# PSDH Series Servo Drive

## Product Features

### High Response

- Current loop frequency response > 2.5 kHz: 16-bit current sampling accuracy; dual sampling and dual update algorithms
- Speed loop frequency response > 1.6 kHz: 23-bit absolute encoder; Kalman observation algorithm

### High Accuracy

- Bus synchronization accuracy < 0.1us: Multi-axis synchronization algorithm at current ring level

### High Speed Running Motor

- Weak magnetic observation and control function for the servo motor to reach the maximum speed in an instant

### Great Adaptability

- Standard EtherCAT communication protocol, which can be adapted to any EtherCAT bus controller
- With detailed functions such as active resonance suppression, end jitter suppression, friction compensation, groove torque compensation, etc., the servo performance can be perfected under various mechanical structures
- Thickened three-proof paint process for better environmental (moisture, corrosion, etc.) adaptation



## Specifications

| Model | | | | | |
|---|---|---|---|---|---|
| PSDHAS04□□ 0.4kW | PSDHAS08□□ 0.75KW | PSDHAS15□□ 1.5KW | PSDHAS22□□ 2.2KW | PSDHAS30□□ 3.0KW | PSDHAS50□□ 5.0KW |
| PSDHBS15□□ 1.8kW | PSDHBS25□□ 3KW | PSDHBS35□□ 3.8KW | PSDHBS55□□ 5.5KW | PSDHBS75□□ 7.5KW | |

| Input Power | |
|---|---|
| Control Mode | Three-phase PWM converter sine wave drive |
| Main Power | 220V: Single-phase/three phase 220V AC（-15~+10%，50~60Hz）<br>380V: Three-phase 380V AC（-15~+10%，50~60Hz） |
| Control Power | 220V: Single-phase 220V AC（-15~+10%，50~60Hz） |
| Rated Current | 220V：0.4kW/2.8A,0.75kW/5.5A,1.5kW/10A, 2.2kW/12A,3kW/16A,5kW/25A<br>380V: 1.8kW/5A,3kW/8A,3.8kW/12A,5.5kW/16A, 7.5kW/20A |
| Encoder Feedback | ABZ increment encoder / absolute encoder |

| Environment | |
|---|---|
| Working Temperature | 0～45°C |
| Storage Temperature | -20～65°C |
| Working Humidity | 20～85%RH or less (non condensing) |
| Storage Humidity | 20～85%RH or less (non condensing) |
| Working And Storage air | Indoor (no direct sunlight), non-corrosive gases, flammable gases, oil mist, dust |
| Altitude | Below 1000m |
| Vibration | 5.8m/s² (0.6G) below 10～60Hz (Cannot be used continuously at resonant frequency) |
| Insulation And Pressure Resistance | Primary- between F and G, 1 minute under AC1500V |

| Control signals | |
|---|---|
| IO Input | 6-channel (DC24V opto-coupler isolation) Input function can be selected according to parameters below: Servo on, P action positive rotation inhibit, negative rotation inhibit, alarm reset,positive torque limit, negative torque limit, error clear |
| IO Output | 4-channel opto-coupler isolated output; the following output function can be selected according to parameters: Alarm output, position proximity, velocity consistent detection output, motor rotation detection, servo ready, torque limit, brake release |
| Communications | EtherCAT, CANopen |
| Regenerative Resistance | 400W: without; over 750W: with |

| Position Control Modes | |
|---|---|
| Control Input | Servo on, positive rotation prohibited, negative rotation prohibited, forward current limit, reverse current limit, forward limit switch, negative limit switch, zero return proximity switch, bus IO input, probe 1, probe 2, fault reset |
| Control Output | Servo return to zero completion, servo operation preparation completion, servo fault, position tracking over limit, target position arrival, STO enable flag, bus IO output, brake output |

| Pulse Output | |
|---|---|
| Output Pulse Patterns | Phase A, phase B, phase Z: differential output |
| Frequency Dividing Ratio | Arbitrary frequency division |