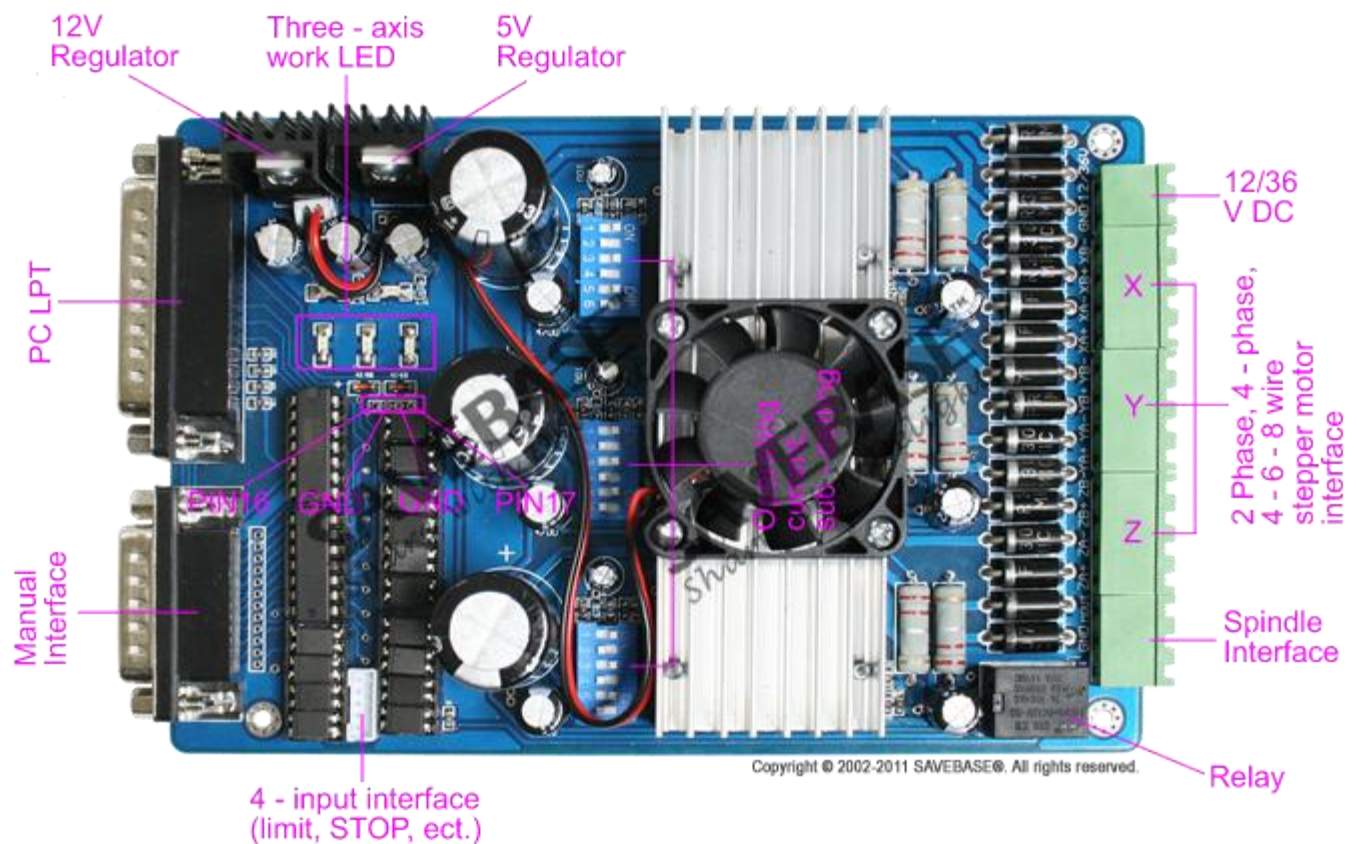


3 Axis CNC Router Stepper Motor Driver Kit NEMA 23 PSU

Package includes:

- 1 x New 3 Axis TB6560 Driver Controller Board 1/16Microstep, 12-36V, 1.5A-3A
- 3 x New 57BYGH56-401A Single-Shaft Stepper Motors 1.26Nm/175oz-in 2.8A
- 1 x New 24V 10A power supply



*Product Features:

- Toshiba TB6560AHQ chip - High power, maximum 3.5A drive current chipset !
[For TB6560AHQ Datasheet, Please click here.](#)
- 1-1/16 microstep setting - Higher accuracy and smoother operation than standard 1, 1/2 step!
- Adjustable 1.5A-3A drive current settings for each axis - 25%,50%,75%,100% of full current can be set for different stepper motors
- Overload, over-current and over-temperature safety - Full protection for your computer and peripheral equipment !
- On board current switching - Power output can be set according to specific user requirement !
- Full closed-type optical isolation to protect the user's computer and equipment
- Relay spindle interface - Outputs Max. 36V 7.5A for spindle motors or coolant pump (only one device can be powered by this output!)

- 4 channel inputs interface- Can be used for XYZ limit and emergency stop !
- Professional design - Two stage signal processing with super anti-jamming !
- Bipolar constant current chopper drive with non-resonant region - Controls motors smoothly through range without creep effect !
- Four control inputs (divided into pairs of knives) - Allows setting of limit and emergency stop !
- Universal architecture - Supports most parallel software MACH3,KCAM4 etc!

**For compatibility with other softwares, please feel free to contact us!*

✿ **Dip settings:**

Current Setting	1	2	Decay Mode Settings	3	4	MicroStep Settings	5	6
100%	ON	ON	FAST	ON	ON	1	ON	ON
75%	ON	OFF	25%	ON	OFF	1/2	ON	OFF
50%	OFF	ON	50%	OFF	ON	1/8	OFF	ON
25%	OFF	OFF	SLOW	OFF	OFF	1/16	OFF	OFF

✿ **Further Details:**

- Power supply DC 12-36V
**This driver get its power from the same unit as the steppers, it doesn't require a separate power source.*
**Voltage Selection:*
12-16V DC power supply for Nema 17 stepper motors
16-24V DC power supply for Nema 23 stepper motors
24-36V DC power supply for Nema 34 stepper motors
(High voltage will burn up the chips or stepper motors!!!)
**Ampertage Selection:*
Output current of the power supply can be calculated by the following expressions:
Output current = Rated current of your stepper motors * quantity + 2A
(For example, if you want to drive 3 * 3A Nema 23 stepper motors, theoretically 24V 11A DC power supply is recommended, but higher power such as 24V 15A also will be good.
If you are not sure about the selection of power supply, please feel free to contact us for help)
- The power output of 12V shall be applied to the radiator fan of 12V
- Driver output compatible with 2 or 4 phase, 4,6 or 8 lead stepper motors, 3A max.
- Suitable for unipolar or bipolar stepper motors.
- Voltage regulated spindle speed controlled by parallel interface as function of supply voltage.

***NOTE:** *Please SHUT DOWN the power before you plug or unplug the connectors to avoid burning up the board.*

✿ **Connection Diagram:**

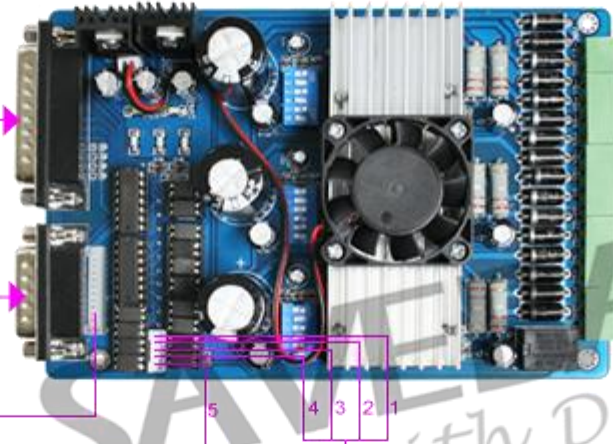
***NOTE:** *These external tools on the left and bottom of the following picture are only for exhibition, we don't have them to sell at the moment!*



OR



OR



12-36V
GND



OR



OR



1-P10 2-P11 3-P12 4-P13 5-GND

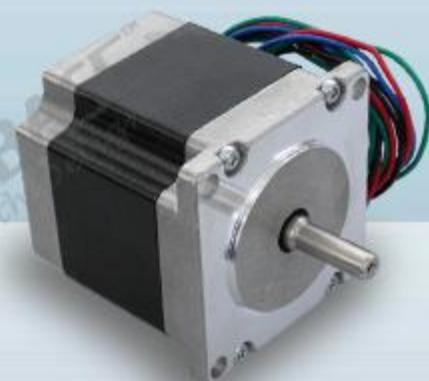
descriptions

Electrical properties (ambient temperature $T_j = 25\text{ }^{\circ}\text{C}$ pm) :	
Input Power	12-36V DC power supply
Stepper motor drive current	1.5A - 3A/phase
Drive type	Double-pole constant flow PWM actuation output
Compatible Stepper motors	2 or 4 phase, 4,6 or 8 lead stepper motors, 3A max.

Data Sheet for **57BYGH56-401A** Stepper Motor

Technique parameter

Item	Specifications
Step Angle Accuracy	± 5%(full step, no load)
Resistance Accuracy	± 10%
Inductance Accuracy	± 20%
Temperature Rise	80°CMax.(rated current, 2 phase on)
Ambient Temperature	-10°C~+50°C
Insulation Class	B
Dielectric Strength	500VAC for one minute
Shaft Radial Play	0.06Max.(450 g-load)
Shaft Axial Play	0.08Max.(450 g-load)

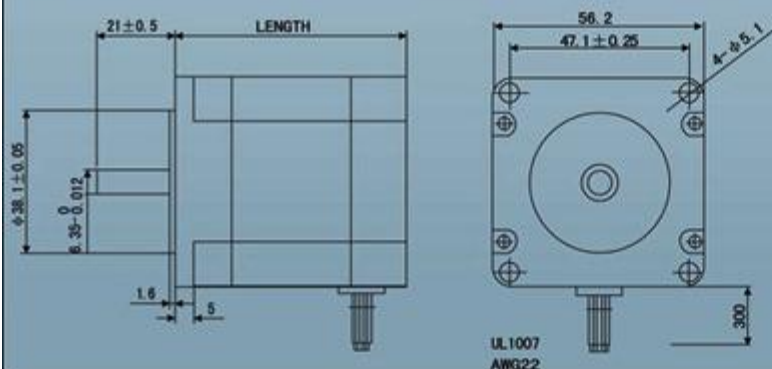


Technique Specification

Model		Step angle	Motor length	Rated current	Phase resistance	Phase inductance	Holding torque		lead wire	Rotor inertia	Weight
单出轴 Single Shaft	双出轴 Double Shaft	°	L(mm)	A	Ω	mH	Oz-in	kgf.cm	No.	g.cm ²	kg
57BYGH41-601A	57BYGH41-601B	1.8	41	1.0	5.7	5.4	55	3.9	6	120	0.47
57BYGH41-602A	57BYGH41-602B	1.8	41	2.0	1.4	1.4	55	3.9	6	120	0.47
57BYGH41-401A	57BYGH41-401B	1.8	41	2.8	0.7	1.4	76	5.5	4	120	0.47
57BYGH51-601A	57BYGH51-601B	1.8	51	1.0	6.6	8.2	100	7.2	6	275	0.65
57BYGH51-602A	57BYGH51-602B	1.8	51	2.0	1.65	2.2	100	7.2	6	275	0.65
57BYGH51-401A	57BYGH51-401B	1.8	51	2.8	0.83	2.2	140	10.1	4	275	0.65
57BYGH56-601A	57BYGH56-601B	1.8	56	1.0	7.4	10	125	9.0	6	300	0.7
57BYGH56-602A	57BYGH56-602B	1.8	56	2.0	1.8	2.5	125	9.0	6	300	0.7
57BYGH56-401A	57BYGH56-401B	1.8	56	2.8	0.9	2.5	175	12.6	4	300	0.7
57BYGH76-601A	57BYGH76-601B	1.8	76	1.0	8.6	14	187	13.6	6	480	1.0
57BYGH76-602A	57BYGH76-602B	1.8	76	2.0	2.25	3.6	187	13.5	6	480	1.0
57BYGH76-401A	57BYGH76-401B	1.8	76	2.8	1.13	3.6	263	18.9	4	480	1.0

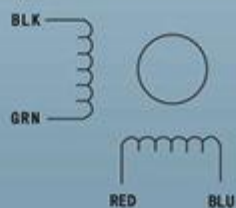
◆ We also manufacture products according to customer's requirements.

Dimensions

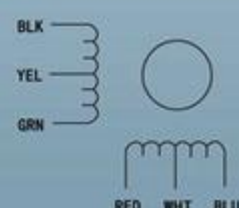


Wiring Diagram

4LEADS



6LEADS



*** If you need other models, Please feel free to contact us!**