

# SM40P系列伺服电机

## SM40P 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

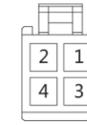


### 产品性能参数(Electrical specification):

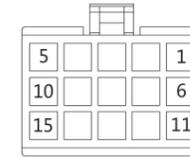
电机型号 Parameter	SM40-00230P	SM40-00630P														
额定功率 Rated power(W)	50	100														
额定运行电压 Rated Voltage(3Φ VAC)	220	220														
额定电流 Rated current (A)	0.65	1.2														
额定转速 Rated speed (rpm)	3000	3000														
额定转矩 Rated torque (N.m)	0.16	0.32														
峰值扭矩 Peak torque (N.m)	0.48	0.96														
反电势常数 Voltage constant (V/Krpm)	16.9	16.1														
转矩常数 Torque constant (N.m/A)	0.25	0.27														
转子惯量 Rotor inertia (× 10 <sup>-4</sup> Kg.m <sup>2</sup> )	0.023	0.042														
电子时间常数 Electrical time constant(ms)	1.04	0.85														
峰值电流 Peak Current (A)	1.95	3.6														
编码器线数 Encoder resolution( PPR)	2500	2500														
绝缘等级 Insulation class	B	B														
防护等级 Protection class	IP65 (轴伸和引出线端子除外) (Except for shaft and lead terminals)															
使用环境要求 Service environment	环境温度: 0~+40℃ Operating ambient temperature: 0~+40℃ 环境湿度: 相对湿度<85%(无结霜) Operating ambient humidity :below 85%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: MOLEX 39013045 Power plugs model: MOLEX 39013045				编码器插件型号: AMP 172171-1 Signal plugs model: AMP 172171-1											

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.

### 插件端口定义(Connector definition):



MOLEX 39013045

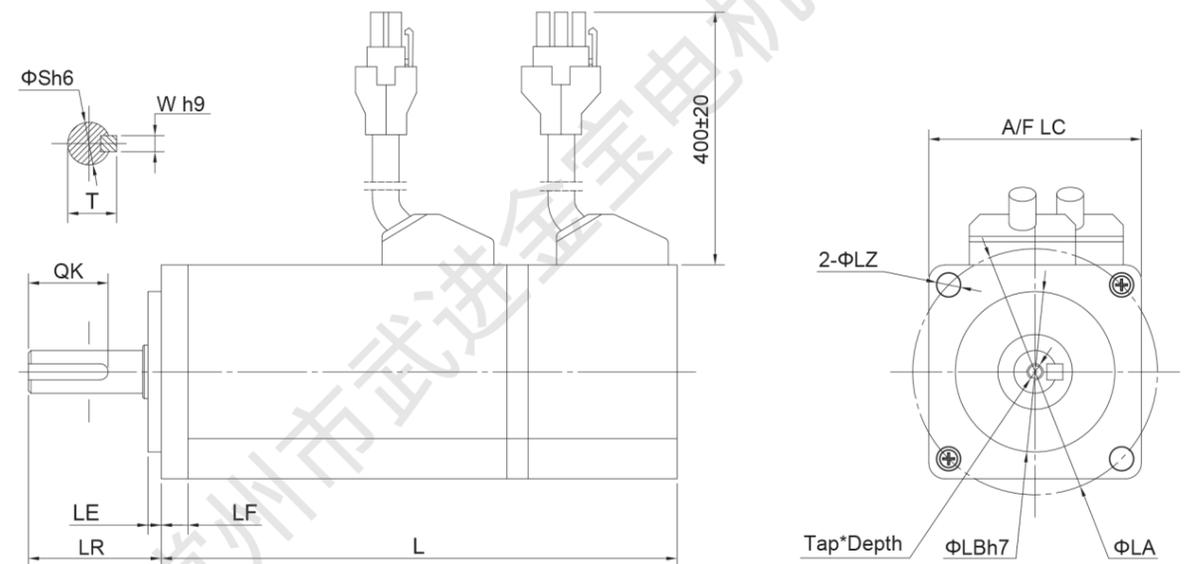


AMP 172171-1

### 外形尺寸(Dimension):

Item Model	L	外形尺寸 (Outline drawing)							S	Tap*depth	键(Key)		
		LC	LR	LE	LF	LA	LB	LZ			QK	W	T
SM40-00230P	95	40	25	2.5	6	45	30	4.5	8	M3*6	14	3	9.2
SM40-00630P	105	40	25	2.5	6	45	30	4.5	8	M3*6	14	3	9.2

### 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.