

# PHSD6030 series

## Motor Characteristics

PHSD6030 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: DC: 24V-60VDC power supply, 36V or 48V is recommended.
- Typical applications: screw locking machines, glue dispensing machines, wire stripping machines, labeling machines, medical detectors, automated non-standard equipment, etc.



## Electrical indicators

Parameters	Minimum value	Typical value	Maximum value	Unit
Continuous output current	0	-	3.0	A
Input supply voltage (DC)	+24	-	+60	Vdc
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	V+, V- power input, DC voltage range: DC24V~60V, power supply power greater than 150W.

## 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
↓	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)
↑	Shift operation for data bits when page up and value change (data circular shift)
↵	Enter parameter modification mode, parameter modification confirmation, long press for 3s

## 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	42、57	42, 57 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 and view the high and low eight digits separately
P021	Input pulse high 4 bits	~	
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

