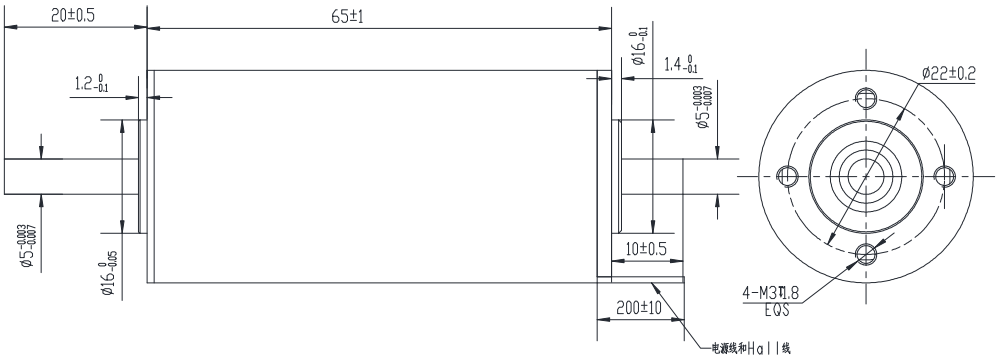
FL30SBL Series

无齿无槽电机
Slotless BLDC Motor

FULLING MOTOR

● 机械尺寸 (Dimensions)



选件 Options

接插件 齿轮箱 编码器

A4

● 特性概要 (General Specifications)

绕组连接方式 (Winding Type)	星形 (Star connection)
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
径向间隙 (Radial Play)	0.02mm@4N
轴向间隙 (Axial Play)	0.14mm@4N
最大径向负载 (Max radial force)	10N距法兰5mm (5mm From the flange)
最大轴向负载(Max axial force)	4N

● 接线说明 (Electric Connection)

线型号 Type	线颜色 Color	功能 Functions
AFR250-SY AWG26	红色(Red)	霍尔电源正(Vcc)
	蓝色(Blue)	霍尔 W (Hw)
	绿色(Green)	霍尔 V (Hv)
	白色(White)	霍尔 U (Hu)
	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)	FL30SBL65-24V-157130A	FL30SBL50-24V-13075A
极数 (Number of poles)		4	4
相数 (Number of phases)		3	3
额定电压 (Rated voltage)	VDC	24	24
空载转速 (No load speed)	RPM	17000	13000
空载电流 (No load current)	A	0.75	0.3
额定转矩 (Rated torque)	mN.m	80	60
额定电流 (Rated current)	A	6.74	3.95
额定速度 (Rated speed)	RPM	16100	12000
额定功率 (Rated power)	W	134.8	75
额定效率 (Rated efficiency)	%	83.1	78.3%
峰值转矩 (Peak torque)	mN.m	240	180
峰值电流 (Peak current)	A	20.5	11.85
线电阻 (Line to line resistance)	ohms@20°C	0.12	0.35
线电感 (Line to line inductance)	mH	0.015	0.033
转矩常数 (Torque constant)	mNm/A	13.7	17.56
反电势 (Back EMF)	Vrms/KRPM	1.02	1.3
外壳-环境热阻(Housing - Ambient thermal resistance)	K/W	3.24	3.02
电机热时间常数(Motor thermal time constant)	S	630	613
绕组最高允许温度(Max temperature of winding)	°C	155	155
电气时间常数(Electrical time constant)	ms	0.125	0.095