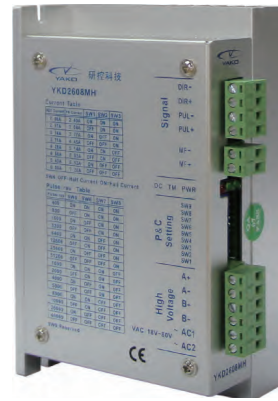# YKD2608MH DSP Stepper Driver

Feature

● 32 bit DSP control technology, low noise/vibration with excellent stability and low cost
● 16 constant-torque microstep settings, 256 microsteps the highest
● Smooth and accurate current control, effectively reduce motor heats
● 350Kpps pulse response frequency
● After step pulse stops for 200ms, output current automatically halve to reduce motor heat
● Excellent smoothness in low frequency high microstep applications
● Photoelectric isolated signal input/output, high anti-interference ability
● Drive current adjustable (under 6A)
● Input voltage range: AC18~80V
● Fault protection: over current, over voltage, low voltage protection, etc.
● Small size: 151*94*54mm, 0.5kg

Description

YKD2608MH is high performance digital step driver based on YAKO's new 32-bit DSP technology. It's designed for various models of two phase 57~86mm (NEMA 23~34) hybrid stepper motors which current are below 6A.
With servo-similar control circuit and superior software algorithm, YKD2608MH has superior performance in smoothness, noise and vibration. Smooth and accurate current control technology greatly reduces motor heat.
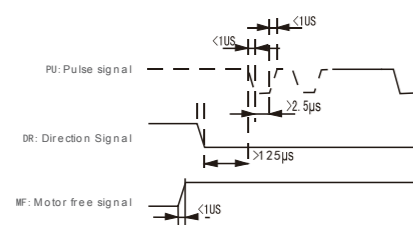
Installation Dimensions (mm)
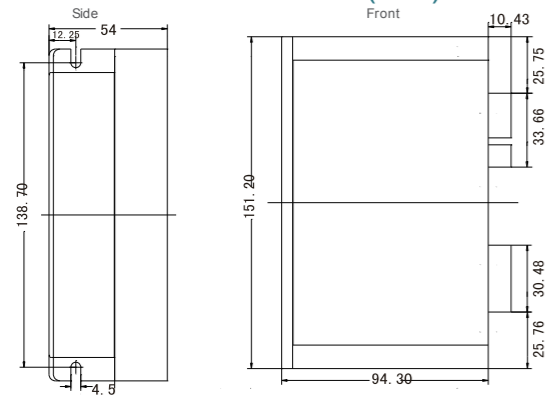
Driver Connection
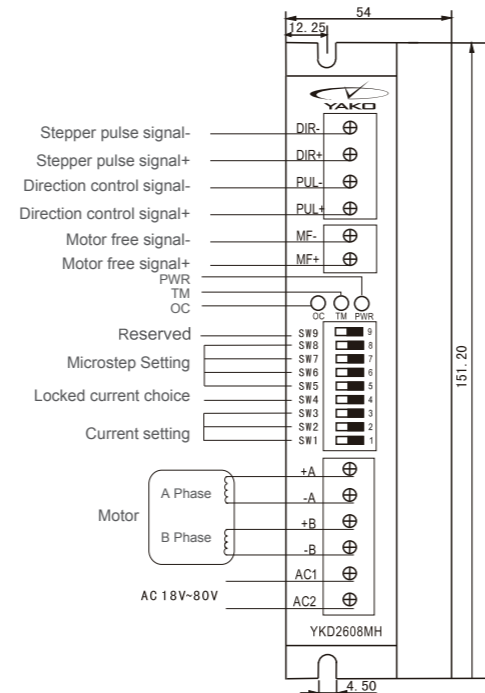
Waveform Sequence Diagram of Input Signals

YKD2608MH Microstep Setting

Microstep	1	2	4	8	16	32	64	128	5	10	20	25	40	50	100	200
PU/Rev	Default (200)	400	800	1600	3200	6400	12800	25600	1000	2000	4000	5000	8000	10000	20000	40000
SW8	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
SW7	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF
SW6	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF
SW5	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF

SW9:Reserved

YKD2608MH Current Setting

RMS	2.00	2.57	3.14	3.71	4.28	4.86	5.43	6.00
Peak	2.40	3.08	3.77	4.45	5.14	5.83	6.52	7.20
SW3	ON	ON	ON	ON	OFF	OFF	OFF	OFF
SW2	ON	ON	OFF	OFF	ON	ON	OFF	OFF
SW1	ON	OFF	ON	OFF	ON	OFF	ON	OFF

SW4:OFF=Half Current (半流锁定)
ON=Full Current (全流锁定)

Terminal Introduction

Mark	Function	Specification
PWR	Power indicator	When power on, the green LED lights
TM	Original signal	Pulse signal indicator, the green LED will twinkle, otherwise the LED will on.
O.C	Over current/under voltage indicator	The red LED lights up when over current or under voltage.
PU+	Pulse signal positive head	Connect with +24V or +5V, it should connect with a resistor if the voltage is over 5V.
PU-	Pulse signal negative head	Effects on falling edge, the motor moves one step as the pulse input change from high to low. Built-in input resistance 220Ω. Requirements: low level 0-0.5V, high level 4-5V, the pulse width >2.5us.
DR+	Direction signal positive head	Connect with +24V or +5V, it should connect with a resistor if the voltage is over 5V.
DR-	Direction signal negative head	Used to change motor direction. Built-in resistance 220Ω. Requirements: Low level is 0-0.5V, high level 4-5V, pulse width >2.5us.
MF+	Motor free signal positive side	Connect with +24V or +5V, it should connect with a resistor if the voltage is over 5V.
MF-	Motor free signal negative side	When effective(low level), motor is free.
-V	Power negative	AC18-80V
+V	Power positive	
+A,-A	Connect with motor	4 Leads 6 Leads 8 Leads (Suitable for low speed) 8 Leads (Suitable for high speed)
+B,-B		

Caution

1.Do not reverse the power input, power input voltage should not exceed AC80V.

2.Input control signal level is 5V, otherwise it should connect a resistor.

3.When the ALARM light is on, please cut power and check: The power voltage is under 20VDC or exceed 50VDC\80VDC.
   After checking the electricity circuit to solve the problem, then restart power supply.

4.The green PWR lights up when the driver is power on.