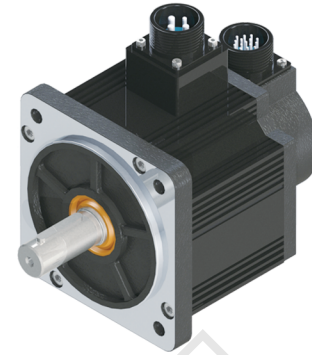


SM130-P5系列伺服电机

SM130-P5 Series servo motor

产品特点(Product features):

- 采用分段定子技术, 可获得更高的转矩惯量比, 与SM电机相比可提高30%的转矩;
- 采用定子密封技术, 提高电机的热效率, 温升较上代产品更低;
- 全新的产品结构, 降低产品的转矩波动及齿槽转矩;
- 可提供10极转子, 齿槽转矩为原8极产品的1/8, 运行更平稳、噪音更低
- 可提供磁性编码器、旋变、绝对值及增量型光电编码器的便捷选择



产品性能参数(Electrical specification):

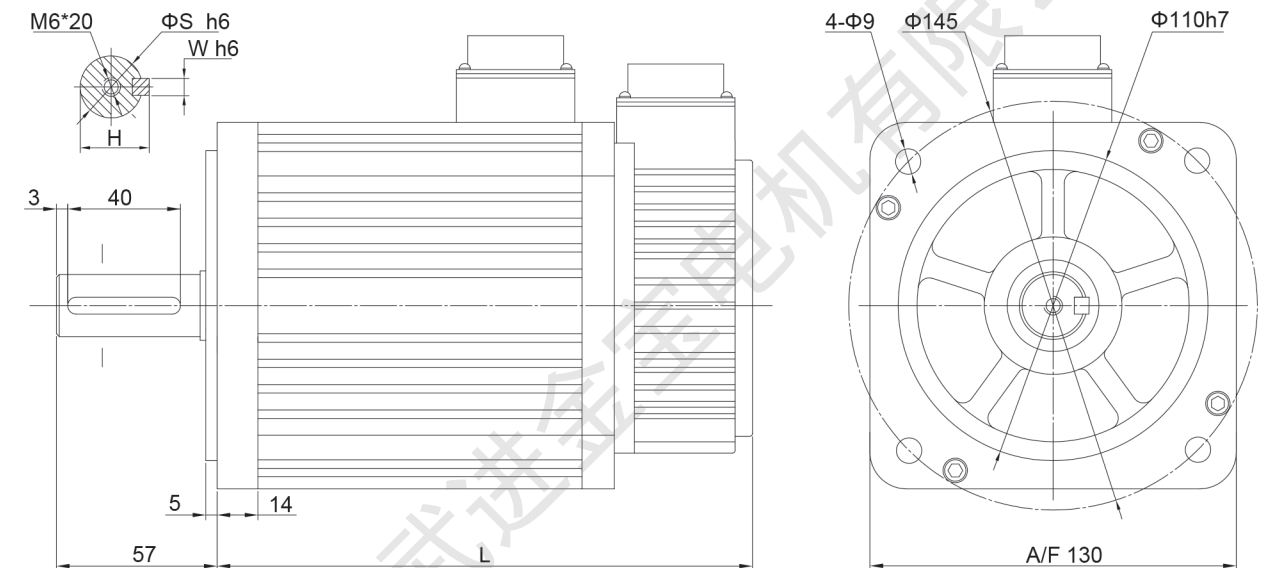
| 电机型号 Parameter | SM130 | | | | | | | | | | | | | | | |
|--|---|----------|----------|---|---|----------|----------|----------|----|----|----|----|----|----|----|----|
| | -02420P5 | -04820P5 | -07220P5 | -09620P5 | -12020P5 | -15020P5 | -04830P5 | -09630P5 | | | | | | | | |
| 额定功率 Rated power (KW) | 0.5 | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 1.5 | 3 | | | | | | | | |
| 额定运行电压 Rated Voltage (3Φ VAC) | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | | | | | | | | |
| 额定电流 Rated current (A) | 2.9 | 5.6 | 8.3 | 11.01 | 13.8 | 16.5 | 8.6 | 17.2 | | | | | | | | |
| 额定转速 Rated speed (rpm) | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 3000 | 3000 | | | | | | | | |
| 最大运行转速 Max operating speed (rpm) | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 4500 | 4500 | | | | | | | | |
| 额定转矩 Rated torque (N.m) | 2.39 | 4.77 | 7.16 | 9.55 | 11.94 | 14.33 | 4.77 | 9.55 | | | | | | | | |
| 峰值转矩 Peak torque (N.m) | 7.17 | 14.31 | 21.48 | 22 | 23.88 | 28.66 | 14.31 | 22 | | | | | | | | |
| 反电势常数 Voltage constant (V/Krpm) | 53.5 | 55.3 | 55.1 | 55.1 | 55.1 | 55.3 | 36.4 | 36.4 | | | | | | | | |
| 转矩常数 Torque constant (N.m/A) | 0.83 | 0.85 | 0.87 | 0.87 | 0.87 | 0.87 | 0.557 | 0.557 | | | | | | | | |
| 转子惯量 Rotor inertia ($\times 10^{-4}$ Kg.m ²) | 8.17 | 8.41 | 11.18 | 14.59 | 15.8 | 18.9 | 8.41 | 12.7 | | | | | | | | |
| 电机重量 Motor weight (Kg) | 6.8 | 7 | 7.5 | 7.8 | 8.5 | 9.4 | 7 | 7.8 | | | | | | | | |
| 编码器线数 Encoder resolution (PPR) | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | | | | | | | | |
| 绝缘等级 Insulation class | F | F | F | F | F | F | F | F | | | | | | | | |
| 防护等级 Protection class | IP65 | IP65 | IP65 | IP65 | IP65 | IP65 | IP65 | IP65 | | | | | | | | |
| 使用环境要求 Service environment | 环境温度: -10~+40°C Operating ambient temperature: -10~+40°C | | | 环境湿度: 相对湿度<90%(无结霜) Operating ambient humidity: below 90%RH, No freezing | | | | | | | | | | | | |
| 绕组航插定义 Power plugs definition | 管脚功能 Pin function | U | | V | | W | | PE | | | | | | | | |
| | 管脚编号 Pin number | 2 | | 3 | | 4 | | 1 | | | | | | | | |
| 编码器航插定义 Signal plugs definition | 管脚功能 Pin function | 5V | 0V | A+ | B+ | Z+ | A- | B- | Z- | U+ | V+ | W+ | U- | V- | W- | PE |
| | 管脚编号 Pin number | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 1 |
| 航插规格 Plug model | 绕组插件型号: YD28J4Z-E Power plugs model: YD28J4Z-E | | | | 编码器插件型号: YD28J15Z-E Signal plugs model: YD28J15Z-E | | | | | | | | | | | |

以上产品可按客户要求进行出轴规格、信号反馈元件类别、参数及相关配件定制
Above products can be customized according to customer requirement.

外形尺寸(Dimension):

| Item | SM130 | | | | | | | |
|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| | -02420P5 | -04820P5 | -07220P5 | -09620P5 | -12020P5 | -15020P5 | -04830P5 | -09630P5 |
| L (mm) | 147.5 | 147.5 | 167.5 | 187.5 | 199.5 | 219.5 | 147.5 | 187.5 |
| S (mm) | 22 | 22 | 22 | 22 | 24 | 24 | 22 | 22 |
| H (mm) | 24.5 | 24.5 | 24.5 | 24.5 | 27 | 27 | 24.5 | 24.5 |
| W (mm) | 6 | 6 | 6 | 6 | 8 | 8 | 6 | 6 |

外形图(Outline drawing):



安装注意事项(Installation precaution):

1. 安装或拆卸电机时, 不得敲击电机及转轴, 以免损坏编码器;
 2. 尽量防止轴座的振动, 以免损坏轴承;
 3. 电机与驱动器须正确可靠连接, 以免损坏电机和编码器;
 4. 装配时, 须确保电机轴和负载轴的同轴, 以免损坏电机
1. Never hit the servo motor or shaft, especially when coupling or disassembly the servo motor to machine, the encoder may become faulty;
 2. striving to make the best of its shaft to prevent vibration and bearing damage;
 3. The motor and amplifier must be connected to be correct and reliable, so as not to damage motor and encoder;
 4. When installing the motor, must ensure that motor shaft and load shaft concentric, so as not to damage the motor and encoder.