

## katranji LCDA257S Closed – Loop Stepper Driver User Manual

[Home](#) » [katranji](#) » [katranji LCDA257S Closed – Loop Stepper Driver User Manual](#) 

# Katranji

### LCDA257S Closed – Loop Stepper Driver User's Manual



#### Contents

- 1 Installation
- 2 Drive terminal description
- 3 Control port wiring
- 4 Control signal timing diagram
- 5 Four. Parameter settings
- 6 Documents / Resources
- 7 Related Posts

#### Installation

### 1. Electrical indicators

Voltage input range : DC:20~50V (Recommended 36V or more)

Maximum output current:6A

Pulse form: pulse + direction, CW / CCW

Logic input current:10~20mA

Impulse response frequency:0~200KHZ

Insulation resistance:500M

### 2. Environmental indicators

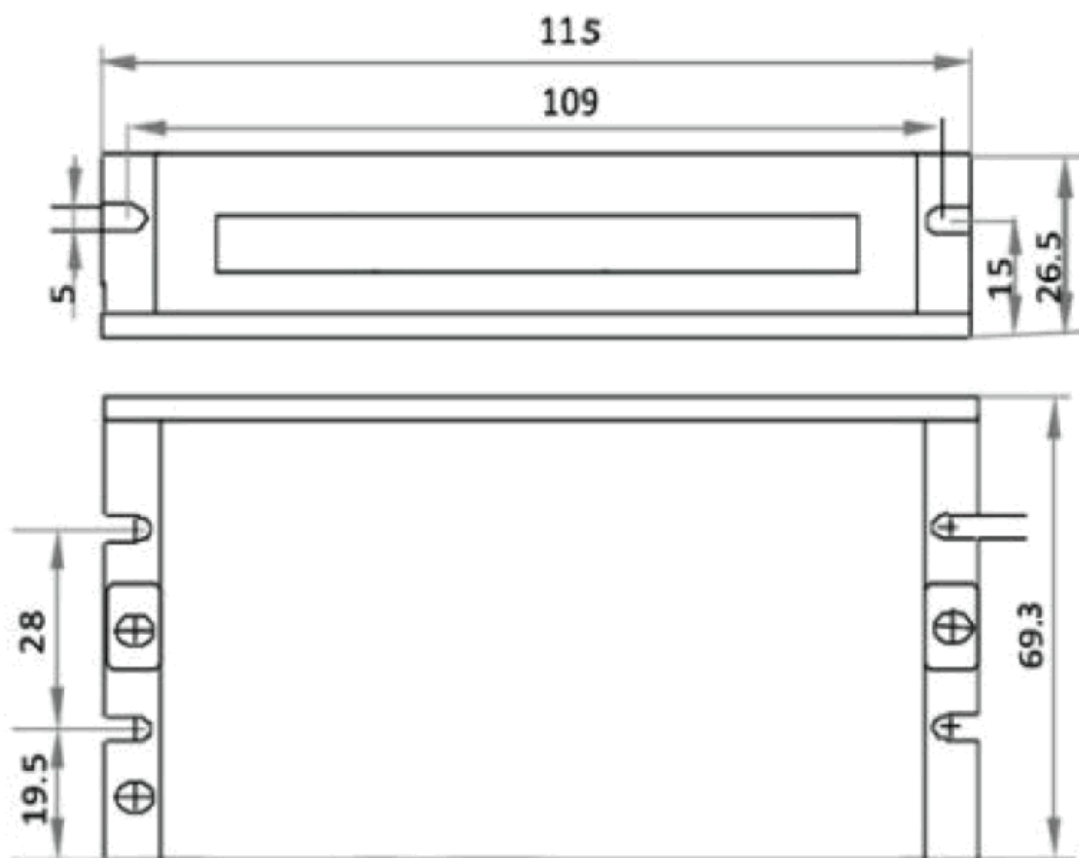
Save the temperature:-20C°~80C°

Operating temperature:0C°~55C°

Use humidity:90%RH(No condensation)

Vibration frequency: Less than0.5G(4.9m/s?)10HZ~60HZ(Non-continuous operation)

### 3. Installation dimensions(unit mm)



**Drive installation dimensions**

### Drive terminal description

### Power terminal definition

| Serial number | symbol | Functional definition                                         |
|---------------|--------|---------------------------------------------------------------|
| 1             | A+     | Motor power line terminal wiring color See motor on the label |
| 2             | A—     |                                                               |
| 3             | B+     |                                                               |
| 4             | B-     |                                                               |
| 5             | +VDC   | DC power input terminal recommended DC 36V or more            |
| 6             | GND    |                                                               |

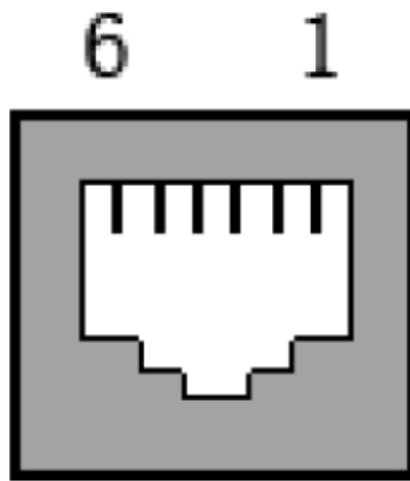
#### Drive control terminal definition

| Pin | symbol | Description              |
|-----|--------|--------------------------|
| 1   | PUL+   | Pulse input positive     |
| 2   | PUL-   | Pulse input negative     |
| 3   | DIR+   | Direction input positive |
| 4   | DIR-   | Direction input negative |
| 5   | ENA+   | Enable input positive    |

| Pin | symbol | Description           |
|-----|--------|-----------------------|
| 6   | ENA-   | Enable input negative |
| 7   | ALM+   | Alarm output positive |
| 8   | ALM-   | Alarm output negative |
|     |        |                       |
|     |        |                       |

#### Drive encoder terminal definition

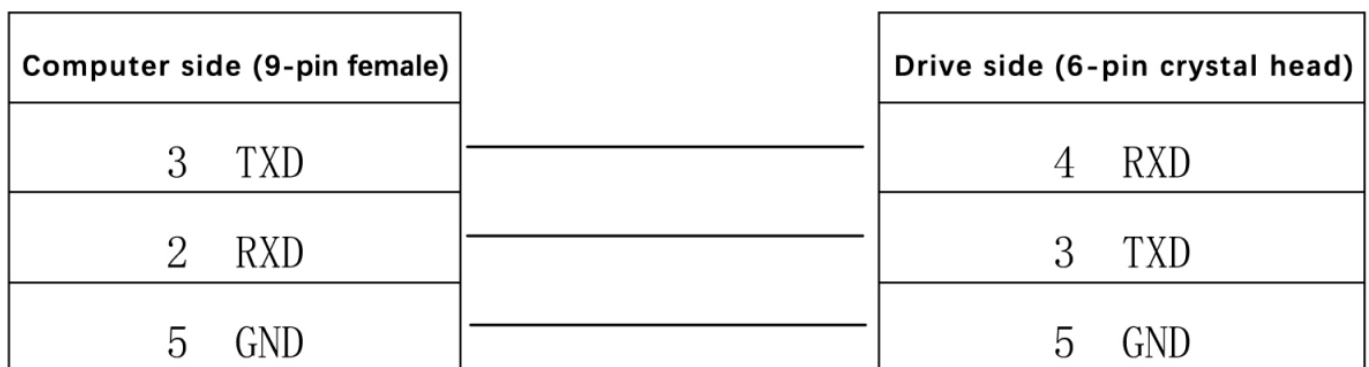
| P i n | symbol | Colour | Description                  |
|-------|--------|--------|------------------------------|
| 1     | EB+    | yellow | Encoder B signal is positive |
| 2     | EB-    | green  | Encoder B signal is negative |
| 3     | EA+    | black  | Encoder A signal is positive |
| 4     | EA-    | blue   | Encoder A signal is negative |
| 5     | VCC    | red    | Encoder + 5V input           |
| 6     | EGND   | white  | Encoder power ground         |



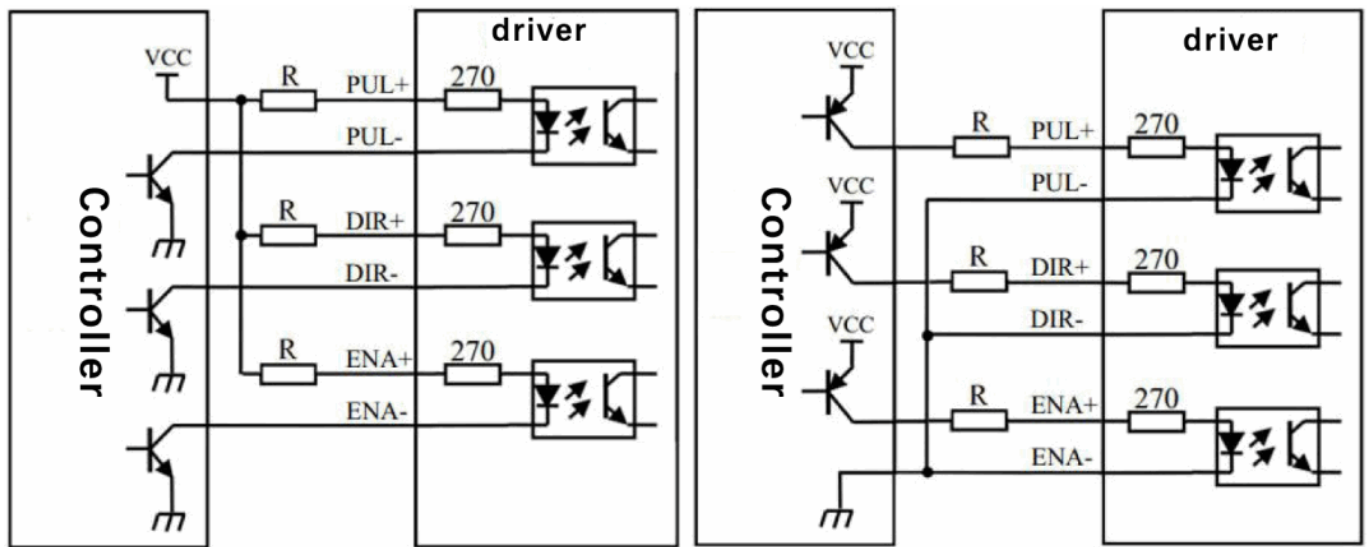
#### Drive communication terminal definition

| pin | symbol | Remarks             |
|-----|--------|---------------------|
| 1   | NC     | No definition       |
| 2   | GND    | Signal ground       |
| 3   | TXD    | RS232 Sending end   |
| 4   | RXD    | RS232 Receiving end |
| 5   | GND    | Signal ground       |
| 6   | +5V    | Power is positive   |

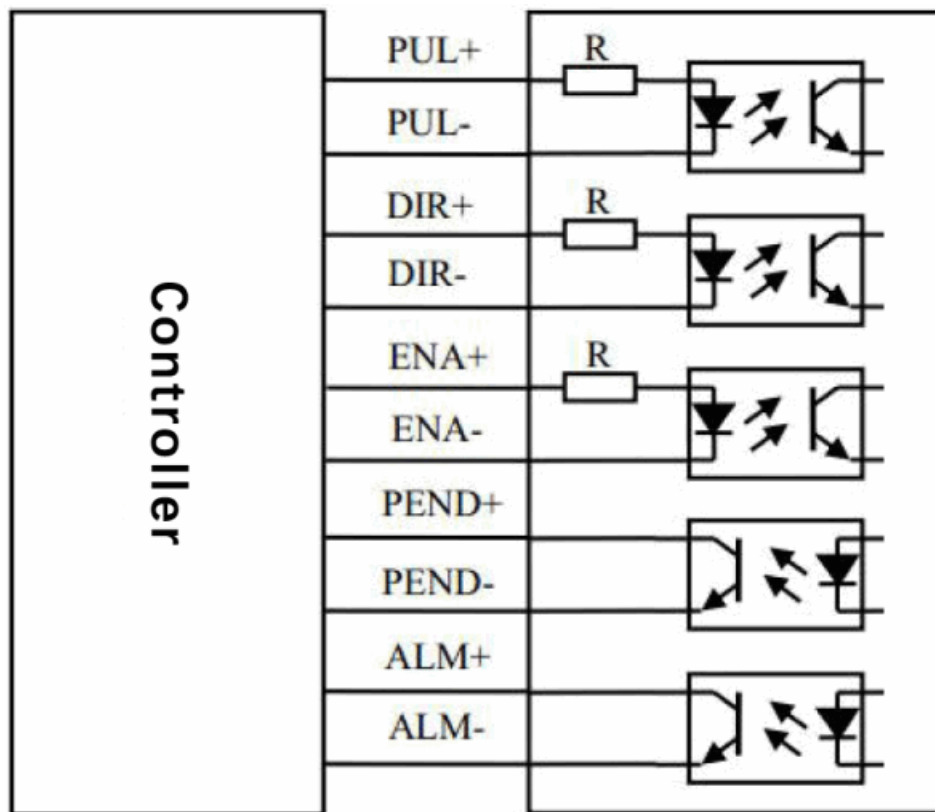
#### Drive and computer communication line connection



#### Control port wiring



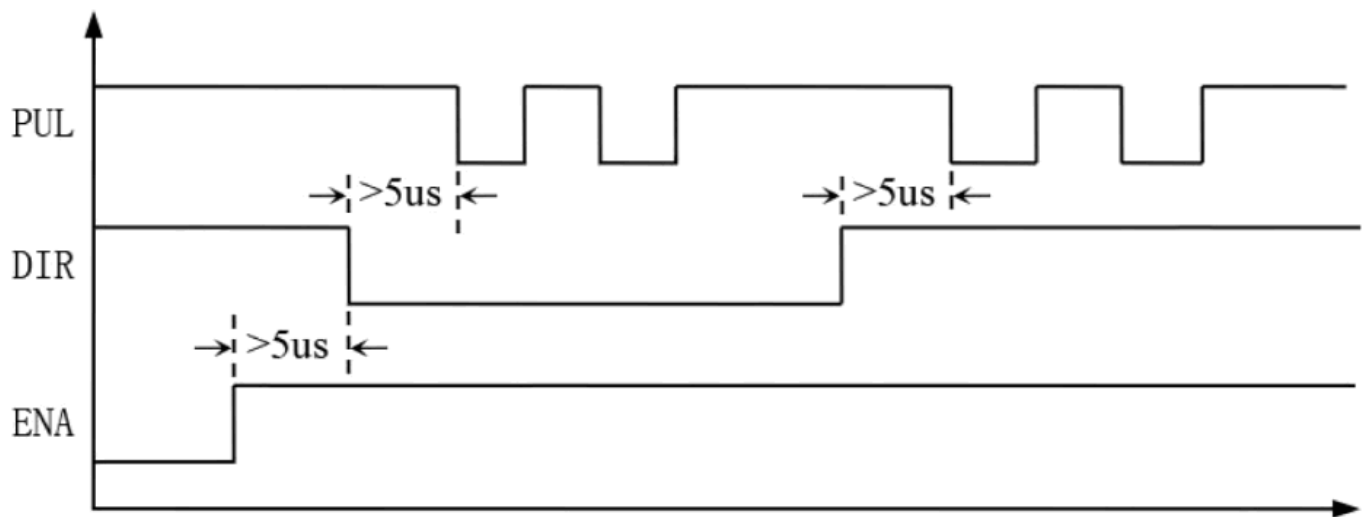
Pic 2 Common anode wiring method Pic 3 Common cathode wiring method



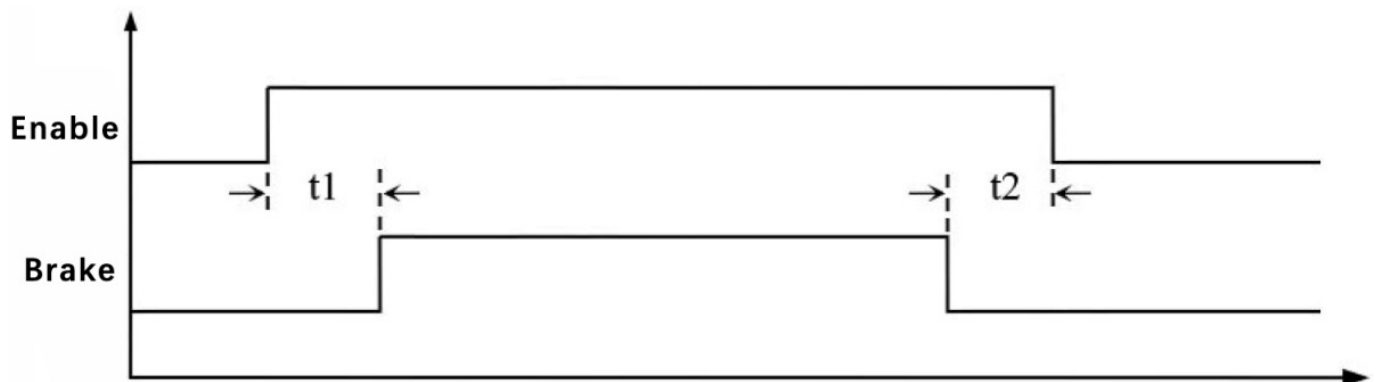
Pic 4 Differential signal input and output signal connection

**Note:** When the control signal voltage  $VCC = 24V$ , the current limiting resistor  $R = 3K$ ;  
 When the control signal voltage  $VCC = 5V$ , the current limiting resistor  $R = 0$ ;

**Control signal timing diagram**



**Pic 5 Control signal timing diagram**



**Pic 6 Motor brake signal control timing diagram**

**Note:** Hold time delay Brake delay time  
Three, DIP switch setting

This series of drive current for the automatic tuning, so do not need to manually set the current, DIP switch corresponding functions are as follows:

Set the drive subdivision (see details on the driver

SW1~SW4 : are shell subdivision table)

SW5 :: Set the motor direction

SW6 : Current self-tuning mode switch

SW7 : Working mode selection

SWS : Pulse input form selection

SW9 : Pulse edge selection

#### **Four. Parameter settings**

**Common parameters are shown in the table below:**

| Parameter number | Parameter Description                   | Predetermined are<br>a |  |
|------------------|-----------------------------------------|------------------------|--|
| PA_002           | Position loop low speed P               | 1~32767                |  |
| PA_003           | Position loop high speed P              | 1~32767                |  |
| PA_004           | Sped loop low speed P                   | 1~32767                |  |
| PA_005           | Speed loop high speed P                 | 1~32767                |  |
| PA_006           | Set the number of pulses per revolution | 200~ 32767             |  |
| PA_008           | Position error limit                    | 10~32767               |  |
| PA_013           | Rated current percentage                | 1~100                  |  |
| PA_015           | Input filter switch                     | 0~1                    |  |
| PA_016           | Input filter time                       | 0~ 32767               |  |
| PA_017           | Enable level selection                  | 0~1                    |  |
| PA_018           | Faulty state selection                  | 0~1                    |  |
| PA 020           | Pulse mode selection                    | 0~65536                |  |
| PA_021           | Restore factory parameters              | 0~1                    |  |
| PA_028           | Percentage of open loop torque          | 0~ 100                 |  |
| PA_029           | Speed loop denounce time                | 0~65536                |  |
| PA_030           | Speed loop integral                     | 1~100                  |  |

# Katranji

## Documents / Resources

|                                                                                     |                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <a href="#">katranji LCDA257S Closed - Loop Stepper Driver</a> [pdf] User Manual<br>LCDA257S Closed - Loop Stepper Driver, LCDA257S, Closed - Loop Stepper Driver, Loop Step<br>per Driver, Stepper Driver, Driver |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|