Main Features

- No Mis-step, High Accuracy in Position
- 100% Rated Output Torque
- Variable Current Control Technology. High Current Efficiency
- Reduced vibration, Smooth and Reliable
- Built in Acceleration/Deceleration
- User Defined Micro Step Setting
- compatible with 1000 and 2500 lines encoder
- No tune adjustment in Generation Application
- Lack of Phase/ Over Current/ Over Voltage Protection
- Indicating Status LED

Introduction

PSSD86H two phase hybrid step servo drive system integrate servo control technology as the control system. It employ control method which include current loop, speed loop and position loop control. This drive has both the advantage of stepper and servo system and is a very cost effective motion control product.

Electrical Specification

Parameters	Min	Typical	Max	Unit
Supply voltage	24V	60V	75V	VAC
Output Current (Peak)	-	-	8.0	Amps
Logic Input Current	-	10	-	mA
Pulse input frequency	-	-	200	KHz
Low Level Time	2.5	-	-	µsec

Environment Specification

Cooling	Natural Cooling or Forced Convection	
Environment	Space	Avoid dust, oil frost and corrosive gases
	Ambient Temperature	-20°C—+80°C
	Humidity	<80%RH
	Vibration	5.9m/s² Max
Storage Temp.	-20°C—+80°C	
Weight	Approx. 580 gram	

Dip Switch Setting

Microstep Resolution Setting :

| Step / Rev.	SW3	SW4	SW5	SW6
Default	ON	ON	ON	ON
800	OFF	ON	ON	ON
1600	ON	OFF	ON	ON
3200	OFF	OFF	ON	ON
6400	ON	ON	OFF	ON
12800	OFF	ON	OFF	ON
25600	ON	OFF	OFF	ON
51200	OFF	OFF	OFF	ON
1000	ON	ON	ON	OFF
2000	OFF	ON	ON	OFF
4000	ON	OFF	ON	OFF
5000	OFF	OFF	ON	OFF
8000	ON	ON	OFF	OFF
10000	OFF	ON	OFF	OFF
20000	ON	OFF	OFF	OFF
40000	OFF	OFF	OFF	OFF

Input Edge Settings :

*SW1 : Dip Switch
check Input Edge Setting
OFF:Rising Edge
ON :Trailing Edge

Logical Direction Settings :
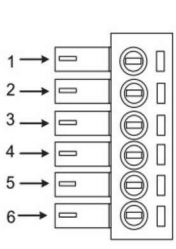
*SW2 : Dip Switch
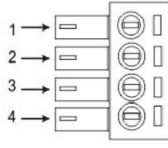Changing motor direction
OFF: CCW
ON : CW
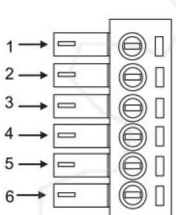
Dimensions
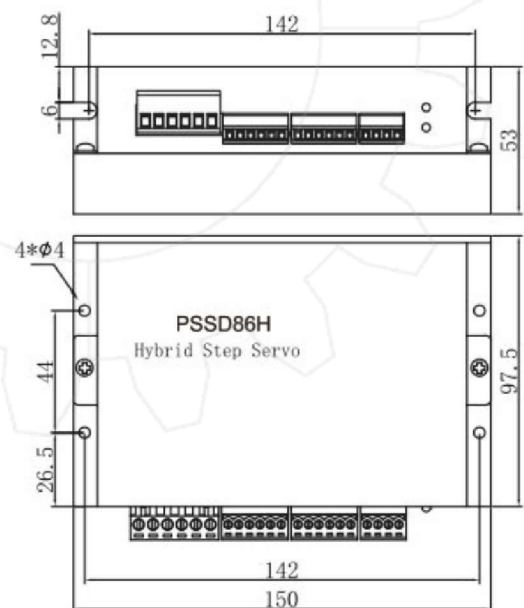
Port Assigment

1. Control Signal Input Port

Port	Symbol	Name	Remark
1	DIR-	Pulse signal +	Compatible with 5V or 24V
2	DIR+	Pulse signal -	Compatible with 5V or 24V
3	PUL-	Direction signal+	Compatible with 5V or 24V
4	PUL+	Direction signal-	Compatible with 5V or 24V
5	ENA-	Enable signal +	Compatible with 5V or 24V
6	ENA+	Enable signal -	Compatible with 5V or 24V

3. ALM and PEND Signal Output Port
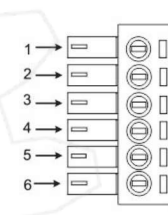
Port	Symbol	Name	Remark
1	PEND+	In position signal output +	
2	PEND-	In position signal output -	
3	ALM+	Alarm output +	
4	ALM-	Alarm output -	

2. Power Interface Port

Port		Symbol	Name	Remark
1	Motor Phase Wire Input Ports	A+	Phase A+(Red)	Motor Phase A
2		A-	Phase A- (Blue)	Motor Phase A
3		B+	Phase B+(Green)	Motor Phase B
4		B-	Phase B-(Black)	Motor Phase B
5	Power Input Ports	VCC	Input Power +	AC24V-75V DC30-110V
6		GND	Input Power-	AC24V-75V DC30-110V

4. Encoder Feedback Signal Input Port

Port	Symbol	Name	Wiring color
1	PB+	Encoder phase B +	Blue
2	PB-	Encoder phase B -	White
3	PA+	Encoder phase A +	Yellow
4	PA-	Encoder phase A -	Green
5	VCC	Input power	Red
6	GND	Input power ground	Black

## Fault Alarm (LED Flicker)

0.8s Red Alarm LED Flash   2s Time Interval
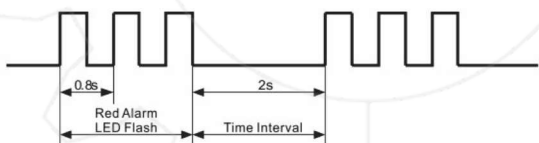
Flicker Frequency	Description to the Faults
1	Error occurs when the motor coil current exceeds the drive's current limit.
2	Voltage reference error in the drive
3	Parameters upload error in the drive
4	Error occurs when the input voltage exceeds the drive's voltage limit.
5	Error occurs when the actual position following error exceeds the limit which is set by the position error limit.

Wiring

Remark: *VCC is compatible with 5V or 24V:
R1 (3~5K) must be connected to control signal terminal.
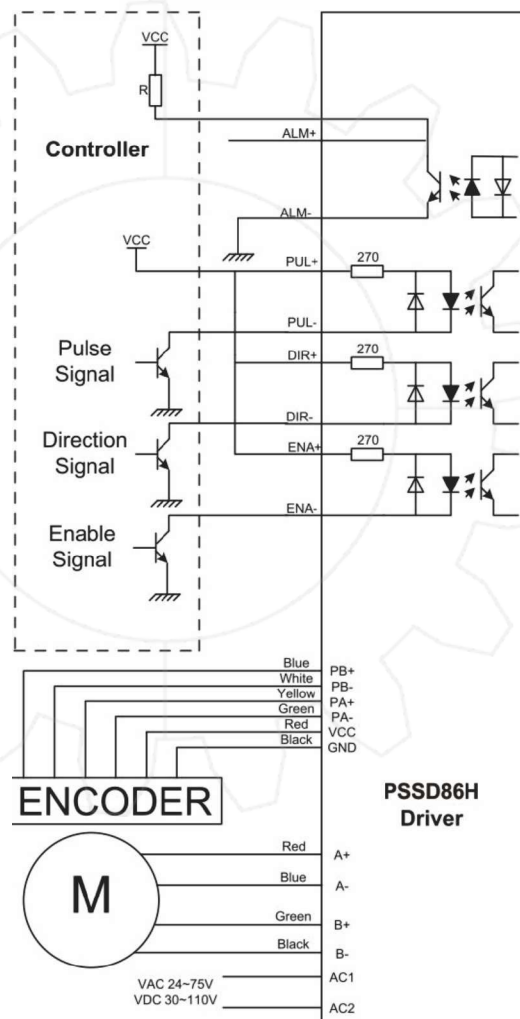
Control Signals

In order to maintain proper operation of the step servo system, PUL,DIR and ENA are supplied to the driver with the below rule and condition :
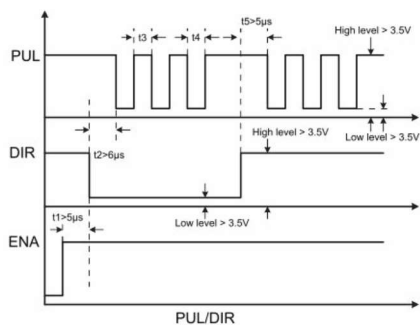
Remark:
a. t1 : ENA must be ahead of DIR by at least 5 us. Usually, ENA+ and ENA- are NC (not connected).
b. t2 : DIR must be ahead of PUL active edge by 6us to ensure correct direction.
c. t3 : Pulse width not less than 2.5us.
d. t4 : Low level width not less than 2.5us.