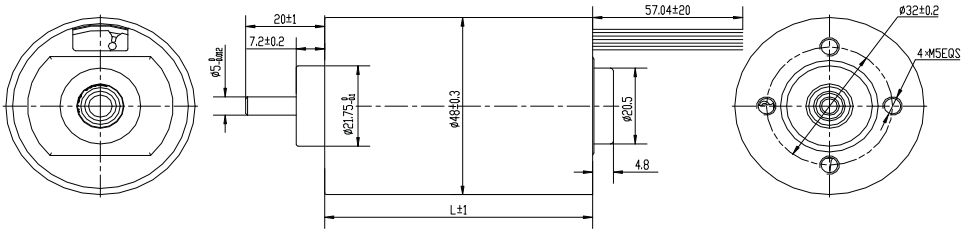
# FL48CBL Series

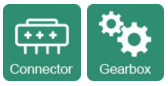
经济型无刷电机
Economical BLDC Motor

FULLING MOTOR

## ● 机械尺寸 (Dimensions)



选件 Options




接插件　齿轮箱

A5

## ● 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℃ | 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 |



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