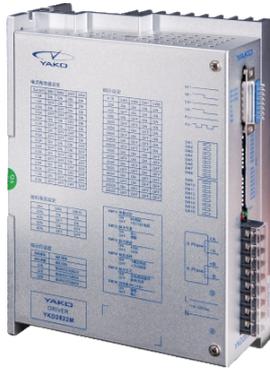


YKD3722M 3 Phase Digital Stepper Motor Driver



● Feature

- New 32 bits of DSP control technology; Input voltage:110-265VAC; max current:7A;
- The max pulse response frequency amounts to 400KHz;
- Set parameters according to different motor models;
- Owns the function of micro-subdivision, which will automatically insert subdivision in low subdivision to make the motor run more smoothly;
- Select the pulse filter frequency according to the speed(rpm) and microstep;
- Suits to the upper computer's control mode flexibly;
- Owns function of self-checking on pulse;
- 4-class of motor lock current, if the pause time of pulse is over 400ms, the current will become the lock current.

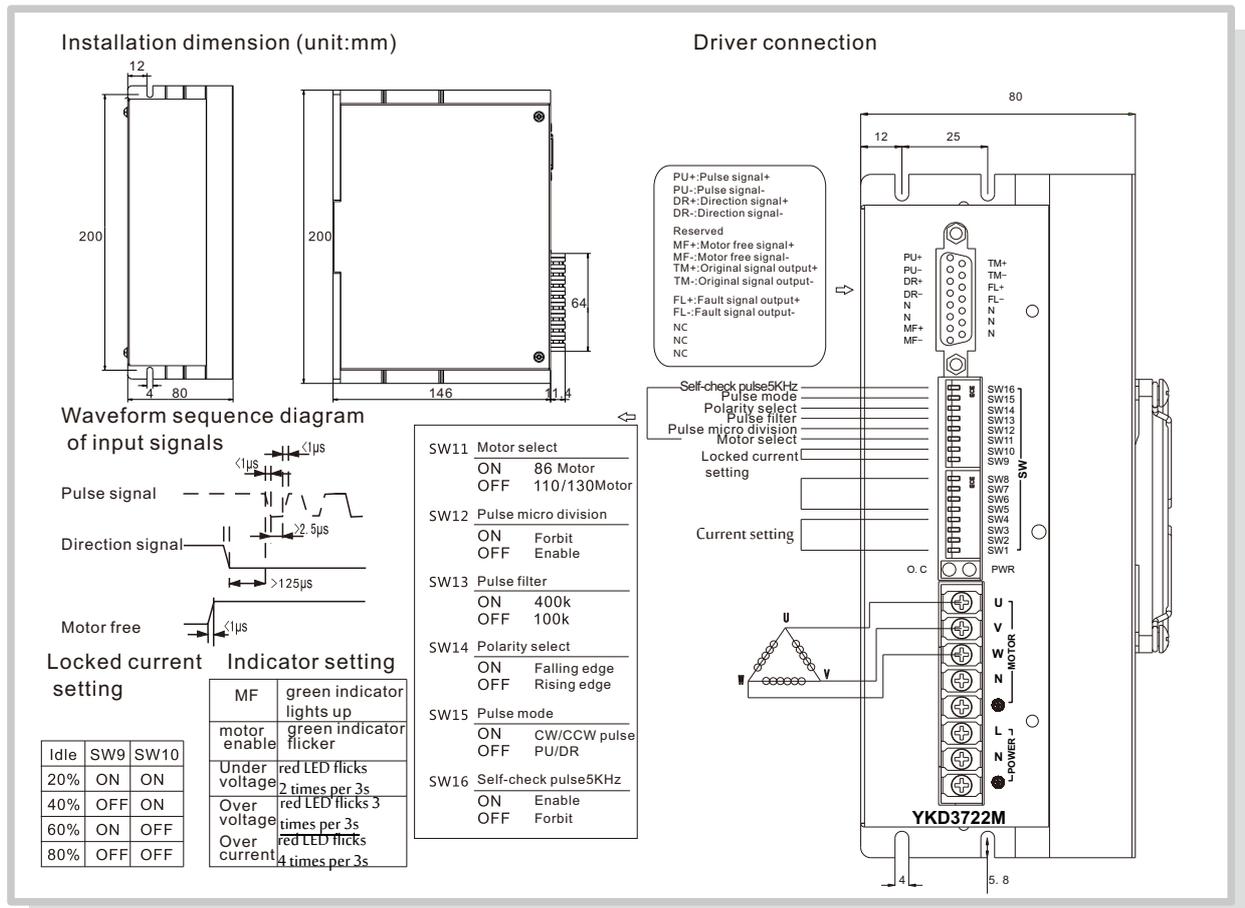
● Application

Mainly used on CNC router, engraving machine, packing machine, laser cutting machine, glass-making machine, embroidery machine, ceramic equipment, electronics equipment, etc.

● Description

YKD3722M is a high performance stepper driver which is based on new 32 bit of DSP technology. The drive voltage is 110-200VAC, the current is under 7A. It's suitable for 86mm/110mm/130mm flange size of 3 phase hybrid stepper motors. The driver internally applies the control technology which is similar to servo. The unique circuit design and excellent software algorithms make motor work more smoothly with lower noise and lower vibration. And the smooth and precise current control technology greatly reduces motor heat. Externally set 16-class of microstep, the positioning accuracy can be up to 6000r/step. Photoelectric isolation differential signal input, strong anti-interference ability; over/under-voltage protection and over-current protection, etc.

● Product diagram



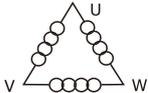
● Microstep setting

PU/Rev	400	500	600	800	1000	1200	2000	3000	4000	5000	6000	10000	12000	20000	30000	60000
SW8	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
SW7	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON
SW6	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON
SW5	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON

● Current setting

RMS	0.7	1.1	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.5	5.0	5.4	5.8	6.2	6.6	7.0
SW4	ON	OFF														
SW3	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF
SW2	ON	ON	OFF	OFF												
SW1	ON	OFF														

● Terminal Assignment

Mark	Function	Instruction
PWR	Power indicator	When power on, the green LED lights up.
O.C	Over current/under voltage/ over voltage indicator	The red LED lights up when it happens over current, over voltage or under voltage.
PU+	Input signal photoelectric isolation+	Connect with +5V or +24V
PU-	SW15=OFF, stepper pulse signal	Effective on falling edge, the motor moves one step as the pulse input change from high to low. Requirements: low level 0-0.5V, high level 4-5V, pulse width >2.5μs.
	SW15=ON, positive pulse signal	
DR+	Input signal photoelectric isolation+	Connect with +5V or +24V
DR-	SW15=OFF, direction signal	Used to change the motor direction. Requirements: low level 0-0.5V, high level 4-5V.
	SW15=ON, negative direction signal	Effective on falling edge, the motor moves one step as the pulse input change from high to low. Requirements: low level 0-0.5V, high level 4-5V, pulse width >2.5μs.
MF+	Input signal photoelectric isolation+	Connect with +5V or +24V
MF-	Motor free signal	Cut off the motor current when in low level, then the motor is free.
FL+	Over current/voltage and under voltage photoelectric isolation positive side	FL+ connect with limited resistor
FL-	Over current/voltage and under voltage photoelectric isolation negative side	FL- connect with GND, max driving current is 50mA, max voltage is 50V.
TM+ / TM-	Original output photoelectric isolation+/-	TM + connects with output limited resistor, TM- connects with GND, the max current is 50mA, the max voltage is 50V.
AC	Power (AC)	AC110-220V
U	Motor connection	
V		
W		

⚡ Caution

- 1.AC220V Do not reverse the power input which should not exceed 220V.
- 2.I/O control signal level is 5V/24V.
- 3.Once over current(over/under voltage) occur, LED O.C lights, please shut off power and check the electricity circuit to solve the problem, then restart power supply.
- 4.PWR is power indicator, it lights when power on.