Driver for AC Servomotors (EA Series)

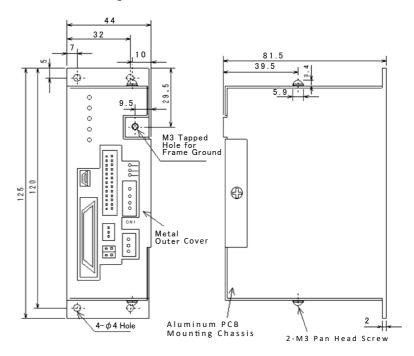


EAD-18C for Open Collector EAD-18D for Line Driver

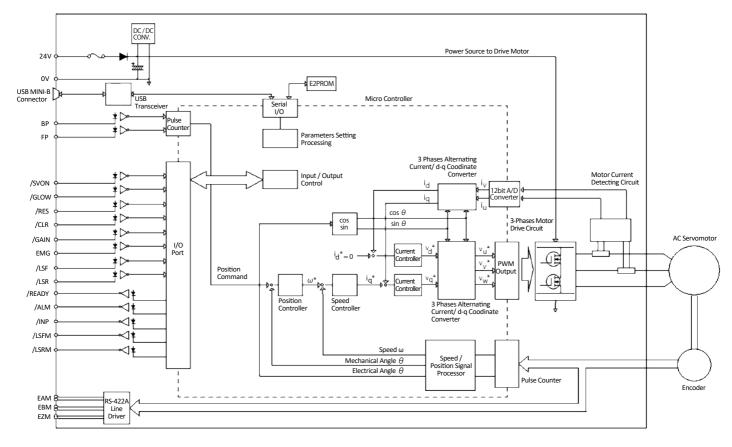
Features

- This is 3-phases sine wave PWM driver
- This is a driver exclusive for Citizen Chiba Precision's Miniaturized AC Servomotor
- It is downsized by adopting digital servo control which uses CPU
- DC24V single power source (Built-in control power source)

Outside Configuration & Install Dimension (Unit: mm)



Circuit Drawing



Specifications

The last 3 digits, 012, of the model number is for EA-17 / EA-21 Series, and 030 is for EA-25 / EA-30 Series

Specifications

ModelEAD-18C (D)-012EAD-18C (D)-030Input Power SupplyDC24VContinuous Rated Output Current1.2ArmsMaximum Rated Output Current2.1ArmsDriving System3-Phases Sine Wave PWMControl SystemPosition ControlEncoder TypeOpen Collector or Line DriverNote* 1 $\varphi A, \varphi B, \varphi Z$ Hall Sensor $\varphi U, \varphi V, \varphi W$ (Hall IC) *Line Driver Input is possibleNote*1CW Prohibited / CCW ProhibitedMaximum Input Frequency 600 kHzNote* 2Positioning Accuracy ± 1 pulse by encoder resolution	Input Power Supply
Continuous Rated Output Current1.2Arms3.0ArmsMaximum Rated Output Current2.1Arms10.0ArmsDriving System3-Phases Sine Wave PWMControl SystemPosition ControlEncoder TypeOpen Collector or Line DriverNote* 1Encoder Input $\varphi A, \varphi B, \varphi Z$ Hall Sensor $\varphi U, \varphi V, \varphi W$ (Hall IC) *Line Driver Input is possibleNote*1Limit SensorCW Prohibited / CCW ProhibitedMaximum Input Frequency 600 kHzNote* 2	
Maximum Rated Output Current2.1Arms10.0ArmsDriving System3-Phases Sine Wave PWMControl SystemPosition ControlEncoder TypeOpen Collector or Line DriverNote* 1Encoder Input $\varphi A, \varphi B, \varphi Z$ Hall Sensor $\varphi U, \varphi V, \varphi W$ (Hall IC) *Line Driver Input is possibleNote*1Limit SensorCCW Prohibited / CCW ProhibitedMaximum Input Frequency 600 kHzNote* 2	Continuous Rated Output Current
Driving System3-Phases Sine Wave PWMControl SystemPosition ControlEncoder TypeOpen Collector or Line DriverNote* 1Encoder Input $\varphi A, \varphi B, \varphi Z$ Hall Sensor $\varphi U, \varphi V, \varphi W$ (Hall IC) *Line Driver Input is possibleNote*1Limit SensorCW Prohibited / CCW ProhibitedMaximum Input Frequency600kHzNote* 2	
Control SystemPosition ControlEncoder TypeOpen Collector or Line DriverNote* 1Encoder Input $\varphi A, \varphi B, \varphi Z$ Note*1Hall Sensor $\varphi U, \varphi V, \varphi W$ (Hall IC) *Line Driver Input is possibleNote*1Limit SensorCW Prohibited / CCW ProhibitedMaximum Input Frequency600kHzNote* 2	Maximum Rated Output Current
Encoder Type Open Collector or Line Driver Note* 1 Encoder Input $\varphi A, \varphi B, \varphi Z$ Hall Sensor $\varphi U, \varphi V, \varphi W$ (Hall IC) *Line Driver Input is possible Note*1 Limit Sensor CW Prohibited / CCW Prohibited Note*2 Maximum Input Frequency 600kHz Note*2	Driving System
Encoder Input φA, φB, φZ Hall Sensor φU, φV, φW (Hall IC) *Line Driver Input is possible Note*1 Limit Sensor CW Prohibited / CCW Prohibited Maximum Input Frequency 600kHz Note* 2	Control System
Hall Sensor φU, φV, φW (Hall IC) *Line Driver Input is possible Note*1 Limit Sensor CW Prohibited / CCW Prohibited Maximum Input Frequency 600kHz Note* 2	Encoder Type
Limit Sensor CW Prohibited / CCW Prohibited Maximum Input Frequency 600kHz Note* 2	Encoder Input
Maximum Input Frequency 600kHz Note* 2	Hall Sensor
	Limit Sensor
Positioning Accuracy +1 pulse by encoder resolution	Maximum Input Frequency
	Positioning Accuracy
Multiplication Function of Encoder ×4 multiplication function	Multiplication Function of Encoder
Command Multiplication Function ×1multiplication function	Command Multiplication Function
φ Z Output Logic φ Z Output Logic can be changed	ϕ Z Output Logic
Operating Temperature/ Humidity 0~50°C / Below 80% RH without condensation	Operating Temperature/ Humidity
Storage Temperature/ Humidity -20~80°C / Below 80% RH without condensation	Storage Temperature/ Humidity
Outside Dimension 125×44×81.5 (Maximum dimension including connector)	Outside Dimension
Accessories Connectors for Input / Output	Accessories

Note* 1 : Another circuit board is required for Line Driver (to mount on the driver)

Note* 2 : Input frequency is determined by number of pulses of encoder and rated speed of motor

Options

If some distance between the motor and the driver is required, a line driver cable which improves noise immunity is available.

Note : Please select the line driver type for the driver side also. If you need to change from the Open Collector Type to the Line Driver Type, please contact us and return it. The change will be arranged at the customer's expense.

