9	71.9
空载转速 No-load speed r/min	1722	1459	1163	477	344	221	144	102	65	51	40	33	28	24	20	15	12
额定转速 Rated speed r/min	1389	1176	968	385	278	179	116	82	52	41	32	27	23	19	16	12	10

正齿轮箱无刷直流电机 Spur Geared BLDC Motor

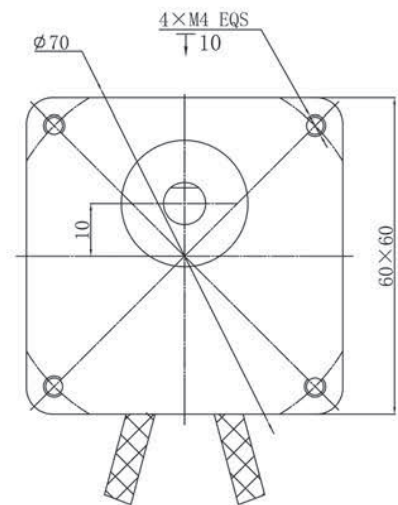
FL57BLS-60JB



外形图 (Dimensions)



接线方式 (Wire Diagram)



减速比(Ratio)	L2(mm)				L1(mm)
	FL57BLS01-60JB	FL57BLS02-60JB	FL57BLS03-60JB	FL57BLS04-60JB	
3---15	59	79	99	119	32
25---150					40

■ 齿轮箱参数 (Spur Gearbox Specifications)

减速比(Ratio)	3	5	7.5	10	12.5	15	25	30	50	75	90	100	120	150	
减速级数 (Number Of gear trains)	2				3				4						
额定转矩(Nominal torque)	5N.m														
极限转矩(Ultimate torque)	10N.m														
效率(Efficiency)	81%				73%				66%						

■ 正齿轮箱无刷直流电机参数 (Spur Geared BLDC Motor Specifications)

减速比(Ratio)		3	5	7.5	10	12.5	15	25	30	50	75	90	100	120
FL57BLS01-60JB	额定转矩(Rated torque) (N.m)	0.26	0.44	0.66	0.89	1.1 1	1.3 3	2	2.4	4	5.4	6.5	7.26	8.7
	额定转速(Rated speed) (RPM)	1333	800	533	400	320	266	160	133	80	53	44	40	33
	极限转矩(Ultimate torque) (N.m)	0.78	1.32	1.98	2.67	3.33	3.99	6	7.2	10				
FL57BLS02-60JB	额定转矩(Rated torque) (N.m)	0.54	0.89	1.33	1.78	2.22	2.67	4	4.8	8	---	---	---	---
	额定转速(Rated speed) (RPM)	1333	800	533	400	320	266	160	133	80	---	---	---	---
	极限转矩(Ultimate torque) (N.m)	1.62	2.67	3.99	5.34	6.66	8	10		---	---	---	---	
FL57BLS03-60JB	额定转矩(Rated torque) (N.m)	0.8	1.33	2	2.67	3.34	4	6	7.22	---	---	---	---	---
	额定转速(Rated speed) (RPM)	1333	800	533	400	320	266	160	133	---	---	---	---	---
	极限转矩(Ultimate torque) (N.m)	2.4	3.99	6	8	10				---	---	---	---	
FL57BLS04-60JB	额定转矩(Rated torque) (N.m)	1.06	1.85	2.67	3.56	4.45	5.34	8	9.6	---	---	---	---	---
	额定转速(Rated speed) (RPM)	1333	800	533	400	320	266	160	133	---	---	---	---	---
	极限转矩(Ultimate torque) (N.m)	3.18	5.55	8	10				---	---	---	---		

正齿轮箱无刷直流电机

Spur Geared BLDC Motor

FL60BLS55/60JB50K

60JB齿轮减速器, 允许转矩范围: 3N.m~30N.m

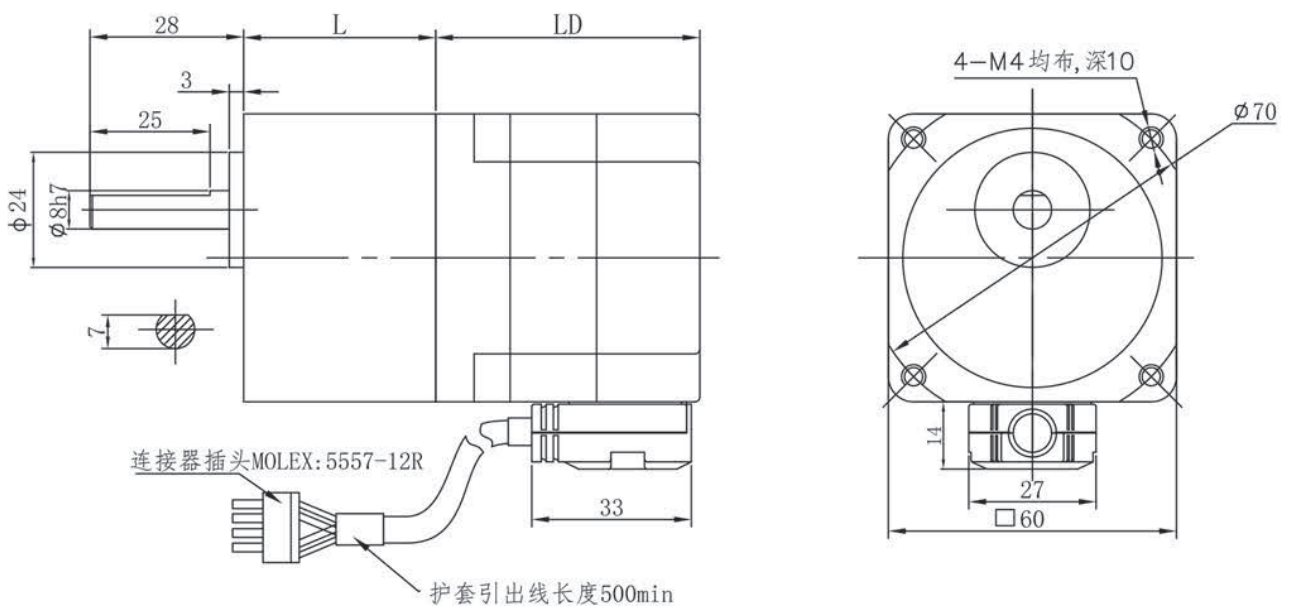
60JB Standard Gearbox, Permissible Load Range: 3N.m~30N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
黄	红	黑	红	蓝	绿	白	黑
Yellow	Red	Black	Red	Blue	Green	White	Black
UL3266 AWG18			UL3266 AWG22				

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Peak torque	Peak current	Line to line resistance	Line to line inductance
			VAC	r/min	r/min	N.m	W	N.m	A	ohms	mH
FL60BLS55-11575	4	3	115	7500	5000	0.1	57	0.3	3.0	31	70

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL60BLS55-11575 无刷交流电机 FL60BLB55-11575 AC Brushless Motor

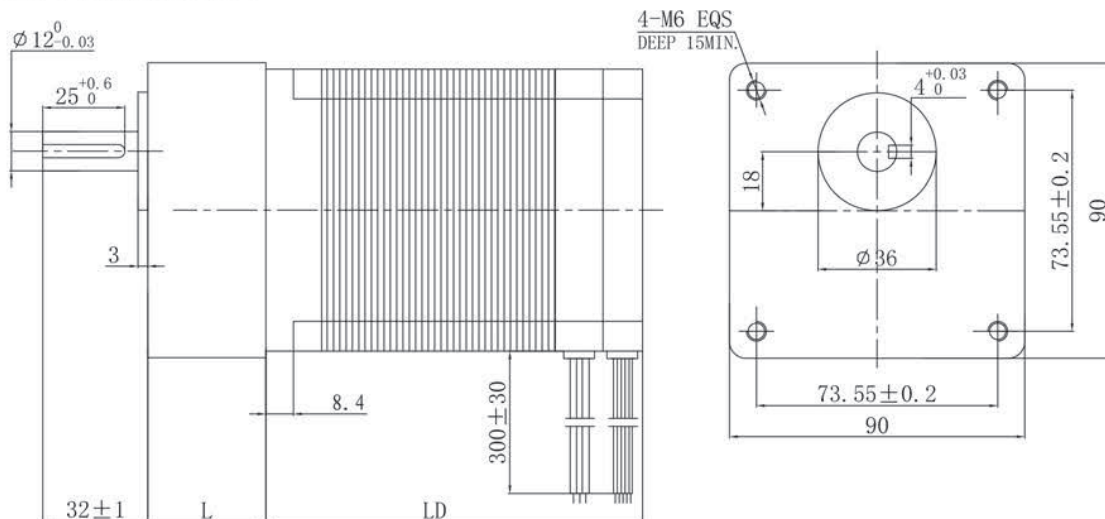
减速比 Reduction ratio	3	5	7.5	10	12.5	15	25	30	50	75	90
减速级数 Number of gear trains	2	2	2	2	2	2	3	3	3	4	4
减速器长度(L) Length(L) mm	32	32	32	32	32	32	40	40	40	40	40
空载转速 No-load speed r/min	2500	1500	1000	750	600	500	300	250	150	100	83
额定转速 Rated speed r/min	1667	1000	667	500	400	333	200	167	100	67	56
额定转矩 Rated torque N.m	0.24	0.41	0.61	0.81	1.0	1.2	1.8	2.2	3.7	4.9	5
最大瞬间允许负载 Max. permissible load in a short time N.m	2.5	2.5	2.5	2.5	2.5	2.5	5.0	5.0	5.0	10	10

正齿轮箱无刷直流电机 Spur Geared BLDC Motor

FL86BLS-90JB



外形图 (Dimensions)



减速比(Ratio)	L2(mm)				L1(mm)
	FL86BLS58-90JB	FL86BLS71-90JB	FL86BLS98-90JB	FL86BLS125-90JB	
3---15	72	86	112	139	42
18---120					60

齿轮箱参数 (Spur Gearbox Specifications)

减速比(Ratio)	3	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120
重量 (Weight)	1.3kg								1.5kg											
减速级数 (Number Of gear trains)	2						3						4							
额定转矩 (Nominal torque)	30N.m																			
极限转矩 (Ultimate torque)	45N.m																			
效率 (Efficiency)	81%						73%						66%							
回差 (Backlash)	4 deg						3.5deg						2.5deg							

正齿轮箱无刷直流电机参数 (Spur Geared BLDC Motor Specifications)

减速比(Ratio)		3	5	6	7.5	9	10	13	15	18	20	25	30	36	40	50	60	75	90	100	120	
FL86BLS58-90JB	额定转矩 (Rated torque) (N.m)	0.85	1.42	1.7	2.13	2.55	2.84	3.5	4.3	4.6	5.1	6.4	7.7	9.2	9.24	12	14	17	21	23	28	
	额定转速 (Rated speed) (RPM)	1000	600	500	400	333	300	240	200	167	150	120	100	83	75	60	50	40	33	30	25	
	极限转矩 (Ultimate torque) (N.m)	2.55	4.25	5.1	6.38	7.65	8.52	11	13	14	15	19	23	28	27.7	35	41	45				
FL86BLS71-90JB	额定转矩 (Rated torque) (N.m)	1.7	2.84	3.4	4.25	5.1	5.67	7.1	8.5	9.2	10	13	15	18	18.5	23	28	---	---	---	---	
	额定转速 (Rated speed) (RPM)	1000	600	500	400	333	300	240	200	167	150	120	100	83	75	60	50	---	---	---	---	
	极限转矩 (Ultimate torque) (N.m)	5.1	8.52	10	12.7	15.3	17	21	26	28	31	38	45					---	---	---	---	
FL86BLS98-90JB	额定转矩 (Rated torque) (N.m)	3.4	5.67	6.8	8.5	10.2	11.3	14	17	18	20	26	31	---	---	---	---	---	---	---	---	
	额定转速 (Rated speed) (RPM)	1000	600	500	400	333	300	240	200	167	150	120	100	---	---	---	---	---	---	---	---	
	极限转矩 (Ultimate torque) (N.m)	10.2	17	20	25.5	30.6	33.9	43	45					---	---	---	---	---	---	---	---	
FL86BLS125-90JB	额定转矩 (Rated torque) (N.m)	5.1	8.5	10	12.7	15.3	17	21	26	28	31	---	---	---	---	---	---	---	---	---	---	
	额定转速 (Rated speed) (RPM)	1000	600	500	400	333	300	240	200	167	150	---	---	---	---	---	---	---	---	---	---	
	极限转矩 (Ultimate torque) (N.m)	15.3	25.5	31	38.1	45						---	---	---	---	---	---	---	---	---	---	

外转子无刷直流行星齿轮减速电机 (内齿圈材质: 金属)

Out-rotor BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL20BLW14/22JM15K

Φ22减速器, 允许转矩范围: 0.15N.m~1.5N.m

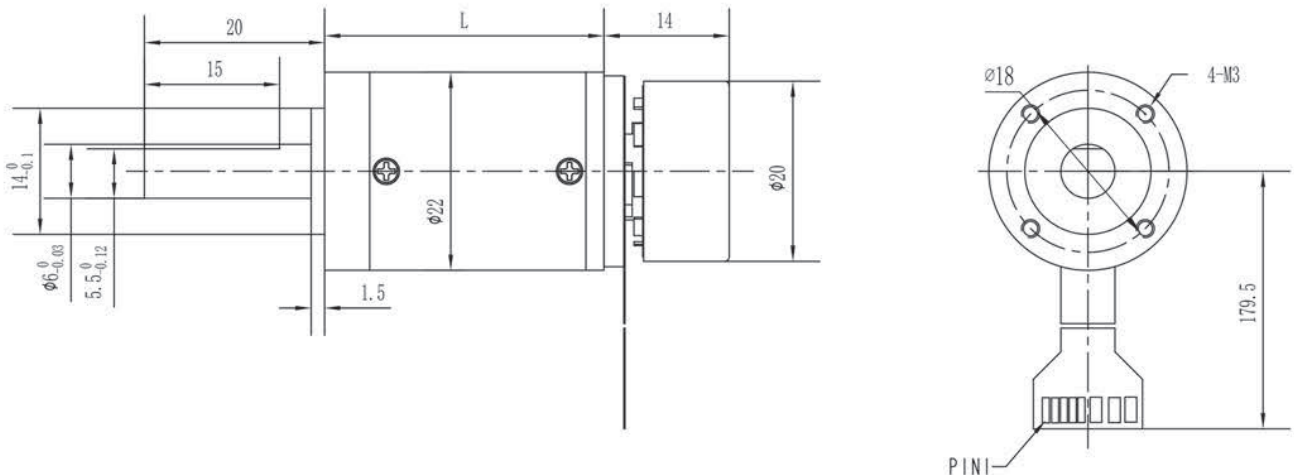
22mm OD Planetary Gearbox, Permissible Load Range: 0.15N.m~1.5N.m



接线方式 (Wire Diagram)

接插件 Connector	插针号 Pin	功能 Functions	说明 Description
FPC	1	V cc	Hall 电源输入 +5VDC ~ +24VDC
	2	Hall W	
	3	Hall U	
	4	Hall V	
	5	GND	Hall 接地
	6	Phase W	
	7	Phase V	
	8	Phase U	

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	线电阻	线电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Reak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL20BLW14-12V-5105A	8	3	12	9530	5170	7.59	5	19	1.62	7.2	0.62
FL20BLW14-24V-5105A	8	3	24	9530	5220	4.74	5	20	0.85	26.1	0.2.6

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL20BLW14-12V-5105A 无刷直流电机 FL20BLW14-12V-5105A BLDC Motor

减 速 比 Reduction ratio		3.71	5.18	14	19	27	51	71	100	139	189	264	369
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	4	4	4
减速器长度(L) Length(L)	mm	25.4	25.4	34.0	34.0	34.0	42.4	42.4	42.4	42.4	50.8	50.8	50.8
空载转速 No-load speed	r/min	2534	1815	671	495	348	184	132	94	68	50	36	25
额定转速 Rated speed	r/min	1394	998	369	272	191	101	73	52	37	27	20	14
额定转矩 Rated torque	N.m	0.025	0.035	0.086	0.12	0.17	0.28	0.39	0.55	0.77	0.93	1.3	1.5
最大瞬间允许负载 Max. permissible load in a short time	N.m	0.4	0.4	1.5	1.5	1.5	3	3	3	3	4	4	4

配置 FL20BLW14-24V-5105A 无刷直流电机 FL20BLW14-24V-5105A BLDC Motor

减 速 比 Reduction ratio		3.71	5.18	14	19	27	51	71	100	139	189	264	369
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	4	4	4
减速器长度(L) Length(L)	mm	25.4	25.4	34.0	34.0	34.0	42.4	42.4	42.4	42.4	50.8	50.8	50.8
空载转速 No-load speed	r/min	2534	1815	671	495	348	184	132	94	68	50	36	25
额定转速 Rated speed	r/min	1407	1008	373	275	193	102	74	52	38	28	20	14
额定转矩 Rated torque	N.m	0.026	0.036	0.088	0.12	0.17	0.29	0.40	0.57	0.79	0.95	1.3	1.5
最大瞬间允许负载 Max. permissible load in a short time	N.m	0.4	0.4	1.5	1.5	1.5	3	3	3	3	4	4	4

外转子无刷直流行星齿轮减速电机 (内齿圈材质: 金属)

Out-rotor BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL32BLW18/32JM50K

Φ22减速器, 允许转矩范围: 0.15N.m~1.5N.m

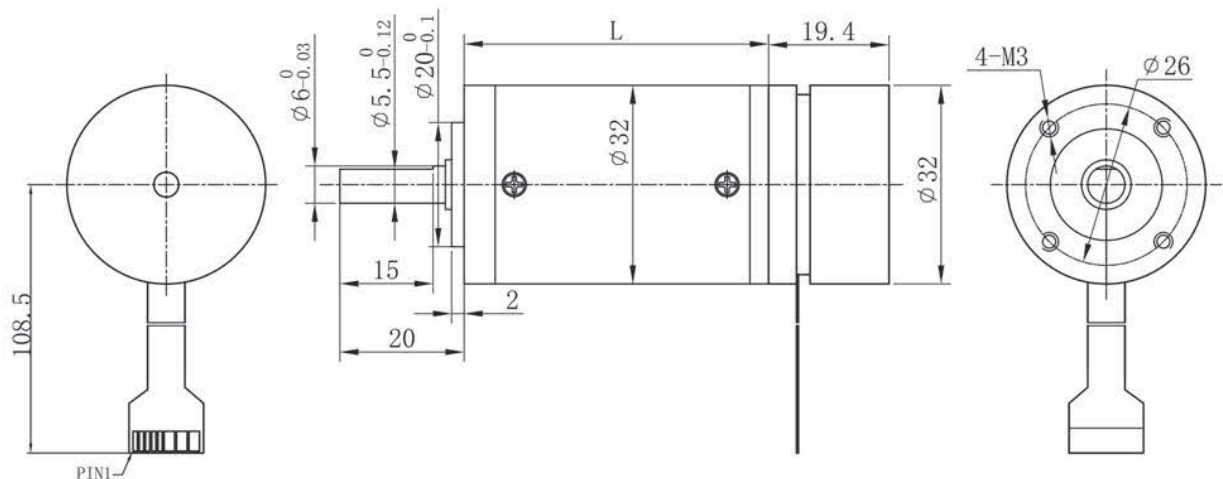
22mm OD Planetary Gearbox, Permissible Load Range: 0.15N.m~1.5N.m



接线方式 (Wire Diagram)

接插件 Connector	插针号 Pin	功能 Functions	说明 Description
FPC	1	V cc	Hall 电源输入: +5VDC ~ +24VDC
	2	Hall W	
	3	Hall U	
	4	Hall V	
	5	GND	Hall 接地
	6	Phase W	
	7	Phase V	
	8	Phase U	

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值扭矩	峰值电流	线电阻	线电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Reak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL32BLW18-9V-3706A	8	3	9	3700	2100	29.5	6	73.8	3.4	2.87	1.61
FL32BLW18-12V-4607A	8	3	12	4600	2800	25.1	7	75.3	3.2	3.43	1.87
FL32BLW18-24V-4507A	8	3	24	4500	2760	25.5	7	76.5	1.7	13.7	7.73
FL32BLW18-48V-4808A	8	3	48	4800	2950	24.7	8	74.1	0.97	53	27.8

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL32BLW18 无刷直流电机 FL32BLW18 BLDC Motor

减 速 比	Reduction ratio	3.7	5.2	14	19	27	35	49	59	68	82	95	115	181	218	253
9V	额定转速 Rated speed r/min	566	405	150	111	78	60	43	36	31	26	22	18	12	9.6	8.3
	额定转矩 Rated torque N.m	0.099	0.14	0.33	0.45	0.65	0.84	1.1	1.3	1.5	1.8	2.0	2.5	3.5	4.2	4.9
12V	额定转速 Rated speed r/min	755	541	200	147	104	80	57	47	41	34	29	24	15	13	11
	额定转矩 Rated torque N.m	0.084	0.12	0.28	0.39	0.55	0.71	0.90	1.1	1.2	1.5	1.7	2.1	3.0	3.6	4.1
24V	额定转速 Rated speed r/min	744	533	197	145	102	79	56	47	41	34	29	24	15	13	11
	额定转矩 Rated torque N.m	0.085	0.12	0.29	0.39	0.56	0.72	0.91	1.1	1.3	1.5	1.8	2.1	3.0	3.6	4.2
48V	额定转速 Rated speed r/min	795	569	211	155	109	84	60	50	43	36	31	26	16	14	12
	额定转矩 Rated torque N.m	0.082	0.12	0.28	0.38	0.54	0.70	0.88	1.1	1.2	1.5	1.7	2.1	2.9	3.5	4.1
减速级数	Number of gear trains	1	2			3			4							
减速器长度(L)	Length(L) mm	25.7	32.8			39.7			46.6							
最大瞬间允许负载	N.m Max. permissible load in a short time	1.5	6			10			12							

外转子无刷直流行星齿轮减速电机 (内齿圈材质: 金属)

Out-rotor BLDC Planetary Gear Motor (Ring Gear Material: Metal)

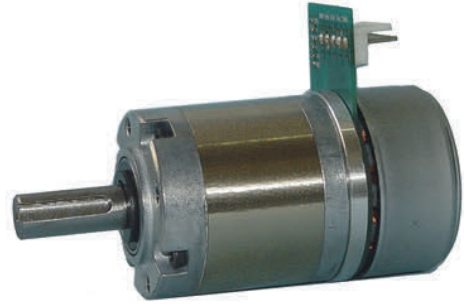
FL45BLW /42JM150K

Φ42减速器, 允许转矩范围: 1.5N.m~15N.m

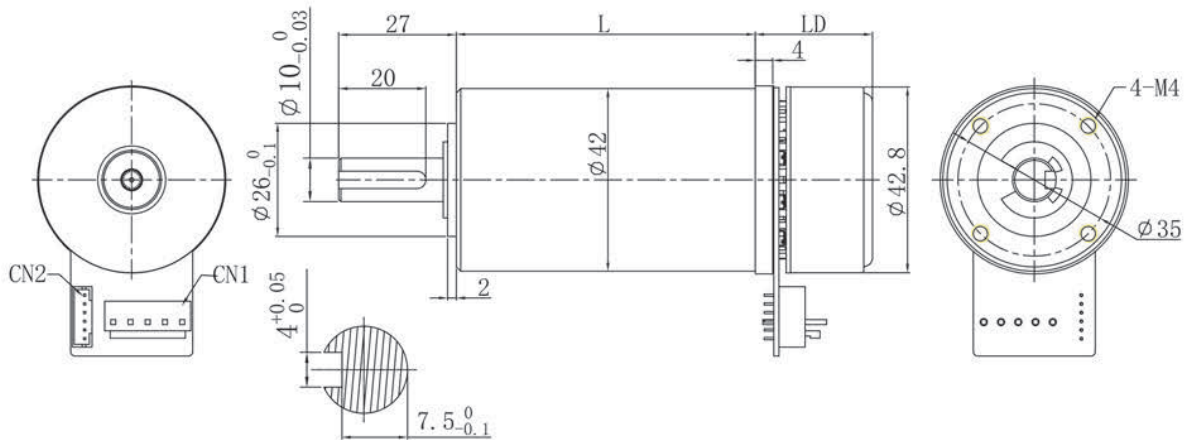
42mm OD Planetary Gearbox, Permissible Load Range: 1.5N.m~15N.m

接线方式 (Wire Diagram)

接插件 Connector	插针号 Pin	功能 Functions	说明 Description
CN1 JST B5P-VH	PIN1	GND	
	PIN2	Phase U	
	PIN3	Phase V	
	PIN4	Phase W	
	PIN5	GND	
CN2 JST B5B-PH-K-S	PIN1	GND	
	PIN2	+5V	DC(+4.5V ~ 18VDC)
	PIN3	Hall U	
	PIN4	Hall V	
	PIN5	Hall W	
	PIN6	GND	



外形和安装尺寸 (Dimensions)



无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数 Number of poles	相数 Number of phase	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	线电阻	线电感
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL45BLW18-24V-7130A	16	3	24	6500	5000	50	30	150	4.8	1.42	0.59
FL45BLW21-24V-6750A			24	6700	5260	84	50	250	7.1	0.72	0.33
FL45BLW27-24V-6170A			24	6100	4840	130	70	390	10	0.56	0.27

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL45BLW18-24V-7130A 无刷直流电机(LD=18mm) FL45BLW18-24V-7130A BLDC Motor (LD=18mm)

减速比 Reduction ratio		3.71	5.18	14	19	27	49	59	68	82	95	115	181	218	253	305	354	426
减速级数 Number of gear trains		1	1	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4
减速器长度(L) Length(L)	mm	31.5	31.5	42.1	42.1	52.5	52.5	52.5	52.5	52.5	52.5	52.5	62.9	62.9	62.9	62.9	62.9	62.9
空载转速 No-load speed	r/min	1752	1255	464	342	241	133	110	96	79	68	57	36	30	26	21	18	15
额定转速 Rated speed	r/min	1348	965	357	263	185	102	85	74	61	53	43	28	23	20	16	14	12
额定转矩 Rated torque	N.m	0.17	0.23	0.57	0.77	1.1	1.8	2.2	2.5	3.0	3.5	4.2	5.9	7.1	8.2	9.9	12	14
最大瞬间允许负载 Max. permissible load in a short time	N.m	4.5	4.5	18	18	30	30	30	30	30	30	30	38	38	38	38	38	38

配置 FL45BLW21-24V-6750A 无刷直流电机(LD=21mm) FL45BLW21-24V-6750A BLDC Motor (LD=21mm)

减速比 Reduction ratio		3.71	5.18	14	19	27	49	59	68	82	95	115	181	218	253	305	354
减速级数 Number of gear trains		1	1	2	2	3	3	3	3	3	3	3	4	4	4	4	4
减速器长度(L) Length(L)	mm	31.5	31.5	42.1	42.1	52.5	52.5	52.5	52.5	52.5	52.5	52.5	62.9	62.9	62.9	62.9	62.9
空载转速 No-load speed	r/min	1806	1293	479	353	248	137	114	99	82	71	58	37	31	26	22	19
额定转速 Rated speed	r/min	1418	1015	376	277	195	107	89	77	64	55	46	29	24	21	17	15
额定转矩 Rated torque	N.m	0.28	0.39	0.95	1.3	1.8	3.0	3.6	4.2	5.0	5.8	7.1	9.9	12	14	15	15
最大瞬间允许负载 Max. permissible load in a short time	N.m	4.5	4.5	18	18	30	30	30	30	30	30	30	38	38	38	38	38

配置 FL45BLW27-24V-6170A 无刷直流电机(LD=27mm) FL45BLW27-24V-6170A BLDC Motor (LD=27mm)

减速比 Reduction ratio		3.71	5.18	14	19	27	49	59	68	82	95	115	181	218
减速级数 Number of gear trains		1	1	2	2	3	3	3	3	3	3	3	4	4
减速器长度(L) Length(L)	mm	31.5	31.5	42.1	42.1	52.5	52.5	52.5	52.5	52.5	52.5	52.5	62.9	62.9
空载转速 No-load speed	r/min	1644	1178	436	321	226	124	103	90	74	64	53	34	28
额定转速 Rated speed	r/min	1305	934	346	255	179	99	82	71	59	51	42	27	22
额定转矩 Rated torque	N.m	0.43	0.61	1.5	2.0	2.8	4.7	5.6	6.5	7.8	9.0	11	15	15
最大瞬间允许负载 Max. permissible load in a short time	N.m	4.5	4.5	18	18	30	30	30	30	30	30	30	38	38

外转子无刷直流行星齿轮减速电机 (内齿圈材质: 金属)

Out-rotor BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL60BLW42/56JM300K

Φ56减速器, 允许转矩范围: 3.0N.m~30N.m

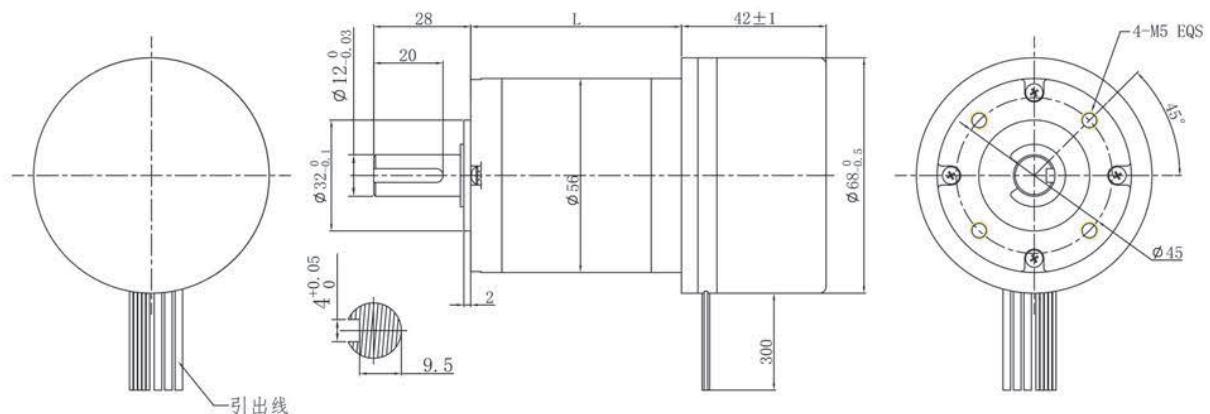
56mm OD Planetary Gearbox, Permissible Load Range: 3.0N.m~30N.m



接线方式 (Wire Diagram)

No	颜色 Color	引出线型号 Type	功能 Functions	说明 Description
1	YEL	UL1332 AWG18	Phase U	
2	RED		Phase V	
3	BLK		Phase W	
4	BLK	UL1332 AWG26	GND	Hall 接地
5	RED		V cc	Hall 电源 DC(+4.5V ~ 18VDC)
6	BLU		Hall A	
7	GRN		Hall B	
8	WHT		Hall C	

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值扭矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Reak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL60BLW42-24V-37110A-01	14	3	24	4300	3700	290	112	870	18	0.25	0.3

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL60BLW42-24V-37110A-01 无刷直流电机 (FL60BLW42-24V-37110A-01 BLDC Motor)

减速比 Reduction ratio		3.60	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154	187
减速级数 Number of gear trains		1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4
减速器长度(L) Length(L)	mm	37.8	37.8	37.8	49.5	49.5	49.5	49.5	49.5	60.8	60.8	60.8	60.8	60.8	60.8	71.9	71.9
空载转速 No-load speed	r/min	1194	1012	807	331	287	239	187	154	100	83	70	60	45	36	28	23
额定转速 Rated speed	r/min	1028	871	684	285	247	206	161	132	86	71	61	51	39	31	24	20
额定转矩 Rated torque	N.m	0.94	1.1	1.3	3.1	3.5	4.2	5.4	6.6	9.1	11	13	15	20	23	29	30
最大瞬间允许负载 Max. permissible load in a short time	N.m	9	9	9	36	36	36	36	36	72	72	72	72	72	72	90	90

外转子无刷直流行星齿轮减速电机 (内齿圈材质: 金属)

Out-rotor BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL90BLW27/56JM450K

Φ56减速器, 允许转矩范围: 4.0N.m~45N.m

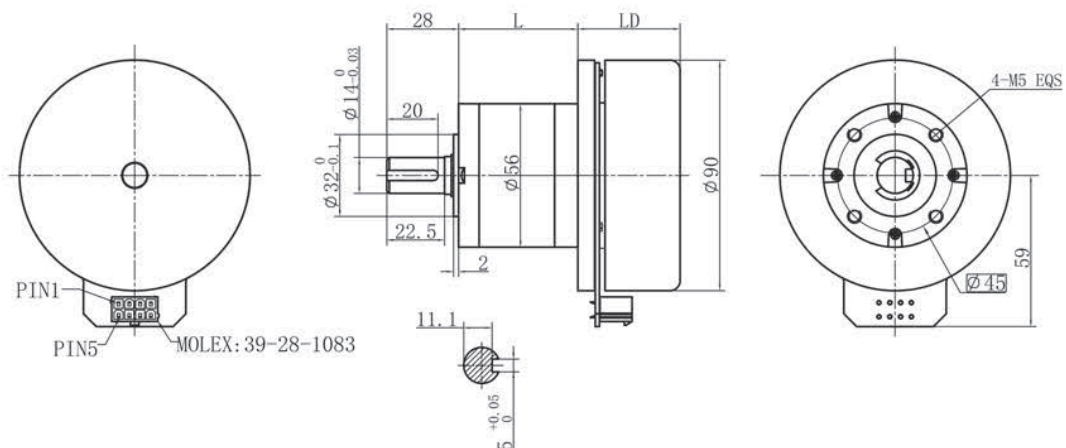
56mm OD Planetary Gearbox, Permissible Load Range: 4.0N.m~45N.m



接线方式 (Wire Diagram)

No	Pin	接插件型号 Type	功能 Functions	说明 Description
1	PIN3	MOLEX 39-28-1083	霍尔电源正 (Vcc)	
2	PIN1		霍尔 U (Hu)	
3	PIN2		霍尔 V (Hv)	
4	PIN5		霍尔 W (Hw)	
5	PIN6		霍尔电源负 (GND)	
6	PIN7		相 U (Phase U)	
7	PIN8		相 V (Phase V)	
8	PIN4		相 W (Phase W)	

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Reak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	N.m	W	N.m	A	ohms	mH
FL90BLW27-24V-27130A	22	3	24	3400	2700	0.457	130	1.6	23	0.21	0.19
FL90BLW40-48V-16170A	22	3	48	1950	1670	0.964	169	3	13	0.65	0.9

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL90BLW27-24V-27130A 无刷直流电机(LD=27mm) FL90BLW27-24V-27130A BLDC Motor(LD=27mm)

减速比 Reduction ratio	3.6	4.25	5.33	13	15	18	23	28	43	52	61	72	96	121	154	187
减速级数 Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4
减速器长度(L) Length(L) mm	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2	67.2	67.2	80.6	80.6
额定转速 Rated speed r/min	750	635	507	208	180	150	117	96	63	52	44	38	28	22	18	14
额定转矩 Rated torque N.m	1.5	1.8	2	4.8	5.6	6.7	8.5	10	14	17	20	24	32	36	45	45
最大瞬间允许负载 Max. permissible load in a short time N.m	12	12	12	36	36	36	36	36	72	72	72	72	72	72	90	90

配置 FL90BLW40-48V-16170A 无刷直流电机(LD=40mm) FL90BLW40-48V-16170A BLDC Motor(LD=40mm)

减速比 Reduction ratio	3.6	4.25	5.33	13	15	18	23	28	43	52	61	72	96
减速级数 Number of gear trains	1	1	1	2	2	2	2	2	3	3	3	3	3
减速器长度(L) Length(L) mm	40.3	40.3	40.3	53.8	53.8	53.8	53.8	53.8	53.8	67.2	67.2	67.2	67.2
额定转速 Rated speed r/min	464	393	313	128	111	93	73	60	39	32	27	23	17
额定转矩 Rated torque N.m	3.1	3.7	4.2	10	12	14	18	22	30	37	43	45	45
最大瞬间允许负载 Max. permissible load in a short time N.m	12	12	12	36	36	36	36	36	36	72	72	90	90

无刷直流行星齿轮减速电机（内齿圈材质：金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL24CBL30/24JN10K

Φ24行星减速器，允许转矩范围：0.1N.m~1.0N.m

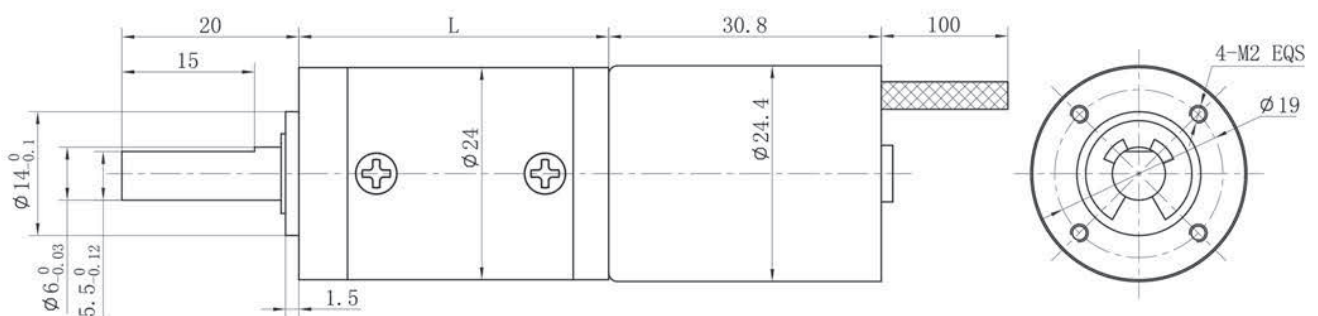
24mm OD Planetary Gearbox, Permissible Load Range: 0.1N.m~1.0N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
黄 Yellow	红 Red	黑 Black	红 Red	蓝 Blue	绿 Green	白 White	黑 Black
UL1430 AWG26		UL1430 AWG28					

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Peak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL24CBL30-1250	12	3	12	5000	4000	5.7	2.4	17.1	0.9	7.3	1.7

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL24CBL30-1250 无刷电机 FL24CBL30-1250 BLDC Motor

减速比 Reduction ratio		3.7	5.2	14	19	27	51	71	100	139	189	264	369	516	720
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	4	4	4	4	4
减速器长度(L) Length(L)	mm	25.0	25.0	31.6	31.6	31.6	38.0	38.0	38.0	38.0	44.4	44.4	44.4	44.4	44.4
空载转速 No-load speed	r/min	1348	965	357	263	185	98	70	50	36	26	19	14	10	7
额定转速 Rated speed	r/min	1078	772	286	211	148	78	56	40	29	21	15	11	7.8	5.6
额定转矩 Rated torque	N.m	0.019	0.027	0.065	0.088	0.12	0.21	0.30	0.42	0.58	0.70	1	1	1	1
最大瞬间允许负载 Max. permissible load in a short time	N.m	0.3	0.3	1.2	1.2	1.2	2.4	2.4	2.4	2.4	3	3	3	3	3

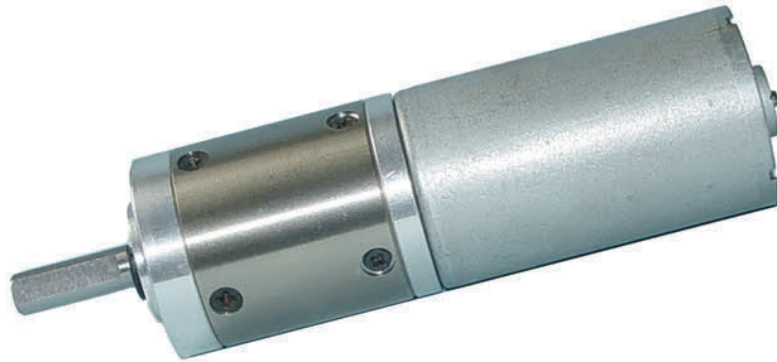
无刷直流行星齿轮减速电机（内齿圈材质：金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal)

FL28CBLA/28JN30K

Φ28行星减速器，允许转矩范围：0.3N.m~3.0N.m

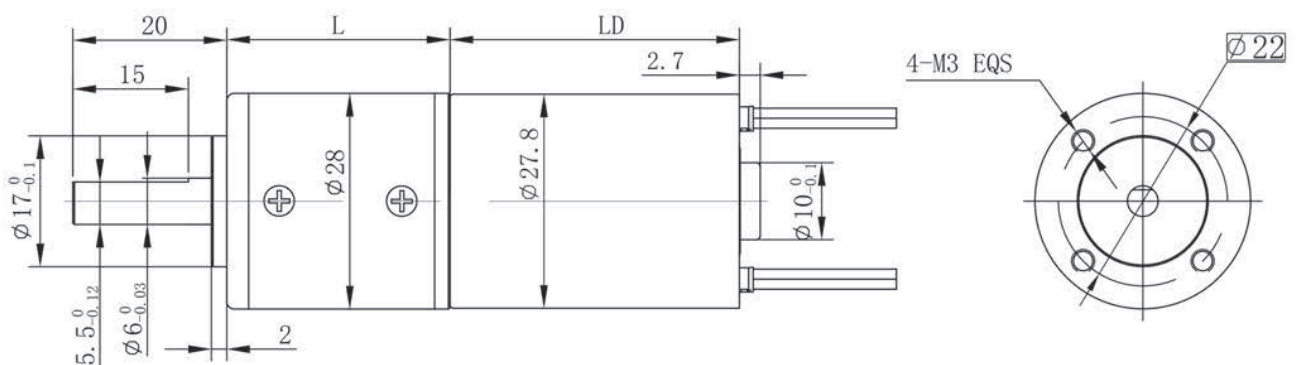
28mm OD Planetary Gearbox, Permissible Load Range: 0.3N.m~3.0N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
绿	红	黑	黄	蓝	橙	棕	白
Green	Red	Black	Yellow	Blue	Orange	Brown	White
UL1061 AWG26		UL1061 AWG28					

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Peak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL28CBLA38-2454	8	3	24	5400	4000	28	12	84	2.0	5.7	2.48
FL28CBLA48-2456	8	3	24	6300	4500	50	24	150	4.5	2.5	1.2

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL28CBLA38-2454 无刷电机 (LD=38mm) FL28CBLA38-2454 BLDC Motor(LD=38mm)

减速比 Reduction ratio		3.7	5.2	14	19	27	35	51	71	100	139	181	218	254
减速级数 Number of gear trains		1	1	2	2	2	2	3	3	3	3	4	4	4
减速器长度(L) Length(L)	mm	29.0	29.0	36.1	36.1	36.1	36.1	43.0	43.0	43.0	43.0	49.9	49.9	49.9
空载转速 No-load speed	r/min	1456	1042	386	284	200	154	106	76	54	39	30	25	21
额定转速 Rated speed	r/min	1078	772	286	211	148	114	78	56	40	29	22	18	16
额定转矩 Rated torque	N.m	0.093	0.13	0.32	0.43	0.61	0.79	1.0	1.5	2.0	2.8	3	3	3
最大瞬间允许负载 Max. permissible load in a short time	N.m	1	1	3.5	3.5	3.5	3.5	7.5	7.5	7.5	7.5	9	9	9

配置 FL28CBLA48-2456 无刷电机(LD=48mm) FL28CBLA48-2456 BLDC Motor(LD=48mm)

减速比 Reduction ratio		3.7	5.2	14	19	27	35	51	71	100	139	181
减速级数 Number of gear trains		1	1	2	2	2	2	3	3	3	3	4
减速器长度(L) Length(L)	mm	29.0	29.0	36.1	36.1	36.1	36.1	43.0	43.0	43.0	43.0	49.9
空载转速 No-load speed	r/min	1700	1216	450	332	233	180	124	89	63	45	35
额定转速 Rated speed	r/min	1213	869	321	237	167	129	88	63	45	32	25
额定转矩 Rated torque	N.m	0.17	0.23	0.57	0.77	1.1	1.4	1.9	2.6	3	3	3
最大瞬间允许负载 Max. permissible load in a short time	N.m	1	1	3.5	3.5	3.5	3.5	7.5	7.5	7.5	7.5	9

正齿轮箱无刷直流电机

Spur Geared BLDC Motor

FL36CB30/37JB10K

Φ37 齿轮减速器, 允许转矩范围:1.0N.m

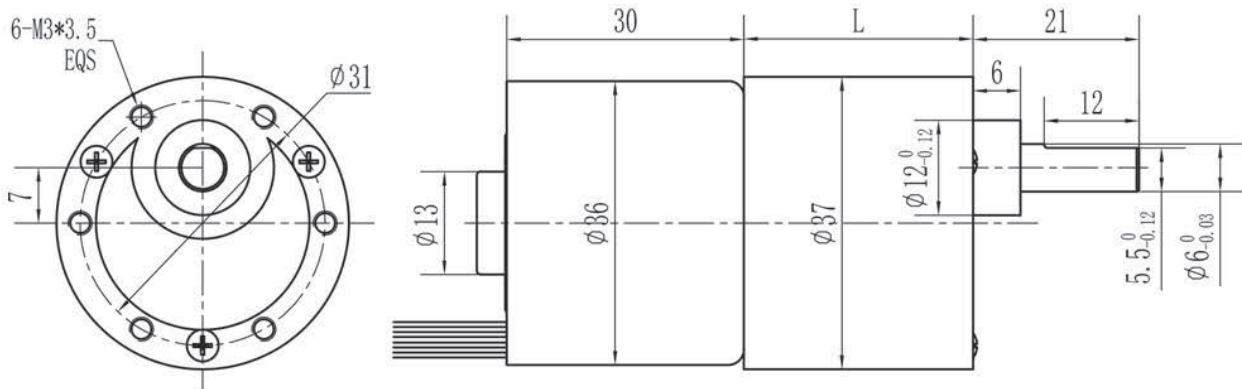
37mm OD Standard Gearbox, Permissible Load Range: 1.0N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
黄 Yellow	棕 Brown	橙 Orange	红 Red	蓝 Blue	绿 Green	白 White	黑 Black
UL1430		AWG24	UL1430		AWG26		

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Peak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL36CBL30-2460	8	3	24	6000	4800	15	8	45	1.5	5.2	3.3

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL36CBL30-2460 无刷电机 FL36CBL30-2460 BLDC Motor

减速比 Reduction ratio		6	10	18	30	50	75	100	150	200
减速级数 Number of gear trains		2	2	3	3	4	4	4	5	5
减速器长度(L) Length(L)	mm	21.5	21.5	26.5	26.5	29.0	29.0	29.0	31.5	31.5
空载转速 No-load speed	r/min	1000	600	333	200	120	80	60	40	30
额定转速 Rated speed	r/min	800	480	267	160	96	64	48	32	24
额定转矩 Rated torque	N.m	0.073	0.12	0.20	0.33	0.49	0.73	0.98	1	1
最大瞬间允许负载 Max. permissible load in a short time	N.m	0.5	0.5	1	1	2	2	2	3	3

无刷直流行星齿轮减速电机（内齿圈材质：粉末金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal and Powder)

FL36CBL/36JXF30K

Φ36行星减速器，允许转矩范围：0.3N.m~3.0N.m

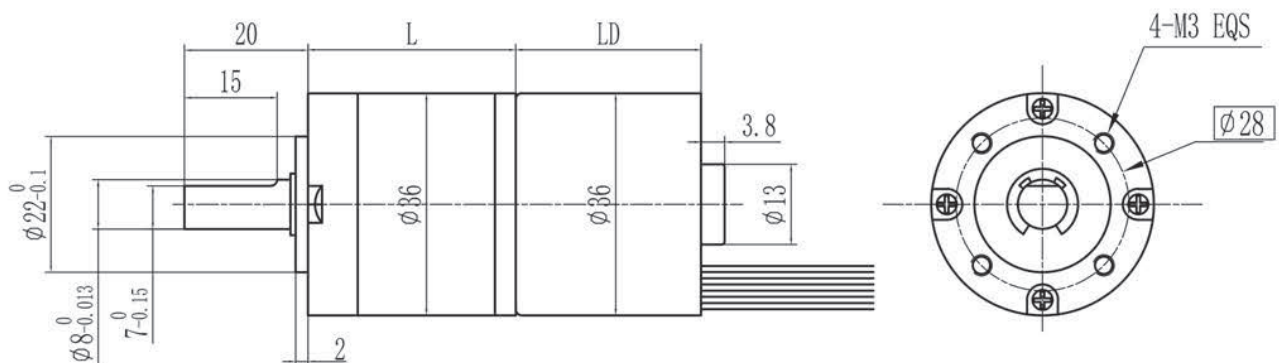
36mm OD Planetary Gearbox, Permissible Load Range: 0.3N.m~3.0N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
黄 Yellow	棕 Brown	橙 Orange	红 Red	蓝 Blue	绿 Green	白 White	黑 Black
UL1430		AWG24	UL1430		AWG26		

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Reak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL36CBL30-2462	8	3	24	6200	4800	15	8	45	1.5	5.2	3.3
FL36CBL40-2460	8	3	24	6000	4800	35	18	105	3	2	1.9

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL36CBL30-2462 无刷电机(LD=30mm) FL36CBL30-2462 BLDC Motor(LD=30mm)

减速比 Reduction ratio		3.7	5.2	14	19	27	35	51	71	100	139	181	218	254	305	354	426
减速级数 Number of gear trains		1	1	2	2	2	2	3	3	3	3	4	4	4	4	4	4
减速器长度(L) Length(L)	mm	26.5	26.5	33.6	33.6	33.6	33.6	40.5	40.5	40.5	40.5	47.4	47.4	47.4	47.4	47.4	47.4
空载转速 No-load speed	r/min	1671	1197	443	326	230	117	122	87	62	45	34	28	24	20	18	15
额定转速 Rated speed	r/min	1294	927	343	253	178	137	94	68	48	35	27	22	19	16	14	11
额定转矩 Rated torque	N.m	0.050	0.070	0.17	0.23	0.33	0.43	0.56	0.78	1.1	1.5	1.8	2.1	2.5	3	3	3
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.0	1.0	3.5	3.5	3.5	3.5	7.5	7.5	7.5	7.5	7.5	9	9	9	9	9

配置 FL36CBL40-2460 无刷电机(LD=40mm) FL36CBL40-2460 BLDC Motor(LD=40mm)

减速比 Reduction ratio		3.7	5.2	14	19	27	35	51	71	100	139	181	218
减速级数 Number of gear trains		1	1	2	2	2	2	3	3	3	3	4	4
减速器长度(L) Length(L)	mm	26.5	26.5	33.6	33.6	33.6	33.6	40.5	40.5	40.5	40.5	47.4	47.4
空载转速 No-load speed	r/min	1617	1158	429	316	222	171	118	85	60	43	33	28
额定转速 Rated speed	r/min	1294	927	343	253	178	137	94	68	48	35	27	22
额定转矩 Rated torque	N.m	0.12	0.16	0.40	0.54	0.77	1.0	1.3	1.8	2.6	3	3	3
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.0	1.0	3.5	3.5	3.5	3.5	7.5	7.5	7.5	7.5	9	9

无刷直流行星齿轮减速电机 (内齿圈材质: 粉末金属)

BLDC Planetary Gear Motor (Ring Gear Material: Metal and Powder)

FL36CBL/36JXF50K

Φ36行星减速器, 允许转矩范围: 0.5N.m~5.0N.m

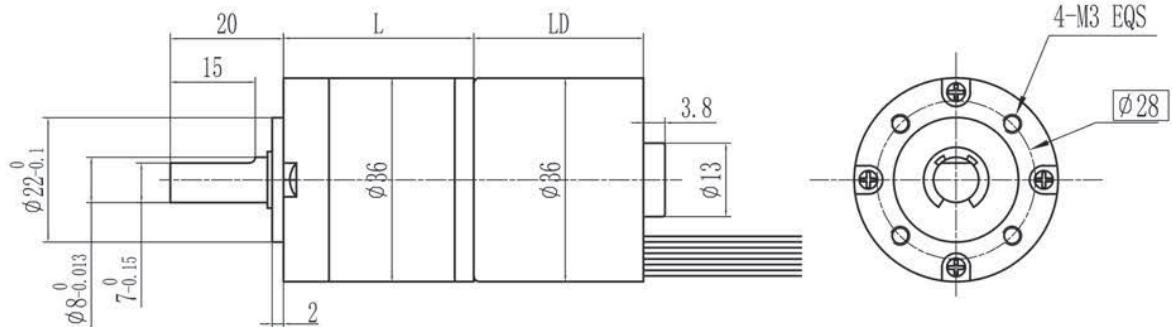
36mm OD Planetary Gearbox, Permissible Load Range: 0.5N.m~5.0N.m

接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
黄 Yellow	棕 Brown	橙 Orange	红 Red	蓝 Blue	绿 Green	白 White	黑 Black
UL1430 AWG24			UL1430 AWG26				



外形和安装尺寸 (Dimensions)



无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数 Number of poles	相数 Number of phase	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值扭矩	峰值电流	电阻	电感
			VDC	r/min	r/min	mN.m	W	mN.m	A	Line to line resistance ohms	Line to line inductance mH
FL36CBL50-2460	8	3	24	6000	4800	55	28	165	4.5	1.2	1.2
FL36CBL57-2455	8	3	24	5500	4500	70	33	210	5.4	1.05	1
FL36CBL60-2458	8	3	24	5800	4800	80	40	240	7	0.95	0.85
FL36CBL65-2458	8	3	24	5800	4800	90	45	270	7.5	0.88	0.80

无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL36CBL50-2460 无刷电机(LD=50mm) FL36CBL50-2460 BLDC Motor(LD=50mm)

减速比 Reduction ratio		3.71	5.18	14	19	27	35	49	59	68	82	95	115
减速级数 Number of gear trains		1	1	2	2	2	2	3	3	3	3	3	3
减速器长度(L) Length(L)	mm	29.0	29.0	38.4	38.4	38.4	38.4	45.7	45.7	45.7	45.7	45.7	45.7
空载转速 No-load speed	r/min	1617	1158	429	316	222	171	122	102	88	73	63	52
额定转速 Rated speed	r/min	1294	927	343	253	178	137	98	81	71	59	51	42
额定转矩 Rated torque	N.m	0.18	0.26	0.62	0.85	1.2	1.6	2.0	2.4	2.7	3.3	3.8	4.6
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.5	1.5	6	6	6	6	10	10	10	10	12	12

无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL36CBL57-2455 无刷电机(LD=57mm) FL36CBL57-2455 BLDC Motor(LD=57mm)

减速比 Reduction ratio		3.71	5.18	14	19	27	35	49	59	68	82	95	115
减速级数 Number of gear trains		1	1	2	2	2	2	3	3	3	3	3	3
减速器长度(L) Length(L)	mm	29.0	29.0	38.4	38.4	38.4	38.4	45.7	45.7	45.7	45.7	45.7	45.7
空载转速 No-load speed	r/min	1482	1062	393	289	204	157	112	93	81	67	58	48
额定转速 Rated speed	r/min	1213	869	321	237	167	129	92	76	66	55	47	39
额定转矩 Rated torque	N.m	0.23	0.33	0.79	1.1	1.5	2.0	2.5	3.0	3.5	4.2	4.9	5
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.5	1.5	6	6	6	6	10	10	10	10	12	12

配置 FL36CBL60-2458 无刷电机(LD=60mm) FL36CBL60-2458 BLDC Motor(LD=60mm)

减速比 Reduction ratio		3.71	5.18	14	19	27	49	59	68	82	95	115
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	3	3
减速器长度(L) Length(L)	mm	29.0	29.0	38.4	38.4	38.4	45.7	45.7	45.7	45.7	45.7	45.7
空载转速 No-load speed	r/min	1563	1120	414	305	215	118	98	85	71	61	50
额定转速 Rated speed	r/min	1294	927	343	253	178	98	81	71	59	51	42
额定转矩 Rated torque	N.m	0.27	0.37	0.91	1.2	1.8	2.9	3.5	4.0	4.8	5	5
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.5	1.5	6	6	6	10	10	10	10	12	12

配置 FL36CBL65-2458 无刷电机(LD=65mm) FL36CBL65-2458 BLDC Motor(LD=65mm)

减速比 Reduction ratio		3.71	5.18	14	19	27	49	59	68	82	95	115
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	3	3
减速器长度(L) Length(L)	mm	29.0	29.0	38.4	38.4	38.4	45.7	45.7	45.7	45.7	45.7	45.7
空载转速 No-load speed	r/min	1563	1120	414	305	215	118	98	85	71	61	50
额定转速 Rated speed	r/min	1294	927	343	253	178	98	81	71	59	51	42
额定转矩 Rated torque	N.m	0.30	0.42	1.0	1.4	2.0	3.2	3.9	4.5	5	5	5
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.5	1.5	6	6	6	10	10	10	10	12	12

无刷直流行星齿轮减速电机（内齿圈材质：粉末金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal and Powder)

FL38CBL58/36JXF50K

Φ36行星减速器，允许转矩范围：0.5N.m~5.0N.m

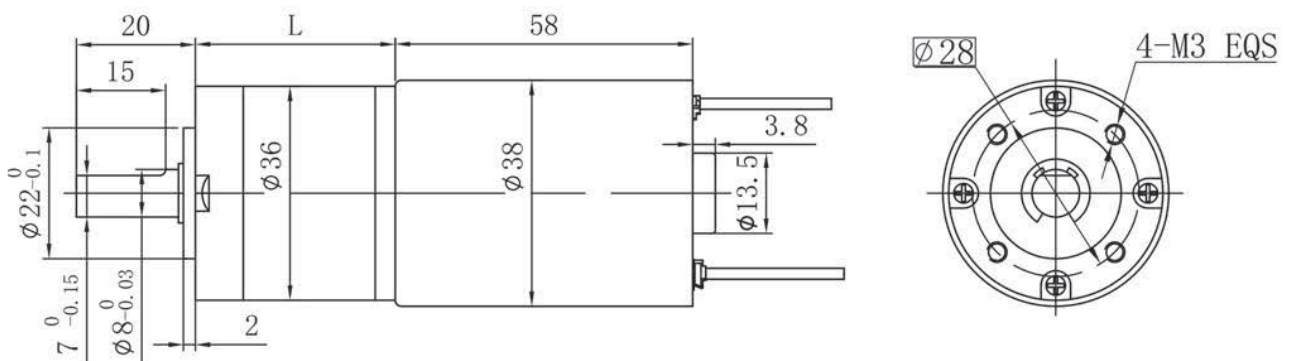
36mm OD Planetary Gearbox, Permissible Load Range: 0.5N.m~5.0N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
黄	红	黑	红	蓝	绿	白	黑
Yellow	Red	Black	Red	Blue	Green	White	Black
UL1430	AWG22			UL1430	AWG26		

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Peak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL38CBL58-2450	4	3	24	5000	4000	70	30	210	5.1	2.0	1.5

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL38CBL58-2450 无刷电机 FL38CBL58-2450 BLDC Motor

减速比 Reduction ratio		3.7	5.2	14	19	27	35	49	59	68	82	95	115
减速级数 Number of gear trains		1	1	2	2	2	2	3	3	3	3	3	3
减速器长度(L) Length(L)	mm	29.0	29.0	38.4	38.4	38.4	38.4	45.7	45.7	45.7	45.7	45.7	45.7
空载转速 No-load speed	r/min	1348	965	357	263	185	143	102	85	74	61	53	43
额定转速 Rated speed	r/min	1078	772	286	211	148	114	82	58	59	49	42	35
额定转矩 Rated torque	N.m	0.23	0.33	0.79	1.1	1.5	2.0	2.5	3.0	3.5	4.2	4.9	5
最大瞬间允许负载 Max. permissible load in a short time	N.m	1.5	1.5	6	6	6	6	10	10	10	10	12	12

无刷直行星齿轮减速电机（内齿圈材质：粉末金属）

BLDC Planetary Gear Motor (Ring Gear Material: Metal and Powder)

FL42CBL/42JXF100K

Φ42行星减速器，允许转矩范围：1N.m~10N.m

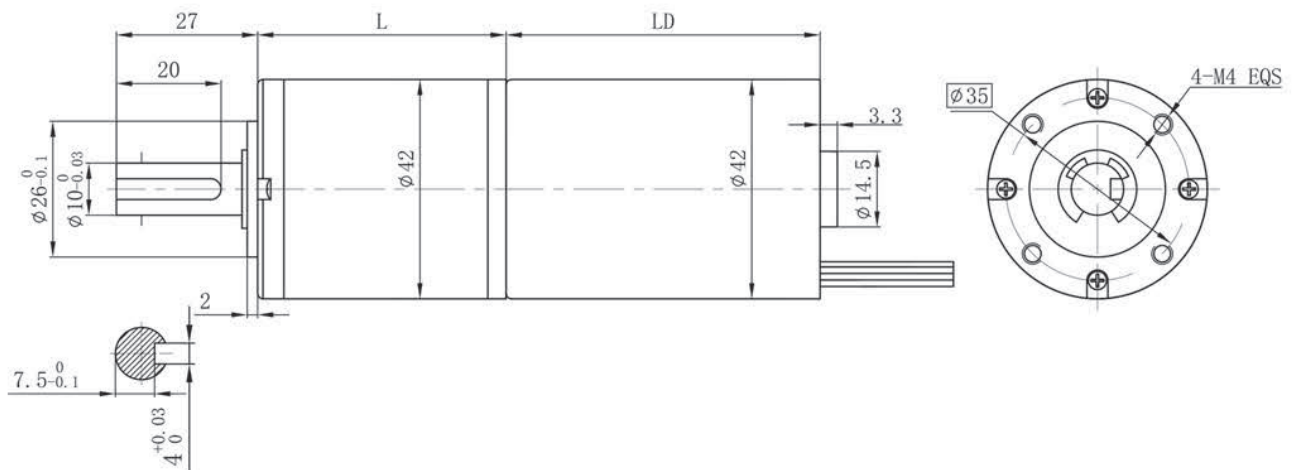
42mm OD Planetary Gearbox, Permissible Load Range: 1N.m~10N.m



接线方式 (Wire Diagram)

U	V	W	Vcc	Ha	Hb	Hc	GND
黄	红	黑	红	蓝	绿	白	黑
Yellow	Red	Black	Red	Blue	Green	White	Black
UL1332	AWG22			UL1430	AWG26		

外形和安装尺寸 (Dimensions)



■ 无刷电动机主要技术参数 (Brushless Motor Technical Data)

电机型号 TYPE	极数	相数	额定电压	空载转速	额定转速	额定转矩	额定功率	峰值转矩	峰值电流	电阻	电感
	Number of poles	Number of phase	Rated voltage	No-load speed	Rated speed	Rated torque	Rated power	Peak torque	Peak current	Line to line resistance	Line to line inductance
			VDC	r/min	r/min	mN.m	W	mN.m	A	ohms	mH
FL42CBL60-2442	8	3	24	4200	3200	120	40	360	6.3	1.2	1.6
FL42CBL66-2459	8	3	24	5900	4000	150	63	450	7	0.75	0.8

■ 无刷行星齿轮减速电机主要技术参数 (Brushless Gear Motor Technical Data)

配置 FL42CBL60-2442 无刷电机(LD=60mm)

FL42CBL60-2442 BLDC Motor(LD=60mm)

减速比 Reduction ratio		3.7	5.2	14	19	27	49	59	68	82	95	115	181
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	3	3	4
减速器长度(L) Length(L)	mm	31.5	31.5	42.1	42.1	42.1	52.5	52.5	52.5	52.5	52.5	52.5	62.9
空载转速 No-load speed	r/min	1132	811	300	221	156	86	71	62	51	44	37	23
额定转速 Rated speed	r/min	863	618	229	168	119	65	54	47	39	34	28	18
额定转矩 Rated torque	N.m	0.40	0.56	1.4	1.9	2.6	4.3	5.2	6.0	7.2	8.3	10	10
最大瞬间允许负载 Max. permissible load in a short time	N.m	3	3	12	12	12	25	25	25	25	25	25	30

配置 FL42CBL66-2459 无刷电机(LD=66mm)

FL42CBL66-2459 BLDC Motor(LD=66mm)

减速比 Reduction ratio		3.7	5.2	14	19	27	49	59	68	82	95	115
减速级数 Number of gear trains		1	1	2	2	2	3	3	3	3	3	3
减速器长度(L) Length(L)	mm	31.5	31.5	42.1	42.1	42.1	52.5	52.5	52.5	52.5	52.5	52.5
空载转速 No-load speed	r/min	1590	1139	421	311	219	120	100	87	72	62	51
额定转速 Rated speed	r/min	1081	769	286	211	148	82	68	59	49	42	35
额定转矩 Rated torque	N.m	0.50	0.70	1.7	2.3	3.3	5.4	6.5	7.5	9.0	10	10
最大瞬间允许负载 Max. permissible load in a short time	N.m	3	3	12	12	12	25	25	25	25	25	25



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Пт: 8:00–16:00

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