## Motor Characteristics

PHSD8082AC easy servo driver, based on 32-bit motor-specific control platform, adopts advanced full closed-loop control technology, so that the easy servo system has the characteristics of low noise, low heat, no lost steps and higher application speed, and can be used in all directions. Improve the performance of the intelligent equipment system. LED digital tube display, key operation, provide friendly human-computer interaction. It is convenient for parameter setting and running status monitoring.

- Operation mode: full closed loop mode/power angle mode/speed mode, suitable for wider applications.
- Pulse mode: single pulse/double pulse.
- Signal level: 5V-24V compatible, PLC applications do not need external current limiting resistors.
- Power supply voltage: AC: 18V-80V or DC: 24V-110V power supply, recommended DC 48V or AC 60V.
- Typical applications: terminal machines, glue dispensers, wire strippers, engraving machines, automated non-standard equipment, etc.



# **Electrical indicators**

| Parameters                | Minimum value | Typical value | Maximum value | Unit |
|---------------------------|---------------|---------------|---------------|------|
| Continuous output current | 0             | -             | 8.2           | А    |
| Input supply voltage (DC) | +24           | -             | +110          | VDC  |
| Input supply voltage (AC) | 18            | 60            | 80            | VAC  |
| Logic input current       | 7             | 10            | 20            | mA   |
| Pulse frequency           | 0             | -             | 200           | kHz  |
| Insulation resistance     | 500           |               |               | MΩ   |
| Provides encoder current  |               |               | 50            | mA   |

# Driver function description

| Drive function    | Operating Instructions  |  |
|-------------------|---|--|
| Signal interface  | PUL+ and PUL- are the positive and negative ends of the control pulse signal; DIR+ and DIR- are the positive and negative ends of the direction signal; ENA+ and ENA- are the positive and negative ends of the enable signal; ALM+ and ALM- are the alarm The positive and negative ends of the output signal; Pend+ and Pend- are the positive and negative ends of the command-in-place output signal. |  |
| Encoder interface | EB+: Yellow, EB-: Green, EA+: Black, EA-: Blue, VCC: Red, EGND: White.  |  |
| Motor interface   | A+: White, A-: Green, B+: Blue, B-: Black, the line sequence cannot be reversed.  |  |
| Power interface   | AC is the input power terminal, the working voltage range:AC: 18V-80V or DC: 24V-110V, the power supply is greater than 250W.   |  |

## Parameter setting and description

There are two ways to set the drive parameters:

- 1. Make the PC communicate with the driver through the data line, and use the special debugging software to complete the parameter setting.
- 2. Complete the parameter setting directly by pressing the button.

| Drive function | Operating Instructions  |  |  |
|----------------|---|--|--|
| ▲              | Exit, cancel the operation; used to return to the previous page and end the parameter input state                                     |  |  |
| Ļ              | It is used to adjust the data size of the current bit when the page is turned down and the value is changed (data loop self-addition) |  |  |
| 1              | Shift operation for data bits when page up and value change (data circular shift)   |  |  |
| <b>←</b>       | Enter parameter modification mode, parameter modification confirmation, long press for 3s   |  |  |

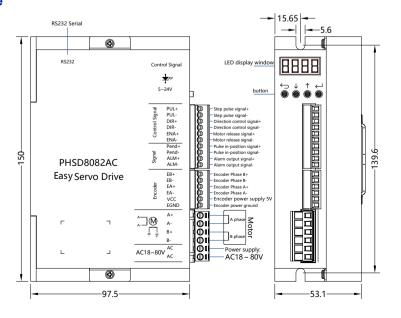
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# Parameter settings

The parameters that can be set by the drive are as follows:

| Parameter | Parameter name                                 | Scope         | Instructions  |  |
|-----------|--|---------------|---|--|
| P000      | control parameter                              | ~             | Setting a specific value will correspond to a specific function please refer to the user manual for details |  |
| P001      | Segment selection                              | SEt,2~256     | 16 general subdivisions, 1 arbitrary subdivision  |  |
| P002      | Motor running direction selection              | 0、1           | Motor forward and reverse rotation setting  |  |
| P003      | Motor type selection                           | 57、86         | 57, 86 flange motor   |  |
| P004      | Position out of tolerance limit value          | 1~9999        | The system defaults to 4000   |  |
| P005      | Locking current percentage                     | 0~100%        | The system defaults to 50%  |  |
| P006      | Electronic gear divider                        | ~             | The value cannot be set to 0, the default is 1  |  |
| P007      | Electronic gear frequency division denominator | ~             | The value cannot be set to 0, the default is 1  |  |
| P020      | Input pulse low 4 bits                         | ~             | Display the cumulative total number of external input pulses  |  |
| P021      | Input pulse high 4 bits                        | ~             | and view the high and low eight digits separately   |  |
| P100      | Operating current percentage                   | 10~120%       | See user manual for details   |  |
| P101      | Current loop scaling factor                    | 1~1000        | Factory setting, no modification is allowed   |  |
| P102      | Current loop integral coefficient              | 1~1000        | Factory setting, no modification is allowed   |  |
| P103      | Current loop damping coefficient               | 1~1000        | Factory setting, no modification is allowed   |  |
| P104      | Speed loop proportional coefficient            | 1~1000        | See user manual for details   |  |
| P105      | Speed loop integral coefficient                | 1~1000        | See user manual for details   |  |
| P106      | Position loop scaling factor                   | 1~1000        | See user manual for details   |  |
| P107      | Speed loop feed-forward coefficient            | 1~100         | See user manual for details   |  |
| P108      | Drive internal enable                          | 0、1           | See user manual for details   |  |
| P109      | Velocity loop damping coefficient              | 1~100         | See user manual for details   |  |
| P110      | Input and output level settings                | 0、1           | See user manual for details   |  |
| P111      | Positioning accuracy setting                   | 1~50          | Positioning error (number of pulses)  |  |
| P112      | Resonance coefficient                          | 1~12          | See user manual for details   |  |
| P200      | Operation mode selection                       | 0、1、2         | 0: Full closed loop mode, 1: Speed mode, 2: Power angle mode  |  |
| P201      | Speed setting                                  | Default 60    | Running speed in speed mode (rev/min)   |  |
| P202      | Acceleration and deceleration time             | Default 100ms | Function in speed mode (ms)   |  |
| P203      | brake delay release                            | Default 0     | See user manual for details   |  |
| P204      | Post-alarm control mode                        | 0、1、2         | See user manual for details   |  |

### Installation size



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