

HPD980



Two-phase digital stepper driver

characteristic

- PI control algorithm, low noise, low vibration, low heat;
- Signal input: single-ended, pulse + direction and double pulse;
- Built-in micro-subdivision; power supply: AC18V~110V, DC18V~160V;
- The current setting is convenient, 16 gears are optional, and the peak output current can reach 8.2A; the current is halved after opening and closing for 1S
- The factory default maximum subdivision is 128, 16 files are adjustable;
- Optically isolated differential signal input, the maximum input pulse frequency is 300KHz;
- With overvoltage, undervoltage alarm, phase current overcurrent protection, motor phase open circuit detection and other functions;
- The pulse, direction and enable terminals all have constant current input function, which can directly connect the input signal without adding series resistor for step-down current limiting protection.
- High reliability: using multi-layer board and surface mount, leaving enough margin for power devices;

driver is suitable for 4, 6, 8-wire two-phase stepper motors with 86 flanges

Summary

HPD980 two-phase stepper motor driver is a cost-effective subdivision driver designed based on PI flow control algorithm. It has excellent performance, high-speed high-torque output, low noise, low vibration, and low heat generation.

HPD980 driver can select the running current and subdivision through the DIP switch. There are 16 subdivisions and 16 currents for selection. It has overvoltage, undervoltage, phase current and total current overcurrent protection. Its input and output control signals are all photoelectric isolation.

Performance indicators

1. Performance indicators

Caption	HPD980			
	Minimum value	Typical value	maximum value	unit
Output current (peak)	2.2	-	8.2	A
Supply voltage	18	80	110	VAC
	18	90	160	VDC
control signal current	5	10	20	mA
Step pulse frequency	0	-	300	KHz
Direction pulse width	2	-	-	us
Direction signal width	100	-	-	us
Undervoltage protection point	-	7.5	-	VDC
Overvoltage protection point	-	170	-	VDC
Drive initialization time	2	-	-	s
Insulation resistance	500	-	-	MΩ

2. Performance indicators

Cooling method		Free cooling or forced air cooling
Use environment	occasion	Can not be placed next to other heat-generating equipment, avoid dust, oil, corrosive gas, high humidity and strong earthquake places, prohibit flammable gas and conductive dust
	temperature	0—+50℃
	humidity	40—90%RH
	vibration	10~55Hz/0.15mm
storage temperature		-20℃ ~ 65℃
weight		570 grams



特性

- PI 控制算法，低噪音，低振动，低发热；
- 信号输入：单端，脉冲+方向及双脉冲；
- 内置微细分；供电范围：AC18V—110V、DC18V—160V；
- 电流设定方便，16 档可选，输出电流峰值可达8.2A；静止1S 后电流减半
- 出厂默认最高细分128,16 档可调；
- 光隔离差分信号输入，输入脉冲频率最大300KHz；
- 具有过压、欠压报警，相电流过流保护，马达相位开路检测等功能；
- 脉冲，方向和使能端子都有恒流输入功能，可以直接连接输入信号，而不用外加串联电阻降压限流保护。
- 高可靠性：采用多层板和表面贴封，功率器件留有足够余量；

适配86法兰的4，6，8线二相步进电机

概述 Summary

两相步进电机驱动器是基于PI流控制算法设计的高性价比细分型驱动器，具有优越的性能表现，高速大力矩输出，低噪音，低振动，低发热。

驱动器可通过拨码开关选择运行电流和细分，有16种细分，16种电流供选择，具有过压，欠压，相电流和总电流过流保护，其输入输出控制信号均采用光电隔离。

性能指标

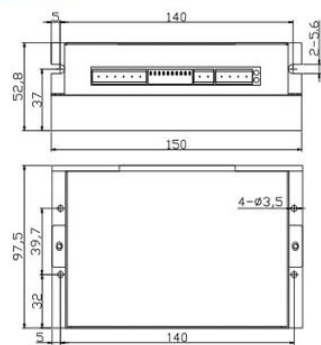
1. 电气指标

说明	最小值	典型值	最大值	单位
输出电流(峰值)	2.2	-	8.2	A
供电电压	18	80	110	VAC
	18	90	160	VDC
控制信号电流	5	10	20	mA
步进脉冲频率	0	-	300	KHz
步进脉冲宽度	2	-	-	us
方向信号宽度	100	-	-	us
欠压保护点	-	7.5	-	VDC
过压保护点	-	170	-	VDC
驱动器初始化时间	2	-	-	s
绝缘电阻	500			MΩ

2. 环境指标

冷却方式		自然冷却或强制风冷
使用环境	场 合	不能放在其它发热的设备旁，要避免粉尘、油污、腐蚀性气体、湿度太大及强振动场所，禁止有可燃气体和导电灰尘；
	温 度	0——+50℃
	湿 度	40—90%RH
	振 动	10~55Hz/0.15mm
保存温度		-20℃~65℃
重量		570克

安装尺寸 (Unit: mm)



注意

1. 交流输入电压不要超过AC110V;
2. 直流输入电压不要超过DC160V;
3. 驱动器通电时绿色指示灯PWR亮。

驱动器接线示意图

