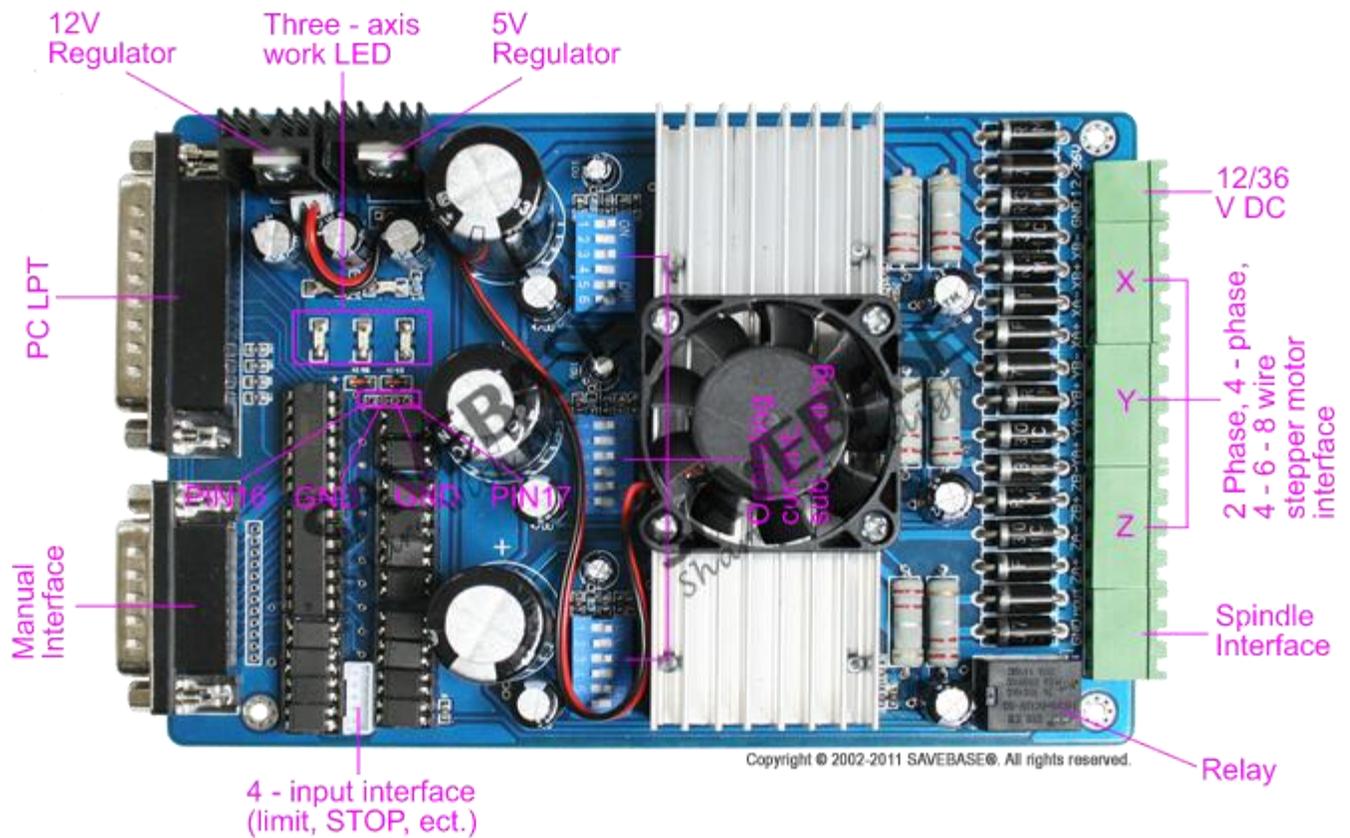


3 Axis CNC Router Stepper Motor Driver Kit NEMA 23 PSU

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:

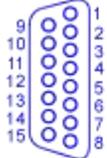
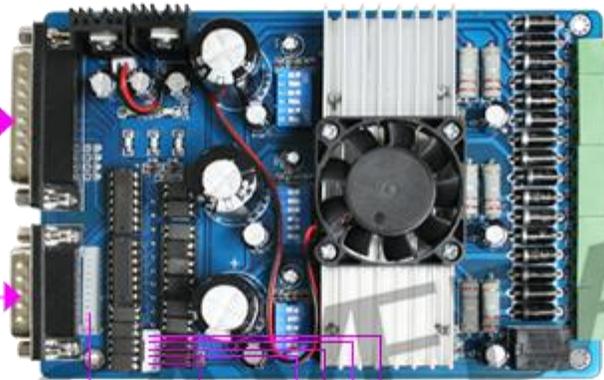
***NOTE:** *These external tools on the left and bottom of the following picture are only for exhibition, we don't have them to sell at the moment!*



OR



OR



12-36V
GND

B-
B+
A+
B-
B+
A+
B-
B+
A+



OR



OR



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

escriptions

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)

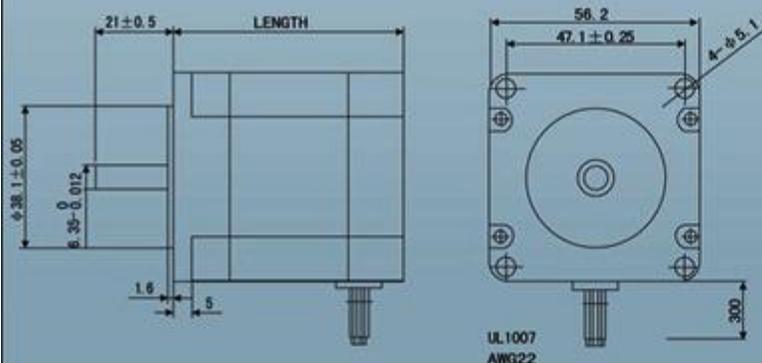


Technique Specification

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

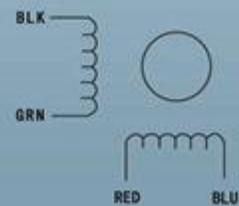
◆ We also manufacture products according to customer's requirements.

Dimensions

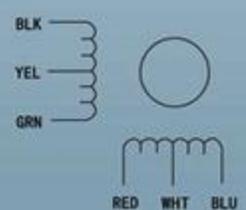


Wiring Diagram

4LEADS



6LEADS



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