

5 Phase Compact Size DC Type Driver

## IMS500 Series

### Operation Manual

**NYDEN** USA

A subsidiary of **MYCOM**, Inc.

## 1. Specifications

Driver Model	IMS500(L)-020	IMS500(L)-120
Input Voltage	DC24V±10%	
Driver Type	Star Bipolar, Constant Current Chopper	
Phase Current	0.75 A	1.4 A
Resolution	Basic Step : 0.72° ( 1/1 Full Step, 1/2 Half Step )	
Functions	Auto current down, Current cut-off input	
Input Pulse	All opto-isolated. Resistance 220Ω Voltage L : 0~0.5V H : 4~5V CW (PULSE) 、CCW(CW/CCW)、CO	
Insulation Voltage	Between Voltage-in terminal and Case	1.0kV(60Hz)
	Between Voltage-in terminal and Signal Terminal	2.0kV(60Hz)
Insulation Resistance	100MΩ or higher with 500V under room temperature and humidity ▪ Between Voltage-in terminal and Case ▪ Between Voltage-in terminal and Signal Terminal	
Operating Temperature	0 ~ +40°C	
Operating Humidity	Below 80%	
Weight	75 g	
Accessories	This Operation Manual Connector : IL-2S-S3L-N x 1 IL-6S-S3L-N x 1 IL-5S-S3L-N x 1 Connector Pin : IL-C2-10000 x 13	
Recommended Motors	PEE533-B PEE535-B PF544-BC PF545-BC	PF564-BC PF566-BC PF569-BC

2. Part Number Identification and Default Settings

**IMS500(L)-566AC**

Series

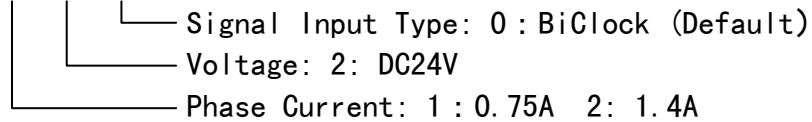
Unit Number

**Combination of Driver and Motors**

IMS500		
Unit Number	Motor Model	Driver Model
564AC (BC)	PF564-AC (BC)	IMS500(L)-12_
566AC (BC)	PF566-AC (BC)	
569AC (BC)	PF569-AC (BC)	
545AC (BC)	PF545-AC (BC)	IMS500(L)-02_
544AC (BC)	PF544-AC (BC)	
535A (B)	PEE535-A (B)	
533A (B)	PEE533-A (B)	

**IMS500-020**

SERIES



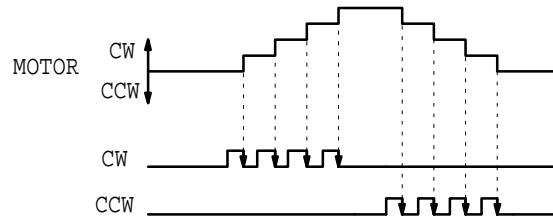
Factory Default Settings

Driver Model	IMS500-020	IMS500-120
Phase Current	0.75 A	1.4 A
Auto Current Down	On	
Input Pulse Signal	2 Clocks	
Resolution	Half Step	

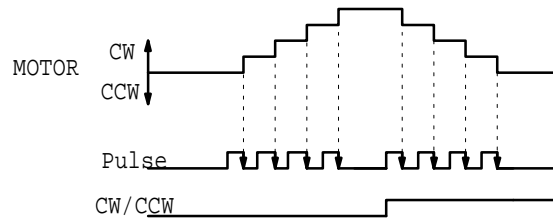
### 3. Pulse Waveform

#### 3.1 Pulse Signal Input

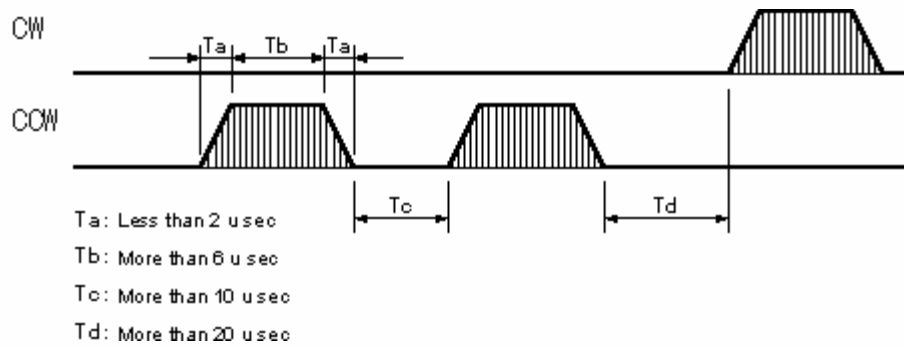
##### 2 Clock (Bi-Clock)



##### 1 Clock (Gate)



#### 3.2 Pulse Waveform Signal



#### 4. Driver Functions

A. Chassis Ground

B. Power Supply Input Terminals

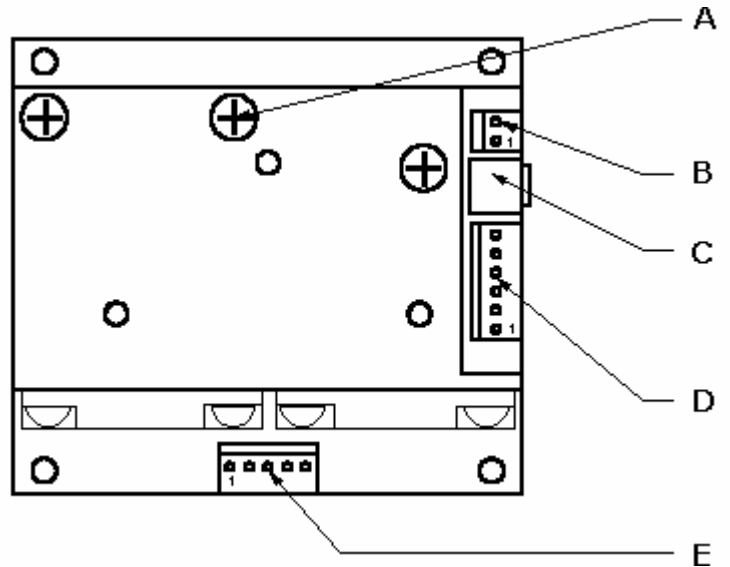
C. Current Adjustment VR

D. Input Signals Connector

E. Motor lead terminals

Color coded motor leads are connected to these Terminals.

Note: No connections should be made while the driver power is ON.



##### 4.1 Explanation

CN2 connector. Manufacturer JAE, Part Number: IL-6S-S3L-N

Pin Definition	
Pin Number	Signal
1	CW+
2	CW-
3	CCW+
4	CCW-
5	CO+
6	CO-

##### 4.1.1 Motor Current Shutoff Input Terminal ( CO )

The motor will not run while this input is ON.

##### 4.1.2 Auto Current Down ( A. CD.)

The current will automatically drop to 50% when motor stop for 0.1 sec so as to reduce the heat of the motor.

#### 4.1.3 Motor Lead Terminals ( CN3 )

Manufacturer: JAE, Part Number: IL-5S-S3L-N

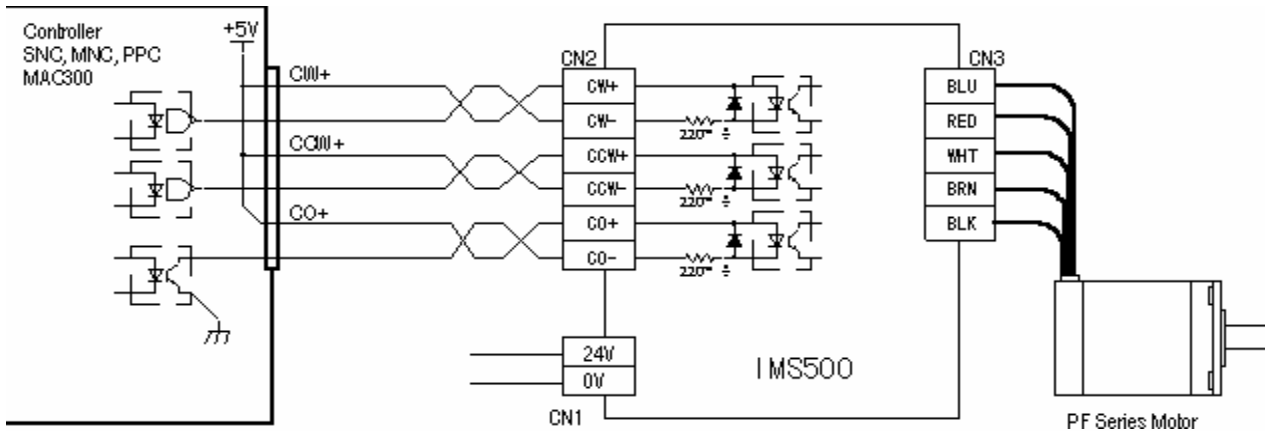
Pin Number	Signal
1	BLUE
2	RED
3	WHITE
4	BROWN
5	BLACK

#### 4.1.4 Power Input Connector ( CN1 )

Manufacturer: JAE, Part Number: IL-2S-S3L-N

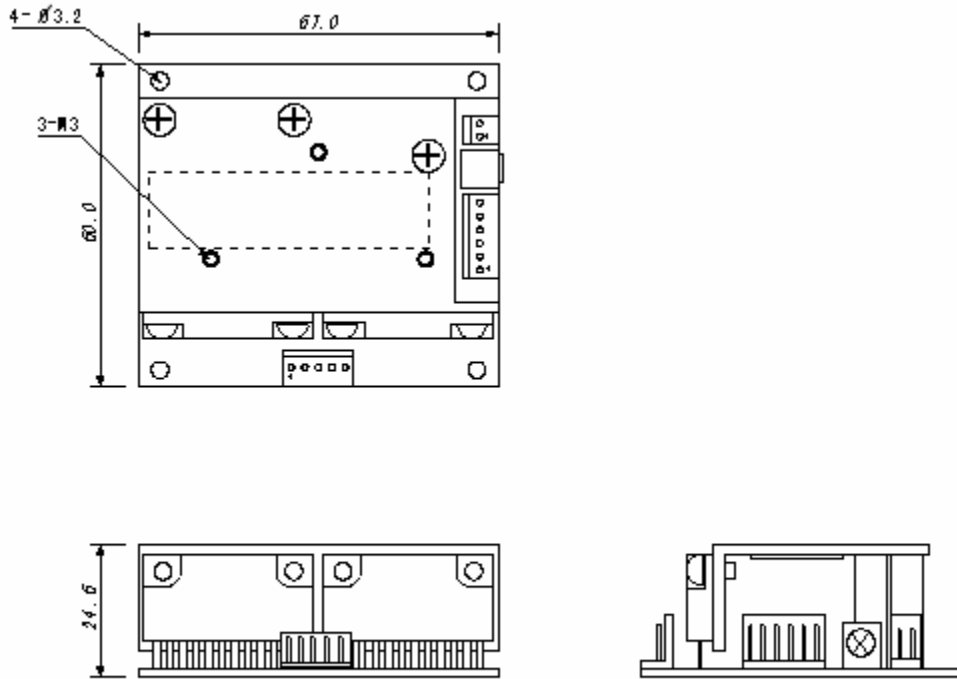
Pin Number	Signal
1	24 V
2	0 V

### 5. Connection Example



6. Dimensions (all dimensions are shown in millimeters)

6.1 IMS500 (Straight Type Connector)



6.1 IMS500L (Right-Angle Type Connector)

