

# Electric Displacement Stage Peripheral Equipment ▶ DC12-48V Two-phase Digital Stepper Motor Driver



Please order according to the diagram

①~② Select the type and parameters in the order for ordering.

Model(①Code)

② Voltage

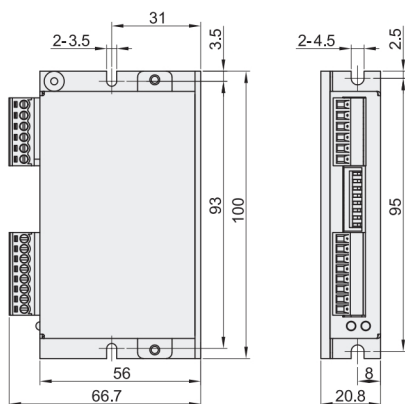
RCYOE

DC12-48V



Price Excluding Tax (Yuan)

Disco/United Price	Quantity	1~9	10~
Price	100%	Separate Quotation	



Code

RCYOE

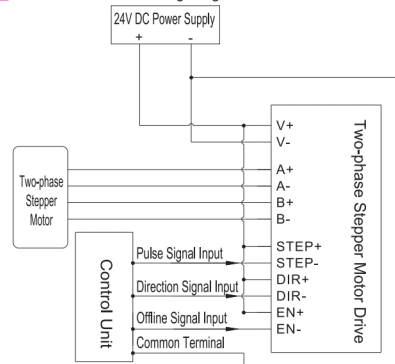
Type

Two-phase Digital Stepper Motor Driver

## Features:

- Output Current: Set via dial switch, with 8 options, up to 2.2 amps (peak).
- Current Control: Utilizes PID current control algorithm for high-speed, high-torque output with low vibration, low noise, and low heat generation.
- Microstep Settings: Adjustable via dial switch, offering 16 microstep modes, up to 25,000 steps per revolution.
- Speed Range: When paired with a compatible stepper motor, can reach up to 3,000 rpm.
- Resonance Suppression: Automatically calculates resonance points to suppress mid-frequency vibrations.
- Control Modes: Supports pulse & direction mode, as well as dual-pulse mode.
- Input Filtering: Equipped with 2MHz/150KHz digital signal filters.
- Product Self-test: Enables start/stop via dial switch, with the motor performing two full cycles of forward and reverse rotation at 1 rev/s.
- Load Inertia Adjustment: Dial switch allows selection of varying load inertia settings to optimize system performance.
- Interpolation: When selected via dial switch, it reduces motor vibration and enhances motion smoothness.

## Common Cathode Wiring Diagram of Driver



① This driver also supports common cathode and differential wiring methods.

Model	Voltage	Drive Current	Subdivision
Code			
RC YOE	DC12-48V	0.3-2.2A/phase	16 Speed

## Electrical Performance (at ambient temperature Tj=25℃)

Driver Parameters	Minimum	Typical	Maximum	Unit
Supply Voltage	12	—	48	VDC
Output Current (Peak)	0.3	—	2.2	Amps
Control Signal On-State Current	6	10	15	mA
Step Pulse Frequency	2	—	2M	Hz
Step Pulse Width	250	—	—	ns
Direction Signal Width	50	—	—	us
Undervoltage Protection Point	—	10	—	VDC
Overvoltage Protection Point	—	52	—	VDC
Input Signal Voltage	4	—	28	VDC
Driver Initialization Time	—	—	2.5	S

① The polarity of the power supply must be taken seriously, and reverse connection is strictly prohibited.

## Subdivision Selection

Subdivision	SW5	SW6	SW7	SW8
200	ON	ON	ON	ON
400	OFF	ON	ON	ON
800	ON	OFF	ON	ON
1600	OFF	OFF	ON	ON
3200	ON	ON	OFF	ON
6400	OFF	ON	OFF	ON
12800	ON	OFF	OFF	ON
25600	OFF	OFF	OFF	ON

## Output Current Selection

Operating Current (Peak)	SW1	SW2	SW3
0.3A	ON	ON	ON
0.5A	OFF	ON	ON
0.7A	ON	OFF	ON
1.0A	OFF	OFF	ON
1.3A	ON	ON	OFF
1.6A	OFF	ON	OFF
1.9A	ON	OFF	OFF
2.2A	OFF	OFF	OFF

Subdivision	SW5	SW6	SW7	SW8
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
25000	OFF	OFF	OFF	OFF