

YKA2304ME Driver with microstep



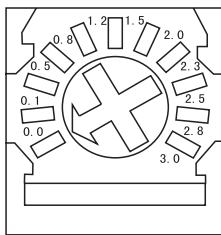
Feature

- High performance, low prices
- Provides 6 kinds of microstep selection
- Special control circuit, greatly amounts to 200Kpps.
- Upmost response frequency amounts to 200Kpps
- Once the pulse stops for 100ms, phase current automatically cut by half.
- Bipolar constant current chopper control
- photocoupler isolated input/output
- Drive current from 0.6A/phase to 3.0A/phase
- Single power input, voltage range from DC12-40V
- Protection circuit
 - Overheat protection
 - Overcurrent, under voltage protection
- Dimension: 25x136x92(mm³), Net weight : 0.13kg

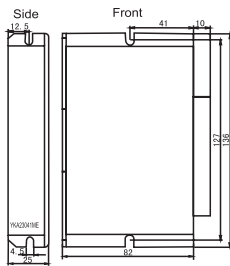
Description

YKA2304ME is a constant torque driver with microstep, voltage range from DC12-40V, single power input. It can match 6 leads or 8 leads two phase hybrid step motors whose rated current under 3.0A, flange size range from 42~86mm. Owe to bipolar constant current chopping circuit, the motor can run smoothly and hardly has any noise; Raising the voltage can greatly improve high speed performance and output torque of the motor. Once the pulse stops for 100ms, the phase current will automatically cut by half, which can reduce chances of overheat. Users can operate the driver with microstep in low speed occasion. The upmost microstep can be set to 64 x.

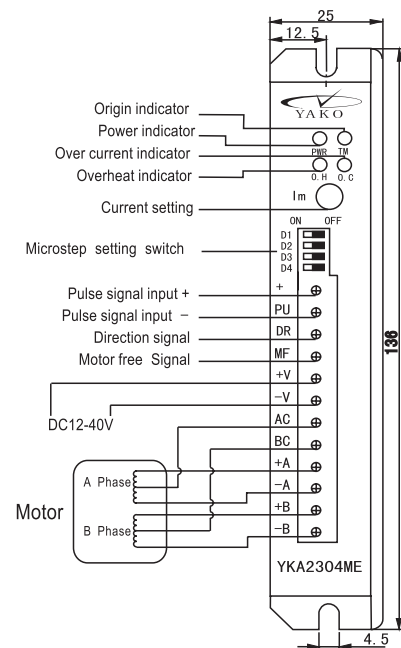
Running current setting



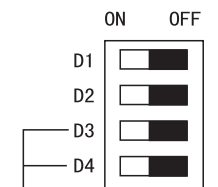
Installation dimensions(Unit:mm)



Driver Connection

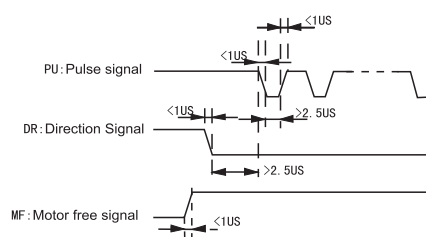


DIP Switch Function setting



Microstep Setting (details pls note the microstep setting)

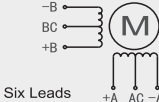
Input signal timing diagram



YKA2304MA Microstep Setting List

Microstep	8	16	32	64
D4	ON	OFF	ON	OFF
D3	ON	ON	OFF	OFF
D2	NULL			
D1	NULL			

Terminal Assignment

Mark	Function	Instruction
POWER	Power indicator	When power on, the green LED lights
TM	Origin/Pulse output indicator	Passing the origin or there is pulse output, the green LED lights
O.H	Overheat indicator	When overheat occurs, the red LED lights
O.C	Overcurrent/Under voltage indicator	When current exceeds rated value or voltage lower rated value, the red LED lights.
Im	Phase current setting adjuster	Turning it clockwise will increase the current, clockwise decrease current.
+	Input signal positive side	+5V is standard signal input voltage. But we can revise it according to clients' request.
PU	PU is pulse signal	Effects on falling edge, the motor goes one step as the pulse input change from "high" to "low". Input resistance is 220Ω. Requirement: input low: 0-0.5V, input high: 4-5V, pulse width > 2.5μs
DR	DR is direction control signal	Use to change the direction. Input resistance is 220Ω. Requirement: input low: 0-0.5V, input high: 4-5V, pulse width > 2.5μs
MF	Motor free signal	When effects, it cut off motor current, the driver stops working and sets the motor free
+V	Power+	DC12-40V
-V	Power-	
AC, BC	Connect to the motor	
+A, -A		
+B, -B		

Caution

1. Do not reverse the power input, input voltage should not exceed DC40V.
2. Input logic should be 5V, otherwise it should connect a resistor
3. Due to the special control circuit, this module only for 6 leads or 8 leads step motors.
4. O.H is malfunction indicator. Once the driver temperature exceeds 70°C, the current will be cut off automatically and the driver will resume working till the temperature drops to 50°C. If this happens, please install ventilation equipment.
5. Once over current (short circuit)/under voltage occur, LED O.C lights, please shut off power and check the electricity circuit to solve the problem, then restore power supply
6. PWR is power indicator, it lights when power on
7. Passing the origin or there is pulse output, TM LED lights